

# REPORT ON THE ROCK SAMPLING AND DIAMOND DRILLING ON THE REFORD PROPERTY, DRAW 7-9, EASTER 1-20, GEGE AND JAYA MINERAL CLAIMS, ALERNI MINING DIVISION, VANCOUVER ISLAND, BRITISH COLUMBIA. 

NTS 92 C/13,14 and 92F/03,04

Prepared by : D.J. Bridge, MASc, P.Geo


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## SUMMARY

The new, expanded Redford property consists of 25 contiguous mineral claims (432 units) located 22 kilometers northeast of Ucluelet on Vancouver Island, British Columbia. This report summarizes the recent diamond drilling of the Seamus Zone and rock and chip sampling of the expanded Redford property.

Four styles of mineralization are found on the Redford property: (1) Gold - arsenic mineralization with albitic alteration with variable amounts of quartz veins. (2) Copper cobalt - gold - magnetite skarn deposits hosted by limestone. (3) Copper - platinum palladium mineralization hosted by Karmutsen volcanics, and (4) gold - quartz epithermal shear veins. The two styles of gold - arsenic mineralization is similar to that of the Shotgun deposit in Alaska which contains 980,000 ozs of gold at a $0.55 \mathrm{~g} / \mathrm{t}$ cut off. This mineralization is related to Tertiary magmatic and hydrothermal events in the property area.

The recent drilling of the Seamus zone - six holes totalling 928.90 meters - intersected intervals of albite - arsenic - gold mineralization with grades up to $1.18 \mathrm{~g} / \mathrm{t}$ gold over 1.0 meters. Syn-mineralization Tertiary plagioclase porphyry dykes were variably to intensely albite altered with up to $5 \%$ disseminated coarse grained arsenopyrite hosted by hydrothermally altered diorites and fine grained volcanic hornfels. Higher grades were obtained by previous surveys - up to $3.21 \mathrm{~g} / \mathrm{t}$ gold - from feldspar - arsenopyrite alteration with quartz vein stockwork surrounding the area of drilling.

Copper - cobalt - gold $+/$ - magnetite skarn showings are scattered throughout the northwestern part of the property including the magnetite skarn at the Brynnor Mine. The massive sulphide Tony showing and surrounding skarn showings are at the center of an airborne magnetic high of similar size and intensity of that over the Brynnor Mine. The recent chip sampling of the Tony showing returned 5 meters grading $0.559 \%$ copper, $0.0464 \%$ cobalt and $0.164 \mathrm{~g} / \mathrm{t}$ gold.

Copper - platinum - palladium mineralization hosted by the Karmutsen volcanics occurs over an area of 3 kilometers by 1 kilometer in the northwestern part of the Redford property with grab samples returning up to 1599 ppm copper and up to 13 ppb Pt and up to 38 ppb Pd .

Additional drilling is recommended of the Seamus zone to test the down dip extension of the arsenic - gold - quartz vein mineralization peripheral to the core. Additional trenching, IP and magnetometer surveys are recommended at and in the vicinity of the Tony showing to test the potential for a major copper - cobalt - gold $+t$ magnetite deposit in the area followed by diamond drilling if warrented. Total budget for both programs is $\$ 400,000.00$.

## TABLE OF CONTENTS

Summary ..... ii
Introduction and terms of reference ..... 1
Disclaimer ..... 1
Property description and location ..... 1
Accessibility, Climate, Local Resources, Infrastructure and Physiography ..... 4
History ..... 5
Geological Setting ..... 7
Property Geology ..... 8
Deposit Types ..... 11
Mineralization ..... 12
Seamus Zone ..... 12
Copper - cobalt - gold - magnetite skarn showings ..... 20
Brynnor Mine ..... 20
Tony ..... 21
Fact ..... 21
Gold - quartz epithermal shear veins ..... 21
Mowgli showing ..... 21
M-6 showing (Switch Back Shear Zone) ..... 21
Dom showing ..... 23
Exploration ..... 23
Drilling ..... 25
R1-04 ..... 25
R2-04 ..... 29
R3-04 ..... 29
R4-04 ..... 32
R5-04 ..... 32
R6-04 ..... 32
Sample Method and Approach ..... 35
Sample Preparation and Security ..... 35
Data Verification ..... 37
Adjacent Properties ..... 37
Mineral Processing and Metallurgical Testing ..... 40
Mineral Resource and Mineral Reserve Estimated ..... 40
Other Relevant Data and Information ..... 40
Interpretation and Conclusions ..... 40
Recommendations ..... 41
References ..... 42
Certificate ..... 44Appendix 1 Drill logs44
Appendix 2 Assay Certificates
Appendix 3 Rock Sample Descriptions and Significant Assays
Figures:
Figure 1. Location Map ..... 2
Figure 2. Claim Map ..... 3
Figure 3. Regional Geology ..... 9
Figure 4. Property Geology ..... 10
Figure 5. Map of Significant Mineralization ..... 13
Figure 6. Rock Sample Locations and Gold values ..... 14
Figure 7. Mt Redford Grid Soil Geochemistry - Gold ..... 15
Figure 8. Mt Redford Grid Soil Geochemistry - Arsenic ..... 17
Figure 9. Induced Polarization Survey ..... 18
Figure 10. Questor Aeromagnetic Survey - Total Field Magnetics ..... 19
Figure 11. Noranda Aeromagnetic survey ..... 22
Figure 12. Sample Plan and Significant Assay Results ..... 24
Figure 13. Drill hole Plan - Seamus Zone ..... 26
Figure 14. R1-04 Cross Section ..... 28
Figure 15. R2-04 and R4-04 Cross Section ..... 30
Figure 16. R3-04 Cross Section ..... 31
Figure 17. R5-04 Cross Section ..... 33
Figure 18. R6-04 Cross Section ..... 34
Figure 19. Chart of Acme $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ vs Als Chemex $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ ..... 38
Tables
Table 1. List of Mineral Claims ..... 4

## INTRODUCTION AND TERMS OF REFERENCE

This report was prepared on behalf of Logan Resources Ltd. to summarize the recent rock sampling and diamond drilling programs and to make recommendations for further exploration of the Redford Property.

Previous data on the original Redford property is summarized by the 43-101 report by Casselman, P.Geo dated January 30, 2003. This report details the diamond drilling completed between March 17 to April 4, 2004 supervised by the author and logged by the author and Genevieve Leblanc from April 5 to April 18, 2004. Additional mineral claims were staked in April to expand the property to the west and south. Rock sampling was done on the expanded property between May 1 to May 15, 2004 by the author, Hilmar Krocke and Genevieve Leblanc.

## DISCLAIMER

The author has not verified the previous assay data on the Redford property from prior surveys, and all previous reports and maps have been completed by qualified persons.

## PROPERTY DESCRIPTION AND LOCATION

The property is located 22 kilometres northeast of Ucluelet on Vancouver Island, British Columbia, centered at latitude $49^{\circ} 02^{\prime} 30^{\prime \prime}$ north and longitude $125^{\circ} 26^{\prime} 00^{\prime \prime}$ west on NTS map sheets $92 \mathrm{C} / 13,14$ and $92 \mathrm{~F} / 03,04$ within the Alberni Mining Division (Figure 1). It is located on the west coast of Vancouver Island within the Mackenzie Range, an area of rugged, steep topography and dense old growth forest.

The property comprises 25 contiguous mineral claims ( 432 units) on approximately 10,800 hectares and covers an area of about 13 kilometres east-west by up to 10.5 kilometres north-south (Table 1)(Figure 2). The mineral claims were staked in 1995, 2002, 2003 and 2004. The mineral claims have not been surveyed or inspected in the field by the author, but the author has no reason to believe that they are not located as shown.

The author is not aware of any specific environmental liabilities that affect the mineral claims.


Logan Resources Ltd.
Mt. Redford Project
Alberni M.D., B.C. N.T.S. 92F-3
LOCATION MAP
Fig. 1


Table 1

| Claim Name | Tenure Number | Units | Expiry Date |
| :--- | :--- | :--- | :--- |
| Draw 7 | 342159 | 20 | 2004.11 .11 |
| Draw 8 | 342160 | 20 | 2005.11 .11 |
| Draw 9 | 342161 | 15 | 2004.11 .11 |
| Jaya | 398856 | 2004.11 .11 |  |
| Gege | 404313 | 16 | 2005.08 .11 |
| Easter 1 | 409826 | 20 | 2005.04 .16 |
| Easter 2 | 409827 | 20 | 2005.04 .16 |
| Easter 3 | 409828 | 6 | 2005.04 .20 |
| Easter 4 | 409829 | 15 | 2005.04 .20 |
| Easter 5 | 409830 | 20 | 2005.04 .20 |
| Easter 6 | 409831 | 20 | 2005.04 .20 |
| Easter 7 | 409832 | 15 | 2005.04 .19 |
| Easter 8 | 409833 | 18 | 2005.04 .18 |
| Easter 9 | 409834 | 15 | 2005.04 .19 |
| Easter 10 | 409835 | 18 | 2005.04 .18 |
| Easter 11 | 409836 | 18 | 2005.04 .18 |
| Easter 12 | 409837 | 18 | 2005.04 .19 |
| Easter 13 | 409838 | 18 | 2005.04 .18 |
| Easter 14 | 409839 | 18 | 2005.04 .18 |
| Easter 15 | 409840 | 15 | 2005.04 .18 |
| Easter 16 | 409841 | 15 | 2005.04 .18 |
| Easter 17 | 409842 | 18 | 2005.04 .18 |
| Easter 18 | 409843 | 18 | 2005.04 .20 |
| Easter 19 | 409844 | 20 |  |
| Easter 20 | 409845 | 20 |  |

Logan Resources Ltd. does not hold any surface rights to the area underlain by the mineral claims. Continued exploration of the Redford property will require additional exploration permits and reclamation bonds.

## ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the property is via a paved highway that connects Port Alberni to Ucluelet on Vancouver Island (Figure 2). The property is accessible from Ucluelet via 22 kilometers of paved road. Access to the mineral claims is by active and inactive, all weather logging roads. The Draw Creek - Toquart Bay road joins Highway 4 near the middle of the east side of Kennedy Lake, and leads to the central part of the property at a distance of about 6 kilometers. Numerous logging roads throughout the property provide access to the various claims. Coulson Logging operates on the property and various other small
logging operators. The property is close to tide water in Toquart Bay which has a public campsite and boat ramp.

The Redford property encompasses an area of rugged topography on the southeast flank of the Mackenzie Range. Elevations range from sea level to 720 meters on Redford Mountain. Recent logging and related roads have greatly improved access and exposures on the property.

Vegetation on the property is typical of the Coast Range. Steep mountain slopes are heavily forested with old growth, including hemlock, cedar, and spruce interspersed with areas of abundant dead-fall and heavy undergrowth. Slide areas are common in the steeper terrain and are thick with dead-fall and heavy growth of devils club, alder and nettles. Locally in valley bottoms, usually proximal to creeks, swampy areas with buck brush are common. Clear cuts occur throughout the area and the maturity of replanted tree varies. Vegetation extends to the tops of the mountains. The combination of steep topography and heavy vegetation makes surface traversing difficult and limits helicopter landing sites.

Glacial movement on the property is to the southwest. It has not apparently scoured the area very strongly and has left considerable depths of overburden in the valleys. The area receives considerable precipitation that can reach more than 3300 mm annually. Summers are short and winter snowfall is variable, being heavy on the mountains and lighter in the valleys.

The town of Ucluelet, 22 kilometres to the south, is on the B.C. Hydro grid system and offers accommodation, restaurants and shops for purchase of supplies, hardware, camprelated utensils and materials, and access to a work force. The town of Port Alberni, 40 kilometres northeast of the property, provides extensive industrial infrastructure and deep water port facilities. Port facilities developed in conjunction with mining operations at the Brynnor Mine also exist on Toquart Bay.

## HISTORY

The Redford property was originally part of a much larger mineral claim holding known as the Lucky property. Consolidated Logan Miners Ltd., the predecessor company to Logan Resources Ltd., optioned the property in April 1995 from Electrum Resources Corporation and added mineral claims to the original property through staking. The option with Electrum Resource Corporation was terminated in July 1998 and the mineral claims outside the option perimeter agreement area were retained by Consolidated Logan Mines Ltd. In April 2004 the original Redford property was enlarged to cover showings west and south of it.

The following description describes the work completed on the original Redford property prior to 1998 (the chronology is modified from the report by Casselman (2003))

The Lucky Vein was the initial focus of exploration in the area from 1905 until the mid 1980's when logging road development allowed expansion of exploration into the surrounding area. Subsequent exploration resulted in an expansion of the Lucky property. The following chronology is modified after Walker \& Lyons and relates solely to Consolidated Logan Mines Ltd. Work history on and immediately adjacent to the Redford property.

> 1995 Consolidated Logan Mines Ltd. conducted 3.5 kilometres of VLF-EM surveying on the Toq Grid to confirm the location and strength of the geophysical anomaly. Five diamond drill holes totalling 826 meters were completed during the summer. Geological mapping and prospecting was completed as part of the second phase of exploration.

1996 An airborne magnetic survey was flown over the western two thirds of the property by Questor Surveys on behalf of Logan. Rock sampling was conducted at the Mount Redford and Draw Mountain areas and a reconnaissance soil survey on a 800 m by 1800 m grid at Mount Redford located encouraging gold and arsenic values in rock and soil samples.

A program of soil, lake sediment and rock geochemical sampling was conducted. Soil sampling consisted of an expansion of the Mount Redford grid with three new grids at Redford Lake, Draw Lake and Lucky Mountain.

1998 A reconnaissance Induced Polarization survey was undertaken along four road traverses in the area of Redford Lake.

The recently enlarged Redford property covers skarn copper-cobalt magnetite showings and epithermal gold shear veins which have been intermittently explored since the early 1960's.

The epithermal gold - shear veins were first explored extensively by BP Mineral Limited in 1981. The company collected 152 stream sediments, 94 drainage ditch sediments, 364 soil samples and 301 rock chips. Many of the stream sediments returned gold values up to 650 ppb gold. A grab sample from a gold shear vein returned $4.75 \mathrm{~g} / \mathrm{t}$ gold and 25.7 $\mathrm{g} / \mathrm{t}$ silver while a channel sample over 1.0 meters returned $1.02 \mathrm{~g} / \mathrm{t}$ gold and $60.9 \mathrm{~g} / \mathrm{t}$ silver (Hoffman and Humphreys, 1981).

BP Minerals Limited dropped their extensive holding due to fiscal restraint and the area was staked by Bill Dynes of Geo P.C. Services Inc. who optioned the ground to Aintree Resources Ltd. and Island Star Resources Ltd. in 1986.

Geo P.C. Services Inc. conducted 8 days of geological mapping, collected 61 soil samples along logging roads, completed 25 kilometres of control grid surveys and conducted 10 kilometers of Scientrex "Genie" EM and VLF-EM16 Surveys on the grid in 1986. They found a 40 meter wide zone of quartz veining and stockwork with individual veins up to 5 meter wide with trace arsenopyrite (Dynes, 1986).

In 1987, Aintree Resources Ltd. and Island Star Resources Ltd conducted soil geochemical, geophysical and geological mapping and prospecting. Phase III of the program involved sampling of 68 shear zones of which 19 zones had in excess of 100 ppb gold. The gold bearing Switch Back shear zone was found to be up to 25 metres wide and 2.5 km long (Henneberry, 1988a).

In the later part of 1987, an additional 19 samples were collected from shear zones which returned 2 to 1340 ppb gold (Henneberry, 1988b).

In the last part of 1987 and early 1988, Aintree Resources Ltd. collected 775 soil samples from 25 meter stations on 15 parallel lines and collected 20 samples from the Dyke vein and 82 prospecting samples. The company drilled three holes totalling 316.6 meters. The program was halted due to a mudslide. Drill hole $87-02$ intersected $0.032 \mathrm{oz} /$ ton over 0.9 meters.

The magnetite and copper-cobalt skarn showings which are located north of the epithermal gold shear zones have been explored intermittently since 1961 after an airborne magnetic survey by Noranda.

Noranda mined 4.48 million tonnes of magnetite from 1962 to 1968 and produced $3,011,306,260$ kilograms of iron concentrate grading $63.8 \%$ iron from the Brynnor Mine located in the center of the Redford property.

The Tony and Fact skarn showings were staked in 1987 and were explored by two prospectors by limited geological mapping and chip and grab rock sampling. From the Tony showing, a 0.366 chip sample returned $3.67 \mathrm{~g} / \mathrm{t}$ gold, $2.6 \mathrm{~g} / \mathrm{t}$ silver, $0.47 \%$ copper and $18.54 \%$ iron. A grab sample from the Fact showing returned $14.26 \mathrm{~g} / \mathrm{t}$ gold, $13.7 \mathrm{~g} / \mathrm{t}$ silver, $1.6 \%$ copper and $35.3 \%$ iron.

## GEOLOGICAL SETTING

Vancouver Island lies within the Insular Tectonic Belt of the Canadian Cordillera. This belt is composed of four Groups of Paleozoic and Mesozoic volcanics and sedimentary rocks, which together comprise a displaced Terrane named Wrangalia. This Terrane was regionally metamorphosed, folded and extensively intruded by Jurassic granitoid plutons belonging to the Coast Plutonic Complex which are unconformably overlain by

Cretaceous clastic sediments and intruded by Tertiary hypabyssal stocks of mafic to felsic composition (Figure 3).

The Devonian Sicker Group, the oldest stratigraphic unit in Wrangallia, is an island are assemblage of differentiated mafic to felsic volcanics. In the general area of the property the Sicker Group has been metamorphosed to amphibolite facies and is extensively intruded by Jurassic granitoids of the West Coast Plutonic Complex.

The Triassic Vancouver Group, includes a thick pile of tholeiitic, flood basalts of the Karmutsen Formation, overlain by the Quatsino Formation limestone and Parsons Bay Formation black argillite and marl. These rocks appear weakly metamorphosed and are well represented on and around the property.

The Jurassic strata includes calcareous siltstones of the Harbeldown Formation at the base, followed by Bonanza Formation mafic to felsic volcanics representing an island arc sequence which varied from submarine near the bottom to subaerial near the top. Small areas of Bonanza Formation are present in and around the Redford Property.

These strata are extensively intruded by Jurassic granitoid plutons of the Coast Plutonic Complex and more localized, shallow level, subvolcanic Tertiary intrusions (Clayoquot Intrusive suite (Catface Intrusions - old name)). Tertiary stocks are located within faults and as epizonal intrusions within the Redford property. Quartz-feldspar porphyry dykes on the property are suspected to be Tertiary, but have not been dated. The Tertiary intrusions and limited preserved coeval Tertiary volcanics are $40-55$ million years old and represent continental arc magmatism above a paleo-subduction zone located west off the current coast of Vancouver Island.

The property is centered over a large very strong regional magnetic high in the order of 10 kilometers in diameter. This magnetic high is interpreted as the expression of a Tertiary magmatic chamber from which the felsic stocks and volcanics were derived.

## PROPERTY GEOLOGY

The property has only preliminary prospected. To date there has been no formal geology map made of the Redford property. The map included with this report is a compilation map of geology maps published by BP Minerals Ltd., Geo P.C. Services Ltd., and the authors geological mapping (Figure 4). The property is dominated by Jurassic Island intrusions in the east and where they are exposed in the west; they intrude lowermost Triassic Karmutsen volcanics and dykes, Triassic Quatsino Formation limestone and Parson Bay Formation argillaceous sediments, and Jurassic Bonanza Formation volcanics. Tertiary feldspar porphyritic stocks and dykes of the Clayouot suite (Catface intrusions) intrude all older units - especially along faults. Mineralization has been identified in the Karmutsen volcanics, Quatsino limestone and Island and Tertiary intrusives due to multiple mineralizing events in the Redford property area.



The Quatsino limestone has been found to be fetid - a strong smell of rotten eggs is released when the rock is fractured with a blow from a hammer. The Karmuten volcanics are known to have a high background copper content ( $160+/-40 \mathrm{ppm}$ ) (Lincoln, 1981).

## DEPOSIT TYPES

Four different styles of mineralization occur on the Redford property: (1) Copper - cobalt - gold - magnetite skarn mineralization in the Quatsino limestone, (2) Copper - platinum - palladium mineralization in the Karmutsen volcanics, (3) Arsenic - gold mineralization related to albitic alteration and (4) gold - quartz epithermal shear veins.

The Triassic Quatsino Formation and adjacent Karmutsen basalt host copper - cobalt gold - magnetite skarn deposits where the Jurassic Island intrusions come in contact with the limestone. The Brynnor Mine, located on the Redford property, produced $3,011,306,260$ kilograms of iron concentrate at a concentrate grade of $63.8 \%$ iron from 4.48 million tonnes of magnetite ore mined in 1962-1968. Surrounding the massive magnetite in the skarn, sulphide mineralization occurs with minor amounts of copper gold and cobalt metals. The skarns on Texada Island and at the Merry Widow Mountain near Port McNeil are similar to that exposed on the Redford property.

Copper - platinum - palladium mineralization occurs in the Karmusten basalts on the Redford property. The Karmutsen basalts are known to have a high background copper content ( $160+/-40 \mathrm{ppm}$ ) which during low grade metamorphism is redistributed in the sequence allowing the copper content to reach a high in the 100 's of ppm copper (Lincoln, 1981). The tholeiitic basalt is known to have small amounts of platinum and palladium because the magma which formed the basalt did not lose all of its precious metals due to fractionation.

The arsenic - gold mineralization related to albitic alteration and the gold - quartz epithermal shear veins are due to Tertiary magmatic and hydrothermal systems. The gold bearing albitic alteration is believed to grade outward into gold bearing quartz veins. This style of mineralization is similar to the Shotgun deposit in Alaska which contains 30.5 tonnes of gold at a cutoff of $0.55 \mathrm{~g} / \mathrm{t}$ gold (Rombach, ).

Some of the Tertiary stocks are associated with porphyry copper, molybdenum and gold mineralization which occurs in the intrusive, associated hydrothermal breccias and adjacent wallrocks. The most significant deposit is the Catface deposit located 50 km northwest of the Redford property. Exploration has defined a resource of 181 million tons of $0.45 \%$ copper.

There are four areas of distinct mineralization on the Redford property: (1) Seamus Zone - arsenic - gold mineralization related to albitic alteration, (2) Copper - gold - cobalt magnetite skarn showings and deposits - Brynnor Mine and Fact and Tony showings, (3) Gold - quartz epithermal shear veins hosted by faults - BP Minerals Ltd showings and (4) Copper - platinum - palladium mineralization hosted by Karmutsen Volcanics.

Seamus Zone
The Seamus Zone occurs in the eastern part of the Redford property (Figure 5) and constitutes the principle gold target located to date on the property. The zone was first identified and sampled in 1995. It has not been mapped and only preliminary prospected. Six holes have been drilled to tested the extent and continuinty of mineralization (see below). The zone is poorly defined, but is at least 2200 m by 3400 m . Mineralization and altered outcrops and anomalous gold and arsenic soil and rock geochemical anomalies extend beyond this area.

The Seamus Zone comprises altered outcrops of fine grained diorite, medium grained diorite, granodiorite of Jurassic Island intrusive, minor fine grained volcanics cut by synmineralization Tertiary feldspar porphyry dykes are later barren dykes. Mineralization occurs as pervasive replacement, stockworks and sheeted veins of auriferous arsenopyrite with variable amounts of albite, sericite, chlorite, biotite and quartz alteration. The veinlets are fracture controlled and millimetres to several centimetres thick and vary in intensity from outcrop to outcrop. Shear zones vary from several centimetres to 25 centimeters wide. Rock sampling of the zone returned significant gold with values to 3210 ppb (Chow, 1998).

In 1995 and 1996, outcrops scattered along several logging roads and a creek in an area 2000 m by 800 m , centered on the Seamus Zone, were preliminary rock sampled (Figure 6). In 1995, 87 preliminary rock samples returned numerous anomalous gold values between a threshold of 10 ppb to a high of 502 ppb (Chow, 1996). In 1996 a further 60 rock samples were collected. From 1995 and 1996, 47 rock samples returned greater than 100 ppb gold with 11 samples containing over 500 ppb gold and 5 samples over 1000 ppb gold with the highest value 3210 ppb gold. In summary, of the hundred fortyseven rock samples collected in 1995 and 1996, most showed anomalous gold values ranging from a threshold of 10 ppb to a high of 3210 ppb gold, with $32 \%$ of the samples giving greater than 100 ppb gold. The area of anomalous rock samples remains open in all directions. The most anomalous samples contained several percent arsenopyrite with quartz veins.

A soil sampling survey was conducted in 1996 and 1997 on a 3600 m by 2200 m grid centered on the Seamus Zone. The survey returned anomalous gold values from a threshold of 10 ppb to a high of 1021 ppb (Figure 7) and anomalous arsenic values from a
(


threshold of 16 ppm to a high of 3317 ppm (Figures 8). Gold and arsenic anomalies occur throughout the grid area and remain open in all directions.

Anomalous gold values in soils occur as spot highs comprising 1 to 3 contiguous samples fairly uniformly scattered throughout the grid area. There are no large, cohesive gold anomalies and no obvious trends to the spot gold anomalies. More detailed sampling is required to determine trends.

Anomalous arsenic values in soils are very elevated throughout the grid area. The anomalies occur largely in two broad zones, one in the north and one in the south parts of the grid. They extend across the entire width of the grid for $1800-2300$ meters. On line $6800 \mathrm{~N}, 8$ consecutive anomalous samples ranged from 118-959 ppm As and on line $6200 \mathrm{~N}, 10$ consecutive anomalous samples ranged from $159-854 \mathrm{ppm}$ As. A marked decrease in arsenic values in the middle three lines of the grid may reflect overburden. Anomalous arsenic shows a good correlation with anomalous gold values with most high gold values showing high arsenic, but the reverse is not true (Chow, 1998).

A wide spaced reconnaissance style Induced Polarization survey was conducted in 1997 along four roads in the north part of the Seamus Zone. This survey was severely handicapped by extremely dry conditions which prevented good rock contacts. A weak to moderate chargeability anomaly was located at the intersection of two lines in the southwest margin of the 400 by 500 meter area of higher rock samples in the northern part of the Seamus Zone. On one line a weak to moderate chargeability anomaly is 75 meter wide, open east and west, and is associated with low to moderate resistivity enclosed by high resistivity. The anomaly configuration suggests a shear zone (Figure 9). On the second line a weak IP chargeability anomaly is greater than 300 meters wide, open to the north-northeast and south-southwest into the other anomaly, and is accompanied by strong resistivity. Several strongly anomalous gold rock samples ( 988 and 1810 ppb Au ) occur within this anomaly. The chargeability anomaly is open to the east to northeast and west to southwest.

The property was covered in 1996 by a Questor aeromagnetic survey on behalf of Consolidated Logan Mines Ltd. (Walker and Sheldrake, 1997)) an interpretation of the airborne magnetic data showed the Seamus Zone to lie within a large magnetic low. The low is enclosed by magnetic highs and is part of a northwest trending linear magnetic low which might represent a structure (Figure 10). The magnetic low over the Seamus Zone might represent altered rock associated with gold mineralization.

The geology and mineralization intersected by the recent drilling is included in the section on drilling.




Copper - cobalt - gold - magnetite skarn showings
Brynnor Mine
The Brynnor Iron mine occurs in the center of the Redford property in the floor of Draw Creek valley (Figure 5). Noranda produced 3,011,306,260 kilograms of iron concentrate at a concentrate grade of $63.8 \%$ iron from 4.48 million tonnes of magnetite ore mined from 1962-1968 (James, 1968). A deeper magnetite deposit was developed for production, but was never mined. A mill and deep water shipping dock was located on Toquart Bay.

The Brynnor ore is fine grained, massive magnetite and magnetite-bearing skarn in Triassic Quatsino Formation marble and overlying tuff and argillite of the Jurassic Bonanza or Parsons Bay Formations. Seven lenses and bands of magnetite and skarn are reported in marble contacts. The marble - sediment contact and magnetite deposits take the form of a NNE-trending flat, plunging anticline with steep limbs. The Brynnor ore bodies lie near the SSW end of the anticline. The rocks and the deposits are in a roof pendent 1 km wide and 3.5 km long engulfed by granitoid intrusives (Sangster, 1969).

The strata are intruded by bodies and dykes of amygdaloidal to porphyritic andesite to diorite. The mine strata and intrusive andesite - diorite are surrounded and intruded by multiphase granitoid intrusives described as diorite, quartz diorite and granodiorite. In the open pit, feldspar porphyry and leucodiorite dykes up to 10 meters wide cut the magnetite and show chilled contacts against skarn. Neither skarn nor magnetite is developed in them (Sangster, 1969). Quartz monzonite occurs locally in the area of the mine and two such dykes cut the deposit.

Alteration in the marbles, tuffs and sediments includes skarn composed principally of garnet and epidote and prehnite alteration affected various intrusive rocks. The pre-ore andesite-diorite is partly altered to magnetite, skarn, serpentinites, epidote, prehnite and pyrrhotite (Sangster, 1969).

Only minor pyrite or pyrrhotite occurs in the mine. Small pockets of chalcopyrite were encountered locally in both andesite and skarn. Trace arsenopyrite was also noted.

Brittle faults of various attitudes marked by gouge and breccia cut the deposit. The most significant fault offsets the underground deposit and down-throws the southeast block by 60 meters.

Some quartz veins in the northwest pit wall contain gold in the tenths of an ounce (Walker, 1997).

## Tony

The Tony skarn showing ( NY - gold occurrence) is located in the center of a magnetic high with similar dimensions as that covering the Brynnor Mine (Figure 11). The showing consists of massive sulphide (pyrrhotite - pyrite - chalcopyrite) replacement of the Quatsino limestone and interbedded volcanic rocks. The exposed mineralization is over an area of 5 meters by 1.5 meters with unkown depth. The true extent of the mineralization is not known. Prevous assays of the sulphide mineralization returned 0.112 oz /ton Au over 12 feet.

Fact
The Fact skarn showing consist of bornite - pyrrhotite - magnetite - chalcopyrite veins at the contact of a Tertiary feldspar porphyry and Quatsino limestone. A character sample assayed $14.26 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 13.7 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and $1.6 \% \mathrm{Cu}$. This showing is at the edge of a magnetic high which is possibly due to the intrusion of the feldspar porphyry into the limestone (Figure 11). The true extent of the mineralization is not known.

## GOLD - QUARTZ EPITHERMAL SHEAR VEINS

The description below describes only the highlights of an area of extensive epithermal gold - quartz shear hosted mineralization in the south-west corner of the Redford property (Figure 5).

Mowgli showing
Arsenopyrite, pyrite, chalcopyrite, sphalerite and galena are found in a one metre wide southwest trending shear zone at the contact of Tertiary quartz feldspar porphyry and hornfels Bonanza volcanic rocks. Abundent sericite gouge, minor brecciation and irregularly shaped vuggy quartz pods accompany sulphides. A grab sample assayed 4.75 $\mathrm{g} / \mathrm{t}$ gold and $25 \mathrm{~g} / \mathrm{t}$ silver. A channel sample across the one meter wide zone assayed 1.02 $\mathrm{g} / \mathrm{t}$ gold and $60.9 \mathrm{~g} / \mathrm{t}$ silver. The true extent of the mineralization is not known, but the structure hosting the mineralization has been traced for 3 kilometers.

M-6 showing (Switch Back Shear Zone)
A regional fault/shear zone with an orientation of $160^{\circ}$ and $70^{\circ}$ east dip hosts sericite, quartz, limonite alteration and up to $15 \%$ arsenopyrite. This zone assayed $2.7 \mathrm{~g} / \mathrm{t}$ gold over 5 meters. The fault zone is up to 25 meters wide and has been traced for 2.5 kilometers. Diamond drilling of this fault approximately 2 kilometers north of the M-6 showing intersected $1.10 \mathrm{~g} / \mathrm{t}$ over 0.9 meters.


Fig. 11

Parallel shears to the Switch Back Shear Zone assayed 890 ppb gold over 1.89 meters, 380 ppb gold over 1.4 meters, 620 ppb gold, 940 ppb gold, 265 ppb gold, 300 ppb gold, 310 ppb gold, 240 ppb gold and 230 ppb gold.

Dom showing
The Dom showing is a 2 to 3 metre wide shear zone striking $020^{\circ}$ and dips $70^{\circ}$ east through Tertiary quartz diorite. The zone is characterized by brecciation and several lenses of clay gouge. Chip samples of the zone returned $1.34 \mathrm{~g} /$ t gold over 0.15 meters, $1.160 \mathrm{~g} / \mathrm{t}$ over 0.6 meters, 990 ppb gold over 0.35 metres and 450 ppb gold over 3.0 meters.

## EXPLORATION

Previous exploration and results of exploration of the Seamus Zone is covered in the section on History and Mineralization. The results of the recent drilling on the Seamus Zone is covered under the heading Drilling.

The author, Hilmar Krocke and Genevieve Leblanc spent 14 days rock chip sampling and prospecting various skarn showings and Karmutsen volcanic hosted copper mineralization. Figure 12 shows the location of the samples and their significant assay results (See Appendix 2 for assay certificates).

One meter rock chip sampling of the Tony showing returned a high of $0.817 \%$ copper, $0.091 \%$ cobalt, $0.21 \mathrm{~g} / \mathrm{t}$ gold and a low of $0.093 \%$ copper, $0.006 \%$ cobalt $0.01 \mathrm{~g} / \mathrm{t}$ gold. The body of sulphide mineralization occurs at the contact between Quatsino limestone and metavolcanic rocks. The 5 meter by 1.5 meter exposure of sulphides is open on three sides. This mineralization is similar to the peripheral sulphide mineralization to an iron skarn - for example the Merry Widow skarn.

A body of magnetite was found approximately 400 meters south of the Tony showing. A chip sample from the centre of the magnetite exposure in the road cut returned $25.39 \%$ iron. The magnetite is believed to strike east - west and be up to 2 meter thick. The magnetite occurs at the contact between Quatsino limestone in the north and metavolcanics in the south. The contact between the two units is obscured by gossaneous soil for 10 meters.

A body of garnet - epidote skarn with masses of pyrrhotite with minor chalcopyrite occurs approximately 300 meters north of the Tony showing. This mineralization returned $0.155 \%$ copper, $0.018 \%$ cobalt and $0.01 \mathrm{~g} / \mathrm{t}$ gold.

200 meters east of the Tony showing at the contact between the Quatsino limestone and granodiorite, bleaching of the intrusive occurs with pods of coarse grained pyrite.


Samples of this mineralization returned 596 ppm copper, 25 ppm uranium, 20 ppm thorium and 60 ppm lanthanum.

A sample of Quatsino limestone collected close to the Fact showing had trace amounts of disseminated chalcopyrite. This sample was crisscrossed by graphitic veinlets and the sample released a strong fetid smell when struck with a hammer. The sample assayed 3 ppm copper.

Copper - cobalt mineralization with trace amounts of platinum and palladium occur over a 3 kilometre by 1 kilometre area of Karmutsen volcanics and gabbroic dykes. The chalcopyrite mineralization occurs as disseminated blebs and in veinlets up to 2 mm wide. Most of the mineralization occurs disseminated in the gabbroic phases and in hornfels. 19 samples were collected which returned a high of 1599 ppm copper and a low of 32 ppm copper, a high of 32 ppm cobalt and a low of 12 pp cobalt, a high of 13 ppb platinum and a low of $<2 \mathrm{ppb}$ platinum and a high of 20 ppb palladium and low of $<$ 2 ppb palladium.

## DRILLING

Six drill holes were drilled to test the down dip extension and strike of the Seamus Zone (Figure 13) for a total of 928.90 meters. The core size was NQ, and the drill core was logged by Genevieve Leblanc and the author. The core was spit using a saw and one half of mineralized intervals was bagged and delivered for assay at Acme Analytical Labs Ltd. in Vancouver. See Appendix 1 for drill logs and Appendix 2 for assay certificates.

The following description describes the target, down hole geology and alteration and the gold bearing intervals in each hole. The mineralized intervals are down hole measurements as it is premature to determine true widths.

R1-04
This hole tested the down dip extension of the Seamus Zone. The top half of the hole intersected a package of hornblende megacrystic diorite and fine grained diorite cut by late, post mineralization dykes (Figure 14). The bottom half of the hole was medium grained diorite with intervals of sericite - pyrite alteration around quartz - carbonate veins.

Mineralized Intervals:

| Footage (m) | Interval (m) | $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ | As $(\mathrm{ppm})$ | $\mathrm{Te}(\mathrm{ppm})$ | $\mathrm{Bi}(\mathrm{ppm})$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $90.0-91.5$ | 1.5 | 0.45 | 59.7 | $<1$ | 0.1 |



## LEGEND FOR DRILL HOLE SECTIONS

Rock Units

| AVOL | Altered volcanic |
| :--- | :--- |
| CDIR | Coarse grained diorite |
| DYKE | Post-mineralization dyke |
| FDIR | Fine grained diorite |
| GRAN | Granodiorite |
| MCRD | Megacrystic diorite |
| MDIR | Medium grained diorite |
| PLPD | Plagioclase porphyritic dyke |
| VOLC | Fine grained volcanic |

Alteration

| ALB | Albitic |
| :--- | :--- |
| BIO | Biotite |
| CHL | Chloritic |
| EP | Epidote |
| SER | Sericitic |

Structure
FLTZ Fault zone


R2-04
This hole tested the down dip extension of the Seamus Zone. The hole intersected a package of medium grained diorite and altered fine grained volcanic rock cut by synmineralization plagioclase porphyritic dykes and later post minerlization dykes (Figure 15). Alteration intensity increases with depth from weak to pervasive chlorite alteration to pervasive biotite replacing mafic minerals to pervasive albitic alteration replacing biotite alteration. Intervals of chlorite alteration have rare veinlets of arsenopyrite and variable amounts of disseminated arsenopyrite.
The synmineralization plagioclase prophyritic dyke is intensely albite altered with disseminated arsenopyrite.

| Footage $(\mathrm{m})$ | Interval $(\mathrm{m})$ | $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ | $\mathrm{As}(\mathrm{ppm})$ | $\mathrm{Te}(\mathrm{ppm})$ | $\mathrm{Bi}(\mathrm{ppm})$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $70.0-71.65$ | 1.65 | 0.262 | $>10,000$ | 1.90 | 5.76 |
| $71.65-73.00$ | 1.35 | 0.192 | $>10,000$ | 1.03 | 2.73 |
| $73.0-74.5$ | 1.5 | 0.054 | 7780 | 0.29 | 1.90 |
| $74.50-75.47$ | 0.97 | 1.13 | $>10,000$ | 5 | 21.6 |
| $75.47-77.00$ | 1.53 | 0.19 | $>10,000$ | $<1$ | 8.6 |
| $93.00-94.50$ | 1.50 | 0.27 | 34.8 | $<1$ | 0.1 |

R3-04
The hole tested the down dip strike of the Seamus Zone and the hole was collared from hole R2-04. The drill hole intersected a package of medium grained diorite and hornfels fine grained volcanic cut by syn-mineralization plagioclase porhyritic dyks and late post mineralization dykes (Figure 16).
The intensity of albitic alteration increases with depth, especially around synmineralization plagioclase porphyritic dykes. The albitic alteration has intervals of disseminated arsenopyrite especially in the syn-mineralization dykes.

Mineralized intervals:

| Footage (m) | Intervals <br> $(\mathrm{m})$ | $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ | As $(\mathrm{ppm})$ | Te $(\mathrm{ppm})$ | $\operatorname{Bi}(\mathrm{ppm})$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $68.00-69.00$ | 1.00 | 0.65 | $>10000$ | 3 | 14.9 |
| $69.00-70.32$ | 1.32 | 0.06 | 8488.4 | $<1$ | 3.3 |
| $70.32-71.00$ | 1.68 | 0.19 | 2348.3 | $<1$ | 2.3 |
| $71.00-72.00$ | 1.00 | 0.17 | 7609.1 | $<1$ | 1.3 |
| $72.00-73.35$ | 1.35 | 0.16 | 8300.8 | $<1$ | 2.1 |
| $125.00-126.00$ | 1.00 | 0.23 | 5923.8 | 6 | 15.9 |
| $135.08-136.50$ | 1.42 | 0.40 | 5298.8 | $<1$ | 1.5 |
| $163.00-164.00$ | 1.00 | 0.13 | 819.3 | $<1$ | 0.3 |
| $164.00-165.00$ | 1.00 | 1.18 | 967.9 | $<1$ | 0.2 |
| $169.00-170.00$ | 1.00 | 1.06 | 8170.5 | $<1$ | 1.6 |
| $170.00-171.00$ | 1.00 | 0.74 | 7128.8 | $<1$ | 1.5 |
| $171.00-172.50$ | 1.50 | 0.35 | 8511.2 | $<1$ | 0.5 |
| $172.50-174.00$ | 1.50 | 0.20 | 1223.0 | $<1$ | 0.1 |




The drill hole tested the down dip extension of the Seamus Zone. The drill hole intersected intervals of medium grained diorite and fine grained volcanic hornfels cut by synmineralization plagioclase porphyritic dykes and late post mineralization dykes. The rock units are variably altered with intervals of pervasive chlorite alteration (Figure 15). The pervasive chlorite alteration and albitic alteration has variable amounts of disseminated arsenopyrite. The synmineralization plagioclase porphyritic dykes are intensely albite altered with variable amounts of coarse grained arsenopyrite.

Mineralized Intervals:

| Footage $(\mathrm{m})$ | Interval <br> $(\mathrm{m})$ | $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ | As $(\mathrm{ppm})$ | $\mathrm{Te}(\mathrm{ppm})$ | $\mathrm{Bi}(\mathrm{ppm})$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $93.00-94.00$ | 1.00 | 0.119 | 6630 | 0.47 | 4.68 |
| $94.00-95.00$ | 1.00 | 0.108 | 9040 | 0.36 | 3.25 |
| $95.00-96.00$ | 1.00 | 0.116 | 7900 | 0.77 | 3.19 |
| $96.00-97.00$ | 1.00 | 0.146 | $>10000$ | 0.52 | 6.21 |
| $97.00-98.00$ | 1.00 | 0.147 | 7020 | 0.38 | 2.89 |
| $100.00-101.00$ | 1.00 | 0.207 | 5760 | 0.71 | 1.88 |
| $109.26-110.40$ | 1.14 | 0.286 | 7740 | 2.00 | 1.32 |
| $110.40-111.60$ | 1.20 | 0.189 | 5720 | 1.29 | 1.93 |
| $114.00-115.00$ | 1.00 | 0.140 | 1495 | 0.55 | 0.63 |
| $115.00-115.85$ | 0.85 | 0.102 | 132.5 | 0.18 | 0.75 |
| $115.85-116.70$ | 0.85 | 0.204 | 69.6 | 0.25 | 0.79 |
| $120.80-122.00$ | 1.20 | 0.338 | 1165 | 0.32 | 0.27 |
| $122.80-123.50$ | 0.70 | 0.104 | 355 | 0.16 | 0.10 |
| $123.50-125.00$ | 1.50 | 0.159 | 134 | 0.05 | 0.03 |

R5-04

Drill hole R5-04 tested the down dip extension of the Walker Zone. The hole intersected an intermixed sequence of fine grained diorite and volcanic rock intruded by later medium grained diorite, granodiorite and hornblende megacrystic diorite (Figure 17). The fine grained diorite has variable amounts of disseminated pyrite in it. No significant assays were found.

R6-04
Drill hole R6-04 tested the down dip strike of the Seamus Zone. The drill hole intersected a package of medium grained diorite and volcanic hornfels cut by synmineralization plagioclase porphyritic dykes and later dykes (Figure 18). The intensity of the albitic alteration decreases with increasing depth. The synmineralization dykes are intensely albite altered with variable amounts of disseminated fine grained arsenopyrite.



Mineralized Intervals

| Footage (m) | Interval <br> $(\mathrm{m})$ | $\mathrm{Au}(\mathrm{g} / \mathrm{t})$ | As $(\mathrm{ppm})$ | Te (ppm) | Bi $(\mathrm{ppm})$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $124.75-125.66$ | 0.91 | 0.41 | 9226.4 | 12 | 84.3 |
| $130.24-132.07$ | 1.83 | 0.11 | $>10000$ | 2 | 4.0 |
| $132.07-133.29$ | 1.22 | 0.14 | $>10000$ | 3 | 6.9 |
| $133.29-135.12$ | 1.83 | 0.10 | $>10000$ | 2 | 2.5 |
| $135.12-136.34$ | 1.22 | 0.13 | $>10000$ | 2 | 3.3 |
| $136.34-137.25$ | 0.91 | 0.36 | $>10000$ | 2 | 4.7 |
| $137.25-138.25$ | 1.00 | 0.24 | $>10000$ | 1 | 2.9 |
| $151.50-152.50$ | 1.00 | 0.34 | 1541.9 | $<1$ | 0.3 |
| $152.50-153.68$ | 1.18 | 0.22 | 1973.1 | $<1$ | 0.4 |
| $153.68-155.00$ | 1.32 | 0.81 | 1225.3 | $<1$ | 0.1 |
| $155.00-156.50$ | 1.50 | 0.41 | 1745.4 | $<1$ | 0.2 |
| $156.50-158.00$ | 1.50 | 0.25 | 2244 | $<1$ | 0.2 |
| $158.00-159.50$ | 1.50 | 0.15 | 183.6 | $<1$ | $<0.1$ |

## SAMPLE METHOD AND APPROACH

In 1996 and 1997 Consolidated Logan Mines Ltd. undertook two phases of soil geochemical surveys over an area of about 6 square kilometres on the Seamus grid. In total 1109 samples were collected on 50 meter stations along lines 200 meters apart from the B horizon at a depth of $10-30 \mathrm{~cm}$ using an auger or mattock (Chow, 1998).

In 1995 and 1996 Consolidated Logan Mines Ltd. undertook two phases of rock sampling on the Seamus Zone. In total 26 rock grab samples were collected in 1995 and 150 rock chip samples in 1996 (Chow, 1998). The sampling was designed to give a preliminary estimate of the gold potential of the Seamus zone and surrounding area.

56 character and chip samples were collected during the prospecting program in May, 2004. The character samples were collected of the observed best minerlization in the outcrop and the chip samples were taken by marking a straight line on the outcrop and chipping equal sized pieces of rock from it.

605 core samples were collected from mineralized and barren drill core from the six drill holes from the Seamus Zone. The drill core was marked into 1.5 meter samples if it was observed not to be mineralized and 1.0 meter intervals if it was mineralized. Sample intervals were stopped if the interval crossed a lithological contact or a change in hydrothermal alteration.

## SAMPLE PREPARATION AND SECURITY

All of the rock and soil samples taken in 1995, 1996 and 1997 by Consolidated Logan Mines Ltd. on the Seamus showing were done by their personal and shipped to Acme

Analytical Laboratories in Vancouver. A 32 element ultratrace ICP and wet geochemical gold analysis was conducted on the samples. 497 drill core samples from the drilling of the Seamus zone were assayed for 34 elements plus Te by ICP-MS and gold by fire assay by Acme Analytical Laboratories Ltd. of Vancouver. 0.50 gm of sample was leached with 3 ml of $2-2-2 \mathrm{HCl}-\mathrm{HNO} 3-\mathrm{H} 2 \mathrm{O}$ at $95^{\circ} \mathrm{C}$ for one hour than diluted to 10 ml and than the solution was analyzed by ICP-MS. Gold was assayed by 30 gm fire assay followed by an ICP finish. A blank and a high or low gold standard was inserted every 25 sample. 22 blanks were used and 13 low gold standards were used and 9 high gold standards were used.

52 drill core samples were assayed by Als Chemex Ltd. to verify the gold, arsenic, bismuth and tellurium results obtained by Acme Analytical Laboratories Ltd. using the following method for elevated Te samples. The gold was determined by fire assay using a 30 gram split, and the $\mathrm{As}, \mathrm{Bi}$ and Te by having a 0.25 gram split digested with perchloric, nitric, and hydrofluoric acids to near dryness, than it was digested with a small amount of hydrochloric acid. The solution is made up to a final volume of 12.5 ml with $11 \%$ hydrochloric acid, homogenized and analyzed by ICP.
61 drill core samples were assayed by Als Chemex to obtain $\mathrm{Au}, \mathrm{As}, \mathrm{Cu}, \mathrm{Bi}, \mathrm{Sb}$ and Te . The gold was determined by fire assay using a 30 gram split, and a 0.25 gram split was digested with perchloric, nitric, and hydrofluoric acids to near dryness, than it was digested with a small amount of hydrochloric acid. The solution is made up to a final volume of 12.5 ml with $11 \%$ hydrochloric acid, homogenized and analyzed by ICP.

Rock samples and chip samples collected in May, 2004 were assayed by Acme Analytical Laboratories Ltd using the following methods.

Eleven sulphide and oxide rich samples were assayed by digesting 1.000 grams in aqua regia in 100 ml of solution and the solution was analyzed by ICP-ES. Gold was assayed using a one assay ton split by fire assay. Six of these samples were assayed for Pt and Pd using 30 gram fusion and finished by ICP.

One sample was assayed for 34 elements plus Te by using a 0.50 gram split leached with 3 ml of 2-2-2 $\mathrm{HCl}-\mathrm{HNO} 3-\mathrm{H} 2 \mathrm{O}$ at $95^{\circ} \mathrm{C}$ for one hour, than diluted to 10 ml and analysed by ICP-MS. Gold was assayed by fire assay.

22 samples were assayed for 30 elements using a 0.50 gram split leached with 3 ml of 2-$2-2 \mathrm{HCl}-\mathrm{HNO} 3-\mathrm{H} 2 \mathrm{O}$ at $95^{\circ} \mathrm{C}$ for one hour, than diluted to 10 ml and analysed by ICP - ES. Gold, platinum and palladium were assayed using a 30 gram split by fire assay and finished by ICP-ES.

23 samples were assayed for 30 elements using a 0.50 gram split leached with 3 ml of 2-$2-2 \mathrm{HCl}-\mathrm{HNO} 3-\mathrm{H} 2 \mathrm{O}$ at $95^{\circ} \mathrm{C}$ for one hour, than diluted to 10 ml and analysed by ICP -ES. Gold was assayed using a 30 gram split by fire assay and finished by ICP-ES.

One soil sample was assayed by Acme Analytical Laboratories Ltd. for 30 elements using a 0.50 gram split leached with 3 ml of $2-2-2 \mathrm{HCl}-\mathrm{HNO} 3-\mathrm{H} 2 \mathrm{O}$ at $95^{\circ} \mathrm{C}$ for one hour,
than diluted to 10 ml and analysed by ICP - ES. Gold was assayed using a 30 gram split by fire assay and finished by ICP-ES.

The drill core was stored in a secure environment before the core was sawn and split and the split was bagged immediately and placed in plastic bags and tied. Core sample bags were delivered to the assay lab by the core splitter or by the author. Rock and chip samples were kept in a secure environment in tied plastic bags and delivered to the assay lab by the author.

## DATA VERIFICATION

Blanks and high and low gold standards were inserted every 25 sample of the drill core samples from the drilling on the Seamus zone. These samples assayed with reasonable precision and accuracy to the published values. 52 samples were re-assayed by Als Chemex using their propriety method for assaying samples with elevated Te contents. The re-assay by Als Chemex resulted in slightly higher gold assays verses the results by Acme (Figure 19).

The Acme repeats of the assays for the rock and chip samples were in good agreement with each other.

The author has no reason to doubt the veracity of the sample results obtained by prior surveys on the Redford property.

## ADJACENT PROPERITIES

Several mineral occurrences are located east of the Redford property. These showing are the Lucky, Pride of the West, Ridge Zone, Toq Zone and Toquart Bay Pyrite Zone.

The Lucky quartz vein, located 6 km east of the Redford property, is hosted in Karmutsen basalt and quartz-feldspar porphyry dykes (Tertiary?). The quartz vein contains a small amount of dolomite and the wall rock is bleached and carbonate altered with minor pyrite and sericite in a narrow envelope. The vein strikes north and dips 90-70 east. Its thickness pinches and swells in the range of a few cm to one m and averages $20-40 \mathrm{~cm}$ in true thickness. The vein shows flexures in strike and dip and has a few splays which diverge oblique to NNE into the hanging wall (Walker, 1997). It has reported surface grades ranging form 0.01 to $9.96 \mathrm{oz} \mathrm{Au} / \mathrm{ton}$. Along a surface exposure of 15 meters length and true thickness of 20.2 m the vein grades $1.18 \mathrm{oz} \mathrm{Au} / \mathrm{ton}, 0.23 \mathrm{oz} \mathrm{Ag} /$ ton, 340 $\mathrm{ppm} \mathrm{Cu}, 244 \mathrm{ppm} \mathrm{Pb}$, and 19 ppm Zn . Grades on surface over a 50.0 m length averaged $1.04 \mathrm{oz} /$ ton Au over 32 cm thickness. The vein averages $20-40 \mathrm{~cm}$ true thickness and has been drilled over a strike length of 85 m and depth of 60 m . Surface drilling from 6 to 60 m below the main adit gave intersections that ranged from nil to $1.616 \mathrm{oz} /$ ton over 1.46 m core length, consistent with surface and adit sampling (Walker, 1997). The altered wall

Acme Au (g/t) vs Als Chemex Au (g/t)

rock does not contain significant gold except when veinlets of quartz are locally present. The vein has had extensive underground development which confirmed the surfaces grades, the sulphide poor nature of the quartz vein and an association with only weakly anomalous copper and lead without enrichment in other path-finders. The lack of trace elements and low sulphide content and limited thickness of the vein makes it a poor geochemical or geophysical target.

The Pride of the West vein is located 5 km southeast of the Redford property on the northeast shore of Toquart Bay. The quartz vein cuts diorite and strikes and dips $096^{\circ}$ and $80-90^{\circ}$ and varies from $0.3-0.9 \mathrm{~m}$ in thickness. The vein contains large amounts of pyrite and some heavy copper staining (malachite). Grab samples grades are reported up to $0.03 \mathrm{oz} /$ ton Au and $9.6 \mathrm{oz} / \mathrm{t} \mathrm{Ag}$ (Whittles, Kinnard and Loring, 1976).

The Ridge Zone prospect is located 5 km east of the Redford property and 1.8 km southwest of the Lucky Vein. The Ridge Zone is a 150 m wide shear zone which has been hydrothermally altered and weakly mineralized in Karmutsen basalts. The zone has been traced for 900 m and strikes 110 o . Alteration within the shear zone include quartz, pyrite, hematite and jasper. Pyrite ranges from a few percent to localized enrichment up to $15-20 \%$. Quartz veins are millimetres to a few centimetres thick, parallel the zone and $\operatorname{dip} 850$. Quartz feldspar porphyry dikes up to 12 m thick are conformable within the shear. Quartz veins within the zone from surface samples have reported gold values ranging from 690 to $1820 \mathrm{ppb}, \mathrm{Ag}$ up to 18.7 ppm and Hg up to 17625 ppb (Walker, 1997). Samples from drill core showed weakly to moderately anomalous gold and silver, and some strongly anomalous copper ( $1000-5985 \mathrm{ppm}$ ) occurring as chalcopyrite (Wilson et al., 1989).

The Toq Zone is located 6.0 km north-northeast of the Redford property and overlies basalts of the Karmutsen Formation, diorite, feldspar porphyry, dyke breccia and white siliceous unit. It comprises a broad zone of pyretic mineralization, occurring as disseminated fine grains in altered feldspar porphyry and in a breccia dyke unit. The zone is marked by intensely altered, silicified and pyritized rocks. Pyritization occurs in network stringers, veins and disseminations associated with zones of intense alteration, including silica, sericite, pyrophyllite and clay with weaker gypsum-anhydrite, hematite and magnetite and disseminated rutile. Marginal to the pyritic mineralization, rocks are characterized by epidote, calcite, chlorite, quartz and magnetite. The feldspar intrusive and basaltic wall rocks are extensively brecciated and cut by pyritic rock flour-rich breccia dykes up to several meters thick which are viewed as parts of a larger system of diatreme-like hydrothermal breccias with marginal magnetite-hematite-jasper and potassium feldspar alteration in other-wise propylitic altered rock. Within the zone grab samples have returned up to $10 \% \mathrm{Cu}, 20 \% \mathrm{Zn}, 802 \mathrm{ppb} \mathrm{Au}$ and $0.23 \mathrm{oz} / \mathrm{t} \mathrm{Ag}$ (Chow, 1998).

The Toquart Bay Pyrite Zone is located 6 km southeast of the Redford property and is exposed along new logging roads on the northeast side of Toquart Bay. It shows similarities to the pyritic rocks of the Toq Zone. This showing lies adjacent to the north
side of a Tertiary granite and the east side of the Pride of the West Adit driven at the turn of the century on a copper and gold-bearing quartz vein (Chow, 1998).

## MINERAL PROCESSING AND METALLURGICAL TESTING

No metallurgical testing has been conducted on the property.

## MINERAL RESOURCE AND MINERAL RESERVE ESTIMATING

No reserve estimates have been done for any mineralized zones on the property.

## OTHER RELEVANT DATA AND INFORMATION

All relevant data has been reported. The Ucluelet area is heavily reliant on tourism. Any potential mineral development in the area will be closely monitored and regulated to ensure surface and groundwater quality standards will be maintained.

INTERPRETATION AND CONCLUSIONS

Four types of mineralization occur on the Redford property which are related to different mineralizing events.
Copper - cobalt - gold - magnetite mineralization at the Tony showing has a coincident airborne magnetic anomaly with economic copper - cobalt - gold mineralization. The magnetic anomaly is a similar size and intensity as that over the Brynnor Mine. Sub-economic copper - platinum - palladium mineralization in the Karmutsen volcanics occurs over a large area of 3 kilometers by 1 kilometers.
Sub-economic gold mineralization was intercepted by the drilling of the Seamus Zone, better mineralization was found with arsenopyrite - quartz veins in the vicinity and on strike to the zone which was drilled. This style of mineralization is similar to that of the Shotgun deposit in Alaska.
Sub-economic gold mineralization was found in numerous shear zones in the southwestern part of the Redford property.

## RECOMMENDATIONS

Additional diamond drilling is recommended to test along strike of the Seamus Zone where the albite arsenopyrite mineralization has quartz veins. This mineralization may be structurally controlled by syn-mineralizaton faults and shears. Areas with a stockwork of arsenopyrite - quartz veinlets will be suitable targets.

Trenching, detailed magnetometer and IP surveys should be completed in the vicinity of the copper - cobalt - gold Tony showing. This showing is covered by a magnetite anomaly with similar size and intensity as that over the Brynnor Mine. If suitable targets are found, diamond drilling is recommended.

Recommended programs:
Diamond drilling of the Seamus Zone.

| 1600 meters $@$, $\$ 60.00 /$ meter (all inclusive) | $\$ 96,000.00$ |
| :--- | :--- |
| Assaying 600 samples $@ \$ 30.00 /$ sample | $\$ 18,000.00$ |
| Room and Board (staff and drill crew) | $\$ 5,000.00$ |
| Core logging 14 days at $\$ 500.00 /$ day | $\$ 7,000.00$ |
| Geologist - supervision | $\$ 10,000.00$ |

Sub-total $\quad \$ 140,000.00$
Trenching, IP, Magnetometer surveys of the Tony showing and vicinity

| Trenching |  | \$50,000.00 |
| :---: | :---: | :---: |
| IP |  | \$40,000.00 |
| Magnetometer |  | \$ 4,000.00 |
| Assaying 300 samples @ \$30.00/sample |  | \$ 9,000.00 |
| Room and Board (staff and crew) |  | \$ 6,000.00 |
| Geologist and Assistant $\quad \$ 600.00 /$ day for 30 days |  | \$18,000.00 |
|  | Sub-total | \$125,000.00 |

Optional drill program on Tony showing - depending upon results
Complete drill program and all expenses
$\$ 100,000.00$

Contingency


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## CERTIFICATE

I, David Julian Bridge, MASc, P.Geo, a Professional Geoscientist with residence at 503 $7115^{\text {th }}$ Avenue, New Westminster, BC, V3M 1X6, hereby certify that:

1. I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia since year 2000.
2. I am a graduate of the University of British Columbia, Vancouver, in 1990 with a Batchelor of Applied Science in geological engineering and a Masters of Applied Science in geological engineering in 1994.
3. I have been involved in mineral exploration since 1994 on porphyry copper gold, epithermal gold and ultramafic hosted nickel- copper - platinum palladium projects.
4. I have practised my profession for ten years.
5. I am a qualified person as set out in N.P. 43-101
6. This report dated June 21, 2004 is based upon the references listed and on my observations.
7. I am not aware of any material fact or material change with respect to the subject matter of this report or omission to disclose which would make this report misleading.
8. I have no interest in Logan Resources Ltd.


## APPENDIX 1

## DRILL LOGS



## DRILL HOLE R1-04

Exploration Company: Logan Resources Ltd.
Property Name: Redford Property
Drilling Company: DJ Drilling Company Ltd.

Hole Started:
March 17, 2004
Hole Completed:
Logged By: Date Logged:

March 21, 2004
David J. Bridge, P.Geo.
April 18, 2004

Survey Data: Azimuth: 289 Degrees
Dip: -45 deg .
Down hole tests
Depth: 194.29m
Dip: -45 deg .

## Summary Log:

000.00 to 004.58: Overburden OVBR
004.58 to 005.80: Hornblende Megacrystic Diorite MCRD
005.80 to 013.92: Hornblende Megacrystic Diorite MCRD
013.92 to 014.42: Dyke DYKE
014.42 to 017.20: Hornblende Megacrystic Diorite MCRD
017.20 to 019.89: Hornblende Megacrystic Diorite MCRD(CHL++)
019.89 to 022.92: Hornblende Megacrystic Diorite MCRD
022.92 to 030.50: Dyke DYKE
030.50 to 036.05: Hornblende Megacrystic Diorite MCRD
036.05 to 038.96: Dyke DYKE
038.96 to 049.26: Hornblende Megacrystic Diorite MCRD
049.26 to 055.00: Fine Grained Diorite FDIR
055.00 to 056.59: Medium Grained Diorite MDIR
056.59 to 067.61: Hornblende Megacrystic Diorite MCRD
067.61 to 068.46: Medium Grained Diorite MDIR
068.46 to 079.97: Hornblende Megacrystic Diorite MCRD
079.97 to 083.65: Fine Grained Diorite FDIR
083.65 to 098.50: Medium Grained Diorite MDIR(SER)(CHL)
098.50 to 099.70: Plagioclase Porphyritic Dyke Not Mineralized PLPD, not mineralized
099.70 to 194.29: Medium Grained Diorite MDIR

## E.O.H.: 194.29 meters

HOLE R1-04 PAGE 1

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | Samp. No | From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.00 | 4.58 | Casing | No casing left in hole |  |  |  |  |  |  |  |  |
| 4.58 | 5.80 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite -extensively weathered with oxidezed fractures and chlorite altered hornblende -pale green colored with rusty red patches -weakly blocky core |  |  |  |  |  |  |  |  |
| 5.80 | 13.92 | Horn- <br> blende <br> Mega- <br> crystic <br> Diorite | Hornblende Megacrystic Diorite <br> -hornblende up to 2 cm long <br> -rare patches of pyrrhotite (2\%) in groundmass <br> $-60 \%$ hornblende, $35 \%$ feldspar, $5 \%$ max. patchy epidote <br> -trace chalcopyrite, disseminated in groundmass <br> -very competent core <br> -salt and pepper textured | $\begin{aligned} & 117540 \\ & 117541 \\ & 117542 \\ & 117543 \\ & 117544 \\ & 117545 \end{aligned}$ | $\begin{gathered} 5.80 \\ 7.00 \\ 8.50 \\ 10.00 \\ 11.50 \\ 12.50 \end{gathered}$ | $\begin{gathered} 7.00 \\ 8.50 \\ 10.00 \\ 11.50 \\ 12.50 \\ 13.92 \end{gathered}$ | $\begin{aligned} & 1.20 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.59 \\ & 1.42 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{aligned} & 93.5 \\ & 36.1 \\ & 12.1 \\ & 26.1 \\ & 24.2 \\ & 11.1 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.4 \\ & 0.4 \\ & 0.4 \\ & 0.3 \\ & 0.5 \\ & 0.6 \end{aligned}$ |
| 13.92 | 14.42 | Dyke | Dyke <br> -dark green mottled pistachio green colored <br> -5 to locally $10 \%$ pervasive epidote alteration <br> $-5 \%$ pyrite on fractures <br> -local blebs of pyrrhotite, up to $1 \%$ <br> -fairly blocky core | 117546 | 13.92 | 14.42 | 0.50 | <0.01 | 38.8 | <1 | 0.1 |
| 14.42 | 17.20 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite -pervasive chlorite and epidote alteration especially from 14.75 to 15.70 m <br> -up to 5\% coarse grained pyrrhotite, trace amounts chalcopyrite, especially with patchy chlorite and epidote alteration <br> -salt and pepper textured but with dark and pistachio green colored chlorite and epidote sections -hornblende 50\%, feldspar 40\%, epidote 5\% and sulphides 5\% <br> -fairly competent core | $\begin{aligned} & 117547 \\ & 117548 \\ & 117549 \\ & 117550 \end{aligned}$ | $\begin{gathered} \hline 14.42 \\ 16.00 \\ \text { Blank } \\ \text { CdnGS10 } \end{gathered}$ | $\begin{aligned} & 16.00 \\ & 17.20 \end{aligned}$ | $\begin{aligned} & 1.56 \\ & 1.20 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & <0.01 \\ & 0.81 \end{aligned}$ | $\begin{gathered} 27.6 \\ 29.6 \\ 4.7 \\ 7.2 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} 0.2 \\ 0.3 \\ <0.1 \\ 0.3 \end{gathered}$ |
| 17.20 | 19.89 | Hornblende Megacrystic Diorite (CHL++) | Hornblende Megacrystic Diorite (CHL++) <br> -intensively chlorite altered with up to $5 \%$ coarse grained pyrite <br> $-1 \%$ pervasive albitic alteration with trace amounts of arsenopyrite | $\begin{aligned} & 117551 \\ & 117552 \\ & 117553 \end{aligned}$ | $\begin{aligned} & 17.20 \\ & 18.00 \\ & 19.00 \end{aligned}$ | $\begin{aligned} & 18.00 \\ & 19.00 \\ & 19.89 \end{aligned}$ | $\begin{aligned} & 0.80 \\ & 1.00 \\ & 0.89 \end{aligned}$ | $\begin{aligned} & 0.01 \\ & 0.07 \\ & 0.03 \end{aligned}$ | $\begin{aligned} & 1179.6 \\ & 5037.9 \\ & 2456.4 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.6 \\ & 1.1 \\ & 1.1 \end{aligned}$ |

HOLE R1-04 PAGE 2

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock <br> Type | Rock Type Description | $\begin{aligned} & \text { Samp. } \\ & \text { No. } \end{aligned}$ | $\begin{gathered} \text { From } \\ (\mathrm{m}) \end{gathered}$ | $\begin{aligned} & \text { To } \\ & (\mathrm{m}) \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bl} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Horn- <br> blende <br> Mega- <br> crystic <br> Diorite <br> (CHL++) <br> Continued | -dark green colored <br> -fairly blocky core with minor oxidation of fractures <br> $-70 \%$ chlorite altered mafic minerals and $30 \%$ feldspar |  |  |  |  |  |  |  |  |
| 19.89 | 22.92 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite <br> -locally fresh sections and altered sections have epidote alteration especially around quartz vein masses $-2 \%$ disseminated pyrite <br> -at 21.96 m , fault zone oriented at 40 deg . to CA <br> $-80 \%$ hornblende and $20 \%$ feldspar <br> -fairly competent core with local blocky sections around fault zone <br> -dark purplish black colored <br> -towards lower contact fresher "look" | $\begin{aligned} & 117554 \\ & 117555 \end{aligned}$ | $\begin{aligned} & 19.89 \\ & 21.50 \end{aligned}$ | $\begin{aligned} & 21.50 \\ & 22.92 \end{aligned}$ | $\begin{aligned} & 1.61 \\ & 1.42 \end{aligned}$ | $\begin{gathered} 0.01 \\ <0.01 \end{gathered}$ | $\begin{gathered} 235.4 \\ 46.4 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.4 \\ & 0.2 \end{aligned}$ |
| 22.92 | 30.50 | Dyke | Dyke <br> -pale grey colored <br> $-5 \%$ plagioclase phenocrysts but, this is not the mineralized plagioclase porphyritic dyke <br> -chill margins observed <br> -upper contact oriented at 40 deg. to CA <br> -lower contact oriented at 30 deg. to CA |  |  |  |  |  |  |  |  |
| 30.50 | 36.05 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite <br> -minor weak chlorite alteration (5\%) around quartz and carbonates veins <br> -rare epidote and quartz veins, weak envelopes of epidote alteration noted <br> -trace disseminated pyrite <br> -from 35.40 to 35.63 m , sericite altered envelopes around quartz and carbonates shear veins, oriented at 60 deg. to CA <br> $-80 \%$ hornblende and $20 \%$ feldspar <br> -from 33.38 to 33.55 m , medium grained diorite dyke <br> -fairly competent core | 117556 | 35.00 | 36.05 | 1.05 | <0.01 | 32.6 | <1 | 0.2 |

HOLE R1-04 PAGE 3

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \mathrm{As} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bl} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Hornblende Megacrystic Diorite Continued | -dark purplish black colored |  |  |  |  |  |  |  |  |
| 36.05 | 38.96 | Dyke | Dyke <br> -dark grey purplish colored <br> $-10 \%$ chlorite spots <br> -calcite stringers in a random stockwork, up to 4 mm thick <br> -no mineralization seen <br> -top contact is a fault <br> -lower contact is healed, oriented at 60 deg. to CA |  |  |  |  |  |  |  |  |
| 38.96 | 49.26 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite <br> -mostly fresh with minor interevals of pervasive chlorite <br> alteration around epidote veins <br> -from 46.65 to 47.35 m , pervasive chlorite altered unit with <br> up to $2 \%$ coarse grained arsenopyrite <br> $-80 \%$ hornblende and $20 \%$ feldspar <br> -at 43.96 m arsenopyrite and feldspar vein oriented at 50 deg. to CA <br> -dark purplish black mottled dark green colored <br> -fairly competent core <br> $-0.5 \%$ calcite veins stockwork | $\begin{aligned} & 117557 \\ & 117558 \\ & 117559 \\ & 117560 \\ & 117561 \\ & 117562 \\ & 117563 \\ & 117564 \end{aligned}$ | $\begin{aligned} & 38.96 \\ & 40.50 \\ & 42.00 \\ & 43.46 \\ & 44.46 \\ & 45.46 \\ & 46.62 \\ & 47.36 \end{aligned}$ | $\begin{aligned} & 40.50 \\ & 42.00 \\ & 43.46 \\ & 44.46 \\ & 45.46 \\ & 46.62 \\ & 47.36 \\ & 49.26 \end{aligned}$ | $\begin{aligned} & 1.54 \\ & 1.50 \\ & 1.46 \\ & 1.00 \\ & 1.00 \\ & 1.16 \\ & 0.74 \\ & 1.90 \end{aligned}$ | $\begin{gathered} <0.01 \\ <0.01 \\ 0.01 \\ <0.01 \\ 0.01 \\ <0.01 \\ 0.03 \\ <0.01 \end{gathered}$ | $\begin{gathered} \hline 22.4 \\ 51.3 \\ 399.3 \\ 1050.5 \\ 357.1 \\ 820.7 \\ 5668.5 \\ 300.2 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.2 \\ & 0.3 \\ & 0.3 \\ & 0.1 \\ & 0.1 \\ & 0.4 \\ & 0.1 \end{aligned}$ |
| 49.26 | 55.00 | Fine Grained Diorite | Fine Grained Diorite <br> -very fresh looking rock <br> -at 53.73 m , carbonates and quartz vein, 1.5 cm thick, oriented at 80 deg . to CA, both sides have sericite altered envelopes <br> -from 52.91 to 53.46 m , medium grained diorite dyke with $5 \%$ sericite alteration, with also trace disseminated pyrite <br> -fine grained salt and pepper textured <br> -very competent core <br> $-70 \%$ hornblende and $30 \%$ feldspar | 117565 | 52.61 | 53.50 | 0.89 | 0.01 | 554.7 | <1 | 0.1 |

HOLE R1-04 PAGE 4

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \\ \hline \end{gathered}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No. } \end{gathered}$ | From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \\ & \hline \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 55.00 | 56.59 | Medium Grained Diorite | Medium Grained Diorite <br> -increase of sericite alteration downwards lower contact, change to albite alteration closer to lower contact witch is a shear zone <br> -this shear zone is mineralized with pyrite and oriented at <br> 40 deg. to CA <br> $-0.5 \%$ disseminated pyrite <br> -calcite shear veins oriented at 50 deg. to CA (0.5\%) <br> $-60 \%$ feldspar and 40\% hornblende <br> -very competent core <br> -light grey to translucent grey colored | 117566 | 55.00 | 56.59 | 1.59 | 0.01 | 35.6 | <1 | 0.1 |
| 56.59 | 67.61 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite <br> -fresh looking rock with a weak overprint of epidote alteration <br> -2\% epidote alteration of feldspar, probably plagioclase <br> -rare feldspar veins, $1-2 \mathrm{~mm}$ thick, oriented at 70 deg . to CA, <br> witch have trace to $5 \%$ fine grained arsenopyrite <br> -purplish brown mottled medium grey colored <br> $-60 \%$ hornblende and $40 \%$ feldspar <br> -very competent core | 117567 117568 117569 117570 117571 117572 117573 | $\begin{aligned} & 56.59 \\ & 58.00 \\ & 59.50 \\ & 61.00 \\ & 62.50 \\ & 64.00 \\ & 65.50 \end{aligned}$ | $\begin{aligned} & 58.00 \\ & 59.50 \\ & 61.00 \\ & 62.50 \\ & 64.00 \\ & 65.50 \\ & 67.61 \end{aligned}$ | $\begin{aligned} & 1.41 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 2.11 \end{aligned}$ | $\begin{gathered} 0.01 \\ <0.01 \\ 0.01 \\ 0.01 \\ 0.03 \\ 0.01 \\ <0.01 \end{gathered}$ | $\begin{gathered} 20.6 \\ 502.7 \\ 1170.6 \\ 629.2 \\ 80.7 \\ 24.2 \\ 16.4 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.3 \\ & 0.2 \\ & 0.2 \\ & 0.3 \\ & 0.1 \\ & 0.1 \end{aligned}$ |
| 67.61 | 68.46 | Medium Grained Diorite | Medium Grained Diorite <br> -minor pervasive sericite alteration especially around epidote and chlorite veinlets <br> -light medium grey colored <br> -moderately competent core <br> $-60 \%$ feldspar and $40 \%$ hornblende <br> -no mineralization seen |  |  |  |  |  |  |  |  |
| 68.46 | 79.97 | Horn- <br> blende <br> Megacrystic Diorite | Hornblende Megacrystic Diorite -relatively fresh with rare intervals of pervasive albite veining, oriented at 40 deg. to CA -minor sericite alteration around quartz and carbonates veins, oriented at 60 deg. to CA (noted from 69.23 to 69.50 m , from 70.50 to 70.73 m and from 73.42 and 73.55m), trace pyrite -very competent core | $\begin{aligned} & 117574 \\ & 117575 \\ & 117576 \end{aligned}$ | Blank CdnGS10 69.00 | 71.00 | 2.00 | $\begin{aligned} & <0.01 \\ & 0.82 \\ & 0.02 \end{aligned}$ | $\begin{gathered} 5.7 \\ 7.1 \\ 590.9 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} <0.1 \\ 0.3 \\ 0.1 \end{gathered}$ |

HOLE R1-04 PAGE 5

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \\ \hline \end{gathered}$ | From (m) | $\begin{aligned} & \hline \text { To } \\ & \text { (m) } \\ & \hline \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Horn- <br> blende <br> Mega- <br> crystic <br> Diorite <br> Continued | $-70 \%$ hornblende and $30 \%$ feldspar -salt and pepper textured |  |  |  |  |  |  |  |  |
| 79.97 | 83.65 | Fine Grained Diorite | Fine Grained Diorite <br> -intervals of sericite alteration around quartz and carbonates veins, up to 6 mm thick, variable orientation (noted from 79.97 to 80.35 m , from 80.48 and 80.64 m , from 80.76 and 81.00 m and from 81.68 to81.85m) <br> from 82.96 to 83.19 m , interval of chlorite and epidote alteration <br> -sericite altered intervals have up to $2 \%$ disseminated pyrite -otherwise the unit is fresh looking with no sulphides seen -salt and pepper textured <br> -very competent core <br> $-60 \%$ feldspar and $40 \%$ hornblende | $\begin{aligned} & 117577 \\ & 117578 \end{aligned}$ | $\begin{aligned} & \hline 80.00 \\ & 81.50 \end{aligned}$ | $\begin{aligned} & \hline 81.50 \\ & 83.20 \end{aligned}$ | $\begin{aligned} & 1.50 \\ & 1.70 \end{aligned}$ | $\begin{aligned} & 0.06 \\ & 0.03 \end{aligned}$ | $\begin{aligned} & 1355.1 \\ & 519.8 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.1 \end{aligned}$ |
| 83.65 | 98.50 | Medium Grained Diorite (SER) (CHL) | ```Medium Grained Diorite (SER)(CHL) -medium grained diorite with up to \(5 \%\) xenoliths of mafic volcanic and fine grained diorite -intervals of sericite and chlorite alteration with minor albite veining -these altered intervals occurs from 86.95 to 87.17 m , from 89.20 to 90.10 m , from 90.38 to 90.59 m , from 91.09 to 91.24 m , from 91.85 to 93.00 m , from 93.60 to 93.90 m , and from 94.68 to 94.90 m``` | 117579 117580 117581 117582 117583 117584 117585 | $\begin{aligned} & 86.88 \\ & 88.50 \\ & 90.00 \\ & 91.50 \\ & 93.00 \\ & 94.50 \\ & 96.00 \end{aligned}$ | $\begin{aligned} & 88.50 \\ & 90.00 \\ & 91.50 \\ & 93.00 \\ & 94.50 \\ & 96.00 \\ & 97.00 \end{aligned}$ | $\begin{aligned} & 1.62 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.00 \end{aligned}$ | $\begin{aligned} & 0.07 \\ & 0.05 \\ & 0.45 \\ & 0.13 \\ & 0.01 \\ & 0.02 \\ & 0.01 \end{aligned}$ | 56.8 49.9 59.7 36.5 21.6 25.4 24.7 | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \end{aligned}$ |

HOLE R1-04 PAGE 6

| From <br> (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock <br> Type | Rock Type Description | Samp. No | $\begin{aligned} & \hline \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Samp. (m) | $\begin{gathered} A u \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathbf{B i} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (SER) (CHL) Continued | $-2 \%$ coarse grained chalcopyrite in sericite and albite altered sections <br> -rare pyrite and chlorite veins <br> -fairly competent core <br> $-60 \%$ feldspar and $40 \%$ hornblende <br> -light grey mottled green colored |  |  |  |  |  |  |  |  |
| 98.50 | 99.70 |  | Plagioclse Porphyritic Dyke Not Mineralized $-30 \%$ euhedral plagioclase, $20 \%$ chloritized mafic minerals and $50 \%$ medium grey colored groundmass -upper contact oriented at 50 deg. to CA -lower contact oriented at 40 deg. to CA -very competent core |  |  |  |  |  |  |  |  |
| 99.70 | 194.29 | Medium Grained Diorite | Medium Grained Diorite | 117586 | 107.30 | 108.06 | 0.76 | 0.05 | 30.5 | <1 | 0.1 |
|  |  |  | -5\% xenoliths of fine grained diorite and mafic volcanic, | 117587 | 110.67 | 111.26 | 0.59 | 0.01 | 17.4 | <1 | 0.1 |
|  |  |  | range in size from 2 to 37 cm | 117588 | 114.00 | 115.00 | 1.00 | 0.01 | 17.6 | <1 | 0.1 |
|  |  |  | -fresh looking rock except for chlorite and sericite alteration | 117589 | 116.00 | 117.00 | 1.00 | 0.01 | 11.3 | <1 | 0.1 |
|  |  |  | around quartz and carbonates veins | 117590 | 137.75 | 139.10 | 1.35 | 0.08 | 180.0 | <1 | 0.1 |
|  |  |  | -trace amounts of disseminated pyrite | 117591 | 140.00 | 141.00 | 1.00 | 0.01 | 28.0 | $<1$ | <0.1 |
|  |  |  | -very competent core | 117592 | 142.60 | 143.30 | 0.70 | 0.03 | 32.7 | <1 | 0.3 |
|  |  |  | -minor patches of epidote alteration | 117593 | 157.75 | 158.75 | 1.00 | 0.02 | 29.7 | <1 | 0.1 |
|  |  |  | -medium grey mottled black colored | 117594 | 163.80 | 165.37 | 1.57 | 0.01 | 118.6 | <1 | 0.1 |
|  |  |  | -quartz and carbonates veins, up to 3.5 cm thick, oriented at | 117595 | 167.93 | 169.85 | 1.92 | 0.10 | 79.8 | <1 | 0.1 |
|  |  |  | 50-60 deg. to CA | 117596 | 174.00 | 175.50 | 1.50 | 0.02 | 13.8 | $<1$ | <0.1 |
|  |  |  |  | 117597 | 175.00 | 177.00 | 2.00 | 0.07 | 39.9 | <1 | 0.2 |
|  |  |  | -from 107.30 to $108.06 \mathrm{~m}, 30 \%$ sericite alteration, trace of | 117598 | 177.00 | 178.50 | 1.50 | 0.03 | 18.4 | <1 | 0.1 |
|  |  |  | disseminated pyrite (sample 117586) | 117599 | Blank |  |  | $<0.01$ | 3.5 | <1 | <0.1 |
|  |  |  |  | 117600 | CdnGS10 |  |  | 0.81 | 6.4 | <1 | 0.3 |
|  |  |  | -at 110.96m, two quartz and carbonates veins with | 117601 | 178.50 | 180.00 | 1.50 | 0.08 | 8.8 | $<1$ | <0.1 |
|  |  |  | envelopes ( 5 cm wide), of sericite alteration on both sides | 117602 | 190.50 | 191.24 | 0.74 | 0.05 | 30.1 | <1 | <0.1 |
|  |  |  | -from 114.20 to 114.56 m , sericite alteration with $2 \%$ pyrite and trace of chalcopyrite in envelopes around quartz and carbonates veins, oriented at 50 deg. to CA |  |  |  |  |  |  |  |  |

HOLE R1-04 PAGE 7

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock Type | Rock Type Description | Samp. No | $\begin{gathered} \text { From } \\ (\mathrm{m}) \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathbf{T e} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite Continued | -at 116.35 m , shear quartz and carbonates vein, oriented at 50 deg. to CA with sericite and pyrite alteration for 4 cm on either sides <br> -from 125.80 to 129.00 m , weakly developed chlorite veins in a random stockwork (1\%) without mineralization <br> -from 137.75 to 138.00 m , sericite and pyrite alteration along quartz and carbonates veins, $5 \%$ disseminated pyrite, veins oriented at 10 deg. to CA <br> -from 138.44 to 139.10 m , sericite and pyrite alteration along stockwork of quartz and carbonates veins, the major veins are oriented at 60 deg. to CA <br> -from 140.36 to 140.46 m , sericite alteration around shear vein oriented at 75 deg. to CA <br> -from 142.92 to 143.17 m , ductile shear zone, oriented at 40 deg. to CA, minor sericite alteration below the shear zone containing 2\% disseminated pyrite <br> -from 158.06 to 158.37 m , sericite and pyrite alteration, $5 \%$ disseminated pyrite <br> -from 163.80 to 165.37 m , sericite and pyrite alteration around quartz and carbonates vein, 3 cm thick, oriented at 10 deg. to CA <br> -from 167.93 to 168.18 m , sericite and pyrite alteration around shear zone, oriented at 75 deg. to CA, up to $10 \%$ coarse grained pyrite <br> -from 169.00 to 169.85 m , sericite and pyrite alteration around extentional quartz and carbonates veins, up to 5 cm |  |  |  |  |  |  |  |  |

HOLE R1-04 PAGE 8

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock <br> Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \hline \text { To } \\ & \text { (m) } \end{aligned}$ | $\begin{gathered} \text { Samp. } \\ \text { (m) } \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathbf{B i} \\ \text { (ppm) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite Continued | thick <br> -at 165.75 m , jasper and epidote vein oriented at 20 deg. to CA <br> -at 168.65 m , jasper and epidote vein oriented at 40 deg. to CA <br> -from 174.00 to 179.50 m , blocky and broken core with intervals of sericite alteration around little faults, such as at 176.45 and at 176.90 m , these faults are both oriented at 70-80 deg. to CA <br> @ 182.73 to 184.00 m Dyke <br> -medium grey colored <br> $-0.5 \%$ calcite vein stockwork <br> -rare quartz veins <br> -no sulphides seen <br> -lower contact oriented at 30 deg. to CA <br> @ 186.53 to 186.80 m Dyke <br> $-0.5 \%$ jasper veins, oriented at 15 deg. to CA <br> -upper contact oriented at 40 deg . to CA <br> -lower contact oriented at 80 deg. to CA <br> -very similar to dyke described above (from 182.73 to 184.00 m ) <br> @ 187.35 to 188.38 m Dyke <br> -very similar has the two dykes just described before <br> -upper contact oriented at 30 deg. to CA <br> -lower contact oriented at 10 deg. to CA <br> @ 189.40 to 189.78 m Dyke <br> $-0.5 \%$ calcite veinlets with slight leaching around them <br> -no sulphides seen |  |  |  |  |  |  |  |  |

HOLE R1-04 PAGE 9

| From (m) | $\begin{aligned} & \mathrm{To} \\ & \text { (m) } \end{aligned}$ | Rock <br> Type | Rock Type Description | Samp. | $\begin{gathered} \text { From } \\ (\mathrm{m}) \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} A u \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) }) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite Continued | -upper contact oriented at 50 deg. to CA <br> -lower contact oriented at 40 deg. to CA <br> -from 190.52 to 191.00 m , sericite and pyrite alteration around quartz and carbonates veins, $2 \%$ disseminated pyrite observed in this section, veins oriented at 50 deg . to CA <br> EOH 194.29m <br> Core stored at David Schusler facilities in Aldergrove |  |  |  |  |  |  |  |  |

## DRILL HOLE R2-04

| Exploration Company: <br> Property Name: <br> Drilling Company: | Logan Resources Ltd. <br> Redford Property <br> DJ Drilling Company Ltd. |
| :--- | :--- |
| Hole Started:  <br> Hole Completed:  <br> Logged By:  <br> Date Logged: March 22, 2004 <br>  March 24, 2004 <br> Geneviève Leblanc and David J. Bridge, P.Geo. <br> April 5, 2004 <br> Survey Data:  <br>  Azimuth: 349 Degrees <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  Dip: -45 dewn hole tests <br> Depth: $130.24 m$  <br> Dip: -45 deg.  |  |

## Summary Log:

000.00 to 001.52: Overburden OVBR
001.88 to 002.56: Medium Grained Diorite MDIR(CHL)(EP)(SER)
002.56 to 004.00: Mafic Volcanic MVOL
004.00 to 010.67: Medium Grained Diorite MDIR(CHL)
010.67 to 010.78: Medium Grained Diorite MDIR(CHL+)(EP+)
018.20 to 019.88: Dyke DYKE
019.88 to 046.60: Medium Grained Diorite MDIR(EP)(CHL)
046.60 to 057.70: Medium Grained Diorite MDIR(CHL)(BIO)
057.70 to 060.52: Altered Volcanic AVOL(BIO++)(CHL+)
060.52 to 071.65: Plagioclase Porphyrytic Dyke PLPD
071.65 to 074.49: Altered Volcanic AVOL(BIO++)(CHL+)
074.49 to 091.28: Medium Grained Diorite MDIR(CHL)
091.28 to 097.60: Medium Grained Diorite MDIR(CHL)
097.60 to 101.48: Mafic Volcanic MVOL
101.48 to 106.22: Altered Volcanic AVOL(BIO+)(ALB)
106.22 to 127.46: Medium Grained Diorite/Altered Volcanic MDIR(CHL)/AVOL(BIO+)(ALB)
127.46 to 130.24: Dyke DYKE
E.O.H.: $\mathbf{1 3 0 . 2 4}$ meters

HOLE R2-04 PAGE 10

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock <br> Type | Rock Type Description | Samp. No | $\begin{aligned} & \hline \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \mathrm{TO} \\ & \text { (m) } \end{aligned}$ | $\begin{array}{\|c} \text { Samp. } \\ \text { (m) } \\ \hline \end{array}$ | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Au} \\ \hline(\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} A s \\ (\text { Ppm }) \\ \hline \end{gathered}$ | $\begin{gathered} T e \\ (p p m) \\ \hline \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium <br> Diorite <br> (CHL)/ <br> Altered <br> (B10+) <br> (ALB) <br> Continued | -few relics of mafic minerals observed, $<5 \%$, probably amphiboles <br> -mainly brownish and yellowish beige colored, yellowish color associated with albitic alteration and brown color to biotitic alteration <br> -trace to $1 \%$ fine disseminated pyrite <br> -very local good reaction to HCl <br> -few quartz with carbonates (probably dolomite because of yellowish color observed), mainly oriented at 30 deg. to CA, generally around $3-4 \mathrm{~mm}$ wide <br> -weak response to magnet, especially with black mafic minerals <br> -very few rusty slip planes observed <br> -fairly competent section with few fractures and slips -slips mainly oriented at 60 deg. to CA -fractures mainly oriented at $80-90$ deg. to CA -sharp lower contact oriented at 85 deg. to CA |  |  |  |  |  |  |  |  |  |  |  |  |
| 127.46 | 130.24 | Dyke | Dyke <br> -light grey colored <br> -weak reaction to HCl <br> -no response to magnet <br> -very few quartz/dolomite stringers ( $1-2 \mathrm{~mm}$ wide), mainly oriented at 20-30 deg. to CA <br> $-7-8 \%$ of chlorite altered mafic minerais observed, <1mm in size <br> -very few rusty brown slips plane noted towards the end of the hole <br> -nil to trace content of sulphide <br> -fairly competent unit with fractures and slips -slips mainly oriented at 10,20 and 30 deg. to CA -fractures mainly orlented at 40 deg. to CA <br> EOH 130.24 m <br> Core stored at David Schusler facilities in Aldergrove | 117101 117102 117103 117104 117105 | $\begin{aligned} & 127.46 \\ & 129.00 \\ & \text { Blank } \\ & \text { ConGS12 } \\ & \text { CdnGS10 } \end{aligned}$ | $\begin{aligned} & 129.00 \\ & 130.24 \end{aligned}$ | $\begin{aligned} & 1.54 \\ & 1.24 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & <0.01 \\ & 10.12 \\ & 0.82 \end{aligned}$ | $\begin{gathered} 44.6 \\ 33.2 \\ 4.4 \\ 1.9 \\ 6.1 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} 0.2 \\ 0.1 \\ <0.1 \\ 0.1 \\ 0.3 \end{gathered}$ |  |  |  |  |



| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \\ \hline \end{gathered}$ | $\begin{gathered} \text { From } \\ (\mathrm{m}) \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. <br> (m) | $\begin{aligned} & \mathrm{Au} \\ & (\mathrm{~g} / \mathrm{t}) \end{aligned}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A u \\ (g / t) \end{gathered}$ | $\begin{gathered} \hline \begin{array}{c} A s \\ (p p m) \end{array} \\ \hline \end{gathered}$ | $\begin{gathered} T e \\ (p p m) \\ \hline \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (CHL) Continued | -not very much sulphide content, trace to $1-2 \%$ throughout the unit, chalcopyrite observed at 14.15 m , mainly arsenopyrite and also some pyrite <br> -one quartz + chlorite vein ( 2 cm wide) oriented at 20 deg . to CA noted at 10.10 m <br> -blocky and broken unit until 6.66 m but generally fairly competent with few fractures and slips until lower contact, blocky and broken again at 17.39 m for approx. $10-15 \mathrm{~cm}$ -slips mainly oriented at 50-60 deg. to CA <br> -fractures mainly oriented between 40 to 60 deg. to CA but also at $80-85$ deg. to $C A$, can be occasionally along calcite stringers plane -sharp lower contact oriented at 25 deg. to CA (contact between fine and medium grained diorite) <br> -from 7.16 to 9.20 m , coarser grained, $50-55 \%$ feldspar, local amphibole laths (probably weakly altered to chlorite), $40-45 \%$ of chiorite altered mafic minerals, note the feldspar and the chlorite altered mafic minerals are finer grained than the amphibole (it seems to be the usual setting for the whole hole) <br> -from 10.67 to 10.78 m and from 12.15 to 12.96 m , fairly moderate to strong epidote/chlorite altered, also weak epidotic/chloritic alteration noted around 16.60 m <br> from 14.07 to 14.27 m and from 14.98 to 15.71 m , mafic volcanic sections (maybe xenoliths), oriented at 30 deg. to Ca for the first section and at $80-85$ deg. for the second section, fine grained, dark green colored, no response to magnet, no reaction to HCl , can distinguish mafic minerals (probably amphibole) | $\begin{aligned} & 117014 \\ & 117015 \\ & 117016 \end{aligned}$ | $\begin{aligned} & 14.50 \\ & 16.00 \\ & 17.50 \end{aligned}$ | $\begin{aligned} & 16.00 \\ & 17.50 \\ & 18.20 \end{aligned}$ | $\begin{aligned} & 1.50 \\ & 1.50 \\ & 0.70 \end{aligned}$ | $\begin{aligned} & 0.01 \\ & <0.01 \\ & 0.01 \end{aligned}$ | $\begin{gathered} 597.0 \\ 58.1 \\ 113.7 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} 0.1 \\ <0.1 \\ 0.1 \end{gathered}$ |  |  |  |  |
| 18.20 | 19.88 | Dyke | Dyke <br> -fine grained unit | 117017 | 18.20 | 19.88 | 1.68 | 0.01 | 201.5 | <1 | 0.1 |  |  |  |  |

HOLE R2-04 PAGE 3

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock Type | Rock Type Description | Samp. No | From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\underset{(\mathrm{g} / \mathrm{t})}{\mathrm{Al}}$ | $\begin{gathered} \mathrm{As} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{aligned} & A U \\ & (g / t) \end{aligned}$ | $\begin{gathered} A s \\ (p p m) \end{gathered}$ | $\begin{gathered} T(a d e \\ (p p m) \end{gathered}$ | ${ }_{(p p m)}^{B i}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Dyke Continued | -light greyish green colored <br> -generally contain 15-20\% feldspar (can probably be called <br> feldspar phenocrysts). <br> -non magnetic <br> -no reaction to HCl <br> -sharp grinded lower contact |  |  |  |  |  |  |  |  |  |  |  |  |
| 19.88 | 46.60 | Medium Grained Diorite (EP)(CHL) | Medium Grained Diorite (EP)(CHL) <br> -various grain size observed, it is a succession of mainly medium and coarse grained small intervals (generally between 5 to $25-30 \mathrm{~cm}$ long), but towards the lower contact note an increase of fine grained diorite intervals -more greyish colored than the section described above ( 4.00 to 19.88 m ) but still greyish green -no response to magnet -no reaction to HCl <br> -from upper contact to approx, 20.50m, weak to moderate epidote altered, noted biotite and chlorite in very fine stringers, in that section very fine disseminated sulphides (max. 1\%) also observed <br> -weak to moderate epidotic alteration also noted between 37.00 to 42.40 m , chlorite stringers are still present -not more than $2 \%$ of fine disseminated sulphides throughout the unit, the sulphides (mainly pyrite) seems to be more presents in the fine and medium grained sections -where it is more rusty brown colored (between 28.00 and 34.00 m ) most of the time the pyrite content is higher, locally up to $5-8 \%$ <br> -at 35.98 m , pyrrhotite and chalcopyrite noted, seems associated with the amphibole laths -towards the lower contact, fine disseminated or veinlets of arsenopyrite ( $2-4 \%$ ) are observed <br> -in average the unit contain $40-55 \%$ feldspar (mainly plagioclcase) and $45-60 \%$ chlorite altered mafic minerals | 117018 117019 11720 117021 117022 117023 117024 117025 117026 117027 117028 117029 117030 117031 117032 117033 117034 117035 117001 117002 | 19.88 21.00 22.50 24.00 25.50 27.00 28.50 30.00 31.50 33.00 34.50 36.00 37.50 39.00 40.50 42.00 43.00 44.00 45.00 46.30 | 21.00 22.50 24.00 25.50 27.00 28.50 30.00 31.50 33.00 34.50 36.00 37.50 39.00 40.50 42.00 43.00 44.00 45.00 46.30 47.37 | $\begin{aligned} & 1.12 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.30 \\ & 1.07 \end{aligned}$ | $<0.01$ $<0.01$ $<0.01$ $<0.01$ $<0.01$ $<0.01$ $<0.01$ 0.01 $<0.01$ $<0.01$ $<0.01$ $<0.01$ $<0.01$ 0.01 0.06 0.08 0.12 0.03 0.05 0.05 0.10 | 130.8 127.4 139.8 585.2 189.8 118.4 41.7 34.0 28.8 124.8 157.0 1450.2 214.5 698.0 526.9 7691.6 9010.8 8482.0 766.9 7941.5 | $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.2 \\ & 0.1 \\ & 0.2 \\ & 0.2 \\ & 0.1 \\ & 0.2 \\ & 0.7 \\ & 0.5 \\ & 1.0 \\ & 2.4 \\ & 5.3 \\ & 4.7 \end{aligned}$ | $\begin{aligned} & 0.056 \\ & 0.088 \\ & 0.105 \\ & 0.027 \end{aligned}$ | $\begin{aligned} & 5650 \\ & 8570 \\ & 9380 \\ & 8630 \end{aligned}$ | $\begin{aligned} & 0.28 \\ & 0.39 \\ & 0.46 \\ & 0.09 \end{aligned}$ | $\begin{aligned} & 0.82 \\ & 0.47 \\ & 0.92 \\ & 2.06 \end{aligned}$ |


|  |  | Rock | Rock Type Description | Samp. | From | To |  | Acm | Assay | Tesults | a | Als | ${ }^{\text {chemex }}$ A | $\frac{\text { say Re }}{\text { Te }}$ | Bi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (m) | (m) | Type | Rock Tpe Description | No | (m) | (m) | (m) | (g/t) | (ppm) | (ppm) | (ppm) | (g/t) | (pom) | (ppm) | (ppm) |
|  |  | Medium Grained Diorite (EP)(CHL) Continued | -generally fairly competent unit with few fractures and slips but also with few blocky and broken sections -from 40.22 to 42.40 m , very blocky and broken, the rock seem more altered in this section, locally rusty brown colored <br> -fractures mainly oriented at 30 and 40 deg. to $C A$, sometimes associated with a rusty brown colored on planes such as between 28.00 and 34.00 m -generally when the rusty brown color is observed on fracture planes, the unit is less competent, it is generally more blocky and broken <br> -slips mainly oriented at 50 deg. to CA <br> -lower contact stop at the beginning of a finer grained interval, oriented at 30 deg. to CA |  |  |  |  |  |  |  |  |  |  |  |  |
| 46.60 | 57.70 | Medium Grained Diorite (CHL) (BIO) | Medium Grained Diorite (CHL)(BIO) <br> -very similar to the unit describe above ( 19.88 to 46.60 m ) <br> -mainly medium grained but with various grain sizes as previous <br> -grey colored unit, except darker colored from 55.00 m to lower contact <br> -no response to magnet <br> -no reaction to HCl <br> -the concentration of the minerals is variable but in average the unit contain, $35-50 \%$ feldspar (sometimes subautomophous plagioclase crystals), $7-10 \%$ black amphibole, $45-55 \%$ chlorite altered mafic minerals -local chlorite stringers oriented at 40 deg. to CA -in the darker colored section, $3-5 \%$ biotite is observed -generally around $3 \%$ of disseminated arsenopyrite but, in the darker colored section it can be up to $7-10 \%$, in that section it is also possible to observed the arsenopyrite in small stringers oriented at 70 deg. to CA , in that section 2$3 \%$ locally disseminated pyrite is also noted -very few calcite stringers oriented at 30 deg. to $C A$, i.e. at 48.36 m and at 57.10 m | 117036 1117037 117038 117039 11700 117041 117042 117043 111040 117045 117046 | 47.37 48.00 49.00 50.00 51.00 52.00 53.00 54.00 55.00 56.00 57.00 | 98.00 49.00 59.00 51.00 52.00 53.00 54.00 55.00 56.00 57.00 57.70 | 1.63 ${ }^{.1 .00}$ 1.00 1.100 1.00 1.00 1.00 1.00 1.00 1.00 0.70 | 20.01 00.01 0.02 0.01 0.01 0.04 0.02 0.12 0.12 0.05 0.03 $<0.01$ 0.01 | 803.0 331.5 71000 40550 710000 $>10000$ $>10000$ 9520.7 5794.2 2793.8 349.4 | $<1$ $<1$ $<1$ 1 $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ |  | $<0.005$ 0.027 0.015 0.062 0.062 0.024 0.131 0.060 0.030 0.010 0.006 0.006 | 3970 $>10000$ 4390 $>10000$ $>10000$ $>1000$ $>10000$ 6350 3160 355 | $\begin{aligned} & <0.05 \\ & 0.22 \\ & 0.12 \\ & 1.43 \\ & 0.31 \\ & 1.30 \\ & 0.29 \\ & 0.22 \\ & 0.22 \\ & 0.09 \\ & <0.05 \end{aligned}$ |  |


| From <br> (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \mathrm{No} . \end{gathered}$ | $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A u \\ (g / t) \\ \hline \end{gathered}$ | $\begin{gathered} A s \\ (p p m) \end{gathered}$ | $\begin{gathered} T e \\ (p p m) \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (CHL) (BIO) Continued | -fairly competent unit with minor fractures and silips -at 52.12 m , very blocky and broken small section (for 10 cm only), rusty brown colored -slips mainly oriented at 20 deg. to CA <br> -fractures mainly oriented at $30-40$ deg. to $C A$ -gradational lower contact into the material of the unit described below ( 57.70 to 60.52 m ) |  |  |  |  |  |  |  |  |  |  |  |  |
| 57.70 | 60.52 | $\begin{array}{\|l\|l} \hline \text { Altered } \\ \text { Volcanic } \\ \text { (BIO++) } \\ (\mathbf{C H L L}) \end{array}$ | Altered Volcanic (BIO++)(CHL+) <br> -strong alteration to biotite (hornfels) and chlorite <br> -very fine grained, almost aphanitic <br> -local big clots of biotite such as at 58.90 m , generally platty shaped <br> $-7-10 \%$ min. fluidal apple green chlorite, not real stringers -very few rusty brown colored slip planes, such as at 58.80 m <br> $-2-3 \%$ max. arsenopyrite throughout the unit, mostly disseminated but can also be visible in few stringers -very low content of pyrite, nill to trace <br> $-n o$ reaction to HCl <br> -no response to magnet <br> -very light grey to dark grey colored but with a brownish tint (probably due to biotite) <br> -relatively blocky and broken unit with fractures and slips -fractures randomly oriented, sometimes associated with calcite stringers <br> -slips mainly oriented at 20-25 deg. to CA or sub-parallel to CA <br> -sharp lower contact oriented at 50 deg. to CA | $\begin{aligned} & 117047 \\ & 117048 \end{aligned}$ | $\begin{aligned} & 57.70 \\ & 59.00 \end{aligned}$ | $\begin{aligned} & 59.00 \\ & 60.52 \end{aligned}$ | $\begin{aligned} & 1.30 \\ & 1.52 \end{aligned}$ | $\begin{aligned} & \hline 0.01 \\ & 0.01 \end{aligned}$ | $\begin{aligned} & 171.6 \\ & 1882.7 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 3.3 \end{aligned}$ | $\begin{aligned} & \hline 0.005 \\ & 0.012 \end{aligned}$ | $\begin{aligned} & 214 \\ & 1950 \end{aligned}$ | $\begin{aligned} & <0.05 \\ & 0.06 \end{aligned}$ | $\begin{aligned} & 0.19 \\ & 2.91 \end{aligned}$ |
| 60.52 | 71.65 | Plagio- clase Porphy- ritic Dyke | Plagioclase Porphyritic Dyke -strongl albitic altered, pervasive -relatively light grey colored -medium grained, more homogeneous unit than before for grain size <br> -small fragments of finer grained material locally observed, | 117049 <br> 1175050 <br> 11751 <br> 117552 <br> 117053 <br>  | 60.52 62.00 63.00 64.00 65.00 66.00 | 62.00 63.00 64.00 65.00 66.00 67.00 | $\begin{aligned} & 1.48 \\ & \hline 1.40 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \end{aligned}$ | 0.02 0.04 0.05 0.07 0.03 0.03 | $\begin{gathered} 2913.8 \\ >10000 \\ >100000 \\ >10000 \\ 8702.2 \\ 9619.6 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 1.0 \\ & 1.5 \\ & 1.7 \\ & 2.3 \\ & 2.0 \\ & 4.3 \end{aligned}$ | 0.016 0.040 0.056 0.069 0.041 0.035 | $\begin{array}{\|c\|} \hline 3110 \\ >10000 \\ >10000 \\ >10000 \\ \hline 9480 \\ 98500 \\ \hline 980 \end{array}$ | 0.07 0.20 0.29 0.43 0.26 0.24 | $\begin{aligned} & 0.96 \\ & 1.34 \\ & 1.54 \\ & 2.14 \\ & 1.86 \\ & 3.76 \end{aligned}$ |

HOLE R2-04 PAGE 7

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock Type | Rock Type Description | $\begin{aligned} & \text { Samp. } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{gathered} 10 \\ \text { (m) } \end{gathered}$ | $\begin{gathered} \text { Samp. } \\ (\mathrm{m}) \end{gathered}$ | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A u \\ (g / t) \end{gathered}$ | $\begin{gathered} A s \\ (p p m) \\ \hline \end{gathered}$ | $\begin{gathered} T e \\ (p p m) \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 74.49 | 91.28 | $\begin{aligned} & \text { Medium } \\ & \text { Grained } \\ & \text { Diorite } \\ & \text { (CHL) } \end{aligned}$ | Medium Grained Diorite (CHL) <br> -medium to coarse grained, fairly homogeneous unit for grain size <br> -very local fine grained intervals noted such as at 78.90 m <br> -greenish grey colored unit <br> -no response to magnet <br> -generally no reaction to HCl , except locally such a at 86.00 m <br> -brown biotite noted around 76.00 m <br> -generally $40-60 \%$ of feldspar (plagioclase) and $35-40 \%$ chlorite altered mafic minerals <br> -generally the sulphide content is around 2-3\% except locally $5-7 \%$ of fine disseminated or stringers of pyrtte, the mineralization is sporadic <br> -very high arsenopyrite content close to the upper contact until approx. $75.00 \mathrm{~m}, 10-12 \%$ <br> -small fragments of finer grained material locally observed <br> -towards lower contact, the feldspar are still present but <br> not as well "crystallized", seem to be finer grained but, only locally <br> -from 91.05 to 91.10 m , epidote altered section oriented at 30 deg. to CA <br> -farly competent unit with few blocky and broken sections such as from 75.47 to 76.70 m and from 77.00 to 77.50 m -from 85.90 m more blocky and broken than usual but also with a rusty brown color, $7-10 \%$ pyrite disseminated or in stringers of pyrite <br> -fractures mainly orlented at 70 deg. to $C A$ <br> -slips mainly oriented between 10 and 20 deg . to CA <br> -sharp lower contact oriented at 85 deg. to CA | 117003 117061 117062 117063 117064 11765 117066 117067 117068 117069 1177070 117071 11772 117073 11774 117075 | 744.50 75.47 77700 78.00 7900 80.00 81.00 82.00 83.00 84.00 85.00 86.00 87.00 88.00 89.00 90.00 | 75.47 77.00 78.00 79.00 80.00 81.00 82.00 83.00 84.00 85.00 86.00 87.00 88.00 89.00 90.00 91.28 | 0.97 1.53 1.50 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.28 | 1.13 0.19 0.19 0.03 0.02 0.07 0.04 0.10 0.01 0.09 $<0.01$ 0.03 0.05 0.02 0.06 0.06 0.03 0.02 |  | 5 $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ | 21.6 8.6 4.3 4.8 3.5 1.0 3.4 2.1 1.6 0.4 0.4 0.3 0.3 0.2 0.4 0.1 | 0.198 0.029 0.020 0.040 0.140 0.015 0.087 <br> 0.047 | $\begin{gathered} 8620 \\ 8690 \\ 6490 \\ \hline 4790 \\ >10000 \\ 3880 \\ 5790 \\ \\ \\ \\ \\ \\ \\ \hline 130 \end{gathered}$ | $\begin{aligned} & 0.70 \\ & 0.15 \\ & 0.06 \\ & 0.063 \\ & 0.30 \\ & 0.45 \\ & 0.08 \\ & 0.38 \\ & \hline 0.36 \end{aligned}$ | 7.74 4.17 4.17 3.62 0.62 3.15 1.93 1.42 <br> 0.48 |
| 91.28 | 97.60 | Medium Grained Diorite (CHL) | Medium Grained Diorite (CHL) -mainly medium to coarse grained -medium greenlsh grey colored unit -no response to magnet -very weak and local reaction to HCl | $\begin{aligned} & 117076 \\ & 117077 \\ & 117078 \\ & 117079 \end{aligned}$ | $\begin{aligned} & 91.28 \\ & 93.00 \\ & 94.50 \\ & 96.00 \end{aligned}$ | $\begin{aligned} & 93.00 \\ & 94.50 \\ & 96.00 \\ & 97.60 \end{aligned}$ | $\begin{aligned} & 1.72 \\ & 1.50 \\ & 1.50 \\ & 1.60 \end{aligned}$ | 0.05 0.27 0.04 $<0.01$ | $\begin{aligned} & \hline 66.5 \\ & 34.8 \\ & 95.3 \\ & 115.5 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.1 \\ & 0.3 \\ & 0.1 \end{aligned}$ |  |  |  |  |



HOLE R2-04 PAGE 9

| $\begin{gathered} \text { From } \\ \text { (m) } \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \text { Rock } \\ & \text { Type } \\ & \hline \end{aligned}$ | Rock Type Description | Samp. No | From (m) | $\begin{gathered} \mathrm{To} \\ (\mathrm{~m}) \end{gathered}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A u \\ (g / t) \end{gathered}$ | $\begin{gathered} A s \\ (p p m) \end{gathered}$ | $\begin{gathered} T e \\ (p p m) \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101.48 | 106.22 | Altered Volcanic (BIO+) (ALB) | Altered Volcanic (BIO+)(ALB) <br> -mainly brownish colored, except light yellowish beige between 103.20 to 104.31 m <br> -the unit was probably already altered to biotite as the altered volcanic described before (from 57.70 to 60.52 m and from 71.65 to 74.49 m ) but, between 103.20 and 104.31 m relatively strong albitic alteration associated with quartz/carbonates veining is observed, from 103.62 to 104.20 m <br> $-<5 \%$ calcite stringers ( $<1 \mathrm{~mm}$ ), mainly oriented sub-parallel to CA or oriented at 10-20 deg. to CA -fairly competent unit with few fractures and slips -slips mainly oriented at 30,40 and 50 deg. to CA - fractures mainly oriented at 60 deg. to CA -sharp lower contact oriented at 85 deg. to CA | $\begin{aligned} & 117083 \\ & 117084 \\ & 117085 \\ & 117086 \end{aligned}$ | $\begin{aligned} & 101.48 \\ & 103.00 \\ & 104.20 \\ & 105.20 \end{aligned}$ | $\begin{aligned} & 103.00 \\ & 10.20 \\ & 105.20 \\ & 106.22 \end{aligned}$ | $\begin{aligned} & 1.52 \\ & 1.20 \\ & 1.00 \\ & 1.02 \end{aligned}$ | $\begin{aligned} & 0.02 \\ & 0.02 \\ & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{aligned} & 1439.6 \\ & 300.3 \\ & 325.4 \\ & 1513.3 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 1.6 \\ & 1.3 \\ & 0.5 \\ & 0.7 \end{aligned}$ | $\begin{aligned} & 0.009 \\ & 0.031 \\ & 0.005 \end{aligned}$ | $\begin{aligned} & 1040 \\ & 2970 \\ & 1350 \end{aligned}$ | $\begin{aligned} & 0.16 \\ & 0.46 \\ & 0.05 \end{aligned}$ | $\begin{aligned} & 1.62 \\ & 1.32 \\ & 0.64 \end{aligned}$ |
| 106.22 | 127.46 | $\begin{array}{\|l} \hline \text { Medium } \\ \text { Grained } \\ \text { Diorite } \\ \text { (CHL)/ } \\ \text { Altered } \\ \text { Volcanic } \\ \text { (BIOO+) } \\ \text { (ALB) } \\ \hline \end{array}$ | Medium Grained Diorite (CHL)/ <br> Altered Volcanic (BIO+)(ALB) <br> -the diorite ( $60-65 \%$ ) is intercalated with altered volcanic ( $35-40 \%$ ) sections, the contacts between both units are sharp but randomly oriented <br> Medium Grained Diorite <br> -medium greenish green colored <br> -various grain size but mainly medium grained unit <br> -generally $60-65 \%$ feldspar (plagiolcase) and 35-40\% <br> chlorite altered mafic mineral <br> -very few chlorite stringers <br> -around 5\% pyrite, mainly fine disseminated <br> -very local good reaction to HCl <br> - weakly and locally magnetic <br> Altered Volcanic <br> -very similar alteration as described between 101.48 and 106.22 m , albitic after biotitic alteration <br> -fine grained | 117087 117088 117089 117004 117090 117091 117092 117093 117094 117095 117096 117097 117098 117099 117100 | 106.22 108.00 109.00 110.00 111.43 113.00 114.50 116.00 117.50 119.00 120.50 122.00 123.50 125.00 126.50 | 108.00 100.00 110.00 111.43 113.00 114.50 116.00 117.50 119.00 120.50 122.00 123.50 125.00 126.50 127.46 | $\begin{aligned} & 1.78 \\ & 1.00 \\ & 1.00 \\ & 1.43 \\ & 1.57 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 0.96 \end{aligned}$ | 0.01 0.06 0.06 0.06 0.03 0.01 0.01 0.04 0.08 0.41 0.17 0.03 0.02 0.01 0.02 | 3347.4 3677.4 1892.5 6351.8 1508.6 232.5 963.1 3022.9 4929.2 751.8 880.2 703.1 298.0 119.4 96.1 | $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ | 1.0 1.4 0.6 0.5 0.4 0.1 0.3 0.7 2.1 3.3 1.1 0.70 0.70 1.0 0.7 | $\begin{aligned} & 0.017 \\ & 0.067 \\ & 0.081 \\ & 0.046 \\ & 0.008 \\ & 0.021 \\ & 0.047 \\ & 0.110 \\ & 0.118 \end{aligned}$ | 2930 3140 1940 1450 207 579 2720 3550 5790 | 0.48 0.83 0.31 0.20 0.06 0.09 0.23 0.12 0.17 | $\begin{aligned} & 1.05 \\ & 1.50 \\ & 0.63 \\ & 0.53 \\ & 0.16 \\ & 0.28 \\ & 0.68 \\ & 1.92 \\ & 3.01 \end{aligned}$ |

## DRILL HOLE R3-04

Exploration Company: Logan Resources Ltd.
Property Name: Redford Property
Drilling Company: DJ Drilling Company Ltd.

Hole Started:
Hole Completed:
Logged By:
Date Logged:
March 24, 2004
March 27, 2004
David J. Bridge, P.Geo.
April 7, 2004

Survey Data: Azimuth: 291 Degrees
Dip: -45 deg.
Down hole tests
Depth: 178.12m
Dip: -45 deg.

## Summary Log:

000.00 to 003.05: Overburden OVBR
003.05 to 019.55: Medium Grained Diorite MDIR(CHL)(ALB)
019.55 to 020.80: Plagioclase Porphyrytic Dyke PLPD
020.80 to 028.69: Medium Grained Diorite MDIR(CHL)(ALB)
028.69 to 041.52: Medium Grained Diorite MDIR(CHL)(ALB)(EP)
041.52 to 046.70: Medium Grained Diorite MDIR(CHL++)
046.70 to 050.68: Medium Grained Diorite MDIR(CHL)(ALB)
050.68 to 056.34: Altered Volcanic (Fault Zone) AVOL(ALB+)(BIO)
056.34 to 060.75: Medium Grained Diorite MDIR(CHL++)(ALB)
060.75 to 062.10: Mafic Volcanic MVOL(CHL++)(ALB)
062.10 to 062.50: Fault Zone FLTZ
070.32 to 073.35: Altered Mafic Volcanic AMFV(ALB+++)
073.35 to 076.00: Mafic Volcanic MVOL(ALB)(CHL)
076.00 to 079.48: Altered Volcanic AVOL(ALB+++)
079.48 to 082.30: Plagioclase Porphyrytic Dyke PLPD(CHL)
082.30 to 087.60: Medium Grained Diorite MDIR(ALB++)(CHL)
087.60 to 090.60: Medium Grained Diorite MDIR(CHL+)(EP)
090.60 to 094.49: Medium Grained Diorite MDIR(ALB++)(CHL)
094.49 to 095.90: Medium Grained Diorite MDIR(ALB++)(BIO++)
095.90 to 099.60: Medium Grained Diorite MDIR(ALB++)(CHL)
099.60 to 100.12: Plagioclase Porphyrytic Dyke PLPD
100.12 to 100.29: Dyke DYKE
100.29 to 101.75: Medium Grained Diorite MDIR(ALB++)(CHL+)
101.75 to 106.50: Plagioclase Porphyrytic Dyke PLPD
106.50 to 111.27: Medium Grained Diorite/Mafic Volcanic
MDIR(BIO+++)(ALB)(CHL+)/MVOL
111.27 to 116.79: Medium Grained Diorite MDIR(CHL++)(ALB)(BIO+)(SER)
116.79 to 117.85: Altered Volcanic AVOL(ALB++)
117.85 to 124.53: Plagioclase Porphyrytic Dyke PLPD
124.53 to 127.53: Medium Grained Diorite MDIR(ALB++)
127.53 to 133.95: Fine Grained Diorite FDIR(BIO+)(CHL+)(ALB)
133.95 to 135.08: Deformed Volcanic DEFV
135.08 to 148.90: Medium Grained Diorite/Fine grained Diorite MDIR/FDIR (CHL+)(ALB)(BIO)(EP)
148.90 to 158.09: Mafic Volcanic/Medium Grained Diorite MVOL(BIO++)/MDIR(ALB++)(CHL)
158.09 to 159.97: Dyke DYKE
159.97 to 172.50: Medium Grained Diorite MDIR(CHL++)
172.50 to 178.12: Altered Volcanic AVOL(BIO)(ALB++)
E.O.H.: 178.12 meters

HOLE R3-04 PAGE 1

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock Type | Rock Type Description | Samp. No | $\begin{gathered} \hline \text { From } \\ \text { (m) } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.00 | 3.05 | Casing | Left in hole |  |  |  |  |  |  |  |  |
| 3.05 | 19.55 | Medium Grained Diorite (CHL) <br> (ALB) | Medium Grained Diorite (CHL)(ALB) | 117106 | 3.05 | 4.50 | 1.45 | $<0.01$ | 86.3 | $<1$ | $<0.1$ |
|  |  |  | -variably chlorite altered with 6 cm long intervals of albitic | 117107 | 4.50 | 6.00 | 1.50 | 0.01 | 63.4 | $<1$ | <0.1 |
|  |  |  | alteration (2\%) | 117108 | 6.00 | 7.50 | 1.50 | 0.01 | 73.2 | $<1$ | <0.1 |
|  |  |  | -dark green colored unit | 117109 | 7.50 | 9.00 | 1.50 | 0.02 | 152.4 | $<1$ | 0.1 |
|  |  |  | -variably deformed unit with a fabric oriented at 20 deg. to | 117110 | 9.00 | 10.50 | 1.50 | 0.02 | 755.5 | $<1$ | 0.1 |
|  |  |  | CA | 117111 | 10.50 | 12.00 | 1.50 | 0.02 | 732.9 | $<1$ | 0.1 |
|  |  |  | -30\% feldspar and 70\% chloritized mafic minerals (including | 117112 | 12.00 | 13.50 | 1.50 | 0.01 | 756.4 | $<1$ | 0.1 |
|  |  |  | 7-8\% less altered amphibole laths (hornblende), local only) | 117113 | 13.50 | 15.00 | 1.50 | 0.02 | 609.8 | <1 | 0.1 |
|  |  |  | -few calcite stringers, $\sim 1 \mathrm{~mm}$ wide, oriented at 50 deg. to | 117114 | 15.00 | 16.50 | 1.50 | <0.01 | 190.6 | <1 | 0.1 |
|  |  |  | CA | 117115 | 16.50 | 18.00 | 1.50 | 0.02 | 659.6 | <1 | 0.1 |
|  |  |  | -from 8.80 to 9.20 m , fault zone, rubbely core -traces of disseminated pyrite, local clots such as at 11.90 m -fairly competent unit with few fractures and slips | 117116 | 18.00 | 19.55 | 1.55 | 0.01 | 151.3 | <1 | 0.1 |
| 19.55 | 20.80 | Plagioclase Porphyritic Dyke | Plagioclase Porphyritic Dyke <br> $-5-10 \%$ feldspar phenocrysts <br> -~1\% hornblende <br> -nil to trace content sulphide <br> -very minor calcite stringers oriented at 15 and 40 deg. to <br> $C A, \leq 1 \mathrm{~mm}$ wide <br> -light greyish green colored <br> -fairly competent unit with few fractures and slips <br> -can not measure upper and lower contacts | 117117 | 19.55 | 20.80 | 0.65 | 0.03 | 135.9 | <1 | 0.1 |
| 20.80 | 28.69 | Medium Grained Diorite (CHL) (ALB) | Medium Grained Diorite (CHL)(ALB) | 117118 | 20.80 | 22.00 | 1.20 | 0.01 | 102.8 | $<1$ | 0.1 |
|  |  |  | -variably deformed | 117119 | 22.00 | 23.50 | 1.50 | 0.01 | 72.5 | <1 | 0.1 |
|  |  |  | -chlorite altered with rare intervals of albitic alteration | 117120 | 23.50 | 25.00 | 1.50 | 0.01 | 74.1 | <1 | 0.1 |
|  |  |  | ( 22 cm long) and also with rare intervals of epidote | 117121 | 25.00 | 26.50 | 1.50 | 0.03 | 90.0 | $<1$ | 0.1 |
|  |  |  | alteration | 117122 | 26.50 | 28.69 | 1.19 | 0.01 | 218.3 | $<1$ | 0.1 |
|  |  |  | -dark green colored |  |  |  |  |  |  |  |  |
|  |  |  | $-30 \%$ feldspar and 60\% chloritized mafic minerals with local intervals containing $10 \%$ of amphibole |  |  |  |  |  |  |  |  |
|  |  |  | -fabric oriented at 45 deg. to CA |  |  |  |  |  |  |  |  |
|  |  |  | -rare calcite stingers, $\sim 1 \mathrm{~mm}$ wide, oriented at 50 and 70 deg. to CA |  |  |  |  |  |  |  |  |

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nes 52 3
 $\pm$ +2 3 na 2

HOLE R3-04 PAGE 2

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | $\begin{aligned} & \hline \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} B i \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (CHL) (ALB) Continued | -nil to trace sulphide content -fairly competent unit with few fractures and slips |  |  |  |  |  |  |  |  |
| 28.69 | 41.52 | Medium Grained Diorite (CHL) (ALB) (EP) | Medium Grained Diorite (CHL)(ALB)(EP) <br> -variably chlorite (30-40\%) and albite (55-65\%) altered with also intervals up to 30 cm long of epidote (5\%) alteration -dark green to pistachio green colored with light beige bleached intervals <br> $-40 \%$ feldspar and 50-55\% chloritized mafic minerals with local hornblende (5-10\%) <br> -few calcite stringers, $\ll 1 \mathrm{~mm}$ wide, oriented $40-45$ deg. to CA <br> -at 32.80 m , shear slip oriented at $10-20$ deg. to CA mineralized with pyrite <br> -traces of pyrite <br> -fairly competent unit with few fractures and slips | $\begin{aligned} & \hline 117123 \\ & 117124 \\ & 117125 \\ & 117126 \\ & 117127 \\ & 117128 \\ & 117129 \\ & 117130 \\ & 117131 \\ & 117132 \\ & 117133 \end{aligned}$ | 28.69Blank <br> CdnGS1230.0031.5033.0034.5036.0037.5039.0040.50 | $\begin{aligned} & 30.00 \\ & \\ & 31.50 \\ & 33.00 \\ & 34.50 \\ & 36.00 \\ & 37.50 \\ & 39.00 \\ & 40.50 \\ & 41.52 \end{aligned}$ | $\begin{aligned} & 1.31 \\ & \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.02 \end{aligned}$ | $\begin{gathered} 0.01 \\ <0.01 \\ 10.45 \\ 0.01 \\ 0.05 \\ 0.02 \\ 0.01 \\ 0.01 \\ 0.01 \\ 0.01 \\ <0.01 \end{gathered}$ | $\begin{gathered} 311.0 \\ 8.6 \\ 2.1 \\ 31.5 \\ 100.9 \\ 78.7 \\ 40.3 \\ 117.1 \\ 49.5 \\ 37.5 \\ 35.6 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | 0.1 $<0.1$ 0.1 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1 |
| 41.52 | 46.70 | Medium Grained Diorite (CHL++) | Medium Grained Diorite (CHL++) <br> -intensively chlorite altered <br> $-40 \%$ feldspar and $60 \%$ chloritized mafic minerals <br> -rusty (oxidized) fractures, note increase towards lower contact <br> -dark green colored <br> -very few calcite stringers, <<1mm wide, oriented at 40 and 45 deg. to CA <br> -locally up yo $10 \%$ arsenopyrite, such as at 43.30 m but generally nil to trace <br> -mainly competent unit with few fractures and slips with also blocky and broken intervals such as from 45.35 to 46.20 m | $\begin{aligned} & 117134 \\ & 117135 \\ & 117136 \\ & 117137 \\ & 117138 \end{aligned}$ | $\begin{aligned} & 41.52 \\ & 42.50 \\ & 43.50 \\ & 44.50 \\ & 45.50 \end{aligned}$ | 42.50 43.50 44.50 45.50 46.70 | $\begin{aligned} & \hline 0.98 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.20 \end{aligned}$ | $\quad<0.01$ 0.02 0.01 0.01 0.02 | $\begin{gathered} 149.0 \\ 1175.8 \\ 1477.3 \\ 2009.3 \\ 535.8 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.2 \\ & 0.1 \end{aligned}$ |

$x$

HOLE R3-04 PAGE 3

| $\begin{aligned} & \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{gathered} \text { To } \\ \text { (m) } \\ \hline \end{gathered}$ | Rock <br> Type | Rock Type Description | Samp. No | From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { As } \\ \text { (ppm) } \end{array}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 46.70 | 50.68 | Medium Grained Diorite (CHL)(K) | Medium Grained Diorite (CHL)(K) <br> -pervasively floated with chlorite and potassic alteration <br> -locally up to $5 \%$ coarse grained arsenopyrite <br> -dark green colored <br> -very few calcite stringers, $\sim 1 \mathrm{~mm}$ wide, oriented at 50 and 60 deg. to CA <br> $-50-60 \%$ feldspar and $40-50 \%$ chloritized mafic minerals and also $2 \%$ biotite <br> -blocky and broken unit | $\begin{aligned} & 117139 \\ & 117140 \\ & 117141 \\ & 117142 \end{aligned}$ | $\begin{aligned} & 46.70 \\ & 47.50 \\ & 48.50 \\ & 49.50 \end{aligned}$ | $\begin{aligned} & 47.50 \\ & 48.50 \\ & 49.50 \\ & 50.68 \end{aligned}$ | $\begin{aligned} & 0,80 \\ & 1.00 \\ & 1.00 \\ & 1.18 \end{aligned}$ | $\begin{aligned} & 0.09 \\ & 0.09 \\ & 0.01 \\ & 0.01 \end{aligned}$ | $\begin{array}{r} 6146.3 \\ 9971.2 \\ 286.8 \\ 434.4 \end{array}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.4 \\ & 0.6 \\ & 0.1 \\ & 0.2 \end{aligned}$ |
| 50.68 | 56.34 | Altered <br> Volcanic <br> (Fault <br> Zone) <br> (ALB+) <br> (BIO) | Altered Volcanic (Fault Zone) (ALB+)(BIO) <br> -variably albite altered with rare biotite altered intervals <br> -rusty oxidized fractures <br> -rubbely core <br> -locally up to $5 \%$ pyrite <br> -fabric oriented at 10-30 deg. to CA <br> -locally up to $2 \%$ arsenopyrite <br> -gauge fault oriented at 20 deg. to CA (mid point at 54.50 m ) <br> $-1-2 \%$ calcite stringers, oriented at $30-40$ deg. to $C A, \leq 1 \mathrm{~mm}$ wide <br> -mottled colored | 117143 117144 117145 117146 117147 117148 117149 117150 | 50.68 51.50 52.50 53.50 54.50 55.50 Blank CdnGS12 | $\begin{aligned} & 51.50 \\ & 52.50 \\ & 53.50 \\ & 54.50 \\ & 55.50 \\ & 56.34 \end{aligned}$ | $\begin{aligned} & 0.82 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 0.84 \end{aligned}$ | $\begin{gathered} 0.10 \\ 0.13 \\ 0.04 \\ 0.02 \\ 0.05 \\ 0.05 \\ 0.01 \\ 10.16 \end{gathered}$ | $\begin{gathered} 7143.3 \\ 3457.7 \\ 3040.5 \\ 2052.2 \\ 1576.3 \\ 1038.2 \\ 12.9 \\ 2.0 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | 0.7 0.5 0.4 0.3 0.3 0.3 $<0.1$ 0.1 |
| 56.34 | 60.75 | Medium Grained Diorite (CHL++) (ALB) | Medium Grained Diorite (CHL++)(ALB) <br> -dark green colored <br> -intensely chlorite altered with rare intervals (up to 8 cm long) of albite altered <br> $-50 \%$ chloritized mafic minerals and $50 \%$ feldspar <br> -local hornblende, $5-10 \%$, 5 mm in size, replace by biotite <br> -nil to trace sulphide content <br> -rare calcite stringers, oriented 30 deg. to $C A,<1 \mathrm{~mm}$ wide <br> -fairly competent unit with few fractures and slips | $\begin{aligned} & 117151 \\ & 117152 \\ & 117153 \end{aligned}$ | $\begin{aligned} & 56.34 \\ & 58.00 \\ & 59.50 \end{aligned}$ | $\begin{aligned} & 58.00 \\ & 59.50 \\ & 60.75 \end{aligned}$ | $\begin{aligned} & 1.66 \\ & 1.50 \\ & 1.25 \end{aligned}$ | $\begin{aligned} & 0.02 \\ & 0.01 \\ & 0.01 \end{aligned}$ | $\begin{aligned} & 558.1 \\ & 250.5 \\ & 395.9 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.2 \\ & 0.3 \end{aligned}$ |

HOLE R3-04 PAGE 4

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \\ & \hline \end{aligned}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \\ \hline \end{gathered}$ | From (m) | $\begin{gathered} \hline \text { To } \\ \text { (m) } \\ \hline \end{gathered}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mafic Volcanic (CHL++) (ALB) Continued | -local coarse arsenopyrite, up to $5 \%$ such as at 61.10 and at 65.70 m <br> -trace to $0.5 \%$ disseminated or stringers (oriented at 70 deg. to CA) of arsenopyrite <br> $-40 \%$ chloritized mafic minerals and 60\% feldspar and with about $2 \%$ biotite <br> -few calcite stringers oriented at 30 deg. to CA, 1-2mm wide -fault zone between 62.10 and 62.50 m <br> -blocky and broken unit | $\begin{aligned} & 117154 \\ & 117155 \\ & 117156 \\ & 117157 \\ & 117158 \\ & 117159 \\ & 117160 \\ & 117161 \\ & 117162 \end{aligned}$ | $\begin{aligned} & 60.75 \\ & 62.00 \\ & 63.00 \\ & 64.00 \\ & 65.00 \\ & 66.00 \\ & 67.00 \\ & 68.00 \\ & 69.00 \end{aligned}$ | $\begin{aligned} & 62.00 \\ & 63.00 \\ & 64.00 \\ & 65.00 \\ & 66.00 \\ & 67.00 \\ & 68.00 \\ & 69.00 \\ & 70.32 \end{aligned}$ | $\begin{aligned} & 1.25 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.32 \end{aligned}$ | $\begin{aligned} & 0.02 \\ & 0.04 \\ & 0.02 \\ & 0.06 \\ & 0.02 \\ & 0.18 \\ & 0.09 \\ & 0.65 \\ & 0.06 \end{aligned}$ | $\begin{gathered} 2467.5 \\ 2413.2 \\ 566.5 \\ 98.0 \\ 3822.7 \\ 9629.6 \\ 7389.8 \\ >1000 \\ 8488.4 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & 3 \\ & <1 \end{aligned}$ | $\begin{gathered} 1.6 \\ 1.4 \\ 0.8 \\ 0.5 \\ 0.5 \\ 3.2 \\ 3.7 \\ 14.9 \\ 3.3 \end{gathered}$ |
| 70.32 | 73.35 | Altered Mafic Volcanic (ALB+++) | Altered Mafic Volcanic (ALB+++) <br> -mottled colored <br> -variably altered with intervals of albite alteration ( $60 \%$ ) <br> -fine grained unit <br> -rubbely core <br> -up to 10\% coarse arsenopyrite <br> -about 5\% random calcite stockwork stringers, <1mm wide <br> -gauge on slips noted, locally only, oriented at 40-60 deg. to CA | $\begin{aligned} & 117163 \\ & 117164 \\ & 117165 \end{aligned}$ | $\begin{aligned} & 70.32 \\ & 71.00 \\ & 72.00 \end{aligned}$ | $\begin{aligned} & 71.00 \\ & 72.00 \\ & 73.35 \end{aligned}$ | $\begin{aligned} & 0.68 \\ & 1.00 \\ & 1.35 \end{aligned}$ | $\begin{aligned} & 0.19 \\ & 0.17 \\ & 0.16 \end{aligned}$ | $\begin{aligned} & 2348.3 \\ & 7609.1 \\ & 8300.8 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 2.3 \\ & 1.3 \\ & 2.1 \end{aligned}$ |
| 73.35 | 76.00 | Mafic Volcanic (ALB) (CHL) | Mafic Volcanic (ALB)(CHL) <br> -fine grained <br> -very similar unit described above from 60.75 and 70.32 m <br> -rare intervals (up to 10 cm long) of albite alteration <br> -dark green colored <br> -trace amounts of disseminated arsenopyrite <br> -rare calcite veinlets oriented at 30 deg. to CA, 1-2mm wide <br> -fairly competent unit with few fractures and slips | $\begin{aligned} & 117166 \\ & 117167 \end{aligned}$ | $\begin{aligned} & 73.35 \\ & 75.00 \end{aligned}$ | $\begin{aligned} & 75.00 \\ & 76.00 \end{aligned}$ | $\begin{aligned} & 1.65 \\ & 1.00 \end{aligned}$ | $\begin{aligned} & 0.05 \\ & 0.04 \end{aligned}$ | $\begin{aligned} & 2094.5 \\ & 266.8 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.4 \\ & 0.2 \end{aligned}$ |
| 76.00 | 79.48 | Altered Volcanic (ALB+++) | Altered Volcanic (ALB+++) <br> -intensely albite altered <br> -light grey mottled green colored <br> -intervals up to 5\% coarse grained arsenopyrite <br> -chlorite veinlets with arsenopyrite along them, randomly oriented <br> -numerous calcite stockwork stringers mainly oriented at 65 deg. to CA | $\begin{aligned} & 117168 \\ & 117169 \\ & 117170 \end{aligned}$ | $\begin{aligned} & 76.00 \\ & 77.00 \\ & 78.00 \end{aligned}$ | $\begin{aligned} & 77.00 \\ & 78.00 \\ & 79.48 \end{aligned}$ | $\begin{aligned} & 1.00 \\ & 1.00 \\ & 1.48 \end{aligned}$ | $\begin{aligned} & 0.03 \\ & 0.11 \\ & 0.01 \end{aligned}$ | $\begin{gathered} 606.4 \\ 4624.6 \\ 671.5 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.3 \\ & 0.1 \end{aligned}$ |

HOLE R3-04 PAGE 5

| $\begin{aligned} & \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock <br> Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | $\begin{aligned} & \hline \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \mathrm{To} \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \mathrm{As} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Altered Volcanic (ALB+++) Continued | -fairly competent unit with few fractures and slips |  |  |  |  |  |  |  |  |
| 79.48 | 82.30 | Plagioclase Porphyritic Dyke (CHL) | Plagioclase Porphyritic Dyke (CHL) <br> -upper and lower contacts both oriented at 20 deg. to CA <br> -pale purplish brown colored <br> -fine grained unit <br> -nil to trace disseminated arsenopyrite <br> $-30 \%$ chloritized mafic minerals <br> -fairly competent unit with few fractures and slips -very rare calcite stringers, <<1mm wide, oriented at 50 deg. to CA | $\begin{aligned} & 117171 \\ & 117172 \\ & 117173 \\ & 117174 \\ & 117175 \end{aligned}$ | 79.48 <br> 80.50 <br> 81.50 <br> Blank <br> CdnGS12 | $\begin{aligned} & 80.50 \\ & 81.50 \\ & 82.30 \end{aligned}$ | $\begin{aligned} & 0.98 \\ & 1.00 \\ & 0.80 \end{aligned}$ | $\begin{gathered} \hline 0.01 \\ 0.08 \\ 0.09 \\ <0.01 \\ 10.13 \end{gathered}$ | $\begin{gathered} 763.3 \\ 8393.0 \\ >10000 \\ 45.0 \\ 2.5 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 1.3 \\ & 2.9 \\ & 0.1 \\ & 0.1 \end{aligned}$ |
| 82.30 | 87.60 | Medium Grained Diorite (ALB++) (CHL) | Medium Grained Diorite (ALB++)(CHL) <br> -intensely albite altered <br> $-70 \%$ feldspar and $30 \%$ chloritized mafic minerals <br> -trace amounts of disseminated arsenopyrite along weak <br> chlorite stockwork veinlets <br> -fairly competent unit with minor fractures and slips -medium greyish colored | $\begin{aligned} & 117176 \\ & 117177 \\ & 117178 \\ & 117179 \\ & 117180 \end{aligned}$ | $\begin{aligned} & 82.30 \\ & 83.50 \\ & 84.50 \\ & 85.50 \\ & 86.50 \end{aligned}$ | $\begin{aligned} & 83.50 \\ & 84.50 \\ & 85.50 \\ & 86.50 \\ & 87.60 \end{aligned}$ | $\begin{aligned} & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.10 \end{aligned}$ | $\begin{aligned} & \hline 0.17 \\ & 0.12 \\ & 0.08 \\ & 0.02 \\ & 0.02 \end{aligned}$ | $\begin{aligned} & >10000 \\ & 7067.9 \\ & 9953.1 \\ & 3101.0 \\ & 1296.1 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 4.3 \\ & 1.6 \\ & 6.9 \\ & 1.5 \\ & 0.3 \end{aligned}$ |
| 87.60 | 90.60 | Medium Grained Diorite (CHL+) (EP) | Medium Grained Diorite (CHL+)(EP) <br> -relatively fresh looking with chlorite alteration of groundmass and mafic minerals <br> -dark green colored, mottled white with patches 30 cm long of epidote alteration <br> -rare pyrite stringers, oriented 50 deg. to CA <br> $-40 \%$ feldspar and $50 \%$ chloritized mafic minerals and also with $10 \%$ hornblende <br> -fairly competent unit with few fractures and slips | $\begin{aligned} & 117181 \\ & 117182 \end{aligned}$ | $\begin{aligned} & 87.60 \\ & 89.00 \end{aligned}$ | $\begin{aligned} & 89.00 \\ & 90.60 \end{aligned}$ | $\begin{aligned} & 1.40 \\ & 1.60 \end{aligned}$ | $\begin{aligned} & \hline 0.01 \\ & 0.01 \end{aligned}$ | $\begin{aligned} & 167.5 \\ & 260.4 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \end{aligned}$ |
| 90.60 | 94.49 | Medium Grained Diorite (ALB++) (CHL) | Medium Grained Diorite (ALB++)(CHL) <br> -intensely pervasive albite alteration <br> $-70 \%$ feldspar and $30 \%$ chloritized mafic minerals <br> -greyish mottled green colored <br> -at 91.20 m , fault zone roughly oriented at 60 deg. to CA <br> -nil to trace sulphide content | $\begin{aligned} & 117183 \\ & 117184 \\ & 117185 \end{aligned}$ | $\begin{aligned} & 90.60 \\ & 92.00 \\ & 93.50 \end{aligned}$ | $\begin{aligned} & 92.00 \\ & 93.50 \\ & 94.49 \end{aligned}$ | $\begin{aligned} & 1.40 \\ & 1.50 \\ & 0.99 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{aligned} & 158.4 \\ & 359.2 \\ & 547.1 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.1 \end{aligned}$ | mex 4 $\square$

HOLE R3-04 PAGE 6

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock <br> Type | Rock Type Description | $\begin{gathered} \begin{array}{c} \text { Samp. } \\ \text { No } \end{array} \\ \hline \end{gathered}$ | $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (ALB++) (CHL) Continued | -few calcite stringers oriented at 50 deg. to CA -fairly competent unit with few fractures and slips |  |  |  |  |  |  |  |  |
| 94.49 | 95.90 | Medium Grained Diorite (ALB++) (BIO++) | Medium Grained Diorite (ALB++)(BIO++) <br> -intense albite alteration <br> -mafic minerals are altered to biotite <br> $-40 \%$ biotite and $50 \%$ feldspar and also with $10 \%$ chloritized mafic minerals <br> $-2 \%$ coarse grained disseminated pyrite <br> -dark brown mottled grey colored <br> -rare calcite stringers oriented at 30 deg . to CA <br> -fairly competent unit with few fractures and slips | 117186 | 94.49 | 95.90 | 1.41 | <0.01 | 280.8 | $<1$ | 0.2 |
| 95.90 | 99.60 | Medium Grained Diorite (ALB++) (CHL) | Medium Grained Diorite (ALB++)(CHL) <br> -sharp lower contact oriented at 55 deg. to CA <br> -intense albite alteration <br> $-75 \%$ feldspar and $25 \%$ chloritized mafic minerals <br> -minor chlorite stockwork veinlets associated with traces of arsenopyrite <br> -from 96.85 to 97.10 m , more chlorite -rich intervals with $2 \%$ coarse grained disseminated arsenopyrite <br> -grey mottled green colored <br> -very rare calcite stringers oriented at 55 deg. to CA <br> -fairly competent unit with few fractures and slips | $\begin{aligned} & 117187 \\ & 117188 \\ & 117189 \end{aligned}$ | $\begin{aligned} & 95.90 \\ & 97.00 \\ & 98.00 \end{aligned}$ | $\begin{aligned} & 97.00 \\ & 98.00 \\ & 99.60 \end{aligned}$ | $\begin{aligned} & 1.10 \\ & 1.00 \\ & 1.60 \end{aligned}$ | $\begin{gathered} 0.01 \\ 0.01 \\ <0.01 \end{gathered}$ | $\begin{aligned} & 2062.6 \\ & 840.7 \\ & 778.3 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.1 \\ & 0.1 \end{aligned}$ |
| 99.60 | 100.29 | Plagioclase Porphyritic Dyke | Plagioclase Porphyritic Dyke <br> -pale brown colored <br> -20\% plagiociase phenocryts <br> $-2 \%$ coarse grained disseminated arsenopyrite <br> -sharp lower contact oriented at 70 deg. to CA <br> -from 100.12 to 100.29 m , dyke, light greyish green colored, $60 \%$ plagioclase phenocrysts, $5 \%$ chloritized hornblende, 35\% groundmass | 117190 | 99.60 | 100.29 | 0.69 | <0.01 | 1428.2 | <1 | 0.1 |

HOLE R3-04 PAGE 7

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \\ \hline \end{gathered}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | From <br> (m) | $\begin{aligned} & \hline \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \hline \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ \text { (ppm) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 100.29 | 101.75 | Medium Grained Diorite (ALB++) (CHL+) | Medium Grained Diorite (ALB++)(CHL+) <br> -intensely albite altered <br> $-30 \%$ chloritized mafic minerals and $70 \%$ feldspar <br> -with increasing depth, more chlorite stockwork veinlets, increase from nil to $2 \%$ <br> -nil to trace sulphide content <br> -grey mottled green colored <br> -fairly competent unit with few fractures and slips | 117191 | 100.29 | 101.75 | 1.46 | <0.01 | 270.5 | <1 | 0.1 |
| 101.75 | 106.50 | Plagio- clase Porphy- ritic Dyke | Plagioclase Porphyritic Dyke <br> -variable alteration from albite to intense biotite alteration, up to $40 \%$ biotite in altered intervals <br> -very blocky unit <br> -trace amounts of pyrite on fractures <br> -30\% plagioclase phenocrysts, euhedral crystals <br> -light grey to purple brown <br> $-2 \%$ calcite veinlets stockwork along fractures | $\begin{aligned} & 117192 \\ & 117193 \\ & 117194 \\ & 117195 \end{aligned}$ | $\begin{aligned} & 101.75 \\ & 103.00 \\ & 104.50 \\ & 105.50 \end{aligned}$ | $\begin{aligned} & 103.00 \\ & 104.50 \\ & 105.50 \\ & 106.50 \end{aligned}$ | $\begin{aligned} & 1.25 \\ & 1.50 \\ & 1.00 \\ & 1.00 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{gathered} \hline 1486.5 \\ 324.8 \\ 588.5 \\ 1099.5 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.6 \\ & 0.1 \\ & 0.1 \\ & 0.1 \end{aligned}$ |
| 106.50 | 111.27 | Medium Grained Diorite (BIO+++) (ALB) (CHL+)/ Mafic Volcanic | Medium Grained Diorite (BIO+++)(ALB)(CHL+)/ Mafic Volcanic <br> -mixed intervals of medium grained diorite and fine grained volcanic, mainly medium grained diorite <br> -alteration varies from intense albite (10\%) to intense chlorite ( $20 \%$ ) with some biotite ( $70 \%$ ) alteration in between <br> -traces of pyrite <br> -traces of coarse grained disseminated arsenopyrite with chlorite veinlets <br> -very blocky unit <br> -color varies from purplish brown to grey to dark green -core breaking along chlorite/calcite stringers, randomly oriented | $\begin{aligned} & 117196 \\ & 117197 \\ & 117198 \\ & 117199 \\ & 117200 \\ & 117201 \\ & 117202 \end{aligned}$ | $\begin{gathered} 106.50 \\ 107.00 \\ 108.00 \\ \text { Blank } \\ \text { CdnGS10 } \\ 109.00 \\ 110.00 \end{gathered}$ | $\begin{aligned} & 107.00 \\ & 108.00 \\ & 109.00 \\ & \\ & 110.00 \\ & 111.27 \end{aligned}$ | $\begin{aligned} & 0.50 \\ & 1.00 \\ & 1.00 \\ & \\ & 1.00 \\ & 1.27 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \\ & 0.81 \\ & 0.01 \\ & <0.01 \end{aligned}$ | $\begin{gathered} \hline 1073.9 \\ 1028.3 \\ 199.0 \\ 5.8 \\ 7.6 \\ 940.5 \\ 331.3 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.2 \\ & 0.1 \\ & 0.1 \\ & 0.3 \\ & 0.6 \\ & 0.3 \end{aligned}$ |

## HOLE R3-04 PAGE 8

| From (m) | $\begin{gathered} \text { To } \\ \text { (m) } \\ \hline \end{gathered}$ | Rock <br> Type | Rock Type Description | Samp. No | $\begin{aligned} & \hline \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{gathered} \hline \text { To } \\ \text { (m) } \\ \hline \end{gathered}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bl} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 111.27 | 116.79 | Medium Grained Diorite (CHL++) (ALB) (BIO+) (SER) | Medium Grained Diorite (CHL++)(ALB)(BIO+)(SER) <br> -intensely chlorite altered with minor albite alteration <br> -medium grey with darker purple brown sections with development of biotite <br> -from 114.66 to 115.20 m , albite and sericite altered around carbonates/quartz veinlets oriented at 40 deg. to CA, 2\% disseminated pyrite <br> $-60 \%$ feldspar and $40 \%$ chloritized mafic minerals and also with $5 \%$ amphibole <br> -in the biotite altered sections, the hornblende is also altered to biotite <br> -from 115.40 to 115.75 m , up to $5 \%$ jasper (alteration) <br> -fairly competent unit with few fractures and slips <br> -up to $5 \%$ disseminated pyrite | $\begin{aligned} & 117203 \\ & 117204 \\ & 117205 \\ & 117206 \end{aligned}$ | $\begin{aligned} & 111.27 \\ & 113.00 \\ & 114.50 \\ & 115.50 \end{aligned}$ | $\begin{aligned} & 113.00 \\ & 114.50 \\ & 115.50 \\ & 116.79 \end{aligned}$ | $\begin{aligned} & 1.72 \\ & 1.50 \\ & 1.00 \\ & 1.29 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & 0.05 \\ & 0.02 \end{aligned}$ | $\begin{aligned} & \hline 323.4 \\ & 522.6 \\ & 829.3 \\ & 3134.1 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | (ppm) <br> 0.2 <br> 0.3 <br> 0.3 <br> 2.2 |
| 116.79 | 117.85 | Altered Volcanic (ALB++) | ```Altered Volcanic (ALB++) -albite altered -fine grained unit -tan colored \(-2 \%\) disseminated pyrite \(-1 \%\) disseminated chalcopyrite -2\% pyrite along fractures -very blocky core \(-2 \%\) calcite stringers oriented at 40 deg. to CA``` | 117207 | 116.79 | 117.85 | 1.06 | 0.04 | >10000 | <1 | 8.3 |
| 117.85 | 124.53 | Plagioclase Porphyritic Dyke | Plagioclase Porphyritic Dyke <br> -light greyish green colored <br> $-2 \%$ fine disseminated arsenopyrite <br> -traces of disseminated pyrite <br> $-30 \%$ plagioclase phenocrysts <br> -2\% calcite stringers randomly oriented -very blocky core | $\begin{aligned} & 117208 \\ & 117209 \\ & 117210 \\ & 117211 \\ & 1117212 \\ & 117213 \end{aligned}$ | $\begin{aligned} & 117.85 \\ & 119.00 \\ & 120.00 \\ & 121.00 \\ & 122.00 \\ & 123.00 \end{aligned}$ | $\begin{aligned} & 119.00 \\ & 120.00 \\ & 121.00 \\ & 122.00 \\ & 123.00 \\ & 124.53 \end{aligned}$ | $\begin{aligned} & 1.15 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.53 \end{aligned}$ | 0.07 0.02 0.02 0.05 0.11 0.12 | $\begin{aligned} & >10000 \\ & 8269.3 \\ & 8002.2 \\ & >10000 \\ & \gg 10000 \\ & >10000 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 2 \end{aligned}$ | $\begin{aligned} & 21.6 \\ & 2.7 \\ & 1.0 \\ & 3.0 \\ & 2.1 \\ & 3.2 \end{aligned}$ |

HOLE R3-04 PAGE 9

| From <br> (m) | To <br> (m) | Rock Type | Rock Type Description | Samp. No | From (m) | $\begin{aligned} & \hline \mathrm{To} \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ \text { (ppm) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 124.53 | 127.53 | Medium Grained Diorite (ALB++) | Medium Grained Diorite (ALB++) <br> -albite altered <br> -up to $2 \%$ coarse grained arsenopyrite, disseminated or veinlets form <br> -pale grey mottled green <br> $-80 \%$ feldspar and $20 \%$ chloritized mafic minerals <br> -minor amounts of jasper <br> -relatively blocky and broken <br> -trace of calcite stringers, randomly oriented | $\begin{aligned} & 117214 \\ & 117215 \\ & 117216 \end{aligned}$ | $\begin{aligned} & 124.53 \\ & 125.00 \\ & 126.00 \end{aligned}$ | $\begin{aligned} & 125.00 \\ & 126.00 \\ & 127.53 \end{aligned}$ | $\begin{aligned} & 0.47 \\ & 1.00 \\ & 1.53 \end{aligned}$ | $\begin{aligned} & 0.07 \\ & 0.23 \\ & 0.05 \end{aligned}$ | $\begin{aligned} & 7368.2 \\ & 5923.8 \\ & 3849.4 \end{aligned}$ | $\begin{aligned} & 3 \\ & 6 \\ & 1 \end{aligned}$ | $\begin{gathered} \hline 3.7 \\ 15.9 \\ 1.8 \end{gathered}$ |
| 127.53 | 133.95 | Fine Grained Diorite (BIO+) (CHL+) (ALB) | Fine Grained Diorite (BIO+)(CHL+)(ALB) <br> -biotite and chlorite altered with an interval of albite alteration from 132.35 to 132.95 m , this interval contain $5 \%$ disseminated pyrite and $2 \%$ disseminated arsenopyrite -dark purplish grey colored-60\% feldspar and 40\% chlorite and biotite altered mafic minerals -fairly competent unit with blocky and broken sections -nil to trace sulphide content | $\begin{aligned} & 117217 \\ & 117218 \\ & 117219 \\ & 117220 \\ & 117221 \end{aligned}$ | $\begin{aligned} & 127.53 \\ & 129.00 \\ & 130.50 \\ & 132.00 \\ & 133.00 \end{aligned}$ | $\begin{aligned} & 129.00 \\ & 130.50 \\ & 132.00 \\ & 133.00 \\ & 133.95 \end{aligned}$ | $\begin{aligned} & 1.47 \\ & 1.50 \\ & 1.50 \\ & 1.00 \\ & 0.95 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & 0.01 \\ & 0.04 \\ & 0.05 \end{aligned}$ | $\begin{gathered} \hline 1619.8 \\ 89.8 \\ 96.5 \\ >10000 \\ 6761.6 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & 1 \\ & 1 \\ & <1 \end{aligned}$ | 1.4 $<0.1$ $<0.1$ 2.0 1.9 |
| 133.95 | 135.08 | Deformed Volcanic | Deformed Volcanic <br> -moderately deformed volcanic with a fabric oriented at 30 deg. to CA <br> -up to 5\% coarse grained arsenopyrite (clots) associated with chlorite <br> -up to 5\% jasper alteration <br> -dark green colored <br> -trace amounts of chalcopyrite with jasper alteration <br> -fairly competent unit with few fractures and slips <br> -few calcite stringers oriented at 40 deg. toCA | 117222 | 133.95 | 135.08 | 1.13 | 0.02 | 9216.3 | <1 | 3.0 |

HOLE R3-04 PAGE 10

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \mathrm{As} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 135.08 | 148.90 | Medium Grained Diorite/ Fine Grained Diorite (CHL+) (ALB) (BIO)(EP) | Medium Grained Diorite/Fine Grained Diorite (CHL+)(ALB)(BIO)(EP) <br> -about $80 \%$ medium grained diorite with $20 \%$ medium grained diorite <br> -the unit varies to being fresh to chlorite (30\%) altered with also intervals of albite alteration witch have up to $2 \%$ coarse grained arsenopyrite (from 141.30 to 142.05 m ) <br> $-70 \%$ feldspar and $30 \%$ chlorite altered mafic minerals -intervals of chlorite random stockwork have up to $2 \%$ coarse grained arsenopyrite, increase with depth <br> -fairly competent unit with few blocky sections <br> -light grey mottled green colored unit <br> -increasing of biotite alteration with depth, occurs with chlorite stockwork <br> -trace amounts of pyrite <br> -very rare calcite stringers <br> -from 147.20 to 148.05 m , patchy jasper and epidote alteration with up to $5 \%$ arsenopyrite and $2 \%$ pyrite, veinlets or disseminated form | 117223 117224 117225 117226 111227 117228 117229 117230 117231 117232 117233 117234 117235 | 135.08 Blank CdnGS10 136.50 138.00 13.50 141.00 142.05 143.50 144.00 146.00 147.20 148.05 | $\begin{aligned} & 136.50 \\ & \\ & 138.00 \\ & 139.50 \\ & 141.00 \\ & 142.05 \\ & 143.50 \\ & 145.00 \\ & 146.50 \\ & 147.20 \\ & 148.05 \\ & 148.90 \end{aligned}$ | $\begin{aligned} & 1.42 \\ & \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.05 \\ & 1.45 \\ & 1.50 \\ & 1.50 \\ & 0.70 \\ & 0.85 \\ & 0.85 \end{aligned}$ | $\begin{gathered} 0.4 \\ <0.01 \\ 0.89 \\ 0.02 \\ 0.02 \\ 0.05 \\ 0.07 \\ 0.18 \\ 0.01 \\ 0.01 \\ 0.01 \\ 0.04 \\ 0.01 \end{gathered}$ | $\begin{gathered} \hline 5298.8 \\ 46.4 \\ 6.9 \\ 8446.5 \\ 5061.0 \\ 4906.0 \\ 5532.3 \\ 7291.8 \\ 2531.6 \\ 965.1 \\ 1433.6 \\ 9646.8 \\ 657.9 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 1.5 \\ & 0.2 \\ & 0.3 \\ & 2.6 \\ & 0.5 \\ & 0.4 \\ & 0.7 \\ & 0.7 \\ & 1.3 \\ & 1.2 \\ & 1.3 \\ & 2.6 \\ & 0.5 \end{aligned}$ |
| 148.90 | 158.09 | Mafic Volcanic (BIO++)/ <br> Medium Grained Diorite (ALB++) (CHL) | Mafic Volcanic (BIO++)/ <br> Medium Grained Diorite (ALB++)(CHL) <br> -intervals of intense biotite altered mafic volcanic and intervals of albite altered medium grained diorite <br> -medium grained diorite contains 70\% feldspar and 30\% chlorite or biotite altered mafic minerals <br> -up to $5 \%$ disseminated pyrite <br> -oxidized rubbely section from 150.00 to 151.00 m , oxidized fractures on the core pieces <br> -generally fairly competent unit <br> -color varies from dark purplish brown to medium grey <br> -rare calcite stringers | $\begin{aligned} & 117236 \\ & 117237 \\ & 117238 \\ & 117239 \\ & 117240 \\ & 117241 \end{aligned}$ | $\begin{aligned} & 148.90 \\ & 150.90 \\ & 152.00 \\ & 153.50 \\ & 155.00 \\ & 156.50 \end{aligned}$ | $\begin{aligned} & 150.50 \\ & 152.00 \\ & 153.50 \\ & 155.00 \\ & 156.50 \\ & 158.09 \end{aligned}$ | $\begin{aligned} & 1.60 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.59 \end{aligned}$ | $\begin{aligned} & 0.14 \\ & 0.02 \\ & 0.03 \\ & 0.06 \\ & 0.08 \\ & 0.07 \end{aligned}$ | $\begin{aligned} & 1322.8 \\ & 4296.3 \\ & 3432.4 \\ & 3885.6 \\ & 4382.8 \\ & 2120.6 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 1.4 \\ & 1.5 \\ & 2.5 \\ & 2.2 \\ & 0.6 \\ & 0.9 \end{aligned}$ |

HOLE R3-04 PAGE 11

| From <br> (m) | To (m) | Rock Type | Rock Type Description | Samp. No | From (m) | $\begin{aligned} & \hline \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 158.09 | 159.97 | Dyke | Dyke <br> -sharp upper contact oriented at 40 deg. to CA, sharp lower contact oriented at 50 deg. to CA <br> $-10 \%$ feldspar phenocryst and $5 \%$ hornblende phenocrysts <br> -light grey colorede groundmass <br> -trace of calcite stringers oriented at 40 deg. to CA <br> -nil to trace disseminated pyrite <br> -fairly competent unit with few fractures and slips | 117242 | 158.09 | 159.97 | 1.88 | 0.01 | 28.3 | <1 | 0.8 |
| 159.97 | 172.50 | Medium Grained Diorite (CHL++) | Medium Grained Diorite (CHL++) <br> -variably chlorite altered <br> -1-2\% disseminated arsenopyrite <br> -1-2\% disseminated pyrite <br> -quartz/galena veinlet at 167.82 m , oriented at 20 deg. to CA <br> -medium grey green colored <br> $-50 \%$ feldspar and $50 \%$ chloritized mafic minerals with also traces of biotite altered mafic minerals <br> -rare calcite stringers, randomly oriented <br> -fairly competent unit with few fractures and slips | $\begin{aligned} & 117243 \\ & 117244 \\ & 117245 \\ & 117246 \\ & 117247 \\ & 117248 \\ & 117249 \\ & 117250 \\ & 117251 \\ & 117252 \\ & 117253 \\ & 117254 \\ & 117255 \\ & 117256 \\ & \hline \end{aligned}$ | 159.97 161.00 162.00 163.00 164.00 165.00 166.00 Blank CdnGS10 167.00 168.00 169.00 170.00 171.00 | $\begin{aligned} & 161.00 \\ & 162.00 \\ & 163.00 \\ & 164.00 \\ & 165.00 \\ & 166.00 \\ & 167.00 \\ & \\ & \\ & \\ & 168.00 \\ & 169.00 \\ & 170.00 \\ & 171.00 \\ & 172.50 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.03 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.50 \\ & \hline \end{aligned}$ | 0.03 0.06 0.09 0.13 1.18 0.04 0.01 0.78 0.04 0.06 0.06 1.06 0.74 0.35 | 351.2 1655.5 1348.2 819.3 967.9 627.1 8.8 7.3 860.7 2124.2 1515.2 8170.5 7128.8 8511.2 | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & \hline \end{aligned}$ | 0.4 0.3 0.4 0.3 0.2 0.1 0.1 0.3 0.1 0.4 0.3 1.6 1.5 0.5 |
| 172.50 | 178.12 | Altered <br> Volcanic <br> (BIO) <br> (ALB++) | Altered Volcanic (BIO)(ALB++) <br> -minor residual biotite alteration being replace by albite alteration <br> -very blocky rubbely core <br> -pale purplish brown to light tan grey <br> -trace amounts of pyrite along random calcite stockwork <br> fractures <br> -biotite up to 5\% (spots) <br> EOH 178.12m <br> Core stored at David Schusler facilities in Aldergrove | $\begin{aligned} & 117257 \\ & 117258 \\ & 117259 \\ & 117260 \end{aligned}$ | $\begin{aligned} & 172.50 \\ & 174.00 \\ & 175.50 \\ & 177.00 \end{aligned}$ | $\begin{aligned} & 174.00 \\ & 175.50 \\ & 177.00 \\ & 178.12 \end{aligned}$ | $\begin{aligned} & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.12 \end{aligned}$ | $\begin{aligned} & 0.20 \\ & 0.10 \\ & 0.06 \\ & 0.02 \end{aligned}$ | $\begin{gathered} 1223.0 \\ 418.2 \\ 59.4 \\ 41.0 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} 0.1 \\ 0.1 \\ 0.1 \\ <0.1 \end{gathered}$ |

## DRILL HOLE R4-04

| Exploration Company: <br> Property Name: <br> Drilling Company: | Logan Resources Ltd. |
| :---: | :---: |
|  | Redford Property |
|  | DJ Drilling Company Ltd. |
| Hole Started: | March 27, 2004 |
| Hole Completed: | March 29, 2004 |
| Logged By: | David J. Bridge, P.Geo. |
| Date Logged: | April 10, 2004 |
| Survey Data: | Azimuth: 179 Degrees |
|  | Dip: -43 deg. |
|  | Down hole tests |
|  | Depth: 129.17m |
|  | Dip: -45 deg. |
| Summary Log: |  |
| 000.00 to 002.44: Overburden OVBR |  |
| 002.44 to 021.30: Medium Grained Diorite MDIR(CHL+)(EP) |  |
| 021.30 to 030.17: Medium Grained Diorite MDIR(CHL++)(EP+) |  |
| 030.17 to 035.69: Dyke DYKE |  |
| 035.69 to 046.32: Medium Grained Diorite MDIR(CHL)(ALB)(EP) |  |
| 046.32 to 049.00: Altered Volcanic AVOL(ALB++) |  |
| 049.00 to 051.54: Medium Grained Diorite MDIR(ALB+)(CLAY)(CHL) |  |
| 051.54 to 054.60: Medium Grained Diorite MDIR(CLAY+)(CHL) |  |
| 054.60 to 056.80: Medium Grained Diorite MDIR(CHL+)/ |  |
| Altered Mafic Volcanic AMFV(ALB++) |  |
| 056.80 to 057.89: Medium Grained Diorite MDIR(CHL+) |  |
| 057.89 to 062.25: Altered Volcanic AVOL(ALB+) |  |
| 062.25 to 064.50: Medium Grained Diorite MDIR(CHL+)(EP) |  |
| 064.50 to 067.79: Altered Volcanic AVOL(ALB+) |  |
| 067.79 to 076.50: Medium Grained Diorite MDIR(CHL+++) |  |
| 076.50 to 078.17: Medium Grained Diorite MDIR(BIO+++) |  |
| 078.17 to 082.60: Altered Volcanic AVOL(ALB+) |  |
| 082.60 to 103.64: Medium Grained Volcanic MDIR(CHL+) |  |
| 103.64 to 106.26: Volcanic VOLC(BIO++)(CHL) |  |
| 106.26 to 107.34: Plagioclase Porphyritic Dyke PLPD |  |
| 107.34 to 109.26: Volcanic VOLC(BIO++)(CHL) |  |
| 109.26 to 111.60: Plagioclase Porphyritic Dyke PLPD(ALB++) |  |
| 111.60 to 116.70: Altered Volcanic AVOL(ALB+) |  |
| 116.70 to 120.80: Volcanic VOLC(CHL) |  |
| 120.80 to 127.19: Medium Grained Diorite MDIR(CHL+++) |  |

E.O.H.: $\mathbf{1 2 9 . 1 7}$ meters


HOLE R4-04 PAGE 2

| From (m) | To (m) | Rock Type | Rock Type Description | $\begin{aligned} & \text { Samp. } \\ & \text { Nom. } \end{aligned}$ | $\begin{gathered} \text { From } \\ (\mathrm{m}) \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \\ & \hline \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\frac{\mathrm{As}}{(\mathrm{ppm})}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{BI} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A u \\ (g / t) \\ \hline \end{gathered}$ | $\begin{gathered} A s \\ (p p m) \end{gathered}$ | $\begin{gathered} T e \\ (p p m) \\ \hline \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (CHL) (ALB)(EP) Continued | epidote alteration halos <br> -intense chlorite and epidote alteration between 39.50 and <br> 40.00 m , with $0.5 \%$ pyrite <br> -nil sulphide content <br> $-80 \%$ feldspar and $20 \%$ chlorite altered mafic minerals <br> -rare calcite stringers <br> -fairly competent unit with few fractures and slips | $\begin{aligned} & 117290 \\ & 117291 \\ & 117292 \end{aligned}$ | $\begin{aligned} & 41.50 \\ & 43.00 \\ & 44.50 \end{aligned}$ | $\begin{aligned} & 43.00 \\ & 44.50 \\ & 46.32 \end{aligned}$ | $\begin{aligned} & 1.50 \\ & 1.50 \\ & 1.82 \end{aligned}$ | $\begin{gathered} 0.01 \\ <0.01 \\ 0.02 \end{gathered}$ | $\begin{aligned} & 18.2 \\ & 35.7 \\ & 370.4 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & <0.1 \\ & <0.1 \\ & <0.1 \end{aligned}$ |  |  |  |  |
| 46.32 | 49.00 | Altered Volcanic (ALB++) | Altered Volcanic (ALB++) <br> -moderately intense albite alteration <br> -fine grained <br> $-2 \%$ leucoxene <br> $-0.5 \%$ calcite stringers <br> -trace chlorite stringers <br> -nil sulphide content <br> fairly competent unit with few fractures and slips | $\begin{aligned} & 117293 \\ & 117294 \end{aligned}$ | $\begin{aligned} & 46.32 \\ & 48.00 \end{aligned}$ | $\begin{aligned} & 48.00 \\ & 49.00 \end{aligned}$ | $\begin{aligned} & 0.68 \\ & 1.00 \end{aligned}$ | $\begin{aligned} & 0.01 \\ & 0.01 \end{aligned}$ | $\begin{aligned} & 34.3 \\ & 470.2 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} <0.1 \\ 0.1 \end{gathered}$ |  |  |  |  |
| 49.00 | 51.54 | Medium Graned Diorite (ALB+ (CLAY) (CHL) | Medium Grained Diorite (ALB+)(CLAY)(CHL) <br> -albite altered with a minor overprint of clay alteration <br> -rare xenoliths observed such as at 49.30 m <br> -fairly competent unit with fractures and slips <br> $-30 \%$ chloritized homblende and $70 \%$ feldspar <br> -trace pyrite in fractures <br> -trace amounts of disseminated pyrite <br> -random stockwork of $0.5 \%$ calcite stringers <br> pale greyish green colored | $\begin{aligned} & 117295 \\ & 117296 \end{aligned}$ | $\begin{aligned} & 49.00 \\ & 50.50 \end{aligned}$ | $\begin{aligned} & 50.50 \\ & 51.94 \end{aligned}$ | $\begin{aligned} & 1.50 \\ & 1.44 \end{aligned}$ | $\begin{aligned} & 0.01 \\ & 0.01 \end{aligned}$ | $\begin{gathered} 265.2 \\ 56.2 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & <0.1 \\ & <0.1 \end{aligned}$ |  |  |  |  |
| 51.54 | 54.60 | Medium Grained Diorite (CCAY + ) (CHL) | Medium Grained Diorite (CLAY+)(CHL) <br> -weak day alteration around calcite veinlets (1\%) in a random stockwork <br> $-30 \%$ chloritized mafic minerals, $50 \%$ feldspar and $20 \%$ quartz (quartz look like a primary phenocryst phase) -pale grey cream white colored -nil sulphide content -very blocky and rubbely unit | $\begin{aligned} & 117297 \\ & 117298 \end{aligned}$ | $\begin{aligned} & 51.54 \\ & 53.00 \end{aligned}$ | $\begin{aligned} & 53.00 \\ & 54.60 \end{aligned}$ | $\begin{aligned} & 1.46 \\ & 1.60 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{aligned} & 21.7 \\ & 36.1 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & <0.1 \\ & <0.1 \end{aligned}$ |  |  |  |  |


| $\begin{aligned} & \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { ( } \mathrm{m} \text { ) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Rock } \\ & \text { Tunn } \end{aligned}$ Type | Rock Type Description | Samp. No | From (m) | $\begin{gathered} \mathrm{To} \\ (\mathrm{~m}) \end{gathered}$ | Samp. <br> (m) | $\begin{gathered} \mathrm{Acm} \\ (\mathrm{gu} / \mathrm{t}) \end{gathered}$ | $\frac{\text { Assay }}{\text { As }}$ | $\frac{\mathrm{esucs}}{\mathrm{Te}}(\mathrm{ppm})$ | $\begin{gathered} \mathrm{Bl} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A 13 \\ (g / t) \end{gathered}$ | $\frac{\text { nemex }_{1}}{\substack{\text { (ppm) }}}$ | $\begin{gathered} \frac{s s a y}{\text { see }} \\ (p p m) \end{gathered}$ | $\frac{\text { lits }}{(p i j)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54.60 | 56.80 | Medium Grained (CHL+)/ Altered Mafic Volcanic (ALB++) | Medium Grained Diorite (CHL+)/ <br> Altered Mafic Volcanic (ALB++) <br> -mixed of $50 \%$ chlorite altered medium grained diorite and $50 \%$ albite altered mafic volcanic <br> -bottom contact is deformed oriented at 60 deg. to CA -moderately blocky unit <br> -the medium grained diorite contain $30 \%$ chloritized mafic minerals and $70 \%$ feldspar <br> -in general, $2 \%$ disseminated pyrite and $1 \%$ pyrite in veinlets throughout the unit <br> -altered mafic volcanic spotted black altered which can possibly be graphite especially between 56.00 and 56.45 m -calcite veins at $30-60$ deg. to $\mathrm{CA}, 0.5 \%$ of the unit, $1-4 \mathrm{~mm}$ wide <br> -color varies from medium green to pale tan | $\begin{aligned} & 117299 \\ & 117300 \\ & 117301 \\ & 117302 \end{aligned}$ | $\begin{gathered} \text { Blank } \\ \text { CdnGS10 } \\ 54.60 \\ 56.00 \end{gathered}$ | $\begin{aligned} & 56.00 \\ & 56.80 \end{aligned}$ | $\begin{aligned} & 1.40 \\ & 0.80 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & 0.73 \\ & <0.01 \\ & 0.02 \end{aligned}$ | $\begin{gathered} 3.9 \\ 7.1 \\ 120.3 \\ 360.7 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.3 \\ & <0.1 \\ & 0.1 \end{aligned}$ |  |  |  |  |
| 56.80 | 57.89 | Medium Gratned Diorite (CHL+ + ) | Medium Grained Diorite (CHL+) <br> -chlorite altered <br> $-70 \%$ feldspar and $30 \%$ chloritized mafic minerals -weakly blocky unit <br> -with chlorite, $2 \%$ leucoxene <br> -trace pyrite on calcite fractures <br> -medium grey motted green colored <br> -lower contact oriented at 30 deg. to CA | 117303 | 56.80 | 57.89 | 1.09 | < 0.01 | 117.9 | <1 | <0.1 |  |  |  |  |
| 57.89 | 62.25 | Altered Volcanic (ALB+) | Altered Volcanic (ALB+) <br> -albite altered volcanic with $2 \%$ chlorite spots and $2 \%$ fine grained leucoxene <br> -trace amounts coarse grained arsenopyrite, disseminated and on fractures <br> -calcite veins, $1-2 \mathrm{~mm}$ thick, oriented at $20-30$ and at 60 deg. to CA <br> -moderately blocky core <br> -pale tan motted green | $\begin{aligned} & 117304 \\ & 117305 \\ & 117306 \\ & 117307 \end{aligned}$ | 57.89 59.00 60.00 61.00 | $\begin{aligned} & 59.00 \\ & 60.00 \\ & 61.00 \\ & 62.25 \end{aligned}$ | $\begin{aligned} & 1.11 \\ & 1.00 \\ & 1.00 \\ & 1.25 \end{aligned}$ | $\begin{aligned} & 0.03 \\ & 0.05 \\ & 0.02 \\ & 0.02 \end{aligned}$ | $\begin{aligned} & 30.5 \\ & 1230.3 \\ & 283.8 \\ & 1277.3 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & <0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \end{aligned}$ |  |  |  |  |


| From | ${ }^{\text {T0 }}$ | R | Rock Type Description | Samp. No | From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. | $\frac{\mathrm{Au}}{(\mathrm{~g} / \mathrm{t})}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{aligned} & A u \\ & (g / t) \end{aligned}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} T e \\ (p p m) \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 62.25 | 64.50 | Medium Grained Diorite (CHL+ (EP) | Medium Grained Diorite (CHL+)(EP) <br> -chlorite and epidote altered <br> $-1 \%$ fine leucoxene <br> $-30 \%$ chlorite altered mafic minerals, $10 \%$ amphibole and $60 \%$ feldspar <br> -trace disseminated pyrite <br> -trace calcite stringers oriented at 80 deg. to $C A$ <br> -medium green mottled light grey colored <br> -weakly blocky core | $\begin{aligned} & 117308 \\ & 117309 \end{aligned}$ | $\begin{aligned} & 62.25 \\ & 63.50 \end{aligned}$ | $\begin{aligned} & 63.50 \\ & 64.50 \end{aligned}$ | $\begin{aligned} & 1.25 \\ & 1.00 \end{aligned}$ | $\begin{aligned} & 0.03 \\ & 0.02 \end{aligned}$ | $\begin{gathered} 1034.6 \\ 82.9 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.2 \\ & 0.1 \end{aligned}$ |  |  |  |  |
| 64.50 | 67.79 | Altered Volcanic (ALB+) | Altered Volcanic (ALB+) <br> -albite altered volcanic with up to $1 \%$ random stockwork of pyrite veinlets <br> -rare oxidized fractures <br> $-2 \%$ disseminated fine grained leucoxene <br> $-1 \%$ calcite veinlets and stringers oriented at 30 deg. to CA <br> -pale tan mottled green <br> -moderately blocky core | $\begin{aligned} & 117310 \\ & 117311 \\ & 117312 \end{aligned}$ | $\begin{aligned} & 64.50 \\ & 65.50 \\ & 66.50 \end{aligned}$ | $\begin{aligned} & 65.50 \\ & 66.50 \\ & 67.79 \end{aligned}$ | $\begin{aligned} & 1.00 \\ & 1.00 \\ & 1.29 \end{aligned}$ | $\begin{aligned} & 0.12 \\ & 0.01 \\ & 0.01 \end{aligned}$ | $\begin{aligned} & 71.5 \\ & 38.6 \\ & 38.3 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} 0.1 \\ <0.1 \\ <0.1 \end{gathered}$ |  |  |  |  |
| 67.79 | 78.17 | Medium Grained Diorite | Medium Grained Diorite -chlorite altered medium grained diorite <br> @ 67.79 to 69.50 m , (CHL++) <br> -pervasive chlorite alteration <br> -no sulphide seen <br> -weakly blocky core <br> -medium green colored <br> @ 69.50 to 76.50 m (CHL++) <br> -chlorite stockwork veinlets <br> $-2-5 \%$ chlorite veinlets stockwork randomly oriented with <br> $2 \%$ disseminated pyrite and trace of disseminated arsenopyrite, <br> $-70 \%$ feldspar, $10 \%$ hornblende and $20 \%$ chloritized mafic minerals <br> -white mottled dark green colored <br> fairly competent core | 117313 117314 117315 117316 117317 117318 117319 111320 117321 117322 | 67.79 69.50 70.50 71.50 72.50 73.50 74.50 75.50 76.50 77.50 | $\begin{aligned} & 69.50 \\ & 70.50 \\ & 71.50 \\ & 72.50 \\ & 73.50 \\ & 74.50 \\ & 7550 \\ & 76.50 \\ & 77.50 \\ & 78.17 \end{aligned}$ | 1.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.67 | 0.02 0.02 0.11 0.08 0.03 0.02 0.02 0.01 0.02 0.10 | $\begin{aligned} & 369.5 \\ & 1002.1 \\ & 364646 \\ & 2232.6 \\ & 941.4 \\ & 1272.9 \\ & 1120.7 \\ & 1121.4 \\ & 1286.7 \\ & 5018.8 \end{aligned}$ | $\square$ | 0.2 0.3 0.9 0.2 0.2 0.2 0.2 0.2 0.3 0.7 |  |  |  |  |


| From |  | Rock | Rock Type Description | Samp. No | From | To | Samp. | $\underset{(0 / t)}{A u}$ |  |  |  | Aus |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite Continued | @ 96.50 to 78.17 m, (BIO+++) <br> -biotite altered <br> -moderately blocky core <br> - pale purplish brown mottled white <br> $-5 \%$ disseminated pyrite <br> $-0.5 \%$ disseminated arsenopyrite <br> $-50-70 \%$ feldspar and $30-50 \%$ biotite altered mafic minerals -at 69.00 m , breccia fault, oriented at 20 deg . to CA , healed fragments <br> -at 74.90 m , chlorite ductile zone oriented at 30 deg. to CA <br> -oxidized fractures observed mainly in blocky sections |  |  |  |  |  |  |  |  |  |  |  |  |
| 78.17 | 82.60 | Altered Volcanic (ALB+) | Altered Volcanic (ALB+) <br> -albite altered volcanic <br> -random stockwork of calcite veinlets (2\%) <br> -moderately blocky core <br> -from 82,00 to 82.60 m , increasing up to $2 \%$ fine grained arsenopyrite in a veinlet stockwork - greyish tan colored | $\begin{aligned} & 117323 \\ & 117324 \\ & 117325 \\ & 117326 \\ & 117327 \end{aligned}$ |  <br> 88.17 <br> 80.00 <br> Blank <br> Cdnasio <br> 81.50 | $\begin{aligned} & 80.00 \\ & 81.50 \\ & \\ & 82.60 \end{aligned}$ | $\begin{aligned} & 1.83 \\ & 1.50 \\ & \\ & 1.10 \end{aligned}$ | $\begin{gathered} 0.04 \\ \hline 0.01 \\ 0.85 \\ 0.02 \\ 0.05 \end{gathered}$ | $\begin{gathered} 765.6 \\ 18.2 \\ 7.3 \\ 1509.2 \\ 4381.8 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} 0.2 \\ \hline 0.1 \\ 0.1 \\ 0.3 \\ 0.5 \\ 0.8 \end{gathered}$ |  |  |  |  |
| 82.60 | 103.64 | Medium Gained Diorite (CHL+ | Medium Gained Diorite (CHL+) <br> -chlorite alteration with $5 \%$ disseminated pyrite and from nil to $5 \%$ disseminated arsenopyrite <br> -rare arsenopyrite veins ( 1 mm thick), oriented at 45 deg. to CA <br> -fairly competent core with rare oxidized fractures -at 88.50 m , fault oriented at 60 deg. to CA -from 93.34 to 94.60 m , intensely chlorite altered with a fabric oriented at 30 deg. to CA , trace amounts of chalcopyrite and 5\% disseminated fine grained arsenopyrite -pale grey mottled green colored -rare calcite stringers <br> $-70 \%$ feldspar and $30 \%$ chlotite altered mafic minerals | 117328 117329 117330 117331 117332 117333 117334 117335 117336 117337 117338 11739 117340 117341 117342 117343 | $\begin{aligned} & 82.60 \\ & 84.00 \\ & 85.00 \\ & 86.00 \\ & 87.00 \\ & 88.00 \\ & 89.00 \\ & 90.00 \\ & 91.00 \\ & 92.00 \\ & 93.00 \\ & 94.00 \\ & 95.00 \\ & 96.00 \\ & 97.00 \\ & 98.00 \end{aligned}$ | 84.00 85.00 86.00 87.00 88.00 89.00 90.00 91.00 92.00 93.00 94.00 95.00 96.00 97.00 98.00 99.00 | 1.40 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | 0.02 | 2649.6 | <1 | 1.3 | $\begin{aligned} & 0.012 \\ & 0.014 \\ & 0.031 \\ & 0.024 \\ & 0.143 \\ & 0.056 \\ & 0.069 \\ & 0.018 \\ & 0.011 \\ & 0.119 \\ & 0.108 \\ & 0.116 \\ & 0.146 \\ & 0.147 \\ & 0.057 \end{aligned}$ | 988 1210 3130 1565 2630 1365 4100 1205 2100 6630 9040 7900 $>10000$ 7020 1325 | $\begin{aligned} & 0.05 \\ & <0.05 \\ & 0.10 \\ & 0.09 \\ & 0.30 \\ & 0.14 \\ & 0.16 \\ & 0.10 \\ & 0.11 \\ & 0.47 \\ & 0.36 \\ & 0.77 \\ & 0.52 \\ & 0.38 \\ & 0.06 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.12 \\ & 1.195 \\ & 2.13 \\ & 1.44 \\ & 2.20 \\ & 1.08 \\ & 4.99 \\ & 1.38 \\ & 1.98 \\ & 4.68 \\ & 3.68 \\ & 3.19 \\ & 6.921 \\ & 2.89 \\ & 0.99 \\ & \hline \end{aligned}$ |


| $\begin{aligned} & \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \mathrm{To} \\ & (\mathrm{~m}) \end{aligned}$ | $\begin{aligned} & \text { Rock } \\ & \text { Type } \\ & \hline \end{aligned}$ | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \mathrm{No} . \end{gathered}$ | $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | (m) | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} A s \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A u \\ (g / t) \end{gathered}$ | $\begin{aligned} & A s \\ & \text { (ppm) } \\ & \hline 2050 \end{aligned}$ | $\begin{aligned} & \frac{1}{r_{2}} \\ & (p p m) \end{aligned}$ | $\begin{gathered} B i \\ \text { (ppom) } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Galned Diorite (CHL+) Continued |  | $\begin{aligned} & 117344 \\ & 117345 \\ & 117346 \\ & 117347 \end{aligned}$ | $\begin{aligned} & 99.00 \\ & 100.00 \\ & 101.00 \\ & 102.00 \end{aligned}$ | $\begin{aligned} & 100.00 \\ & 101.00 \\ & 102.00 \\ & 103.64 \end{aligned}$ | $\begin{aligned} & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.64 \end{aligned}$ |  |  |  |  | $\begin{aligned} & 0.074 \\ & 0.207 \\ & 0.095 \\ & 0.089 \end{aligned}$ | $\begin{aligned} & 3250 \\ & 5760 \\ & 5750 \\ & 1635 \end{aligned}$ | $\begin{aligned} & 0.13 \\ & 0.71 \\ & 0.73 \\ & 0.14 \end{aligned}$ | $\begin{aligned} & 0.93 \\ & 1.88 \\ & 1.12 \\ & 0.51 \end{aligned}$ |
| 103.64 | 106.26 | $\begin{aligned} & \text { Volcanic } \\ & \text { (BIO }+ \text { ) } \\ & \text { (CHL) } \end{aligned}$ | Volcanic (BIO + +)(CHL) <br> -biotite altered (hornfels) partly chlorite altered <br> -moderately blocky core <br> -trace amounts of arsenopyrite along fractures oriented at 30-60 deg. to CA <br> -nil to $2 \%$ disseminated coarse grained pyrite <br> -pale purplish brown to light greyish green colored | $\begin{aligned} & 117348 \\ & 117349 \\ & 117350 \\ & 117351 \end{aligned}$ | 103.64 Blank CdnGS10 105.00 | $\begin{aligned} & 105.00 \\ & 106.26 \end{aligned}$ | $\begin{aligned} & 1.36 \\ & 1.26 \end{aligned}$ |  |  |  |  | 0.067 0.005 0.744 0.147 | $\begin{gathered} 1800 \\ 17.2 \\ 8.1 \\ 6740 \end{gathered}$ | $\begin{aligned} & 0.31 \\ & 0.05 \\ & 0.08 \\ & 1.53 \end{aligned}$ | $\begin{aligned} & 1.54 \\ & 0.08 \\ & 0.30 \\ & 1.43 \end{aligned}$ |
| 106.26 | 107.34 | Plagio clase Porphyritic Dyke | Plagioclase Porphyritic Dyke <br> $-40 \%$ plagioclase phenocrysts in a light tan grey colored groundmass <br> $-5 \%$ fine grained disseminated arsenopyrite <br> $-1 \%$ arsenopyrite/pyite veinlets -possibly albite altered? - moderately blocky core -both contacts estimated at 70 deg. to CA | 117352 | 106.26 | 107.34 | 1.08 |  |  |  |  | 0.106 | 3770 | 1.00 | 0.64 |
| 107.34 | 109.26 | $\begin{aligned} & \text { Volcanic } \\ & \text { (B1O+C+) } \\ & \text { (CLLi) } \end{aligned}$ | Volcanic (BIO ++ )(CHL) <br> -very similar to the volcanic described above ( 103.64 to 106.26 m ), hornfels <br> -fine grained with patchy chlorite alteration <br> -20 cm from lower contact is albite altered -no pyrite seen in unit -moderately blocky core -rare calcite stringers <br> -purplish brown with patches of pale green | $\begin{aligned} & 117353 \\ & 117354 \end{aligned}$ | $\begin{aligned} & 107.34 \\ & 108.25 \end{aligned}$ | $\begin{aligned} & 108.25 \\ & 109.26 \end{aligned}$ | $\begin{aligned} & 0.91 \\ & 1.01 \end{aligned}$ |  |  |  |  | $\begin{array}{\|l\|} \hline 0.027 \\ 0.082 \end{array}$ | $\begin{aligned} & 855 \\ & 2040 \end{aligned}$ | $\begin{aligned} & 0.24 \\ & 0.57 \end{aligned}$ | $\begin{aligned} & 0.21 \\ & 0.65 \end{aligned}$ |
| 109.26 | 111.60 | Plagio- <br> clase <br> Porphy- <br> fitic <br> Dyke <br> (ALB++) | Plagloclase Porphyritic Dyke (ALB++) -albite altered ductily deformed plagioclase porphyritic dyke -flow banding? syn-intrusion deformation? <br> $-10 \%$ disseminated arsenopyrite spots | $\begin{aligned} & 117355 \\ & 117356 \end{aligned}$ | $\begin{aligned} & 109.26 \\ & 110.40 \end{aligned}$ | $\begin{aligned} & 110.40 \\ & 111.60 \end{aligned}$ | $\begin{aligned} & 1.14 \\ & 1.20 \end{aligned}$ |  |  |  |  | $\begin{aligned} & 0.286 \\ & 0.189 \end{aligned}$ | $\begin{aligned} & 7740 \\ & 5720 \end{aligned}$ | $\begin{aligned} & 2.00 \\ & 1.29 \end{aligned}$ | $\begin{aligned} & 1.32 \\ & 1.93 \end{aligned}$ |



## DRILL HOLE R5-04

Exploration Company: Logan Resources Ltd.<br>Property Name: Redford Property<br>Drilling Company: DJ Drilling Company Ltd.

Hole Started:
Hole Completed: Logged By:
Date Logged:

Survey Data: Azimuth: 261 Degrees
Dip: -45 deg.
Down hole tests
Depth: 127.19 m
Dip: -45 deg.

## Summary Log:

000.00 to 001.22: Overburden OVBR
001.22 to 021.55: Fine Grained Diorite FDIR
021.55 to 024.00: Medium Grained Diorite MDIR
024.00 to 028.52: Fine Grained Diorite FDIR
028.52 to 029.88: Dyke DYKE
029.88 to 036.70: Fine Grained Diorite FDIR
036.70 to 041.48: Fine Grained Diorite FDIR
041.48 to 041.97: Fault/Dyke FLTZ/DYKE
041.97 to 049.64: Fine Grained Diorite FDIR
049.64 to 059.92: Fine Grained Diorite FDIR(CHL)/Mafic Volcanic MVOL(CHL)
059.92 to 062.28: Medium Grained Diorite MDIR/Fine Grained Diorite FDIR/ Mafic Volcanic MVOL
062.28 to 064.28: Dyke DYKE
064.28 to 067.87: Medium Grained Diorite "Granodiorite" MDIR"GRAN"(SER)
067.87 to 084.00: Fine Grained Diorite FDIR(SER)/Medium Grained Diorite MDIR(SER)
084.00 to 092.70: Acicular Fine Grained Diorite AFDR(CHL)/

Medium Grained Diorite MDIR(CHL)/Fine Grained Diorite FDIR(CHL)
092.70 to 095.43: Medium Grained Diorite "Granodiorite" MDIR"GRAN"(SER)
095.43 to 104.55: Fine Grained Diorite FDIR/Coarser Grained Diorite CDIR/ Hornblende Megacrystic Diorite MCRD
104.55 to 106.95: Dyke DYKE(CHL)
106.95 to 113.17: Hornblende Megacrystic Diorite MCRD
113.17 to 113.91: Dyke DYKE
113.91 to 124.14: Hornblende Megacrystic Diorite MCRD
124.14 to 127.19: Medium Grained Diorite "Granodiorite" MDIR"GRAN"
E.O.H.: $\mathbf{1 2 7 . 1 9}$ meters
$\rightarrow$
13
$m$
3

HOLE R5-04 PAGE 1

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | Samp. No | $\begin{aligned} & \hline \text { From } \\ & \text { (m) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { To } \\ & (\mathrm{m}) \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathbf{B i} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.00 | 1.22 | Casing | Left in hole |  |  |  |  |  |  |  |  |
| 1.22 | 21.55 | Fine Grained Diorite | Fine Grained Diorite <br> -rare intervals (dykes) up to 10 cm thick of medium grained diorite <br> -mostly fresh unit with weak chlorite alteration of hornblende <br> -trace disseminated pyrite <br> -medium grey mottled dark green colored <br> $-70 \%$ feldspar and $30 \%$ hornblende <br> -weakly blocky core with oxidized fractures <br> -rare epidote veinlets <br> -from 3.60 to 5.70 m , very blocky core with clay gauge, heavily oxidized fractures <br> -from 8.10 to 9.50 m , blocky core with oxidized fractures <br> from 16.90 to 17.10 m , blocky core <br> -from 18.05 to 18.35 m , blocky core |  |  |  |  |  |  |  |  |
| 21.55 | 24.00 | Medium Grained Diorite | Medium Grained Diorite <br> $-1 \%$ disseminated pyrite <br> -rare pyrite and chlorite fractures <br> -numerous xenoliths (50\%) of fine grained diorite, range in size from 2 to 20 cm <br> -rare epidote and chlorite veins <br> $-80 \%$ feldspar and $20 \%$ chlorite altered hornblende <br> -fairly blocky core with oxidized fractures <br> -light grey colored | 117504 | 21.55 | 23.30 | 1.75 | <0.01 | 43.7 | $<1$ | 0.2 |
| 24.00 | 28.52 | Fine Grained Diorite | Fine Grained Diorite <br> -the unit is intruded by small medium grained diorite dykes, 2 to 10 cm thick <br> $-1 \%$ disseminated fine grained pyrite <br> -rare epidote and chlorite veinlets, oriented at 20 and 60 deg. to CA <br> $-60 \%$ feldspar and $40 \%$ slightly chlorite altered hornblende <br> -fairly competent core <br> -medium grey colored |  |  |  |  |  |  |  |  |

HOLE R5-04 PAGE 2

| From (m) | To (m) | Rock Type | Rock Type Description | Samp. No | From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \mathrm{As} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28.52 | 29.88 | Dyke | Dyke <br> -dark grey colored <br> $-10 \%$ chlorite spots <br> -fine grained groundmass <br> -fairly competent core <br> -lower contact oriented at 70 deg. to CA |  |  |  |  |  |  |  |  |
| 29.88 | 36.70 | Fine Grained Diorite | Fine Grained Diorite <br> $-0.5 \%$ of epidote and quartz veins containing $5 \%$ <br> disseminated pyrite, oriented at 20 deg. to $\mathrm{CA}, 1-3 \mathrm{~mm}$ thick <br> -slightly chlorite altered hornblende <br> $-1 \%$ disseminated pyrite <br> -fairly competent core <br> $-60 \%$ feldspar and $40 \%$ hornblende <br> -medium grey colored |  |  |  |  |  |  |  |  |
| 36.70 | 41.48 | Fine Grained Diorite | Fine Grained Diorite <br> -weak overprint of chlorite alteration and intervals of pervasive chlorite alteration up to 23 cm long $-0.5 \%$ epidote and chlorite veinlets with trace amounts of disseminated pyrite, oriented at 40 deg. to CA $-50 \%$ feldspar and $50 \%$ chlorite altered horblende -at 41.40 m , medium grained diorite dyke, oriented at 40 deg. to CA <br> -fairly competent core <br> -medium grey colored |  |  |  |  |  |  |  |  |
| 41.48 | 41.97 | Fault/ Dyke | Fault/Dyke <br> Dyke <br> -dark grey colored <br> -fine grained <br> -lower contact oriented at 50 deg. to CA <br> Fault <br> -extend from 41.50 to 41.79 m <br> -quartz and carbonates vein with trace pyrite, oriented along upper contact of the fault at 45 deg. to CA <br> -rubbely clay gauge |  |  |  |  |  |  |  |  |

HOLE R5-04 PAGE 3

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | Samp. No | From <br> (m) | $\begin{aligned} & \text { To } \\ & (\mathrm{m}) \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41.97 | 49.64 | Fine Grained Diorite | Fine Grained Diorite <br> -weakly chlorite altered hornblende <br> -rare epidote and chlorite veins, oriented at 35 deg. to CA <br> -trace disseminated pyrite <br> $-60 \%$ feldspar and $40 \%$ chlorite altered hornblende <br> -oxidized fractures, locally only <br> -locally blocky, generally where fractured <br> -medium grey colored |  |  |  |  |  |  |  |  |
| 49.64 | 59.92 | Fine Grained Diorite (CHL)/ Mafic Volcanic (CHL) | Fine Grained Diorite (CHL)/Mafic Volcanic (CHL) mixed interval of chlorite altered fine grained diorite and chlorite altered mafic volcanic xenoliths <br> Xenoliths <br> -composed $20 \%$ of the unit <br> -fine grained mafic volcanic <br> -medium green colored <br> Fine Grained Diorite -trace disseminated pyrite where fresh and up to 1\% disseminated pyrite where chlorite altered <br> -moderately blocky core <br> -rare epidote, chlorite and quartz veins with trace amounts of pyrite <br> -medium grey colored <br> -medium green colored where patchy chlorite altered <br> $-60 \%$ feldspar and $40 \%$ chlorite altered mafic minerals | $\begin{aligned} & 117505 \\ & 117506 \\ & 117507 \\ & 117508 \\ & 117509 \\ & 117510 \\ & 117511 \end{aligned}$ | $\begin{aligned} & 49.64 \\ & 51.00 \\ & 52.50 \\ & 54.00 \\ & 55.50 \\ & 57.00 \\ & 58.50 \end{aligned}$ | $\begin{aligned} & 51.00 \\ & 52.50 \\ & 54.00 \\ & 55.50 \\ & 57.00 \\ & 58.50 \\ & 59.92 \end{aligned}$ | $\begin{aligned} & 1.36 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.42 \end{aligned}$ | $\begin{gathered} <0.01 \\ 0.02 \\ 0.01 \\ <0.01 \\ <0.01 \\ 0.01 \\ <0.01 \end{gathered}$ | 38.2 57.8 33.7 35.4 35.1 63.4 46.9 | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \end{aligned}$ |
| 59.92 | 62.28 | Medium Grained <br> Diorite/ <br> Fine <br> Grained <br> Diorite/ <br> Mafic <br> Volcanic | Medium Grained Diorite/Fine Grained Diorite/Mafic Volcanic <br> mixed unit of medium grained diorite ( $70 \%$ ) and xenoliths of fine grained diorite ( $25 \%$ ) and xenoliths of mafic volcanic (5\%) <br> Medium Grained Diorite -trace pyrite <br> -weakly to moderately chlorite altered | $\begin{aligned} & 117512 \\ & 117513 \end{aligned}$ | $\begin{aligned} & \hline 59.92 \\ & 61.00 \end{aligned}$ | $\begin{aligned} & 61.00 \\ & 62.28 \end{aligned}$ | $\begin{aligned} & 1.08 \\ & 1.28 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{aligned} & 12.7 \\ & 11.9 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \end{aligned}$ |

## HOLE R5-04 PAGE 4

| $\begin{aligned} & \text { From } \\ & \text { (m) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock <br> Type | Rock Type Description | Samp. No | $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \\ & \hline \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathbf{T e} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{array}{\|c} \hline \mathrm{Bi} \\ \text { (ppm) } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite/ Fine Grained Diorite/ Mafic Volcanic Continued | -at 61.50 m , intense chlorite alteration around pyrite and chlorite veins oriented at 60 deg. to CA <br> Fine Grained Diorite <br> -up to 10\% epidote alteration with chlorite altered hornblende <br> -moderately blocky core <br> -color ranges from pale grey to medium green <br> -rare calcite veins oriented at 40 deg. to CA |  |  |  |  |  |  |  |  |
| 62.28 | 64.28 | Dyke | Dyke <br> -sparsely plagioclase porphyritic dyke <br> -dark green colored <br> -no mineralization seen <br> -from 63.85 to 63.94 m , shear fault oriented at 20 deg . to <br> CA, clay gauge observed <br> -fairly competent core <br> -rare calcite veins <br> -lower contact oriented at 40 deg. to CA |  |  |  |  |  |  |  |  |
| 64.28 | 67.87 | Medium Grained Diorite "Granodiorite" (SER) | Medium Grained Diorite "Granodiorite" (SER) <br> -chlorite altered mafic minerals <br> -patchy sericite alteration along chlorite veins, up to $2 \%$ <br> coarse grained pyrite <br> -light grey mottled green colored where fresh <br> -light apple green where sericite altered <br> $-40 \%$ plagioclase, $30 \%$ potassium feldspar and $30 \%$ chlorite altered hornblende <br> -fairly competent core with local blocky sections | $\begin{aligned} & 117514 \\ & 117515 \end{aligned}$ | $\begin{aligned} & 64.28 \\ & 66.00 \end{aligned}$ | $\begin{aligned} & 66.00 \\ & 67.87 \end{aligned}$ | $\begin{aligned} & 1.72 \\ & 1.87 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{aligned} & 6.3 \\ & 3.1 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \end{aligned}$ |
| 67.87 | 84.00 |  | Fine Grained Diorite (SER)/ Medium Grained Diorite (SER) <br> -mixed unit of fine grained diorite ( $70 \%$ ) with medium grained diorite dykes (30\%) <br> -intervals up to 40 cm long of sericite alteration around quartz and chlorite veins, up to $5 \%$ disseminated pyrite, oriented at 70 deg . to CA | 117516 117517 117518 117519 117520 117521 <br> 117522 | $\begin{aligned} & 67.87 \\ & 69.50 \\ & 71.00 \\ & 72.50 \\ & 74.00 \\ & 75.50 \\ & 77.00 \end{aligned}$ | $\begin{aligned} & 69.50 \\ & 71.00 \\ & 72.50 \\ & 74.00 \\ & 75.50 \\ & 77.00 \\ & 78.50 \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.63 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & \hline \end{aligned}$ | $\begin{gathered} <0.01 \\ <0.01 \\ 0.04 \\ 0.03 \\ 0.04 \\ 0.01 \\ <0.01 \end{gathered}$ | $\begin{gathered} 19.5 \\ 52.5 \\ 232.1 \\ 33.8 \\ 14.2 \\ 48.6 \\ 6.6 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.2 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \end{aligned}$ |

HOLE R5-04 PAGE 5

| From (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | Samp. No | $\begin{gathered} \hline \text { From } \\ \text { (m) } \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fine Grained Diorite (SER)/ Medium Grained Diorite (SER) Continued | -from 71.50 to 72.00 m , blocky core, vuggy quartz veins with up to $10 \%$ disseminated pyrite <br> -from 82.79 to 83.40 m , clay fault zone, very rubbely core -the fine grained and medium grained diorites are very similar to the units described above | $\begin{aligned} & 117523 \\ & 117524 \\ & 117525 \\ & 117526 \\ & 117527 \\ & 117528 \end{aligned}$ | 78.50 80.00 Blank CdnGS12 81.50 82.79 | $\begin{aligned} & 80.00 \\ & 81.50 \\ & \\ & 82.79 \\ & 84.00 \end{aligned}$ | $\begin{aligned} & 1.50 \\ & 1.50 \\ & \\ & 1.29 \\ & 1.21 \end{aligned}$ | $\begin{gathered} 0.01 \\ <0.01 \\ 10.29 \\ 0.03 \\ 0.04 \\ 0.04 \end{gathered}$ | $\begin{gathered} 25.6 \\ 4.7 \\ 2.2 \\ 55.8 \\ 108.4 \\ 90.9 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{gathered} c \\ 0.1 \\ <0.1 \\ 0.1 \\ 0.2 \\ 0.1 \\ 0.2 \end{gathered}$ |
| 84.00 | 92.70 | Acicular Fine Grained Diorite <br> (CHL)/ <br> Medium <br> Grained <br> Diorite <br> (CHL)/ <br> Fine <br> Grained <br> Diorite <br> (CHL) | Acicular Fine Grained Diorite (CHL)/ <br> Medium Grained Diorite (CHL)/ <br> Fine Grained Diorite (CHL) <br> -mixed unit of acicular fine grained diorite ( $30 \%$ ), medium grained diorite ( $20 \%$ ) and fine grained diorite (50\%) -rare epidote and chlorite veinlets containing $5 \%$ pyrite -sericite altered sections, up to $2 \%$ fine grained pyrite, 20 cm long, enveloped with quartz and carbonates veins <br> $-20 \%$ chlorite altered mafic minerals <br> -dark grey to medium green colored <br> -fairly competent core with localized very blocky sections, <br> 20 cm long | $\begin{aligned} & 117529 \\ & 117530 \\ & 117531 \\ & 117532 \\ & 117533 \\ & 117534 \end{aligned}$ | $\begin{aligned} & 84.00 \\ & 85.82 \\ & 87.00 \\ & 88.50 \\ & 90.00 \\ & 91.50 \end{aligned}$ | $\begin{aligned} & 85.82 \\ & 87.00 \\ & 88.50 \\ & 90.00 \\ & 91.50 \\ & 92.70 \end{aligned}$ | $\begin{aligned} & 1.82 \\ & 1.18 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.20 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \end{aligned}$ | 22.7 15.4 46.2 17.4 21.3 3.4 | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & 0.1 \end{aligned}$ |
| 92.70 | 95.43 | Medium Grained Diorite "Granodiorite" (SER) | Medium Grained Diorite "Granodiorite" (SER) -unit varies from fresh to weak sericite and chlorite altered, especially around chlorite and sericite veinlets -trace disseminated pyrite in sericite altered sections -pale grey mottled pink colored <br> -fairly competent core | $\begin{aligned} & 117535 \\ & 117536 \end{aligned}$ | $\begin{aligned} & 92.70 \\ & 94.00 \end{aligned}$ | $\begin{aligned} & 94.00 \\ & 95.43 \end{aligned}$ | $\begin{aligned} & 1.30 \\ & 1.43 \end{aligned}$ | $\begin{aligned} & <0.01 \\ & <0.01 \end{aligned}$ | $\begin{gathered} 3.7 \\ 15.0 \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & <0.1 \\ & <0.1 \end{aligned}$ |

HOLE R5-04 PAGE 6

| $\begin{aligned} & \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock <br> Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | From <br> (m) | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{aligned} & \mathrm{Au} \\ & (\mathrm{~g} / \mathrm{t}) \end{aligned}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 95.43 | 104.55 | Fine Grained Diorite/ <br> Coarser <br> Grained Diorite/ <br> Horn- <br> blende <br> Mega- <br> crystic <br> Diorite | Fine Grained Diorite/ Coarser Grained Diorite/ Hornblende Megacrystic Diorite <br> -mixed unit of fine grained diorite and coarser grained diorite and also of hornblende megacrystic diorite -from 96.35 to 96.46 m and from 96.62 to 96.88 m , sericite and pyrite alteration, up to $5 \%$ coarse grained disseminated pyrite centred along quartz and carbonates veins, oriented at 30 and 50 deg. to CA <br> -rare intervals of pervasive epidote alteration (1\%) <br> -rare calcite and chlorite veinlets <br> -relatively fresh unit <br> -very competent core <br> medium grey to dark green colored | 117537 | 95.43 | 97.00 | 1.57 | 0.01 | 25.5 | <1 | 0.1 |
| 104.55 | 106.95 | $\begin{aligned} & \text { Dyke } \\ & \text { (CHL) } \end{aligned}$ | Dyke (CHL) <br> -fine grained -dark green colored $0.5 \%$ calcite veinlets |  |  |  |  |  |  |  |  |
| 106.95 | 113.17 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite <br> -fresh looking with intervals of epidote alteration (2\%) <br> -dark green mottled black colored <br> -from 109.05 to 109.60 m , sericite alteration along shear fault in medium grained diorite, fault oriented at 60 deg. to CA, trace pyrite in sericite altered section <br> -fairly competent core except where sericite altered very blocky core <br> $-40 \%$ hornblende megacrysts, $40 \%$ smaller hornblende in groundmass and 10\% plagioclase. | 117538 | 109.00 | 110.00 | 1.00 | 0.01 | 58.4 | <1 | 0.1 |
| 113.17 | 113.91 | Dyke | Dyke <br> -upper contact oriented at 50 deg. to CA <br> -lower contact oriented at 35 deg. to CA <br> -at 113.47 m , epidote and quartz veins, oriented at 60 deg. <br> to CA <br> -dark green colored <br> -fairly competent core |  |  |  |  |  |  |  |  |

HOLE R5-04 PAGE 7

| From <br> (m) | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | Rock <br> Type | Rock Type Description | Samp. No | From (m) | To <br> (m) | Samp. (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 113.91 | 124.14 | Hornblende Megacrystic Diorite | Hornblende Megacrystic Diorite <br> -intervals of pervasive epidote alteration, up to 25 cm long <br> -trace disseminated pyrite <br> -trace disseminated chalcopyrite <br> -from 120.74 to 120.98 m, dyke oriented at 60 deg. to CA $-40 \%$ hornblende megacrysts, $40 \%$ smaller hornblende in groundmass and $10 \%$ plagioclase -dark green mottled black colored -very competent core |  |  |  |  |  |  |  |  |
| 124.14 | 127.19 | Medium Grained Diorite "Granodiorite" | Medium Grained Diorite "Granodiorite" <br> -rare xenoliths of fine grained diorite (1\%) <br> -intervals of sericite alteration (2\%) around sericite veinlets <br> in a random stockwork, trace pyrite observed with sericite alteration <br> $-40 \%$ plagioclase, $30 \%$ potassium feldspar and $30 \%$ chlorite altered hornblende <br> -light grey mottled pink colored <br> -fairly competent core <br> EOH 127.19m <br> Core stored at David Schusler facilities in Aldergrove | 117539 | 125.70 | 127.19 | 1.49 | <0.01 | 3.0 | $<1$ | <0.1. |

## DRILL HOLE R6-04

| Exploration Company: | Logan Resources Ltd. |
| :---: | :---: |
| Property Name: | Redford Property |
| Drilling Company: | DJ Drilling Company Ltd. |
| Hole Started: | March 31, 2004 |
| Hole Completed: | April 04, 2004 |
| Logged By: | David J. Bridge, P.Geo. |
| Date Logged: | April 15, 2004 |
| Survey Data: | Azimuth: 229 Degrees |
|  | Dip: -45 deg. |
|  | Down hole tests |
|  | Depth: 169.89m |
|  | Dip: -45 deg . |

## Summary Log:

000.00 to 003.05: Overburden OVBR
003.05 to 007.00: Volcanic VOLC(ALB+)
007.00 to 009.20: Fault Zone FLTZ
009.20 to 009.50: Medium Grained Diorite MDIR(CHL++)(EP)
009.50 to 010.10: Medium Grained Diorite MDIR(ALB)(EP)
010.10 to 012.95: Volcanic VOLC(ALB+)(CHL)
012.95 to 014.35: Medium Grained Diorite MDIR(ALB)
014.35 to 030.10: Dyke DYKE
030.10 to 035.61: Medium Grained Diorite MDIR(CHL+++)(ALB+)
035.61 to 039.80: Medium Grained Diorite MDIR(CHL+)
039.80 to 067.00: Medium Grained Diorite MDIR(CHL+++)
067.00 to 068.17: Medium Grained Diorite MDIR(ALB+)(BIO+)
068.17 to 069.43: Medium Grained Diorite MDIR(CLAY)
069.43 to 075.51: Medium Grained Diorite MDIR(CHL+)
075.51 to 076.92: Dyke DYKE
076.92 to 085.50: Medium Grained Diorite MDIR(CHL++)
085.50 to 087.75: Fault Zone FLTZ(CLAY+++)
087.75 to 089.12: Medium Grained Diorite MDIR
089.12 to 092.60: Plagioclase Porphyritic Dyke PLPD(ALB +++ )
092.60 to 094.00: Medium Grained Diorite MDIR(BIO+)
094.00 to 119.45: Medium Grained Diorite MDIR(CHL++)(ALB+)
119.45 to 119.83: Plagioclase Porphyritic Dyke PLPD(BIO+++)
119.83 to 121.35: Dyke DYKE
121.35 to 140.00: Plagioclase Porphyritic Dyke PLPD(ALB++)
140.00 to 141.40: Medium Grained Diorite MDIR(ALB++)
141.40 to 148.50: Altered Volcanic AVOL(ALB++)/

Medium Grained Diorite MDIR(ALB++)(BIO+)
148.50 to 153.68: Plagioclase Porphyritic Dyke PLPD(ALB++)



HOLER6-04 PAGE 3

| $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | $\begin{aligned} & \hline \text { From } \\ & (\mathrm{m}) \end{aligned}$ | (m) | Samp. <br> (m) | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Assay } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{array}{\|c\|} \hline \mathrm{Bi} \\ \hline \mathrm{ppm}) \\ \hline \end{array}$ | $\begin{gathered} \text { Als } \\ A L \\ (g / t) \\ \hline \end{gathered}$ | $\begin{gathered} \text { nemex } A \\ A s \\ (p p m) \end{gathered}$ | $\begin{gathered} \text { ssay Res } \\ \hline(p p m) \\ \hline \end{gathered}$ | $\begin{gathered} B i \\ \text { (ppm) } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (CHL+++) Continued | alteration | $\begin{aligned} & 117404 \\ & 117405 \\ & 117406 \\ & 117407 \\ & 117408 \\ & 117409 \\ & 117410 \\ & \hline \end{aligned}$ | 57.50 59.00 60.50 62.00 63.50 65.00 66.00 | 59.00 <br> 60.50 <br> 62.00 <br> 63.50 <br> 65.00 <br> 66.00 <br> 67.00 | $\begin{aligned} & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.00 \\ & 1.00 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.01 \\ & <0.01 \\ & <0.01 \\ & 0.01 \\ & <0.01 \\ & <0.01 \\ & <0.01 \\ & \hline \end{aligned}$ | $\begin{aligned} & 143.8 \\ & 216.8 \\ & 109.0 \\ & 79.7 \\ & 72.6 \\ & 109.9 \\ & 174.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.1 \\ & 0.1 \\ & 0.2 \\ & 0.2 \\ & 0.1 \\ & 0.1 \\ & 0.1 \\ & \hline \end{aligned}$ |  |  |  |  |
| 67.00 | 68.17 | $\begin{array}{\|l\|} \hline \text { Medium } \\ \text { Grained } \\ \text { Dlorite } \\ \text { (ALB+ } \\ (\mathrm{BIO}+) \\ \hline \end{array}$ | Medium Grained Diorite (ALB+)(BIO+) <br> -albite and biotite altered unit <br> -2\% disseminated pyrite <br> $-70 \%$ feldspar and $30 \%$ biotite altered mafic minerals -at 67.75 m , clay gauge fault oriented at 70 deg. to CA -unit has $0.5 \%$ calcite veins, up to 4 mm thick -fairly blocky core with fractures oriented at 70 deg. to CA -pale purplish brown motted light grey | 117411 | 67.00 | 68.17 | 1.17 | <0.01 | 300.5 | <1 | 0.1 |  |  |  |  |
| 68.17 | 69.43 | Medium Grained Diorite (CLAY++) | Medium Grained Diorite (CLAY++) <br> -weak to intense clay alteration along carbonate veins (10\%), such as at 68.86 m <br> -numerous shear faults oriented at 70 deg. to CA <br> -fine grained pyrite on shear faults -pale yellowish tan colored -weakly blocky core | 117412 | 68.17 | 69.43 | 1.26 | 0.04 | 598.1 | <1 | 0.5 |  |  |  |  |
| 69.43 | 75.51 | Medium Grained Diorite (CHL+) | Medium Grained Dlorite (CHL+) <br> -patchy intervals of intense chlorite alteration and trace epidote alteration <br> -unit varies from fresh to intensely chlorite altered -rare intervals of albite alteration with $2 \%$ arsenopyrite veinlets <br> -trace to $0.5 \%$ disseminated pyrite and also trace of pyrite on fractures <br> $-70 \%$ feldspar, $20 \%$ homblende and $10 \%$ chloritzed mafic minerals, chlorite increase to $70 \%$ in pervasive chlorite altered patches <br> $-5 \%$ coarse grained disseminated arsenopyrite in chlorite | $\begin{aligned} & 117413 \\ & 117414 \\ & 117415 \\ & 117416 \\ & 117417 \end{aligned}$ | $\begin{aligned} & 69.43 \\ & 71.00 \\ & 72.00 \\ & 73.00 \\ & 74.00 \end{aligned}$ | $\begin{aligned} & 71.00 \\ & 72.00 \\ & 73.00 \\ & 74.00 \\ & 75.51 \end{aligned}$ | $\begin{aligned} & 1.57 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.51 \end{aligned}$ | $\begin{aligned} & 0.01 \\ & <0.01 \\ & <0.01 \\ & 0.001 \\ & <0.01 \end{aligned}$ | $\begin{array}{\|c\|} \hline 2973.4 \\ 324.1 \\ 170.5 \\ 3077.7 \\ 763.4 \\ \hline \end{array}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \\ & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 0.3 \\ & 0.3 \\ & 0.5 \\ & 0.4 \end{aligned}$ |  |  |  |  |


| $\begin{aligned} & \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No } \end{gathered}$ | $\begin{aligned} & \text { From } \\ & \text { (m) } \end{aligned}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | $\begin{gathered} \text { Samp. } \\ (\mathrm{m}) \end{gathered}$ | $\begin{gathered} \mathrm{Au} \\ (\mathrm{~g} / \mathrm{t}) \end{gathered}$ | $\begin{gathered} \text { As } \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A L \\ (g / t) \end{gathered}$ | $\begin{gathered} A S \\ (p o m) \\ \hline \end{gathered}$ | $\begin{gathered} T e \\ (\text { pom }) \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite (CHL+) Continued | patches <br> -color varies from dark green to pale grey mottled green <br> -fairly competent core <br> -trace calcite stringers observed <br> -at 75.17 m , oxidized shear oriented at 70 deg. to $\mathrm{CA}, 1 \mathrm{~cm}$ thick |  |  |  |  |  |  |  |  |  |  |  |  |
| 75.51 | 76.92 | Dyke | Dyke <br> -pale purplish brown colored <br> $-1 \%$ stockwork of calcite veinlets - upper contact oriented at 10 deg. to CA -lower contact oriented at 55 deg. to CA -fairly competent core -one medium grained diorite dyke (ending at 76.45 m ) very similar has medium grained diorite described above ( 69.43 to 75.51 m ) observed in unit <br> -from 76.45 to 76.92 m , purplisti brown dyke similar has above ( 75.51 to 76.45 m ) but slightly more crystalline, top contact oriented at 40 deg. to CA, bottom contact oriented at 50 deg, to $C A$ | 117418 | 75.51 | 76.92 | 1.41 | <0.01 | 442.4 | <1 | 0.1 |  |  |  |  |
| 76.92 | 85.50 | $\begin{aligned} & \hline \text { Medlum } \\ & \text { Grained } \\ & \text { Diorite } \\ & \text { (CHL++) } \end{aligned}$ | Medium Grained Dionite (CHL++) <br> -from weak to intense chlorite altered <br> -trace to $1 \%$ disseminated arsenopyrite in intense chlorite altered intervals <br> -trace to $1 \%$ disseminated pyrite <br> -rare intervals of albite alteration <br> -feldspar content varies from 20 to $70 \%$, the remain is chlonite altered mafic minerals <br> -fairly competent core <br> -dark green to light grey mottled green colored -trace calcite stringers oriented at 20-50 deg. to CA | 117419 117420 17421 111422 117423 111424 117425 117426 117427 117428 | $\begin{gathered} 76.92 \\ 78.00 \\ 79.00 \\ 80.00 \\ 81.00 \\ \text { Bliank } \\ \text { CdnGsio } \\ 82.00 \\ 83.00 \\ 84.00 \end{gathered}$ | $\begin{aligned} & 78.00 \\ & 79.00 \\ & 80.00 \\ & 81.00 \\ & 82.00 \\ & \\ & \\ & 83.00 \\ & 84.00 \\ & 85.50 \end{aligned}$ | $\begin{aligned} & 1.08 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \\ & 1.00 \end{aligned}$ | $<0.01$ 0.01 0.02 0.01 0.01 $<0.01$ 0.77 0.07 0.01 0.01 | 1500 941.8 972.0 1797.8 1897.3 8.2 7.4 824.7 1218.8 291.0 | $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ $<1$ | $\begin{aligned} & 0.2 \\ & 0.2 \\ & 0.3 \\ & 0.3 \\ & 0.2 \\ & 0.1 \\ & 0.3 \\ & 0.4 \\ & 0.2 \\ & 0.1 \end{aligned}$ |  |  |  |  |
| 85.50 | 87.75 | $\begin{aligned} & \text { Fault Zone } \\ & \text { (CLAY }+++ \text { ) } \end{aligned}$ | Fault Zone (CLAY+++) <br> -intense clay atteration and oxidized fractures of medium grained diorite <br> -shear planes oriented at 30 deg. to CA -very rubbely core | $\begin{aligned} & 117429 \\ & 117430 \end{aligned}$ | $\begin{aligned} & 85.50 \\ & 86.75 \end{aligned}$ | $\begin{aligned} & 86.75 \\ & 87.75 \end{aligned}$ | $\begin{aligned} & 1.25 \\ & 1.00 \end{aligned}$ | $\begin{aligned} & 0.03 \\ & 0.02 \end{aligned}$ | $\begin{aligned} & 2696.8 \\ & 1785.3 \end{aligned}$ | $\begin{aligned} & <1 \\ & <1 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 0.2 \end{aligned}$ |  |  |  |  |



HOLE R6-04 PAGE 6


HOLE R6-04 PAGE 7

| $\begin{gathered} \text { From } \\ \text { (m) } \end{gathered}$ | $\begin{gathered} \text { To } \\ \text { (m) } \end{gathered}$ | $\begin{aligned} & \text { Rock } \\ & \text { Type } \end{aligned}$ | Rock Type Description | Samp. No | $\begin{aligned} & \hline \text { From } \\ & (\mathrm{m}) \end{aligned}$ | $\begin{aligned} & \mathrm{To} \\ & \text { (m) } \end{aligned}$ | Samp. (m) | $\begin{gathered} A A_{n} \\ (g / t) \end{gathered}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{gathered} \mathrm{Te} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{gathered} A l \mathrm{l} \\ \hline(g / t) \end{gathered}$ | $\begin{gathered} A S \\ (p p m) \end{gathered}$ | $\begin{gathered} \text { say kes } \\ \hline \text { (ppm) } \end{gathered}$ | $\begin{gathered} B \mathrm{ILSS}^{B /} \\ (\mathrm{ppm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Medium Grained Diorite ( $\mathrm{CHL}++$ ) (ALB+) Continued | coarse grained arsenopyrite in albite altered sections <br> -from 106.23 to 108.00 m , variably albite altered medium grained diorite with up to $5 \%$ coarse grained arsenopyrite in intensively albite altered sections, weakly blocky core <br> -at 107.74 m , shear fault oriented at 10 deg . to $C A$ <br> -from 108.00 to 113.00 m , intense chlorite altered medium grained dionite with intervals of epidote (2\%) and jasper (2\%) alteration <br> -at 111.77 m , clay gauge fault oriented at 40 deg. to $C A$ -at 116.65 m , clay fault, 1 cm wide, oriented at 70 deg. to CA -from 116.72 to $119.45 m$, biotite altered medium grained diorite with chlorite stockwork veins and intervals of albite and epidote alteration, up to $2 \%$ fine grained arsenopyrite in albite and epidote altered sections <br> the core is generally weakly blocky -the color of the unit varies from medium grey to dark green |  |  |  |  |  |  |  |  |  |  |  |  |
| 119.45 | 119.83 | Plagioclase Porphyritic Dyke (B1O +++ ) | Plagioclase Porphyritic Dyke (BIO+++) -biotite altered -trace disseminated arsenopyrite and trace pyrite |  |  |  |  |  |  |  |  |  |  |  |  |
| 119.83 | 121.35 | Dyke | Dyke <br> -pale purplish brown to greyish green <br> $-0.5 \%$ calcite veins and stringers <br> -from 120.98 to 121.09 m , intensely albite altered xenolith containing $2 \%$ disseminated arsenopyrite -weakly blocky core | 117462 | 119.83 | 121.35 | 1.52 | $<0.01$ | 238.7 | $<1$ | 0.1 |  |  |  |  |

HOLE R6-04 PAGE 8

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline From (m) \& \begin{tabular}{l}
To \\
(m)
\end{tabular} \& Rock Type \& Rock Type Description \& Samp. No \& From (m) \& \[
\begin{aligned}
\& \mathrm{To} \\
\& \text { (m) }
\end{aligned}
\] \& Samp. (m) \& \[
\frac{\mathrm{Au}}{(\mathrm{~g} / \mathrm{t})}
\] \& \[
\begin{gathered}
\text { As } \\
\text { (ppm) }
\end{gathered}
\] \& \[
\frac{\mathrm{Te}}{(\mathrm{ppm})}
\] \& \[
\overline{(\mathrm{Bpm})}
\] \& \[
\begin{gathered}
A u \\
(g / t) \\
\hline
\end{gathered}
\] \& \[
\begin{gathered}
A s \\
(\rho p m)
\end{gathered}
\] \& \[
\begin{gathered}
\frac{1}{T e} \\
(p p m)
\end{gathered}
\] \& \[
\begin{gathered}
B i \\
(p p m)
\end{gathered}
\] \\
\hline 121.35 \& 140.00 \& Plagioclase Porphy ritic Dyke (ALB++) \& \begin{tabular}{l}
Plagloclase Porphyritic Dyke (ALB++) \\
-rare xenoliths of albite altered volcanic and albite altered medium grained diorite \\
-trace to \(1 \%\) disseminated arsenopyrite \\
-trace arsenopyrite on fractures \\
-very blocky rubbely core \\
\(-1 \%\) calcite stringers in a random stockwork \\
-from 133.29 to 138.00 m , core coated with oil -medium grey mottled white colored \\
\(-20 \%\) euhedral plagioclase, nil to \(5 \%\) disseminated biotite and groundmass is albite altered
\end{tabular} \&  \& 121.35 123.83 124.75
125.66 127.19 128.71
130.24 132.07 133.29
135.12 Blank 136.34 138.25 \& 122.31
123.83
114.75
125.66
127.19
128.71
130.24
13.07
133.29
135.12
136.34

133.25
138.25
139.30 \& 0.96
1.52
0.92
0.92
1.93
1.61
1.61
1.53
1.83
1.22
1.83
1.22

0.91
1.90
1.05 \& 0.01
00.01
0.03
0.03
0.41
0.01
0.01
0.07
0.11
0.14
0.10
0.10
00.13
0.01
0.81
0.36
0.24
0.03
0 \& 310.4
1038.3
624.4
926.4
648.6
874.1
$\gg 0.000$
$>10000$
$>10000$
$>10000$
$>410000$
42.2
6.8
$\gg 10000$
$>10000$
4785.4 \& $<1$
$<1$
$<1$
2
12
$<1$
$<1$
2
2
2
3
3
2
2
$<1$
$<1$
$<1$
2
1
$<1$ \& 0.1
0.6
7.1
84.3
04.6
0.6
.5
4.6
4.0
2.5
3.3
0.1
0.3
4.7
2.9
0.9 \& \& \& \& <br>
\hline 140.00 \& 141.40 \& Medium
Grained
Diorite

(ALB++) \& | Medium Grained Diorite (ALB++) |
| :--- |
| -intensely albite altered with $5 \%$ biotite |
| $-70 \%$ feldspar and $30 \%$ of bioite and groundmass |
| $-0.5 \%$ calcite stringers |
| -very blocky core |
| -no sulphide seen |
| -medium grey mottled purplish brown colored | \& \[

$$
\begin{aligned}
& 117479 \\
& \hline 117480
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 139.30 \\
& 140.00
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 140.00 \\
& 141.40
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 0.70 \\
& 1.40
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 0.06 \\
& 0.02
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& \gg 10000 \\
& 1129.1
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& \frac{1}{1} \\
& <1
\end{aligned}
$$

\] \& \[

$$
\begin{array}{r}
1.0 \\
\hline 0.2 \\
\hline 0.2
\end{array}
$$
\] \& \& \& \& <br>

\hline 141.40 \& 148.50 \& \[
$$
\begin{aligned}
& \text { Altered } \\
& \text { Vorcancic } \\
& \text { (ALB++)/ } \\
& \text { Medium } \\
& \text { Grained } \\
& \text { Dioritte } \\
& \text { (ALB++) } \\
& \text { (BIO+) }
\end{aligned}
$$

\] \& | Altered Volcanic (ALB++)/ |
| :--- |
| Medium Grained Diorite (ALB++)(BIO + ) |
| -mixed unit of $40 \%$ albite altered volcanic and $60 \%$ albite and biotite altered medium grained diorite -very blocky core |
| $-1 \%$ arsenopyitte and pyrite on fractures -medium grey to medium grey mottled purplish brown colored | \& \[

$$
\begin{aligned}
& 117481 \\
& 117482 \\
& 117483 \\
& 117484 \\
& 117485
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 141.40 \\
& 124.44 \\
& 143.81 \\
& 145.49 \\
& 14.00
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 142.44 \\
& 143.81 \\
& 145.49 \\
& 147.00 \\
& 148.50
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 1.04 \\
& 1.37 \\
& 1.68 \\
& 1.51 \\
& 1.50
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 0.02 \\
& 0.01 \\
& 0.02 \\
& 0.01 \\
& 0.02
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 216.6 \\
& 201.5 \\
& 287.6 \\
& 214.6 \\
& 369.9
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& <1 \\
& <1 \\
& <1 \\
& <1 \\
& <1
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& \hline 0.1 \\
& 0.1 \\
& 0.1 \\
& 0.1 \\
& 0.2
\end{aligned}
$$
\] \& \& \& \& <br>

\hline 148.50 \& 153.68 \& \[
$$
\begin{array}{|l|l|}
\hline \text { Plagioclase } \\
\text { Porphyitic } \\
\text { pyke } \\
\text { (ALB++) }
\end{array}
$$

\] \& | Plagloclase Porphyritic Dyke (ALB++) |
| :--- |
| -flow banded albite altered dyke |
| -up to $2 \%$ disseminated coarse grained arsenopyrite and $2 \%$ disseminated pyite | \& \[

$$
\begin{aligned}
& 117486 \\
& 11787 \\
& 117488 \\
& 117889
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 148.50 \\
& 149.50 \\
& 150.50 \\
& 151.50
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 149.50 \\
& 150.50 \\
& 151.50 \\
& 12.50
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 1.00 \\
& 1.00 \\
& 1.00 \\
& 1.00
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 0.18 \\
& 0.07 \\
& 0.05 \\
& 0.34
\end{aligned}
$$

\] \& \[

$$
\begin{gathered}
577.2 \\
1985.8 \\
648.4 \\
1541.9
\end{gathered}
$$

\] \& \[

$$
\begin{aligned}
& 2 \\
& <1 \\
& <1 \\
& <1
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& 0.8 \\
& 1.4 \\
& 0.5 \\
& 0.3
\end{aligned}
$$
\] \& \& \& \& <br>

\hline
\end{tabular}

| HOLE R6-04 PAGE 9 Acme Assay Results $\quad$ Als Chemex Assay Resilit |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From (m) | To (m) | Rock Type | Rock Type Description | $\begin{gathered} \text { Samp. } \\ \text { No. } \end{gathered}$ | $\begin{gathered} \text { From } \\ (\mathrm{m}) \end{gathered}$ | $\begin{aligned} & \text { To } \\ & \text { (m) } \end{aligned}$ | $\begin{gathered} \operatorname{Samp}_{2} \\ (\mathrm{~m}) \end{gathered}$ | $\begin{aligned} & \mathrm{Au} \\ & (\mathrm{~g} / \mathrm{t}) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { As } \\ \text { (ppm) } \end{gathered}$ | $\begin{aligned} & \mathrm{Te} \\ & \text { (ppm) } \end{aligned}$ | $\begin{gathered} \mathrm{Bi} \\ (\mathrm{ppm}) \end{gathered}$ | $\begin{aligned} & A u \\ & (g / t) \end{aligned}$ | $\begin{gathered} \text { As } \\ (\text { pom }) \end{gathered}$ | $\begin{gathered} T e \\ (\text { Ppm }) \end{gathered}$ | $\begin{gathered} B i \\ (p p m) \end{gathered}$ |
|  |  | $\begin{array}{\|l\|l\|} \hline \text { Plape } \\ \hline \text { Porpoclase } \\ \text { Pyphritic } \\ \text { (ALB+ } \\ \text { Continued } \\ \hline \end{array}$ | -light $\tan$ with bands of yellow -very blocky core | 117490 | 152.50 | 153.68 | 1.18 | 0.22 | 1973.1 | $<1$ | 0.4 |  |  |  |  |
| 153.68 | 169.89 | Altered Volcanic | Altered Volcanic <br> -hornfels <br> -color varies purplish brown to dark green <br> -intervals of bleaching of albite alteration around rare calcite veins <br> -from 165.92 to 166.53 m , plagioclase porphyritic dyke <br> -no mineralization seen <br> -weakly blocky core <br> EOH 169.89m <br> Core stored at David Schusler facilities in Aldergrove | 117491 <br> 117492 <br> 117493 <br> 117494 <br> 117495 <br> 117496 <br> 117497 <br> 117498 <br> 117499 <br> 117500 <br> 117500 <br> 117503 | 153.68 155.00 156.50 155.00 1195.50 161.00 162.50 14600 Blank Cdancsi2 165.50 165.92 167.53 | $\begin{aligned} & 155.00 \\ & 156.50 \\ & 158.00 \\ & 159.50 \\ & 161.00 \\ & 166.50 \\ & 164.00 \\ & 165.50 \\ & \\ & 165.92 \\ & 167.53 \\ & 169.89 \end{aligned}$ | $\begin{aligned} & 1.32 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & 1.50 \\ & \\ & \\ & \\ & 1.42 \\ & 1.61 \\ & 2.36 \end{aligned}$ | $\begin{gathered} 0.81 \\ 0.41 \\ 0.44 \\ 0.24 \\ 0.15 \\ 0.02 \\ <0.01 \\ 0.01 \\ 0.01 \\ 0.01 \\ <0.01 \\ 10.44 \\ \hline 0.02 \\ 0.02 \\ 0.12 \\ \hline 0.12 \end{gathered}$ | $\begin{gathered} 11225.3 \\ 1745.4 \\ 2444.0 \\ 183.6 \\ 78.9 \\ 59.1 \\ 66.9 \\ 52.8 \\ 3.9 \\ 2.9 \\ 74.8 \\ 49.9 \\ 257.9 \end{gathered}$ |  | 0.1 0.2 0.2 $<0.1$ $<0.1$ $<0.1$ $<0.1$ $<0.1$ $<0.1$ 0.1 $<0.1$ $<0.1$ 0.1 |  |  |  |  |

APPENDIX 2
Assay Certificates


Standard is STANDARD DS5/AU-1.
GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCI HNO3-H20 AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS.
( $>$ ) CONCENTRATION EXCEEDS UPPER Limits. some minerals may be partially attacked. refractory and graphitic samples can limit au solubility. AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

- SAMPLE TYPE: CORE R150 60C

Data $\qquad$ FA $\qquad$ DATE RECEIVED:

APR


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



Standard is STANDARD DS5/AU-1. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



Standard is STANDARD DS5/AU-1. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.





[^0]

## SAMPLE:

## 117170

 117171 117172 117173117174 ROCX
$\begin{array}{llllllllllllllllllll}.3 & 8.0 & 3.1 & 21 & <.1 & 2.8 & 6.5 & 237 & 1.10 & 671.5 & 1.4 & 10.5 & 7.6 & 173 & .1 & 1.1 & .1 & 17 & 2.42 & .022 \\ 9\end{array}$





117175 PULP
117176
117177
117178
117179
$\begin{array}{llllllllllllllllllllll}21.7 & 112.0 & 4.2 & 45 & .1840 .0 & 27.6 & 737 & 4.39 & 2.5 & .8 & 9767.6 & 2.8 & 100 & <.1 & .5 & .1 & 101 & 1.10 & 054 & 9\end{array}$ $\begin{array}{lllllllllllllllllllllllll}7 & 31.0 & 3.9 & 38 & .1 & 3.1 & 6.3 & 249 & 2.07 & >10000 & .5 & 147.2 & 2.0 & 118 & .2 & 3.5 & 4.3 & 24 & 2.15 & .054 & 7\end{array}$ $\begin{array}{lllllllllllllllllllllll}1.3 & 25.9 & 4.9 & 118 & .1 & 1.9 & 3.9 & 254 & 1.64 & 7067.9 & .5 & 112.1 & 2.1 & 54 & 1.6 & 2.5 & 1.6 & 16 & 1.42 & .049 & 8\end{array}$



117181
117182
RE 117182
RRE 117182
$\begin{array}{lllllllllllllllllllllll}.7 & 16.2 & 2.5 & 38 & .1 & 1.9 & 7.7 & 335 & 2.25 & 1296.1 & 1.1 & 12.7 & 4.2 & 41 & .1 & .8 & .3 & 46 & 1.14 & .081 & 7\end{array}$
 $\begin{array}{llllllllllllllllllll}1.2 & 61.9 & 2.1 & 42 & .1 & 3.9 & 14.9 & 464 & 3.07 & 167.5 & .4 & 1.3 & 1.2 & 122\end{array}$ $\left.\begin{array}{lllllrll}1.8 & 23.5 & 1.7 & 43 & <.1 & 10.1 & 22.6 & 462 \\ 1.7 & 24.52 \\ 1.7 & 23.1 & 2.2 & 41 & <.7 & 41 & <.1 & 9.822 .8 \\ 10.1 & 22.0 & 449 & 2.36 \\ 261.3 \\ 261.5 \\ 252.3\end{array}\right) .3$

| .3 | 16.6 | 3.4 | 55 | .1 | 6.1 | 11.8 | 590 | 2.74 | 158.4 | .8 | 1.5 | 2.6 | 58 | .1 | 1.4 | .1 | 70 | 2.59 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1.1 | 14.0 | 3.2 | 25 | $<.1$ | 1.7 | 2.9 | 472 | 1.69 | 359.2 | 1.3 | 2.1 | 4.1 | 43 | .1 | 1.5 | .1 | 17 | 2.60 | $\begin{array}{lllll}6.4 & 1,0 & 71 & .1\end{array}$


$\begin{array}{llll}9.8 & .85 & 29.112 & 6\end{array}$
$\begin{array}{llllllllllll}1.50 & .170 & .05 & .2<.01 & 3.3 & <.1 & .09 & 6 & <.5 & <1 & .02 & 2600\end{array}$
$\begin{array}{rrrrrrrrrrr}4 & 1.50 .170 & .05 & .2<.01 & 3.3 & <.1 & .09 & 6 & <.5 & <1 & .02 \\ 62650 \\ 62.59 .275 & .06 & 1.0 & <.01 & 5.4 & <.1 & .27 & 8 & <.5 & <1 & .01 \\ 5 & 4100\end{array}$


 | .1 | 79.5 | 2.5 | 76 | .1 | 6.6 | 21.8 | 648 | 5.58 | 280.8 | .3 | 1.5 | 1.0 | 67 | $<.1$ | 1.1 | .2 | 160 | 1.95 |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | $\begin{array}{llllllllll}25.9 & .92 & 12.154 & 5 & 2.02 & .242 & .06 & 2.8 & <.01 & 7.1\end{array}<.1<.05$ $\begin{array}{llllllllll}26.7 & .90 & 12.145 & 4 & 4.99 & .233 & .05 & 3.3<.01 & 6.9 & <.1<05\end{array}$

$$
\begin{array}{lll}
22.6 & .98 & 22.136
\end{array}
$$

117183
117184
117185

$$
\begin{array}{lll}
22.6 & .98 & 22.136 \\
25.1 & .36 & 13.081
\end{array}
$$

117185
$\begin{array}{llllllllllllllllllllllllllllll}.8 & 62.7 & 2.4 & 59 & 1 & 5.4 & 22.2 & 566 & 4.44 & 2062.6 & .4 & 11.1 & 1.4 & 76 & .1 & 1.2 & .2 & 119 & 2.09 & 158 & 7\end{array}$
117188
$\begin{array}{llllllllllllllllllllll}1.1 & 11.0 & 3.2 & 37 & <.1 & 2.6 & 8.2 & 424 & 2.22 & 840.7 & 1.2 & 4.9 & 4.4 & 44 & .1 & .7 & .1 & 44 & 1.54 & .062 & 7\end{array}$ $\begin{array}{lllllllllllllllllllllllllllll}.3 & 6.5 & 3.7 & 30 & <.1 & 1.7 & 4.3 & 292 & 1.83 & 778.3 & 1.1 & 1.5 & 4.0 & 26 & .1 & .8 & .1 & 28 & 1.14 & .042 & 7\end{array}$
 $\begin{array}{lllllllllllllllllllllllll}.3 & 19.4 & 3.3 & 31 & <.1 & 2.5 & 5.8 & 284 & 1.73 & 270.5 & 1.6 & 1.5 & 5.1 & 28 & .1 & .7 & .1 & 35 & 1.07 & .052 & 8\end{array}$
 $\begin{array}{llllllllllllll}10.3 & 46 & 28 & .098 & 31.30 .153 & .08 & .1<.01 & 2.3 & <.1<.05 & 5 & <.5 & <1 & <.01 & 3600\end{array}$ $\begin{array}{llllllllllllll}36.0 & 1.56 & 64.207 & 1 & 2.40 .178 & .25 & .9 & <.01 & 7.1 & 1 & .12 & 10 & <.5 & <1\end{array}<.011700$ $\begin{array}{lllllllllllllll}8 & 11.1 & .51 & 23 & 104 & 3 & 1.02 & .099 & .08 & .2<.01 & 3.4 & <.1<.05 & 5 & <.5 & <1\end{array}<.01 \quad 3400$












[^1]
## SAMPLEF

| ppm | lu | Pb | In | Ag | Ni | to | Th | Fe |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

117202
117203
117204.
117205 117206
117207 117208
117209 117209
117210 117210 11721

| 7230 | 1.0 | 51.11 .7 | 46 | . 1 | 4.713 .0 | 4623.42 | 7291.8 |  | 154.4 | 1.4 | 31 | . 1 | 1.4 | . 7 | 761.32 | . 108 | 7 | 8.5 | . 98 | 23.097 | 31.87 | . 137 | . 08 | . 3 | . 01 | 5.7 | < 1 | . 33 | 7 | . 4 | <1 | 18 | 3200 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17231 | 2.0 | 43.51 .3 | 38 | . 1 | 2.811 .3 | 3352.99 | 2531.6 | . 6 | 10.6 | 1.9 | 28 | < 1 | . 7 | 1.3 | 661.19 | . 115 | 7 | 7.2 | . 75 | 118.146 | 31.99 | 195 | . 27 | . 2 | . 01 | 4.1 | . 1 | . 41 | 7 | . 8 | <1 | . 01 |  |
| 232 | 2.1 | 66.31 .3 | 45 | . 1 | 4.314 .6 | 3903.59 | 965.1 | . 9 | 4.0 | 1.7 | 34 | < 1 | . 5 | 1.2 | 881.18 | 128 | 8 | 8.7 | 93 | 191.204 | 42.13 |  | 60 | 1 | 02 | 6.3 | . 3 | 52 | 8 | 1.1 | <1 | . 01 |  |
| 17233 | 1.3 | 57.91 .4 | 34. | . 1 | 3.815 .2 | 3393.31 | 1433.6 | . 4 | 4.5 | 1.2 | 44 | <. 1 | : 5 | 1.3 | 701.31 | . 124 | 7 | 6.6 | . 75 | 44.146 | 31.94 | 183 | . 14 | . 2 | . 02 | 5.0 | 1 | . 76 | 7 | 1.3 | <1 | . 01 |  |
| ARD DS5/All | 12.5 | 25.0 | 137 | . 3 | 24.512 | 7382.95 | 19.6 | 5.9 | 44.2 | 2.8 | 47 | 5.5 | 4.0 | 5.9 |  | . 097 | 13 | 185.5 | 68 | 136.096 | 162.0 |  | 14 | 4.8 | 17 | 3.6 |  |  | 7 | 5.0 | <1 |  |  |

[^2]
## SAMPLE\#

324

|  |  |  | 33 | . 1 | 2.816 .5 | 3753.49 | 9646.8 | . 7 | 37.9 | 2.8 | 82 | . 1 | 1.8 | 2.6 | 881.95 | 094 | 6 | 4.6 .69 | 73.098 | 42.50 .308 | . 22 | . 1 < 01 | 4.9 | . 82 | 8 | 2 | <1 | . 04 | 2200 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.1 | 77.0 | 2.5 | 29 | 1 | 3.310 .6 | 2722.30 | 657.9 | 2.8 | 1.7 | 4.8 | 32 | <. 1 | 5 | . 5 | 551.01 | 054 | 6 | 9.9 . 61 | 63.141 | 31.53 .196 | . 19 | . $1<.01$ | 3.5 | . 38 | 5 | . 8 | <1 | *. 01 | 2000 |
| . 9 | 85 | 6.6 | 55 | 2 | 9.424 .9 | 5224.70 | 1322.8 | . 8 | 47.4 | 1.3 | 75 | . 1 | . 7 | 1.4 | 1421.54 | 086 | 4 | 27.61 .65 | 185.260 | 52.71 .255 | . 72 | . 4.01 | 7.7 | . 3.97 | 8 | 1.4 | <1 | . 14 | 2800 |
| 1.2 | 73.0 | 1.7 | 42 | . 1 | 43.427 .6 | 36 | 996.3 | . 5 | 15.3 | . 8 | 61 | 1 | 1.8 | 1.5 | 921.35 | . 077 | 3 | .91.48 | 218.156 | 32.51 .284 | 60 | . $6 \times .01$ | 4.6 | 4.54 | 6 | 1.2 | <1 | 02 | 300 |
| . 6 | 89.0 | 1.3 | 36 | . 1 | 35.3 24.6 | 3293. | 3432.4 | . 4 | 15.4 | 1.1 | 83 | <. 1 | 1.5 | 2.5 | 911.36 | . 080 | 4 | 69.41 .28 | 251.163 | 32.45 .302 | . 77 | 1.01 | 4.6 | . 4.76 | 7 | 1.3 | <1 | 03 | 3500 |
|  | 109.1 | 1.9 | 45 | 2 | 4.922 .1 | 458 | 3885.6 | . 6 | 42.7 | 1.5 | 47 | <. 1 | 1.7 | 2.2 | 1261.57 | 105 | 5 | 71.31 | 75.165 | 22.03 .179 | . 18 | $2<.01$ | 7.1 | 11.12 | 7 | 2.0 | <1 | $5$ | 3000 |
| 1.3 | 72.3 | 1.5 | 32 | 1 | 4.917 .9 | 3173.18 | 4382.8 | . 6 | 64.6 | 2.1 | 40 | <. 1 | 1.2 | . 6 | 801.40 | . 083 | 4 | 9.9 .92 | 32.096 | 22.02 .244 | . 07 | $1<.01$ | 4.0 | <. $1 \quad .56$ | 7 | 1.4 | $<1$ |  | 3200 |
| 3.0 | 123.4 | 1.8 | 42 | . 2 | 6.720 .1 | 4593.75 | 2120.6 | 1.0 | 34.4 | 2.4 | 45 | <. 1 | 1.0 | . 9 | 1011.93 | . 106 | 5 | 20.01 .23 | 53.164 | 42.43 .277 | . 13 | <. 01 | 6.4 | 1.65 | 8 | 2.3 |  |  | 3500 |
| . 9 | 62.8 | 8.5 | 60 | . 1 | 18.511 .5 | 4142.73 | 32.0. | . 4 | 2.9 | 1.7 | 84 | <. 1 | . 5 |  | 721.55 | . 062 | 8 | 1.41 | 26.163 | 21.84 .139 | . 09 | . $2<.01$ | 6.5 | <. $1<.05$ | 9 |  |  |  | 900 |
| . 8 | 59.7 59.4 | 8.4 8.1 | 59 | . 1 | 18.310 .8 16.910 .3 | 4012.64 | $30.0$ | . 4 | 2.9 3.1 | 1.7 1.7 | 83 79 | <. 1 | . 5 | . 8 | 1701.49 | . 058 | 8 7 | 45.71 .36 45.81 .35 | 26.159 | 21.80 .133 21.74 .127 | .09 .08 | $2<.01$ | 6.4 6.3 | $<.1<.05$ | 10 |  |  |  |  |
| 1.0 | 59.4 | 8.1 2.3 | 59 38 | . 1 | 16.910 .3 3.117 .2 | 4523.66 | 351.2 | . 9 | 16.0 | 1.6 | 79 32 | . 1 | . 5 | . 4 | 1.92 | . 164 | 7 | 45.81 .35 4.51 .04 | 47.156 | 42.27 .272 | . 08 | < 01 | 6.5 | 77 |  | 1.0 |  |  | 100 |
| 1.3 | 55.6 | 1.4 | 39 | . 1 | 3.819 .8 | 3993.38 | 1655.5 | . 9 | 43.6 | 2.0 | 30 | . 1 | . 6 | . 3 | 1.7 | . 159 | 8 | . 92 | 37.125 | 18 | . 10 | . $4<.01$ | 5.3 | <.1 . 51 | 8 | 1.1 | <1 |  | 2000 |
| 1.2 | 73.5 | 2.1 | 48 | 1 | 3.921 .9 | 5043.8 | 1348.2 | . 9 | 76.6 | 1.6 | 51 | <. 1 | . 8 | . 4 | 1132.05 | 152 | 8 | 5.51 .17 | 55.144 | 3 2.04 .192 | . 14 | $8.8<.01$ | 7.2 | 1.42 | 8 | 1.0 | <1 |  | 2100 |
| 1.2 | 55.7 | 2.1 | 48 | . 1 | 3.020 .2 | 4933.62 | 819.3 | . 9 | 90.0 | 1.9 | 56 | <.1 | . 7 | . 3 | 1161.96 | 123 | 7 | 5.31 .16 | 50.146 | 21.97 .161 | 12 | . 4 <. 01 | 7.3 | . 1.23 | 8 | . 8 | <1 | $3$ | 240 |
|  | 169 | 2.0 | 44 | . 3 | 3.121 .8 | 2.91 | 967.9 |  | 344.3 | 1.6 | 83 | 1 | . 6 | . 2 | 1031.54 | 079 | 5 | 5.0 .81 | 140.167 | 22.08 .249 | . 40 | $3.6<01$ | 5.5 | . 2.19 | 7 | 8 | , |  | 300 |
| 1.0 | 118.9 | 6.6 | 35 | . 2 | 3.521 .0 | 3032.05 | 627.1 | . 5 | 15.2 | 1.0 | 151 | . 1 | . 7 | . 1 | 2.03 | 080 | 5 | 4.0 .52 | 34. | 22.32 .325 | . 10 | 6.8 .01 | 6.0 | <. 1.12 | 7 | 5 | 1 |  | 2100 |
| . 8 | 39.6 | 3.9 | 93 | . 2 | 10.98 .7 | 3722.41 | 8.8 | . 6 | 1.0 | 1. | 135 | . 1 | 8 | 1 | 684.28 | 057 | 6 | $24.7 \quad .73$ | 98.158 | 21.63 .096 | . 10 | $2<.01$ | 3.3 | <. 1.11 | 5 | < 5 | $<1$ |  | 800 |
| 18.6 | 67.2 | 16.9 | 52 |  | 800.024 .2 | 6413.16 | 7.3 | 1.5 | 658.8 | 2.6 | 78 | 1 | 1.1 | . 3 | 58.79 | 060 | 101 | 237.5 . 65 | 178.137 | 31.36 .130 | . 34 | 3.4 .02 | 3.5 | . $2<.05$ | 6 | < 5 | $<1$ |  |  |
|  | 141.5 | 4.8 | 51 | . 2 | 8.425 .1 | 3942.78 | 860.7 | . 5 | 16.1 | 1.4 | 101 | . 1 | . 9 | . 1 | 1101.77 | . 078 | 5 | 7.4 .92 | 34.142 | 22.20 .255 | . 12 | . 4 <. 01 | 5.5 | . 1.17 | 7 | . 5 |  |  | 2100 |
| 2.1 | 13.3 | 3.4 | 41 | . 1 | 16.020 .9 | 4272.16 | 2124.2 | . 6 | 47.5 | 2.4 | 75 | <1 | 1.3 | . 4 | 831.75 | . 049 | 4 | 33.2 . 99 | 23.101 | 21.61 .180 | . 07 | $1.0<01$ | 5.1 | <. 1.10 | 6 | <. 5 |  |  | 2400 |
| . 9 | 8.8 | 4.0 | 46 | . 1 | 18.823 .0 | 4842.2 | 1515.2 | . 5 | 75.7 | 2.1 | 68 | . 1 | 1.3 | . 3 | 91.81 | . 044 | 4 | 39.71 .16 | 21.121 | 11.60. 154 | . 07 | $4<01$ | 6.5 | < 1 | 6 | <. 5 |  |  | 2200 |
| 3.5 | 68.5 | 3.9 | 53 | . 2 | 19.424 .5 | 6333.13 | 8170.5 |  | 663.4 | 1.6 | 205 | 1 | 4.5 | 1.6 | 1003.90 | . 053 | 4 | 39.61 .38 | 57.071 | 33.30 .366 | . 14 | $>100<01$ | 8.6 | . 1.31 | 9 | 1.0 |  |  | 200 |
| 5.7 | 91.8 | 3.7 | 44 | . 2 | 19.724 .3 | 4592.8 | 72 |  | 611.8 | 1.6 | 169 | 1 | 4.3 | 1.5 | 902.71 | 048 | 4 | 39.31 .00 | 47.072 | 42.99 .364 | . 15 | $>100.01$ | 5.3 | 1.25 | 9 | 1.1 |  |  | 2300 |
| 11.0 | 41.4 | 3.8 | 40 | . 1 | 22.022 .8 | 3122.35 | 8511.2 |  | 331.5 | 1.4 | 150 | 1 | 2.7 | . 5 | 622.32 | . 056 | 3 | 42.5 .80 | 53.073 | 3 3.05 . 453 | . 13 | $43.0<01$ | 4.7 | <. 1.13 | 8 | 1.1 | $<1$ | $4 \mathrm{ex}$ | 3200 |
| 4.6 | 12.3 | 5.6 | 55 | . 2 | 10.910 .1 | 3932.54 | 1223.0 |  | 152.4 | 2.1 | 104 | 1 | 1.5 | 1 | 512.27 | . 058 | 8 | 29.3 . 89 | 43.079 | 32.10 .224 | 27 | $54.0 \quad 01$ | 5.5 | . 1.06 | 8 | <. 5 | <1 | 20 | 2600 |
| 2.1 | 14.6 | 3.7 | 38 | < 1 | 8.88 .5 | 2562.36 | 418.2 | 4 | 86.3 | 2.6 | 111 | < 1 | 6 | 1 | 471.48 | . 055 | 8 | 26.9 .94 | 45.118 | 32.22 .250 | . 23 | . $7<.01$ | 4.6 | . $1<.05$ | 10 | <. 5 | ${ }^{4}$ | 10 | 2000 |
| 1.5 | 15.8 | 5.7 | 38 | . | 8.4 8.6 | 3692.21 | 59.4 | 4 | 47.5 | 2.5 | 122 | <.1 | 5 | 1 | 292.52 | . 055 | 8 | 19.3 .79 | 44.051 | 31.48 .081 | . 22 | . $6<.01$ | 3.0 | 1.09 | 6 | <. 5 | <1 | . 06 | 2100 |
| . 9 | 17.6 | 4.7 | 38 | <. 1 | 8.59 .0 | 3022.22 | 41.0 | . 5 | 16.0 | 3.0 | 67 | < 1 | 3 | < 1 | 401.38 | . 055 | 8 | $24.5 \quad .90$ | 30.137 | 21.77 .144 | . 16 | $4<.01$ | 3.7 | 1 <. 05 | 8 | <. 5 | 1 | . 02 | 00 |

Sample type: CORE R150 60 . Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

TO: LOGAN RESOURCES LTD. 720-475 HOWE ST

Page: 1 VANCOUVER BC V6C 2B3

## CERTIFICATE VA04021912

## Project:

P.O. No.:

This report is for 50 Rock samples submitted to our lab in Vancower, BC, Canada on 21-APR-2004.

The following have access to data associated with this certificate: DAVID BRIDGE

| SAMPLE PREPARATION |  |
| :---: | :---: |
| ALS CODE | DESCRIPTION |
| WEl-21 | Received Sample Weight |
| LOG-22 | Sample login - Rcd w/o BarCode |
| SPL-21 | Spili sample - riflle spiliter |
| PUL-31 | Pulverize split to $85 \%$ < 75 um |


|  | ANALYTICAL PROCEDURES |  |
| :--- | :--- | :--- |
| ALS CODE | DESCRIPTION | INSTRUMENT |
| Au-AA23 | Au 30g FA-AA finish | AAS |
| ME-MS62 | Trace level ICP-MS analysis | ICP-MS |

To: LOGAN RESOURCES LTD.
ATTN: DAVID BRIDGE
720-475 HOWE ST
VANCOUVER BC V6C 2B3

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

Signature:




standard is STANDARD DS5/AU-1.
GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS. (>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY - SAMPLE TYPE: CORE R150 60 AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data $\alpha / \mathrm{FA}$ $\qquad$ DATE RECEIVED: APR 152004 DATE REPORT MAILED:. APR/.29.04.
All results are considered the confidential property of the client . Acme assumes the liabilities for actual cost of the analysis only


Standard is STANDARD DS5/AU-1. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.


Standard is STANDARD DS5/AU-1.


To: LOGAN RESOURCES LTD.
ATTN: DAVID BRIDGE
720-475 HOWE ST
VANCOUVER BC V6C 2B3



Comments: REE's may not be totally soluble in MS61 method.


Comments: REE's may not be totally soluble in MS61 method.



## Standard is STANDARD DS5/AU-1.

GROUP $10 X-0.50$ GM SAMPLE LEACHED WITH 3 ML $2-2-2$ HCL-HNO3-H2O AT 95 DEG. $C$ FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS. ( $>$ ) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBIL Data FA DATE RECEIVED: APR 232004 DATE REPORT MAILED:. $10.10 \% .3$ All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.


| 117422 | . 104.9 | 2.3 | 49 | 2 | 29.022 .8 | 5714.13 | 1797.8 | 3 | 11.9 | . 7 | 20 | . 1 | . 8 | . 3 | 1372.19 | . 059 | 3 | 11.61 .27 | 7.105 | 22.14 .062 | 03 | . 4 | . 01 | 5.4 | ¢. 1 | . 30 | 8 | . 2 | ¢1 | 01 | 2100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 117423 | . 994.3 | 1.8 | 49 | . 1 | 5.831 .1 | 6034.27 | 1897.3 | 4 | 14.6 | 1.2 | 39 | . 1 | . 6 | . 2 | 1552.28 |  | 4 | 5.61 .23 | 12.101 | 12.15 .133 | . 04 | . 2 | . 01 | 6.9 | < 1 | . 24 | 8 | 1.2 | <1 | 01 | 2300 |
| 117424 ROCK | .8 41.5 | 4.1 | 89 |  | 12.69 .1 | 3362.10 | 8.2 | . 7 | 1.8 | 1.2 | 140 | . 1 | . 8 | . 1 | 614.37 | . 056 | 5 | 20.1.69 | 62.137 | 21.40 .073 | . 09 | . 8 | 01 | 2.8 | <. 1 | 14 | 5 | <. 5 | 1 | < 01 | 700 |
| 117425 PULP | 15.764 .6 | 16.5 | 49 |  | 2676.120 .7 | 5812.88 | 7.4 | 1.5 | 649.8 | 2.6 | 76 | . 1 | 1.1 | . 3 | 57.73 | 059 | 9 | 1009.7 . 61 | 168.131 | 31.29 .122 | . 32 | 3.0 | . 02 | 3.7 |  |  | 5 | <. 5 | <1 | 77 |  |
| 117426 | . 6122.4 | 3.5 | 51 | 2 | 29.230 .1 | 7094.73 | 824.7 | . 3 | 64.3 | . 6 | $\stackrel{53}{1}$ | . 1 | . 8 | . 4 | 2032.87 | . 084 | 3 | 14.01 .57 | 12.155 | 12.47 .134 | . 05 | 3 | . 01 | 8.9 | <. 1 | . 44 | 9 | 1.0 | <1 | 07 | 2500 |
| 427 | 69 | 2.5 | 42 | . 1 | 11.127 .5 | 5773 | 1218.8 | . 3 | 3 | 1.0 | 35 | . 1 | . 6 | 2 | 123 | 093 | 3 | 24.81 .23 | 10.108 | 1.81 .104 | . 04 | 4 | . 01 | 6.5 | < 1 | . 21 | 6 | . 8 | 1 | 01 | 00 |
| 117428 | . 642.0 | 2.7 | 44 | 1 | 111.618 .9 | 5682.94 | 291.0 | . 3 | 9.3 | 1.5 | 40 | . 1 | . 5 | 1 | 951.95 | 074 | 4 | 30.91 .34 | 12.127 | 12.08 .162 | . 04 |  | <. 01 | 7.2 | <.1 | . 12 | 7 | <. 5 | <1 | 01 | 3300 |
| 117429 | 1.183 .4 | 2.5 | 59 | . 1 | 14.827 .4 | 9494.91 | 2696.8 | . 6 | 41.0 | . 7 | 30 | . 1 | 1.3 | . 3 | 1712.76 | 113 | 3 | 4.92 .13 | 5.101 | 22.68 .103 | . 03 | . 4 | . 01 | 9.1 | <, 1 | . 56 | 10 | 1.2 | <1 | . 03 | 2900 |
| 117430 | .2 24.0 | 2.1 | 49 | < 1 | $1 \begin{array}{ll}1 & 3.216 .5\end{array}$ | 6273.41 | 1785.3 | 1.0 | 12.0 | 1.9 | 38 | < 1 | . 9 | . 2 | 921.33 | 101 | 6 | 4.31 .47 | 14.094 | 21.82 .067 | . 06 | . 3 | 01 | 7.1 | <. 1 | 10 | 8 | 8 | 4 | 02 | 1400 |
| 117431 | . 7 90.3 | 2.4 | 64 | 1 | 13.420 .5 | 7464.41 | 851.8 | . 4 | 10.4 | . 8 | 33 | . 1 | . 5 | . 3 | 1552.30 | 147 | 6 | 4.81 .52 | 30.135 | 22.01 .080 | . 08 | . 5 | . 01 | 8.7 | < 1 | 28 | 9 | 9 | <1 | 02 | 3800 |
| 117432 | 1.175 .8 | 8.8 | 7 | . 1 | $1<.11 .8$ | 1 | 18 | . 8 | 16.5 | 6.0 | 31 | . 1 | 1.3 | 4 | 1.23 | 003 | 13 | 1.3 . 08 | 33.005 | 2.32 .042 | . 15 |  | . 01 | . 9 | < 1 | 60 | 1 | 1.2 | <1 | . 02 | 1700 |
| 117433 | 2.476 .1 | 4.4 | 11 | . 1 | 1.81 .5 | 1321.06 | 2475.4 | . 9 | 39.7 | 5.4 | 32 | . 1 | 3.7 | . 5 | 21.25 | 005 | 12 | 3.3 . 12 | 32.004 | 40.027 | 16 | 1.9 | <. 01 | 1.1 | <. 1 | 50 | 2 | 8 | <1 | 04 | 1400 |
| 117434 | 1.7117 .7 | 5.9 | 11 | . 1 | 1.25 .3 | 1361.20 | 1969.9 | 7 | 39.4 | 6.0 | 29 | . 1 | 1.4 | . 6 | 71.78 | 006 | 12 | 1.4 .13 | 40.005 | . 45.037 | 14 | 1 | . 01 | 1.3 | < 1 | . 56 | 2 | 1.1 | <1 | . 04 | 2500 |
| 117435 | 1.0147 .4 | 3.2 | 57 | 2 | $2 \quad 5.041 .5$ | 5534.25 | 5084.4 | . 4 | 53.0 | . 9 | 39 | . 1 | 1.3 | . 7 | 1551.87 | 107 | 5 | 7.61 1.39 | 24.092 | 12.06 .146 | 07 |  | <. 01 | 6.8 | < 1 | 45 | 8 | 1.7 | <1 | 05 | 1800 |
| 117436 | . 473.6 | 4.9 | 41 | . 1 | 112.916 .2 | 4482.74 | 586.9 | . 4 | 5.8 | . 6 | 78 | . 1 | 6 | . 4 | 1082.03 | . 060 | 3 | 17.21 .08 | 24.119 | 22.38 .280 | . 06 |  | <. 01 | 6.3 | < 1 | 20 | 7 | 7 | <1 | <. 01 | 1200 |
| 117437 | 42.4 | 2.8 | 33 | . 1 | 12.916 .7 | 4452.39 | 347.3 | . 5 | 4.9 | 1.4 | 89 | . 1 | . 7 | 4 | 871.95 | 061 | 3 | 27.01 .07 | 19.113 | 22.31 .303 | 04 | 4 | . 01 | 5.8 | < 1 | 18 | 6 | . 5 | 1 | 01 | 3100 |
| 117438 | 78.1 | 2.6 | 41 | . 1 | 13.019 .3 | 4272.81 | 215.8 | . 4 | 4.0 | . 9 | 88 | 1 | . 7 | 4 | 861.89 | 107 | 4 | 23.21 .00 | 43.111 | 22.27 .251 | 12 | . 1 | . 01 | 4.6 | 1 | 24 | 7 | 5 | <1 | 01 | 6000 |
| RE 117438 | . 877.5 | 2.4 | 40 | . 1 | 113.217 .1 | 4312.82 | 202.5 | . 4 | 5.7 | 1.0 | 87 | 1 | 7 | 4 | 851.93 | 108 | 5 | 22.11 .00 | 45.121 | 22.34 .257 . | 12 |  | <. 01 | 4.7 | 1 | 24 | 7 | <. 5 | <1. | 01 |  |
| RRE 117436 | . 989.7 | 2.5 | 40 | . 1 | 13.618 .0 | 4312.85 | 214.9 | . 4 | 4.8 | 1.0 | 85 | 1 | 6 | 4 | 861.88 | 108 | 5 | 21.91 .00 | 43.116 | 22.24 .240 | 11 |  | <. 01 | 4.4 | . 1 | 24 | 7 | . 5 | <1 | < 01 | - |
| 117439 | . 966.1 | 2.6 | 48 | . 1 | 13.220 .7 | 5253. | 1121.1 | . 5 | 7.0 | 1.5 | 86 | . 1 | 5 | . 3 | 1092.41 | 147 | 6 | 6.61 .12 | 24.121 | 32.47 .210 | . 06 | 2 | . 01 | 5.9 | < 1 | . 38 | 9 | 8 | <1 | . 01 | 3500 |
| 117440 | 1.252 .6 | 2.8 | 64 | . 1 | 116.925 .4 | 8245.11 | 120.0 | . 6 | 9.6 | 1.5 | 40 | <,1 | 1.1 | . 2 | 1802.17 |  | 5 | 35.42 .05 | 19.214 | 22.61 .098 | . 05 |  | . 01 |  | <. 1 | 54 | 10 | 5 | <1 | . 01 | 3100 |
| 117441 | 1.230 .8 | 4.0 | 91 | . 1 | 22.834 .1 | 7264.9 | 108.5 | . 6 | 3.1 | 1.0 | 197 | . 1 | 1.7 | 1.0 | 1522.25 | . 131 | 4 | 49.72 .19 | 17.152 | 43.37 .133 | . 05 | . 2 | 01 | 9.1 | < 1 | 86 | 10 | < 5 | <1 | . 01 | 2700 |
| 117442 | 1.343 .9 | 4.8 | 69 | . 1 | 140.730 .3 | 6134.03 | 452.0 | . 4 | 4.9 | . 9 | 159 | . 1 | . 9 | . 7 | 1202.05 | 127 | 4 | 94.52 .19 | 16.132 | 23.16 .207 | . 04 | 4 | 01 | 6.5 | < 1 | 60 | 8 | < 5 | <1 | . 01 | 2500 |
| 117443 | . 963.5 | 4.3 | 83 | 1 | 99.338 .91 | 11215.58 | 805.2 | . 2 | 27.3 | . 2 | 106 | . 1 | 1.1 | . 6 | 1783.07 | . 077 | 2 | 257.03 .28 | 24.149 | 23.69 .150 | . 03 | . 2 |  | 14.4 | <. 1 | . 38 | 11 | <. 5 | <1 | . 02 | 2300 |
| 117444 | 1.518 .5 | 4.8 | 72 | 1 | 16.315 .9 | 9264.41 | 750.0 | . 6 | 19.7 | 1.9 | 25 | . 2 | . 5 | . 4 | 1222.59 | 108 | 5 | 17.51 .64 | 10.128 | 12.25 . 040 | . 04 | . 8 | . 01 | 7.5 | $<.1$ | . 30 | 10 | < 5 | <1 | . 02 | 2100 |
| 117445 | . 528.9 | 3.2 | 51 | <. 1 | 132.923 .6 | 6303.17 | 1525.8 | . 1 | 9.0 | . 5 | 51 | 1 | . 7 | . 2 | 962.77 | 052 | 2 | 105.71 .68 | 19.102 | 22.51 .195 | . 05 |  | <. 01 | 7.0 | < 1 | . 20 | 7 | <. 5 | $<1$ | 01 | 400 |
| 117446 | . 74.3 | 4.0 | 62 | . 1 | 20.328 .2 | 7374.65 | 2202.1 | . 2 | 36.8 | . 6 | 64 | . 2 | . 9 | . 3 | 1582.50 | 128 | 4 | 46.51 .77 | 17.132 | 12.50 .116 | . 05 |  | <. 01 | 7.5 | <. 1 | 41 | 9 | . 7 | <1 | 04 | 2600 |
| 117447 | .8 52.4 | 19.8 | 69 | . 1 | 14.121 .4 | 9765.05 | 380.0 | . 4 | 18.7 | 1.1 | 59 | 2 | . 8 | . 3 | 1804.68 | . 114 | 5 | 36.42 .00 | 11.159 | 12.39 .038 | . 05 |  | <, 011 | 11.9 | <. 1 | . 18 | 10 | <. 5 | <1 | 03 | 2200 |
| 117448 | . 873.7 | 9.8 | 46 | . 1 | 111.826 .7 | 4902.98 | 5223.7 | . 2 | 28.2 | . 8 | 105 | 1 | 1.3 | . 4 | 1262.65 | 063 | 3 | 16.3 . 96 | 17.069 | 22.72 . 243 | . 05 | . 5 | . 01 | 6.3 | < 1 | . 30 | 8 | . 7 | <1 | 04 | 000 |
| 117449 ROCK | . 943.9 | 4.6 | 95 | . 1 | 111.48 .6 | 3432.08 | 9.3 | . 6 | 1.5 | 1.3 | 144 | 1 | 8 | . 1 | 624.36 | . 052 | 5 | 21.0 . 69 | 65.142 | 21.43 .070 | . 08 | 7 | . 01 | 3.1 | <. 1 | . 14 | 5 | <. 5 | <1 | <. 01 | 800 |
| 117450 PULP | 23.1130 .2 | 4.7 | 51 |  | 1918.432 .2 | 7554.52 | 2.3 | . 8 | 10825.1 | 3.0 | 114 | . 1 | 6 | 1 | 1141.12 |  |  | 1529.5 .93 | 167.155 | 11.92 .228 | . 23 | 3.4 | . 01 | 3.5 |  | <. 05 | 6 | <. 5 |  |  | * |
| 117451 | . 669.5 | 5.7 | 43 | . 1 | 137.429 .9 | 5003.24 | 2150.6 | . 2 | 12.0 | . 8 | 155 | . 1 | . 8 | . 3 | 1262.48 | . 071 | 3 | 58.81 .57 | 25.107 | 23.24 .321 | . 06 | 2 | 01 | 6.3 | < 1 | . 29 | 9 | . 5 | <1 | . 02 | 2100 |
| 117452 | . 742.7 | 3.5 | 52 | 1. | 1 - 10.917 .3 | 5913.40 | 95.1 | . 3 | . 7 | 1.0 | 66 | 1 | . 5 | . 1 | 1521.98 |  | 4 | 28.61 .38 | 20.174 | 32.23 .158 | . 08 | . 4 | 01 | 7.5 | < 1 | . 18 | 7 | <. 5 | <1 | <. 01 | 2500 |
| STANDARD DSS/AU-1 | 13.1144 .52 | 24.6 | 138 | . 2 | 225.312 .6 | 7692.99 | 19.2 | 6.4 | 41.0 | 2.6 | 46 | 5.7 | 3.7 | 6.0 | . 62.75 | . 096 | 12 | 190.8 . 68 | 138.096 | 172.01 .034 | . 13 | 4.7 | 16 | 3.5 | $1.1<$ |  | 7 | 4.8 | <1 | 3.35 |  |

[^3]


GOUP 10 X - 050 GM SAMPLE LEACHED HITH $3 \mathrm{ML} 2-2-2$ HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML , ANALYSED BY. ICP-MS. ( $>$ ) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY - SAMPLE TYPE: CORE R150 AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.
$\qquad$ FA DATE RECEIVED: APR 282004 date report malled: M ay. 7104

[^4]

[^5]

Standard is STANDARD DS5/AU-1. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.


Standard is STANDARD DS5/AU-1.
GROUP $10 \mathrm{X}-0.50$ GM SAMPLE LEACHED WITH $3 \mathrm{ML} 2-2-2$ HCL-HNO3-H20 AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML , ANALYSED BY ICP-MS.
(>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE

- SAMPLE TYPE: CORE Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.
$\qquad$ DATE RECEIVED: APR 282004 DATE REPORT MAILED:. $170 / 6 / 04$
All results are considered the confidential property of the client. Acme assumes the liabilitied for actual cost of the analysis only.


Standard is STANDARD OS5/AU-1. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.


Standard is STANDARD DS5/AU-1.


GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML , ANALYSED BY ICP-MS.
( $>$ ) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY 日E PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.

- SAMPLE TYPE: ROCK R150 60C AU** GROUP $3 B-30.00 \mathrm{GM}$ SAMPLE ANALYSIS BY FA/ICP

Data_ $\mathcal{L A}^{\mathrm{FA}}$ $\qquad$ dATE RECEIVED: MAY 172004 dATE REPORT MAILED: 4 M. $7 / 04 .$.



GROUP $10-0.50$ GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-HIZO AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
( $>$ ) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > $1 \%$, AG > 30 PPM \& AU > 1000 PB

- SAMPLE TYPE: ROCK R150 60C AU** GROUP SB - 30.00 GM SAMPLE ANALYSIS BY FA/ICP.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.
Data I FA $\qquad$ DATE RECEIVED: MAY 172004 DATE REPORT MAILED:


GROUP 10 - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
( $>$ ) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF. CU PB ZN AS > 1\%, AG > 30 PPM \& AU > 1000 PPB

- SAMPLE TYPE: ROCK R150 60C AU** PT** PD** GROUP 3B BY FIRE ASSAY \& ANALYSIS BY ICP-ES. (30 gm)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.
Data $\sqrt{ } \mathrm{FA}$ $\qquad$



GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO. 100 ML, ANALYSED BY ICP-ES. AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data $\mathcal{L}$ FA. $\qquad$ DATE RECEIVED: MAY 172004 DATE REPORT MAILED: $10.0 \%$ 31\%.4..



GROUP 10 - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
( $>$ ) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.

- SAMPLE TYPE: SOIL SS80 60C

AU** GROUP $3 B-30.00 \mathrm{GM}$ SAMPLE ANALYSIS BY FA/ICP.




GROUP 3B - FIRE GEOCHEM PT, PD - 30 GM SAMPLE FUSION, DORE DISSOLVED IN AQUA - REGIA, ICP ANALYSIS. UPPER LIMITS $=10$ PPM. - SAMPLE TYPE: ROCK PULP

Data $\qquad$ FA $\qquad$ DATE RECEIVED: JUN 32004 DATE REPORT MAILED: \%Me. $7 \% 4$.


## APPENDIX 3

Rock sample descriptions and significant assay results

| Sample Number | Sample Type |  | $\begin{aligned} & \hline \text { UTM* } \\ & \text { Easting } \\ & \hline \end{aligned}$ | Sample Description | Assay Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 117651 | Rock-Float | 5435489 | 0325235 | medium grained diorite, albite altered, up to 5\% disseminated arsenopyrite around massive arsenopyrite veins ( $5 \%$ of the unit), up to 8 mm thick, these arsenopyrite veins contain $5 \%$ quartz, fresh rock is medium grey colored, weathered surface is rusty orange colored, the unit is composed of $80 \%$ feldspar (albite and $10 \%$ chloritized mafic minerals. | >10000 ppm As, 662 ppb Au |
| 117652 | Rock | 5437845 | 0320576 | shear zone inbetween massive recrytalized limestone, shear zone oriented at $051 / 50$, sulfides are in a shear vein containing $70 \%$ pyrite | $678 \mathrm{ppm} \mathrm{Cu}, 98 \mathrm{ppm} \mathrm{Co}$, |
| 117653 | Rock | 5437318 | 0319996 | rusty rubble zone in recrystalized limestone, trace amounts of pyrite |  |
| 117654 | Rock | 5437318 | 0319996 | contact zone between recrystalized limestone and sheared plagioclase porphyritic dyke, disseminated pyrite along contact | $192 \mathrm{ppm} \mathrm{Cu}, 12 \mathrm{ppm}$ Co |
| 117655 | Soil | 5437318 | 0319996 | sheared contact zone between recrystalized limestone and plagioclase porphyritic dyke, $2.5-2.6 \mathrm{~m}$ wide, very rusty soil, shear zone oriented at 016/58 | $55 \mathrm{ppm} \mathrm{Cu}, 15 \mathrm{ppm} \mathrm{Co}, 11 \mathrm{ppb} \mathrm{Au}$ |
| 117656 | Rock-Float | 5437339 | 0320074 | feldspar porphyry dyke, traces of silver colored flaked molybdenite, $1 \%$ malachite spots and traces of fine grained disseminated pyrite (2\%), the unit is composed of $30 \%$ plagioclase phenocrysts, $10 \%$ of chloritized mafic minerals and $57 \%$ dull grey groundmass of felspathic minerals, rusty orange colored weathered surface and fresh surface is dull arev colared | $1 \mathrm{ppm} \mathrm{Mo}$, |
| 117657 | Rock | 5437338 | 0320104 | feldspar porphyry dyke with 1-2\% malachite spots, traces disseminated molybdenite and $1 \%$ disseminated pyrite, the unit is composed of $50 \%$ plagioclase phenocrysts and $30 \%$ chloritized mafic minerals, dull rusty orange colored surface and dull grey colored fresh surface, the unit is also more crustalline than 117656 | $1 \mathrm{ppm} \mathrm{Mo}$, |
| 117658 | Rock | 5437302 | 0320199 | recrystalized limestone, heavely veined by calcite and ankerite veins, trace amounts disseminated pyrite and few ovrrhotite veinlets | $3 \mathrm{ppm} \mathrm{Cu}, 6 \mathrm{ppb} \mathrm{Au}$ |


| Sample Number | Sample Type | $\begin{array}{\|c\|} \hline \text { UTM* } \\ \text { Northing } \\ \hline \end{array}$ | UTM* Easting | Sample Description | Assay Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 117659 | Rock | 5437302 | 0320214 | sheared recrystalized limestone, shear zone oriented at $074 / 61,5-10 \mathrm{~cm}$ thick, traces to $2 \%$ chalcopyrite, up to $5 \%$ pyrite, dull grey colored fresh surface and rusty orange colored weathered surface | $746 \mathrm{ppm} \mathrm{Cu}, 87 \mathrm{ppm} \mathrm{Co}, 42 \mathrm{ppb} \mathrm{Au}$ |
| 117660 | Rock-Float | 5437471 | 0320460 | massive magnetite with traces of pyrite and malachite, calcite veinlets observed, minor chlorite, dark black colored fresh surface and rusty orange colored weathered surface, boulder $50 \times 50 \times 35 \mathrm{~cm}$ in size | 22.71\% Fe |
| 117661 | Rock | 5437759 | 0320550 | taken in footwall of fine grained feldspar porphyry dyke, recrystalized limestone with up to $2 \%$ fine grained disseminated pyrite along fractures, dull grey colored fresh surface and dull dark grey colored surface | 8 ppm Cu |
| 117662 | Rock | 5437784 | 0320535 | massive grossular garnet with rare disseminated pyrite blebs, 20\% epidote veins, pale rusty red colored fresh and weathered surface, in contact with metavolcanic | 37 ppm Cu |
| 117663 | Chip | 5437884 | 0320555 | 1 meter length (northern part of the o/c), massive sulphides (pyrrhotite and chalcopyrite)(see note book 1, p.45) | 6.92\% Fe, 0.06\% Co, 0.093\% Cu |
| 117664 | Chip | 5437884 | 0320555 | 1 meter length, mainly massive sulphides (pyrrhotite and chalcopyrite) but with also metavolcanic containing traces of chalcopyrite and locally traces of malachite (see note book 1, p.45) | $1.008 \% \mathrm{Cu}, 0.014 \% \mathrm{Co}, 0.37 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ |
| 117665 | Chip | 5437884 | 0320555 | 1 meter length, metavolcanic containing traces of chalcopyrite and locally traces of malachite (see note book 1, p.45) | 0.413\% Cu, $0.046 \% \mathrm{Co}, 0.18 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ |
| 117666 | Chip | 5437884 | 0320555 | 1 meter length, metavolcanic containing traces of chalcopyrite and locally traces of malachite (see note book 1, p.45) | 0.465\% Cu, $0.021 \% \mathrm{Co}, 0.05 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ |
| 117667 | Chip | 5437884 | 0320555 | 1 meter length (south part of the o/c), metavolcanic containing traces of chalcopyrite and locally traces of malachite (see note book 1, p.45) | 0.817\% Cu, 0.091\% Co, $0.21 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ |


| Sample Number | Sample Type | UTM* Northing | UTM* Easting | Sample Description | Assay Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 117668 | Rock-Float | 5438209 | 0320679 | massive skarn with up to $20 \%$ massive pyrrhotite, some of the other boulders are massive pyrrhotite with minor chalcopyrite, very rusty soil, ferroycrete observed, boulder of masive grossular garnet and epidote observed, rusty red colored fresh and weathered surface, probably close to bedrock | 0.155\% Cu, 0.018\% Co, $0.01 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ |
| 117669 | Rock | 5438348 | 0320656 | hornfels metavolcanic with $1 \%$ fine disseminated pyrite, dark green colored fresh surface, lighter dark green weathered surface | $96 \mathrm{ppm} \mathrm{Cu}, 33 \mathrm{ppm} \mathrm{Co}$ |
| 117670 | Rock | 5438276 | 0320656 | rusty recrystalized limestone with up to $5 \%$ fine disseminated pyrite, pale medium grey colored fresh surface and rusty red colored weathered surface | 144 ppm Cu, 19 ppm Co |
| 117671 | Chip | 5437471 | 0320460 | 1 meter length, eastern part of the $0 / c$, massive magnetite with traces of pyrite and malachite, calcite veinlets observed | 0.016\% Cu, 0.003\% Co, 7.68\% Fe |
| 117672 | Chip | 5437471 | 0320460 | 1 meter length, massive magnetite with traces of pyrite and malachite, calcite veinlets observed and also very minor quartz veinlets observed | 25.39\% Fe |
| 117673 | Chip | 5437471 | 0320460 | 1 meter length, western part of the o/c, not massive magnetite as before, it is magnetite veins (only $5 \%$ ) in metavolcanic or medium grained diorite? | 4.58\% Fe |
| 117674 | Rock | 5438466 | 0320810 | medium grained granodiorite with rare patches of disseminated pyrite | 16 ppb Au |
| 117675 | Chip | 5438209 | 0320679 | 1.2 m length, massive skarn grossular garnet with $20 \%$ epidote veins, nil to $5 \%$ fine disseminated pyrite | $163 \mathrm{ppm} \mathrm{Cu}, 33 \mathrm{ppm}$ Co |
| 117676 | Rock | 5438059 | 0320672 | quartz veins in recrystalized limestone, 1 mm to 2 cm thick, oriented at 212/82, noted at the end of the $0 / \mathrm{c}$ ther is no silification around these quartz veins | < 2 ppb Au |
| 117677 | Rock | 5438059 | 0320672 | quartz veinlets, $1-4 \mathrm{~mm}$ thick, oriented at 255/86 in a parallel stockwork | $<2 \mathrm{ppb} \mathrm{Au}$ |
| 117678 | Rock | 5437857 | 0320708 | metavolcanic skarn with traces to 2\% fine pyrite | 69 ppm Cu |
| 117679 | Rock | 5437682 | 0320755 | endoskarn with traces to 5\% disseminated pyrite | $425 \mathrm{ppm} \mathrm{Cu}, 59 \mathrm{ppm}$ Co |
| 117680 | Rock | 5437682 | 0320755 | endoskarn with up to $20 \%$ disseminated pyrite | $596 \mathrm{ppm} \mathrm{Cu}, 25 \mathrm{ppm} \mathrm{U}, 20 \mathrm{ppm} \mathrm{Th}, 60 \mathrm{ppm}$ La |


| Sample Number | Sample Type |  | $\begin{aligned} & \hline \text { UTM* } \\ & \text { Easting } \end{aligned}$ | Sample Description | Assay Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 117681 | Rock | 5436320 | 0320040 | massive recrystalized limestone with extensive stockwork of black veinlet material, traces disseminated chalcopyrite in stockwork veinlets (approx. 30 m from the end of the road on the south side, underlaying contact (sub-horizontal) between plagioclase porphyritic intrusive rock (bottom) and recrustalized limestone (top) | 3 ppm Cu |
| 117682 | Rock | no GPS reception |  | plagioclase porphyritic intrusion with traces of disseminated pyrite, rusty weathering on fractures | 26 ppm Cu |
| 117683 | Rock-Float | $\begin{array}{\|l\|} \hline \text { no GPS } \\ \text { reception } \\ \hline \end{array}$ |  | silicified skarn, traces of pyrite and pyrrhotite, chalcopyrite observed on fractures | 76 ppm Cu |
| 117684 | Rock | 5438407 | 0320578 | metavolcanic with a stockwork of epidote+quartz+calcite veinlets, traces of hematite with veinlets, very rusty red soil around o/c | $82 \mathrm{ppm} \mathrm{Cu}, 28 \mathrm{ppm} \mathrm{Co}$ |
| 117685 | Rock-Float | 5438657 | 0320455 | metavolcanic with quart and carbonates veins containing traces of malachite, locally derived from $\mathrm{o} / \mathrm{c}$ | 1599 ppm Cu, 30 ppm Co |
| 117686 | Rock-Float | 5438605 | 0320496 | fine to medium grained gabbro with trace amounts of chalcopyrite in epidote sheared veins, locally derived from o/c | $72 \mathrm{ppm} \mathrm{Cu}, 26 \mathrm{ppm} \mathrm{Co}$ |
| 117687 | Rock | 5438599 | 0320497 | fine to medium grained gabbro with traces to 0.5\% chalcopyrite in fine to medium blebs, possible grey green colored pyroxene in gabbro ( $7-8 \mathrm{~m}$ south of tag), chalcopyrite with traces of pyrrhotite and chalcopyritre seen on the $0 / \mathrm{c}$ for 17 m , but patchy | $132 \mathrm{ppm} \mathrm{Cu}, 24 \mathrm{ppm} \mathrm{Co}$ |
| 117688 | Rock | 5438556 | 0320524 | fine to medium grained gabbro, parallel stockwork of epidote+calcite+quartz veinlets, traces disseminated chalcopyrite and pyrite in groundmass | $83 \mathrm{ppm} \mathrm{Cu}, 41 \mathrm{ppm}$ Co |
| 117689 | Rock | 5438487 | 0320575 | fractures zone in metavolcanic with slight bleaching, traces to $5 \%$ disseminated pyrite, epidote + quartz veins | $35 \mathrm{ppm} \mathrm{Cu}, 9 \mathrm{ppm} \mathrm{Co}$ |
| 117690 | Rock | 5437853 | 0320577 | quartz veins, 10 cm wide, oriented at $015 / 90$, in a fault zone in recrystalized limestone | $<2 \mathrm{ppb} \mathrm{Au}$ |
| 117691 | Rock | 5437987 | 0319805 | fine grained gabbro cut by epidote/quartz veins with traces of disseminated pyrite and chalcopyrite | 166 ppm Cu, 12 ppm Co |


| Sample Number | Sample Type | $\begin{array}{\|c\|} \hline \text { UTM* } \\ \text { Northing } \\ \hline \end{array}$ | $\begin{aligned} & \text { UTM* } \\ & \text { Easting } \end{aligned}$ | Sample Description | Assay Results$301 \mathrm{ppm} \mathrm{Cu}, 32 \mathrm{ppm} \mathrm{Co} 13 \mathrm{ppb} \mathrm{Pt},, 9 \mathrm{ppb}$ Pd |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 117692 | Rock-Float | 5437987 | 0319805 | fine grained gabbro with epidote/quartz veins with traces to 2 mm chalcopyrite blebs, traces pyrite |  |
| 117693 | Rock | 5438063 | 0319753 | fine grained gabbro skarn, wollastonite and epidote veins with up to $2 \%$ coarse grained chalcopyrite, the $\mathrm{o} / \mathrm{c}$ consist of a contact zone between fine grained gabbro and ganodiorite (northern part of the $\mathrm{o} / \mathrm{c}$, it is all fine or medium grained granodiorite) | $1413 \mathrm{ppm} \mathrm{Cu}, 22 \mathrm{ppm} \mathrm{Co}, 6 \mathrm{ppb} \mathrm{Au}, 6 \mathrm{ppb} \mathrm{Pt}, 38 \mathrm{ppb} \mathrm{Pd}$ |
| 117694 | Rock | 5438063 | 0319753 | hornfels fine grained gabbro with traces of fine dissemianted chalcopyrite (same o/c description as 117694) | 818 ppm Cu, 20 ppm Co |
| 117695 | Rock | 5438334 | 0319743 | medium grained gabbro with epidote/quartz veins containing 1\% pyrite and traces chalcopyrite | $32 \mathrm{ppm} \mathrm{Cu}, 18 \mathrm{ppm} \mathrm{Co}$ |
| 117696 | Rock | 5438334 | 0319743 | medium grained gabbro with extensive stockwork of epidote veins containing 2\% disseminated pyrite and traces of chalcopyrite ( $0 / \mathrm{c}$ ends approx. 50 m from 117696 and it is metavolcanic) | $130 \mathrm{ppm} \mathrm{Cu}, 18 \mathrm{ppm} \mathrm{Co}$,16 ppb Pd |
| 117697 | Rock | 5438948 | 0319744 | medium grained gabbro/diorite with $1 \%$ disseminated chalcopyrite (at the GPS reading, same lithology but with disseminated pyrite) | 466 ppm Cu, 22 ppm Co |
| 117698 | Rock | 5438948 | 0319744 | medium grained gabbro/diorite with traces pyrite in veinlets (the rest of the $\mathrm{o} / \mathrm{c}$ is fine grained metavolcanic for approx. 100m north) | $231 \mathrm{ppm} \mathrm{Cu}, 18 \mathrm{ppm} \mathrm{Co}, 12 \mathrm{ppb} \mathrm{Pt}, 14 \mathrm{ppb}$ Pd |
| 117699 | Rock | 5438948 | 0319744 | plagioclase porphyritic gabbro with calcite veinlets, traces disseminated pyrite ( 25 m north of -1032 , west side of highway, medium grained gabbro without chalcopyrite and pyrite) | 168 ppm Cu, 24 ppm Co |
| 117700 | Rock | 5439548 | 0320136 | not highly mineralized, medium grained gabbro with traces pyrite and chalcopyrite in calcite veinlets | $35 \mathrm{ppm} \mathrm{Cu}, 34 \mathrm{ppm} \mathrm{Co}, 11 \mathrm{ppb}$ Pt |
| 117701 | Rock | 5439548 | 0320136 | medium grained gabbro with quartz/epidote/calcite veins with traces disseminated chalcopyrite | 104 ppm Cu, 28 ppm Co |


| Sample Number | Sample Type | UTM* Northing |  | Sample Description | Assay Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 117702 | Rock | 5439508 | 0320519 | fine grained metavolcanic with $1 \%$ fine disseminated chalcopyrite, chalcopyrite occurs on both sides of the highway for at least 20 m | $388 \mathrm{ppm} \mathrm{Cu}, 20 \mathrm{ppm} \mathrm{Co}$,20 ppb Pd |
| 117703 | Rock | 5439006 | 0320302 | massive pyrite, 2 cm wide, in leucocratic gabbro | 1059 ppm Cu, 252 ppm Co, $17 \mathrm{ppb} \mathrm{Pd}, 44 \mathrm{ppb} \mathrm{Au}$ |
| 117704 | Rock-Float | 5439006 | 0320302 | metavolcanic with pyrite/epidote/calcite with pyrite in a stockwork veinlets | $245 \mathrm{ppm} \mathrm{Cu}, 31 \mathrm{ppm}$ Co |

## LOGAN RESOURCES LTD.

## STATEMENT OF COSTS <br> REDFORD PROPERTY <br> ROCK SAMPLING AND DIAMOND DRILL PROGRAM MARCH - JUNE 2004 IN SUPPORT OF REPORT DATED JUNE 21, 2004 BY D.J. BRIDGE

| Job \# | Name | Date | Memo | Amount |
| :---: | :---: | :---: | :---: | :---: |
| 6-5050 | Assays |  |  |  |
| RED | Mount Redford | 4/5/2004 | CDN Resource Laboratories Ltd. | \$225.75 |
| RED | Mount Redford | 4/13/2004 | Acme Analytical Laboratories Ltd. | \$129.58 |
| RED | Mount Redford | 4/19/2004 | Acme Analytical Laboratories Ltd. | \$1,742.25 |
| RED | Mount Redford | 4/26/2004 | ALS Chemex | \$1,603.85 |
| RED | Mount Redford | 4/28/2004 | Acme Analytical Laboratories Ltd. | \$4,391.14 |
| RED | Mount Redford | 4/29/2004 | ALS Chemex | \$2,504.12 |
| RED | Mount Redford | 5/5/2004 | TeckCominco Global Discovery Labs | \$44.00 |
| RED | Mount Redford | 5/11/2004 | Acme Analytical Laboratories Ltd. | \$1,782.10 |
| RED | Mount Redford | 5/11/2004 | Acme Analytical Laboratories Ltd. | \$2,148.26 |
| RED | Mount Redford | 5/11/2004 | Acme Analytical Laboratories Ltd. | \$1,929.75 |
| RED | Mount Redford | 5/11/2004 | Acme Analytical Laboratories Ltd. | \$2,110.93 |
| RED | Mount Redford | 6/4/2004 | TeckCominco Global Discovery Labs | \$282.00 |
| RED | Mount Redford | 7/1/2004 | Acme Analytical Laboratories Ltd. | \$998.25 |
| RED | Mount Redford | 7/1/2004 | Acme Analytical Laboratories Ltd. | \$322.35 |
| RED | Mount Redford | 7/1/2004 | Acme Analytical Laboratories Ltd. | \$126.25 |
|  |  |  | RED Mount Redford Vanisle / BC Total: | \$20,340.58 |
|  |  |  | 6-5050 Assays Net Activity: | \$20,340.58 |

6-5250 Crew, camp \& job-site supplies
RED Mount Redford 3/19/2004 Cansel \$107.50
RED Mount Redford 3/22/2004 Deakin Equipment Ltd. $\$ 60.18$
RED Mount Redford 3/31/2004 Skiber expense report \$510.95
RED Mount Redford 4/2/2004 Deakin Equipment Ltd. \$379.12
RED Mount Redford 4/8/2004 Deakin Equipment Ltd. \$39.56
RED Mount Redford 4/15/2004 Acme Analytical Laboratories Ltd. \$21.50
RED Mount Redford 4/15/2004 Acme Analytical Laboratories Ltd. \$224.68
RED Mount Redford 4/26/2004 Deakin Equipment Ltd. \$1,377.40
RED Mount Redford 4/26/2004 Acme Analytical Laboratories Ltd. \$161.25
RED Mount Redford 4/26/2004 Amex Apr 04 \$182.46
RED Mount Redford 4/30/2004 Skibe Redford Exp.-rock saw blades (no receipts) \$1,000.00
RED Mount Redford 5/17/2004 Telus Mobility \$252.40
RED Mount Redford 7/31/2004 Young, Seamus \$19.97
RED Mount Redford Vanlsle / BC Total: \$4,336.97

6-5250 Crew, camp \& job-site supplies Net Activity: \$4,336.97
6-5260 Crew meals and accommodation
RED Mount Redford 4/23/2004 LeBlanc, Marie Genevieve \$592.85
RED Mount Redford 6/23/2004 LeBlanc, Marie Genevieve \$787.94

| RED Mount Redford Vanisle / BC | Total: | $\$ 1,380.79$ |
| :--- | :--- | :--- |
| 6-5260 Crew meals and accommodation | Net Activity: | $\$ 1,380.79$ |

6-5400 Diamond drilling/ moves/demob


6-6880 Supervision and assistance

| RED | Mount Redford | 4/2/2004 T-Bags Management Inc., S. Young |  | \$1,000.00 |
| :---: | :---: | :---: | :---: | :---: |
| RED | Mount Redford | 5/1/2004 T-Bags Management Inc., S. Young |  | \$1,000.00 |
| RED | Mount Redford | 5/4/2004 T-Bags Management Inc., S. Young |  | \$300.00 |
| RED | Mount Redford | 6/1/2004 T-Bags Management Inc., S. Young |  | \$2,250.00 |
| RED | Mount Redford | 7/1/2004 T-Bags Management Inc., S. Young |  | \$1,500.00 |
| RED | Mount Redford | 8/1/2004 T-Bags Management Inc., S. Young |  | \$312.50 |
| RED | Mount Redford | 9/1/2004 T-Bags Management Inc., S. Young |  | \$125.00 |
|  |  | RED Mount Redford Vanlsle / BC | Total: | \$6,487.50 |
|  |  | 6-6880 Supervision and assistance | Net Activity: | \$6,487.50 |

6-6975 Travel: fares and tolls
RED Mount Redford 3/26/2004 T-Bags Management Inc.
\$769.87
RED Mount Redford 5/10/2004 Young, Seamus \$9.11

RED Mount Redford Vanlsle / BC Total:
$\$ 778.98$
6-6975 Travel: fares and tolls Net Activity: $\$ 778.98$
6-6976 Travel: hotels \& accommodation
RED Mount Redford 5/27/2004 Amex pd by Logan \$2,083.90
RED Mount Redford Vanisle / BC Total: \$2,083.90
6-6976 Travel: hotels \& accommodation Net Activity: \$2,083.90
6-6977 Travel: meals and sundry
RED Mount Redford 3/26/2004 T-Bags Management Inc. \$284.22
RED Mount Redford 3/31/2004 Skiber expense report \$5.48
RED Mount Redford 5/10/2004 Young, Seamus \$54.96
RED Mount Redford Vanisle / BC Total: \$344.66
6-6977 Travel: meals and sundry Net Activity: \$344.66
6-6978 Travel: vehicle/truck expenses
RED Mount Redford 3/26/2004 T-Bags Management Inc.
\$348.43
RED Mount Redford 3/31/2004 Skiber expense report
\$122.34
RED Mount Redford VanIsle / BC Total: \$470.77
6-6978 Travel: vehicle/truck expenses Net Activity: $\quad \$ 470.77$
158,848.39
The above costs are all exploration expenditures incurred on the March - June, 2004 exploration program, on the Company's Redford property, Vancouver Island, B.C.



[^0]:    Sample type: CORE R150 60. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

[^1]:    Sample type: CORE R250 60. Sampies beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

[^2]:    Sample type: CORE R150 60. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

[^3]:    Sample type: CORE R15060. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

[^4]:    All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

[^5]:    Standard is STANDARD DS5/AU-1. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

