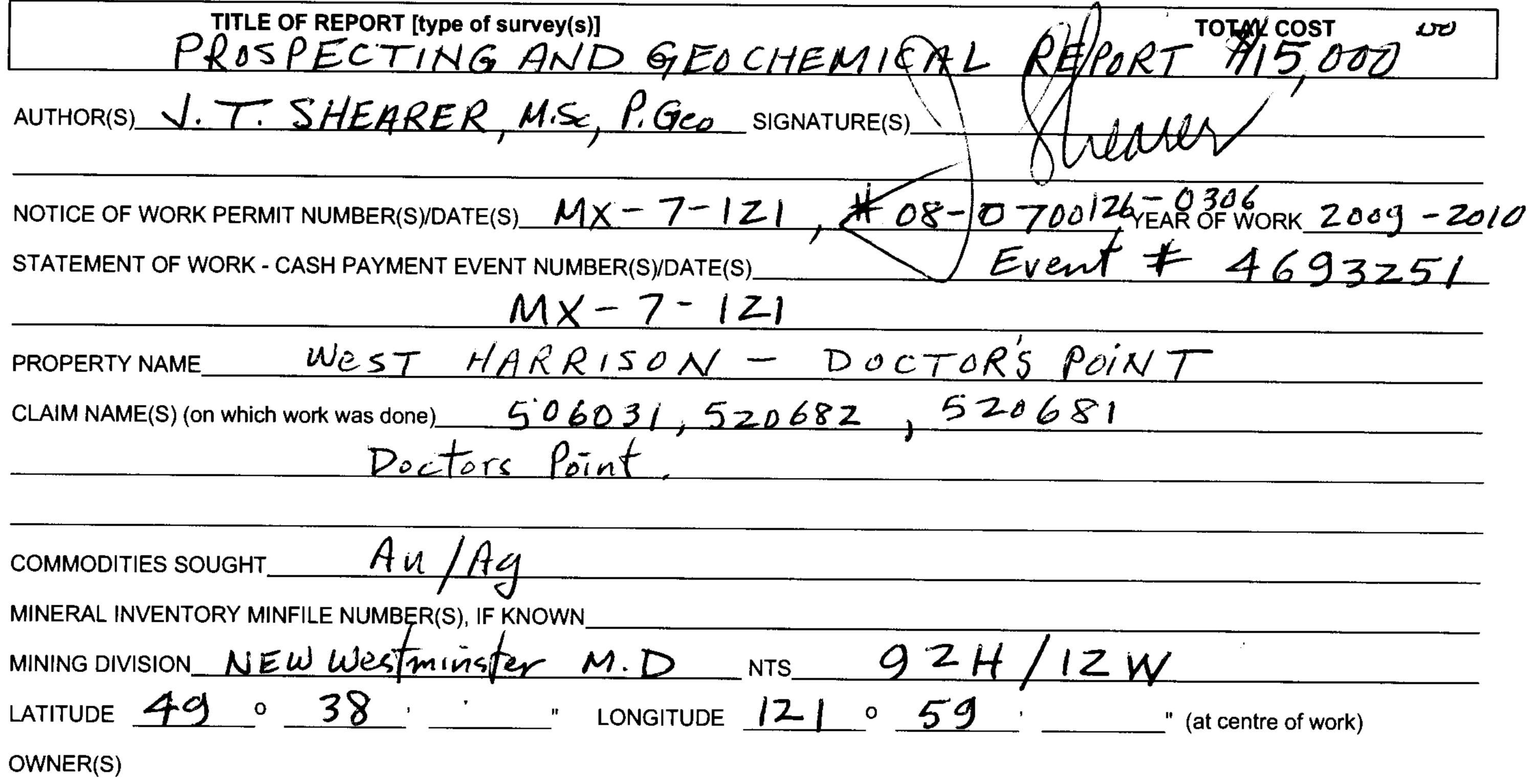


Ministry of Energy & Mines Energy & Minerals Division Geological Survey Branch



# **ASSESSMENT REPORT TITLE PAGE AND SUMMARY**



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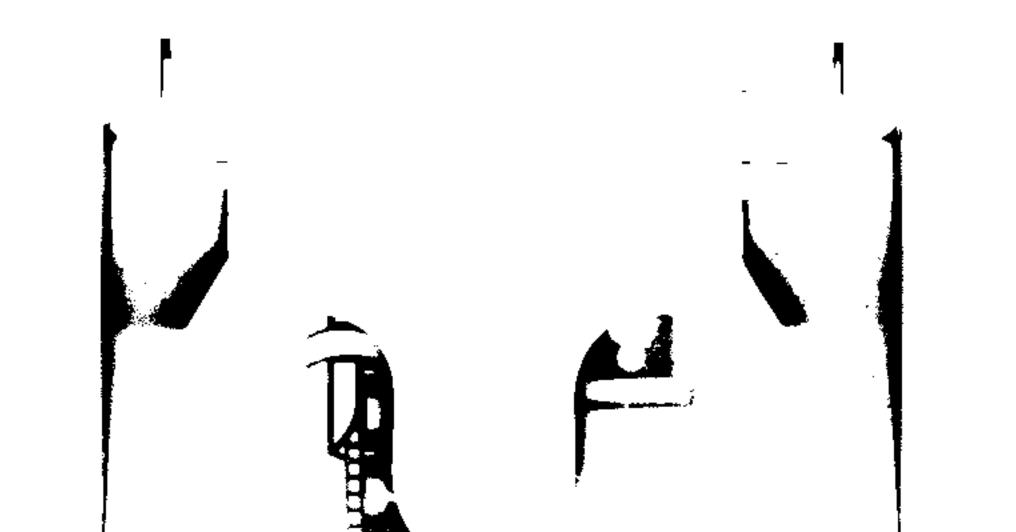
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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			

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Induced Polarization			<b>.</b>
Radiometric			
Seismic	·		
Other			
Airborne			
GEOCHEMICAL			
(number of samples analysed for)	. 1 - 1 - 1		11
Soil	1475016	506031 520682	11, 800
Silt			
Rock	·		<u></u>
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			<u> </u>
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			<u></u> .
Mineralographic			<u> </u>
Metallurgic			
PROSPECTING (scale, area)	1:5000		4,000
PREPARATORY/PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			

	TOTAL COST	15	000
Other			
Underground dev. (metres)			
Trench (metres)			
Road, local access (kilometres)/trail		<u> </u>	<u> </u>



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# **PROSPECTING and GEOCHEMICAL ASSESSMENT REPORT**

on the

WEST HARRISON PROJECT DOCTORS POINT (TRIO CREEK) AREA MX-7-121 Approval #08-0700126-0306

HARRISON LAKE REGION NEW WESTMINSTER MINING DIVISION BRITISH COLUMBIA Longitude 121°59'W/Latitude 49°38'N NTS 92H/12W, 92G.9E (92H.061 + 92G.070)

**Prepared for** 

BC Geological Survey Assessment Report 31667

URASTAR ENERGY INC. #817-938 Howe Street Vancouver, B.C. V6Z 1N9 Phone: 604-684-9333

**Prepared by** 

J. T. Shearer, M.Sc., P.Geo. Consulting Geologist,

August 25, 2010

Fieldwork Completed between October 1, 2009 and February 15, 2010

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# SUMMARY

Soil sampling in 2009-2010 returned high gold values in two areas in values up to 994ppb Au. These two areas require follow-up.

This report was prepared for URASTAR ENERGY INC. of #817-938 Howe Street, Vancouver, British Columbia. Exploration programs were completed between July 2006 and November 2009 over part of the Doctors Point (Trio Creek) Gold Property and a total \$360,000 was spent during this time period. The previous program consisted geological mapping, soil sampling, rock chip sampling, diamond drilling and Induced Polarization surveys on five of nine known mineralized zones on the property. The nine zones of interest are identified as:

- Main Mineral Zone
- South Contact Zone southern diorite contact zone of Main Mineral Zone
- North West Lake Cut Zone located along the north west shore of Doctors Bay
- North West End of North Mill Site
- South Swamp-Pylon Zone (South End of North Mill Site)
- West Contact Zone West Contact of Intermediate Diorite Body
- Trio Creek Airborne Magnetic Anomaly coincident with a copper/zinc geochemistry anomaly.
- Toil gold in intense pyritization along Five Mile Bay.
- Brem polymetallic mineralization in rhyolitic quartz eye lapilli tuff.

The Doctors Point (Trio Creek) property consists of 11 mineral claims for a total area of 5,020.944 hectares and is at 121° 59'W longitude and 49° 38' N latitude in the New Westminster Mining Division approximately 75 air kilometres northeast of Vancouver and 15 kilometres southeast of the northern end of the west side Harrison Lake between Grainger Peak and Mount Breakenridge. The property is 35% larger than the property worked by Academy Ventures 2006-2008.

URASTAR ENERGY INC. has acquired the sole and exclusive right to acquire 100 % undivided interest in the nine mineral claims owned by Mr. Johan T. Shearer under and option agreement that stipulates the following:

- Pay \$5,000 on the acceptance of the Agreement by the TSX-V
- Complete \$100,000 exploration expenditures on the property on or before February 28, 2010.
- Pay \$25,000 on or before the Third Anniversary of the Agreement and complete cumulatively exploration expenditures of not less than \$300,000 on the property.
- The agreement provides for a 2 % Net Smelter Return (NSR) royalty upon the property achieving production with a provision for URASTAR ENERGY INC. to purchase the Net Smelter Return for \$1,000,000.00.

Gold was discovered in the Doctors Point area in 1975. Over 5490 metres of diamond drilling had been carried out in the period 1981 to 1985. The main drilling phase in conjunction with geology, geochemistry and geophysics was completed by Rhyolite Resources between 1981 and 1983. A mineralized zone was defined (Main Mineral Zone) that K. C. Fahrni, P. Eng., (March 1984) estimated to contain 113,600 tonnes of mineralized material averaging 2.16 g/tonne Au (0.063 oz/ton Au) and 6.17 g/tonne Ag (0.18 oz/ton Ag). This Inferred Mineral Resource calculation was carried out prior to the existence of NI43-101 and CIM definitions and standards. As such, the historic tonnage and grade of mineralized material should not be relied upon to represent a current mineral resource on the property. The Main Mineral Zone is described further in Section 6.1 of this report.

Epithermal quartz veins containing gold-pyrite and arsenopyrite are related to the intrusion and associated hornfels of five diorite to quartz-diorite stocks (dated at 25 Ma) associated with late-stage fracturing.

The drilling programs completed up to 2008 identified two zones of significant mixed sulfide veining within aureoles of hornfelsed and strongly alter volcanic and sedimentary units adjacent to heavily pyritized to relatively unaltered diorite intrusives. The significant mineralized zones identified to date include the Main Mineral Zone

and the South Swamp-Pylon Zone located in the North Millsite area. The 2006 exploration program confirmed the tenor of the mineralization at these two mineralizes zones and also confirmed the variable nature of gold and silver mineralization within the vein sulfides in the rock chip samples collected by Academy personnel and the author.

At the South Swamp-Pylon Zone, rock chip sampling by Academy and the author indicated that the quartz-pyritearsenopyrite veins contain elevated gold grades ranging from 0.31 g/tonne Au to 53.2 g/tonne Au (most samples are within 1.24 to 16.35 g/tonne Au). Silver grades ranged from 3.6 g/tonne Ag to 208 g/tonne Ag with most samples ranging from 32 to 150 g/tonne Ag. Continued detailed exploration should be conducted on the mineralized zone and drilling should be considered pending results of expanded geological mapping, geochemical surveys and geophysical induced polarization surveys.

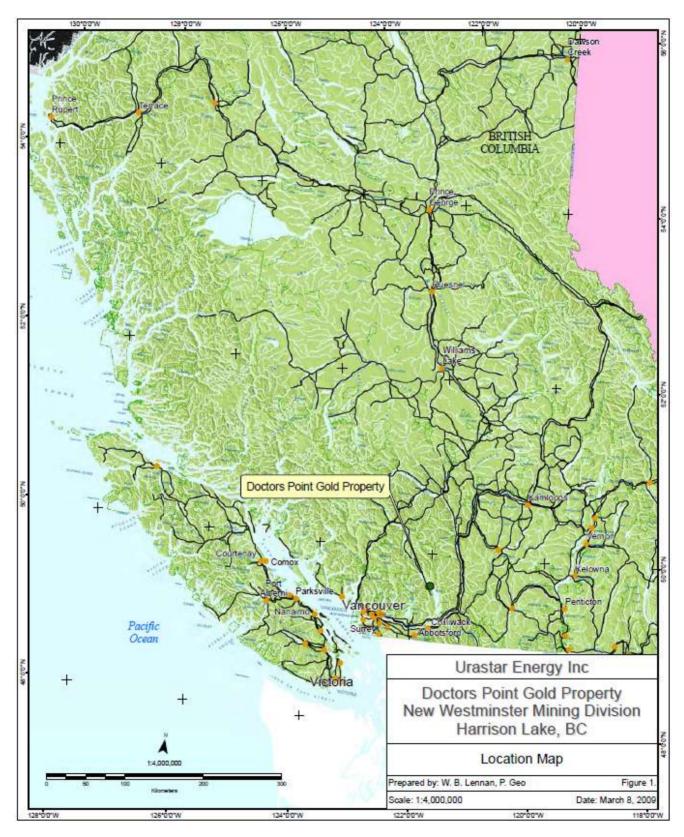
A minor amount of soil sampling was conducted on the North West End zone (north west of the North Millsite area); however, the area remains of interest for future exploration as the historical ground magnetic survey conducted in this area in the past during November 1983, outlined a major magnetic "low" up to 45 metres in width and over 180 metres in length in the altered diorite. This anomaly has not been tested to date although veining with low gold values was encountered in adjacent Heritage Petroleums Inc. hole 85-NM-5 completed in 1985. The alteration noted around the veining in hole 85-NM-5 it indicates a significant zone of epithermal alteration in the diorite

The major magnetic anomaly and coincident geochemical soil anomaly (150 ppb Au) identified in the past at the West Contact Zone has not been thoroughly tested. The geochemical soil sampling and geological mapping program conducted in July and August of 2006 along grid lines indicates the presence of low gold values adjacent to the western contact with the largest diorite pluton on the property. The main part of the magnetic anomaly extends further to the west than the grid area that was sampled and mapped in 2006. This area may be underlain by more intensively altered and veined rocks within the hornfelsed aureole that surrounds the less altered diorite as shown in 2008 drillhole W-1 and W-2. A highly altered zone was encountered in hole W-08-2 from 95.05 to 112.0 however the gold content was low. Future exploration should be directed toward this area of the West Contact Zone including expanded geological mapping, geochemical soil sampling and geophysical induced polarization surveys.

At the Trio Creek – Camp Creek area, a gold in soil anomaly was found during the July and August 2006 exploration program. The crescent shaped aeromagnetic anomaly was located during historical exploration programs conducted by Rhyolite Resources Inc. Although Academy conducted reconnaissance geological mapping and geochemical soil sampling in this area during July and August of 2006, the area remains to be adequately explored and should be considered for additional exploration in the future with additional detailed mapping, trenching, rock chip and soil sampling and IP geophysical surveying.

A second phase of exploration by Academy Ventures totaling approximately \$200,000 in expenditures was completed in 2008. This program consisted of 2,335.25 feet (711.8m) of diamond drilling in 10 holes was completed in 2008 along the contact of the altered intrusive in the North Millsite West Contact Areas as recommended by W. B. Lennan, P.Geo., in a Technical Report dated August 31, 2006. The cost for the 2008 program is \$193,000.00 which is well within the budget proposed by W. B. Lennan, P.Geo. Holes in the North Millsite Area (P3 to P8) returned low gold values except for narrow intersections such as Hole P4, 3.3m to 4.0m, which assayed 8.38g/tonne gold.

Although the two drill holes that were drilled in the West Contact Zone in 2008 yielded low gold values, further investigation of the West Contact Zone is warranted and should include additional eastward directed drilling to more fully test the IP Chargeability anomaly. Geochemical soil and rock chip sampling and geological mapping should be conducted over the newly acquired Brem and Toil Showing near Five Mile Bay. An IP Survey should also be conducted over the North West End of the North Mill Site Zone and geological mapping should be continued on the north part of the claims.



A budget of \$228,800 is proposed for future work in 2009-2010.

#### INTRODUCTION

This report has been prepared for URASTAR ENERGY INC. of #908-595 Howe Street, Vancouver, British Columbia to document a 147 soil sampling and recent exploration program. This report was also prepared to review the sampling and mapping program with respect to the use of appropriate soil and rock sampling protocols and laboratory analytical procedures and quality control measures. A total of slightly greater than \$300,000 was spent during this time period on the current exploration program conducted by Academy Ventures Inc. An extensive amount of previous work has been completed in the past by various operators. An estimate of expenditures between 1981 and 1988 is in excess of 1.6 million dollars. The 2008 program closely followed the recommendations of W. B. Lennan, P.Geo. in his Technical Report dated August 31, 2006, which included diamond drilling and induced polarization geophysical surveys having a budget of \$202,050.

Exploration potential at the Doctors Point Gold property to outline additional mineral reserves is considered good as indicated by the numerous lesser explored gold-bearing quartz-arsenopyrite veins and the general epithermal environment.

Work completed in 2008 consisted of a diamond drill program of 711.8m (2,335.25 feet) in 10 holes and an Induced Polarization survey.

Gold was discovered in the Doctors Point area in 1975. Over 5490 metres of diamond drilling had been carried out in the period 1981 to 1985. The main drilling phase in conjunction with geology, geochemistry and geophysics was completed by Rhyolite Resources between 1981 and 1983.

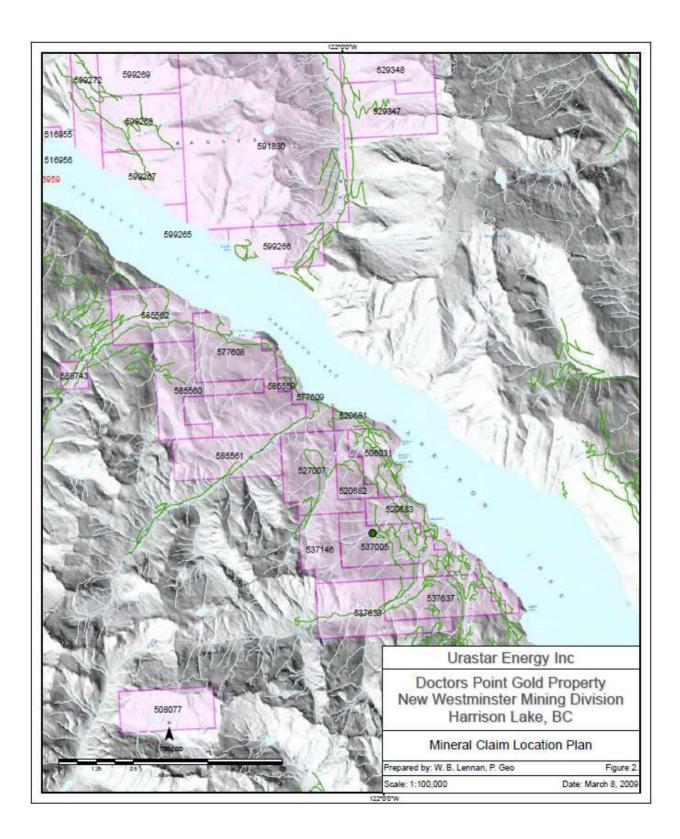
In 1985 Heritage Petroleums Inc. optioned the Doctors Point property from Rhyolite Resources Inc. and completed mapping and drilling approximately 750 to 1100 m north of the Main Mineralized Zone at an area known as the North Mill Site. A limited amount of drilling by Rhyolite Resources Inc. was conducted at the north and south ends of the North Mill Site swamp. Surface outcrops of pyrite-arsenopyrite filled epithermal veins to 10 cm in width were tested by drilling. A total of five holes were drilled at the north end of the North Mill Site swamp and three holes were drilled at the south end of the North Mill Site Swamp for a total of 517.6 m of drilling. Heritage Petroleums Inc. recommended that exploration drilling and geophysical surveying continue is this area.

The Harrison Lake shear zone is recognized (Journeay, 1989) to be an important structure in localizing economic gold deposits within southwest British Columbia. This gold belt, which includes the Doctors Point property is associated primarily with brittle fault systems along the western margin of the shear zone, and is offset to the north by younger northeast striking transcurrent faults. These northeast striking transcurrent faults may also be important structures in controlling the emplacement of epizonal, late Tertiary plutons and in tapping associated hydrothermal systems. These transcurrent faults may be providing the necessary structural control for localizing economic concentrations of both base and precious metals within the region.

The author has reviewed and sourced information on the property from four reports prepared for Rhyolite Resources Inc. by Keith C. Fahrni, P.Eng dated August 24, 1981, October 30, 1981, July 8, 1982, April 9, 1984 and one report prepared for Heritage Petroleums Inc. by Peter Dasler, M.Sc., under the supervision of F.M. Smith, P.Eng. dated December 16<sup>th</sup>, 1985.

Respectfully submitted,

J. T. Shearer, M.Sc., P.Geo.



# PROPERTY DESCRIPTION AND LOCATION

The Doctors Point property consists of 11 mineral tenures for a total area of 5,020.944 hectares and is at 121° 59'W longitude and 49° 38' N latitude in the New Westminster Mining Division approximately 75 air kilometres northeast of Vancouver and 15 kilometres southeast of the northern end of the west side Harrison Lake between Grainger Peak and Mount Breakenridge. The mineral tenures are presented on Figure 2 and are described as follows:

List of Mineral Tenures									
TENURE	TENURE	CLAIM NAME	OWNER	MAP	CURRENT	AREA			
NUMBER	TYPE			NUMBER	EXPIRY DATE	(Hectares)			
520681	Mineral	North Doctors	Johan T.	092G.070	October 1, 2011	125.462			
	Claim	Point	Shearer						
527007	Mineral	Doc Point West	Johan T.	092G.070	February 2, 2012	522.940			
	Claim		Shearer						
520682	Mineral	Doctors Point	Johan T.	092G.070	October 1, 2011	188.258			
	Claim	West	Shearer						
506031	Mineral		Johan T.	092H.061	April 23, 2015	397.402			
	Claim		Shearer						
520683	Mineral	Doctors Point	Johan T.	092H.061	October 1, 2011	523.172			
	Claim	South	Shearer						
537005	Mineral	Dr Pt South	Johan T.	092H.061	July 12, 2012	523.183			
	Claim		Shearer						
537146	Mineral	Doc Pt S	Johan T.	092G.070	July 13, 2012	418.561			
	Claim		Shearer						
537637	Mineral	Doc Pt Southern	Johan T.	092H.061	July 22, 2012	502.425			
	Claim		Shearer						
537638	Mineral	Doc Pt	Johan T.	092G.070	July 22, 2012	523.391			
	Claim	Southwest	Shearer						
577608	Mineral	Harrison North	Johan T.	092G.070	March 1, 2011	1,045.26			
	Claim	A	Shearer						
577609	Mineral	Harrison North	Johan T.	092G.070	February 28, 2011	250.89			
	Claim	В	Shearer						
					Total Area in	5,020.944			
					Hectares				

	TABLE 1
List of	Mineral Tenures

The eleven mineral tenures listed above are currently owned by Mr. Johan T. Shearer who holds a valid Free Miners Certificate (FMC # 124452). The total area enclosed by the above listed nine mineral claims is 5020.944 hectares. The owner carries a 100 % interest in the mineral claims retains access to the surface of the claims under the Mineral Tenures Act. The Government of the Province of British Columbia owns the surface rights to the area encompassed by the 11 mineral tenures. The owner has met the obligations to retain the property by applying the cost of exploration work to the claims for assessment purposes. The exploration work conducted in July and August of 2006 was in the amount of slightly greater than \$100,000 and the 2008 work incurred expenditures in excess of \$193,000.

URASTAR ENERGY INC. has acquired the sole and exclusive right to acquire 100 % undivided interest in the nine mineral claims owned by Mr. Johan T. Shearer under and option agreement that stipulates the following:

- Pay \$5,000 on the acceptance of the Agreement by the TSX-V
- Complete \$100,000 exploration expenditures on the property on or before February 28, 2010.
- Pay \$25,000 on or before the Third Anniversary of the Agreement and complete cumulatively exploration expenditures of not less than \$300,000 on the property.
- The agreement provides for a 2 % Net Smelter Return (NSR) royalty upon the property achieving production with a provision for URASTAR ENERGY INC. to purchase the Net Smelter Return for \$1,000,000.00.

The mineral tenure boundaries within the property were located by selecting the claim areas on maps provided on-line by utilizing The British Columbia Ministry of Energy, Mines and Petroleum Resources Mineral Titles Online system. The corners of the claimed areas are assigned Universal Trans Mercator (UTM) coordinates and the claim owner is able to locate the claim boundaries on the ground using a Global Positioning System (GPS) receiver. The Mineral Titles On line system virtually eliminates claim overlaps and disputes.

The nine currently known mineralized zones are shown on Figure 2 relative to the mineral claim boundaries and are identified as follows:

- Main Mineral Zone
- South Contact Zone southern diorite contact zone of Main Mineral Zone
- North West Lake Cut Zone located along the north west shore of Doctors Bay
- North West End of North Mill Site
- South Swamp-Pylon Zone (South End of North Mill Site)
- West Contact Zone West Contact of Intermediate Diorite Body
- Trio Creek Airborne Magnetic Anomaly coincident with a copper/zinc geochemistry anomaly.
- Toil gold in intense pyritization along Five Mile Bay.
- Brem polymetallic mineralization in rhyolitic quartz eye lapilli tuff.

The property falls within the overlap of the traditional territories of the In-SHUCK-ch First Nations and the Sto:lo First Nations as described in First Nation Statement of Intent to negotiate treaties which have been submitted to and accepted by the B.C. Treaty Commission. The final boundaries have not been agreed to by the First Nations, the Province of British Columbia or the Government of Canada at this time. A permit to conduct exploration has been issued by the Ministry of Mines and Letters of Support have been received from the In-Shuck-Ch and Chehalis First Nations.

Environmental baseline studies under the current Environmental Assessment Act have been undertaken even at this early stage of exploration throughout the property. Environmental liabilities have been established as outlined in the Nova Pacific Environmental report titled "Environmental Assessment for a Proposed Gold Mine at Doctors Point on Harrison Lake, BC" dated August 2006. The report indicates that background information was collected from a variety of sources and from a one day field survey that took place on July 14, 2006. The field survey identified three S3 classified fish bearing streams on the Doctors Point Property with widths of 1.5 m to 5 m wide. The Riparian Areas Management Guidelines (1995) require a 20 m riparian management area should be established along each back of the streams.

Water quality monitoring is required during development of any mining excavation activities and the water quality parameters must meet the recommended standards for freshwater and marine aquatic life according to the British Columbian and Canadian Working and Approved Water Quality Guidelines (Criteria – 2000).

Drainage water from mine workings, stockpiles and service roads should be directed to detention ponds to protect adjacent streams and Harrison Lake from sediment and contaminants. The containment facilities should be capable of collecting and storing large sources of contaminated drainage waters over the range of hydrologic and climatic conditions expected at this property.

Areas where fuel storage, truck washes and servicing garages may be required to be sampled and monitored for grease, oil and fuel. These facilities should be located a minimum of 30 m from any watercourse and spill containment structures and spill kits should be available at the site.

Future reclamation strategies should commence with the start of operations and allow for sequential restoration of areas no longer needed for mining purposes. The reclamation strategies should be designed early on to enhance and restore the natural habitat attributes found at the site prior to the commencement of operations.

Historically, the area has been subjected to clearcut logging and is currently forested with second growth timber. During the 2008 exploration program, several of the original logging roads located on the property had been cleared by forest companies to access the second growth timber for harvesting. Evidence of the most significant exploration on the property by past operators conducted from 1981 to 1983 is virtually non-existent as observed by the author with drill pads and trenches being reclaimed by second growth forest and underbrush.

# ACCESSIBILITY CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE and PHYSIOGRAPHY

The property is accessible by logging roads via the Forestry road up the west side of Harrison Lake from Harrison Mills (at the Sasquatch Inn turn-off) to Weaver Creek for 52 km. Harrison Mills is located approximately 15 kilometres east of the municipality of Agassiz. Access to the other areas of the claims from the main logging road is by four wheel drive vehicles on branch roads. Access was limited on the access roads, however as previously noted, several of the small, former log haul roads are being reactivated in order to log second growth timber. Recent work has taken place in 2008 to clear brush and other overgrowth from several former log haul roads on the nine mineral claims on property. This has provide access to areas of the property for geological mapping and soil sampling that have not received significant attention by past property owners.

Elevations on the property range from 24 metres at Harrison Lake to 1000 metres above mean sea level (24 m to 1,000 m a.s.l.). Slopes are steep with avalanche chutes and hazardous steep cliff areas. Thick growth of alder, devils club and alpine fir occur below altitudes of 1,372 metres. Above this elevation to the west of the property the vegetation thins and where the terrain flattens, ponds and swampy areas have developed.

The access road is currently well maintained up to the property from Harrison Mills. Active logging and road building was taking place during 1996 on the lower southwest side of Trio Creek. Harvesting plans call for small scale logging in the general area of the claims in the near future.

The climate of the area is west coast rainforest with temperatures ranging from  $-10^{\circ}$  C in the winter to  $+30^{\circ}$  C in the summer. Although snowfall depths can be significant in this area, the temperate weather will allow mining operations to be carried out year round. Power requirement are readily available as the main Hydro power line from Bridge River passes over the claim block (the South Swamp – Pylon Zone was named due to the presence of a hydro tower pylon on the showing). Adequate water supplies are available from nearby large creeks and from Harrison Lake. Although topography is rugged there is a flat bench north of the Main Mineral Zone towards the North Mill Site area to accommodate a milling plant and tailings storage.

# FIELD and ANALYTICAL PROCEDURES

Samples for Assays were crushed, split and pulverized, and then run for 30 ICP-AES AqR trace elements, gold was done by fire assay/AA finish using a 30g cut. Assaying was done at the IPL-Inspectorate Lab in Richmond, an ISO 9001:2000 certified facility.

Work in 2009-2010 consisted of soil sampling along access trails and rough roads. The location of samples (both rock and soil) was located by the use of a Garmin GPS Map 76CSX unit which allows plotting of locations directly on maps in MapSource software and Google images at various scales.

Soils were collected from the "B" horizon mainly along road cuts at an average depth of 25cm.

# **EXPLORATION HISTORY**

The first lode gold mining in the region began in 1897 at the Providence Mine. Three lodes were explored by a 45 metre shaft and 75 metres of tunnelling. Production from these workings for that year was 189 tons grading 1.35 oz/ton gold. There is a report of 55 tons of ore being mined in the late 1890's from Fire Mountain north of Harrison Lake but figures for the amount of gold recovered are not available.

In 1971 the volcanogenic nature of the Seneca polymetallic massive sulfide deposit near the Chehalis River was realized and interest in the general area increased. Riverstone Resources Ltd. last conducted work on the Seneca property in 1997.

The original mineral discovery at Doctors Point property was made by Mr. George Nagy in 1975. Between 1976 and 1981 various companies, (Cominco, Bow River Resources, Duval Corp., and Rapitan Resources), sampled and inspected the property. Reconnaissance examinations were made by B.P., Placer, Amax, and Welcome North. Sample results from Cominco, Bow River Resources, Duval Corp. and Rapitan Resources are as follows:

- Cominco reported: 0.09 oz/ton Au. over 16.0 ft
- Bow River reported: 0.005-0.14 oz/ton from trenches and grab samples of 0.22 and 0.78 oz/ton Au.
- Duval reported: 0.16 and 0.44 oz/ton Au.
- Rapitan reported: 0.002-0.20 oz/ton Au and 0.2-5.55 oz/ton Ag

It is assumed that these figures relate to the grab samples collected from the "Main Mineral Zone".

## Rhyolite Resources Inc.

In 1981, Rhyolite Resources signed an agreement with Nagyville Mining to purchase the mineral claims in existence at the time. Since that time, a detailed grid soil sampling, airborne magnetic survey with follow-up ground magnetic survey, I.P. survey over significant anomalies and detailed mapping have been completed. In addition 5490 metres of diamond drilling was completed up to August, 1984 primarily in the Main Mineral Zone. The detailed exploration of the property until that date had been under the supervision of Canadian Geoscience Corporation and Rhyolite personnel. The reader is referred to Progress and Recommendation reports listed in the references section of the report (Section 21). A summary of the mineralized material development and waste material thickness is described in Mr. K.C. Fahrni's P.Eng. report of April 9, 1984. Fahrni reports "The detailed drill program has defined a tabular body of mineralized material about 9700 square m area with an average thickness of 4.3 m." Fahrni also reports that "The tonnage of mineralized material is calculated to be 113,651 tonnes. The grade in place averages 2.16 grams per tonne and 6.4 grams per tonne in silver." The tonnage and grade of the mineralized material was calculated by using the cross-sectional method described by Mr. K.C. Fahrni in his report of April 9, 1984 as "areas of influence for each borehole have been marked on a plan and each area determined. From the sections, vertical thickness of the mineralized zone at each drill hole and the depth of barren material lying above the zone were measured. This information with the averaged assay values of the zone for each drill hole were tabulated." The author has reviewed this report and has observed that the calculations performed by Fahrni in April 1984 were detailed and reflect the results of the detailed drill program (15 m grid spacing) that was conducted by Rhyolite Resources Inc. The author considers the results to be reliable for the methodology used; however, the historical estimate provided by Mr. K.C Fahrni in his report of April 9, 1984 used a descriptor (mineralized material) different from those currently provided by the CIM Definition Standards on Mineral Resources and Mineral Reserves (November 22, 2005). Although this mineralized material calculation was carried out prior to the existence of NI43-101 and CIM definitions and standards, the detailed drill spacing previously noted and extensive exploration work within the Main Mineral Zone indicates the historic mineral resource is compliant with the current NI43-101 standards and CIM definition of an Inferred Mineral Resource (NI43-101 s.2.4(c). The author has not recalculated Fahrni's April 1984 mineralized material estimate as this was beyond the scope of work for Academy Ventures Inc. August 2006 exploration program and as such, the historic calculation on mineralized material by Fahrni (1984) should not be relied upon to represent the current mineral resources on the property.

The history of drilling by Rhyolite Resources Inc. on the Main Mineral Zone began in 1981 with an initial drill hole program that began in the diorite immediately east of the gold bearing exposures in the Road Cut. This program did not meet with much success until it was extended to the north to the contact of the diorite intrusive.

Here hole 81R-8, encountered volcanic breccia and hornfels with a bleached, silicified zone carrying interesting gold grades averaging 0.21 ounces per ton in gold over a width of 4 m. The following year (1982) a 15m square grid pattern of vertical holes was begun. Results from the 14 holes drilled were spotty but encouraging. The grid was expanded in 1983 to determine limits of mineralization to the north and west. The diorite contact formed a boundary on the south east side. Additional holes were drilled to give a total of 72 holes. Within the area tested, a smaller block of 43 drill holes has defined a continuous lens of mineralized material.

A summary list of the drill holes installed on the property since 1981 by Rhyolite Resources Inc. are presented on Table 2 as follows:

Hole #	Latitude	Departure	Elev.	Dip	Bearing	Length	Exploration Area
81R-1	2000	1000	127	-90		49.4	Diorite Plug Zone
81R-2	1999	999	127	-60	Due W	101.9	Diorite Plug Zone
81R-3	1975	1015	127	-60	Due W	96.6	Diorite Plug Zone
81R-4	1975	1016	127	-80	Due W	68.9	Diorite Plug Zone
81R-5	1950	1030	126	-55	Due W	61.9	Diorite Plug Zone
81R-6	1950	1031	126	-80	Due W	42.4	Diorite Plug Zone
81R-7	1935	1080	123	-55	Due W	71.0	Diorite Plug Zone
81R-8	2067	986	123	-52	Due W	109.7	Main Mineral Zone
81R-9	2067	987	127	-80	Due W	50.6	Diorite Plug Zone
81R-10	2032	981	125	-50	Due W	45.1	Diorite Plug Zone
011110	2052	501	123	50	Duen	1011	
81R-11	2032	982	125	-80	Due W	25.6	Diorite Plug Zone
81R-12	2092	902	131	-80	Due E	105.8	Main Mineral Zone W.
81R-13	2092	904	131	-50	Due E	61.0	Main Mineral Zone W.
Total for 198	31				889.9 metres		
82R-1	2062	966	126	-90		30.5	Main Mineral Zone
82R-2	2048	966	125	-90		30.5	Main Mineral Zone
82R-3	2047	950	126	-90		30.5	Main Mineral Zone
82R-4	2062	950	128	-90		30.5	Main Mineral Zone
82R-5	2079	978	125	-90		30.5	Main Mineral Zone
82R-6	2078	966	127	-90		30.5	Main Mineral Zone
82R-7	2078	951	126	-90		30.5	Main Mineral Zone
82R-8	2094	995	125	-90		35.0	Main Mineral Zone
82R-9	2078	990	126	-90		30.5	Main Mineral Zone
82R-10	2017	983	127	-90		30.5	Diorite Plug
82R-11	2031	967	124	-90		30.5	Diorite Plug
82R-12	2018	971	125	-90		30.5	Diorite Plug
82R-13	2093	966	129	-90		30.5	Main Mineral Zone

# TABLE 2 Summary of Drill Holes

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Hole #	Latitude	Departure	Elev.	Dip	Bearing	Length	Exploration Area
82R-14	2094	980	129	-90		30.5	Main Mineral Zone
82R-15	2094	950	128	-90		30.5	Main Mineral Zone
82R-16	2109	966	128	-90		106.7	Main Mineral Zone
82R-17	2061	957	128	-90		14.9	Main Mineral Zone
82R-18	2049	974	125	-90		15.2	Diorite Plug
82R-19	2048	957	126	-90		15.6	Main Mineral Zone
82R-20	2761	551	176	-90		65.8	North Mill Site
82R-21	2800	479	172	-90		149.7	North Mill Site
82R-22	2515	1105	20	-90		143.6	Lake Cut Area
Total for 198	32				973.5 metres		
83RL-1	2543	1155	21	-90		31.3	Lake Cut Area
83RL-2	2586	1155	16	-90		31.1	Lake Cut Area
83RL-3	2535	1141	18	-90		30.5	Lake Cut Area
83RL-4	2515	1126	15	-90		30.8	Lake Cut Area
83RL-5	2490	1114	14	-90		31.1	Lake Cut Area
83RL-6	2454	1079	18	-90		30.5	Lake Cut Area
83RL-7	2027	1235	60	-90		33.5	South Contact Zone
83RL-8	1630	1124	95	-90		85.3	South Contact Zone
83R-36	3105	201	175	-90		61.6	North Mill Site
83R-37	3117	137	193	-980		44.8	North Mill Site
83R-38	3117	138	193	-67	S 80 E	47.6	North Mill Site
83R-39	3133	134	193	-52	Due E	96.9	North Mill Site
83R-40	3103	163	180	-90		60.0	North Mill Site
83R-41	3030	166	176	-90		46.0	North Mill Site
83R-42	3048	175	176	-46	N 85 E	116.1	North Mill Site
83R-43	3075	360	173	-90		32.9	North Mill Site
83R-44	1895	1030	99	-90		106.7	South Contact
83R-45	3075	359	173	-45	N 85 W	109.7	North Mill Site
83R-46	2941	495	174	-90		61.0	North Mill Site
83MT-1	2077	967	127	-90		15.8	Main Mineral Zone
83MT-2	2076	965	127	-90		15.2	Main Mineral Zone
83R-47	1886	1227	52	-90		61.3	South Contact
83R-48	2109	1337	15	-90		64.3	South Contact
83R-49	2063	993	111	-90		56.7	Main Mineral Zone
83R-50	2079	994	113	-90		48.2	Main Mineral Zone
83R-51	2204	980	99	-90		33.8	Main Mineral Zone
83R-52	2220	968	97	-90		31.9	Main Mineral Zone
83R-53	2202	996	92	-90		33.5	Main Mineral Zone
83R-54	2208	994	92	-60	Due E	30.5	Main Mineral Zone
83R-55	2141	1036	109	-90		56.7	Main Mineral Zone
83R-56	2142	1037	109	-55	N 45 E	54.9	Main Mineral Zone
83R-57	2170	947	120	-90		46.3	Main Mineral Zone
83R-58	2154	938	122	-90		31.1	Main Mineral Zone
83R-59	2169	921	124	-90		34.1	Main Mineral Zone
83R-60	2184	934	123	-90		31.1	Main Mineral Zone
83R-60	2184	934	123	-90		31.1	Main Mineral Zone

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Hole #	Latitude	Departure	Elev.	Dip	Bearing	Length	Exploration Area
83R-61	2185	908	128	-90		39.6	Main Mineral Zone
83R-62	2211	911	122	-90		61.3	Main Mineral Zone
83R-63	2171	935	121	-90		40.2	Main Mineral Zone
83R-64	2199	923	121	-90		30.5	Main Mineral Zone
83R-65	2184	950	117	-90		34.1	Main Mineral Zone
83R-66	2155	924	121	-90		34.1	Main Mineral Zone
83R-67	2149	954	122	-90		36.3	Main Mineral Zone
83R-68	2118	994	121	-90		42.7	Main Mineral Zone
83R-69	2020	1530	-	-90		61.0	South Contact
834-70	1934	1312	37	-90		48.5	South Contact
Total for 1983							
Total Drilling to 1984							
			(1899	97.3 feet)			

Mr. Fahrni recommended further drilling and geophysical evaluation.

#### Past Soil Geochemistry

The Main Mineral Zone area was covered with detailed soil samples in 1981 and 1982. Numerous anomalous trends are indicated. During the 1983 season, the northern part of the claim block was covered by soil samples which followed east-west 50 metre lines spaced at intervals of 30m. The samples were analyzed by Min-En Laboratories using inductively coupled plasma atomic emission spectroscopy (ICP-AES). Separate analyses for gold were made with aqua regia digestion and atomic absorption measurement. In total, 1739 samples were taken. In the area covered there were 77 gold results which could be considered anomalous at values equal to or better than 35 ppb. The highest value was 8400 ppb. Anomalous gold shows a moderate correlation with higher arsenic values but many anomalous arsenic samples show no significant gold content. The anomalous gold samples group into a number of north-west trending linear anomalies, some corresponding with magnetic and IP anomalies.

The geochemical survey conducted on the Doctors Point Gold property in 1988 consisted of the collection of 2,600 soil samples and 174 rock samples; 1,448 soils and 174 rocks were collected in the central area. The remaining 1.152 soils were collected on the South Grid. The soils were collected form the "B"; horizon wherever possible from a depth of between 3 to 50 centimetres.

The soil samples were delivered to Acme Analytical Laboratories Ltd. in Vancouver where they were dried and screened to -80 mesh. Copper, lead, zinc, arsenic, silver were analyzed by ICP for all samples. The ICP assay involves the digestion of 0.500 grams of the sample with 3ml of 3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O acid at 95°C for one hour. This sample is then diluted to 10ml with water. The soils were also analyzed for gold by acid leach and Atomic Absorption, by Acme Analytical labs.

The plot of the gold geochemistry for the north grid outlines a strong northwest trending zone of anomalies traceable over a 2.5 kilometre length. Gold values in this region range up to 4,140 ppb in the area of the "Main Mineral Zone" between lines 19+00N and 23+00N. The two other areas of highest gold values occur over the "South Swamp-Pylon Zone" and the "North Zone". Quartz veins containing anomalous gold are exposed in these locations.

Several spot anomalies occur throughout the area covered by the northern grid. Mapping failed to reveal the source of these gold anomalies. Some trenching or geophysical work is required over the more interesting anomalies in order to locate their source.

The arsenic plot confirms the trend noticed in the gold plots, but is present as a much larger halo. The values range from 2 to 8,368 ppm with the higher values being found over the three known area of quartz-arsenopyrite-pyrite veining. Largely coincident with these anomalies are higher silver, copper, and lead values.

The gold anomalies on the southern grid are subtly different to those to the north. These anomalies although less intense, have a significantly lower arsenic association. At the RN mine near Harrison Hot Springs, there is also a lower arsenic response in pyrrhotite-gold mineralized areas. This lower response has been attributed to a higher temperature style of vein mineralization. This style of mineralization may be present on this southern area, and if so this may explain the high magnetic anomaly in the area. This area is perhaps a potential zone of large tonnage gold mineralization comparable to the "Main Zone.

## Past Geophysical Surveys

On September 20, 1983, an airborne geophysical survey of the Doctors Point Gold Property was flown as part of a regional survey with two other companies interested in adjoining ground.

The survey system transported by helicopter continuously reads magnetic and electromagnetic information and records it along with ground position as determined by altimeter and video cassette recorder. About 320 km of survey was required to cover all of the land holdings (White & Pezzat, 1983).

The magnetometer shows a very broad relationship between known areas of gold mineralization and magnetic values of 1,500 to 1,700 gammas. Magnetic trends define geological boundaries in a general way. A large crescent shaped anomaly with values from 1,400 to 1,600 gammas was located about 3 km due south of the main showings in the Trio Creek area which was accessible by a logging road on which some mineralized float had been found previously.

A ground IP and Magnetometer survey was carried out from October 17 to November 9, 1983 (White and Candy, January 7, 1984).

The ground magnetic surveys were carried out as a follow-up of the airborne work. An area covering the part of the claim which has been tested by geochemistry and drilling was surveyed with east-west lines spaced at 50m with readings by the proton procession magnetometer at 15m intervals. The surveyed area reaches from the south contact area of the Main Mineral Zone to the North Mill Site area with a width of about 1,000m. The Main Mineral Zone corresponds with magnetic readings of from 1,800 to 2,800 gammas. The southern and smaller diorite bodies are defined by areas of lower magnetic values, mainly from 800 to 1,400 gammas, but with local highs to 2,200 gammas. The northern diorite body is more magnetic with gamma values over 2,000. In the volcanics two interesting but narrow anomalies with north west trends lie about 500m north of the main mineral zone with highs of 2,800 gammas. At 300m to the north-west of these a well defined 3-line north westerly trending anomaly occurs with a high of 4,200 gammas. The North Mill Site area where some gold mineralization has been recorded is partly underlain by the large northern diorite intrusive body which extends from the lake shore. Magnetic values are from 1,800 to 3,500 gammas. In the south contact zone, the peninsula on the south side of Doctors Bay shows magnetic values up to 5,200 gammas in a complex group of magnetic contours.

A magnetically anomalous zone lies beyond the west contact of the intermediate sized diorite body at about 650m in a 300° Az direction from the main mineral zone with magnetic values above 2,000 gammas.

The principal IP survey was limited to the immediate vicinity of the Main Mineral Zone and the south contact zone of the Main Mineral Zone, an area about 500m square. The east-west lines are 100m apart with 25m stations read at various spacings to develop depth. The main mineralized zone shows chargeability factors of from 35 to 45. Chargeability in the diorite bodies is from 7 to 30 msec.

Several north-westerly trending anomalies with chargeabilities over 50 milliseconds lie down hill from the Main Mineral one, about at its outcrop in a line about 500m long which cuts through the diorite plug. An anomaly at depth occurs at the diorite contact on the peninsula to the south of Doctors Bay.

Several short vertical drill holes have been drilled on or near these anomalies without encountering interesting mineralization. As depth indications suggest steep inclinations to structures, inclined drilling may be more productive.

Two trial IP lines were run on the crescent shaped magnetic anomaly to the south. Three chargeability readings over 40 were obtained but only one showed corresponding low resistivity, this being at station 1,560 W, on auxiliary line 00N. No further work was carried out by Rhyolite Resources Inc.

#### Past Metallurgical Testing

A composite sample was provided to Lakefield which was obtained from two HQ core holes which were drilled adjacent to hole 82-R-6 in the southern part of the Main Mineral Zone. The historical metallurgical testing is described in Section 16 of this report.

#### Harrison Gold Mines Ltd.

In November 1984 an option agreement was signed with Harrison Gold Mines Ltd. to explore, drill and develops the mineral potential of the claim groups. A minor percussion drill program, geophysical survey, and data acquisition was completed.

#### Heritage Petroleums Inc.

In 1985 Heritage Petroleums Inc. optioned the claims and drilled 5 holes 1.5 kilometres north of the Main Mineral Zone at the North West End of the North Mill Site and 3 holes at the south end of a swamp currently referred to as the South Swamp – Pylon Zone (south end of the North Mill Site area) in a in the vicinity of a gold geochemical anomaly. Rhyolite Resources Inc. previously drilled three holes at the North West End and one hole at the South Swamp – Pylon Zone. These and the geochemical survey indicated two zones of vein gold mineralization, however the best drill result was 0.3 metres of 0.635 oz/ton gold and 2.50 oz/ton silver. Three of the five new Heritage Petroleums Inc. holes at the North West End of the North Mill Site area encountered gold mineralization; hole 85-NM-1 had 0.31 metres of 0.212 oz/ton gold and 1.60 oz/ton silver, hole 85-NM-2 had 0.82 metres of 0.443 oz/ton gold and 0.96 oz/ton silver and hole 85-NM-5 had an average of 1.83 metres of 0.116 oz/ton gold an 0.40 oz/ton silver. Surface sampling in this same area indicated a potential for stronger mineralization in the area. Five samples ranging from 0.39 to 2.12 oz/ton gold and 0.85 to 2.68 oz/ton silver were collected from surface veins which showed similar mineralization to the drill intersections.

The significant assay results are tabulated below in Table 3.

TABLE 5. DIAMOND DIRELITOLE SOMMARY 1565										
HOLE	ANGLE	DEPTH	WIDTH	Au. oz/ton	Ag. oz/ton					
NUMBER										
85-NM-1	-90	5.48-5.79	0.31	0.212	1.60					
85-NM-2	-55	13.41-14.23	0.82	0.443	0.96					
85-NM-5	-45	37.79-38.40	0.61	0.260	0.73					
85-NM-5	-45	38.40-39.62	1.22	0.044	0.24					
85-NM-5		AVE.	1.33	0.116	0.40					
85-NM-8	-45	18.29-18.69	0.40	0.089	0.99					

#### TABLE 3: DIAMOND DRILLHOLE SUMMARY 1985

#### Drill Intersection Descriptions

- 85-NM-1, at 5.48 metres, showed 0.12 metre of massive sulfides.
- 85-NM-2, at 13.41 metres, showed 0.038 metre of massive sulfides.
- 85-NM-5, at 37.79 metres, showed 0.076 metres of massive sulfides and between 38.40 and 41.76 metres showed a total of 0.76 metres of sulfides.
- 85-NM-8, at 18.29 metres, showed 0.075 metre of massive sulfides.

Most noticeable in the above results is the inconsistency between the quantity of massive sulfides (pyrite and arsenopyrite) in each sampled section and the gold assay content. Re-splitting and re-assay of the above samples was completed, but with no significant change in results.

Drill hole 85-NM-5 showed the most significant sulfide intersections. The hole showed sulfide veining immediately after penetrating the overburden, and was drilled almost continuously in a heavily pyritized, fractured and brecciated quartz diorite. This was in contrast to the previous nearby hole 85-NM-4, which showed a uniform, unaltered, only slightly pyritic, biotite quartz diorite. Two zones of epithermal veining with mixed sulfide infill and associated wall rock alteration were outlined. The first was from surface to approximately 15 metres (50'), and the second from 37.8-43.3 metres (124-142'). The hole was located in a topographic depression, which was later trenched with the dozer and intermittent altered diorite bedrock was uncovered, along with mineralized flow, both to the northwest and southeast of the drillsite.

Drill holes 85-NM-1 and 85-NM-2, extended the mineralized veining seen on surface between holes 83-R-35 and 83-R-39. The major intersection in the two holes is most probably the same vein, which is exposed at surface on the roadway below hole 83-R-39. They define the western limit of major vein development. The zone is open to the east along a topographic depression. Drill hole 85-NM-5 is approximately 200 metres to the northwest of this zone.

Neither of the other drill holes 85-NM-3 nor 85-NM-4 indicated significant mineralization, although occasional small epithermal veinlets were encountered and some quartz flooding was intersected where 85-NM-4 penetrated the subsurface expression of a steep scarp.

At the southern end of the North Millsite area (South Swamp-Pylon Zone) the first holes, 85-NM-6 and 85-NM-7, were located to penetrate the two pyrite-arsenopyrite veins adjacent to the roadside. Hole 85-NM-8 was located further uphill to intersect veins which were uncovered during site preparation of the first two holes. In all three holes veining was common, and the drill logs show a tabulation of vein widths, alteration halo widths, angles, and content of massive sulfides. No large veins were drilled, however, some veins were up to 75 mm thick, but drill assays produced low results. In 85-NM-6, the first 16.4 metres (54') was split and assayed to determine if the mineralization could be classified as massive, low-grade. Assay results averaged <0.001 oz/ton Au. for this zone.

Hole 85-NM-8 terminated in a massive quartz flooded section in the diorite, showing pyrite with occasional chalcopyrite, but low gold assays. This flooded zone is adjacent to hornfelsed volcanic sediments.

#### Esso Minerals Inc.

Esso Minerals conducted a brief regional mapping program in the claim area in 1985. Silt and heavy concentrates were taken from various creeks on the property. Assays ran as high as 425 ppb in gold in the silts and 5,000 ppb in the heavy concentrate.

#### Universal Trident Industries

From 1985 to August 1988 little work was done on the property. In August 1988 a small program of excavator trenching was completed in the Main Mineral Zone, South Swamp-Pylon Area (South End of the North Mill Site

area) and North West End of the North Mill Site area by Universal Trident Industries. Also in 1988 at the North West End of the North Mill Site area, Universal Trident Industries completed a comprehensive soil sampling and geological mapping program.

Following the receipt of low value gold results for assays of the massive sulfide veins in 1985, a series of samples were taken of the sulfide component of surface outcropping veins.

A Mitsibishu 240 track mounted excavator was used in 1988 to trench and clean outcrop in areas of interest. Following the work by the excavator the exposures were washed down with a fire pump, mapped and sampled. As a result of this program the three main areas of interest were defined; the "Main Mineral Zone", the "South Swamp-Pylon Zone", and the "North Zone".

Samples from veins on the "Main Zone road cut" show a vein continuous for 60 m with an average width of 68 centimetres and grade of 0.345 oz/ton gold. Chip samples adjacent to this vein have low gold values, indicating that the host diorite is barren of gold mineralization, except for minor values in small fracture veinlets. Rock chip samples of vein material were collected during the 2006 Academy Ventures exploration program and one rock chip was sample collected by the author.

Similar sampling along the "Mustang Vein" which is exposed for over a 41m strike length, indicate an average of 2.088 oz/ton gold over 11 centimetres width.

The Bulk samples taken from Trench A on the Main Mineral Zone were biased by a newly discovered subhorizontal vein near the surface. The vein sampled here gave rise to 24 metres of bulk sampling with an average grade of 0.224 oz/ton. These samples do not accurately represent the general value of the underlying and surrounding rock, but do establish the tenor of the vein style mineralization in this area. In this trench a shallow east dipping vein up to 50cm wide was uncovered, with a series of smaller veinlets branching from the central zone. These veinlets ranged from vertical to horizontal orientation, with varying strike and dip.

#### South Swamp and Pylon

The excavator uncovered a number of veins and veinlets in this zone. Directly under the BC Hydro power pylon, a network of veins and veinlets approaching a tight stockwork pattern were uncovered. Assay values from high grade vein samples and chip samples across the veins were encouraging, but erratic. The highest value was 2.98 oz/ton Au from a 5cm wide vein.

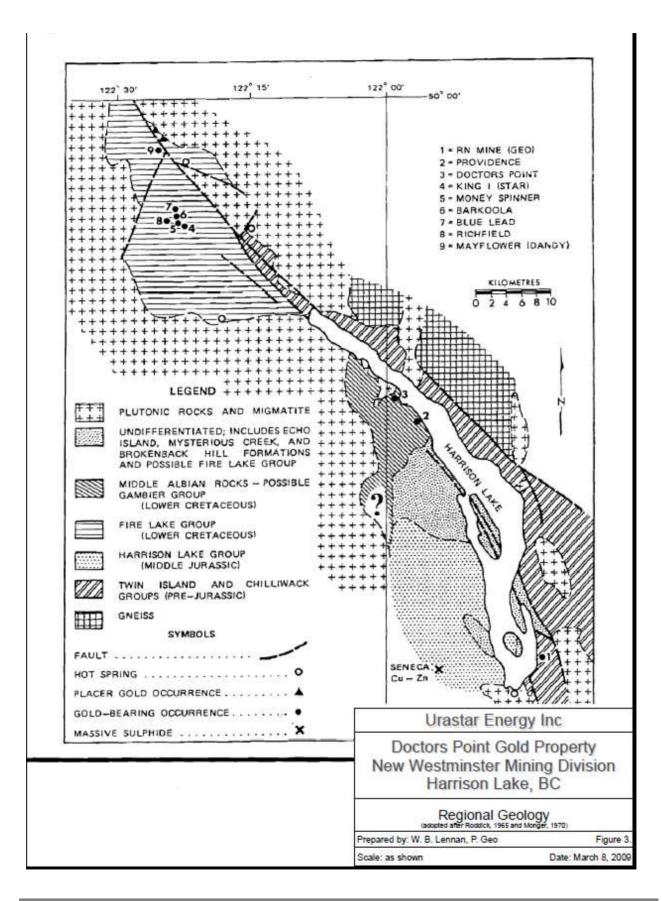
In the other area within this zone a large flat lying vein was exposed adjacent to the roadside. Assays from it confirmed the presence of gold within the veins, but chip samples were erratic. One drill hole was targeted to intersect this vein at depth, but failed to do so.

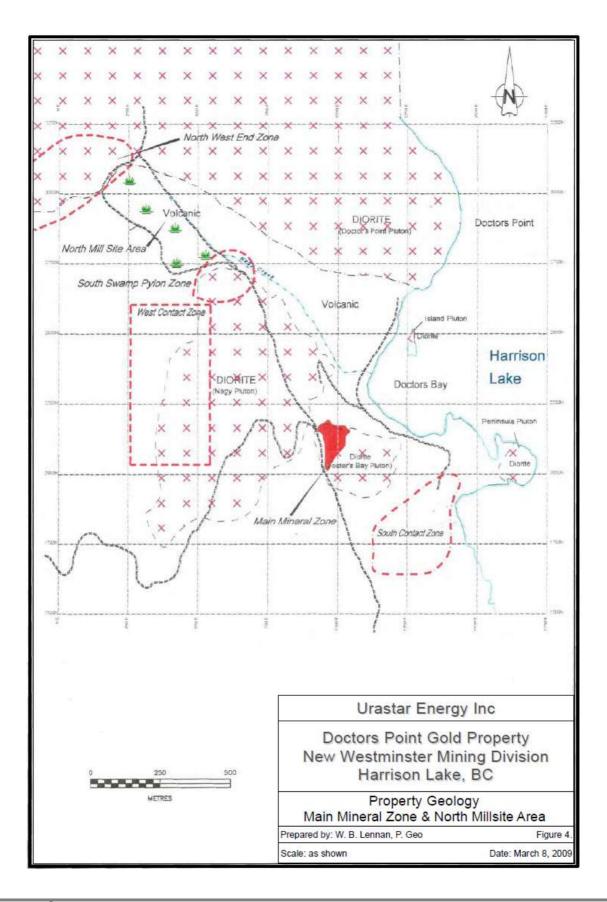
#### North West End of North Mill Site Zone

The assay values for the "North West End Zone" (North West End of North Mill Site area) were obtained from a small vein exposed in a trench 40 metres west of Heritage Petroleum's drill hole DDH-85-NM-05. This vein had a shallow dip to the east.

#### Homegold Resources Ltd.

The only additional work recorded since 1988 up to the 2006-2008 Academy work is the small diamond drill program completed in 2 short holes in 1998 on the previous Doctors Point #6 claim (North Mill Site Zone area) by Homegold Resources Ltd. Drillholes 98-1 and 98-2 were drilled on the former Doctors Point #6 Mineral Claim and intersected a series of hornfelsed metasediments





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## **GEOLOGICAL SETTING**

#### **Regional Geology**

The earliest reported geological mapping of the North Harrison Lake areas was of the Vancouver North Map Area by J. E. Armstrong and J. A. Roddick of the Geological Survey of Canada Memoir 335 "Vancouver North, Coquitlam, and Pitt Lake Map Areas, B.C.". More recent mapping by G.E. Ray of the B.C. Ministry of Energy, Mines and Petroleum Resources (Geological Fieldwork – Paper 1983-1) and J. M. Journeay, L. Csontos and J. V. G. Lynch from 1988 to 1989 has detailed the geology of North Harrison Lake area which includes the Doctors Point Property. Open File (O.F. #2203, 1990) published by the Geological Survey of Canada summarizes the results of that mapping.

The Coast Belt of southern British Columbia records a complex history of deformation, metamorphism and igneous activity that can be linked in part to progressive shortening and transcurrent displacements along the continental margin of North America since Early Cretaceous time that may be associated with eastward subduction of oceanic lithosphere.

Gambier Group rocks underlie the Doctors Point property and occupy an island arc setting. Included is the Peninsula Formation, a basal, fining upward sedimentary sequence of subaqueous autoclastic and epiclastic rocks which are mainly intermediate in composition. (Roddick, J. A., 1965). These rocks are correlative on a lithological basis to the Gambier Group that lies 40 air miles (70 kilometres) to the west of the Doctors Point property. The argillaceous middle member of the rocks along Harrison Lake is equivalent to the Britannia Formation of the Gambier Group (Roddick, J. A., 1965, pg. 42 and Journeay et. al. 1990.) The Britannia Formation hosts the Britannia Mine, a copper-zinc-gold felsic volcanogenic massive sulfide deposit of the Kuroko-type (55 million tons grading 1.1% Cu, 0.65% Zn, 0.2 oz/ton Ag and 0.02 oz/ton Au, Payne et. al., 1980)

Two phases of the thrusting related to late Cretaceous oblique convergence along the continental margin and Tertiary dextral and normal dip-slip faulting are the major structural events. Metamorphism to greenschist grade or lower has also occurred within the Gambier Group rocks. The metamorphic grade of the Gambier Group rocks seldom exceeds lower greenschist facies, except in the vicinity of intrusions, where hornfels alteration occurs.

The Harrison Lake shear zone is recognized (Journeay, 1989) to be an important structure in localizing economic gold deposits within southwest British Columbia. This gold belt, which includes the Doctors Point property is associated primarily with brittle fault systems along the western margin of the shear zone, and is offset to the north by younger northeast striking transcurrent faults. These northeast striking transcurrent faults may also be important structures in controlling the emplacement of epizonal, late Tertiary plutons and in tapping associated hydrothermal systems. These transcurrent faults may be providing the necessary structural control for localizing economic concentrations of both base and precious metals within the region.

The Harrison Lake fracture system forms a major, southeasterly trending dislocation over 100 kilometres in length, which in parts passes along, and parallel to, Harrison Lake. The system separates highly contrasting geological regimes (Roddick, 1965; Monger, 1970). To the northeast, the rocks include well-deformed supracrustals of the Pennsylvanian to Permian Chilliwack Group (Monger, 1966), as well as highly foliated gneissic rocks and some younger granites. By contrast, the rocks on the southwestern side of the fracture are generally younger, are less deformed, and have suffered lower metamorphic grade; they include a variety of volcanic, volcaniclastic, and sedimentary rocks, as well as intrusive granitic rocks and migmatites. The supracrustals are separable into a number of different groups of Jurassic/Cretaceous age. To the northwest the Upper Jurassic to Lower Cretaceous Fire Lake Group (Roddick, 1965) comprises a 4,500-metre-thick sequence of largely sedimentary rocks with lesser amounts of volcanic andesite and rhyolite. The group contains one jasper-bearing horizon at the interface between andesite and an overlying sequence of aquagene breccias and tuffs; this horizon is interpreted as submarine exhalitive in origin (Ray and Coombes, 1985). The andesitic rocks in the group host at least five fault-filled quartz veins that carry chalcopyrite and sporadic native gold. These are clustered in the vicinity of Fire Mountain and include the defunct Money Spinner gold workings (Ray and Coombes, 1985). Another vein, the

Mayflower (Dandy), which lies 10 kilometres northwest of Fire Mountain, is a lead-zinc-bearing quartz carbonate vein hosted in brecciated sedimentary rocks.

The area southwest of Harrison Lake is largely underlain by the Middle Jurassic Harrison Lake Group (Crickmay, 1925; Roddick, 1965), a predominantly volcanic sequence of andesitic to dacitic composition, with lesser amounts of volcaniclastic and sedimentary rocks. The Harrison Lake Group hosts massive sulfide mineralization at the Seneca deposit.

The western shore of Harrison Lake south of Doctors Point is underlain by a variety of supracrustal rocks whose age and relationship to one another is poorly understood. However, locally derived float bearing a Middle Albian ammonite fossil, Cleonicera penezianum was discovered in the Doctors Point area (Ray and Coombes, 1985). This suggests that the volcano-sedimentary sequence at Doctors Point is Early Cretaceous in age and represents a lateral equivalent to the Gambier Group. Since the Gambier Group elsewhere hosts the Britannia and Northair deposits (Payne, et. al., 1980), its presence at Doctors Point may have economic significance regarding exploration for massive sulfide mineralization.

The sequence at Doctors Point is intruded by several diorite-quartz diorite plutons which are surrounded by a wide thermal metamorphic aureole. The gold-bearing veins in the area exhibit a close spatial relationship to the pluton margins, and the mineralization is believed to be genetically and temporally related to these intrusions.

## Local and Property Geology

The southern part is underlain by a variety of moderately dipping volcanic, volcaniclastic, and sedimentary rocks that may belong to the Early Cretaceous Gambier Group. To the north these supracrustals are intruded by five diorite-quartz diorite bodies that vary in size from only 25 metres in diameter to over 2 kilometres across. The volcanic rocks are fine to medium grained, are generally highly altered, and range from andesite to dacite in composition. Both porphyritic and non- porphyritic varieties are seen, and abundant disseminated pyrite is a widespread feature; the dacitic varieties are commonly devitrified and silicic. Most of the volcanic rocks are massive; flow banding is rarely seen.

The sedimentary rocks range from massive, black argillites, some of which contain rounded concretionary structures, through to finely bedded, siliceous siltstones that in places display graded bedding. Most of the sedimentary rocks indicate deposition in a low-energy environment but some siltstones contain argillitic rip-up clasts and others show signs of soft sediment deformation and chaotic slumping. At one locality, a very coarse-grained conglomerate is seen; this contains angular to subrounded clasts up to 0.6 metre in diameter which are composed of amygdaloidal dacitic and andesitic volcanics, bedded sedimentary rocks, massive limestone, and fragments of broken quartz and feldspar crystals.

The volcaniclastic rocks vary from massive to finely bedded, often siliceous crystal-lithic tuffs through to volcanic breccias having angular to subangular clasts up to 0.15 metre in diameter; most clasts are of volcanic origin. The more mafic breccias are marked by rounded clots of calcite rimmed with epidote, while some of the finely bedded tuffs display load cast structures. In parts the bedded tuffs and breccias are interlayered with volcanic flows that also sporadically contain angular, lithic clasts. Consequently, it is often difficult to distinguish between tuffaceous lavas and volcaniclastic rocks, particularly where devitrification is widespread (Ray, 1983).

The plutons intruding the supracrustals range from diorite to quartz diorite in composition. When fresh they form grey-coloured, generally massive, and coarse-grained rocks. Biotite is the most widespread mafic mineral but hornblende is sporadically developed and can exceed 20 per cent by volume. Locally these rocks contain up to 10 percent disseminated pyrite, but this sulfide is not associated with gold.

Five individual plutons have been mapped (Ray, 1983). They range in size from the small body underlying the northern portion of the island in Doctors Bay through to the incompletely mapped large mass situated between Doctors Creek and Doctors Point. The three remaining bodies form rounded to oval-shaped masses whose

contacts with the country rocks are highly irregular. The Doctors Point pluton represents the largest body, and is notable for its higher quartz content and for the presence of rounded, mafic xenoliths; the latter are rarely seen in the other four bodies. The diorites are generally massive textured, but the western margin of the Peninsula pluton exhibits a steeply inclined, rhythmic compositional layering. This consists of subtle, diffuse concentrations of light and dark minerals; no sharp boundaries exist between the individual layers which are mostly regular and vary from 1 to 2 centimetres in thickness (Ray, 1983).

The plutons are surrounded by a 100 to 250-metre-wide hornfelsic aureolemarked by intense recrystallization of the country rock; in places identification of the original rock type is not possible. Close to the plutons, the hornfels contains fine biotite and magnetite and is characterized by weak silicification with some disseminated fine-grained pyrite and pyrrhotite. The pyrite-pyrrhotite can exceed 15 per cent by volume immediately adjacent to the plutons but these sulfides do not carry gold. In rare instances, the hornfels close to the pluton margins also contain cordierite, andalusite and coarse garnet crystals. Biotite and hornblende samples from the Doctors Bay pluton gave a preliminary date of 25 Ma for biotite (Ray, 1983). This suggest that the diorite bodies at Doctors Point were contemporaneous with the diorite plutons and their related gold-bearing veins at the RN mine, approximately 45 kilometres to the southeast (Ray et. al., 1985).

Early Cretaceous sedimentation was accompanied by submarine volcanism, and the possible development of an explosive, submarine caldera. Some of the massive tuffs may represent ash flows. This was followed during the middle Cretaceous (?) by a period of uplift and folding which resulted in the consistent easterly dip of the bedding and the imposition of a subvertically inclined fracture and slaty cleavage. Bedding-cleavage intersections indicate that the entire area occupies the eastern limb of a major, northwest-trending anticline. There is no evidence of structural repetition in the sequence, and the graded bedding shows tectonic inversion did not occur.

The diorite plutons and a related suite of late mafic dikes were emplaced approximately 25 Ma ago. The late hydrothermal gold-silver-arsenic mineralization was injected along gently inclined cone sheet fractures that had developed during the diorite intrusion.

This was followed by two sets of subvertical faulting that trend northeast and southeast respectively. Slickensiding indicates the southeast-striking fault set, which trends parallel to Harrison Lake fracture system, suffered both vertical and subhorizontal movements.

#### **MINERALIZATION**

The gold-silver mineralization at Doctors Point is hosted in long, narrow, gently dipping (10 to 35-degree) vuggy quartz-sulfide veins that show an overall spatial association to the diorite pluton margins. These veins follow preexisting low angle fractures which probably represent cone sheet-type fractures formed during the diorite intrusion. On surface the veins vary from a few centimetres to 0.75 metre wide, but drilling has intersected veins over 3 metres in width. The veins include both clear and white vuggy quartz, the vug cavities being lined with small quartz crystals. Pyrite and arsenopyrite are the commonest sulfides; in part the veins comprise coarse, massive sulfide material in which quartz is subordinate. Surface leaching results in abundant boxwork textures in the quartz veins, and many mineralized outcrops are coated with green scorodite (FeAsO<sub>4</sub>H<sub>2</sub>O), an alteration product of the arsenopyrite. In some instances the veins contain small amounts of chalcopyrite, while rare examples of molybdenum and galena also occur. Analyses show that the gold-silver-arsenic mineralization at Doctors Point is sporadically associated with anomalous amounts of bismuth, antimony, mercury, copper, lead, and zinc. Surface veins are traceable over a 30-metre distance, but drilling indicates some exceed 200 metres in length. One surface mineralized zone in the northern end of the Nagy pluton is traceable for 30 metres from the diorite into the adjacent, sulfide-rich hornfels without any apparent dislocation or change in either mineralogy or vein dimension.

The veins generally contain high gold and silver values and are enriched in arsenopyrite and pyrite, with only trace amounts of galena, copper, and sphalerite. However, the southernmost mineralized fracture, which lies outside the hornfelsic aureole, is enriched in gold, silver, lead and zinc, and contains abundant galena and tetrahedrite. Thus a temperature-related mineral and element zoning probably exists in the area, with gold predominating closer to the pluton margins and base metals predominating outside the hornfelsic envelope.

The mineralized veins are usually bounded by a 'bleached zone' in which the nature and texture of the original rock type is unrecognizable. These bleached zones comprise a very fine mixture of quartz, sericite, and kaolin, with some disseminated pyrite; in places it carries trace amounts of gold. The bleached zone varies from a few centimetres to 3 metres in width; generally the wider zones are associated with the thicker veins, and commonly the hanging walls contain the widest zones of alteration. The bleached alteration passes gradually out to a wider 'rotted zone' which is characterized by its friable, weathered, and rusty appearance. In this zone the feldspars are extensively kaolinitized, but the textures of the original rocks are clearly visible. This alteration zone can exceed a total of 8 metres in width and generally carries weakly disseminated pyrite but no gold.

The mineralization is genetically and temporally related to the diorite plutons and represents a late hydrothermal phase of this magmatic event. The postulated (Ray, 1983) sequence is: (1) emplacement of the diorite plutons with some barren sulfide mineralization, accompanied by the development of low angle cone sheet fractures; (2) intrusion of mafic dikes; (3) minor reverse fault movement along the fractures; (4) gold-sliver-arsenic mineralization along some of the cone sheet fractures; and (5) late subvertical faulting. Most veins are associated with the Doctors Bay pluton and they generally dip toward the pluton core; a few veins also lie within or adjacent to the Doctors Point and Nagy plutons. This suggests that the dioritic bodies in the area are related to and probably represent apophyses of a single major body.

Most of the cone sheet fractures in the area are unmineralized; they form narrow (less than 3-centimetre-wide), subparallel low angle faults placed from 5 to 20 metres apart, that often run parallel to the jointing. The reverse fault movements is marked by slickensiding; however the amount of displacement across individual fractures appears to be small, and one basic dike that intrudes the Doctors Bay pluton is offset less than 10 metres across a mineralized vein. Drilling reveals that some mineralized veins bifurcate and rejoin one another in a complex manner. Some late, subvertical normal fractures crosscut and cause minor displacement of the main veins. These later faults can also carry 1 to 3-centimetre-wide gold-bearing quartz-sulfide veins suggesting that some later remobilization occurred.

A petrographic and scanning electron microscope (SEM) study on the Doctors Point mineralization was completed by Littlejohn (1983). He noted that the native gold is associated mainly with the pyrite and only to a lesser extend

with the arsenopyrite. The gold occurs as small inclusions, mostly less than 0.01 millimetre in diameter and is generally concentrated close to the edges of the sulfide crystals. Some pyrite and arsenopyrite crystals contain abundant, minute vesicles, which Littlejohn (1983) interprets to result from boiling. The numerous microfractures cutting the sulfides are filled with calcite, together with small amounts of gel pyrite, clay, and various silver-bismuth minerals, the most abundant of which are native bismuth and lead-bismuth sulphosalts. Argentite, associated with the bismuth minerals, is also present; some native bismuth contains minute specks of chalcopyrite. Traces of galena are intergrown with and rim the arsenopyrite.

#### South Swamp - Pylon Zone

This area is underlain by volcanics and volcanoclastics of the Harrison Lake Group. The southern half of this zone is intruded by diorite of the northern pluton. Truncating the zone on its eastern boundary is the Nagy Creek Fault.

Exposed in the diorite are the stockwork style, <1cm quartz sulfide veins with gold values to 90 g/ton. Previous holes drilled in the diorite encountered fine fracture veinlets but only trace gold mineralization.

Outcrop in the remainder of the zone is of the Harrison Lake Group. A further series of shallow dipping veins in the rocks of the Harrison Lake Group were uncovered through trenching on the edge of the swamp

# **EXPLORATION – 2009 PROGRAM**

Geological, geochemical soil surveys, as recommended in the 43-101 Technical Report by W. B. Lennan, P.Geo. dated March 13, 2009, were conducted in the area of Doctors Point to Five Mile Bay which is covered by the Harrison North A mineral claim (tenure no. 577608) and currently under option to Urastar Energy Inc. The claim covers 2 documented mineral showings referred to as the Brem and Toil. Prospecting was done along some of the streams with some soil sampling along the powerline right-of-way. Bedrick mapping was concentrated along an area between the Harrison Lake road access and the shore Five Mile Bay in the approximate area of Brem and Toil mineral showings.

The regional tectonostratigraphic framework of the west side of Harrison Lake includes the Harrison terrane overlapped by post accretionary Gambier Assemblage and Coast Range intrusives. The claim and Five Mile Bay area is underlain by bimodal volcanic rocks of the intermediate to felsic composition intruded by granitic pluton. The volcanic rocks which form part of the eastern edge of Gambier Assemblage, represent a widespread zone of early Cretaceous volcanic arc magmatism. This assemblage forms an overlap with the Early Jurassic Harrison Island arc terrane volcanic rocks that occur to the southeast. The contact between these two volcanic arcs occurs as an erosional unconformity along the Mystery Creek area. This complex has subsequently been intruded by Cretaceous age coast range granites. The Gambier rocks found on the property are probably part of the south eastern extension of the Fire Lake Group which hosts gold-bearing iron sulphide mineralization.

Mapping, soil sampling and trenching surveys were conducted along the West Harrison Lake forestry road, hydro line right-of-way and along the shoreline of Five Mile Bay. This area is underlain mainly by andesitic to rhyolitic volcanic composition rocks (see attached map). On the north-western side of Five Mile Bay, along the forestry access road, massive, green, chloritic, siliceous altered andesite was noted outcropping along low ridges north of the road. Along a hydro-power line overlooking the Five Mile Bay, is a well exposed outcrop of massive, pinkish, siliceous rhyolitic to lapilli tuff flow bands. Associated with the felsic flow sequence can be observed occasional, very fine grain sphalerite and galena with a visual estimate of >.05% associated with minor pyrite. Along the north-eastern shoreline of the bay is an exposed section iron stained rhyolite carrying 2-5% pyrite. The Toil showing documented in previous (1982-1984) assessment reports, which is hosted in this rhyolitic horizon, was drill tested for potential gold and polymetallic mineralization. Additional reconnaissance road side mapping was carried out to the east along the forestry access road examining some of the exposed bedrock. Much of the rock along the road cuts is mainly of highly fractured granodiorite with quartz monzonitic phases.

Based on historical exploration and current field observations, the Five Mile Bay area is underlain by bimodal andesitic to rhyolitic-pyroclastic volcanic rocks that have the potential of hosting auriferous to polymetallic-bearing horizon similar to the mineralization to the northwest hosted in Fire Lake Group Volcanic rocks. Results of the 2009-2010 work does not warrant any further follow-up work.

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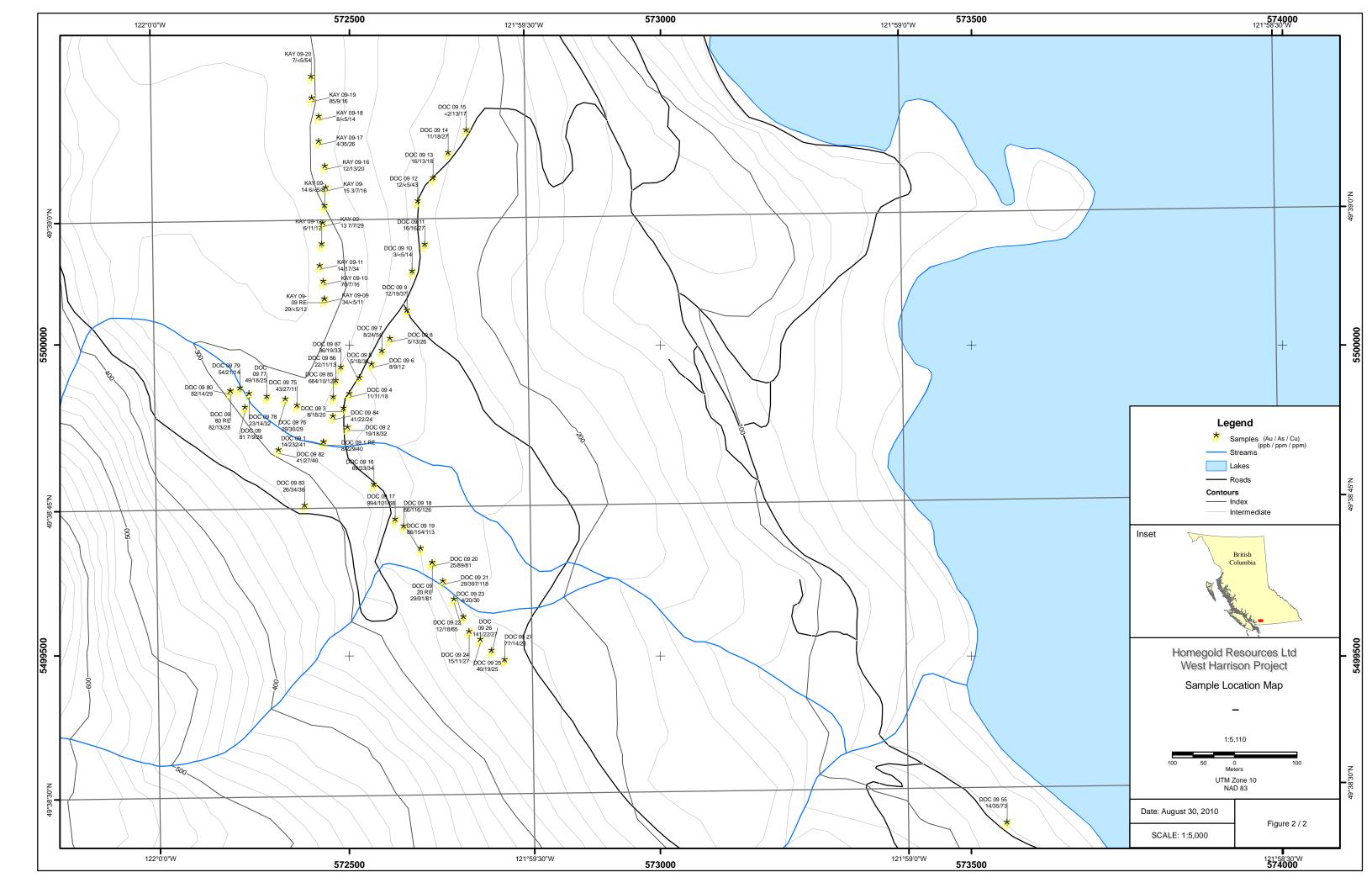
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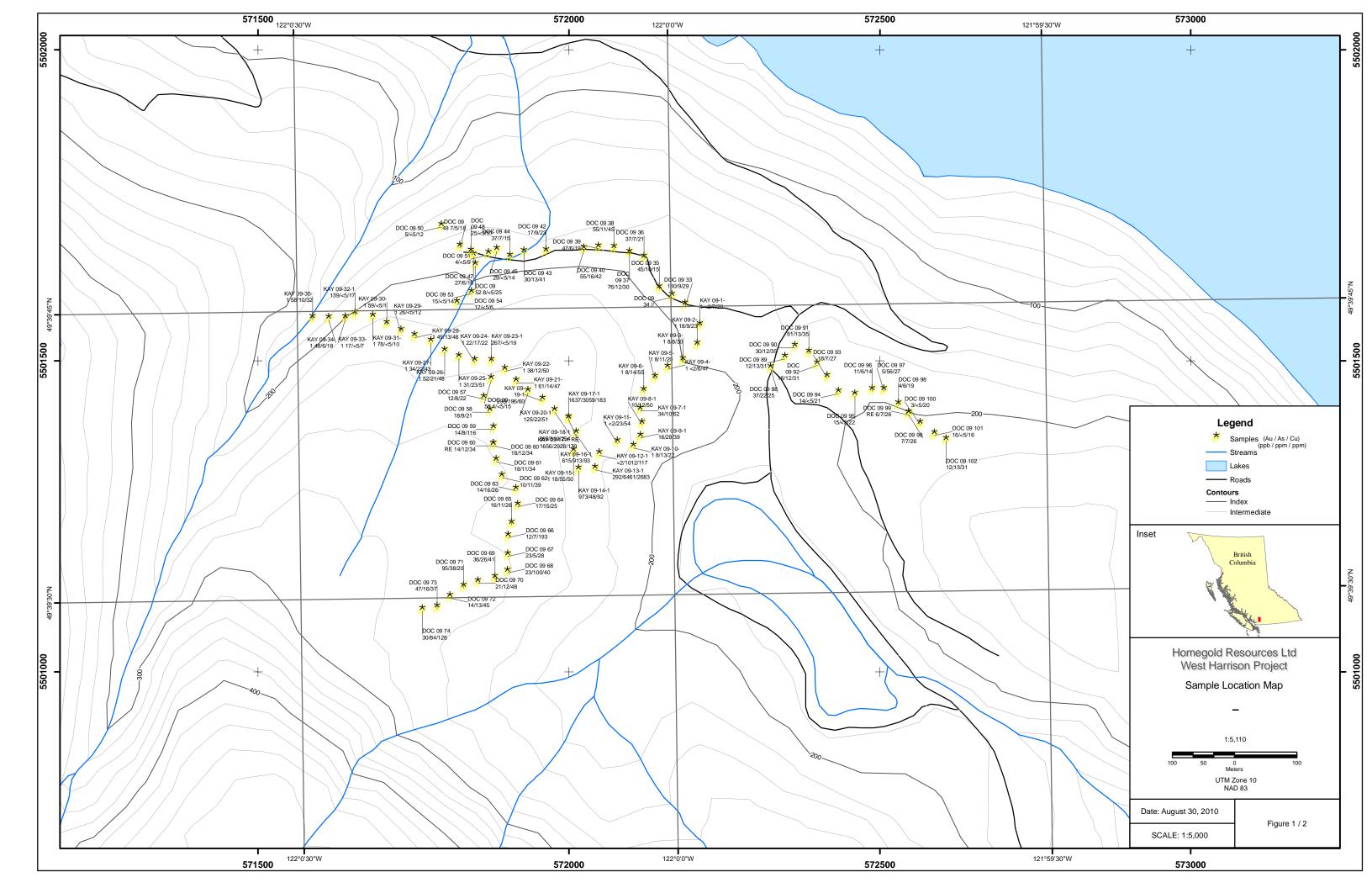
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Soil sampling in 2009-2010 returned high gold values in two areas in values up to 994ppb Au. These two areas require follow-up.





# PREVIOUS 2008 DRILLING and GEOPHYSICS

## 2008 Drilling

Diamond drilling was conducted in 2008 is tabulated in Table 5.

Drill Holes 2008							
Drillsite	Location E	N	Az	Dip	Elevation	Length m. (ft.)	Remarks
W-1	0572133	5500950	090	*-55°		91.44m (300)	On west branch road
W-1a	0572133	5500950	090	-55		30.48m (100)	
W-2	0572104	5500909	090	-55°		129.24m (424)	Farthest west
P-3 +	121°59.658	49°39.395	090	-55°		91.44m (300)	On E-W branch road near Mainline
P-4	0572577	5500965	090	-60°		91.44m (300)	Toward pylon
P-5	0572577	5500965	090	-60°		76.51m (251)	On east side of road
P-6	0572565	5500998	090	-60°		76.20m (250)	On east side of road
P-7	0572500	5500976	090	-45°		60.96m (200)	Near parking spot
P-8	0572510	5500986	Vert.	-90°		32.00m (105)	South end of swamp near stripped veins
P-9	0572280	5501285	090	-55°		32.08m (105.25)	North end of swamp on road
						Total 711.8m	

TABLE 4 Academy Ventures Doctors Point Project

(2,335.25 ft.)

Hole W1-08 and W2-08 were drilled on the Western Contact Zone along the gold in soil geochemical and 2008 3D Induced Polarization Chargeability Anomaly. Hole W2-08 was collared in very fine grained, medium grey, hornfelsed volcanoclastic flow unit. At 46.30m, the pyrite content increases to about 2% and increases down to 90.47m. Alteration is characterized by pervasive sericite with minor garnetization and potassium feldspar development. From 95.05m down to the end of hole at 129.24m (424 ft.) the hole is being highly fractured and pyritized. However, this contact zone does not contain any elevated gold values and arsenic is very low.

Holes P3-P8 were situated to investigate the South Swamp - Pylon Zone and the high Chargeability anomaly defined in 2008 along the east side of the main road. Quartz veins intersected in P3 have relatively low gold (highest Au = 584ppb Au). A narrow quartz vein in P4 containing arsenopyrite between 3.3m to 4.0m assayed 8.38 g/tonne gold. This interval assayed 3.72% Arsenic.

Quartz vein intersections in Holes P5 to P8 all returned relatively low gold values.

#### 2008 GEOPHYSICS

A three-dimensional induced polarization (3D IP) survey was conducted on the Doctors Point property for Academy Ventures Ltd. The ground geophysical program was completed by SJ Geophysics Ltd. from April 27 to May 4, 2008. The project was composed of 3 small grids, consisting of 15 survey lines totalling 6700m. Initial quality control was performed on site by the field geophysicist, while the final data processing and inversions were carried out in the offices of S.J.V. Consultants Ltd.

The geophysical area consisted of 3 grids – A, B and C – labelled sequentially from L1 to L18. Each survey line was 500m long except for lines L15 and L17, which were only 400m. Each line started at station STNO and increased in 25m steps to the west or southwest (depending on the grid; see below). Within each grid, the lines were spaced 50m apart. A power line following the main logging road intersected grids A and B.

Grid A was located in the northwest part of the property and had 4 lines, L7 to L10, with stations numbered from 0 to 500. Grid B was located in eastern part of the property and had 6 lines, L1 to L6. The azimuth for grids A and B was -135° (45° south of west). Grid C was located in the south of the property and consisted of 8 lines, L11 to L18. Due to time constraints and the dangerously steep terrain on lines L11 to L13 only 5 lines, L14 to L18, were surveyed. As indicated above, the final station on lines L15 and L17 was STN400. The azimuth for grid C was -90° (due west). Access to grid C was by a secondary logging road. Five remotes were used on the grid (see appendix) includes a detailed breakdown of the surveyed lengths.

The SJ crew included an extra zero digit in the line number and defined the lines as a north series (L40N instead of L4). The station numbers were labelled with a west ("W") suffix (or "E" in the case of several remotes) as the station numbers increased to the west. This report uses the line numbers as they were marked in the field but includes the station series suffix.

Holes W1 and W2-08 tested a strong chargeability anomaly to the west of Grid B. These holes encountered abundant disseminated pyrite along the intrusive contact but returned very low gold values as previously described. The higher chargeability in Grid C near surface was not tested.

## **CONCLUSION and RECOMMENDATIONS**

The Doctors Point Gold Deposit can be classified as a series of epithermal quartz veins containing gold-pyritearsenopyrite associated with late stage fracturing in five separate 25 Ma diorite to quartz diorite stocks.

The drilling program completed up to 1988 identified a zone of significant mixed sulfide veining within a heavily pyritized diorite adjacent to an unaltered diorite intrusive, but it has also shown the variable nature of gold mineralization within the vein sulfides. The drilling in 2008 confirmed these conclusions.

The most concentrated drilling phase in conjunction with geology, geochemistry and geophysics was completed by Rhyolite Resources between 1981 and 1983. A mineralized zone was defined that K.C. Fahrni (1984) estimated to contain 113,600 tonnes averaging 2.16 g/tonne Au (0.063 oz/ton Au.) and 6.17 g/tonne Ag. (0.18 oz/ton Ag.).

The Ground magnetic survey conducted on the north millsite area for Rhyolite Resources in November 1983 outlined a major magnetic "low" up to 45 metres in width and over 180 metres in length in the altered diorite. This zone is adjacent to the veining drilled in hole 85-NM-5. Holes 2008 P6 and P7 were drilled in this area with low gold results.

The epithermal veins encountered in drilling, and later trenching near holes 85-NM-1 to 85-NM-5 explain the gold in soil anomaly in that area. The much higher anomalies at the south end of the swamp do not appear to be related to the veins and veinlets drilled in holes 85-NM-6 to 85-NM-8, because of the low Au results produced from drilling. Holes 2008 P3 to P5 were drilled in this area with low gold results.

The drilling to date has shown alteration zones in the diorite, with associated pyrite-arsenopyrite mineralization. The low gold content but high arsenopyrite content in the veins is consistent with the postulated vertical depositional zoning. It was expected therefore that drilling to depth or along strike (if the zone plunges) might provide higher grade gold mineralization.

The clay alteration of the feldspar minerals in the diorite adjacent to veining, and the alteration of magnetite to pyrite or iron carbonate, provides a more widespread field identification of the existence of veining. The major linear magnetic low associated with the pyritized diorite indicates an epithermal alteration zone subparallel to existing surface outcrops of narrow sulfide filled veins and should be considered a major priority for future drilling.

The drilling has been on the periphery of a major geophysical anomaly, now interpreted as epithermal alteration around a main vein system. The veins are both horizontal and vertical as a response to late stage intrusive activity, and the major systems can be identified by their surrounding low magnetic alteration halos.

The very large chargeability anomaly found to the west of the main road was tested by 2008 holes W-1 and W-2. Gold values in the highly pyritic contact zone were very low.

The Doctors Point Gold Deposit can be classified as a series of epithermal quartz veins containing gold-pyritearsenopyrite associated with late stage cone fracturing adjacent to and within five separate 25 Ma diorite to quartz diorite stocks.

The drilling programs completed up to 1988 identified two zones of significant mixed sulfide veining within aureoles of hornfelsed and strongly alter volcanic and sedimentary units adjacent to heavily pyritized to relatively unaltered diorite intrusives. The significant mineralized zones identified to date include the Main Mineral Zone and the South Swamp-Pylon Zone located in the North Millsite area. The 2006 exploration program confirmed the tenor of the mineralization at these two mineralizes zones and also confirmed the variable nature of gold and silver mineralization within the vein sulfides in the rock chip samples collected by Academy personnel and the author.

The most concentrated historical drilling phase in conjunction with geology, geochemistry and geophysics was completed by Rhyolite Resources between 1981 and 1983. The Main Mineral Zone was defined to a large extent by this work and K.C. Fahrni (1984) estimated that the mineralized material contained 113,600 tonnes averaging 2.16 g/tonne Au (0.063 oz/ton Au.) and 6.17 g/tonne Ag. (0.18 oz/ton Ag.). This Inferred Mineral Resource calculation was carried out prior to the existence of NI43-101 and CIM definitions and standards. As such, the historic tonnage and grade of mineralized material should not be relied upon to represent a current mineral resource on the property. Rock chip samples collected in the Main Mineral Zone veins by Academy and the author ranged from 8.73 g/tonne Au to 68.7 g/tonne Au and 7 g/tonne Ag to 208 g/tonne Ag. These results confirm the elevated gold grade in this zone compared to the concentrations found in less altered and veined outcrop surrounding the Main Mineral Zone.

At the South Swamp-Pylon Zone, rock chip sampling by Academy and the author indicated that the quartz-pyritearsenopyrite veins contain elevated gold grades ranging from 0.31 g/tonne Au to 53.2 g/tonne Au (most samples are within 1.24 to 16.35 g/tonne Au). Silver grades ranged from 3.6 g/tonne Ag to 208 g/tonne Ag with most samples ranging from 32 to 150 g/tonne Ag. The findings of the drilling conducted by Heritage Petroleums Inc. indicate that these higher gold and silver values outlined in the 2006 exploration program are not likely related to the much lower grades encountered in the veins intersected in Heritage's drill holes 85-NM-6 to 85-NM-8. Because of the 2006 rock chip sampling results, the South Swamp-Pylon Zone exhibits significant potential for locating further gold and silver mineralization.

A minor amount of soil sampling was conducted on the North West End zone (north west of the North Millsite area); however, the area remains of interest for future exploration as the historical ground magnetic survey conducted in this area for Rhyolite Resources in November 1983 outlined a major magnetic "low" up to 45 metres in width and over 180 metres in length in the altered diorite. This anomaly has not been tested to date although veining with low gold values was encountered in adjacent Heritage Petroleums Inc. hole 85-NM-5 completed in 1985. The alteration noted around the veining in hole 85-NM-5 it indicates a significant zone of epithermal alteration in the diorite. The low gold content but high arsenopyrite content in the veins is consistent with the postulated vertical depositional zoning common in epithermal systems and gold grades may increase with depth where changes in depositional temperatures and pressures might be favourable for gold and silver deposition. This suggests that deeper drilling might be required in this zone than has been carried out in the past

The clay alteration of the feldspar minerals in the diorite adjacent to veining, and the alteration of magnetite to pyrite or iron carbonate, provides a more widespread field identification of the existence of veining. The major linear magnetic low associated with the pyritized diorite 125E indicates an epithermal alteration zone sub parallel to existing surface outcrops of narrow sulfide filled veins and should be considered for future exploration including drilling.

The major magnetic anomaly and coincident geochemical soil anomaly (150 ppb Au) identified in the past at the West Contact Zone has not been thoroughly tested. The geochemical soil sampling and geological mapping program conducted by Academy in July and August of 2006 along grid lines indicates the presence of low gold values adjacent to the western contact with the largest diorite pluton on the property. The main part of the magnetic anomaly extends further to the west than the grid area that was sampled and mapped in 2006. This area may be underlain by more intensively altered and veined rocks within the hornfelsed aureole that surrounds the less altered diorite. Exploration should be directed toward this area of the West Contact Zone and should include extension of the grid, geologic mapping, IP (Induced Polarization) surveying and drilling if results warrant it.

The soil anomaly located south of the south terminus of the West Contact Zone is of interest due to it proximity to a small out crop of diorite exposed in an old logging road cut. Further mapping, trenching and rock chip sample should be considered for this area.

At the Trio Creek – Camp Creek area, a gold in soil anomaly was found during the July and August 2006 exploration program. The crescent shaped aeromagnetic anomaly that was located during historical exploration programs conducted Rhyolite Resources Inc. remains to be adequately explored and should be considered for additional

exploration in the future with additional detailed mapping, trenching, rock chip and soil sampling and IP geophysical surveying.

The presence of a significant amount of veining and sulphide mineralization exposed on the property and the results of present and historical exploration program indicates a reasonable potential to locate and potentially define a gold and silver mineral resource on the Doctors Point Gold Property.

Soil sampling in 2009-2010 returned high gold values in two areas in values up to 994ppb Au. These two areas require follow-up.

Respectfully submitted,

J. T. Shearer, M.Sc., P.Geo.

### PROPOSED EXPLORATION BUDGET

It is recommended that exploration be continued on the Doctors Point Gold Property and the program for the next stage of exploration is as follows:

- Diamond drilling should be contained along the west contact IP anomaly, geochem and within the aeromagnetic anomaly (3 drill holes). A total of 4 holes should be allocated for the above noted zone with adjustments to be made during the program based on geological interpretations and analytic results. At the North West End Zone (North Millsite area) drill one hole initially in veining adjacent to 85-NM-5 and continuing along the adjacent stream line to establish the continuity and grade of the two mineralized zones, and to interpret the strike and dip of the arsenopyrite veining.
- Geophysical surveying (IP) should be conducted along the North West End Zone extending from the baseline to the west. Extend the previous IP survey work within the crescent aeromagnetic survey in the Trio Creek area.
- More detailed geological mapping, soil sampling and rock chip sampling should be carried out from the Toil and Brem Zones to establish evidence of "doming", pointing to a central zone of intrusion and associated fracture patterns. With positive results, further trenching in anomalous areas should be considered.
- The east-west trending cross lines on the West Contact Zone grid should be extended further to the west into the magnetic anomaly to facilitate detailed geological mapping, geochemical soil sampling and the IP geophysical survey.
- In the Trio Creek and Camp Creek areas more detailed geological mapping should concentrate on the gold in soil anomaly along the Camp Creek logging road. The density of geochemical soil sampling should be increased in this area in order determine the lateral extent of the anomaly and with positive results, trenching should be considered to expose potential mineralization. As previously noted, the historical IP survey on the Crescent Magnetic Anomaly on Trio Creek should be expanded to cover the anomaly in more detail to add potential continuity to the historic IP anomalies in this area. More detailed geologic mapping and prospecting combined with geochemical soil and rock sampling of sulphide bearing outcrops should be carried out.

Based on the above noted recommendations, the proposed budget to carry out the next phase on exploration on the Doctors Point Gold Property is as follows:

•	Phase III	
٠	Geophysical Surveying (IP), North West Zone	\$35,000
٠	Diamond Drilling (600 m in 4 holes @ \$108/m all inclusive)	\$64,800
•	Senior Field Geologist – mapping, core logging, supervision 40 days @ \$700/day	\$28,000
•	Junior to intermediate geologist – mapping, core logging etc. 40 days@\$500/day	\$20,000
•	Field assistant/prospector – soil sampling, grid establishment 40 days @ \$350/day	\$14,000
٠	Camp Cook – 40 days @ \$250/day	\$10,000
٠	Food – 40 days @ \$50/day/per person	\$8,000
٠	Supplies – propane, gas and diesel fuel	\$3,000
٠	6 Kw generator	\$2,500
٠	Camp – Trailer rental 40 days @ \$200/day	\$8,000
•	Analytical 300 drill core samples for @ \$30 (Cu, Ag, Pb, Cu, Zn) 100 prospecting samples @ \$25 300 soil samples @ \$20	\$9,000 \$2,500 \$6,000

#### Prospecting and Geochemical Assessment Report on the West Harrison Project 34 August 25, 2010

•	Report Preparation and Drafting		\$8,000
•	Claims Support		\$10,000
		Total	\$228,800

### REFERENCES

Buchanan, L.J., (1981): Precious Metal Deposits Associated With Volcanic Environments. Arizona Geological Society Digest. Vol. 14. pp. 237-262.

Cruikshank, P. (1988): Geophysical Report on Induced Polarization over the Harrison Lake Project. October 7, 1988 Assessment Report #18,412.

Dasler, P.G. (1985): Drilling Report on the Harrison Project Private Report for Heritage Petroleums Inc. 18 pp. plus drill logs, December 16, 1985.

Fahrni, K.C. (1984): Rhyolite Harrison Lake Property; Progress and Recommendations. Canadian Geoscience Corp. Report April 1984.

Fahrni, K.C. (1982): Rhyolite Harrison Lake Property; Development to June 1982 Canadian Geoscience Corp. Report July 8, 1982.

Fahrni, K.C. (1981): Rhyolite Harrison Lake Property; Report of 1981 Development Canadian Geoscience Corp. Report October 30, 1981.

Fahrni, K.C. (1981): Rhyolite Harrison Lake Property; Interim Report Canadian Geoscience Corp. Report August 24, 1981.

Freeze, A.C. (1986): 1985 Geological and Geochemical Report on the Slo 1 and Slo 2 Mineral Claim, Assessment Report #14,771

Husband, R. W. and Dasler, P.G. (1988): Geological and Geochemical Assessment Report on the Harrison Lake Project (Main Zone) for Universal Trident Industries Ltd. December 1988, 17 pp. Assessment Report #18,365

Husband, R. W. and Dasler, P.G. (1988a): Geological and Geochemical Assessment Report on the Harrison Lake Project (South Crescent Area) for Universal Trident Industries Ltd. December 1988, 11 pp. Assessment Report #18,248

Journeay, M. J., Csontos, L., (1989): Preliminary Report on the Structural Setting along the Southern Flank of the Coast Belt, British Columbia, in Current Research, Part E, Geological Survey of Canada, Paper 89-1E, p. 177-187.

Journeay, M. J., Csontos, L. and Lynch, V. V. G., (1990): Open File 2203, Harrison Lake Area, Geological Survey of Canada, 1990.

Lennan, W. B. (2006): Technical Summary Report on the Doctors Point Gold Property, Harrison Lake Area, Dated August 31, 2006

Lennan, W. B. (2009): Technical Summary Report on the Doctors Point (Trio Creek) Gold Property, Harrison Lake Region, Dated March 13, 2009.

Littlejohn, A.L. (1983): Report on Petrography and Mineralogy at Harrison Lake Property, Internal report for Rhyolite Resources Inc. by Vancouver Petrographics Ltd.

MacKay, J.M. (1944): Prospecting Report on the Sloquet and Fire Creeks, Consolidated Mining and Smelting Co. of Canada Ltd., unpublished report for Cominco Ltd.

McClaren, M. and Hill A.R. (1987): Geological and Geochemical Report on the Quet Property, private report for Aranlee Resources, 15 pp. November 20, 1987.

Monger, J.W.H., (1966): The Stratigraphy and Structure of the Type Area of the Chilliwack Group, Southwestern British Columbia, Unpublished Ph.D. Thesis, University of British Columbia.

Monger, J.W.H. (1970): Hope Map-area, West Half (92H W1/2), British Columbia, Geological Survey, Canada, Paper 69-47, 75 pp.

Payne, J.G., Bratt, J. A., Stone, B.G. (1980): Deformed Mesozoic Volcanogenic Cu-Zn Sulfide Deposits in the Britannia District, British Columbia, in <u>Economic Geology</u>, Vol. 75, 1980, pp. 700-721.

Ray, G.E. (1983): The Nagy Gold Occurrences, Doctors Point, Harrison Lake (92H/12W) B.C. Ministry of Energy, Mines and Petroleum Resources, Geological fieldwork, 1983, paper 1983-1, pp. 55-61.

Ray, G. E., (1985): Gold Associated with a Regionally Developed Mid-Tertiary Plutonic Event in the Harrison Lake Area, B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1985. Paper 1986-1.

Ray, G.E., Coombes, S., White, G. (1984): Harrison Lake Project (92/H5,12), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological fieldwork, 1983, paper 1984-1, pp. 42-53.

Ray, G.E., Coombes, S., White, G. (1984): Harrison Lake Project (92/H5,12; 92G/9), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological fieldwork, 1983, paper 1984-1, pp. 42-53.

Ray, G.E., Coombes, S.(1985): Harrison Lake Project (91/H5,12; 92 G/9), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological fieldwork and Current Research, 1985, paper 1985-1.

Ray, G. E., Coombes, S., MacQuarrie, D. R., Niels, R. J. E., Shearer, J. T. and Cardinal, D. G. (1985): Geological Society of America, Field Trip Guidebook, May 6-7, 1985, Precious Metal Mineralization in Southwestern British Columbia. May 1985. GSA Annual Meeting 1985.

Richards, T.A., and White, W.H. (1970): K/Ar Ages of Plutonic Rocks between Hope, British Columbia and the 49th Parallel, Canadian Journal Earth Sciences, Vol. 7, pp. 1203-1207.

Roddick, J. A. (1965): Vancouver North, Coquitlam, and Pitt Lake Map-areas, British Columbia, Geological Survey of Canada, Memoir 335.

Shearer, J.T. (1988); Geological, Prospecting and Geochemical Assessment Report on the Quet Property. Report for Aranlee Resources Ltd. April 10, 1988.

Shearer, J. T. (2008): Diamond Drill and Geophysical Assessment Report on the Doctors Point Gold Property, for Academy Ventures Inc., September 10, 2008

Wilson, R. and Wong, T.: Report on Geology, Geochemistry, Geophysics on the Quet Claims. Private Report for Noranda Exploration Co., September 15, 1996, 22 pp.

**APPENDIX I** 

# STATEMENT of QUALIICATIONS

AUGUST 25, 2010

### Appendix I STATEMENT of QUALIFICATIONS

I, JOHAN T. SHEARER, of 3572 Hamilton Street, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

- 1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
- 2. I have over 35 years' experience in exploration for base and precious metals and industrial mineral commodities in the Cordillera of Western North America and Superior Province in Manitoba and Northern Ontario with such companies as McIntyre Mines Ltd., J. C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
- 3. I am a fellow in good standing of the Geological Association of Canada (Fellow No. F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279) and a member of the CIMM and an elected fellow of the Society of Economic Geologists (SEG Fellow #723766).
- 4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. at #5-2330 Tyner St., Port Coquitlam, B.C.
- 5. I am the author of the present report entitled "Prospecting and Geochemical Assessment Report on the West Harrison Project" for Urastar Energy Inc. dated August 25, 2010.
- 6. I have visited the property between November 10 and 11, 2009. I have carried out core logging and sample collection and am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the West Harrison Project by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.

Dated at Port Coquitlam, British Columbia, this 25<sup>th</sup> day of August, 2010.

J. T. Shearer, M.Sc., F.G.A.C., P.Geo. Quarry Supervisor #98-3550 August 25, 2010

**APPENDIX II** 

## STATEMENT of COSTS

AUGUST 25, 2010

## Appendix II STATEMENT of COSTS

Wages	LT Shaana M.G. D.G., Saria Cashairt	
	J. T. Shearer, M.Sc., P.Geo., Senior Geologist 2 day @ \$700/day, November 10, 11, 2009 D. G. Cardinal, B.Sc., P.Geo., Geologist,	1,400.00
	2 days @ \$600/day, November 6 + 7, 2009	1,200.00
	GST 5%	130.00
	Subtotal Wages	\$2,730.00
Expenses		
	Truck Rental, 8 days @ \$75/day, fully equipped 4x4	600.00
	Truck Rental, 2 days @ \$98.50/day, fully equipped 4x4	197.00
	Gas	432.00
	Camping Costs, 24 man days @ \$100/per man day	2,400.00
	Food and Meals	687.00
	D. Heino, Experienced Prospector, 8 days @ \$400/day, Nov. 6 to 11, 2009	3,200.00
	S. L. Shearer, Prospector, 4 days @ \$300/day, Nov. 8 to 11, 2009	1,200.00
	D. Kay, 8 days @ \$300/day, Nov. 6 to 11, 2009	2,400.00
	Analytical, IPL Invoice #09L3576, 147 soils @ \$21.50 ea.	3,160.50
	Computer Drafting	800.00
	Report Preparation	1,400.00
	Word Processing and Reproduction	350.00
	Subtotal Expenses	

Total \$18,869.50

Event #4693251 Recorded June 17, 2010 Of \$15,000 of work Applied \$14,571.62 **APPENDIX III** 

## ASSAY CERTIFICATES

AUGUST 25, 2010



Inspectorate IPL 11620 Horseshoe Way, Richmond, B.C., Canada V7A 4V5 T:(604) 272-7818 F:(604) 272-0851 E:ipl@inspectorate.com www.inspectorate.com ISO 9001:2000 Certified



Certificate#: 09L3785 Client: Homegold Resources Project: West Harrison Shipment#: PO#: No. of Samples: 148 Analysis #1: Au(FA/AAS) Ag Cu Analysis #2: ICP(AqR)30 Analysis #3: Comment #1: Comment #1: Comment #2: Date In: Dec 23, 2009 Date Out: Jan 13, 2010

Sample Name	SampleType	Au	Au	Ag	Cu	Pb
		ppb	g/mt	ppm	ppm	ppm
DOC 09 1	Soil	14		<0.1	41	19
DOC 09 2	Soil	19		<0.1	32	12
DOC 09 3	Soil	8		<0.1	20	10
DOC 09 4	Soil	11		<0.1	18	8
DOC 09 5	Soil	5		<0.1	30	9
DOC 09 6	Soil	8		<0.1	12	10
DOC 09 7	Soil	8		<0.1	54	14
DOC 09 8	Soil	5		<0.1	26	10
DOC 09 9	Soil	12		<0.1	37	16
DOC 09 10	Soil	3		<0.1	14	6
DOC 09 11	Soil	16		<0.1	27	5
DOC 09 12	Soil	12		<0.1	43	<2
DOC 09 13	Soil	16		<0.1	18	10
DOC 09 14	Soil	11		<0.1	27	8
DOC 09 15	Soil	<2		<0.1	17	8
DOC 09 16	Soil	69		<0.1	34	12
DOC 09 17	Soil	994		<0.1	68	14
DOC 09 18	Soil	66		1.2	126	21
DOC 09 19	Soil	86		0.9	113	21
DOC 09 20	Soil	25		0.7	81	19
DOC 09 21	Soil	29		<0.1	118	20
DOC 09 22	Soil	12		0.2	65	6
DOC 09 23	Soil	4		<0.1	30	8
DOC 09 24	Soil	15		<0.1	27	14
DOC 09 25	Soil	40		<0.1	25	14
DOC 09 26	Soil	141		<0.1	27	21
DOC 09 27	Soil	77		<0.1	26	14
DOC 09 28	Soil	37		0.1	32	13
DOC 09 29	Soil	12		<0.1	31	8

DOC 09 30	Soil	139	 0.8	48	10
DOC 09 31	Soil	40	 0.7	65	12
DOC 09 32	Soil	27	 0.4	52	29
DOC 09 33	Soil	180	 <0.1	29	11
DOC 09 35	Soil	45	 <0.1	15	9
DOC 09 36	Soil	37	 <0.1	21	9
DOC 09 37	Soil	76	 <0.1	30	7
DOC 09 38	Soil	55	 <0.1	45	9
DOC 09 39	Soil	47	 <0.1	19	9
DOC 09 40	Soil	55	 <0.1	42	11
DOC 09 41	Soil	89	 <0.1	36	8
DOC 09 42	Soil	17	 <0.1	23	9
DOC 09 43	Soil	30	 <0.1	41	14
DOC 09 44	Soil	37	 <0.1	15	10
DOC 09 45	Soil	29	 <0.1	14	15
DOC 09 46	Soil	89	 <0.1	8	10
DOC 09 47	Soil	27	 <0.1	16	7
DOC 09 48	Soil	25	 <0.1	57	3
DOC 09 49	Soil	7	 <0.1	18	7
DOC 09 50	Soil	5	 0.1	12	8
DOC 09 51	Soil	4	 <0.1	9	8
DOC 09 52	Soil	8	 <0.1	25	<2
DOC 09 53	Soil	15	 <0.1	14	9
DOC 09 54	Soil	12	 <0.1	6	7
DOC 09 55	Soil	14	 <0.1	73	17
DOC 09 56	Soil	4	 <0.1	15	8
DOC 09 57	Soil	12	 <0.1	22	14
DOC 09 58	Soil	18	 <0.1	21	10
DOC 09 59	Soil	14	 <0.1	116	10
DOC 09 60	Soil	18	 <0.1	34	8
DOC 09 61	Soil	18	 <0.1	34	15
DOC 09 62	Soil	10	 <0.1	39	10
DOC 09 63	Soil	14	 <0.1	26	9
DOC 09 64	Soil	17	 <0.1	25	13
DOC 09 65	Soil	16	 <0.1	26	17
DOC 09 66	Soil	12	 0.2	193	12
DOC 09 67	Soil	23	 <0.1	28	4
DOC 09 68	Soil	23	 <0.1	40	4
DOC 09 69	Soil	36	 <0.1	41	<2
DOC 09 70	Soil	21	 <0.1	48	6
DOC 09 71	Soil	95	 <0.1	20	15
DOC 09 72	Soil	14	 0.2	45	11
DOC 09 73	Soil	47	 <0.1	37	15
DOC 09 74	Soil	30	 <0.1	126	9
DOC 09 75	Soil	43	 <0.1	11	14
DOC 09 76	Soil	29	 <0.1	29	12
DOC 09 77	Soil	49	 <0.1	25	14
DOC 09 78	Soil	23	 <0.1	32	10
DOC 09 79	Soil	54	 <0.1	14	10
DOC 09 80	Soil	82	 <0.1	29	14
DOC 09 81	Soil	7	 <0.1	26	7
DOC 09 81	Soil	, 41	 <0.1	40	, 12
	001	41	 <b>NO. 1</b>	+0	12

DOC 09 83	Soil	26		<0.1	36	12
DOC 09 84	Soil	41		<0.1	24	18
DOC 09 85	Soil	664		<0.1	12	12
	Soil	22		<0.1		
DOC 09 86					13	15
DOC 09 87	Soil	36		<0.1	33	6
DOC 09 88	Soil	37		<0.1	25	12
DOC 09 89	Soil	12		<0.1	31	10
DOC 09 90	Soil	30		<0.1	35	10
DOC 09 91	Soil	51		<0.1	35	9
DOC 09 92	Soil	18		<0.1	31	16
DOC 09 93	Soil	18		<0.1	27	6
DOC 09 94	Soil	14		<0.1	21	6
						7
DOC 09 95	Soil	15		<0.1	22	
DOC 09 96	Soil	11		<0.1	14	11
DOC 09 97	Soil	5		<0.1	27	8
DOC 09 98	Soil	4		<0.1	19	7
DOC 09 99	Soil	7		<0.1	26	9
DOC 09 100	Soil	3		<0.1	20	13
DOC 09 101	Soil	16		<0.1	16	9
DOC 09 102	Soil	12		<0.1	31	13
KAY 09-1-1	Soil	<2		<0.1	26	10
KAY 09-2-1	Soil	18		<0.1	23	8
KAY 09-3-1	Soil	8		<0.1	30	8
KAY 09-4-1	Soil	<2		<0.1	47	<2
KAY 09-5-1	Soil	8		<0.1	20	7
KAY 09-6-1	Soil	8		<0.1	55	5
KAY 09-7-1	Soil	34		<0.1	62	9
KAY 09-8-1	Soil	10		<0.1	50	5
KAY 09-9-1	Soil	16		<0.1	39	9
KAY 09-10-1	Soil	8		<0.1	22	11
KAY 09-11-1	Soil	<2		<0.1	54	4
KAY 09-12-1	Soil	<2		1.1	117	17
KAY 09-13-1	Soil	292		15.4	2683	171
KAY 09-14-1	Soil	973		0.4	92	<2
KAY 09-15-1	Soil	18		0.2	50	12
KAY 09-16-1	Soil	615		1.4	93	30
KAY 09-17-1	Soil	1637	1.65	2.3	183	68
KAY 09-18-1	Soil	365		1.4	254	28
KAY 09-19-1	Soil	298		0.7	60	6
KAY 09-20-1	Soil	125		0.2	51	<2
KAY 09-21-1	Soil	61		<0.1	47	10
KAY 09-22-1	Soil	38		<0.1	50	9
KAY 09-23-1	Soil	267		<0.1	19	17
KAY 09-24-1	Soil	22		0.1	22	11
KAY 09-25-1	Soil	31		0.2	51	12
KAY 09-26-1	Soil	52		0.2	48	12
KAY 09-27-1	Soil	34		<0.1	43	12
KAY 09-28-1	Soil	45		0.8	48	9
KAY 09-29-1	Soil	26		0.2	12	7
KAY 09-30-1	Soil	59		<0.1	1	4
KAY 09-31-1	Soil	78		<0.1	10	4
KAY 09-32-1	Soil	139		<0.1	17	4 7
NAT 03-32-1	3011	109		<0.1	17	1

KAY 09-33-1	Soil	17		<0.1	7	13
KAY 09-34-1	Soil	48		<0.1	18	5
KAY 09-35-1	Soil	58		<0.1	32	14
KAY 09-09	Soil	34		<0.1	11	7
KAY 09-10	Soil	70		<0.1	16	23
KAY 09-11	Soil	14		<0.1	34	18
KAY 09-12	Soil	6		<0.1	12	25
KAY 09-13	Soil	7		<0.1	29	11
KAY 09-14	Soil	6		<0.1	8	13
KAY 09-15	Soil	3		<0.1	16	9
KAY 09-16	Soil	12		0.1	20	5
KAY 09-17	Soil	4		<0.1	26	14
KAY 09-18	Soil	8		<0.1	14	4
KAY 09-19	Soil	85		<0.1	16	13
KAY 09-20	Soil	7		<0.1	54	5
RE DOC 09 1	Repeat	8		0.1	40	18
RE DOC 09 20	Repeat	29		0.7	81	18
RE DOC 09 41	Repeat	103		<0.1	35	8
RE DOC 09 60	Repeat	14		<0.1	34	8
RE DOC 09 80	Repeat	82		<0.1	28	13
RE DOC 09 99	Repeat	6		<0.1	26	9
RE KAY 09-17-1	Repeat	1656		2.4	179	66
RE KAY 09-09	Repeat	29		<0.1	12	7
Blank iPL	Blk iPL	<2				
OXI67	Std iPL	1810				
OXI67 REF	Std iPL	1817				
Minimum detection		2	0.07	0.1	1	2
Maximum detection		10000	5000	100	10000	10000
Method		FA/AAS	FAGrav	ICP	ICP	ICP

\* Values highlighted (in yellow) are over the high detection limit for the corresponding methods. Other testing meth

Zn	As	Sb	Hg	Мо	ТІ	Bi	Cd	Co
ppm	ppm							
120	232	<2	<3	2	<10	5	<0.5	26
69	18	<2	<3	2	<10	11	<0.5	9
50	18	<2	<3	<1	<10	7	<0.5	8
58	11	<2	<3	<1	<10	5	<0.5	7
48	18	<2	<3	2	<10	4	<0.5	9
50	9	<2	<3	<1	<10	5	<0.5	10
65	24	<2	<3	2	<10	7	<0.5	12
67	13	<2	<3	3	<10	7	<0.5	18
36	19	<2	<3	<1	<10	10	<0.5	7
83	<5	<2	<3	<1	<10	6	<0.5	16
34	16	<2	<3	3	<10	10	<0.5	9
51	<5	<2	<3	1	<10	6	<0.5	18
57	13	<2	<3	2	<10	6	<0.5	10
43	18	<2	<3	3	<10	6	<0.5	9
44	13	<2	<3	1	<10	6	<0.5	7
131	33	<2	<3	<1	<10	7	<0.5	18
133	101	<2	<3	1	<10	11	<0.5	27
179	116	<2	<3	2	<10	15	<0.5	55
173	154	<2	<3	2	<10	16	<0.5	49
139	89	<2	<3	2	<10	11	<0.5	34
202	397	<2	<3	<1	<10	9	<0.5	32
113	18	<2	<3	<1	<10	4	<0.5	9
83	20	<2	<3	1	<10	5	<0.5	31
222	11	<2	<3	1	<10	7	<0.5	26
111	19	<2	<3	1	<10	10	<0.5	14
45	22	<2	<3	1	<10	8	<0.5	7
58	14	<2	<3	2	<10	7	<0.5	7
66	18	<2	<3	1	<10	6	<0.5	10
51	30	<2	<3	1	<10	6	<0.5	9

135	42	<2	<3	2	<10	6	<0.5	20
147	64	<2	<3	2	<10	4	<0.5	38
192	83	<2	<3	1	<10	7	<0.5	16
56	9	<2	<3	<1	<10	6	<0.5	9
60	10	<2	<3	1	<10	7	<0.5	8
50	7	<2	<3	1	<10	6	<0.5	8
45	12	<2	<3	<1	<10 <10	7	<0.5	10
	12					6	<0.5	
51		<2	<3	<1	<10			10
57	6	<2	<3	<1	<10	4	<0.5	8
42	16	<2	<3	1	<10	4	<0.5	8
50	10	<2	<3	1	<10	7	<0.5	12
55	9	<2	<3	<1	<10	8	<0.5	9
45	13	<2	<3	<1	<10	5	<0.5	8
94	7	<2	<3	<1	<10	5	<0.5	9
84	<5	<2	<3	<1	<10	3	<0.5	7
49	<5	<2	<3	2	<10	<2	<0.5	9
41	6	<2	<3	2	<10	3	<0.5	13
67	<5	<2	<3	<1	<10	6	<0.5	15
68	5	<2	<3	<1	<10	6	<0.5	7
53	<5	<2	<3	<1	<10	5	<0.5	5
81	<5	<2	<3	<1	<10	5	<0.5	7
55	<5	<2	<3	<1	<10	9	<0.5	14
51	<5	<2	<3	<1	<10	6	<0.5	6
30	<5	<2	<3	<1	<10	4	<0.5	4
101	35	<2	<3	1	<10	8	<0.5	30
42	<5	<2	<3	3	<10 <10	3	<0.5	8
42 79							<0.5	
	8	<2	<3	3	<10	5		8
57	9	<2	<3	2	<10	8	<0.5	9
43	8	<2	<3	14	<10	7	<0.5	15
33	12	<2	<3	5	<10	10	<0.5	7
58	11	<2	<3	2	<10	3	<0.5	9
56	11	<2	<3	2	<10	4	<0.5	9
48	16	<2	<3	2	<10	6	<0.5	8
50	15	<2	<3	2	<10	8	<0.5	9
54	11	<2	<3	9	<10	7	<0.5	8
47	7	<2	<3	6	<10	5	<0.5	30
62	5	<2	<3	2	<10	8	<0.5	10
42	100	<2	<3	<1	<10	8	<0.5	11
33	26	<2	<3	1	<10	8	<0.5	12
64	12	<2	<3	1	<10	7	<0.5	12
70	38	<2	<3	2	<10	4	<0.5	9
61	13	<2	<3	5	<10	6	<0.5	9
63	16	<2	<3	2	<10	8	<0.5	9
138	84	<2	<3	12	<10	5	<0.5	88
65	27	<2	<3	2	<10	11	<0.5	11
75	30	<2	<3	1	<10	8	<0.5	12
100	18	<2	<3	2	<10 <10		<0.5	
				2		4		15 10
58 65	14	<2	<3		<10	4	<0.5	10
65 60	21	<2	<3	1	<10	2	<0.5	8
60	14	<2	<3	1	<10	6	<0.5	11
76	9	<2	<3	<1	<10	6	<0.5	11
113	27	<2	<3	2	<10	7	<0.5	15

		-				-		
90		<2	<3	1	<10	6	<0.5	13
64		<2	<3	<1	<10	7	<0.5	9
50	10	<2	<3	<1	<10	4	<0.5	6
63	11	<2	<3	<1	<10	3	<0.5	8
62	19	<2	<3	2	<10	6	<0.5	15
48		<2	<3	<1	<10	5	<0.5	8
49		<2	<3	<1	<10	7	<0.5	9
41	12	<2	<3	1	<10	5	<0.5	8
53		<2	<3	<1	<10	6	<0.5	9
40		<2	<3	<1	<10	5	<0.5	8
	7							9
37		<2	<3	<1	<10	6	<0.5	
49		<2	<3	<1	<10	4	<0.5	11
46		<2	<3	1	<10	3	<0.5	12
49		<2	<3	2	<10	3	<0.5	9
31	56	<2	<3	1	<10	4	<0.5	7
63		<2	<3	1	<10	8	<0.5	11
38	7	<2	<3	<1	<10	7	<0.5	8
80	<5	<2	<3	2	<10	4	<0.5	13
81	<5	<2	<3	3	<10	<2	<0.5	15
32		<2	<3	<1	<10	6	<0.5	7
47		<2	<3	<1	<10	6	<0.5	8
56		<2	<3	<1	<10	4	<0.5	7
38		<2	<3	<1	<10	7	<0.5	8
43		<2	<3	1	<10	6	<0.5	14
31	11	<2	<3	<1	<10	4	<0.5	6
37	14	<2	<3	4	<10	4	<0.5	10
36		<2	<3	<1	<10	4	<0.5	11
44		<2	<3	1	<10	3	<0.5	10
42		<2	<3	<1	<10	6	<0.5	7
56		<2	<3	<1	<10	7	<0.5	7
39		<2	<3	<1	<10	14	<0.5	10
280		<2	<3	2	<10	17	<0.5	49
1186		<2	<3	12	<10	122	<0.5	84
37	48	<2	<3	12	<10	10	<0.5	7
59	55	<2	<3	3	<10	7	<0.5	8
97	913	5	<3	2	<10	11	<0.5	13
130	3059	10	<3	3	<10	20	<0.5	26
226		<2	<3	4	<10	18	<0.5	25
82		<2	<3	2	<10	8	<0.5	16
117		<2	<3	2	<10	10	<0.5	24
50		<2	<3	2	<10	5	<0.5	9
87		<2	<3	4	<10	4	<0.5	16
61	<5	<2	<3	2	<10	<2	<0.5	9
61	17	<2	<3 <3	<1	<10	3	<0.5	11
65		<2	<3 <3	2	<10	4	<0.5	11
		<2		2				
73		<2	<3	2	<10	6	<0.5	11
69		<2	<3	1	<10	5	<0.5	9
99		<2	<3	<1	<10	32	<0.5	7
52		<2	<3	<1	<10	5	<0.5	5
10		<2	<3	<1	<10	3	<0.5	3
35		<2	<3	<1	<10	3	<0.5	5
37	<5	<2	<3	<1	<10	4	<0.5	6

41	<5	<2	<3	<1	<10	2	<0.5	5
41	6	<2	<3	<1	<10	5	<0.5	6
52	10	<2	<3	<1	<10	4	<0.5	9
38	<5	<2	<3	<1	<10	5	<0.5	8
51	7	<2	<3	6	<10	7	<0.5	9
44	17	<2	<3	4	<10	9	<0.5	9
52	11	<2	<3	3	<10	7	<0.5	8
36	7	<2	<3	3	<10	8	<0.5	13
34	<5	<2	<3	<1	<10	8	<0.5	25
63	7	<2	<3	1	<10	8	<0.5	16
117	13	<2	<3	<1	<10	9	<0.5	16
217	35	<2	<3	<1	<10	8	<0.5	22
79	<5	<2	<3	<1	<10	6	<0.5	13
72	9	<2	<3	2	<10	4	<0.5	10
58	<5	<2	<3	<1	<10	3	<0.5	19
119	229	<2	<3	2	<10	5	<0.5	24
140	91	<2	<3	2	<10	9	<0.5	35
49	10	<2	<3	<1	<10	7	<0.5	11
33	12	<2	<3	5	<10	10	<0.5	7
59	13	<2	<3	<1	<10	6	<0.5	10
38	7	<2	<3	<1	<10	7	<0.5	8
130	2928	10	<3	3	<10	20	<0.5	25
38	<5	<2	<3	<1	<10	5	<0.5	8
2	5	2	3	1	10	2	0.5	1
10000	10000	10000	10000	10000	10000	10000	1000	10000
ICP	ICP	ICP						

ods would be suggested. Please call for details.

Ni	Ва	W	Cr	V	Mn	La	Sr	Zr
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
12	105	<10	13	110	1698	36	25	3
10	54	<10 <10	20	123	249	36	11	2
8	50	<10 <10	19	109	304	27	12	<2
8	51	<10	18	100	553	22	12	<2
12	49	<10 <10	20	127	231	27	13	3
10	48	<10 <10	20	116	177	21	10	<2
14	77	<10	26	168	276	36	13	5
26	79	<10	30	141	445	35	10	<2
7	115	<10	17	115	209	33	44	<2
16	85	<10	39	148	324	40	16	<2
9	50	<10	22	134	203	36	11	<2
19	70	<10	80	194	208	65	28	2
12	81	<10	25	132	213	34	12	<2
10	60	<10	22	124	213	33	9	6
8	51	<10	22	106	182	19	7	2
19	102	<10	15	124	433	36	12	3
35	120	<10	20	140	1083	54	33	3
69	125	<10	27	137	1027	69	35	<2
55	101	<10	27	145	1292	76	20	3
39	81	<10	21	120	945	54	15	2
34	50	<10	21	166	569	71	19	<2
9	34	<10	15	116	242	33	11	<2
20	56	<10	18	131	539	39	14	2
27	56	<10	16	103	639	31	10	<2
17	54	<10	21	129	412	35	11	<2
7	52	<10	12	93	404	33	9	2
9	45	<10	15	110	241	32	8	<2
16	61	<10	23	130	255	39	11	2
13	60	<10	25	145	274	42	12	3

43	61	<10	27	167	464	41	14	3
74	58	<10	22	126	692	39	19	5
22	90	<10	26	151	1545	51	37	<2
8	45	<10	19	121	499	32	8	2
7	62	<10	18	105	638	26	10	<2
7	60	<10	18	104	297	28	8	2
8	95	<10	18	122	349	50	10	<2
12	65	<10	28	122	549 502	34	13	2
							7	<2
6	52	<10	16 10	106	386	23		
7	51	<10	16	117	295	35	11	5
9	57	<10	17	150	271	36	17	3
7	51	<10	20	126	438	29	9	2
6	56	<10	14	104	691	30	10	<2
8	56	<10	16	107	286	28	8	2
6	56	<10	15	103	325	20	7	2
6	61	<10	15	109	180	17	24	<2
6	42	<10	17	86	742	23	16	<2
16	107	<10	53	208	419	43	42	2
7	38	<10	24	112	249	27	8	2
5	35	<10	10	79	174	16	6	3
6	64	<10	24	122	257	18	9	<2
15	126	<10	74	223	232	38	44	<2
5	41	<10	17	97	369	20	7	<2
4	32	<10	14	109	126	10	9	<2
15	107	<10	20	156	1245	62	29	<2
6	49	<10	22	118	345	22	12	<2
8	48	<10	21	131	207	22	10	3
10	53	<10	19	136	236	29	12	2
7	41	<10 <10	17	114	847	23	8	<2
7	41	<10 <10	17	107	223	29	7	<2 <2
								<2 7
9	53	<10	22	127	220	35	9	
8	49	<10	22	132	221	32	9	4
9	46	<10	22	124	226	31	7	6
7	54	<10	17	120	270	36	7	3
7	53	<10	22	119	215	27	6	3
9	64	<10	21	165	641	35	11	<2
10	64	<10	23	162	187	24	8	3
10	67	<10	23	167	278	38	23	<2
17	52	<10	29	210	259	36	61	5 2
13	45	<10	34	222	247	32	18	2
8	39	<10	18	132	224	23	8	7
10	42	<10	19	149	252	31	14	9
9	48	<10	21	145	306	29	10	7
54	85	<10	47	242	622	82	35	4
5	49	<10	12	118	531	13	8	<2
8	63	<10	15	131	583	31	11	4
10	62	<10	17	128	353	26	10	2
7	49	<10	16	134	347	29	10	4
7	50	<10	17	151	224	18	8	4
9	60	<10	15	111	405	32	12	2
10	60	<10	17	123	341	31	10	<2
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10	/ 1	<10	12	103	370	37	14	<2

11	77	<10	14	112	403	42	16	2
10	65	<10	26	153	258	30	14	<2
7	44	<10	16	103	296	20	10	<2
9	54	<10	25	121	335	21	11	<2
27	70	<10	28	158	264	32	13	4
7	65	<10	18	117	343	29	17	4
7	49	<10	20	127	307	34	12	4
6	55	<10	18	120	294	36	12	2
7	48	<10	17	118	338	35	8	4
7	55	<10	17	105	281	34	14	3
8	51	<10	25	119	236	37	10	2
9	57	<10	28	145	253	38	11	3
9	66	<10	28	142	334	31	13	2
8	67	<10	19	126	379	24	15	<2
6	48	<10	18	118	261	31	14	4
9	63	<10	24	148	291	33	11	5
7	40	<10	21	130	281	37	11	3
13	40 76	<10 <10	30	135	324	35	11	2
13	81	<10 <10		156	708	35 46	16	
			42					<2
6	48	<10	21	128	247	34	14	<2
7	52	<10	19	124	315	29	11	<2
6	55	<10	17	115	361	30	10	4
7	48	<10	18	121	219	31	10	4
10	69	<10	31	204	140	44	24	2
5	47	<10	13	95	170	22	10	3
10	50	<10	29	134	190	34	15	<2
11	64	<10	28	156	271	43	18	3
10	83	<10	22	146	318	46	14	2
7	50	<10	21	137	187	33	9	4
6	56	<10	19	126	226	25	9	<2
10	71	<10	30	163	230	45	17	<2
32	185	<10	101	225	6254	88	35	<2
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7	68	<10	20	130	259	39	16	3
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10	68	<10	26	151	512	30	19	3
15	90	<10	29	202	2034	55	24	<2
19	87	<10	23	216	639	82	29	<2
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15	73	<10	17	231	645	67	26	_ <2
7	63	<10	15	103	434	33	17	<2
, 11	66	<10	17	114	890	38	17	<2
6	84	<10	17	79	2394	19	18	<2
5	51	<10	16	112	2432	22	8	5
7	60	<10	17	138	534	37	9	3
	63			134	931	39	9	4
8		<10	18					
8	59	<10	20	141	650	39	10	6
5	75	<10	3	120	461	33	12	<2
5	32	<10	13	78	138	16	6	<2
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4	34	<10	14	98	128	17	7	3
6	42	<10	19	137	120	18	13	5

5	26	<10	34	117	75	12	6	<2
5	38	<10	15	138	134	17	13	<2
7	56	<10	12	119	273	41	17	<2
10	55	<10	29	125	150	25	17	<2
12	50	<10	49	147	542	20	12	2
10	43	<10	27	155	185	30	14	6
9	54	<10	21	107	412	25	10	2
12	56	<10	25	147	190	25	17	3
7	70	<10	36	145	582	15	14	<2
14	96	<10	71	138	929	40	17	<2
24	167	<10	107	172	706	59	17	<2
47	78	<10	161	168	725	80	13	<2
26	95	<10	76	123	314	49	12	<2
12	75	<10	29	130	509	31	11	4
34	108	<10	156	208	593	88	32	<2
12	98	<10	14	110	1709	33	27	<2
40	82	<10	22	120	1016	53	19	<2
9	56	<10	16	148	269	34	16	3
7	43	<10	17	107	223	26	7	<2
9	59	<10	14	108	392	32	10	<2
6	40	<10	19	129	282	34	8	3
14	88	<10	24	193	1976	52	20	<2
10	55	<10	30	126	151	24	16	<2
								_
1	10	10	1	1	5	2	1	2
10000	10000	5000	10000	10000	10000	10000	10000	1000
ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

Sc	Ti	AI	Ca	Fe	Mg	К	Na	Р
ppm	%	%	%	%	%	%	%	%
			o 10		o 10			
<1	0.08	5.27	0.42	3.29	0.42	0.06	0.04	0.08
<1	0.14	2.84	0.15	4.33	0.49	0.05	0.03	0.05
<1	0.11	2.65	0.15	3.50	0.38	0.04	0.04	0.05
<1	0.10	1.99	0.14	2.72	0.31	0.04	0.03	0.06
<1	0.13	3.02	0.17	3.59	0.37	0.05	0.04	0.05
<1	0.15	1.49	0.12	3.02	0.25	0.04	0.03	0.03
<1	0.15	3.45	0.15	4.74	0.48	0.06	0.04	0.08
<1	0.15	2.18	0.26	3.39	0.42	0.06	0.05	0.06
<1	0.07	2.53	0.32	4.02	0.43	0.15	0.09	0.08
<1	0.18	3.15	0.26	3.94	0.52	0.04	0.06	0.06
<1	0.12	2.41	0.17	4.58	0.44	0.06	0.04	0.05
<1	0.16	3.87	0.42	3.67	0.82	0.05	0.12	0.05
<1	0.16	3.13	0.20	4.27	0.47	0.04	0.05	0.05
<1	0.15	2.63	0.14	4.18	0.40	0.06	0.02	0.05
<1	0.13	1.84	0.10	3.04	0.22	0.04	0.02	0.06
<1	0.12	2.94	0.16	4.33	0.52	0.06	0.02	0.04
2	0.09	3.57	0.37	4.76	0.70	0.08	0.05	0.12
1	0.05	3.68	0.22	4.73	0.86	0.06	0.02	0.08
2	0.06	3.64	0.18	5.37	0.90	0.08	0.02	0.08
<1	0.06	3.58	0.18	4.99	0.66	0.06	0.02	0.08
3	0.10	3.43	0.25	5.21	0.87	0.06	0.05	0.05
1	0.12	2.98	0.14	3.36	0.46	0.04	0.03	0.04
<1	0.14	3.81	0.21	4.35	0.57	0.08	0.03	0.07
<1	0.13	2.47	0.22	3.91	0.42	0.04	0.02	0.04
<1	0.14	2.55	0.18	4.12	0.43	0.05	0.03	0.04
<1	0.10	3.11	0.11	3.44	0.42	0.06	0.02	0.06
<1	0.14	3.38	0.13	4.36	0.50	0.05	0.02	0.05
<1	0.14	3.32	0.16	4.65	0.61	0.06	0.03	0.04
1	0.12	3.09	0.18	4.42	0.58	0.06	0.04	0.05
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<1	0.22	4.01	0.24	7.17	0.72	0.06	0.03	0.04
<1	0.15	4.55	0.43	5.92	0.70	0.06	0.04	0.06
<1	0.13	2.52	0.88	4.80	0.74	0.10	0.09	0.06
<1	0.13	3.44	0.13	4.05	0.50	0.04	0.03	0.07
<1	0.13	2.21	0.20	3.53	0.40	0.04	0.02	0.04
<1	0.13	2.97	0.20	3.85	0.45	0.04	0.02	0.04
	0.14	2.97	0.15	3.85	0.45		0.03	0.04
<1						0.14		
<1	0.14	3.46	0.16	3.81	0.51	0.05	0.04	0.07
<1	0.10	3.19	0.12	3.80	0.41	0.03	0.02	0.06
1	0.12	4.21	0.15	3.39	0.53	0.06	0.03	0.07
<1	0.16	4.01	0.19	5.01	0.60	0.05	0.05	0.05
<1	0.14	3.61	0.17	4.38	0.44	0.04	0.02	0.06
<1	0.09	3.42	0.15	3.32	0.42	0.04	0.02	0.09
<1	0.15	2.77	0.13	3.94	0.44	0.03	0.02	0.05
<1	0.16	2.96	0.12	4.09	0.35	0.03	0.02	0.05
<1	0.24	2.38	0.18	4.18	0.27	0.03	0.02	0.02
<1	0.08	1.79	0.21	2.83	0.39	0.03	0.03	0.02
<1	0.19	3.42	0.33	4.96	0.69	0.08	0.10	0.04
<1	0.13	3.79	0.13	4.48	0.48	0.03	0.02	0.11
<1	0.15	2.83	0.08	3.43	0.24	0.03	0.02	0.07
<1	0.13	1.82	0.00	3.72	0.24	0.02	0.01	0.07
<1	0.23	2.53	0.21	5.39	0.56	0.04	0.07	0.02
<1	0.10	2.05	0.11	3.22	0.28	0.03	0.02	0.04
<1	0.10	1.30	0.12	3.01	0.13	0.02	0.02	0.02
1	0.11	2.86	0.52	5.63	0.88	0.06	0.04	0.06
<1	0.16	2.00	0.19	3.61	0.31	0.04	0.02	0.03
<1	0.16	2.78	0.13	4.61	0.30	0.04	0.02	0.05
<1	0.17	3.16	0.16	5.09	0.40	0.05	0.03	0.04
<1	0.18	2.29	0.13	5.30	0.32	0.04	0.02	0.04
<1	0.14	3.00	0.10	4.40	0.36	0.05	0.02	0.04
<1	0.18	3.73	0.10	4.67	0.47	0.07	0.02	0.07
<1	0.21	3.80	0.11	5.24	0.52	0.06	0.02	0.05
<1	0.22	5.20	0.08	5.40	0.51	0.06	0.01	0.06
<1	0.23	4.27	0.10	5.37	0.56	0.07	0.02	0.09
<1	0.22	4.33	0.09	5.44	0.42	0.06	0.02	0.08
<1	0.36	3.19	0.15	5.83	0.51	0.08	0.04	0.05
<1	0.22	3.34	0.12	5.54	0.34	0.05	0.04	0.05
<1	0.16	4.39	0.27	5.14	0.59	0.07	0.08	0.06
2	0.13	5.87	0.51	5.47	0.58	0.05	0.15	0.06
<1	0.16	6.30	0.21	6.20	0.55	0.04	0.06	0.07
<1	0.10	4.20	0.21	4.97	0.35	0.04	0.00	0.07
<1	0.22	4.20	0.10	5.51	0.56	0.04	0.02	0.06
<1	0.15	4.12	0.12	4.81	0.41	0.04	0.02	0.08
1	0.31	6.11	0.27	5.54	1.29	0.05	0.05	0.05
<1	0.13	1.60	0.14	4.76	0.18	0.03	0.02	0.04
<1	0.19	4.46	0.17	5.78	0.55	0.05	0.03	0.06
<1	0.23	3.90	0.16	5.88	0.53	0.05	0.02	0.04
<1	0.18	4.41	0.17	4.84	0.57	0.07	0.03	0.05
<1	0.26	3.50	0.14	5.70	0.35	0.04	0.02	0.04
<1	0.16	3.25	0.18	4.41	0.55	0.06	0.03	0.04
<1	0.18	2.98	0.15	4.36	0.52	0.05	0.03	0.03
<1	0.16	4.24	0.20	4.97	0.74	0.06	0.02	0.05

<1	0.16	3.28	0.24	5.30	0.79	0.07	0.03	0.05
<1	0.17	3.17	0.24	5.08	0.50	0.06	0.04	0.05
<1	0.13	2.07	0.14	3.88	0.38	0.04	0.02	0.05
<1	0.14	1.82	0.13	3.48	0.30	0.04	0.03	0.10
<1	0.20	4.14	0.15	5.39	0.51	0.06	0.03	0.05
<1	0.14	3.80	0.22	3.81	0.49	0.08	0.03	0.03
<1	0.16	3.85	0.17	4.09	0.55	0.06	0.03	0.08
<1	0.14	3.40	0.18	3.96	0.55	0.07	0.04	0.06
<1	0.18	5.01	0.13	4.40	0.60	0.05	0.03	0.09
<1	0.13	3.49	0.18	3.65	0.52	0.05	0.04	0.08
<1	0.15	2.66	0.14	3.39	0.50	0.05	0.03	0.03
<1	0.19	2.66	0.14	4.11	0.50	0.04	0.03	0.02
<1	0.19	2.74	0.16	4.17	0.45	0.04	0.03	0.03
<1	0.17	2.84	0.22	4.17	0.38	0.04	0.03	0.04
1	0.10	4.23	0.22	3.90	0.49	0.07	0.04	0.04
<1	0.16	3.39	0.17	4.51	0.48	0.03	0.03	0.03
<1	0.13	3.29	0.16	3.60	0.50	0.05	0.03	0.04
<1	0.22	3.19	0.15	4.73	0.59	0.04	0.02	0.03
<1	0.22	2.35	0.29	4.12	0.70	0.10	0.04	0.04
<1	0.09	1.75	0.23	3.58	0.40	0.06	0.04	0.05
<1	0.03	3.65	0.17	3.99	0.46	0.05	0.03	0.03
<1	0.14	3.84	0.17	3.52	0.42	0.05	0.03	0.09
<1	0.17	3.97	0.14	3.93	0.49	0.04	0.03	0.03
<1	0.32	3.71	0.19	5.99	0.71	0.03	0.06	0.04
<1	0.15	3.71	0.16	3.54	0.39	0.03	0.02	0.03
<1	0.22	5.00	0.21	5.41	0.65	0.05	0.04	0.04
<1	0.18	3.83	0.19	4.69	0.67	0.06	0.04	0.03
<1	0.22	3.90	0.15	5.29	0.80	0.09	0.04	0.04
2	0.20	4.64	0.11	5.53	0.52	0.05	0.02	0.07
<1	0.14	2.54	0.12	4.28	0.38	0.04	0.03	0.07
1	0.16	4.16	0.18	5.99	0.73	0.07	0.05	0.05
<1	0.19	5.80	0.61	8.25	1.72	0.25	0.13	0.09
9	0.13	6.89	0.34	13.46	1.97	0.21	0.09	0.09
1	0.10	7.65	0.23	5.18	0.79	0.15	0.06	0.11
<1	0.15	5.73	0.12	4.62	0.47	0.05	0.02	0.15
<1	0.16	4.82	0.27	6.09	0.62	0.07	0.06	0.09
<1	0.23	5.31	0.30	9.94	1.01	0.07	0.08	0.05
<1	0.24	6.15	0.38	8.29	1.70	0.13	0.09	0.05
<1	0.20	6.02	0.34	5.69	1.04	0.09	0.07	0.08
<1	0.23	3.94	0.28	6.14	1.10	0.08	0.08	0.00
<1	0.23	2.95	0.25	3.48	0.60	0.08	0.00	0.04
<1	0.15	2.93	0.23	3.83	0.69	0.08	0.04	0.06
<1	0.13	1.34	0.29	2.96	0.34	0.04	0.02	0.05
2	0.09	5.84	0.12	4.47	0.41	0.04	0.02	0.47
1	0.19	6.26	0.13	5.12	0.70	0.06	0.02	0.17
1	0.18	6.95	0.14	5.44	0.74	0.07	0.03	0.22
<1	0.16	5.36	0.17	4.76	0.66	0.07	0.03	0.22
<1	0.15	3.25	0.07	17.61	0.50	0.10	0.03	0.19
<1	0.14	2.84	0.10	3.08	0.26	0.03	0.02	0.06
<1	0.10	0.34	0.06	1.80	0.09	0.02	0.03	0.01
<1	0.14	3.60	0.10	3.35	0.27	0.03	0.01	0.06
<1	0.18	4.36	0.17	4.86	0.32	0.03	0.04	0.06

<1	0.20	2.02	0.09	3.74	0.20	0.02	0.02	0.06
<1	0.13	3.41	0.17	4.50	0.31	0.03	0.05	0.06
<1	0.16	3.55	0.18	3.94	0.72	0.05	0.03	0.04
<1	0.09	2.01	0.27	3.30	0.35	0.03	0.08	0.02
<1	0.12	2.44	0.17	4.38	0.26	0.03	0.04	0.08
<1	0.16	3.71	0.18	5.19	0.43	0.04	0.05	0.06
<1	0.14	2.20	0.14	4.25	0.36	0.03	0.03	0.05
<1	0.14	3.73	0.23	4.87	0.37	0.04	0.06	0.04
<1	0.14	1.46	0.24	4.56	0.23	0.02	0.05	0.02
<1	0.12	2.42	0.28	3.95	0.59	0.03	0.07	0.04
<1	0.15	3.18	0.30	3.94	0.81	0.03	0.08	0.06
<1	0.18	3.51	0.26	4.21	1.19	0.03	0.07	0.04
<1	0.14	2.23	0.24	3.12	0.71	0.03	0.06	0.05
<1	0.20	3.69	0.17	4.84	0.54	0.05	0.04	0.08
<1	0.20	3.70	0.55	4.41	1.54	0.05	0.15	0.03
<1	0.08	5.27	0.42	3.30	0.51	0.06	0.04	0.08
1	0.06	3.58	0.18	5.01	0.66	0.07	0.02	0.08
<1	0.16	3.99	0.19	5.00	0.60	0.04	0.05	0.05
<1	0.14	3.00	0.10	4.40	0.36	0.05	0.02	0.04
<1	0.16	3.25	0.18	4.40	0.55	0.06	0.03	0.04
<1	0.13	3.31	0.16	3.61	0.50	0.04	0.03	0.04
<1	0.23	5.30	0.30	9.90	1.00	0.07	0.08	0.05
<1	0.09	1.99	0.27	3.30	0.35	0.03	0.08	0.02
1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
10000	10	10	10	10	10	10	10	5
ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP