

**BC Geological Survey  
Assessment Report  
31632**

**SOIL GEOCHEMICAL SURVEY,  
TRENCHING, AND DIAMOND DRILLING REPORT  
ON THE  
JERSEY-EMERALD PROPERTY, BC**

GARNET	544860	HIDDEN ASPEN	604689
LB	544861	ASPEN 3	548467
ZINC	607011	ASP	548440
ZINC 2	607013	ASP	548466
ZN	607015	ASPEN 2	548465
HB	693205	ASP	548464
HB 2	693224	ASPEN 4	665745
HB	533927		
	693188		

**NELSON MINING DIVISION, BC**

**MAPSHEETS: 082F.004/005/014/015**

**UTM COORDINATES 5438200 N and 0483500 E**

**for**

**SULTAN MINERALS INC.  
1400 - 570 GRANVILLE STREET  
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**September 1, 2010**

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## SUMMARY

- This report provides a summary of exploration on the Jersey Property for Sultan Minerals, located near to the community of Salmo in south-eastern British Columbia, during the 2010 season, including diamond drilling, trenching and soil geochemical surveys.
- The Jersey property consists of a block of 44 crown granted claims and 124 mineral claims comprising over 20,000 ha, in the Nelson Mining Division. The 2010 work took place within the HB Garnet area of the Jersey Property.
- Since 1994, diamond drill programs undertaken by Sultan resulted in the discovery of several gold bearing zones in the vicinity of both the Jersey Lead-Zinc Deposit and the Emerald Tungsten Deposit. The drilling also intersected a lead-zinc zone situated 55 metres below the former Jersey Lead-Zinc Deposit.
- In 1996, total of 3 underground and 13 surface diamond drill holes were completed for a total of 1,707 metres. Exploration on the claims was inactive until market values for molybdenum increased dramatically in 2005. From 2006 to 2008 Sultan expanded the tungsten resource on the property through a combination of infill diamond drilling and application of 3D modelling of historic and recent drill holes, resulting in tonnage-grade estimations.
- In 2009, Sultan optioned the HB Garnet area claim block and undertook a program of magnetometer surveying and soil sampling. Results from the 2009 program provided drill targets for follow-up drilling.
- The Jersey property mineralization is associated with the east limb of a complex major anticlinal structure referred to locally as the Jersey anticline and regionally as the Salmo River anticline. The HB lead-zinc mine located four kilometres to the north and the Reeves MacDonald lead-zinc mine located ten kilometres to the south are also associated with this major structure. Historically mined areas produced lead-zinc and tungsten, with known areas of high molybdenum, gold, bismuth, arsenic, copper, silver, cadmium and barium.
- In 2010 a total of 544.6 metres of diamond drilling was completed in 8 diamond drill holes with a total of 133 core samples being taken.
- One diamond drill hole was completed along the west side of the 2009 soil sample and magnetometer survey grid. The remaining drill holes, as well as trenches, were completed closer to the HB and Garnet mines within zones indicated from the soil sampling and magnetometer surveys, and where historic trenches revealed mineralization.
- A total of 24 soil samples were taken in 2010 to fill in an elevated zinc trend along the west margin of the 2009 grid.
- A total of 3 trenches were completed with a total of 3 rock samples, 1 sample from each trench.
- Further work is recommended for several areas of the property based on the results of the 2010 exploration program summarized in this report.

## 1.0) INTRODUCTION

This report provides a summary of exploration conducted on Sultan Minerals Jersey Property located near to the community of Salmo in south-eastern British Columbia, during the 2010 season. Work included surface soil sampling, trenching and diamond drilling within the HB-Garnet area of the property.

## 2.0) PROPERTY DESCRIPTION AND LOCATION

The property is located in south-eastern British Columbia centred at approximate UTM coordinates of 5438700 N and 0484000 E (see Figure 1). The claims are covered by UTM map-sheets 082F004, 005, 014, and 015 within the Nelson Mining Division. The claims are located approximately ten kilometres southeast of the community of Salmo. The Jersey-Emerald Property covers an area of approximately 30 square kilometres, between the Salmo River on the west and the peak of Nevada Mountain on the east, and is bounded on the north by Sheep Creek and extends to the south across Wilson Creek.

The property consists of a block of 44 crown granted claims (see Table 1) totalling 660.36 ha, and 124 mineral claims (see Table 2) comprising 20335.6 ha, in the Nelson Mining Division (see Figure 2).

**Table 1**  
**CROWN GRANTED MINERAL CLAIMS**

TYPE	CLAIM NAME	TENURE	AREA (ha)
CG	BIG DICK	L 14882	18.790
CG	BRUCE FRACTION	L 14890	1.620
CG	CALCITE	L 14763	9.430
CG	COMET	L 14761	14.420
CG	CONTACT	L 14762	14.860
CG	COPPERFIELD	L 14904	16.610
CG	DODGER	L 12083	19.540
CG	EMERAL	L 9073	20.900
CG	EMERALD FRACTIONAL	L 9074	16.890
CG	GOLD STANDARD	L 9071	20.900
CG	HAL NO. 1	L 15020	20.510
CG	HAL NO. 2	L 15021	20.520
CG	HILLSIDE	L 14881	14.040
CG	JERSEY	L 9070	17.820
CG	KING ALFRED	L 3368	19.270
CG	KING SOLOMAN	L 3369	8.480
CG	LAST CHANCE	L 12116	20.020
CG	MARK TAPLEY	L 12117	18.730
CG	MORNING	L 9075	8.940
CG	PICKWICK	L 12087	18.490
CG	REX FRACTION	L 14889	4.160
CG	ROYAL CANADIAN	L 12115	15.970
CG	SCOTT FRACTION	L 14765	16.490
CG	STAN FRACTION	L 14764	1.450

CG	STANDARD FRACTIONL	L 9072	5.360
CG	SUNSHINE	L 9076	18.790
CG	SUNSHINE NO. 2	L 15033	13.970
CG	VICTOR FRACTION	L 14888	15.480
CG	BONCHER	L 12686	20.900
CG	JUMBO 2	L 12688	18.320
CG	ALFIE	L 15091	20.900
CG	DEN #1 FR	L 15041	20.890
CG	DEN FR	L 15040	13.740
CG	MASTADON	L 1070	20.900
CG	NELLIE J	L 1071	20.900
CG	TUNGSTEN KING	L 15092	15.870
CG	TUNGSTEN KING #1	L 15094	17.180
CG	TUNGSTEN KING #1FR	L 14766	18.280
CG	TUNGSTEN KING #2	L 15093	3.830
CG	TUNGSTEN KING #3	L 15095	11.490
CG	TUNGSTEN KING #4	L 15096	10.140
CG	TUNGSTEN KING #5	L 15097	9.160
CG	TUNGSTEN KING #7	L 15098	18.660
CG	TUNGSTEN KING #8FR	L 15099	6.750
		<b>Total</b>	<b>660.360</b>

**Table 2  
LOCATED MINERAL CLAIMS**

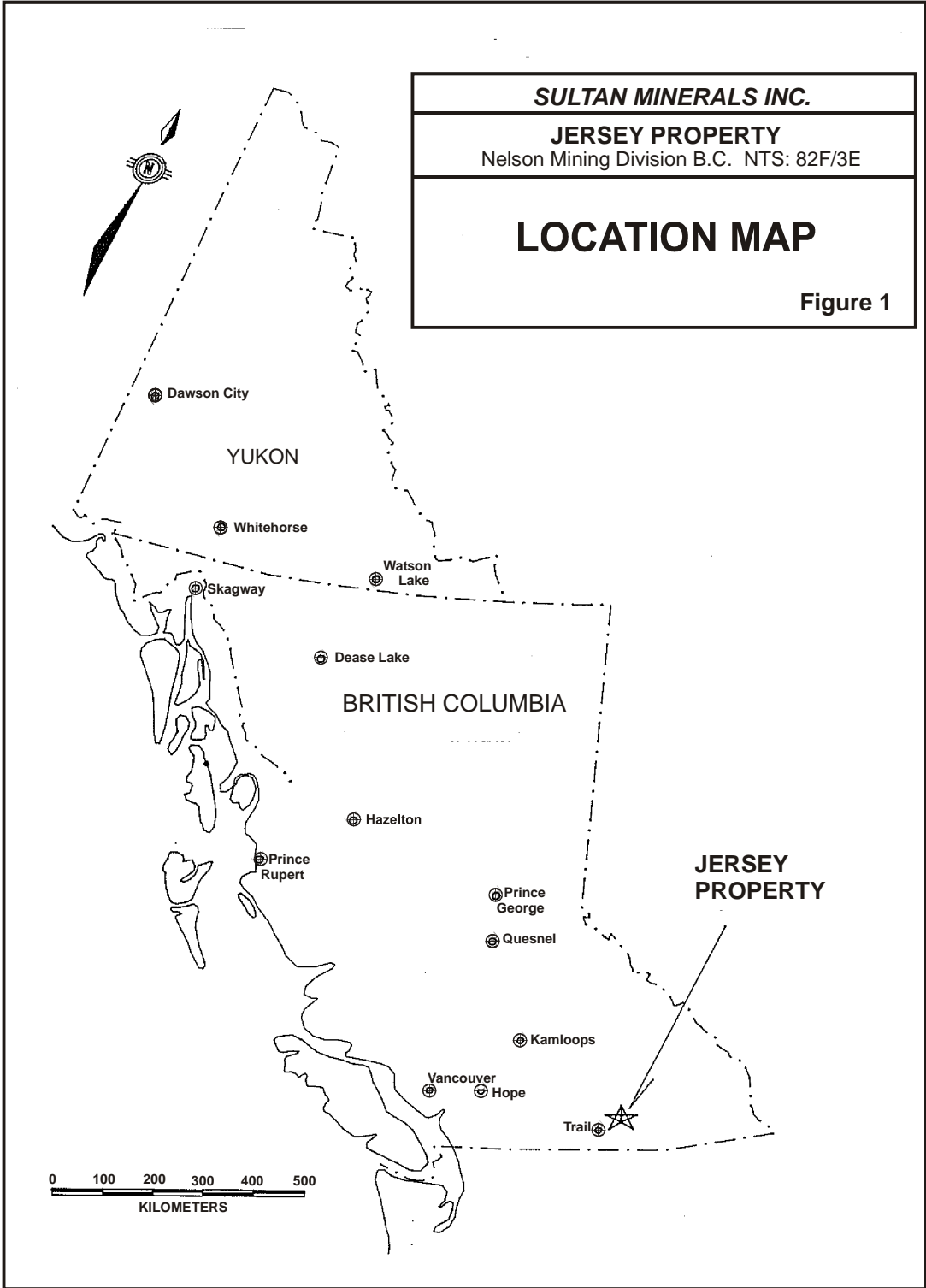
Tenure Number	Tenure Type	Claim Name	Good To Date	Area (ha)
233462	RGC	SUMIT	2016/DEC/27	25.0
234582	RGC	INVINCIBLE	2020/MAR/15	25.0
318816	Mineral	JERSEY #4	2016/DEC/27	500.0
318817	Mineral	JERSEY #2	2016/DEC/27	500.0
319025	Mineral	JERSEY 1	2016/DEC/27	500.0
319026	Mineral	JERSEY 3	2016/DEC/27	500.0
322324	Mineral	BLUE JAY 1	2016/DEC/27	25.0
322325	Mineral	BLUE JAY 2	2016/DEC/27	25.0
322326	Mineral	BLUE JAY 3	2016/DEC/27	25.0
322327	Mineral	BLUE JAY 4	2016/DEC/27	25.0
322328	Mineral	BLUE JAY #5	2016/DEC/27	25.0
322329	Mineral	BLUE JAY 6	2016/DEC/27	25.0
322859	Mineral	LEROY 5	2016/DEC/27	25.0
322860	Mineral	LEROY 6	2016/DEC/27	25.0
322861	Mineral	LEROY 7	2016/DEC/27	25.0
322862	Mineral	LEROY 8	2016/DEC/27	25.0
324439	Mineral	LOST GOLD	2016/DEC/27	225.0
325259	Mineral	MV 1	2016/DEC/27	25.0
325260	Mineral	MV 2	2016/DEC/27	25.0
325261	Mineral	MV 3	2016/DEC/27	25.0
325262	Mineral	MV 4	2016/DEC/27	25.0

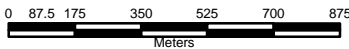
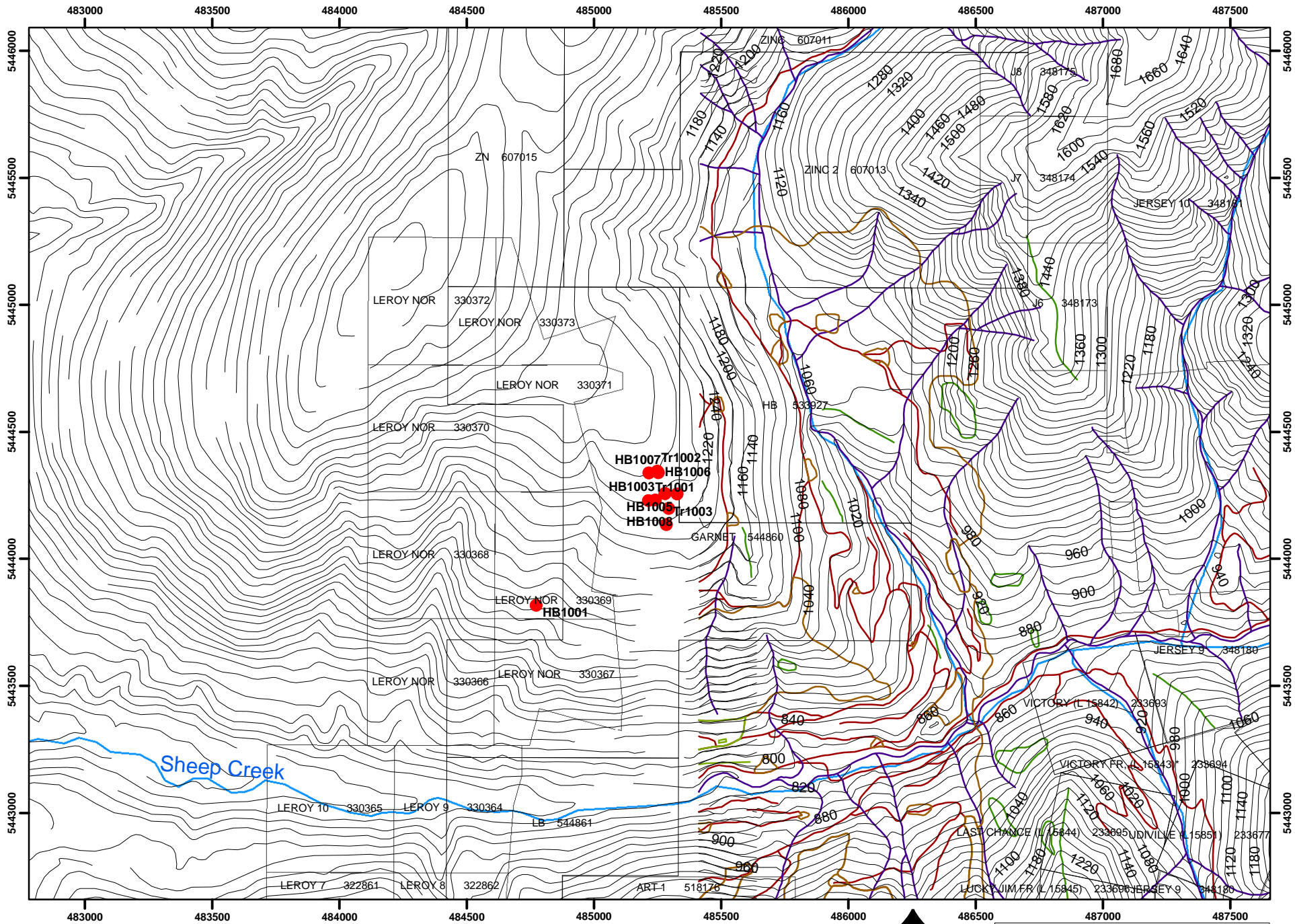
325269	Mineral	JERSEY 5	2016/DEC/27	500.0
325270	Mineral	JERSEY 6	2016/DEC/27	300.0
329070	Mineral	POSIE 1	2016/DEC/27	500.0
330364	Mineral	LEROY 9	2016/DEC/27	25.0
330365	Mineral	LEROY 10	2017/DEC/27	25.0
330366	Mineral	LEROY NORTH 1	2016/DEC/27	25.0
330367	Mineral	LEROY NORTH 2	2016/DEC/27	25.0
330368	Mineral	LEROY NORTH 3	2016/DEC/27	25.0
330369	Mineral	LEROY NORTH 4	2016/DEC/27	25.0
330370	Mineral	LEROY NORTH 5	2016/DEC/27	25.0
330371	Mineral	LEROY NORTH 6	2016/DEC/27	25.0
330372	Mineral	LEROY NORTH 7	2016/DEC/27	25.0
330373	Mineral	LEROY NORTH 8	2016/DEC/27	25.0
331985	Mineral	HANGOVER	2016/DEC/27	25.0
331986	Mineral	GULLY	2016/DEC/27	25.0
342202	Mineral	JERSEY #7	2016/DEC/27	500.0
342203	Mineral	JERSEY #8	2016/DEC/27	400.0
347849	Mineral	SUMIT 1	2016/DEC/27	25.0
347850	Mineral	SUMIT 2	2016/DEC/27	25.0
347851	Mineral	SUMIT 3	2016/DEC/27	25.0
347852	Mineral	SUMIT 4	2016/DEC/27	25.0
348168	Mineral	J1	2016/DEC/27	25.0
348169	Mineral	J2	2016/DEC/27	25.0
348170	Mineral	J3	2016/DEC/27	25.0
348171	Mineral	J4	2016/DEC/27	25.0
348172	Mineral	J5	2016/DEC/27	25.0
348173	Mineral	J6	2016/DEC/27	25.0
348174	Mineral	J7	2016/DEC/27	25.0
348175	Mineral	J8	2016/DEC/27	25.0
348176	Mineral	J9	2016/DEC/27	25.0
348177	Mineral	J10	2016/DEC/27	25.0
348178	Mineral	J11	2016/DEC/27	25.0
348179	Mineral	J12	2016/DEC/27	25.0
348180	Mineral	JERSEY 9	2016/DEC/27	400.0
348181	Mineral	JERSEY 10	2016/DEC/27	500.0
348182	Mineral	JERSEY 11	2016/DEC/27	500.0
348183	Mineral	JERSEY 12	2016/DEC/27	450.0
349449	Mineral	J-13	2016/DEC/27	25.0
349450	Mineral	J-14	2016/DEC/27	25.0
349451	Mineral	J-15	2016/DEC/27	25.0
349452	Mineral	J-16	2016/DEC/27	25.0
349453	Mineral	J-17	2016/DEC/27	25.0
349901	Mineral	JERSEY 13	2016/DEC/27	450.0
349902	Mineral	JERSEY 14	2016/DEC/27	450.0
349903	Mineral	J 18	2016/DEC/27	25.0
349904	Mineral	J 19	2016/DEC/27	25.0
349905	Mineral	J 20	2016/DEC/27	25.0
349906	Mineral	J 21	2016/DEC/27	25.0

349907	Mineral	J 22	2016/DEC/27	25.0
349908	Mineral	J 23	2016/DEC/27	25.0
518176	Mineral	ART 1	2016/DEC/27	84.5
602733	Mineral	SPURLIN 1	2011/APR/16	381.330
603544	Mineral	SPURLIN 2	2011APR/27	296.560
603742	Mineral	MAY 1	2016/DEC/27	296.300
604337	Mineral	JASON 1	2011/MAY/11	232.920
604345	Mineral	JASON 2	2011/MAY/11	444.290
604346	Mineral	JASON 3	2011/MAY/11	402.090
604347	Mineral	JASON 4	2011/MAY/11	402.250
604350	Mineral	JASON 5	2011/MAY/11	402.240
604351	Mineral	JASON 6	2011/MAY/11	423.360
604354	Mineral	JASON 7	2011/MAY/11	423.470
604355	Mineral	JASON 8	2011/MAY/11	423.570
604356	Mineral	JASON 9	2011/MAY/11	423.670
604358	Mineral	JASON 10	2011/MAY/11	423.770
604359	Mineral	JASON 11	2011/MAY/11	339.040
604385	Mineral	JASON 12	2011/MAY/12	84.730
604676	Mineral	FAYE 1	2011/MAY/19	337.640
604677	Mineral	FAYE 2	2011/MAY/19	421.980
604678	Mineral	FAYE 3	2011/MAY/19	464.200
604679	Mineral	FAYE 4	2011/MAY/19	189.890
605643	Mineral	ED 1	2011/JUN/08	317.690
605644	Mineral	ED 2	2011/JUN/08	529.640
615023	Mineral	PARTY 1	2011/AUG/05	232.730
615043	Mineral	PARTY 2	2011/AUG/05	338.400
615063	Mineral	PARTY 3	2011/AUG/05	380.750
233693	RCG	VICTORY (L 15842)	2016/NOV/23	25.000
233694	RCG	VICTORY FR, (L 15843)*	2016/NOV/23	25.000
233695	RCG	LAST CHANCE (L 15844)	2016/NOV/23	25.000
233696	RCG	LUCKY JIM FR (L 15845)	2016/NOV/23	25.000
233697	RCG	LUCKY JIM (L 15846)	2016/NOV/23	25.000
233677	RCG	UDIVILLE (L15851)	2016/NOV/23	25.000
544860	Mineral	GARNET	2019/JAN/03	169.030
544861	Mineral	LB	2019/JAN/03	84.540
607011	Mineral	ZINC	2019/JUL/04	105.610
607013	Mineral	ZINC 2	2019/JUL/04	147.870
607015	Mineral	ZN	2019/JUL/04	63.370
604689	Mineral	HIDDEN ASPEN	2012/MAY/19	189.940
548467	Mineral	ASPEN 3	2011/DEC/31	105.540
548440	Mineral	ASP	2019/JUL/04	42.220
548466	Mineral	ASP	2019/JUL/04	21.110
548465	Mineral	ASPEN 2	2019/JUL/04	21.110
548464	Mineral	ASP	2019/JUL/04	253.410
665745	Mineral	ASPEN 4	2010/NOV/06	42.240
533927	Mineral	HB	2018/DEC/27	84.51
693205	Mineral	HB	2019	21.13
550768	Mineral	SULTAN	2016/DEC/27	528.703



550769	Mineral	SULTAN 2	2016/DEC/27	296.168
693188	Mineral		2019/JAN/03	42.26
693224	Mineral	HB 2	2019/JAN/03	21.13
704936	Mineral	POSIE 2	2016	211.71
704937	Mineral		2016	338.81
708062	Mineral		2016	42.25
809262	Mineral	NEW JASON	2011	105.92
			TOTAL	20335.6





**SULTAN MINERALS INC.**  
**HB Mine Area Claims**  
**Figure 2**

In October of 1993, the Company entered into an option agreement with Lloyd Addie and Robert Bourdon, whereby the Issuer acquired an option to purchase a 100% interest in the Jersey Claim Group near Salmo, British Columbia. The claims overlie the former Jersey and Emerald lead, zinc and tungsten mines operated by Placer Dome from 1947 to 1973.

The property has been expanded over the years by staking, optioning and purchasing additional claims and now includes 44 crown granted mineral claims and 124 staked claims.

The central claims surrounding the historic Jersey-Emerald mine may be considered brown fields property containing open mining cuts, underground mine access portals, and tailings impoundments. The newly acquired HB and Garnet claims also encompass historic mine workings. Sultan maintains the access portals with signs and locked gates to protect the public and inhibit access.

Sultan Minerals performs reclamation of newly constructed access roads and drill pads immediately upon completion of work programs. Currently, the access road utilized to complete diamond drilling on the HB - Garnet area of the property has been temporarily decommissioned by cross ditching and side-cast pullback until further decisions concerning potential future work. All other new access roads have been reclaimed where appropriate and where no immediate further use is planned.

### **3.0) ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

Access to the Jersey-Emerald Property is via Highway 6 between the town of Salmo and the Highway 3 junction to Creston. A network of good quality gravel mine roads provide excellent access to the centre of the property from Highway 6, which is situated along the west edge of the property. The group of claims within the southern portion of the property are accessed from the Lost Creek access road, and from existing logging and mineral exploration 4X4 roads that junction with Highway 3, approximately 16 kilometres south of Salmo, BC. Access to the HB-Garnet area is from the Sheep Creek road that branches with the Old Airport road approximately 15 kilometres south of Salmo.

Salmo enjoys a pleasant summer climate with August temperatures averaging 25°C and moderate precipitation. Winter temperatures average -10°C in January with moderate snowfall. Total annual precipitation is on the order of 750 millimetres of moisture with much of this falling during the rainy season from April to June. The property is not in a heavy snow belt but up to four feet or more can be expected at the mine site during the winter months. Snow free conditions at higher elevations can be expected from late April to early November. Access to the property can be attained for year-round exploration.

The Highway 6 corridor carries a power line and rail bed. Teck Cominco Trail Smelter facility is located about 45 minutes drive south of the property. Crew lodgings are available in Nelson or Salmo. A skilled labour force for mining and exploration is available in Nelson, Salmo, Trail

and Castlegar. Trail, Nelson and Castlegar are also major supply and service centres for resource industries.

The property is situated in the rugged mountainous physiographic division known as the Selkirk Mountains. In the vicinity of the claims relief is on the order of 1200 metres (4000 feet) between Salmo Creek in the valley bottom at 600 metres (2000 feet) and the crest of Nevada Mountain at 1860 metres (6100 feet). Slopes vary from rolling within the centre of the claims to moderately steep along the east and west margins. Preliminary inspection of topography indicates that there are numerous areas for development of infrastructure required for mining and milling within the claims.

Much of the area has been logged or burned previously and vegetation consists of small diameter stands of larch, balsam, fir, jackpine and mountain alder. In many areas second growth vegetation is extremely dense making movement through the forest difficult. Several areas of extensive outcrop occur over and immediately north of the Jersey mine site but much of the property is covered by a veneer of glacial till. Till cover varies in thickness, from less than one metre on the slopes to more than 20 metres in valley bottoms.

## 4.0) HISTORY

### Jersey-Emerald Mine Area

The earliest record of exploration in the area dates to 1895 when gossanous outcrops on the south side of Iron Mountain attracted the attention of prospectors. The area was initially explored for gold and the 1896 Minister of Mines Report states that assays as high as \$70.00 per ton in gold (about 3.5 oz/t or 100 g/t) were obtained from the area.

Prospecting continued and in 1906 lead mineralization was discovered on the Emerald claims. Several small, high grade ore shipments were made and in 1910 Iron Mountain Ltd. was formed by Pacific Coast Steel of San Francisco to develop the property. A 25 ton mill was erected in 1919 and operated until 1926 when low metal prices forced closure. In 1934 the mill was destroyed by a major forest fire.

In 1938, tungsten and molybdenite mineralization was discovered in skarn bands at the site of the long abandoned gold workings on the Emerald, Emerald Fraction and Gold Standard claims. In 1942, the Emerald Tungsten Mine was put into production for the war effort by Wartime Metals Corp., a Federal Government Agency. Operations were suspended in 1943 when the war demand for tungsten eased.

The property remained inactive until 1947 when Canadian Exploration Ltd. (later Placer Dome Ltd.) purchased the property of Iron Mountain Ltd. Placer Dome eventually purchased the government held tungsten reserves and tungsten mill in 1952. Tungsten production recommenced in 1947 and lead-zinc production began in 1949. Lead-zinc concentrate was produced from two zones: the Jersey and the Emerald Lead-Zinc Deposits. Tungsten concentrate was produced from four zones: the Emerald, Feeney, Invincible and Dodger deposits. Production continued until September 1973 when the mine was closed due to low metal prices and depleted lead, zinc and tungsten reserves. Over the mine life 7,968,080 tons of lead-zinc ore grading 1.95% Pb and 3.83% Zn, and 1,597,802 tons of tungsten ore grading 0.76% WO<sub>3</sub> were mined and milled.

In 1979 Mentor Exploration Ltd carried out a diamond drill program to explore the south extension of the Emerald Shaft tungsten zone. This work encountered favourable geology but the target zone was found to be too deep and too narrow to be adequately tested by surface drilling.

In 1981 Mentor Exploration Ltd completed a five hole diamond drill program totalling 1,070 metres to test for molybdenum mineralization in the Emerald stock area. This work provided valuable information on the nature of the intrusive in this area, being the deepest testing carried out to that time. However, no economic zones of molybdenite were encountered.

In 1990, the property was sold to Nu-Dawn Resources Inc. who in 1993 sold it to Lloyd Addie and Bob Bourdon, both of Nelson, B.C. In 1993, Addie and Bourdon found that fine particles of free gold could be panned from the tungsten tailings. A prospecting and lithochemical sampling program was therefore initiated over the known tungsten zones. This work led to the discovery of significant bedrock gold values in the vicinity of the Jersey and Emerald zones.

In October of 1993, the property was optioned by Sultan Minerals Inc. Sultan undertook an exploration program that entailed ground and airborne geophysical surveys, prospecting, and rock chip

sampling. This work led to the identification of several targets believed to have potential for gold mineralization.

During the winter of 1994-95 an eleven hole (1,324 metres) diamond drill program was undertaken by Sultan to follow up targets identified by the previous work. Drilling resulted in the discovery of several gold bearing zones in the vicinity of both the Jersey Lead-Zinc Deposit and the Emerald Tungsten Deposit. The drilling also intersected a lead-zinc zone situated 55 metres below the former Jersey Lead-Zinc Deposit.

In 1996, an exploration program consisting of soil and silt sampling, geological mapping, prospecting, rock sampling and diamond drilling was carried out on the property to better delineate the mineralized areas identified by Sultan. A total of 3 underground and 13 surface diamond drill holes were completed for a total of 1,707 metres. Drilling was designed to test the gold potential of the Bismuth-Gold zone, Emerald Gold zone, Leroy Gold zone and the lower lead-zinc horizon. Three drill holes were completed to the east of the mine area to test an anomalous multi-element geochemical zone delineated from surface exploration, called the East Ridge zone.

Exploration on the claims was inactive until market values for molybdenum increased dramatically in 2005. With the improved molybdenum prices, Sultan Minerals conducted exploration for molybdenum focussing on the Dodger Mine area where mine records indicated the presence of molybdenite. From 2006 to 2008 Sultan also expanded the tungsten resource on the property through a combination of infill diamond drilling and application of 3D modelling of historic and recent drill holes, resulting in tonnage-grade estimations.

Sultan Minerals is also conducting exploration for potential silver-lead zinc resources on the property. This includes near mine exploration at the Jersey-Emerald and HB mine areas. In 2009 Sultan completed soil sampling and magnetometer surveys on the HB-Garnet Mine area, and is currently conducting a preliminary resource evaluation for remnant resources of silver-lead-zinc in the Jersey Mine area.

## **5.0) GEOLOGICAL SETTING**

### **5.1 Regional Geology**

The Jersey Emerald property lies near the south end of the Kootenay Arc and is underlain by rocks of the Cambrian Laib Formation (CmL) and the Ordovician Active Formation (OA). The Laib Formation is comprised of mixed carbonates and pelites that have been subdivided into the Truman Member brown argillites, the Emerald Member black argillites and the Reeves Member limestones (see Figure 3).

The eastern part of the property has historically been mapped as a much younger (Ordovician) Active argillite, however recent work by the Company indicates that the contact may in fact be conformable and that the Active Formation appears to be geochemically identical to the Laib Formation Emerald Member black argillites.

The sedimentary formations are intruded by granitic dykes, sills and bodies mapped as Cretaceous Granite (Hoy and Dunne, 1997).

### **5.2 Local Geology**

The Jersey-Emerald mine area is underlain by rocks of the Cambrian Laib Formation. This is a sequence of transitional rocks comprised of mixed carbonates and pelites (Little, 1960). In the vicinity of the property the Laib Formation has been further subdivided into the Truman Member, comprised of interbedded thin grey and white, locally dolomitic limestone; the Emerald Member, a black argillite unit; and the Upper Laib Formation, comprised of green phyllite and micaceous quartzites.

The sedimentary rocks are intruded by small plugs, dykes and sills of Cretaceous granite. The sedimentary rocks that are in contact with the granitic bodies are typically skarnified, resulting in a variety of skarn rocks ranging from re-crystallized coarse grained marble to garnet-pyroxene bearing skarn.

The Laib Formation has been deformed by three phases of folding all at least of local significance. Within the mine area structure is dominated by a major north-northeast trending anticline known locally as the Jersey anticline.

Three small stock-like bodies of Cretaceous biotite granite, elongate parallel with the local foliation, intrude the Jersey anticline and locally cut the ore-zones near the Jersey mine. From south to north these are the Jersey, Emerald and Dodger stocks. Potassium-argon age dates obtained from biotite from the Dodger stock give a date of 100.0 +/- 3.0 million years. One kilometre west of the Jersey mine the Laib sediments are intruded by a small circular body of Tertiary, augite monzonite referred to as the Salmo River stock. Biotite from this stock gave a potassium-argon age of 50.6 +/- 1.5 million years.

The ridge between Lost Creek and Wilson Creek is underlain by argillite, phyllite, slate, and limestone of the Cambrian Laib Formation and Ordovician Active Formation. Granite of the Lost





Creek stock, presumably related to the Nelson plutonic suite, occupies the northeastern part of the claim group. Local alteration of the sedimentary rocks include biotite and siliceous hornfels. Limy units have been converted to tremolite-wollastonite skarn containing minor amounts of scheelite.

Molybdenite and scheelite are widespread on this area of claims, occurring in skarn, polymetallic veins and quartz vein stockworks. Sphalerite is common in quartz and pegmatite veins in the hornfels zones intersected in historic drilling.

## **6.0) DEPOSIT TYPES**

### **6.1 Lead Zinc Deposits**

Lead-zinc deposition on the Property is located mostly within the Reeves member dolomites. The deposits have been categorized as primary bedded Irish-Style Sedimentary Exhalative (SEDEX) deposits. Some zones within the deposits also display aspects indicative of replacement deposition within limestone.

### **6.2 Tungsten Deposits**

Tungsten mineralization has been discovered in two distinct environments. The first is skarn style mineralization where granitic intrusions contact the limestone. The second is in favourable zones within the Truman member as stratabound disseminate mineralization.

### **6.3 Gold Deposition**

Gold values have been obtained from areas historically mined for tungsten. Work by Sultan Minerals indicated that the gold is believed to be skarn-related, occurring in silicified horizons with pyrite, pyrrhotite, arsenopyrite, stibnite and native bismuth.

### **6.4 Molybdenum Porphyry**

At different periods during exploration and development of lead-zinc and tungsten deposits on the property, quartz stockwork veining and alteration zones suggested the potential for gold mineralization within the granites underlying the existing mined areas. As well, mapping of underground headings and sampling of diamond drill core during mining operations indicated the presence of molybdenite within these porphyry-style veined zones. Based on these positive indicators, in 2005 and 2006 exploration focused on molybdenum including diamond drilling within the Dodger zone.

## **7.0) MINERALIZATION**

Mineralization on the Jersey property is associated with the east limb of a complex major anticlinal structure referred to locally as the Jersey anticline and regionally as the Salmo River anticline. The HB lead-zinc mine located four kilometres to the north and the Reeves MacDonald lead-zinc mine located ten kilometres to the south are also associated with this major structure.

Several zones of significant and often very different mineralization have been identified on the property. Historically mined areas produced lead-zinc and tungsten, with known areas of high molybdenum, gold, bismuth, arsenic, copper, silver, cadmium and barium. Work done by Sultan Minerals outlined numerous mineralized zones that are discussed below, along with the historically known mineralized zones.

### **7.1 Lead Zinc Zones**

#### **Jersey Lead-Zinc Deposit**

The Jersey lead-zinc deposit occurs in dolomite near the base of the Reeves limestone member. Five ore bands, ranging in thickness from 0.3 to 9.0 metres were mined. These bands in order of stratigraphic sequence are: 1) upper lead band; 2) upper zinc band; 3) middle zinc band; 4) lower zinc band; 5) lower lead band. The five ore bands are locally very close together and in the A Zone frequently have been mined as a unit up to 24 metres thick. Ore mineralization consists of fine-grained sphalerite and galena with pyrite, pyrrhotite and minor arsenopyrite. Cadmium is associated with the sphalerite and silver with galena. Iron content of the sphalerite is low, about 6%. The overall grade for the 7,968,080 tons milled averaged 3.83% zinc and 1.95% lead. Mining ceased in 1970 with unmined reserves of 106,000 tons grading 3.10% zinc and 0.80% lead.

#### **Emerald Lead-Zinc Deposit**

The Emerald lead-zinc deposit is located immediately to the north of the Jersey lead-zinc deposit, along the same host structure. Mineralization in the Emerald lead-zinc mine consists of banded limestone and dolomite of the Reeves Member hosting stratabound lead and zinc bands.

#### **HB-Garnet and Aspen Deposits (extracted from BCGS MINFILE website)**

The HB property is located on Aspen Creek, a tributary of Sheep Creek. The north end of the No. 1 ore body outcropped at an elevation of 1219 metres, west of Aspen Creek and almost a 1.6 kilometres north of Sheep Creek.

The heavily oxidized outcrop was staked in 1907 by P.F. Horton, H.M. Billings, J.A. Benson, and S.N. Ross. The property and one of the claims was called the H.B. The Consolidated Mining and Smelting Company of Canada (Limited) optioned the claims in 1911. The No. 2 level crosscut was driven during the winter but results were disappointing and the option was dropped

in 1912. W.R. Salisbury & associates, of Salmo, in 1913 leased the area containing the workings and small amounts of carbonate ore were mined until the lease expired in August 1915. During this period the owners, Horton & Billings, drove the Zincton crosscut to explore the adjacent Zincton claim. On the expiry of the above lease the entire property was optioned to a Spokane syndicate operating under the name Hudson Bay Zinc Company. The low level No. 7 crosscut (3,100 level) was started in 1915 and reached a length of 579 metres on completion in 1916. Diamond drilling (473 metres) from the crosscut failed to find ore and the option was given up in 1917.

Crown-grants were issued to P.F. Horton and Agnes Billings on the Garnet (Lot 10809) and Zincton (Lot 10810) claims in 1919 and on the H.B. (Lot 12672) and 10 other claims and fractions (Lots 12668-12671 and 12673-12678) in 1921.

The Victoria Syndicate, Limited, optioned the property in 1925 and began driving the No. 4 level (3,500 level) crosscut. This was completed at a length of 335 metres and from it drifting north and south in the ore body continued into 1926. The option was subsequently given up and P.F. Horton one of the owners, carried out some work on the property in 1927. Exploration work to that date was all done in the heavily oxidized zone at the north and on No. 1 ore body where the flat-plunging ore was exposed on surface. Oxidation here extended to the full depth of the ore zone, about 91 metres below surface.

The Consolidated Mining and Smelting Company returned in 1927 to purchase the 18 Crown-granted claims and fractions, but the property remained idle until 1948. Starting about 1946, the company began geological investigations that led to an intensive diamond drilling program beginning in 1948. Large bodies of 9, low-grade disseminated sulphides plunging gently south from the oxidized ore body were indicated by this drilling. In June, 1949 an underground program began to investigate the drill results. The No. 4 level was rehabilitated and from the face the adit was extended south for nearly 457 metres. A parallel drive was subsequently made about 70 metres to the west and connected to the main drive by 3 crosscuts at 61-metre intervals. Diamond drilling from these two drives and from exploration raises in 1950 partly delimited two ore bodies - the No. 1 and No. 2 - and work until 1953 was aimed at developing these ore bodies for production. In 1951 construction of a 1,000 ton per day concentrator began and a new adit level (No. 8) was driven 823 metres north from the Sheep Creek valley millsite to the ore zone. The concentrator was completed early in 1953 but due to low lead and zinc prices, was not put into operation. All work ceased on March 31 and was not resumed until April 1955; milling began in May.

The Garnet (082FSW249) zone outcrops on the Garnet and Legal Tender claims between elevations of 1067 and 1158 metres on the Sheep Creek slope about 0.5 kilometre north of the concentrator. The Legal Tender claim (Lot 10823) was staked on this showing in about 1899. In 1912 the claim was Crown-granted to George Klavano. Development work at that time apparently consisted of a few short adits. In 1926 the claim was part of the Black Jack group of 4 claims. This group was optioned by P.F. Horton & associates in 1926 and late in the year exploration work was done in about a dozen trenches crosscutting the zone. The Legal Tender was part of the group sold to Cominco in 1927; the Black Jack claims, lying to the west of the Legal Tender, were apparently abandoned. Diamond drilling by the company in 1948-49 in more

than 30 holes delimited a more or less continuous mineralized zone 15 metres wide lying 46 to 61 metres west of the Garnet fault. Mining of the Garnet zone began in 1965 as an open pit operation and was later incorporated with the underground operation. The mine and mill closed on November 1, 1966. The company name was changed in 1966 to Cominco Ltd. Plans to re-open the mine were announced late in 1972. The mill and underground workings were rehabilitated and production resumed in February 1973. Mining and milling operations continued until August 1978 when the mine closed. Measured and indicated reserves, as of December 31, 1978, were reported at 409000 tons, at 0.1 per cent lead and 4.1 per cent zinc (Canadian Pacific Limited, Form 10-K, December 31, 1978).

The HB ore bodies are currently thought to be Kootenay Arc-type carbonate hosted sedimentary exhalative (sedex) deposits. The ore bodies are located within dolomitized limestone of the Lower Cambrian Laib Formation, Reeves Member (correlative with limestone of the Badshot Formation). The east boundary of the Laib Formation is in contact with argillites of the Lower to Middle Ordovician Active Formation, on a fault contact, with the Active rocks over-thrust from the east over the Reeves rocks.

Two distinct calcareous layers of the Reeves Member can be recognized in the area, an upper one about 110 metres thick separated from a lower 12-metre member by 15 to 30 metres of micaceous brown limey argillite. The HB ore bodies occur within a hundred metres or so to the west of the thrust fault. It is thought that the mineralization is related to the intrusion of granitic stocks of the Middle to Late Jurassic Nelson Intrusions with the nearest outcrop about 1 kilometre away from the mine. The only intrusives present in the mine are post-ore diabase dykes up to 3 metres thick.

In the vicinity of the HB mine, the beds are folded into a broad synclorium, and the limestone layers in the mine are on the west limb of this structure. There is evidence of much isoclinal folding within the trough of the synclorium, with axial planes steeply inclined to the east and folds plunging 20 degrees to the south. There may be similar folding along the west limb within the mine area, but the portions of the folded beds revealed by the mine workings indicate that here the limestone has only formed thickened wrinkles. Within these wrinkles the beds are highly distorted by complex folding. In the central portion of the structures there is cleavage banding which strikes north and dips steeply. The primary folding is disturbed by major cross-folding in at least two places, one at the north end of the mine, the other just south of the main ore bodies. The cross-folds plunge steeply to the north and resemble "S" type drag folds.

The principal ore zones consist of three steeply dipping, parallel zones lying approximately side by side and extending as pencil-like shoots for about 900 metres along the gentle south plunge of the controlling structures. The largest and most easterly ore zone has a maximum height of about 140 metres and a maximum width of 30 metres. Within these zones are steeply dipping discontinuous ore stringers with a lead to zinc ratio of 1:5.

In addition to the steep stringer lodes there is a second type consisting of flat lying, slightly brecciated zones with a lead to zinc ratio of about 1:2.5. These zones plunge at 20 degrees to the south, in general agreement with the plunge of the other ore bodies. There are several separate ore zones of the flat lying variety. The layers of ore range from a few metres to 12 metres in

thickness, but are generally from 3 to 5 metres thick. The sulphide mineralization within these layers is fairly regular and resembles bedding.

There is evidence to indicate ore deposition was controlled by shear zones within the folded limestone; the best ore concentrations occurring at the junctions between steeply dipping shears (the pencil-like ore bodies) and flat lying shears (the flat-lying brecciated ore bodies).

The mineralogy of the ore is relatively simple with pyrite, sphalerite and galena in order of abundance and minor pyrrhotite found locally. The northern portion of these bodies is exposed at surface, near the original HB claim, and are oxidized to a depth of about 100 metres at that point. Where the ore is protected by enclosing dolomite relatively little oxidation has occurred. Other secondary minerals include calamine, smithsonite, anglesite, and the rare zinc phosphate, spencerite.

Wallrock alteration is typical of lead-zinc deposits in the area. The ore zones are enveloped by a broad zone of dolomitization which is bordered along its contact with the limestone by a narrow zone in which limestone is replaced by fine-grained silica. Talc and tremolite alteration, thought to be pre-ore, is concentrated near the silica-rich zone resulting from the silicification of dolomite. An appreciable amount of talc is found locally within the ore zone.

A smaller zone, located to the southwest of the main HB mine, is known as the Garnet orebody. The Garnet zone was mined from the surface from a small open pit, whereas the main mine is entirely underground.

The HB mine produced a total of 6,656,101 tonnes of ore in 29 years between 1912 and 1978. Recovered from this ore were 29,425,521 grams of silver, 49,511,536 kilograms of lead, 260,431,646 kilograms of zinc, 2,019,586 kilograms of cadmium, 105,412 kilograms of copper and 6,159 grams of gold. Measured and indicated reserves published December 31, 1978 by Canadian Pacific Limited were given as approximately 36,287 tonnes grading 0.1 per cent lead and 4.1 per cent zinc (Energy, Mines and Resources Canada Mineral Bulletin MR 198, page 209).

## **7.2 Gold Zones**

### **Bismuth Gold Zone**

The Bismuth Gold Zone (known in the underground workings as part of the F zone) is located along the east side of the Jersey lead-zinc deposit at the contact between the Reeves limestone and the underlying Reeves dolomite. Gold mineralization was initially recognized here in 1963 when Placer Dome obtained 0.12 oz/t (3.4 g/t) gold from four samples assayed from an extensive native bismuth and arsenopyrite bearing zone. The zone was intersected while exploring the Jersey lead-zinc deposit and the underlying East Dodger tungsten zone. The zone was rediscovered in 1993 by the present property owners while inspecting Placer Dome drill logs. The gold mineralization, believed to be skarn-related, occurs in a silicified horizon with pyrite, pyrrhotite, arsenopyrite, stibnite and native bismuth. Underground samples assay up to 0.28 oz/t (8.0 g/t) gold across widths of 96.0 centimetres.

Placer Dome drill logs suggest that this siliceous zone may be 20 metres or more in thickness. It was intersected in four surface drill holes along a strike length of 300 metres.

### **#1 Zone**

The #1 Zone is located in the area of the 1994 diamond drill holes DDH94-1 and 2. This zone is located along the contact of the Reeves limestone and the Emerald argillite members where they trend south from the Emerald Tungsten open pit mine.

A series of small to large pits and trenches trend for 300 metres along the limestone-argillite contact. In the workings, rusty banded sulphide mineralization occurs with iron oxides (limonite and goethite) and coarsely recrystallized limestone. Sulphide mineralization occurs as massive pyrrhotite bands, which return high values for arsenic, copper and zinc, with minor gold, silver and molybdenum.

### **Emerald Gold Zone**

The Emerald gold zone was first recognized in 1895 and may be coincident with the Emerald tungsten zone. The zone was prospected for gold from 1895 to 1906 and assays up to 3.5 oz/t (100.0 g/t) were reported. After the lead-zinc potential of the property was recognized in 1906 and later with the discovery of the tungsten mineralization over this area the gold potential of this zone was not explored. The zone was rediscovered in 1993 when the current property owners found that free gold could be panned from the tungsten tailings. Gold mineralization has been found to be associated with the quartz and pyrrhotite rich sections of the skarn and sulphide-type tungsten zones.

The Emerald gold zone occurs along the contact with the Reeves limestone and Emerald argillite, and trends from the Emerald Tungsten deposit towards the #1 Zone. These three areas may actually represent mineral zonations grading away from the Emerald Stock.

### **Leroy Gold Zone**

The Leroy gold zone is located approximately one kilometre north of the Emerald gold and tungsten zones. Gold mineralization was discovered here in the late 1890's and the zone was explored with a series of pits, adits and hand trenches along an 800 metre strike length. Gold exploration ceased with the discovery of lead-zinc in 1906.

Over the Leroy zone gold mineralization is associated with pyrrhotite, pyrite and native bismuth in a silicified horizon at the contact between the Reeves limestone member and the Emerald argillite member. Recent sampling of this zone gave gold grades up to 0.898 oz/t (25.5 g/t) from grab samples and up to 0.174 oz/t (4.8 g/t) across a true width of 3.0 metres for chip samples.

### **ABC Zone**

The ABC zone occurs just to the east of the Jersey and Dodger underground workings along the Iron Mountain Fault. This major fault structure represents the contact of the Ordovician Active Formation argillites with the Cambrian Reeves Member limestones.

Anomalous samples were collected from slices of pyritic garnet-diopside skarn bands entirely within Active Formation argillite, but adjacent to the Reeves limestones. Rusty, limonitic, decomposed argillite(?) with minor quartz stockworking is found on the west side of the skarn banding. Sulphide mineralization is confined to pyrite within the skarn bands, with limonite occurring adjacent to this unit. Assays indicate the presence of high arsenic and minor gold, molybdenum and lead values.

## **7.3 Tungsten Zones**

### **Dodger Tungsten Deposit**

Near the Jersey Lead-Zinc Mine, skarn-type tungsten mineralization occurs where the Cretaceous intrusions are in contact with either of the calcareous Truman or Reeves members. Tungsten was mined from two distinct zones on the property: The Dodger zone located along the east side of the Jersey lead-zinc deposit; and the Emerald zone comprised of the Emerald, Feeney and Invincible deposits located along the west side of the lead-zinc deposit.

The Dodger tungsten skarn deposit is comprised of three zones with finely disseminated scheelite grains in light brown to green garnet-diopside skarn. The conformable deposit occurs in a skarnified limestone unit near the top of the Truman Member. The mineralized zones are separated by a tongue of granite believed to be an appendage of the Dodger Stock.

In this deposit, scheelite is accompanied by pyrrhotite, biotite, quartz, molybdenite and minor powellite. The ore zones range from 2.0 to 9.0 metres in width and average 3.0 metres.

The Dodger tungsten zone was mined intermittently from 1951 to 1973 and averaged 0.56%  $WO_3$  for 521,023 tons of production. Production ceased in 1973 leaving unmined reserves of 42,500 tons grading 0.45%  $WO_3$ . During the final year of operation extensive reserves of low grade ore were found to the north and south of the East Dodger deposit. These reserves were not developed due to low tungsten prices.

### **Dodger "D" Zone**

The Dodger "D" Zone is represented by a series of pits and trenches located along the contact of the Dodger Stock and skarnified Truman Member argillites. This zone is located about 300 metres southwest of the Dodger 4400 Adit.

In the vicinity of the workings, the Dodger Stock is pegmatitic, consisting entirely of white quartz and feldspar phenocrysts up to 15 centimetres diameter. The workings are located within very rusty, skarn banded Truman Member sediments. Visible mineralization consists of massive to disseminated and banded pyrrhotite, pyrite, bismuth, molybdenite, and chalcopyrite, with assays also indicating the presence of gold, zinc, and tungsten.



## **Emerald Tungsten Deposit**

The Emerald tungsten deposit occurs along the contact between the Reeves limestone member and the Emerald argillite member, located along the west side of the Emerald stock. Within the deposit four distinct types of mineralization are recognized: skarn, sulphide, greisen, and quartz ores. The skarn-type of ore occurs mainly along or near the limestone argillite contact. It consists of garnet, diopside, calcite and quartz with lesser amounts of pyrrhotite, pyrite, scheelite and molybdenite. The sulphide-type of ore, consisting of pyrrhotite, calcite, biotite and scheelite, is often spatially associated with the skarn mineralization and consists of irregularly shaped "replacement" bodies in limestone and dolomite. Locally quartz, pyrite, molybdenite and chalcopyrite may be present. The greisen-type of ore occurs in altered granite and extends up to 12 metres into the granite from the limestone contact. The ore consists of potash feldspar - in some places completely kaolinized, abundant quartz, sericite, pyrite, tourmaline and scheelite. Locally, calcite, ankerite, apatite, pyrrhotite or molybdenite may be present. The quartz-type ore in many places grades into greisen. It consists of silicified limestone cut by numerous veins of quartz with ankerite, scheelite, minor molybdenite and apatite. The veins are enveloped by disseminated mineralization comprised of scheelite, pyrite, pyrrhotite and tremolite.

Scheelite is the main tungsten mineral but minor powellite and wolframite was also recovered. Most of the scheelite ore was recovered from lenticular skarn zones developed along the contact between the Emerald argillite and the Reeves limestone.

The Emerald tungsten zone was mined intermittently from 1943 to 1973. Grades ranged from 0.5 to 1.5%  $WO_3$  and averaged 0.86%  $WO_3$  for the entire 1,076,799 tons of production. Mining ceased in 1973 due to low tungsten prices leaving recoverable reserves of 34,800 tons grading 0.73%  $WO_3$ . Potential is believed to exist north of the Invincible and south of the Emerald deposits but due to low tungsten prices there was no incentive to explore and develop these potential reserves.

## **East Emerald Tungsten Zone**

The East Emerald Tungsten Zone, is located about 300 metres southwest of the Dodger 4400 Adit and approximately 100 metres stratigraphically above the Invincible Tungsten Deposit. Also referred to as the Dodger "D" Zone, it is represented by a series of pits and trenches located along the contact of the Dodger Stock and two parallel skarnified Truman Member argillite bands, each about 10 metres in thickness. Evidence of the potential for Dodger-type mineralization was provided in historic drilling to the north and east of the Emerald and Invincible mines.. This stratabound mineralization is in the stratigraphically higher metamorphosed Truman rocks. Twenty four(Wartime Metals) and sixteen(Canex) historic drill holes were completed through this zone, herein termed the East Emerald Zone. Drilling into this zone encountered tungsten-skarn mineralization adjacent to and distant from the granitic contact similar to that historically mined in the Dodger Tungsten deposit to the east. In 2006 Sultan Minerals completed a four hole drill program into this mineralized zone in order to verify the presence of the reported tungsten grades and the widths of mineralization. A preliminary assessment of the potential of this zone is covered in this report.

These tungsten-bearing horizons have been shown by historical drilling and surface sampling to be more than 1,100 metres long and to extend up to 300 metres down dip. Drill logs show that the zone ranges from 4.0 feet (1.2 metres) to more than 60.0 feet (20.0 metres) in thickness with tungsten assays varying from less than 0.10% WO<sub>3</sub> to greater than 0.28% WO<sub>3</sub>.

In the vicinity of the workings, the Dodger Stock is pegmatitic, consisting entirely of white quartz and feldspar phenocrysts up to 15 centimetres in diameter. The workings are located within very rusty, skarn banded Truman Member sediments. Visible mineralization consists of massive to disseminated and banded pyrrhotite, pyrite, bismuth, molybdenite, and chalcopyrite, with assays also indicating the presence of gold, zinc, and molybdenum with the tungsten.

### **Invincible Tungsten Deposit**

The Invincible Tungsten Deposit is adjacent to the western margin of the Late Jurassic Dodger stock where it transects flat-lying beds of the Reeves Member limestone of the Lower Cambrian Laib Formation. The deposit lies 1,500 metres northeast and along strike, but on the east side of the Emerald granite stock from the Emerald tungsten deposit.

The ore body is bounded above and below by skarn and argillite of the Truman and Emerald members of the Laib Formation respectively. Most of the scheelite occurs in lenticular zones that extend at a high angle from the granitic stock, more or less conformable with layering of the host rocks. The scheelite occurs as fine, disseminated grains within garnet-diopside skarn and is accompanied by pyrite, pyrrhotite, minor powellite and traces of molybdenite and wolframite. Quartz is common in zones of mineralized granite.

The ore zone extends up to 24 metres from the stock, and may be more than 3 metres thick in places. The zone lies about 260 metres below surface and produced 256,480 tonnes of 0.65 per cent WO<sub>3</sub> from 1970 to 1973 (Geology, Exploration and Mining in British Columbia 1973, pages 54-57).. The northern extension of the Invincible mine remains untested.

### **Feeney Tungsten Deposit**

The Feeney tungsten deposit is located on the east side of the Emerald granitic stock along strike to the north of the Emerald mine and south of the Invincible mine. The zone forms a relatively shallow ore body within the Lower Cambrian Laib Formation along the granite-limestone contact between the Reeves Member limestone and Emerald Member argillite.

The mineralization consists of scheelite with minor powellite, rare wolframite and traces of molybdenite in a green and brown garnet-diopside skarn containing augite, actinolite, epidote, pyrrhotite and quartz. Most of the scheelite occurs as fine, disseminated grains in lenticular skarn zones which extend from the granite contact out into the limestone-argillite country rock conformable to bedding. The skarn zones are up to 6 metres long and average about 2 metres in width. Grades are about 0.5 to 1.5 per cent tungsten. The Feeney mine operated between 1951 and 1955 and produced about 54,000 tonnes of ore averaging 0.92% WO<sub>3</sub> (Bulletin 41, page 119).

## 7.4 Molybdenum Zones

### Dodger Zone

Molybdenum mineralization was noted in several areas within the historic Jersey, Dodger, Invincible, Emerald and Feeney mine workings. Follow-up work during 2000 to 2005 field seasons indicated that the most readily accessible area for initial molybdenum exploration is within the Dodger 4200 mine workings. These workings were found to be in good condition where access drifts were completed during the historic mining for tungsten. Mapping of the drifts indicated that the granitic rock that underlies the Dodger-type skarn tungsten mineralization contains porphyry style quartz veining with molybdenite mineralization.

Exploration of the molybdenum-bearing porphyry system, along the margin of the historic Dodger East Tungsten zone, revealed a stockwork of quartz veining and fractures with molybdenite. The general orientation of fractures and quartz veins was found to be cross-cutting north-south and east-west, with steep dips. Several high grade molybdenite zones were intersected, including 1% to 3% Mo over short widths of 3 to 5 feet (0.9 to 1.5 metres). The 20 hole drill program completed during the 2005 field season indicated the potential for larger volumes of lower grade molybdenum containing short sections of higher grade material. The current resource calculation summarized in this report has been undertaken to further assess this zone.

### East Zone

During the 1995 field season, a large mineralized zone was discovered to the east of the previous workings entirely within the Ordovician Active Formation argillites.

An anomalous area trending north-south for two kilometres and up to one kilometre wide contains significant copper, zinc, silver, barium and molybdenum values in soils. The black, shaly argillites are cross-cut by quartz stringers in many areas, but mineralization is believed to be hosted within the argillite beds.

### Posie Zone

The Posie claim occurs to the south of the Jersey lead-zinc mine, on the south side of Lost Creek. Preliminary work done on this claim in 1995, returned anomalous metal values from soil samples.

The Posie mineralized zone occurs within Ordovician Active Formation argillite with inter-fingered limestone of the Lower Cambrian Reeves Member in the north. The limestone tends to be skarnified in some areas, while other areas have the appearance of fresh limestone but are completely silicified. A zone of anomalous soil sample results trends from Lost Creek south-southwest for over one kilometre, roughly following the argillite-limestone contact. Along this zone, soil samples are highly anomalous in copper, silver, zinc, cadmium and barium, with scattered elevated values for gold, tungsten and molybdenum .

## **8.0) EXPLORATION CONDUCTED IN 2010**

In 2010 Sultan Minerals Inc completed a program of infill soil sampling, trenching and diamond drilling within the HB-Garnet area of the Jersey Property. Figure 4 indicates where work was completed in 2010. This work was a continuation of work conducted in 2009 that included soil geochemical sampling and magnetometer surveying.

Soil sampling was conducted along the west margin of the 2009 grid in order to close a zone of elevated zinc in soil mapped in that area. Three lines were extended 200 metres west from previous sampling.

One diamond drill hole was completed along the west side of the 2009 soil sample and magnetometer survey grid. The remaining drill holes, as well as trenches, were completed closer to the HB and Garnet mines within zones indicated from the soil sampling and magnetometer surveys, and where historic trenches revealed mineralization.

A total of 24 soil samples were taken in 2010.

A total of 3 trenches were completed with a total of 3 rock samples, 1 sample from each trench.

A total of 544.6 metres of diamond drilling was completed in 8 diamond drill holes with a total of 133 core samples being taken.

The 2010 exploration program was managed by Perry Grunenberg, P.Geo, also the qualified person for reporting on the project.

### **DIAMOND DRILLING**

Sultan Minerals contracted Critchlow Diamond Drilling of Salmo, BC to complete diamond drilling on the property. Critchlow Drilling utilizes a "Discovery-1" diamond drill manufactured by Multi-Power Products Ltd in Kelowna BC. The drill is rated for a maximum depth of 1,200 vertical feet using BQW rods.

A total of 544.6 metres of core were produced from the diamond drilling on the HB-Garnet target areas as shown on figure 4. Drill hole locations and orientations are provided in Table 3 below. Drill hole collars were globally positioned in NAD 83, Zone 11 coordinates using hand held GPS instrumentation.

**Table 3  
Drill Hole Information**

Drill Hole #	Grid E	Grid N	UTM Location E	UTM Location N	Elevation m	Length (m)	Length (ft)	Azimuth	Dip
HB1001	5145	2305	484774	5443817	1113	78.7	258	270	-70
HB1002	5725	2700	485328	5444256	1243	93.9	308	270	-70
HB1003	5620	2700	485242	5444232	1268	77.4	254	270	-50
HB1004	5675	2710	485280	5444258	1261	97	318	265	-50
HB1005	5675	2710	485280	5444258	1261	38.1	125	0	-90
HB1006	5640	2790	485254	5444340	1275	60.1	197	90	-50
HB1007	5610	2790	485217	5444339	1277	54.3	178	90	-50
HB1008	5669	2660	485295	5444198	1256	45.1	148	270	-50

## **TRENCHING**

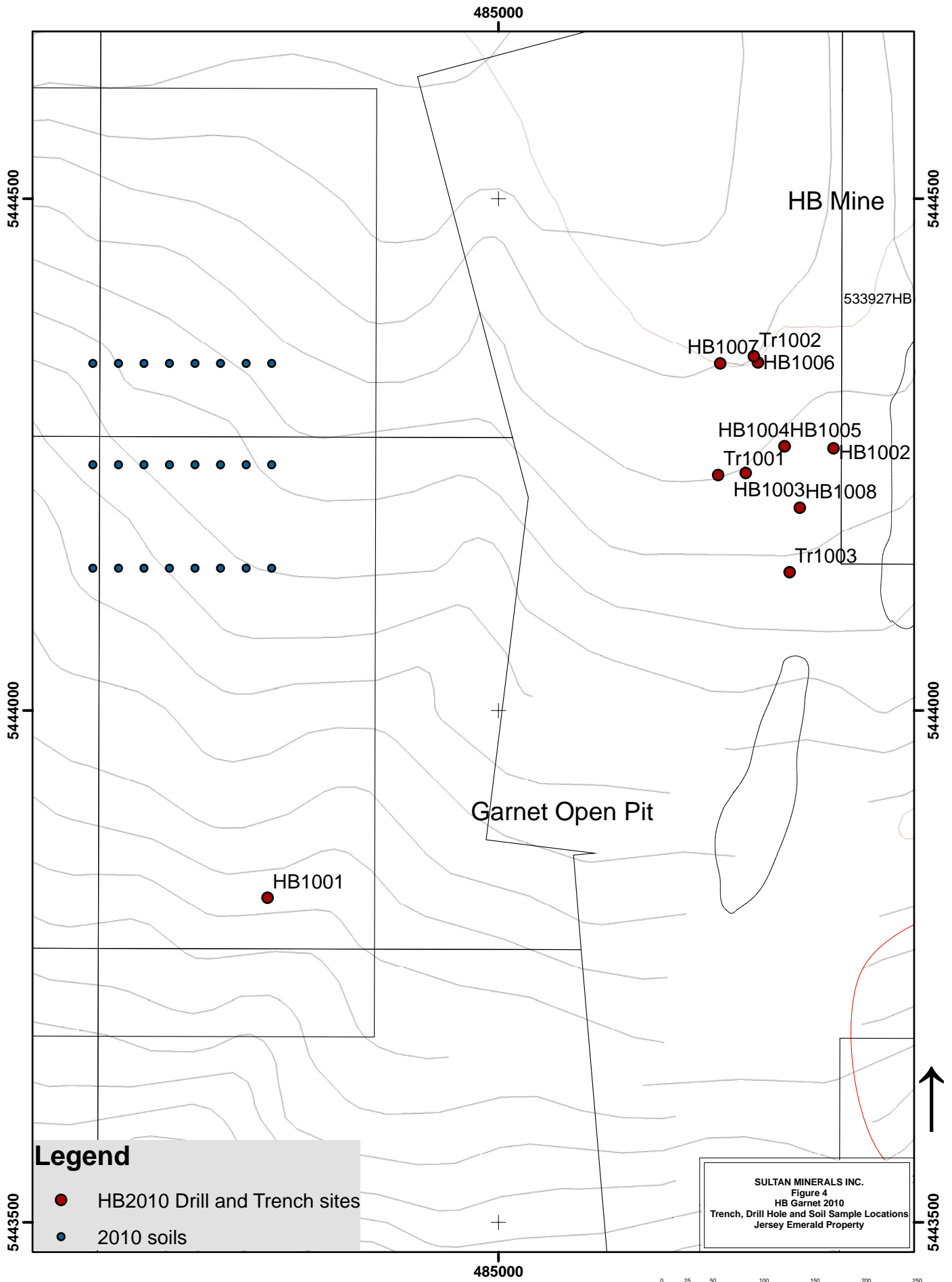
Trenching was conducted at 3 areas in the HB-Garnet mine area of the property. The trenching was conducted as part of the diamond drilling program in order to confirm mineralization noted on historic maps and discovered on the property. The trenches were excavated to expose the mineralization within the historic trenches. Samples were taken across the strike of the mineralized zone where exposed. Table 4 provides a summary of trenching completed in 2010.

**Table 4  
Trench Information**

Trench #	Grid E	Grid N	UTM Location E	UTM Location N	Elevation m	Length (m)	Length (ft)	Azimuth	Dip
Tr1001	5560	2695	485215	5444230	1265	5	16	270	0
Tr1002	5638	2793	485250	5444346	1277	3	10	270	0
Tr1003	5660	2600	485285	5444135	1246	1	3	270	0

## **SOIL SAMPLING – HB-Garnet Grid**

Soil samples were taken along grid lines within the HB-Garnet grid established in 2009. Gridding was accomplished via hip chain and compass established with 25 metre station and 100 metre line spacing. A total of 24 samples were taken from the grid in order to extend lines L26N, L27N and L28N for 200 metres to the west.



## **9.0) SAMPLING METHOD AND APPROACH**

Drill core was removed from each drill site at the end of each shift. All drill core was logged at a secure facility in Salmo. Following drill core logging and sample layout, the core was split using a standard manual core splitter. One half of the core was then placed in a sample bag labelled with an assay tag number and the second half returned to the core box with its location marked with the same assay tag number. Samples were shipped to Acme Labs in Vancouver. All remaining core is stored within a secure compound on the property.

Drill core sample intervals were determined based on lithological changes, structures and observed mineralization within the core. Minimum sample intervals were set at approximately 1 metre (3 feet). A total of 133 samples were submitted for analysis from the 8 drill holes.

Trenching was conducted utilizing a Hitachi Excavator in order to obtain samples from 1 to 2 metres depth below surface. Chip samples were taken across mineralization by rock hammer where exposed in trenching. Samples were shipped to Acme Labs in Vancouver.

Soil samples were taken from the "B" horizon at approximate depths of 30 to 50 centimetres below surface using a tree planters shovel. Samples were placed into kraft paper sample bags with the sample number printed on the bag. Samples were shipped to Acme Labs in Vancouver for analysis.

## **10.0) SAMPLE PREPARATION, ANALYSES AND SECURITY**

Samples to be assayed were shipped by trucking company from site directly to a laboratory in Vancouver, BC. All sample preparation was done at the laboratory by their staff. Samples were submitted to Acme Laboratory in Vancouver, BC.

Sultan utilizes laboratories registered with ISO 9001:2000 accreditation. The International Standards Organization (ISO) adopted a series of guidelines (ISO 9000 to 9004) for the global standardization of Quality Assurance for products and services. A company seeking accreditation must implement and maintain a quality assurance system that is compliant with one of the three applicable models (i.e. ISO 9001, 9002 or 9003). Some of the aspects specifically addressed in a quality assurance system include:

- Responsibility of management in defining and achieving quality goals,
- Contract review to ensure customer needs are understood and met,
- Procurement of supplies and services capable of delivering the desired level of quality,
- Handling of material supplied by the customer to ensure integrity,
- Controlling processes to ensure consistency of quality,
- Inspection and testing to ensure that all work meets or exceeds quality criteria,
- Correction and prevention of non-conformities (errors),
- Training of staff, and
- Statistical analysis to ensure quality criteria are met.

The Labs utilize standards and duplicate analysis of samples as part of their quality assurance. The certificates of analysis indicate re-assay or duplicate analysis with the prefix "RE". Standards submitted during the analysis of samples are prefixed "STANDARD". The laboratory identifies and remedies situations where the analysis of duplicates or standards is not within allowable levels of variation.

The on-site geologist personally monitored procedures for sample collection and delivery to courier in Castlegar, BC. From point of collection until delivery to the courier, the samples were under complete control of Sultan Minerals contactors.

The assay laboratories catalogue all samples and assure a complete chain of custody of each sample through the analytical process. At the laboratory the samples were analyzed by the labs multi-element ICP methodology. In the analysis a representative sample is crushed and pulverized to 95% passing 150 mesh. A split of 15 gram is leached in hot Aqua Regia. The resulting solution is analyzed by ICP-ES and/or ICP-MS. The lab reports that solubility of some elements will be limited depending on mineral species present. Samples that returned elevated levels of silver, lead, zinc, molybdenum or tungsten were further analyzed by leaching and ICP-ES.



## 11.0) EXPLORATOIN RESULTS

### 11.1 DRILLING RESULTS

Significant results from the diamond drilling program are summarized in the Table 5. Drill hole locations are shown on Figure 4. Cross sections through drill holes and trenches are provided on Figures 5 through 9. Complete assay certificates for all samples taken from drill core are included with the appendices of this report.

**Table 5**

Significant Drill Core Sample Results

Hole #	From	To	Width (m)	Zn Assay%
HB1003	7.2	11.1	3.9	4.5
including	7.2	9.0	1.8	8.16
HB1004	17.4	18	0.6	2.04
HB1005	23.4	24.8	1.4	7.75
HB1005	30.3	32.4	2.1	3.87
including	31.3	32.4	1.1	5.18
HB1008	14.4	15.3	0.9	2.40
including	14.4	14.9	0.5	3.76
and	18.9	19.5	0.6	2.27

Drill hole HB1001 was collared along the western margin of the HB-Garnet soil and magnetometer grid where elevated magnetics and zinc values in soil were indicated. This hole intersected laminated metasedimentary rocks interbedded with limestone and fine laminated argillaceous sediments with pyrite and pyrrhotite. No significant results were obtained from samples taken from this drill hole.

Drill hole HB1002 was collared north of the Garnet mine within a zone of elevated magnetics. This drill hole intersected interbedded argillite and limestone grading to a thick sequence of brown argillite. Significant pyrrhotite with pyrite was noted in the core. No significant results were obtained from samples taken from this drill hole.

Drill holes HB1003 through to HB 1008 were drilled along a trend of elevated zinc in soil values that extend northward from the historic Garnet pit mine workings. These trenches in part undercut zones of mineralization noted in trenching. All of these drill holes intersected sphalerite mineralized zones with the most significant zones intersected in Holes HB1003, HB1004, HB1005 and HB1008. Mineralization is related to skarning in limestone with dolomite alteration and brecciation.

Drill hole HB1003 returned an average grade of 4.5% zinc over a 3.9 metre width, including high grade intercepts of 8.16 % zinc over 1.8 metres. The mineralized zone intercepted in the HB1003 drill hole is interpreted to have been uncovered at surface in trench HB1001 that returned 8.93 % zinc over 1.5 m width, and in trench HB1003 located approximately 125 metres to the south, which returned 6.11 % zinc over a 1 metre width.

Diamond drill hole sections are provided on figures 5 to 9.

## 11.2 SOIL SAMPLE RESULTS

In 2009, the HB-Garnet Grid values were contoured for silver, lead and zinc in order to determine and evaluate potential trends of elevated values. Higher values of lead and zinc (up to 3193ppm lead and 28,400ppm zinc) are associated with a strong magnetic trend along the west side of the grid. This trend continues south and west off of the grid coverage.

In 2010, sampling was undertaken to test to the north and west of previous sampling. Previous sampling indicated elevated zinc in soil (over 1000 ppm) extending northward through Line L25N. The 2010 sampling did not return values as high as those to the south, and as a result, appear to close that elevated zinc-in-soil trend.

Soil sample results for zinc are posted on figure 10 with the contoured values from 2009 shown.

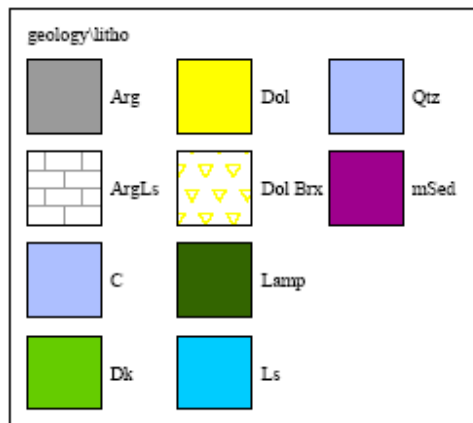
## 11.3 TRENCHING RESULTS

Trench results are provided in table 6. Trench locations are provided on figure 4 and are shown in section on figures 7, 8, and 9 .

**Table 6**  
**Results of Trenching**

Trench #	From	To	Width (m)	Zinc assay %
TR1001	1.5	3	1.5	<b>8.93</b>
TR1002	1	2	1	<b>5.06</b>
TR1003	0	1	1	<b>6.11</b>

The 3 trenches confirm that the mineralization exposed in historic trenches are zinc bearing. The mineralized zone intercepted in drill hole HB1003 is interpreted to have been uncovered at surface in trench TR1001 that returned 8.93 % zinc over 1.5 m width, and in trench TR1003 located approximately 125 metres to the south, which returned 6.11 % zinc over a 1 metre width. All three trenches are along a mineralized zone that has an apparent strike of approximately 170 degrees with dips to the east.



Arg – Argillite

ArgLs – Argillaceous Limestone

C – Casing

Dk – Dyke

Dol – Dolomite

Dol Brx – Brecciated Dolomite

Lamp – Lamprophyre

Ls – Limestone

Qtz – Quartz

mSed - Metasediment

484700E

484725E

484750E

484775E

1125Ei

1125Ei

1100Ei

1100Ei

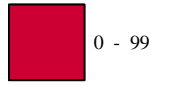
1075Ei

1075Ei

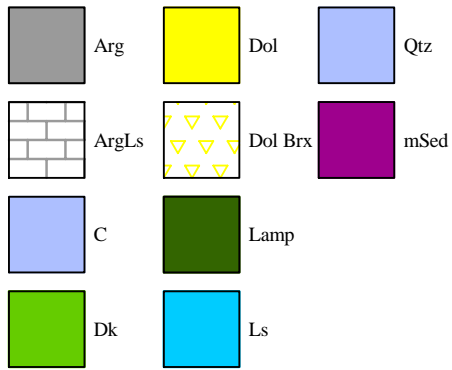
mineralized\_zones\sp



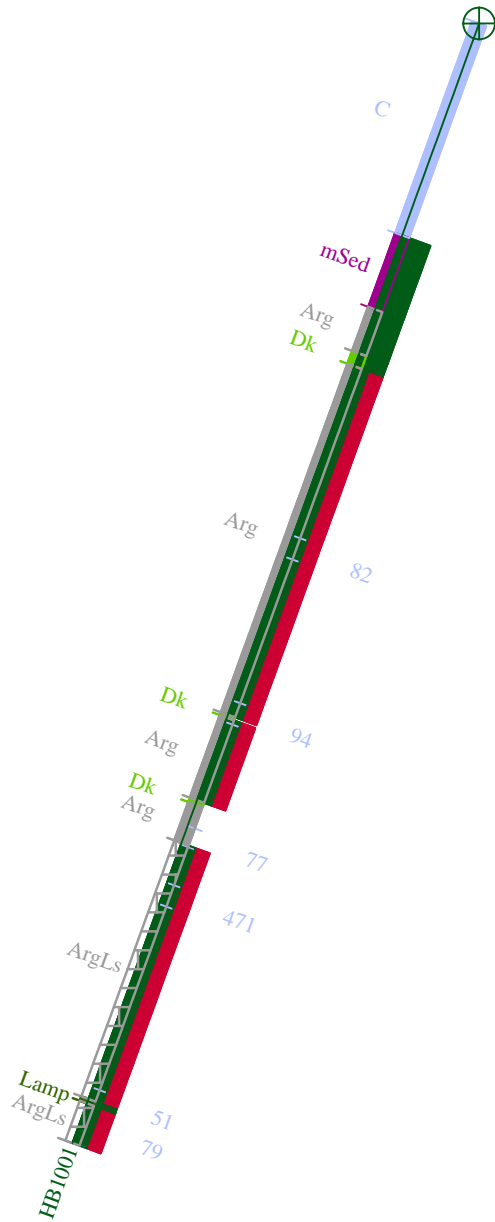
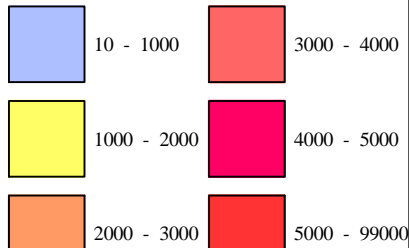
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geology\litho



assay\znppm



1050Ei

1025Ei

SULTAN MINERALS INC

HB Garnet  
Drill Hole HB1001  
Figure 5

484725E

100194

485300E

485275E

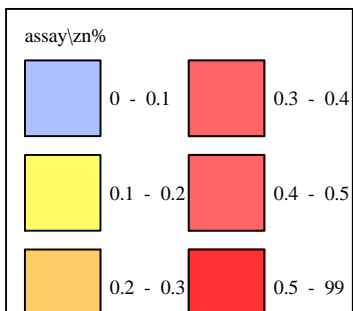
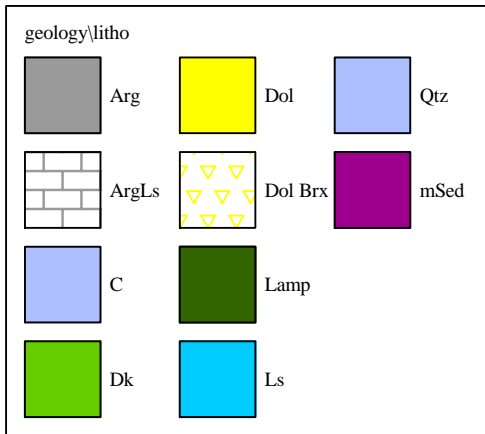
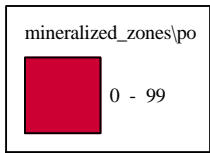
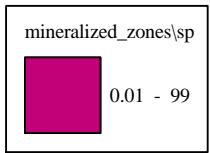
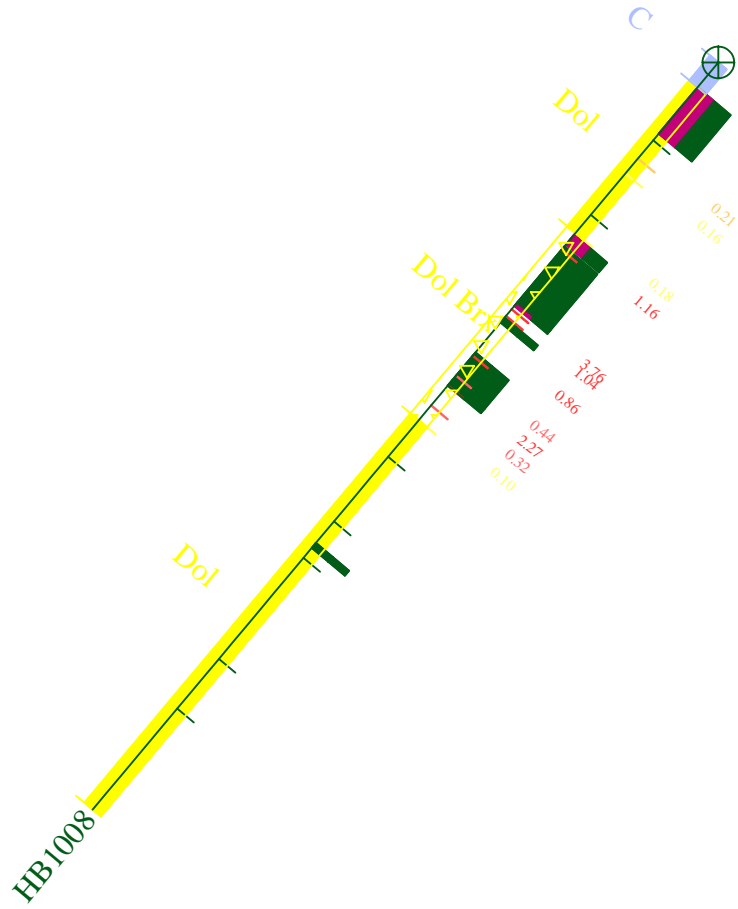
485250E

1250E1

1250E1

1225E1

1200E1

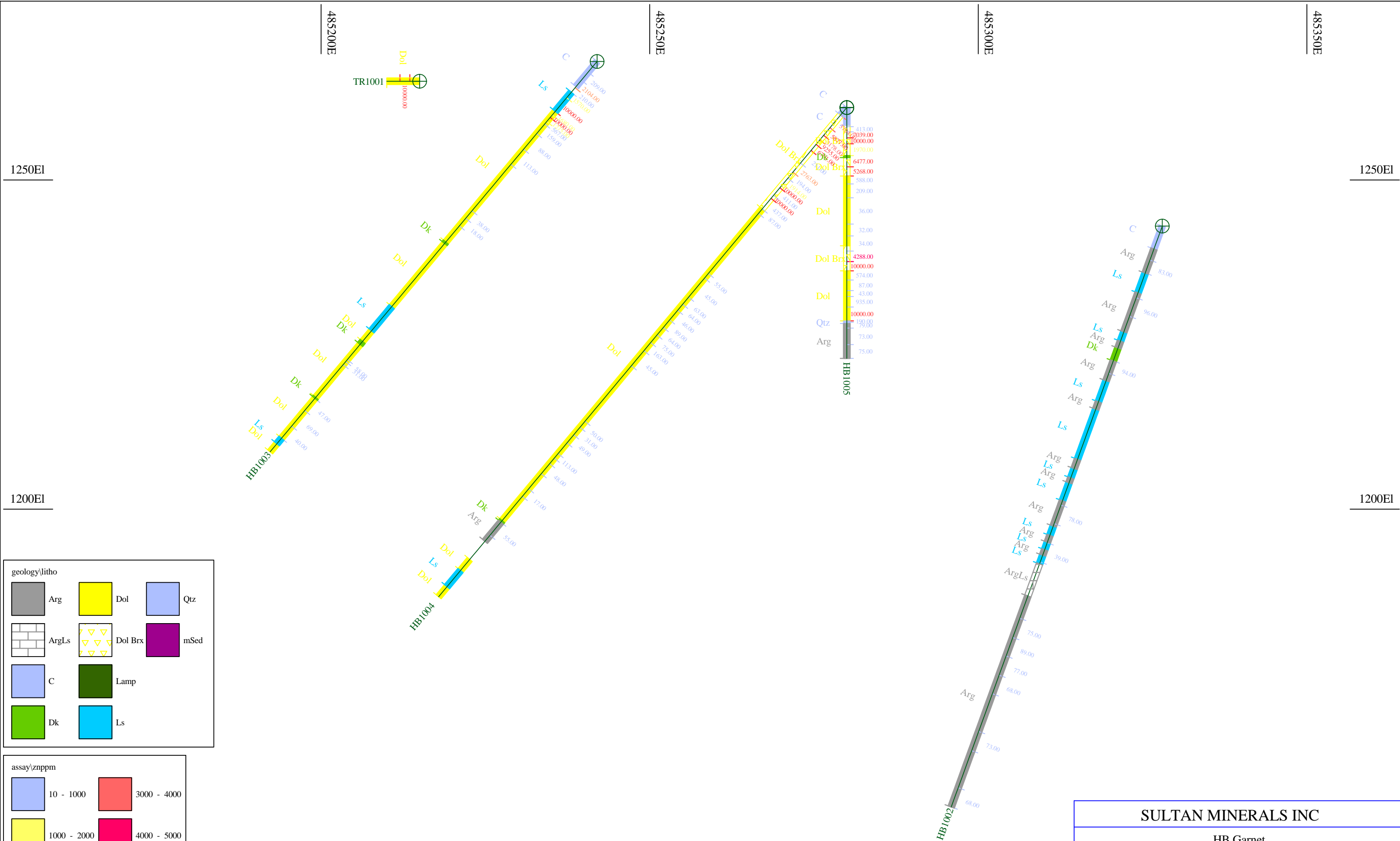


485250

SULTAN MINERALS INC

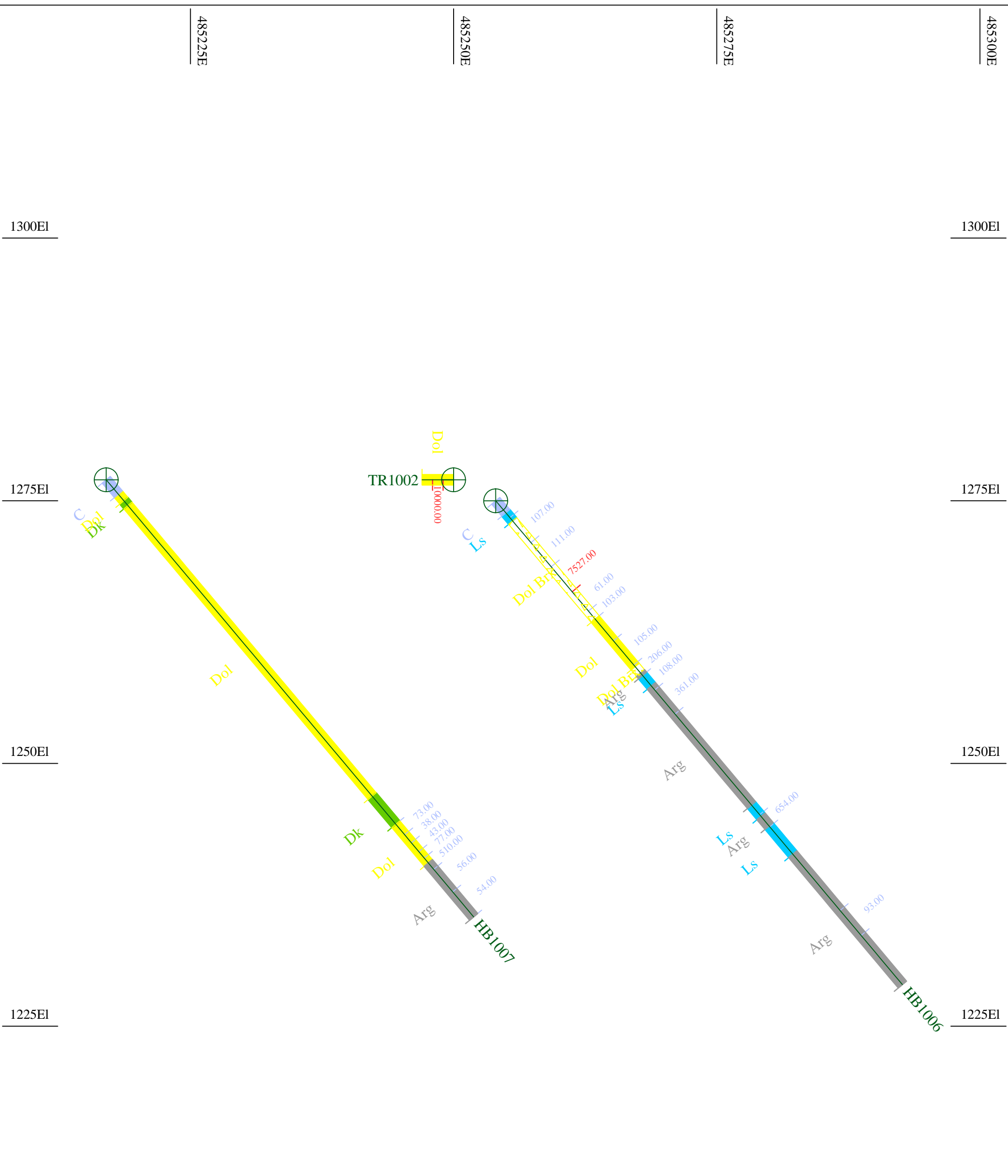
HB Garnet  
Drill Hole HB1008 Section  
Figure 6

2\_800194



**SULTAN MINERALS INC**  
 HB Garnet  
 Section 5444250N\_Znppm  
 Figure 7

scn5444250n



geology/litho

Arg	Dol	Qtz
ArgLs	Dol Brx	mSed
C	Lamp	
Dk	Ls	

assay\znppm

10 - 1000	3000 - 4000
1000 - 2000	4000 - 5000
2000 - 3000	5000 - 99000

scn\_544350nznppm

485250

485290E

485280E

1250E1

1250E1

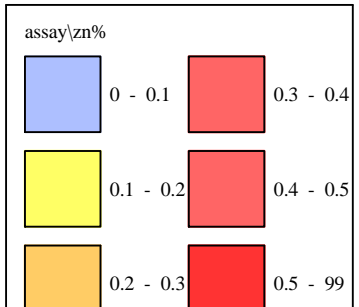
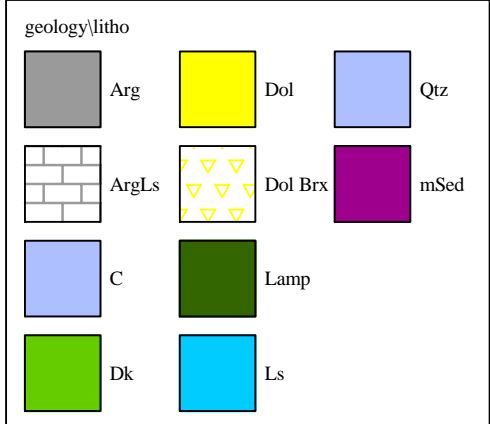
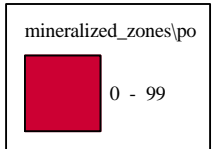
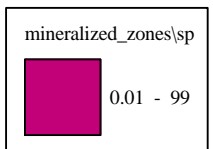
TR1003

Dol



6.11

1240E1

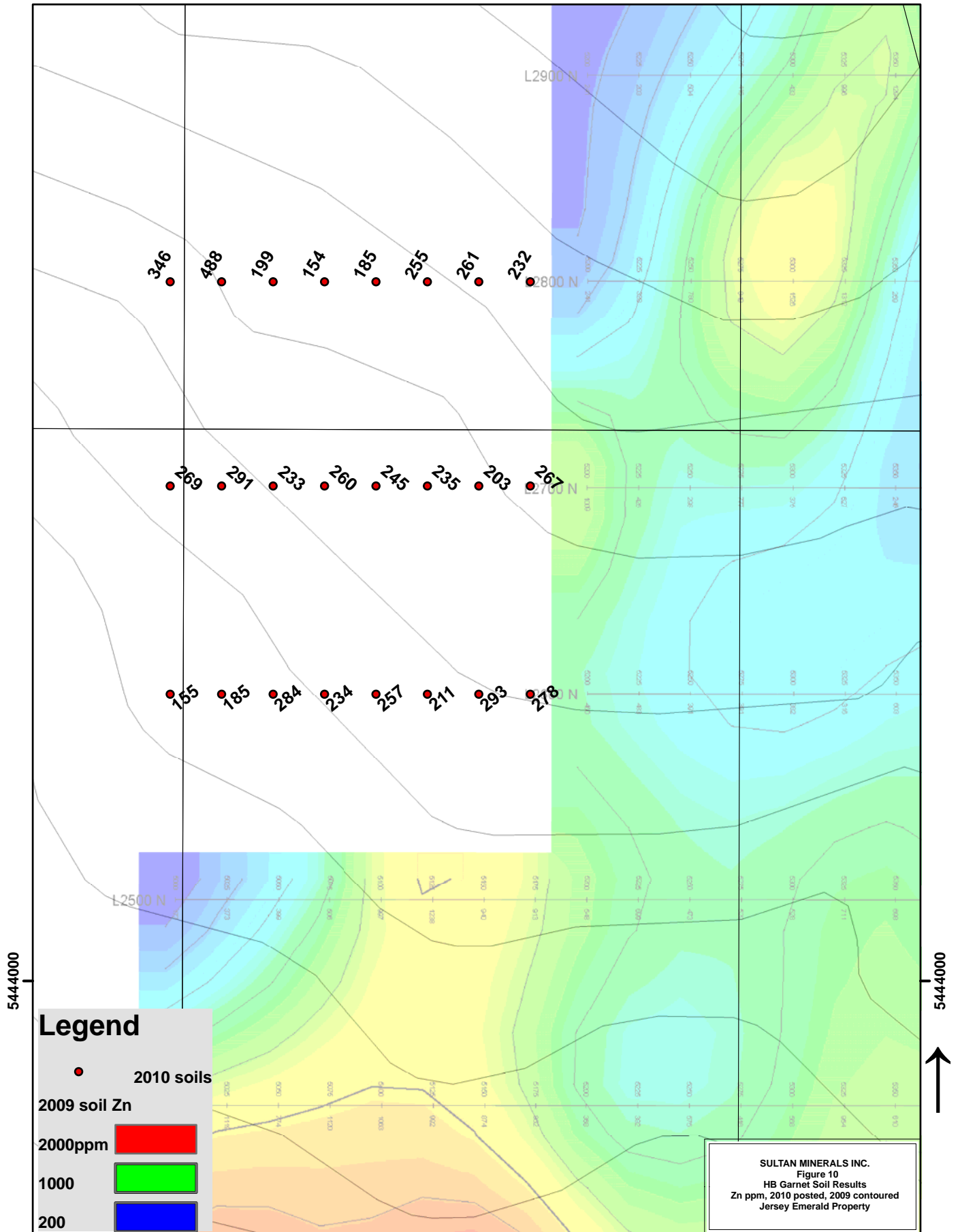


485280

<b>SULTAN MINERALS INC</b>	
HB Garnet Trench Tr1003 Figure 9	

tr1003





SULTAN MINERALS INC.  
 Figure 10  
 HB Garnet Soil Results  
 Zn ppm, 2010 posted, 2009 contoured  
 Jersey Emerald Property

## 12.0) CONCLUSIONS AND RECOMMENDATIONS

Drilling on the HB-Garnet portion of the Jersey Property confirms the presence of significant remaining zones of zinc mineralization. The mineralization intersected in drill holes HB1003, HB1004, HB1005 and HB1008 and in trenches TR1001, TR1002, and TR1003 all appears to delineate a zone of mineralization extending northward from the historic Garnet mine open pit, and parallel to the HB underground mine.

Mineralization is within dolomite altered limestone that is brecciated and in places in-filled with carbonates and sulphide minerals. In places, massive pyrite-pyrrhotite veins accompany sphalerite and minor galena mineralization. To date the zone has an approximate strike length of roughly 200 metres with widths ranging from <1 to 4 metres.

Soil sampling at the HB-Garnet Grid in 2009 and 2010 returned significant elevated values of silver, lead and zinc. When the soil results are overlaid on the results of the magnetometer survey that was completed on the grid, linear trends are evident over the HB-Garnet mine structure, as well as parallel trends further to the west of the historic mines. The best results to date from Sultan's drilling and trenching are from the HB-Garnet mine structural trend.

Further testing of the trend outlined by magnetic and soil surveys is recommended. The mineralization intersected in the 2010 drilling and trenching program is open to the north and south. Evidence suggests that the mineralization may continue to the Garnet Open pit located approximately 100 metres south of trench TR1003.

Perry Grunenberg, P.Geo.  
September 1, 2010

### 13.0) REFERENCES

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**Minfile, HB and Garnet Mine extract from Map Place.**

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## 14.0) QUALIFICATIONS

### **CERTIFICATE: Perry Grunenberg**

I, **Perry Grunenberg**, hereby certify that:

- a) I am a consulting Geoscientist with PBG GEOSCIENCE having an office at 2457 Sunset Drive, Kamloops, British Columbia, V2C 4K1.
- b) I am a graduate of the University of British Columbia with the degree of Bachelor of Science in Geology (1982).  
I am a member of the Association of Professional Engineers and Geoscientists of British Columbia Registration No. 19246) and a Fellow of the Geological Association of Canada (Membership No. F5203).  
I have practiced my profession in North America since 1982, having worked as an employee and consultant for major mining corporations, junior resource companies and BC government ministries.  
As a result of my experience and qualification I am a Qualified Person as defined in National Instrument 43 – 101.
- c) I personally managed the 2010 exploration program on the Jersey-Emerald property including the diamond drilling, trenching and soil sampling program for the exploration of zinc and lead at the HB-Garnet Mine area summarized in this report.
- d) I have personally prepared or have reviewed all sections of this report including the illustrations.
- e) I have managed exploration programs as a geoscientist consultant on behalf of Sultan Minerals Inc since 1994, including exploration for tungsten and molybdenum as covered within this report.

September 1, 2010  
Kamloops, B.C.

Perry Grunenberg, P.Geo.  
Consulting Geoscientist

**APPENDIX 1  
COST STATEMENT**

**APPENDIX 2  
DIAMOND DRILL LOGS**

**APPENDIX 3  
ASSAY CERTIFICATES**

**APPENDIX 4  
SAMPLE INTERVAL AND ASSAY TAG INFORMATION**

**COST STATEMENT**  
**HB Area**  
**Soil, Trenching and Diamond Drilling**  
**25 May to 30 June 2010**

**Diamond Drilling**

**Salaries & Wages:**

P. Grunenberg, May7-9,11-12,14,16-25,27 Jun18,24,25,28 18.5days @ \$650 \$ 12,025.00  
 B. Denny, May29-23 4days @ \$250 1,000.00

\$ 13,025.00

**Benefits @ 20%**

2,605.00

**Food and Accommodation:**

307.49

**Rental Equipment:**

Field Office Rental: 2.0 months @ \$350/mo \$ 700.00  
 PU Truck, 18days @ \$100 1,800.00  
 Field Quarters Rental: 2.0 months @ \$350 700.00  
 Utilities 418.37  
 Duncan Lake Resources, Core Shack 2.0 Months @ \$300 600.00

4,218.37

**Fuel:**

358.81

**Supplies and Sundry:**

532.74

**Critchlow Diamond Drilling, 7-23May 1907.8 feet @ \$28**

\$ 53,418.40

**Mob In/Out** 5,140.00

**Ex220: Pads, Roads, etc 39hrs @ \$135** 5,265.00

**Core Boxes: 123 @ \$15** 1,845.00

65,668.40

**Assays & Analyses:**

Acme Lab

133 Core for 41Elcp @ \$23.71 \$ 3,153.43

14 Pulb for Zn @ \$10.80 151.20

3,304.63

**Shipments:**

155.03

**Report Preparation**

3,250.00

**Total Diamond Drilling Cost**

\$ 93,425.47

**Soil and Trench Sampling**

**Salaries & Wages:**

P. Grunenberg, 10,12,13,15,17-18May 4.5 days @ \$650 \$ 2,925.00

\$ 2,925.00

**Benefits @ 20%**

585.00

**Rental Equipment**

PU Trucks, 4.5 days @ \$100

\$ 450.00

Critchlow EX220: 2hrs @ \$135

270.00

720.00

**Assays & Analyses:**

Acme Labs:

24 Soil for 41ellcp @ \$18.14

\$ 435.36

3 Pulp for Zn (4 Acid Digestion) @ 10.80

32.40

4 Rock for 41ellcp @ \$22.73

90.92

558.68

**Report Preparation and Sundry:**

4,550.00

**Total Soil and Trench Sampling Cost**

\$ 9,338.68

Total Field Work

102,764.15

PAC

30,829.25

With PAC Included

\$ 133,593.40



Hole id	from	to	code	description
HB1001		0	14.9 C	cased through Ls Boulders
HB1001		14.9	20.1 mSed	grey massive to weak laminated sandstone-siltstone metasediment
HB1001		20.1	23.2 Arg	roughly laminated at 50 deg micaceous schisty brown argillite
HB1001		23.2	24.1 Dk	basalt, spotted texture, magnetic
HB1001		24.1	48.6 Arg	brown micaceous finely laminated, minor ductile brecciation, minor qtz pods
HB1001		48.6	48.8 Dk	basalt, green grey with dark green spots, no magnetics, subparallel to lamination
HB1001		48.8	54.6 Arg	banded and finely laminated purple brown, patchy Po as smears on fractures
HB1001		54.6	54.9 Dk	Basalt, green spotted fine grained moderate magnetic, parallel to foliation at 50
HB1001		54.9	57.6 Arg	laminated brown micaceous schistose
HB1001		57.6	75.6 ArgLs	interbedded limestone and grey-brown fine laminated argillaceous sediment, stongly limey from 63.4-66.5
HB1001		75.6	75.9 Lamp	dark green basaltic lamprophyre, magnetic
HB1001		75.9	78.7 ArgLs	interbedded limestone and grey-brown fine laminated argillaceous sediment
HB1002		0	3.7 C	Casing, no rock
HB1002		3.7	7.6 Arg	brown strongly micaceous (biotitic) with white carbonate flooding, po disseminated, irregular foliation wispy warpy ductile, contact irregular at 45
HB1002		7.6	10.8 Ls	massive light grey finely banded at 45, decomposed weathered in places, contact oxidized
HB1002		10.8	17.1 Arg	grey to grey brown micaceous warpy schistose, contact at 50
HB1002		17.1	18.6 Ls	grey massive with minor banded sections at 45
HB1002		18.6	19.7 Arg	gradational from limestone, fine grained dark grey to green with brown biotitc, pods and disseminated Po, contact at 85
HB1002		19.7	21.8 Dk	Basalt, fine grained, strongly magnetic, contacts 85
HB1002		21.8	25 Arg	brown argillite, micaceous warpy banded schistose, folded shallow to core axis
HB1002		25	28.4 Ls	massive light grey to white, sharp contact 45
HB1002		28.4	29.6 Arg	micaceous brown with wispy carbonate infills, grades to Ls with contact 25
HB1002		29.6	37.7 Ls	light to medium grey, massive fine grained
HB1002		37.7	39.2 Arg	minor interbed, limey, wispy banded at 10 to 30
HB1002		39.2	40.7 Ls	light grey with minor brown argillaceous micaceous patches
HB1002		40.7	41.5 Arg	strongly micaceous, warpy folded, weak pyrrhotite increasing to strong at lower contact
HB1002		41.5	44.4 Ls	light grey with weak banding of dark grey to green and brown argillaceous, warpy banded at 10 to 45
HB1002		44.4	48.5 Arg	mica grey brown warpy schistose
HB1002		48.5	50 Ls	grey massive with warpy micaceous banding
HB1002		50	51.1 Arg	warpy micaceous schistose, grades to very limey argillaceous Ls

Hole id	from	to	code	description
HB1002	51.1	52.3	Ls	massive grey with argillaceous banding, folded, warpy tight folds
HB1002	52.3	53.2	Arg	mottled micaceous brown, minor limey bands, py at lower contact
HB1002	53.2	54.6	Ls	grey massive medium crystalline subtle banding at 45
HB1002	54.6	59.8	ArgLs	limey bands in brown argillaceous warpy folded and kinked with minor ductile faulted deformation
HB1002	59.8	93.9	Arg	brown micaceous with minor 5 to 30 cm limey sections as interbeds, banded to very warpy mottled and folded, patchy weak to strong Po, warpy quartz veins and pods to 10cm
HB1003	0	5	C	broken dolomite
HB1003	1.5	6.1	Dol	massive fine grained light grey, fractured with minor purplish sphalerite infills
HB1003	6.1	9.9	Ls	coarse crystalline massive to weak banded at 60 to 70, pod and laminate sphalerite in places
HB1003	9.9	35.8	Dol	massive light to medium grey fine grained weak crackled fractured with minor infilling carbonate
HB1003	35.8	36.1	Dk	dark grey basaltic, spotted texture, clayey lower contact, magnetic, at 90
HB1003	36.1	48.6	Dol	massive medium to light grey to white, minor tension gash with white infillings, minor oxidized fracture surfaces
HB1003	48.6	53.4	Ls	coarse crystalline medium to light grey, minor dolomitic patches, warpy interbeds, irregular plastic deformed-ductile, contacts sharp
HB1003	53.4	55.5	Dol	warpy irregular contacts, massive medium grey, weak fracturing
HB1003	55.5	56.1	Dk	dark grey medium grained gritty with spotted lower contact for 10cm, rusty, magnetic
HB1003	56.1	66.6	Dol	medium grey massive, crackled with oxidized orange infill, possible Sp traces
HB1003	66.6	66.8	Dk	dark grey magnetic basalt
HB1003	66.8	74.7	Dol	massive light grey, crackled with minor rusty fracture infills, purplish infills (Sp), contact at 45
HB1003	74.7	75.8	Ls	crystalline medium grey banded to warpy folded along core axis
HB1003	75.8	77.4	Dol	light grey to white massive very fine grained, dense to siliceous appearance
HB1004	0	1.5	C	no core
HB1004	1.5	20.1	Dol	medium grey to light grey, breccia-crackled, altered, minor rounding of fragments, sulphide infills in fractures, Sp as elongated bands and breccia infills to 1cm size, variable percentage, 1-10% over 60cm sections, pyrite masses rounded to 5cm, and lesser banding at 60. Py strong 10-11, 12.5-13, and 14.6-15.2. Lesser Po masses. Sp coarse banded near 15.6. Grades from crackle breccia to massive light fine grained.

Hole id	from	to	code	description
HB1004	20.1	81.9	Dol	massive light to medium grey, weakly banded in places, ductile breccia texture very minor, rusty sulphide fractures, darker grey dolomite 44.8 to 50, 71 to 73 weak rounded breccia, iron carbonate 42 to 48.8, massive white dolomite to contact with dyke
HB1004	81.9	82.2	Dk	basalt, medium grey massive, magnetic
HB1004	82.2	86	Arg	medium grey micaceous schisty foliated and laminated, folded, dolomitic segments included to 20% of core, contact 50
HB1004	89.6	91.8	Dol	massive white fine grained
HB1004	91.8	95	Ls	crystalline, massive, medium to light grey, warpy masses
HB1004	95	97	Dol	massive light grey to white
HB1005	0	2.7	C	minor pebbles recovered
HB1005	2.7	7.3	Dol	medium grey with white spotted sections, subrounded to square 2-3mm phyric porphyry texture (Fspar?) in fine grained massive grey. Moderately fractured breccia texture with infills of py po and sp with silvery grey metallic and trace galena, strong sulphides over 5cm segments as fracture infills, py wrapped in po, 4.6-4.9 masses of py po sp to 5cm size up to 15% of core. Banding 20 tca variable, rusty contact to dyke
HB1005	7.3	7.6	Dk	fine grained basalt massive cross cutting dyke 90 tca, not magnetic, medium grey
HB1005	7.6	10.4	Dol Breccia	grey with white spotting, sections of breccia veined appearance, weak fracturing crackle, sulphide infills, subtle fragmental subrounded 1-2 cm fragments. Veining near 9.8 shallow to ca with py po sp elongate along ca, change to next unit sharp
HB1005	10.4	21	Dol	massive light grey to white, py po and sp as masses and cross cutting veins to 10cm, massive sulphide segments and as networking veins in fracture infills, one 10cm band at 11.3 with py and po, trace sp. 13.4 to 13.7 vein with py po and sp. Decreasing vein sulphide downhole to few fracture infills of 1cm size with py.
HB1005	21	24.8	Dol Breccia	medium to dark grey rounded sub clastic in situ crackling breccia, fragmented to 1-3 cm size, grades downhole to dolomite with little to no fracturing, infills of sp and py, weak banding at 50, sphalerite veining at 50 to 80 tca, weak py veining along core axis from 24.8 to 30.3, branching horsetails
HB1005	24.8	32.4	Dol	massive light grey to white with minor fracturing infilled by py, py infills at 5 to 15 tca, 30.3 to 32.4 increased poddy and fracture infilling py sp po with tr ga, elongate blobs and infills along core axis, warpy rounded masses, py is centered in po with sp margins, flecks of ga in veins
HB1005	32.4	32.8	Qtz	poddy vein at 60-70tca, minor sulphide as fracture infills in quartz

Hole id	from	to	code	description
HB1005	32.8	38.1	Arg	brown micaceous schisty (Truman), mottled folded foliation variable masses of coarse to fine micas, few quartz bands. 36-36.2 quartz masses, crackled pod, warpy irregular contacts
HB1006	0	1.5	C	Broken Limestone outcrop
HB1006	1.5	2.5	Ls	Crystalline grey banded, contacts sharp, broken, banding at 50
HB1006	2.5	14.7	Dol Breccia	Light to medium grey massive with mottled partly resorbed rounded to angular crackled texture. 2.5-8.5 mottled textured. 8.5-13.4 crackled, dark grey with tension gash infilling white iron carbonate to orange stained in places. Strongly crackled with infill carbonate to 30%.
HB1006	14.7	20.6	Dol	orange stained light grey to white massive fine grained with siderite orange veining, crackle infills to 3 or 4%, oxidized cavities near 16.6 (py), variable fracturing with iron carbonate tension infills, transitional to next unit with increasing fracturing
HB1006	20.6	21.4	Dol Breccia	Crackled medium grey weak breccia, sideritic rusty fracture infills, rusty broken contact
HB1006	21.4	21.7	Arg	brown micaceous finely laminated, iron oxide py boxworks.
HB1006	21.7	23	Ls	grey with brownish mica argillaceous inclusions, banded with white quartz from 22.3-22.8, laminations at 50 to 60tca
HB1006	23	37.8	Arg	mostly grey to grey brown micaceous finely laminated warpy folded, banding common at 50-60, quartz banding 10cm width at 25.5, minor py po tr sp. Limey interbeds 10-20cm size, few
HB1006	37.8	39.2	Ls	Grey crystalline interbed within Arg, massive, contacts 50
HB1006	39.2	40.4	Arg	grey brown micaceous, rusty oxidized weathered texture.
HB1006	40.4	43.9	Ls	massive light grey crystalline with few late calcite fracture infills
HB1006	43.9	60.1	Arg	grey brown to purplish micaceous argillite, fine micaceous laminations at 20-50, microfolded, few quartz pods/veinlets of 1-3 cm size, py on fractures, po blebs, grades to less laminated and more massive fine grained dolomitic 66.3-60.1
HB1007	0	1.8	C	Dolomite rubble
HB1007	1.8	2.6	Dol	massive white, weakly chalky
HB1007	2.6	3.2	Dk	basalt, grey massive finely crystalline magnetic, oxidized weathered upper contact, lower sharp at 45
HB1007	3.2	39.3	Dol	mostly massive white with lesser medium greyish sections with weak fracturing, carbonate infills, minor iron oxide on fractures (after py), fractures at 45 tca, contact to dyke sharp at 20
HB1007	39.3	42.8	Dk	Basalt, massive dark grey finely crystalline, few xenoliths of 1-2cm size

Hole id	from	to	code	description
HB1007	42.8	47.6	Dol	massive light grey with orange iron carbonate staining, fractured to weakly crackled, 43.3-44.5 stronger fracturing. Interbedding grades to next section
HB1007	47.6	54.3	Arg	brown to purplish grey finely laminated micaceous, few 1-2 cm quartz tension infills and lenses, soft plastic deformation to mottled texture, weak py blebs disseminated throughout
HB1008	0	1.5	C	granite boulders and dolomite chips
HB1008	1.5	10.3	Dol	light grey to white massive, variable veininb py infills of fracture and masses to 1cm width, possible Sp in py masses, poor recovery from 1.5 to 4.3 (30%), oxidized segment for 5cm at 5.6, py veining and bands at 45, 60 tca, mostly from 4.9-6.1. Grades to next with increasing crackle brecciation.
HB1008	10.3	21.6	Dol Breccia	brittle-ductile brecciation, light grey to dark grey clastic subangular rounded 1cm size, stretched elongate at 70 tca, more angular fragments from 10.4-11. dark grey to black (carbonaceous) sections as fragments and partly in matrix (mudstone) rounded to subangular heterolithic breccia-conglomerate. 14.5-Sp carbonate vein at 40tca, 2cm with coarse Sp grains. Siderite carbonate veining near 16.5. Py masses with trace Sp with carbonate vein at 15.5, 40tca. 17.5-19.2 py masses and networked, 5-20% of core. 19.2-19.5 very coarse py to 40%. Decreasing sulphide and brecciation gradational to next unit
HB1008	21.6	45.1	Dol	mostly massive light grey, weak fractured with siderite infills. 25.3-25.6 Dark grey section with patchy inclusions. Minor rusty oxide blebs, py, near 29. 29.9-32.9 clayey fractures, moderate over 1-5cm sections. Minor siderite veinlets at 40tca. 36.9-37.5 darker grey with light colored rounded 0.5cm spots. 41.5-42.4 rubbly core, fragmented. 42.4-45.1 core increasingly broken, blocky fractures along core axis and crossing at 45, also crackled with fine hairline fractures
Tr1001	0	5	Dol	Old pit area trenches, Skarny mineralization, purple green white patchy colours with minor allignment at 010/90, 1.5m chip sample across sp banded mineralization
Tr1002	0	3	Dol	Outcrops beside HB1006 pad, Sp banding in Dolomite, grab sampled over 1m
Tr1003	0	1	Dol	Outcrops along roadside parallel to L26N, banded Ls and Dol with small segment of Sp bearing banding, possible old trench area



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Submitted By: Art Troup  
Receiving Lab: Canada-Vancouver  
Received: May 26, 2010  
Report Date: June 09, 2010  
Page: 1 of 6

## CERTIFICATE OF ANALYSIS

VAN10002228.1

### CLIENT JOB INFORMATION

Project: Jersey-HB  
Shipment ID: HB1002  
P.O. Number: HBG1002  
Number of Samples: 133

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	133	Crush split and pulverize 250g drill core to 200 mesh			VAN
1EX	133	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN

### SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1  
Canada

CC: Perry Grunenberg



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.  
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Project: Jersey-HB  
 Report Date: June 09, 2010

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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
546501	Drill Core	2.58	0.5	15.9	22.4	82	0.1	27.7	15.2	500	3.75	4	1.8	<0.1	16.0	99	<0.1	0.2	0.6	68	0.61
546502	Drill Core	2.53	0.4	16.9	42.2	94	0.1	42.8	14.3	593	3.48	4	1.7	<0.1	17.3	122	0.2	0.4	0.3	56	0.98
546503	Drill Core	2.48	0.4	16.0	32.8	77	0.1	42.4	13.8	553	3.26	5	1.5	<0.1	16.9	116	<0.1	0.3	0.2	53	0.95
546504	Drill Core	3.06	0.2	15.8	363.5	471	1.1	25.5	15.1	531	3.76	104	1.7	<0.1	20.1	97	4.4	1.0	1.0	65	0.82
546505	Drill Core	2.60	0.4	4.9	53.8	51	<0.1	8.1	6.6	679	2.43	2	0.9	<0.1	14.1	126	0.1	<0.1	0.1	19	2.54
546506	Drill Core	5.02	0.2	3.9	42.0	79	<0.1	4.8	4.6	356	2.07	1	0.6	<0.1	9.5	144	<0.1	<0.1	<0.1	12	1.36
546507	Drill Core	4.01	0.3	19.7	12.4	83	<0.1	41.4	20.6	398	4.22	1	1.4	<0.1	11.1	95	0.2	<0.1	0.4	64	4.50
546508	Drill Core	5.80	0.2	23.4	6.9	96	<0.1	49.3	21.8	364	5.35	<1	1.5	<0.1	13.3	51	0.3	<0.1	0.5	83	0.41
546509	Drill Core	4.19	0.2	31.2	12.6	94	<0.1	50.4	22.7	417	5.52	<1	2.2	<0.1	15.8	117	<0.1	0.1	0.4	90	1.52
546510	Drill Core	6.11	<0.1	23.2	8.2	78	<0.1	46.3	20.9	304	5.15	<1	1.6	<0.1	12.7	51	<0.1	0.1	0.4	81	0.60
546511	Drill Core	6.26	0.2	8.9	11.7	39	0.1	15.1	10.4	376	1.90	2	2.4	<0.1	7.5	205	<0.1	<0.1	0.2	31	18.80
546512	Drill Core	6.18	0.1	27.1	11.2	75	<0.1	45.0	22.5	722	5.05	<1	1.5	<0.1	12.8	130	<0.1	0.2	0.5	75	4.63
546513	Drill Core	6.55	0.2	29.2	12.7	89	<0.1	46.7	19.9	584	4.78	2	1.6	<0.1	14.7	118	<0.1	0.2	0.3	75	3.01
546514	Drill Core	6.11	<0.1	20.7	8.9	77	<0.1	47.8	19.9	375	5.18	<1	1.7	<0.1	15.5	77	<0.1	0.2	0.2	82	1.21
546515	Drill Core	6.34	<0.1	15.2	11.3	68	<0.1	43.6	19.2	374	4.15	<1	1.4	<0.1	12.7	103	<0.1	0.2	0.2	66	4.57
546516	Drill Core	6.57	0.2	19.6	15.8	73	<0.1	39.1	18.9	414	4.33	<1	1.4	<0.1	12.7	103	<0.1	0.3	0.1	61	5.93
546517	Drill Core	6.22	0.2	8.6	20.9	68	<0.1	30.3	14.6	382	3.23	2	1.5	<0.1	13.3	117	<0.1	0.2	<0.1	54	4.10
546518	Drill Core	3.39	0.1	0.5	32.0	209	0.2	3.2	2.3	368	0.64	<1	0.9	<0.1	0.6	104	2.8	0.3	<0.1	10	20.97
546519	Drill Core	3.11	0.2	<0.1	39.3	2104	0.3	1.9	0.8	458	0.54	1	0.5	<0.1	<0.1	104	14.6	0.3	<0.1	8	22.35
546520	Drill Core	1.68	0.4	<0.1	15.0	210	0.2	0.9	1.1	350	0.60	1	0.5	<0.1	0.4	92	0.7	0.3	<0.1	9	20.97
546521	Drill Core	2.18	<0.1	<0.1	9.7	1570	0.2	0.8	0.5	673	0.60	<1	0.6	<0.1	0.2	92	11.3	0.2	<0.1	9	24.91
546522	Drill Core	1.40	<0.1	4.3	314.6	>10000	1.1	<0.1	1.3	1210	2.76	5	0.7	<0.1	0.1	77	516.0	2.4	<0.1	25	25.42
546523	Drill Core	2.12	0.1	3.2	115.3	>10000	0.5	<0.1	1.7	1064	0.87	<1	0.9	<0.1	0.4	86	582.8	1.2	<0.1	18	24.54
546524	Drill Core	1.98	<0.1	0.3	56.1	>10000	0.3	1.3	0.9	1011	0.66	<1	0.7	<0.1	0.2	100	104.9	0.5	<0.1	23	27.64
546525	Drill Core	1.40	0.2	<0.1	4.9	1680	<0.1	0.1	0.8	447	0.48	1	0.5	<0.1	<0.1	81	10.5	<0.1	<0.1	9	21.76
546526	Drill Core	1.01	0.1	6.2	14.2	>10000	0.4	0.9	2.1	515	0.76	1	0.6	<0.1	0.2	90	155.5	0.5	<0.1	15	21.99
546527	Drill Core	1.69	0.3	<0.1	6.9	1275	0.3	1.9	1.0	475	0.57	<1	1.0	<0.1	0.2	82	8.2	0.1	<0.1	8	21.94
546528	Drill Core	1.21	0.5	<0.1	10.3	567	0.3	0.7	2.2	473	1.86	6	0.4	<0.1	0.3	84	3.7	0.2	<0.1	8	21.42
546529	Drill Core	3.79	0.2	<0.1	8.9	159	0.2	1.0	1.1	417	0.56	<1	0.4	<0.1	0.4	102	2.6	0.2	<0.1	6	22.14
546530	Drill Core	6.34	0.4	<0.1	9.0	88	0.1	2.5	1.3	402	0.65	4	0.5	<0.1	0.6	107	0.8	0.1	<0.1	9	21.45

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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 Report Date: June 09, 2010

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CERTIFICATE OF ANALYSIS

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Method	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	
Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	1	0.1	
546501	Drill Core	0.072	45.7	55	1.10	961	0.523	7.48	0.916	4.21	2.9	18.1	97	2.3	8.9	18.9	1.0	2	13	44.8	0.2
546502	Drill Core	0.084	47.8	67	1.17	894	0.444	7.07	0.646	3.57	1.9	15.8	102	1.7	9.9	16.3	0.8	2	13	37.4	0.4
546503	Drill Core	0.097	49.0	63	1.09	806	0.425	6.69	0.629	3.57	1.2	10.7	105	1.7	8.9	14.0	0.8	2	12	37.1	0.3
546504	Drill Core	0.094	53.4	58	0.90	1040	0.476	7.16	0.448	3.38	1.8	13.4	120	2.0	8.9	16.6	0.9	3	11	46.5	0.5
546505	Drill Core	0.132	39.0	23	0.34	444	0.262	2.27	0.191	1.70	0.5	5.0	93	0.5	12.3	9.0	0.4	1	4	18.1	<0.1
546506	Drill Core	0.240	36.0	17	0.29	225	0.200	1.15	0.104	0.67	0.5	4.1	101	0.3	17.9	6.3	0.1	<1	3	18.4	<0.1
546507	Drill Core	0.043	33.1	78	1.27	896	0.430	8.45	0.163	4.21	1.0	10.8	69	2.1	15.6	14.8	0.8	2	12	59.2	0.6
546508	Drill Core	0.040	35.2	86	1.35	849	0.475	9.74	0.256	5.72	1.7	19.8	78	3.8	17.9	19.0	1.1	3	19	59.4	0.3
546509	Drill Core	0.061	44.9	86	1.51	460	0.446	10.11	0.635	4.19	1.0	28.8	98	3.0	26.5	17.7	1.0	3	20	47.9	1.0
546510	Drill Core	0.040	31.1	83	1.32	898	0.453	9.42	0.255	5.03	1.6	21.7	70	3.3	16.4	17.0	1.0	3	18	62.2	0.4
546511	Drill Core	0.073	26.5	25	2.08	570	0.191	5.39	0.290	2.31	0.7	18.3	51	1.1	12.4	6.0	0.3	1	8	26.1	0.3
546512	Drill Core	0.036	37.5	76	1.23	638	0.411	8.95	0.361	3.94	7.8	21.2	74	2.7	19.7	16.6	1.0	2	17	47.2	0.6
546513	Drill Core	0.037	43.7	82	1.21	775	0.445	9.41	0.389	4.10	2.6	20.3	81	3.4	18.5	17.7	1.0	4	19	57.3	0.4
546514	Drill Core	0.043	47.1	88	1.34	843	0.484	9.50	0.335	4.39	1.8	19.4	100	3.3	22.2	18.1	1.1	3	19	66.2	0.3
546515	Drill Core	0.035	38.3	70	1.13	638	0.392	8.31	0.343	4.04	4.1	20.8	77	4.1	18.0	15.6	0.9	2	17	54.5	0.2
546516	Drill Core	0.042	42.6	78	1.23	925	0.421	8.96	0.101	4.82	0.9	12.6	81	2.0	13.7	13.2	0.8	2	16	64.7	0.6
546517	Drill Core	0.034	39.7	54	1.33	1187	0.372	6.44	0.331	4.44	0.5	21.0	78	1.5	12.9	7.9	0.4	1	11	45.8	0.3
546518	Drill Core	0.008	3.4	3	12.22	51	0.009	0.25	0.006	0.16	0.2	2.1	5	<0.1	2.6	0.3	<0.1	<1	<1	7.7	<0.1
546519	Drill Core	0.015	4.0	<1	11.60	20	0.003	<0.01	0.003	0.07	<0.1	1.1	5	<0.1	2.9	0.1	<0.1	<1	<1	5.4	<0.1
546520	Drill Core	0.015	2.5	<1	12.20	53	0.006	0.33	0.006	0.14	<0.1	2.0	5	0.1	2.9	0.2	<0.1	<1	1	6.6	<0.1
546521	Drill Core	0.002	3.9	<1	9.76	21	0.001	0.15	0.003	0.03	<0.1	1.4	5	<0.1	2.8	<0.1	<0.1	<1	<1	3.0	0.4
546522	Drill Core	0.003	8.5	<1	3.43	48	0.001	<0.01	0.007	0.05	<0.1	1.1	11	0.4	4.8	0.1	<0.1	<1	<1	2.5	5.1
546523	Drill Core	0.004	7.1	1	5.97	68	0.004	0.28	0.011	0.11	<0.1	1.9	10	0.3	6.0	<0.1	<0.1	<1	<1	7.3	3.6
546524	Drill Core	0.004	11.3	<1	6.38	45	0.004	0.07	0.007	0.09	<0.1	1.8	17	0.1	7.3	0.2	<0.1	<1	<1	4.1	1.1
546525	Drill Core	0.002	3.8	<1	12.22	24	0.003	<0.01	0.002	0.07	<0.1	0.9	6	<0.1	3.7	0.1	<0.1	<1	<1	5.8	0.1
546526	Drill Core	0.003	3.7	<1	10.64	31	0.004	0.14	0.003	0.10	<0.1	1.3	6	<0.1	3.7	0.2	<0.1	<1	<1	6.1	1.1
546527	Drill Core	0.002	2.6	<1	12.40	16	0.002	0.08	0.004	0.05	<0.1	1.1	5	<0.1	3.0	0.1	<0.1	<1	<1	4.4	0.2
546528	Drill Core	0.002	4.9	<1	11.91	22	0.002	0.17	0.007	0.05	<0.1	1.4	7	<0.1	5.0	0.1	<0.1	<1	<1	3.5	1.8
546529	Drill Core	0.001	2.3	<1	12.97	28	0.003	0.21	0.007	0.06	<0.1	1.6	3	<0.1	2.6	0.2	<0.1	<1	<1	4.9	<0.1
546530	Drill Core	0.002	3.5	2	12.60	61	0.007	0.32	0.011	0.16	<0.1	1.9	5	0.2	3.5	0.6	<0.1	<1	<1	9.0	0.2

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Project: Jersey-HB  
 Report Date: June 09, 2010

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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	1EX	1EX
Analyte	Rb	Hf
Unit	ppm	ppm
MDL	0.1	0.1
546501	Drill Core	153.4 0.5
546502	Drill Core	135.2 0.5
546503	Drill Core	110.5 0.3
546504	Drill Core	106.3 0.4
546505	Drill Core	44.3 0.3
546506	Drill Core	22.6 0.1
546507	Drill Core	95.6 0.4
546508	Drill Core	211.5 0.6
546509	Drill Core	182.0 0.8
546510	Drill Core	173.5 0.7
546511	Drill Core	82.1 0.6
546512	Drill Core	105.1 0.7
546513	Drill Core	126.6 0.6
546514	Drill Core	178.8 0.5
546515	Drill Core	121.6 0.6
546516	Drill Core	124.0 0.3
546517	Drill Core	128.8 0.4
546518	Drill Core	5.0 <0.1
546519	Drill Core	2.3 <0.1
546520	Drill Core	5.1 <0.1
546521	Drill Core	0.8 <0.1
546522	Drill Core	1.2 <0.1
546523	Drill Core	3.8 <0.1
546524	Drill Core	2.2 <0.1
546525	Drill Core	2.3 <0.1
546526	Drill Core	3.8 <0.1
546527	Drill Core	1.5 <0.1
546528	Drill Core	1.4 <0.1
546529	Drill Core	2.5 <0.1
546530	Drill Core	5.2 <0.1

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Project: Jersey-HB  
 Report Date: June 09, 2010

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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
546531	Drill Core	6.12	0.9	<0.1	11.3	113	0.1	1.6	0.9	346	0.57	<1	0.3	<0.1	0.6	112	1.0	0.1	<0.1	9	21.46
546532	Drill Core	3.04	0.8	1.4	10.5	38	0.2	<0.1	0.6	376	0.47	<1	0.2	<0.1	0.2	102	0.3	0.4	<0.1	<1	21.56
546533	Drill Core	3.23	0.1	0.3	9.9	18	0.1	1.2	0.3	402	0.33	<1	0.1	<0.1	<0.1	96	<0.1	0.1	<0.1	<1	22.39
546534	Drill Core	0.59	0.1	7.5	15.6	58	0.3	<0.1	0.5	605	0.67	2	0.2	<0.1	<0.1	109	0.3	0.5	<0.1	1	23.16
546535	Drill Core	1.16	<0.1	4.6	14.6	31	0.1	<0.1	0.6	466	0.54	2	<0.1	<0.1	<0.1	113	0.1	0.4	<0.1	2	22.91
546536	Drill Core	4.93	0.2	<0.1	13.3	47	0.2	2.8	1.1	423	0.73	<1	0.2	<0.1	0.4	117	0.3	0.2	<0.1	6	21.10
546537	Drill Core	6.32	<0.1	0.4	7.8	69	0.2	0.8	0.9	407	0.62	<1	0.1	<0.1	0.5	116	0.4	0.3	<0.1	6	20.57
546538	Drill Core	5.14	0.1	<0.1	8.2	40	0.1	1.3	0.5	365	0.45	<1	0.3	<0.1	0.7	145	0.2	0.2	<0.1	6	20.55
546539	Drill Core	2.39	0.3	2.2	16.0	3704	0.5	0.9	0.4	505	4.98	<1	0.4	<0.1	<0.1	98	27.1	0.3	1.7	9	19.10
546540	Drill Core	3.29	0.6	2.7	19.1	5877	0.6	1.2	0.4	560	5.27	<1	0.4	<0.1	<0.1	94	40.2	0.4	2.2	11	18.59
546541	Drill Core	1.88	1.0	1.3	26.1	3178	0.5	0.6	0.4	531	1.76	2	0.4	<0.1	<0.1	107	20.0	0.3	1.3	12	20.19
546542	Drill Core	1.67	2.8	12.0	108.3	9255	2.0	3.3	3.9	672	5.39	1	0.6	<0.1	0.9	193	60.9	0.5	6.9	27	16.14
546543	Drill Core	2.22	0.8	8.5	44.3	6701	1.3	0.3	0.5	743	9.91	<1	0.5	<0.1	<0.1	90	66.3	0.7	3.4	11	17.04
546544	Drill Core	4.59	0.6	0.3	16.1	211	0.2	2.4	0.8	490	1.29	<1	1.3	<0.1	0.3	111	1.6	0.5	<0.1	19	20.85
546545	Drill Core	4.06	1.1	1.7	1649	2763	2.4	2.3	1.7	569	10.84	10	1.1	<0.1	0.4	142	10.9	4.5	0.3	17	20.67
546546	Drill Core	2.60	0.6	<0.1	32.6	194	0.2	3.6	1.0	478	1.69	2	1.6	<0.1	0.5	108	0.9	0.5	<0.1	17	20.33
546547	Drill Core	2.76	0.6	0.2	914.2	1914	1.8	2.4	1.5	444	4.01	5	1.7	<0.1	0.6	109	7.8	3.2	<0.1	17	19.11
546548	Drill Core	1.25	0.8	3.1	1387	>10000	2.8	2.7	1.5	471	2.01	4	1.9	<0.1	0.7	108	96.4	5.3	0.2	15	22.37
546549	Drill Core	3.42	1.1	0.3	18.9	411	<0.1	7.1	1.6	417	0.84	4	2.7	<0.1	0.7	114	2.4	0.4	<0.1	20	21.83
546550	Drill Core	1.31	0.8	5.7	55.3	>10000	0.3	5.7	1.0	495	2.81	4	1.9	<0.1	1.0	103	84.6	0.9	0.1	23	20.60
546551	Drill Core	4.55	0.3	0.4	15.4	437	0.1	2.8	0.7	370	0.61	2	1.4	<0.1	0.6	118	4.5	0.2	<0.1	17	22.36
546552	Drill Core	3.43	0.4	<0.1	18.4	87	<0.1	1.5	0.5	301	0.35	1	0.5	<0.1	0.2	115	0.2	0.1	<0.1	6	22.58
546553	Drill Core	1.99	0.5	6.0	13.0	55	<0.1	1.8	1.7	370	0.59	2	0.3	<0.1	<0.1	139	0.1	0.2	<0.1	4	22.07
546554	Drill Core	4.49	0.2	4.5	10.7	45	0.1	1.4	0.4	353	0.40	<1	0.3	<0.1	0.2	127	0.8	<0.1	<0.1	3	22.04
546555	Drill Core	3.63	0.1	0.6	9.2	45	<0.1	1.4	<0.2	446	0.57	2	0.1	<0.1	<0.1	122	0.1	<0.1	<0.1	4	22.52
546556	Drill Core	2.64	0.3	1.3	9.6	63	0.1	1.0	0.9	357	0.51	2	0.2	<0.1	<0.1	117	0.4	0.1	0.1	9	22.42
546557	Drill Core	2.51	0.3	4.6	13.7	64	0.2	1.1	1.8	342	0.82	<1	0.2	<0.1	<0.1	114	0.3	0.1	0.2	8	21.94
546558	Drill Core	3.98	<0.1	<0.1	8.9	46	0.1	1.0	0.3	285	0.35	2	0.1	<0.1	0.1	115	0.3	<0.1	<0.1	6	21.59
546559	Drill Core	3.17	0.3	1.2	8.1	89	0.2	2.2	6.3	353	0.89	<1	0.2	<0.1	0.3	111	0.1	0.3	<0.1	12	22.30
546560	Drill Core	3.15	0.3	0.3	6.1	64	<0.1	1.6	1.2	428	0.74	<1	0.2	<0.1	0.2	123	0.1	0.2	<0.1	11	22.03

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Project: Jersey-HB  
 Report Date: June 09, 2010

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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	Analyte	Unit	MDL	1EX P	1EX La	1EX Cr	1EX Mg	1EX Ba	1EX Ti	1EX Al	1EX Na	1EX K	1EX W	1EX Zr	1EX Ce	1EX Sn	1EX Y	1EX Nb	1EX Ta	1EX Be	1EX Sc	1EX Li	1EX S
				%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
				0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
546531	Drill Core			<0.001	3.9	2	12.33	45	0.006	0.16	0.008	0.15	0.1	1.3	6	0.1	4.9	0.2	<0.1	<1	<1	9.1	<0.1
546532	Drill Core			0.001	1.5	<1	13.08	13	<0.001	0.17	0.003	0.01	<0.1	2.1	3	<0.1	0.9	<0.1	<0.1	<1	<1	1.6	<0.1
546533	Drill Core			0.004	1.2	<1	13.20	7	<0.001	0.11	0.005	0.01	<0.1	0.9	3	0.1	0.8	<0.1	<0.1	<1	<1	3.7	<0.1
546534	Drill Core			0.004	1.4	<1	12.61	13	0.001	0.12	0.009	0.03	<0.1	0.7	3	<0.1	0.7	<0.1	<0.1	<1	<1	3.6	<0.1
546535	Drill Core			0.002	1.4	<1	12.54	17	0.002	0.12	0.007	0.04	<0.1	0.7	3	0.1	0.5	0.2	<0.1	<1	<1	2.8	<0.1
546536	Drill Core			0.004	2.7	2	12.53	45	0.005	0.37	0.009	0.09	0.1	1.7	7	<0.1	1.3	0.1	<0.1	<1	<1	4.1	0.1
546537	Drill Core			0.006	2.3	2	12.26	44	0.008	0.38	0.007	0.16	0.1	2.4	4	<0.1	0.8	0.2	<0.1	<1	<1	7.0	0.1
546538	Drill Core			0.004	2.5	2	12.43	40	0.004	0.69	0.011	0.10	0.1	2.4	4	<0.1	1.2	0.1	<0.1	<1	<1	3.5	<0.1
546539	Drill Core			0.003	1.7	<1	11.45	9	<0.001	0.02	0.005	0.01	0.1	0.7	2	<0.1	0.9	<0.1	<0.1	<1	<1	1.7	2.7
546540	Drill Core			0.003	1.6	<1	11.36	5	<0.001	<0.01	0.004	0.02	0.1	0.4	1	<0.1	1.0	0.3	<0.1	<1	<1	2.2	3.1
546541	Drill Core			0.003	1.8	<1	12.43	7	<0.001	<0.01	0.006	0.02	0.2	0.8	2	<0.1	1.1	<0.1	<0.1	<1	<1	3.1	0.9
546542	Drill Core			0.036	7.0	7	10.67	139	0.063	1.04	0.155	0.48	0.7	16.9	12	0.2	3.5	3.3	0.1	<1	2	13.5	3.0
546543	Drill Core			0.003	1.3	<1	10.69	1	<0.001	<0.01	0.002	0.01	0.2	0.5	1	<0.1	1.0	0.1	<0.1	<1	<1	2.6	4.3
546544	Drill Core			0.003	2.2	2	12.27	43	0.005	0.15	0.004	0.13	0.1	1.5	3	<0.1	1.5	0.2	<0.1	<1	<1	7.2	1.0
546545	Drill Core			0.006	4.3	3	5.90	34	0.005	0.25	0.017	0.39	<0.1	1.9	6	0.2	2.8	0.2	<0.1	<1	<1	32.0	>10
546546	Drill Core			0.006	3.2	3	11.60	71	0.006	0.31	0.014	0.18	<0.1	2.2	4	<0.1	2.4	0.2	<0.1	1	<1	11.7	1.8
546547	Drill Core			0.010	5.4	3	10.74	64	0.006	0.37	0.016	0.15	<0.1	2.5	8	0.1	3.1	0.2	<0.1	1	<1	8.2	4.5
546548	Drill Core			0.015	5.0	4	10.71	70	0.006	0.37	0.011	0.15	<0.1	2.7	7	0.5	3.4	0.1	<0.1	<1	<1	7.9	2.5
546549	Drill Core			0.014	4.5	4	11.93	87	0.009	0.53	0.020	0.22	<0.1	2.4	7	0.1	3.5	0.2	<0.1	1	<1	10.3	0.5
546550	Drill Core			0.006	8.1	4	11.34	95	0.007	0.64	0.009	0.17	<0.1	2.1	10	<0.1	4.6	0.3	<0.1	1	1	9.9	3.3
546551	Drill Core			0.004	3.7	4	12.64	77	0.007	0.49	0.010	0.18	<0.1	1.7	5	<0.1	2.7	0.2	<0.1	<1	<1	11.5	<0.1
546552	Drill Core			0.001	1.6	<1	12.92	17	0.001	0.09	0.015	0.02	<0.1	0.6	3	<0.1	2.2	<0.1	<0.1	<1	<1	3.0	<0.1
546553	Drill Core			0.001	1.8	<1	12.71	25	<0.001	0.07	0.006	0.01	<0.1	0.4	2	<0.1	0.7	<0.1	<0.1	<1	<1	2.4	0.1
546554	Drill Core			0.003	2.4	<1	12.73	31	0.001	0.21	0.007	<0.01	<0.1	0.7	3	<0.1	0.6	<0.1	<0.1	<1	<1	2.9	<0.1
546555	Drill Core			0.003	1.8	<1	12.74	18	<0.001	0.06	0.008	<0.01	<0.1	0.3	3	<0.1	0.7	<0.1	<0.1	<1	<1	2.3	<0.1
546556	Drill Core			0.002	1.5	<1	12.63	6	<0.001	0.02	0.007	<0.01	<0.1	0.5	2	<0.1	0.6	<0.1	<0.1	<1	<1	3.3	<0.1
546557	Drill Core			0.002	1.5	<1	12.51	14	0.001	0.06	0.008	0.02	<0.1	0.4	2	<0.1	0.6	<0.1	<0.1	<1	<1	4.5	0.2
546558	Drill Core			0.002	1.1	<1	12.66	18	0.002	0.06	0.004	0.04	<0.1	0.4	2	<0.1	0.6	0.1	<0.1	<1	<1	4.2	<0.1
546559	Drill Core			0.003	2.4	1	12.56	149	0.006	0.24	0.008	0.12	<0.1	1.2	4	<0.1	1.2	0.1	<0.1	<1	<1	5.7	0.2
546560	Drill Core			0.003	2.5	<1	12.37	73	0.004	0.18	0.012	0.07	<0.1	1.0	4	<0.1	1.5	0.1	<0.1	<1	<1	7.0	<0.1

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Project: Jersey-HB
Report Date: June 09, 2010

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CERTIFICATE OF ANALYSIS

VAN10002228.1

Table with 4 columns: Method, Analyte, Unit, MDL, 1EX Rb ppm, 1EX Hf ppm. Rows 546531-546560 showing Drill Core results for Rb and Hf.

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# CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
546561	Drill Core	3.17	0.3	0.2	7.5	75	<0.1	1.0	0.9	374	0.62	1	0.2	<0.1	0.2	135	0.2	0.1	<0.1	10	22.18
546562	Drill Core	2.72	0.2	1.6	8.1	163	0.1	1.4	0.8	372	0.60	<1	0.1	<0.1	0.3	153	0.6	0.3	<0.1	11	22.12
546563	Drill Core	3.00	0.2	2.8	8.1	45	0.2	3.3	1.6	432	0.81	2	0.3	<0.1	0.3	159	0.2	0.4	0.2	12	22.51
546564	Drill Core	3.22	0.2	2.2	6.6	45	0.1	2.1	0.7	387	0.55	2	0.4	<0.1	0.2	171	0.6	0.3	0.1	7	22.88
546565	Drill Core	2.57	0.3	<0.1	45.0	50	0.2	2.2	0.9	308	0.57	2	0.3	<0.1	0.1	211	0.2	0.2	<0.1	8	21.69
546566	Drill Core	3.10	0.4	1.6	48.9	31	0.3	5.1	3.8	310	1.99	5	0.6	<0.1	0.2	201	<0.1	0.4	<0.1	10	21.52
546567	Drill Core	2.71	0.3	1.3	18.0	49	0.2	2.5	1.0	357	0.91	2	0.4	<0.1	0.2	233	0.1	0.3	<0.1	11	21.39
546568	Drill Core	1.77	0.2	0.5	103.1	113	0.4	5.2	0.8	364	1.58	3	0.7	<0.1	0.1	264	0.8	0.5	0.2	11	22.35
546569	Drill Core	4.29	0.3	1.2	38.5	48	0.6	3.2	3.8	446	1.64	2	0.4	<0.1	0.2	225	0.4	0.4	<0.1	13	20.99
546570	Drill Core	3.58	0.7	0.9	23.7	17	0.2	3.6	3.7	351	1.19	5	0.5	<0.1	1.4	263	<0.1	0.3	<0.1	10	21.63
546571	Drill Core	5.55	0.5	17.0	24.8	55	0.2	28.1	15.2	196	3.77	36	2.0	<0.1	12.4	277	0.2	0.4	0.1	73	6.26
546572	Drill Core	2.06	0.2	2.4	17.4	413	0.9	1.4	0.4	480	2.21	2	0.5	<0.1	0.6	115	2.1	0.4	1.2	10	21.71
546573	Drill Core	1.96	0.3	3.4	18.8	7039	0.7	<0.1	0.8	446	2.45	<1	0.5	<0.1	0.1	105	53.7	0.4	1.6	10	21.50
546574	Drill Core	2.54	0.3	9.6	18.5	>10000	1.0	2.4	0.7	498	9.64	<1	0.4	<0.1	0.2	108	132.6	0.5	3.7	8	18.57
546575	Drill Core	3.58	0.4	0.8	20.0	1970	0.3	2.6	0.5	457	1.64	2	0.5	<0.1	<0.1	119	10.9	0.1	0.6	8	21.26
546576	Drill Core	2.58	0.4	2.1	46.4	6477	1.1	1.8	0.7	458	1.96	2	0.5	<0.1	<0.1	114	34.1	0.3	2.9	9	21.32
546577	Drill Core	2.79	0.5	6.4	35.8	5268	0.6	2.1	0.7	586	4.44	1	0.5	<0.1	<0.1	104	33.4	0.3	1.3	9	19.51
546578	Drill Core	2.78	0.4	12.8	285.7	588	3.3	1.5	2.1	660	15.07	4	0.2	<0.1	<0.1	95	5.3	1.4	10.6	6	15.47
546579	Drill Core	4.37	0.3	1.7	54.5	209	0.4	1.7	0.7	470	3.12	3	0.4	<0.1	<0.1	112	1.3	0.6	<0.1	5	20.53
546580	Drill Core	2.05	0.3	<0.1	15.4	36	0.2	1.1	0.6	397	1.92	<1	0.4	<0.1	<0.1	126	<0.1	0.5	<0.1	7	20.60
546581	Drill Core	6.29	0.3	0.1	9.1	36	0.1	2.1	0.3	363	1.12	2	0.3	<0.1	<0.1	120	0.2	0.2	<0.1	4	21.30
546582	Drill Core	3.74	0.1	<0.1	8.7	32	<0.1	<0.1	0.4	428	0.71	<1	0.4	<0.1	<0.1	122	0.1	0.3	<0.1	3	21.83
546583	Drill Core	3.16	0.2	0.6	12.6	34	0.4	1.7	0.4	430	0.88	2	0.7	<0.1	<0.1	123	0.2	0.3	<0.1	5	22.49
546584	Drill Core	5.30	0.7	3.8	969.8	4288	1.9	3.8	1.2	470	3.71	12	1.4	<0.1	0.5	122	28.9	2.5	0.3	17	19.92
546585	Drill Core	2.81	0.6	7.0	922.0	>10000	1.7	3.2	1.9	468	2.55	3	3.5	<0.1	0.7	130	522.5	2.7	0.1	14	19.12
546586	Drill Core	2.94	0.6	0.9	27.6	574	2.6	4.9	1.8	415	1.12	3	5.5	<0.1	2.3	186	3.8	0.4	0.1	19	22.05
546587	Drill Core	3.24	0.5	3.3	46.5	87	0.4	1.8	1.7	386	1.24	<1	2.3	<0.1	0.4	206	0.6	0.4	0.5	13	22.31
546588	Drill Core	1.86	0.3	2.9	42.7	43	0.2	3.6	2.6	414	2.35	5	1.1	<0.1	0.3	244	0.2	0.6	0.4	12	21.23
546589	Drill Core	3.38	0.4	3.6	25.8	935	0.2	4.8	6.2	422	2.66	11	0.9	<0.1	0.8	475	5.4	0.5	0.2	13	20.99
546590	Drill Core	2.19	0.6	4.5	3418	>10000	4.1	3.1	2.4	420	2.95	5	1.0	<0.1	0.6	564	157.8	5.1	0.2	15	19.08



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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	Analyte	Unit	MDL	1EX P	1EX La	1EX Cr	1EX Mg	1EX Ba	1EX Ti	1EX Al	1EX Na	1EX K	1EX W	1EX Zr	1EX Ce	1EX Sn	1EX Y	1EX Nb	1EX Ta	1EX Be	1EX Sc	1EX Li	1EX S
				%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
				0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	1	0.1
546561	Drill Core			0.005	2.0	<1	12.74	52	0.003	0.09	0.004	0.03	<0.1	0.8	4	<0.1	1.3	<0.1	<0.1	<1	<1	3.3	<0.1
546562	Drill Core			0.003	3.5	<1	12.53	192	0.003	0.21	0.009	0.02	<0.1	1.1	5	<0.1	1.4	0.2	<0.1	<1	<1	3.0	<0.1
546563	Drill Core			0.005	4.2	<1	12.69	375	0.003	0.23	0.007	0.04	0.1	1.0	6	<0.1	1.6	0.1	<0.1	<1	<1	5.0	<0.1
546564	Drill Core			0.003	3.3	<1	12.91	286	0.002	0.10	0.003	0.03	<0.1	0.8	4	<0.1	0.9	<0.1	<0.1	<1	<1	3.1	<0.1
546565	Drill Core			0.002	3.2	1	12.35	21	0.002	0.09	0.004	0.04	<0.1	0.7	3	0.5	1.4	<0.1	<0.1	<1	<1	4.4	0.2
546566	Drill Core			0.003	3.9	1	11.93	26	0.002	0.13	0.005	0.04	<0.1	1.1	4	<0.1	1.5	0.2	<0.1	<1	<1	6.1	1.9
546567	Drill Core			0.003	2.6	<1	12.25	25	0.002	0.10	0.003	0.04	<0.1	0.9	3	<0.1	1.1	<0.1	<0.1	<1	<1	5.4	0.6
546568	Drill Core			0.002	3.6	<1	12.62	18	0.002	0.07	0.002	0.04	<0.1	0.8	3	1.6	1.3	<0.1	<0.1	<1	<1	3.3	1.4
546569	Drill Core			0.003	4.9	2	12.41	24	0.003	0.29	0.016	0.04	<0.1	1.2	6	<0.1	1.8	<0.1	<0.1	<1	<1	4.8	1.2
546570	Drill Core			0.003	3.9	2	12.90	39	0.004	0.51	0.023	0.07	0.2	1.0	5	0.1	1.5	0.3	<0.1	<1	<1	4.2	0.8
546571	Drill Core			0.058	25.4	54	3.15	267	0.277	7.48	0.120	2.89	1.8	85.5	49	2.5	9.6	5.7	0.2	3	10	171.6	3.4
546572	Drill Core			0.003	2.7	1	12.05	31	0.003	0.28	0.005	0.04	0.1	0.8	3	0.1	1.7	0.1	<0.1	<1	<1	3.8	0.9
546573	Drill Core			0.004	2.3	3	11.80	12	0.001	0.07	0.006	0.02	0.1	0.3	3	<0.1	1.5	<0.1	<0.1	<1	<1	2.4	1.3
546574	Drill Core			0.005	3.1	2	10.02	14	0.001	0.07	0.004	0.02	<0.1	0.4	4	<0.1	2.2	<0.1	<0.1	<1	<1	3.2	4.4
546575	Drill Core			0.002	1.8	<1	13.04	22	<0.001	0.18	<0.001	<0.01	<0.1	0.3	2	<0.1	1.3	<0.1	<0.1	<1	<1	1.7	0.8
546576	Drill Core			0.003	1.9	<1	12.84	7	<0.001	0.06	<0.001	<0.01	0.2	<0.1	2	<0.1	1.2	<0.1	<0.1	<1	<1	2.7	1.1
546577	Drill Core			0.002	2.3	<1	11.90	16	<0.001	0.15	0.003	<0.01	0.2	0.1	2	<0.1	1.6	<0.1	<0.1	<1	<1	1.7	1.9
546578	Drill Core			<0.001	0.5	<1	9.29	18	<0.001	0.11	0.002	0.02	0.2	<0.1	<1	0.2	0.5	0.2	<0.1	<1	<1	2.8	>10
546579	Drill Core			<0.001	1.1	<1	12.54	13	<0.001	0.14	0.002	<0.01	<0.1	0.4	1	<0.1	0.7	0.1	<0.1	<1	<1	2.0	2.6
546580	Drill Core			<0.001	1.2	<1	12.64	22	0.002	0.24	<0.001	<0.01	0.2	0.5	1	<0.1	1.0	<0.1	<0.1	<1	<1	2.8	1.9
546581	Drill Core			<0.001	0.8	<1	13.03	12	<0.001	0.13	<0.001	<0.01	<0.1	<0.1	1	0.1	0.6	<0.1	<0.1	<1	<1	2.8	0.9
546582	Drill Core			0.003	1.0	<1	13.27	9	0.001	0.08	0.004	<0.01	0.2	0.1	<1	0.1	0.7	0.1	<0.1	<1	<1	2.2	0.4
546583	Drill Core			0.002	1.3	<1	12.32	9	0.001	0.05	0.006	0.01	<0.1	0.4	2	<0.1	0.8	0.2	<0.1	<1	<1	3.7	0.4
546584	Drill Core			0.005	2.8	3	10.85	45	0.006	0.37	0.005	0.13	0.1	1.3	4	0.2	2.4	0.2	<0.1	<1	<1	9.8	3.5
546585	Drill Core			0.020	5.2	2	9.86	38	0.005	0.28	0.005	0.11	0.1	1.7	7	0.2	4.0	0.4	<0.1	<1	<1	7.7	4.9
546586	Drill Core			0.004	5.3	6	11.66	123	0.011	1.24	0.011	0.31	<0.1	4.5	8	<0.1	4.4	0.3	<0.1	<1	2	13.4	0.8
546587	Drill Core			0.003	2.9	1	12.07	27	0.003	0.23	0.008	0.05	0.1	1.2	3	<0.1	2.5	0.2	<0.1	<1	<1	5.3	0.6
546588	Drill Core			0.002	2.7	1	11.56	27	0.003	0.20	0.005	0.03	<0.1	1.0	4	<0.1	2.7	0.4	<0.1	<1	<1	4.0	1.7
546589	Drill Core			0.005	4.3	2	11.22	49	0.007	0.46	0.010	0.11	<0.1	2.0	7	0.1	3.1	0.4	<0.1	<1	1	4.5	1.9
546590	Drill Core			0.006	3.5	3	11.13	74	0.008	0.51	0.003	0.23	<0.1	1.7	5	0.5	2.4	0.2	<0.1	<1	1	4.1	3.7

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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	1EX	1EX
Analyte	Rb	Hf
Unit	ppm	ppm
MDL	0.1	0.1
546561	Drill Core	1.4 <0.1
546562	Drill Core	1.0 <0.1
546563	Drill Core	2.0 <0.1
546564	Drill Core	1.1 <0.1
546565	Drill Core	1.5 <0.1
546566	Drill Core	1.3 <0.1
546567	Drill Core	1.4 <0.1
546568	Drill Core	1.3 <0.1
546569	Drill Core	0.4 <0.1
546570	Drill Core	1.0 <0.1
546571	Drill Core	81.8 0.7
546572	Drill Core	0.2 <0.1
546573	Drill Core	0.8 <0.1
546574	Drill Core	2.1 <0.1
546575	Drill Core	<0.1 <0.1
546576	Drill Core	<0.1 <0.1
546577	Drill Core	<0.1 <0.1
546578	Drill Core	0.2 <0.1
546579	Drill Core	<0.1 <0.1
546580	Drill Core	<0.1 <0.1
546581	Drill Core	<0.1 <0.1
546582	Drill Core	<0.1 <0.1
546583	Drill Core	0.9 <0.1
546584	Drill Core	5.2 <0.1
546585	Drill Core	4.0 <0.1
546586	Drill Core	12.2 0.1
546587	Drill Core	1.8 <0.1
546588	Drill Core	1.3 <0.1
546589	Drill Core	5.8 <0.1
546590	Drill Core	7.6 <0.1



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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
546591	Drill Core	2.45	0.8	16.0	972.5	>10000	2.2	5.2	2.6	453	5.82	7	1.9	<0.1	0.8	541	334.0	1.9	1.9	12	16.23
546592	Drill Core	0.70	0.7	7.7	10.9	190	<0.1	14.6	6.3	67	0.80	<1	0.2	<0.1	0.2	18	1.5	0.2	<0.1	2	0.65
546593	Drill Core	1.64	0.5	17.0	6.2	79	<0.1	19.8	10.1	236	2.51	<1	1.4	<0.1	12.3	58	0.3	0.1	<0.1	56	0.61
546594	Drill Core	4.86	0.5	23.9	8.5	73	<0.1	25.6	12.2	311	3.59	<1	1.8	<0.1	16.6	61	0.1	0.1	1.7	64	0.55
546595	Drill Core	4.19	0.6	12.3	10.6	75	<0.1	23.0	11.0	334	3.61	<1	1.7	<0.1	16.1	70	<0.1	<0.1	<0.1	63	0.41
546596	Drill Core	4.74	0.4	0.4	13.4	107	<0.1	2.8	0.9	437	0.29	<1	0.8	<0.1	0.2	148	0.9	<0.1	<0.1	13	27.96
546597	Drill Core	5.10	0.1	0.2	25.9	111	0.2	0.5	0.4	371	0.44	<1	0.3	<0.1	0.3	108	1.7	0.1	<0.1	4	22.42
546598	Drill Core	5.05	0.3	32.9	875.5	7527	11.1	3.5	4.6	655	1.72	78	0.8	<0.1	0.4	154	84.9	20.1	4.2	8	20.90
546599	Drill Core	4.79	0.2	0.1	15.7	61	0.2	2.8	2.7	507	0.92	5	0.3	<0.1	<0.1	145	0.7	0.3	<0.1	8	21.54
546600	Drill Core	2.05	0.2	8.0	20.1	103	0.4	6.1	17.3	464	2.39	7	0.7	<0.1	<0.1	158	1.0	0.3	0.1	8	20.70
546601	Drill Core	6.16	<0.1	0.2	23.4	105	12.3	1.2	0.7	592	0.58	8	0.3	<0.1	0.2	194	0.6	0.1	<0.1	3	21.40
546602	Drill Core	2.56	0.3	4.3	13.9	206	0.9	8.2	6.2	546	1.18	8	0.6	<0.1	3.4	145	0.6	0.3	<0.1	20	17.65
546603	Drill Core	3.40	0.5	5.5	12.9	108	0.9	9.7	4.8	1310	1.84	<1	2.0	<0.1	6.2	1053	0.6	0.2	<0.1	31	20.62
546604	Drill Core	5.74	0.4	23.8	7.9	361	<0.1	26.9	16.4	689	3.40	9	2.0	<0.1	17.1	181	3.8	0.3	0.1	69	3.19
546605	Drill Core	2.93	0.3	18.3	11.0	654	0.1	20.8	11.3	1076	2.73	3	1.5	<0.1	9.9	307	1.1	0.2	0.3	46	20.24
546606	Drill Core	5.71	0.5	17.9	12.7	93	<0.1	27.8	14.8	444	3.78	6	1.8	<0.1	16.7	56	<0.1	0.4	0.3	69	0.48
546607	Drill Core	2.65	0.2	4.0	9.9	73	<0.1	4.1	3.3	835	1.09	24	0.3	<0.1	0.7	173	0.4	0.5	<0.1	15	21.29
546608	Drill Core	2.17	0.3	1.9	13.1	38	<0.1	4.5	3.3	1642	1.76	81	0.1	<0.1	0.2	368	0.2	0.4	<0.1	9	21.54
546609	Drill Core	2.16	0.6	2.7	22.0	43	0.2	9.5	21.3	1261	2.35	31	0.6	<0.1	0.7	443	0.4	0.4	0.2	15	20.99
546610	Drill Core	1.59	1.2	6.1	50.8	77	0.2	23.7	25.5	852	3.09	14	1.2	<0.1	4.9	413	0.4	0.4	0.5	36	16.87
546611	Drill Core	3.03	0.4	59.6	14.4	510	0.2	31.6	15.8	317	2.84	3	1.7	<0.1	14.7	147	4.8	0.4	0.4	68	3.46
546612	Drill Core	5.63	0.5	18.0	10.4	56	<0.1	17.8	13.6	221	1.54	10	2.2	<0.1	16.0	69	0.2	0.4	0.1	58	2.16
546613	Drill Core	6.15	0.3	5.6	14.8	54	<0.1	15.9	15.1	203	1.08	14	2.5	<0.1	18.3	83	0.2	0.3	0.2	56	1.96
546614	Drill Core	0.76	<0.1	<0.1	8.3	302	<0.1	1.8	0.5	468	0.66	<1	0.2	<0.1	0.2	91	36.5	<0.1	<0.1	3	21.43
546615	Drill Core	1.10	0.1	<0.1	7.2	290	<0.1	0.5	<0.2	528	0.59	<1	0.2	<0.1	0.3	94	9.4	<0.1	<0.1	4	21.74
546616	Drill Core	2.08	0.7	1.3	50.6	2111	0.3	0.3	0.5	497	7.39	4	0.2	<0.1	0.4	69	18.5	0.4	0.4	10	17.80
546617	Drill Core	2.04	0.3	<0.1	10.7	1577	0.1	0.7	0.3	480	2.44	1	0.2	<0.1	<0.1	76	22.2	0.2	0.2	5	21.29
546618	Drill Core	2.31	0.2	0.1	111.6	556	0.7	1.2	0.3	318	0.84	<1	0.2	<0.1	0.2	85	9.7	0.3	0.3	6	22.77
546619	Drill Core	1.89	<0.1	0.3	34.8	755	0.4	2.2	0.4	295	1.31	<1	0.3	<0.1	0.1	81	6.3	0.2	0.1	6	22.20
546620	Drill Core	1.97	0.3	1.1	12.7	1780	0.3	2.5	0.5	396	1.90	5	0.2	<0.1	0.2	105	14.2	0.2	<0.1	7	21.50

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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	
Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	
546591	Drill Core	0.016	4.6	4	9.64	68	0.008	0.59	0.003	0.19	0.2	2.3	6	0.2	3.4	0.3	<0.1	<1	1	5.9	6.4
546592	Drill Core	<0.001	1.1	12	0.30	43	0.009	0.32	0.004	0.15	0.1	0.3	2	<0.1	0.5	0.4	<0.1	<1	<1	3.9	0.4
546593	Drill Core	0.047	33.5	55	0.79	804	0.286	4.91	0.115	3.42	1.7	14.4	70	1.8	14.0	11.6	0.6	2	8	35.8	0.7
546594	Drill Core	0.073	45.0	51	1.04	1029	0.411	6.01	0.123	4.23	1.7	24.0	94	2.5	21.4	18.1	0.9	2	10	42.4	0.6
546595	Drill Core	0.090	44.8	48	1.08	784	0.441	6.27	0.474	3.41	1.1	20.4	96	2.0	16.8	18.4	0.9	2	10	44.2	0.3
546596	Drill Core	0.003	4.0	4	7.48	67	0.005	0.47	0.012	0.16	<0.1	1.1	5	<0.1	2.5	0.1	<0.1	<1	<1	5.7	<0.1
546597	Drill Core	0.002	2.2	<1	13.01	41	0.003	0.57	0.006	0.06	<0.1	0.8	4	<0.1	2.6	0.1	<0.1	<1	1	5.7	<0.1
546598	Drill Core	0.009	3.2	3	11.30	63	0.006	0.74	0.008	0.16	0.3	2.1	6	0.5	4.2	0.4	<0.1	<1	1	5.3	0.2
546599	Drill Core	0.003	2.7	<1	12.93	20	<0.001	0.43	0.004	0.01	<0.1	0.3	4	<0.1	3.1	<0.1	<0.1	<1	<1	3.6	0.2
546600	Drill Core	0.006	2.6	<1	12.37	12	<0.001	0.09	0.007	<0.01	<0.1	<0.1	5	<0.1	4.2	<0.1	<0.1	<1	<1	2.4	1.1
546601	Drill Core	<0.001	2.5	<1	13.09	25	<0.001	0.50	0.003	0.02	<0.1	1.2	3	<0.1	3.9	<0.1	<0.1	<1	1	3.5	<0.1
546602	Drill Core	0.021	3.4	18	10.56	277	0.072	1.84	0.023	1.05	0.4	4.2	5	0.7	3.9	1.6	<0.1	1	3	17.2	<0.1
546603	Drill Core	0.066	20.3	17	3.45	466	0.134	3.34	0.050	2.06	0.7	11.8	40	1.0	12.2	4.7	0.2	2	6	29.3	0.2
546604	Drill Core	0.064	54.9	62	1.15	978	0.428	7.86	0.247	3.96	1.9	26.9	105	2.6	21.1	17.9	0.9	2	13	52.8	0.5
546605	Drill Core	0.093	30.0	37	1.13	617	0.222	5.13	0.071	2.34	0.9	17.9	62	2.1	15.5	8.3	0.5	2	9	31.6	0.2
546606	Drill Core	0.080	50.9	58	1.10	864	0.509	7.08	0.850	3.19	1.6	26.2	107	2.7	9.0	21.7	1.1	3	11	57.6	0.2
546607	Drill Core	0.020	5.0	3	11.02	256	0.038	0.78	0.024	0.43	0.4	10.1	10	0.2	4.5	1.9	<0.1	<1	1	9.8	<0.1
546608	Drill Core	0.003	5.4	1	11.18	20	0.005	0.22	0.008	0.09	0.2	0.7	12	<0.1	12.8	0.2	<0.1	<1	<1	9.8	<0.1
546609	Drill Core	0.005	4.3	4	11.20	23	0.010	0.37	0.007	0.25	0.3	2.1	8	0.1	9.4	0.2	<0.1	<1	<1	8.0	1.0
546610	Drill Core	0.021	14.0	21	7.90	217	0.112	3.19	0.048	1.95	0.7	28.2	28	1.0	12.9	2.9	0.1	2	5	40.6	1.7
546611	Drill Core	0.069	41.9	53	1.08	343	0.343	7.53	0.222	4.13	3.0	40.9	87	3.3	20.2	13.4	0.7	5	12	110.1	1.1
546612	Drill Core	0.091	22.6	38	1.16	2051	0.311	6.87	0.334	3.89	2.1	43.3	47	2.8	15.5	14.4	0.7	5	10	85.7	0.4
546613	Drill Core	0.078	12.5	36	1.20	2052	0.287	6.74	1.498	3.17	1.5	46.5	26	2.6	9.9	13.5	0.7	4	10	50.8	0.2
546614	Drill Core	0.002	1.0	<1	12.44	18	0.003	0.07	0.011	0.04	0.2	0.5	1	<0.1	0.6	<0.1	<0.1	<1	<1	3.0	0.3
546615	Drill Core	0.002	1.0	<1	12.36	21	0.002	0.07	0.016	0.04	<0.1	0.5	1	<0.1	0.5	0.2	<0.1	<1	<1	4.8	0.2
546616	Drill Core	0.003	1.4	3	10.54	42	0.010	0.17	0.004	0.08	<0.1	1.1	2	<0.1	0.5	0.6	<0.1	<1	<1	3.2	5.5
546617	Drill Core	0.001	0.9	<1	12.14	12	0.001	0.03	0.003	0.02	<0.1	0.2	<1	<0.1	0.5	<0.1	<0.1	<1	<1	2.8	2.2
546618	Drill Core	<0.001	1.3	<1	12.33	21	0.002	0.09	0.004	0.04	<0.1	0.4	1	<0.1	0.6	<0.1	<0.1	<1	<1	4.5	0.6
546619	Drill Core	0.002	1.3	<1	12.09	18	0.002	0.13	0.004	0.05	<0.1	0.5	1	<0.1	0.8	0.1	<0.1	<1	<1	5.7	1.1
546620	Drill Core	0.004	2.1	<1	11.85	20	0.003	0.11	0.003	0.05	<0.1	0.7	2	<0.1	1.2	<0.1	<0.1	<1	<1	3.1	1.5

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Project: Jersey-HB
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CERTIFICATE OF ANALYSIS

VAN10002228.1

Table with columns: Method, Analyte, Unit, MDL, 1EX Rb ppm, 1EX Hf ppm. Rows 546591-546620.



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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
546621	Drill Core	1.87	1.1	7.0	554.5	>10000	1.2	3.5	2.2	442	11.39	16	0.3	<0.1	0.2	88	63.1	4.1	<0.1	11	15.41
546622	Drill Core	3.40	0.6	0.3	17.2	748	0.2	1.7	0.8	412	0.66	3	1.1	<0.1	0.3	107	4.6	0.2	<0.1	14	21.06
546623	Drill Core	3.55	0.5	0.1	13.2	150	0.2	1.2	0.8	348	0.56	2	1.6	<0.1	0.3	114	0.8	1.0	<0.1	12	21.19
546624	Drill Core	0.94	1.2	7.1	41.3	>10000	0.3	6.3	3.2	473	3.65	5	2.0	<0.1	0.6	109	172.2	0.9	0.1	24	17.71
546625	Drill Core	1.14	1.6	3.3	205.8	>10000	0.5	4.1	2.2	335	9.77	19	1.8	<0.1	0.4	98	54.8	1.4	1.0	17	15.95
546626	Drill Core	4.94	0.8	1.4	20.8	8593	0.2	1.2	0.7	452	0.88	3	1.6	<0.1	0.2	119	30.2	0.3	<0.1	5	22.12
546627	Drill Core	2.57	1.2	2.3	25.9	4434	0.1	4.4	1.6	564	1.99	<1	2.5	<0.1	1.0	240	17.1	0.5	<0.1	14	29.63
546628	Drill Core	1.17	2.0	14.8	179.9	>10000	0.4	13.2	4.6	424	14.91	26	2.0	<0.1	1.9	93	89.4	3.3	0.3	25	13.38
546629	Drill Core	2.78	1.1	1.9	18.2	3198	0.3	6.3	1.7	500	1.71	2	3.6	<0.1	1.1	138	13.0	0.4	<0.1	23	20.41
546630	Drill Core	2.07	0.5	1.4	8.3	1031	0.2	1.7	0.5	383	0.72	<1	1.4	<0.1	0.9	134	4.3	0.1	<0.1	16	21.07
546631	Drill Core	4.14	<0.1	0.2	11.5	438	0.2	2.5	0.5	333	0.47	2	1.1	<0.1	<0.1	113	4.1	0.1	<0.1	9	20.80
546632	Drill Core	4.18	0.3	0.8	10.9	156	0.2	1.5	0.3	306	0.44	<1	0.3	<0.1	0.1	162	0.7	<0.1	<0.1	3	21.41
546633	Drill Core	5.58	<0.1	0.2	14.5	323	0.1	0.2	0.5	375	0.55	<1	0.1	<0.1	<0.1	127	8.6	<0.1	<0.1	4	21.12



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CERTIFICATE OF ANALYSIS

VAN10002228.1

Method	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	
Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	
546621	Drill Core	0.004	2.1	2	8.26	75	0.002	0.15	0.005	0.10	<0.1	0.7	3	0.1	1.4	0.2	<0.1	<1	<1	11.0	9.0
546622	Drill Core	0.005	2.3	5	11.91	46	0.007	0.26	0.011	0.14	<0.1	1.4	3	<0.1	1.7	0.2	<0.1	<1	<1	12.2	0.3
546623	Drill Core	0.006	2.8	3	12.01	47	0.005	0.20	0.007	0.13	<0.1	1.2	4	<0.1	2.1	0.2	<0.1	<1	<1	10.9	0.3
546624	Drill Core	0.016	8.6	7	9.94	77	0.008	0.50	0.028	0.21	0.2	2.2	11	0.2	3.5	0.2	<0.1	2	<1	16.0	5.4
546625	Drill Core	0.014	4.9	3	8.65	30	0.005	0.37	0.016	0.18	<0.1	1.3	7	<0.1	2.4	0.2	<0.1	1	<1	13.7	>10
546626	Drill Core	0.012	4.1	1	11.58	27	0.002	0.06	0.003	0.07	<0.1	0.8	6	<0.1	2.7	0.1	<0.1	<1	<1	6.1	1.0
546627	Drill Core	0.014	5.7	8	3.47	110	0.007	0.57	0.050	0.43	<0.1	2.8	9	<0.1	4.1	0.1	<0.1	<1	<1	36.7	2.5
546628	Drill Core	0.032	2.2	7	5.82	11	0.010	0.65	0.015	0.82	0.1	3.2	4	0.3	2.8	0.3	<0.1	<1	<1	64.0	>10
546629	Drill Core	0.008	6.6	7	11.10	101	0.009	0.46	0.018	0.32	0.1	2.6	8	0.2	3.3	0.3	<0.1	2	<1	21.8	1.8
546630	Drill Core	0.004	3.5	3	11.72	53	0.007	0.30	0.007	0.19	0.2	2.3	5	<0.1	3.0	0.4	<0.1	<1	<1	14.0	0.4
546631	Drill Core	0.002	2.1	1	12.14	11	0.003	<0.01	0.005	0.04	0.1	0.5	3	<0.1	2.7	0.2	<0.1	<1	<1	5.1	<0.1
546632	Drill Core	0.002	1.4	<1	12.29	8	0.002	0.01	0.017	0.03	<0.1	0.5	2	<0.1	2.3	0.1	<0.1	<1	<1	4.7	<0.1
546633	Drill Core	0.002	1.5	<1	12.27	37	0.001	<0.01	0.004	<0.01	<0.1	0.2	2	<0.1	0.7	0.1	<0.1	<1	<1	2.8	<0.1



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## CERTIFICATE OF ANALYSIS

VAN10002228.1

	Method	1EX	1EX
	Analyte	Rb	Hf
	Unit	ppm	ppm
	MDL	0.1	0.1
546621	Drill Core	6.2	<0.1
546622	Drill Core	4.7	<0.1
546623	Drill Core	4.3	<0.1
546624	Drill Core	6.8	<0.1
546625	Drill Core	6.8	<0.1
546626	Drill Core	2.3	<0.1
546627	Drill Core	20.5	<0.1
546628	Drill Core	45.3	0.1
546629	Drill Core	12.3	<0.1
546630	Drill Core	7.7	<0.1
546631	Drill Core	1.6	<0.1
546632	Drill Core	1.0	<0.1
546633	Drill Core	0.2	<0.1



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Vancouver BC V6C 3P1 Canada

Project: Jersey-HB  
Report Date: June 09, 2010

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QUALITY CONTROL REPORT

VAN10002228.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
Pulp Duplicates																					
546535	Drill Core	1.16	<0.1	4.6	14.6	31	0.1	<0.1	0.6	466	0.54	2	<0.1	<0.1	<0.1	113	0.1	0.4	<0.1	2	22.91
REP 546535	QC		<0.1	4.5	14.9	31	0.2	2.0	0.7	460	0.56	3	<0.1	<0.1	<0.1	112	0.2	0.4	<0.1	2	22.96
546558	Drill Core	3.98	<0.1	<0.1	8.9	46	0.1	1.0	0.3	285	0.35	2	0.1	<0.1	0.1	115	0.3	<0.1	<0.1	6	21.59
REP 546558	QC		<0.1	<0.1	8.0	44	<0.1	1.5	0.3	278	0.34	<1	<0.1	<0.1	<0.1	109	0.2	<0.1	<0.1	7	21.93
546588	Drill Core	1.86	0.3	2.9	42.7	43	0.2	3.6	2.6	414	2.35	5	1.1	<0.1	0.3	244	0.2	0.6	0.4	12	21.23
REP 546588	QC		0.3	2.6	42.7	40	0.2	6.9	2.8	420	2.38	3	1.0	<0.1	0.6	239	0.3	0.6	0.4	12	21.58
546619	Drill Core	1.89	<0.1	0.3	34.8	755	0.4	2.2	0.4	295	1.31	<1	0.3	<0.1	0.1	81	6.3	0.2	0.1	6	22.20
REP 546619	QC		<0.1	0.2	33.7	774	0.4	1.5	0.4	297	1.29	3	0.2	<0.1	<0.1	83	5.5	0.2	0.1	6	22.11
546626	Drill Core	4.94	0.8	1.4	20.8	8593	0.2	1.2	0.7	452	0.88	3	1.6	<0.1	0.2	119	30.2	0.3	<0.1	5	22.12
REP 546626	QC		0.7	1.5	18.7	8470	0.3	0.5	0.5	426	0.86	<1	1.6	<0.1	0.1	114	29.4	0.3	<0.1	5	21.96
Core Reject Duplicates																					
546513	Drill Core	6.55	0.2	29.2	12.7	89	<0.1	46.7	19.9	584	4.78	2	1.6	<0.1	14.7	118	<0.1	0.2	0.3	75	3.01
DUP 546513	QC		0.2	28.9	11.5	76	<0.1	44.7	19.7	569	4.62	<1	1.4	<0.1	13.6	108	<0.1	0.3	0.3	72	3.01
546548	Drill Core	1.25	0.8	3.1	1387	>10000	2.8	2.7	1.5	471	2.01	4	1.9	<0.1	0.7	108	96.4	5.3	0.2	15	22.37
DUP 546548	QC		0.6	2.9	1284	>10000	2.8	4.4	1.2	438	1.83	4	1.8	<0.1	0.4	107	87.6	4.4	<0.1	14	22.20
546583	Drill Core	3.16	0.2	0.6	12.6	34	0.4	1.7	0.4	430	0.88	2	0.7	<0.1	<0.1	123	0.2	0.3	<0.1	5	22.49
DUP 546583	QC		0.2	0.6	11.1	32	0.3	1.3	0.5	421	0.87	2	0.6	<0.1	0.2	125	0.3	0.4	<0.1	5	22.22
546618	Drill Core	2.31	0.2	0.1	111.6	556	0.7	1.2	0.3	318	0.84	<1	0.2	<0.1	0.2	85	9.7	0.3	0.3	6	22.77
DUP 546618	QC		0.2	0.5	114.1	577	0.5	1.5	0.3	335	0.85	<1	0.2	<0.1	0.1	88	11.6	0.3	0.3	5	22.70
Reference Materials																					
STD OREAS24P	Standard		1.5	50.7	3.4	126	<0.1	159.1	51.3	1182	7.93	1	0.7	<0.1	2.9	411	<0.1	<0.1	<0.1	165	6.08
STD OREAS24P	Standard		1.7	49.7	2.9	115	<0.1	152.4	46.0	1166	7.58	<1	0.7	<0.1	2.7	411	0.3	<0.1	<0.1	173	6.03
STD OREAS24P	Standard		1.6	49.1	3.0	118	<0.1	141.2	48.0	1130	7.50	1	0.7	<0.1	2.8	399	0.2	<0.1	<0.1	158	5.81
STD OREAS24P	Standard		1.6	54.1	2.9	129	<0.1	159.0	51.2	1133	7.40	2	0.7	<0.1	2.7	396	0.2	<0.1	<0.1	161	5.72
STD OREAS24P	Standard		1.6	48.4	7.1	113	<0.1	145.1	45.7	1168	7.82	2	0.7	<0.1	2.4	383	0.1	0.1	<0.1	166	6.28
STD OREAS24P	Standard		1.5	51.8	4.9	133	<0.1	139.4	47.5	1126	7.59	2	0.6	<0.1	2.9	389	0.1	<0.1	<0.1	156	5.97
STD OREAS24P	Standard		1.5	45.1	2.2	119	<0.1	143.3	42.3	1108	7.60	1	0.7	<0.1	2.7	411	0.2	<0.1	<0.1	162	6.01
STD OREAS24P	Standard		1.4	47.5	3.2	117	<0.1	149.3	43.7	1118	7.74	1	0.7	<0.1	2.6	405	0.1	<0.1	<0.1	156	5.77



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Project: Jersey-HB  
 Report Date: June 09, 2010

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QUALITY CONTROL REPORT

VAN10002228.1

Method		1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX
Analyte		P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
Unit		%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
Pulp Duplicates																					
546535	Drill Core	0.002	1.4	<1	12.54	17	0.002	0.12	0.007	0.04	<0.1	0.7	3	0.1	0.5	0.2	<0.1	<1	<1	2.8	<0.1
REP 546535	QC	0.003	1.2	<1	12.75	17	0.002	0.15	0.008	0.04	<0.1	0.8	2	<0.1	0.6	<0.1	<0.1	<1	<1	4.2	<0.1
546558	Drill Core	0.002	1.1	<1	12.66	18	0.002	0.06	0.004	0.04	<0.1	0.4	2	<0.1	0.6	0.1	<0.1	<1	<1	4.2	<0.1
REP 546558	QC	0.002	1.1	<1	12.62	17	0.002	0.06	0.004	0.04	<0.1	0.4	2	0.2	0.6	<0.1	<0.1	<1	<1	2.8	<0.1
546588	Drill Core	0.002	2.7	1	11.56	27	0.003	0.20	0.005	0.03	<0.1	1.0	4	<0.1	2.7	0.4	<0.1	<1	<1	4.0	1.7
REP 546588	QC	0.003	3.8	1	11.66	29	0.003	0.30	0.005	0.04	<0.1	1.9	4	<0.1	3.5	0.2	<0.1	<1	<1	3.7	1.7
546619	Drill Core	0.002	1.3	<1	12.09	18	0.002	0.13	0.004	0.05	<0.1	0.5	1	<0.1	0.8	0.1	<0.1	<1	<1	5.7	1.1
REP 546619	QC	0.001	1.2	<1	12.00	16	0.002	0.10	0.007	0.04	<0.1	2.3	1	0.1	0.7	<0.1	<0.1	<1	<1	4.9	1.1
546626	Drill Core	0.012	4.1	1	11.58	27	0.002	0.06	0.003	0.07	<0.1	0.8	6	<0.1	2.7	0.1	<0.1	<1	<1	6.1	1.0
REP 546626	QC	0.012	4.1	1	11.41	26	0.002	0.03	0.003	0.07	<0.1	0.5	5	0.1	2.7	0.2	<0.1	<1	<1	6.3	1.0
Core Reject Duplicates																					
546513	Drill Core	0.037	43.7	82	1.21	775	0.445	9.41	0.389	4.10	2.6	20.3	81	3.4	18.5	17.7	1.0	4	19	57.3	0.4
DUP 546513	QC	0.037	43.5	79	1.19	733	0.424	9.34	0.388	3.53	2.1	20.2	82	2.6	19.3	16.3	0.9	3	18	52.0	0.4
546548	Drill Core	0.015	5.0	4	10.71	70	0.006	0.37	0.011	0.15	<0.1	2.7	7	0.5	3.4	0.1	<0.1	<1	<1	7.9	2.5
DUP 546548	QC	0.018	4.9	3	10.36	55	0.006	0.27	0.009	0.14	<0.1	1.3	7	4.6	3.2	0.2	<0.1	1	<1	6.9	2.3
546583	Drill Core	0.002	1.3	<1	12.32	9	0.001	0.05	0.006	0.01	<0.1	0.4	2	<0.1	0.8	0.2	<0.1	<1	<1	3.7	0.4
DUP 546583	QC	<0.001	1.8	<1	12.19	11	0.001	0.11	0.005	0.02	<0.1	0.3	2	<0.1	1.1	<0.1	<0.1	<1	<1	3.2	0.4
546618	Drill Core	<0.001	1.3	<1	12.33	21	0.002	0.09	0.004	0.04	<0.1	0.4	1	<0.1	0.6	<0.1	<0.1	<1	<1	4.5	0.6
DUP 546618	QC	0.002	1.2	<1	12.29	24	0.006	0.13	0.004	0.04	<0.1	0.5	1	<0.1	0.5	0.1	<0.1	<1	<1	4.3	0.6
Reference Materials																					
STD OREAS24P	Standard	0.141	18.9	198	4.31	303	1.101	8.76	2.414	0.74	0.4	139.5	38	1.6	23.9	22.3	1.1	<1	26	8.7	<0.1
STD OREAS24P	Standard	0.132	19.2	194	4.07	443	1.086	7.99	2.474	0.67	0.5	145.7	37	1.8	20.4	21.3	1.1	<1	21	9.4	<0.1
STD OREAS24P	Standard	0.134	18.1	198	4.13	296	1.060	8.02	2.353	0.68	0.5	136.1	36	1.7	24.4	20.2	1.1	<1	25	8.4	<0.1
STD OREAS24P	Standard	0.133	19.3	208	4.03	299	1.048	8.12	2.395	0.70	0.5	144.0	39	1.5	22.5	22.3	1.1	1	21	8.2	<0.1
STD OREAS24P	Standard	0.147	17.5	191	4.24	261	1.110	8.17	2.444	0.69	0.4	138.8	35	1.7	20.0	21.4	1.2	<1	21	7.0	<0.1
STD OREAS24P	Standard	0.144	17.0	205	4.03	273	1.039	8.02	2.326	0.60	0.5	137.4	33	1.4	21.0	19.5	1.1	1	20	9.0	<0.1
STD OREAS24P	Standard	0.132	16.4	187	4.15	259	1.055	7.62	2.357	0.66	0.4	142.6	34	1.5	19.8	20.1	1.0	<1	19	9.2	<0.1
STD OREAS24P	Standard	0.136	18.6	178	3.97	284	1.028	7.82	2.262	0.73	0.4	145.9	37	1.7	23.0	20.3	1.0	1	20	8.3	<0.1

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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**Project:** Jersey-HB

**Report Date:** June 09, 2010

**Page:** 1 of 2 **Part** 3

# QUALITY CONTROL REPORT

VAN10002228.1

Method	1EX	1EX
Analyte	Rb	Hf
Unit	ppm	ppm
MDL	0.1	0.1
Pulp Duplicates		
546535	Drill Core	0.8 <0.1
REP 546535	QC	1.3 <0.1
546558	Drill Core	1.2 <0.1
REP 546558	QC	1.0 <0.1
546588	Drill Core	1.3 <0.1
REP 546588	QC	1.7 <0.1
546619	Drill Core	2.0 <0.1
REP 546619	QC	1.7 <0.1
546626	Drill Core	2.3 <0.1
REP 546626	QC	2.2 <0.1
Core Reject Duplicates		
546513	Drill Core	126.6 0.6
DUP 546513	QC	116.7 0.5
546548	Drill Core	3.8 <0.1
DUP 546548	QC	3.4 <0.1
546583	Drill Core	0.9 <0.1
DUP 546583	QC	0.4 <0.1
546618	Drill Core	2.2 <0.1
DUP 546618	QC	2.2 <0.1
Reference Materials		
STD OREAS24P	Standard	22.7 3.8
STD OREAS24P	Standard	18.2 3.8
STD OREAS24P	Standard	23.2 3.6
STD OREAS24P	Standard	20.7 3.6
STD OREAS24P	Standard	19.5 3.7
STD OREAS24P	Standard	17.9 3.4
STD OREAS24P	Standard	24.5 3.4
STD OREAS24P	Standard	24.3 3.6





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Project: Jersey-HB  
 Report Date: June 09, 2010

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QUALITY CONTROL REPORT

VAN10002228.1

		WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01
STD OREAS24P	Standard		1.4	47.8	3.2	128	0.1	142.7	44.0	1114	7.78	1	0.7	<0.1	2.9	412	<0.1	<0.1	<0.1	160	5.83
STD OREAS45P	Standard		2.0	731.2	21.1	146	0.4	396.3	123.2	1316	18.75	12	2.1	<0.1	8.9	34	0.3	0.8	0.2	272	0.30
STD OREAS45P	Standard		2.1	734.0	19.5	148	0.3	401.0	123.8	1359	18.86	12	2.0	<0.1	8.7	34	0.1	0.7	0.2	274	0.29
STD OREAS45P	Standard		1.8	711.1	20.5	136	0.4	377.9	114.6	1298	17.89	11	1.9	<0.1	8.4	32	0.1	0.8	0.1	260	0.28
STD OREAS45P	Standard		2.1	744.4	22.8	155	0.4	398.1	127.4	1359	19.32	12	2.2	<0.1	9.8	37	0.3	0.8	0.2	279	0.29
STD OREAS45P	Standard		2.0	729.1	20.9	140	0.3	395.3	120.5	1300	18.87	12	1.9	<0.1	8.8	28	<0.1	0.7	0.2	261	0.30
STD OREAS45P	Standard		1.9	706.9	23.3	162	0.4	380.4	118.4	1214	18.53	13	2.2	<0.1	9.3	37	0.2	0.8	<0.1	254	0.25
STD OREAS45P	Standard		2.1	729.5	19.6	149	0.4	392.3	111.3	1309	18.72	12	2.0	<0.1	8.9	32	0.2	0.7	0.2	279	0.29
STD OREAS45P	Standard		2.1	717.2	22.2	135	0.3	394.6	121.8	1306	19.47	13	2.0	<0.1	9.6	34	0.2	0.9	0.2	270	0.32
STD OREAS45P	Standard		2.1	727.7	24.0	149	0.4	404.3	123.0	1351	19.79	14	2.4	<0.1	9.8	37	0.2	1.0	0.2	273	0.31
STD OREAS24P Expected			1.5	52	2.9	119	0.06	141	44	1100	7.53	1.2	0.75		2.85	403	0.15	0.09		158	5.83
STD OREAS45P Expected			2.1	749	22	141	0.32	385	120	1338	19.22	12	2.2	0.055	9.8	32.6	0.2	0.82	0.21	267	0.3
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		<0.1	<0.1	1.6	<1	<0.1	<0.1	<0.2	11	<0.01	<1	<0.1	<0.1	<0.1	10	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		<0.1	<0.1	1.0	<1	<0.1	<0.1	<0.2	10	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	5	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
Prep Wash																					
G1	Prep Blank	<0.01	0.5	5.9	18.9	46	<0.1	4.3	5.6	721	2.33	<1	2.5	<0.1	6.7	743	<0.1	<0.1	0.2	47	2.44
G1	Prep Blank	<0.01	0.3	6.0	19.8	59	<0.1	4.1	5.2	744	2.36	<1	2.6	<0.1	8.7	736	<0.1	<0.1	0.1	47	2.29



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Client: **Sultan Minerals**  
 1400 - 570 Granville St.  
 Vancouver BC V6C 3P1 Canada

Project: Jersey-HB  
 Report Date: June 09, 2010

Page: 2 of 2 Part 2

QUALITY CONTROL REPORT

VAN10002228.1

		1EX P %	1EX La ppm	1EX Cr ppm	1EX Mg %	1EX Ba ppm	1EX Ti %	1EX Al %	1EX Na %	1EX K %	1EX W ppm	1EX Zr ppm	1EX Ce ppm	1EX Sn ppm	1EX Y ppm	1EX Nb ppm	1EX Ta ppm	1EX Be ppm	1EX Sc ppm	1EX Li ppm	1EX S %
		0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
STD OREAS24P	Standard	0.132	18.8	194	3.99	296	1.067	7.72	2.292	0.71	0.5	135.6	37	1.8	22.8	19.6	1.0	1	20	9.6	<0.1
STD OREAS45P	Standard	0.044	23.6	1073	0.20	305	1.037	7.44	0.087	0.36	2.9	147.3	46	2.5	13.1	19.7	1.2	<1	85	14.6	<0.1
STD OREAS45P	Standard	0.045	25.6	1120	0.18	298	1.042	7.20	0.066	0.36	1.2	169.7	48	2.8	12.4	21.0	1.2	<1	70	14.8	<0.1
STD OREAS45P	Standard	0.044	22.2	1035	0.19	269	0.976	6.94	0.083	0.37	1.0	141.9	45	2.3	12.8	18.5	1.1	<1	80	12.1	<0.1
STD OREAS45P	Standard	0.045	25.9	1114	0.19	315	1.071	7.26	0.082	0.38	1.2	164.2	52	2.7	14.9	22.9	1.3	<1	69	15.8	<0.1
STD OREAS45P	Standard	0.047	22.8	1080	0.20	270	1.003	6.91	0.084	0.35	1.1	143.0	45	2.3	12.5	19.2	1.1	<1	69	13.9	<0.1
STD OREAS45P	Standard	0.045	22.3	1057	0.20	276	1.031	6.44	0.075	0.31	1.3	153.7	45	2.5	12.1	20.9	1.1	<1	64	12.8	<0.1
STD OREAS45P	Standard	0.042	23.9	1077	0.18	283	1.015	6.63	0.082	0.38	1.2	168.0	48	2.3	12.5	19.8	1.2	<1	65	15.1	<0.1
STD OREAS45P	Standard	0.049	24.7	1106	0.22	299	1.044	6.98	0.086	0.40	1.2	160.1	48	2.4	13.3	21.8	1.1	1	70	15.0	<0.1
STD OREAS45P	Standard	0.046	25.3	1112	0.23	306	1.049	7.05	0.089	0.40	1.2	172.7	49	2.7	13.5	21.2	1.2	1	68	18.1	<0.1
STD OREAS24P Expected		0.136	17.4	196	4.13	285	1.1	7.66	2.34	0.7	0.5	141	37.6	1.6	21.3	21	1.04		20	8.7	
STD OREAS45P Expected		0.047	24.8	1089	0.1962	296	1.037	6.82	0.081	0.35	1.1	154	48.9	2.5	13	21.6	1.2		67	14.7	0.03
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	0.7	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	0.5	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
Prep Wash																					
G1	Prep Blank	0.072	22.3	10	0.57	1140	0.227	8.18	2.716	3.10	0.2	11.5	45	1.8	13.2	26.7	1.3	3	6	38.4	<0.1
G1	Prep Blank	0.077	27.7	13	0.55	1114	0.240	7.90	2.624	3.20	0.2	11.8	54	1.7	15.0	29.9	1.4	2	6	37.6	<0.1



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**Client:** Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1 Canada

**Project:** Jersey-HB

**Report Date:** June 09, 2010

**Page:** 2 of 2 **Part** 3

## QUALITY CONTROL REPORT

VAN10002228.1

		1EX Rb ppm 0.1	1EX Hf ppm 0.1
STD OREAS24P	Standard	23.4	3.6
STD OREAS45P	Standard	21.7	4.0
STD OREAS45P	Standard	21.7	4.0
STD OREAS45P	Standard	22.4	3.6
STD OREAS45P	Standard	24.6	4.2
STD OREAS45P	Standard	22.5	3.7
STD OREAS45P	Standard	20.2	3.9
STD OREAS45P	Standard	25.5	4.1
STD OREAS45P	Standard	24.3	4.0
STD OREAS45P	Standard	27.4	4.3
STD OREAS24P Expected		22.4	3.6
STD OREAS45P Expected		24.6	4.12
BLK	Blank	<0.1	<0.1
BLK	Blank	<0.1	<0.1
BLK	Blank	<0.1	<0.1
BLK	Blank	<0.1	<0.1
BLK	Blank	<0.1	<0.1
BLK	Blank	<0.1	<0.1
BLK	Blank	<0.1	<0.1
BLK	Blank	<0.1	<0.1
Prep Wash			
G1	Prep Blank	115.6	0.6
G1	Prep Blank	118.3	0.7



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**Client:** Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1 Canada

Submitted By: Art Troup  
Receiving Lab: Canada-Vancouver  
Received: June 10, 2010  
Report Date: June 14, 2010  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN10002228R.1

### CLIENT JOB INFORMATION

Project: Jersey-HB  
Shipment ID: HB1002  
P.O. Number: HBG1002  
Number of Samples: 14

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
7TD1	14	4-acid Digestion ICP-ES Finish	0.5	Completed	VAN

### SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1  
Canada

CC: Perry Grunenberg



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.  
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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**Client:** Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1 Canada

**Project:** Jersey-HB  
**Report Date:** June 14, 2010

**Page:** 2 of 2      **Part** 1

## CERTIFICATE OF ANALYSIS

VAN10002228R.1

	<b>Method</b>	<b>7TD</b>
	<b>Analyte</b>	<b>Zn</b>
	<b>Unit</b>	<b>%</b>
	<b>MDL</b>	<b>0.01</b>
546522	Drill Core	7.76
546523	Drill Core	8.42
546524	Drill Core	1.63
546526	Drill Core	2.33
546548	Drill Core	1.64
546550	Drill Core	2.04
546574	Drill Core	1.56
546585	Drill Core	7.75
546590	Drill Core	2.42
546591	Drill Core	5.18
546621	Drill Core	1.16
546624	Drill Core	3.76
546625	Drill Core	1.04
546628	Drill Core	2.27



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**Client:** Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1 Canada

**Project:** Jersey-HB

**Report Date:** June 14, 2010

**Page:** 1 of 1 Part 1

## QUALITY CONTROL REPORT

VAN10002228R.1

	Method	7TD
	Analyte	Zn
	Unit	%
	MDL	0.01
Pulp Duplicates		
546625	Drill Core	1.04
REP 546625	QC	1.05
Reference Materials		
STD OREAS131A	Standard	2.87
STD R4T	Standard	3.36
STD R4T Expected		3.376
STD OREAS131A Expected		2.83
BLK	Blank	<0.01



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**Client:** Sultan Minerals  
 1400 - 570 Granville St.  
 Vancouver BC V6C 3P1 Canada

Submitted By: Art Troup  
 Receiving Lab: Canada-Vancouver  
 Received: May 26, 2010  
 Report Date: June 17, 2010  
 Page: 1 of 2

**CERTIFICATE OF ANALYSIS**

VAN10002229.2

**CLIENT JOB INFORMATION**

Project: Jersey-HB  
 Shipment ID: HB1002  
 P.O. Number: HBG1002  
 Number of Samples: 3

**SAMPLE PREPARATION AND ANALYTICAL PROCEDURES**

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	3	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1EX	3	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN
7TD1	3	4 Acid Digestion ICP-ES analysis	0.5	Completed	VAN

**SAMPLE DISPOSAL**

STOR-PLP Store After 90 days Invoice for Storage  
 DISP-RJT Dispose of Reject After 90 days

**ADDITIONAL COMMENTS**

Version 2: 7TD1 Zn included

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Sultan Minerals  
 1400 - 570 Granville St.  
 Vancouver BC V6C 3P1  
 Canada

CC: Perry Grunenberg



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. \*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Client: **Sultan Minerals**  
 1400 - 570 Granville St.  
 Vancouver BC V6C 3P1 Canada

Project: Jersey-HB  
 Report Date: June 17, 2010

Page: 2 of 2 Part 1

CERTIFICATE OF ANALYSIS

VAN10002229.2

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
TR100101	Rock	2.06	0.2	4.7	361.1	>10000	0.5	0.3	2.5	1356	0.90	3	0.8	<0.1	0.7	91	511.1	0.9	0.1	18	27.06
TR100201	Rock	1.57	0.2	6.5	113.5	>10000	0.7	0.9	2.1	883	0.88	2	1.2	<0.1	1.6	98	318.9	0.9	0.2	15	21.34
TR100301	Rock	1.46	0.5	13.1	9.1	>10000	0.4	2.4	2.8	523	0.97	<1	0.9	<0.1	1.0	111	322.4	0.8	<0.1	34	20.04





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 Vancouver BC V6C 3P1 Canada

Project: Jersey-HB  
 Report Date: June 17, 2010

Page: 2 of 2 Part 2

CERTIFICATE OF ANALYSIS

VAN10002229.2

Method	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S	
Unit	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1	
TR100101	Rock	0.009	7.9	3	3.59	79	0.005	0.51	0.017	0.12	0.2	2.7	11	0.3	5.0	0.2	<0.1	<1	1	3.7	2.3
TR100201	Rock	0.014	8.0	5	7.84	96	0.015	0.85	0.178	0.16	0.4	5.1	14	0.4	5.9	0.6	<0.1	<1	1	5.8	0.8
TR100301	Rock	0.009	7.5	7	8.88	177	0.016	0.91	0.016	0.39	0.2	3.3	10	0.4	4.3	0.5	<0.1	<1	2	17.8	2.3



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**Project:** Jersey-HB  
**Report Date:** June 17, 2010

**Page:** 2 of 2 Part 3

## CERTIFICATE OF ANALYSIS

VAN10002229.2

	Method	1EX	1EX	7TD
	Analyte	Rb	Hf	Zn
	Unit	ppm	ppm	%
	MDL	0.1	0.1	0.01
TR100101	Rock	4.7	<0.1	8.93
TR100201	Rock	5.9	0.1	5.06
TR100301	Rock	11.9	0.1	6.11



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 1400 - 570 Granville St.  
 Vancouver BC V6C 3P1 Canada

Project: Jersey-HB  
 Report Date: June 17, 2010

Page: 1 of 1 Part 1

QUALITY CONTROL REPORT

VAN10002229.2

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.01	
Pulp Duplicates																					
TR100301	Rock	1.46	0.5	13.1	9.1	>10000	0.4	2.4	2.8	523	0.97	<1	0.9	<0.1	1.0	111	322.4	0.8	<0.1	34	20.04
REP TR100301	QC																				
Reference Materials																					
STD OREAS131A	Standard																				
STD OREAS24P	Standard		1.5	50.7	3.4	126	<0.1	159.1	51.3	1182	7.93	1	0.7	<0.1	2.9	411	<0.1	<0.1	<0.1	165	6.08
STD OREAS45P	Standard		2.0	731.2	21.1	146	0.4	396.3	123.2	1316	18.75	12	2.1	<0.1	8.9	34	0.3	0.8	0.2	272	0.30
STD R4T	Standard																				
STD OREAS24P Expected			1.5	52	2.9	119	0.06	141	44	1100	7.53	1.2	0.75		2.85	403	0.15	0.09		158	5.83
STD OREAS45P Expected			2.1	749	22	141	0.32	385	120	1338	19.22	12	2.2	0.055	9.8	32.6	0.2	0.82	0.21	267	0.3
STD R4T Expected																					
STD OREAS131A Expected																					
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank																				
Prep Wash																					
G1	Prep Blank	<0.01	0.2	3.7	18.6	51	<0.1	4.4	5.6	968	2.59	<1	2.8	<0.1	7.4	716	<0.1	<0.1	0.1	53	2.44



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**Client:** Sultan Minerals  
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**Project:** Jersey-HB  
**Report Date:** June 17, 2010

Page: 1 of 1 Part 2

QUALITY CONTROL REPORT

VAN10002229.2

Method		1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX
Analyte		P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
Unit		%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
Pulp Duplicates																					
TR100301	Rock	0.009	7.5	7	8.88	177	0.016	0.91	0.016	0.39	0.2	3.3	10	0.4	4.3	0.5	<0.1	<1	2	17.8	2.3
REP TR100301	QC																				
Reference Materials																					
STD OREAS131A	Standard																				
STD OREAS24P	Standard	0.141	18.9	198	4.31	303	1.101	8.76	2.414	0.74	0.4	139.5	38	1.6	23.9	22.3	1.1	<1	26	8.7	<0.1
STD OREAS45P	Standard	0.044	23.6	1073	0.20	305	1.037	7.44	0.087	0.36	2.9	147.3	46	2.5	13.1	19.7	1.2	<1	85	14.6	<0.1
STD R4T	Standard																				
STD OREAS24P Expected		0.136	17.4	196	4.13	285	1.1	7.66	2.34	0.7	0.5	141	37.6	1.6	21.3	21	1.04		20	8.7	
STD OREAS45P Expected		0.047	24.8	1089	0.1962	296	1.037	6.82	0.081	0.35	1.1	154	48.9	2.5	13	21.6	1.2		67	14.7	0.03
STD R4T Expected																					
STD OREAS131A Expected																					
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank																				
Prep Wash																					
G1	Prep Blank	0.085	22.7	15	0.62	1106	0.257	8.13	2.823	2.98	0.2	11.5	50	1.8	14.9	30.2	1.5	3	7	39.8	<0.1



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1400 - 570 Granville St.
Vancouver BC V6C 3P1 Canada

Project: Jersey-HB

Report Date: June 17, 2010

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QUALITY CONTROL REPORT

VAN10002229.2

Table with columns: Method, Analyte, Unit, MDL, 1EX Rb, 1EX Hf, 7TD Zn. Rows include Pulp Duplicates, TR100301, REP TR100301, Reference Materials, STD OREAS131A, STD OREAS24P, STD OREAS45P, STD R4T, STD OREAS24P Expected, STD OREAS45P Expected, STD R4T Expected, STD OREAS131A Expected, BLK, Prep Wash, and G1.



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Acme Analytical Laboratories (Vancouver) Ltd.

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**Client:** Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1 Canada

Submitted By: Art Troup  
Receiving Lab: Canada-Vancouver  
Received: May 17, 2010  
Report Date: May 25, 2010  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN10002097.1

### CLIENT JOB INFORMATION

Project: Jersey-HB  
Shipment ID: HB1001  
P.O. Number: HBG1001  
Number of Samples: 24

### SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage  
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Sultan Minerals  
1400 - 570 Granville St.  
Vancouver BC V6C 3P1  
Canada

CC: Spurlin Edwards  
Perry Grunenberg

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS80	24	Dry at 60C sieve 100g to -80 mesh			VAN
Dry at 60C	24	Dry at 60C			VAN
1EX	24	4 Acid digestion ICP-MS analysis	0.25	Completed	VAN

### ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.  
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Project: Jersey-HB  
 Report Date: May 25, 2010

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CERTIFICATE OF ANALYSIS

VAN10002097.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	
2600N5000E	Soil		1.0	29.0	26.3	155	0.4	40.2	13.9	827	3.49	8	2.8	<0.1	12.8	262	0.4	0.6	0.4	80	1.04
2600N5025E	Soil		0.9	31.4	30.0	185	0.4	50.3	15.5	904	3.97	9	2.9	<0.1	14.2	188	0.5	0.5	0.4	86	0.73
2600N5050E	Soil		0.7	29.4	32.6	284	0.4	48.4	15.4	916	4.02	11	2.6	<0.1	11.3	228	0.5	0.7	0.4	81	0.99
2600N5075E	Soil		0.8	29.3	28.8	234	0.4	50.9	15.0	709	3.95	9	3.2	<0.1	13.2	252	0.6	0.7	0.4	98	0.97
2600N5100E	Soil		0.7	36.1	29.4	257	0.7	55.8	15.2	656	3.99	12	3.2	<0.1	13.6	248	1.7	0.5	0.5	89	1.00
2600N5125E	Soil		0.6	20.0	27.7	211	0.5	39.7	12.4	652	2.97	6	2.8	<0.1	23.3	242	1.3	0.5	0.3	71	0.93
2600N5150E	Soil		0.4	19.9	32.3	293	0.3	30.6	10.1	426	3.01	8	3.1	<0.1	15.6	254	0.9	0.6	0.3	74	0.84
2600N5175E	Soil		0.8	26.2	40.1	278	0.5	33.9	12.4	1155	3.16	11	2.5	<0.1	11.3	185	1.6	0.6	0.4	65	0.91
2700N5000E	Soil		0.6	31.3	34.1	269	0.4	45.9	15.1	599	3.64	8	2.0	<0.1	12.6	161	1.2	0.5	0.4	70	0.61
2700N5025E	Soil		0.8	28.0	75.5	291	0.6	45.3	14.3	578	3.57	9	2.3	<0.1	10.9	176	0.8	1.1	0.4	83	0.75
2700N5050E	Soil		0.7	32.3	29.4	233	0.5	43.1	14.4	535	3.66	10	3.0	<0.1	12.5	208	0.6	0.6	0.4	73	0.92
2700N5075E	Soil		0.9	23.7	28.3	260	0.4	33.3	12.2	971	3.23	8	2.4	<0.1	12.3	244	1.0	0.5	0.4	67	1.17
2700N5100E	Soil		0.8	28.1	26.0	245	0.7	44.4	13.0	563	3.42	8	3.3	<0.1	12.1	191	1.2	0.7	0.4	68	0.94
2700N5125E	Soil		0.8	27.0	28.2	235	0.7	55.1	14.5	925	3.77	8	2.5	<0.1	12.9	202	0.9	0.6	0.4	74	0.84
2700N5150E	Soil		0.7	24.0	24.5	203	0.5	37.4	12.3	995	3.20	6	2.1	<0.1	11.7	211	1.1	0.5	0.3	63	0.85
2700N5175E	Soil		0.8	25.9	29.0	267	0.7	71.0	14.3	1022	3.45	8	2.4	<0.1	12.3	210	0.7	0.6	0.3	75	0.95
2800N5000E	Soil		0.7	30.8	32.1	346	0.5	89.0	18.4	897	4.27	10	1.9	<0.1	11.9	156	2.0	0.8	0.4	88	0.68
2800N5025E	Soil		0.8	27.8	35.0	488	0.6	46.5	15.1	782	3.61	8	2.9	<0.1	12.0	190	2.1	0.6	0.4	78	0.85
2800N5050E	Soil		0.5	22.3	26.4	199	0.5	38.7	12.4	677	3.38	5	4.3	<0.1	15.5	262	0.9	0.6	0.3	85	0.98
2800N5075E	Soil		0.3	23.0	34.5	154	0.3	37.4	12.1	484	3.48	9	3.1	<0.1	13.7	150	0.4	0.6	0.3	86	0.54
2800N5100E	Soil		0.6	20.8	31.1	185	0.1	41.4	15.0	460	3.70	8	2.5	<0.1	13.4	222	0.6	0.7	0.3	88	0.81
2800N5125E	Soil		0.8	25.8	31.0	255	0.4	41.6	14.3	813	3.59	6	2.4	<0.1	13.0	211	1.1	0.6	0.4	76	0.94
2800N5150E	Soil		0.8	21.2	33.3	261	0.6	43.8	13.4	1405	3.30	6	2.1	<0.1	11.8	223	1.6	0.6	0.4	70	1.03
2800N5175E	Soil		0.9	27.9	36.2	232	0.5	44.2	15.0	1498	3.26	8	2.3	<0.1	11.4	255	1.0	0.7	0.3	72	1.11



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Project: Jersey-HB  
 Report Date: May 25, 2010

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CERTIFICATE OF ANALYSIS

VAN10002097.1

Method	Analyte	Unit	MDL	1EX P	1EX La	1EX Cr	1EX Mg	1EX Ba	1EX Ti	1EX Al	1EX Na	1EX K	1EX W	1EX Zr	1EX Ce	1EX Sn	1EX Y	1EX Nb	1EX Ta	1EX Be	1EX Sc	1EX Li	1EX S	
				%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
				0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	1	0.1	0.1
2600N5000E	Soil			0.178	41.9	58	0.86	902	0.515	8.12	2.047	2.09	1.2	127.6	87	1.7	17.5	17.9	1.0	2	8	43.1	<0.1	
2600N5025E	Soil			0.255	41.7	79	0.99	855	0.466	7.94	1.633	2.71	1.4	95.9	94	2.3	18.5	16.8	0.9	2	10	44.8	<0.1	
2600N5050E	Soil			0.422	33.6	62	0.80	848	0.493	8.30	1.720	2.07	1.2	118.5	76	1.8	12.7	16.4	0.8	2	8	55.1	<0.1	
2600N5075E	Soil			0.146	46.4	76	0.98	1105	0.532	8.13	1.853	2.51	1.4	89.7	87	2.3	14.8	20.5	1.1	2	10	54.3	<0.1	
2600N5100E	Soil			0.209	49.3	68	0.94	1011	0.480	8.83	1.800	2.32	1.3	129.3	85	2.1	25.9	17.7	1.0	2	10	48.6	<0.1	
2600N5125E	Soil			0.168	40.9	57	0.75	958	0.463	7.85	1.694	2.28	1.3	76.6	78	1.9	12.6	17.9	1.1	2	8	31.8	<0.1	
2600N5150E	Soil			0.064	55.4	57	0.81	1039	0.461	7.89	1.656	2.76	1.5	53.4	104	1.8	14.7	19.7	1.2	2	8	35.5	<0.1	
2600N5175E	Soil			0.308	35.8	42	0.68	851	0.431	8.14	1.355	1.80	1.2	137.6	77	2.0	17.7	12.7	0.8	2	8	40.9	<0.1	
2700N5000E	Soil			0.219	38.1	62	0.95	877	0.433	8.17	1.245	2.45	1.3	90.7	79	1.7	13.7	14.8	0.9	2	9	41.3	<0.1	
2700N5025E	Soil			0.177	30.3	67	1.00	860	0.413	7.90	1.195	2.14	1.3	88.6	78	2.0	11.0	14.6	0.9	3	9	43.3	<0.1	
2700N5050E	Soil			0.252	35.5	60	0.80	874	0.437	8.66	1.434	1.99	1.3	98.6	85	1.9	12.9	14.5	0.9	2	8	56.6	<0.1	
2700N5075E	Soil			0.343	34.0	48	0.70	910	0.428	8.02	1.730	1.97	1.2	107.7	74	1.8	11.7	14.4	0.9	2	7	43.9	<0.1	
2700N5100E	Soil			0.223	38.3	54	0.77	836	0.411	8.27	1.481	1.91	1.2	105.9	75	1.9	16.2	14.1	0.8	2	8	48.1	<0.1	
2700N5125E	Soil			0.207	39.4	62	0.88	908	0.427	8.68	1.379	2.10	1.5	86.9	90	2.2	16.0	15.1	0.8	2	8	46.7	<0.1	
2700N5150E	Soil			0.202	42.0	46	0.74	960	0.417	8.15	1.481	2.25	1.3	111.3	80	1.9	16.3	14.5	1.0	1	8	38.2	<0.1	
2700N5175E	Soil			0.253	41.3	56	0.75	1023	0.477	8.25	1.320	2.21	1.2	108.4	97	2.0	18.6	15.4	1.0	2	9	48.7	<0.1	
2800N5000E	Soil			0.148	32.6	98	1.40	831	0.421	8.93	1.101	2.56	1.6	67.6	72	2.3	8.8	14.7	0.8	3	10	45.7	<0.1	
2800N5025E	Soil			0.286	37.6	61	0.93	862	0.458	9.05	1.506	2.23	1.4	112.8	80	1.9	16.3	13.5	0.7	2	9	46.9	<0.1	
2800N5050E	Soil			0.046	56.6	71	0.90	950	0.496	8.05	1.724	2.58	1.3	54.0	92	2.0	17.8	22.7	1.4	2	9	39.1	<0.1	
2800N5075E	Soil			0.085	46.3	76	1.05	932	0.427	8.17	0.939	3.25	1.3	49.8	87	2.6	14.9	18.8	1.0	3	11	45.7	<0.1	
2800N5100E	Soil			0.067	42.0	79	1.02	957	0.496	8.13	1.483	2.83	1.4	59.5	86	1.9	11.6	21.0	1.1	2	9	47.0	<0.1	
2800N5125E	Soil			0.220	41.1	60	0.86	937	0.459	8.66	1.485	2.37	1.4	110.3	87	2.0	13.5	15.8	0.9	2	9	44.4	<0.1	
2800N5150E	Soil			0.304	37.3	55	0.77	929	0.448	8.55	1.538	2.15	1.2	103.9	76	1.9	13.4	14.0	0.9	2	8	41.2	<0.1	
2800N5175E	Soil			0.300	39.8	51	0.80	953	0.451	8.28	1.721	2.09	1.5	109.3	80	1.9	14.7	15.4	0.9	2	8	45.3	<0.1	





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**Project:** Jersey-HB  
**Report Date:** May 25, 2010

**Page:** 2 of 2 Part 3

# CERTIFICATE OF ANALYSIS

VAN10002097.1

Method	1EX	1EX
Analyte	Rb	Hf
Unit	ppm	ppm
MDL	0.1	0.1
2600N5000E	Soil	79.7 3.3
2600N5025E	Soil	102.0 2.5
2600N5050E	Soil	79.1 3.1
2600N5075E	Soil	92.8 2.6
2600N5100E	Soil	86.3 3.5
2600N5125E	Soil	89.2 2.1
2600N5150E	Soil	115.6 1.6
2600N5175E	Soil	73.4 3.7
2700N5000E	Soil	109.1 2.5
2700N5025E	Soil	87.9 2.5
2700N5050E	Soil	81.7 2.9
2700N5075E	Soil	76.3 3.1
2700N5100E	Soil	72.4 3.0
2700N5125E	Soil	89.5 2.5
2700N5150E	Soil	95.3 2.9
2700N5175E	Soil	97.1 3.1
2800N5000E	Soil	100.3 1.9
2800N5025E	Soil	101.8 3.1
2800N5050E	Soil	127.7 1.5
2800N5075E	Soil	136.1 1.3
2800N5100E	Soil	118.0 1.6
2800N5125E	Soil	97.5 2.9
2800N5150E	Soil	92.4 3.2
2800N5175E	Soil	89.0 3.3



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QUALITY CONTROL REPORT

VAN10002097.1

Method	WGHT	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.2	1	0.01	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.01
Pulp Duplicates																				
2600N5075E	Soil	0.8	29.3	28.8	234	0.4	50.9	15.0	709	3.95	9	3.2	<0.1	13.2	252	0.6	0.7	0.4	98	0.97
REP 2600N5075E	QC	0.8	28.7	29.4	231	0.4	52.2	15.2	699	3.89	13	3.2	<0.1	13.8	250	0.5	0.7	0.4	93	0.97
2700N5125E	Soil	0.8	27.0	28.2	235	0.7	55.1	14.5	925	3.77	8	2.5	<0.1	12.9	202	0.9	0.6	0.4	74	0.84
REP 2700N5125E	QC	0.8	26.0	28.8	223	0.8	57.8	14.2	939	3.62	8	3.8	<0.1	22.2	186	0.9	0.7	0.4	71	0.92
Reference Materials																				
STD OREAS24P	Standard	1.6	54.8	2.5	125	<0.1	159.4	52.0	1213	8.47	<1	0.7	<0.1	2.7	407	<0.1	<0.1	<0.1	182	6.65
STD OREAS24P	Standard	1.8	56.7	2.2	122	<0.1	160.7	50.6	1246	8.49	<1	0.7	<0.1	2.8	404	0.1	<0.1	<0.1	180	6.31
STD OREAS24P	Standard	1.6	51.9	3.0	110	0.3	138.6	48.3	1108	8.13	<1	0.7	<0.1	2.7	387	0.2	0.1	<0.1	167	6.31
STD OREAS24P	Standard	1.7	54.0	3.1	122	<0.1	138.8	50.9	1154	8.35	2	0.7	<0.1	2.9	368	0.1	<0.1	<0.1	183	6.00
STD OREAS24P Expected		1.5	52	2.9	118.9	0.06	141	44	1100	7.53	1.2	0.75		2.85	403	0.15	0.09		158	5.83
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01
BLK	Blank	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.2	<1	<0.01	<1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01



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QUALITY CONTROL REPORT

VAN10002097.1

Method		1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX	1EX
Analyte		P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Ce	Sn	Y	Nb	Ta	Be	Sc	Li	S
Unit		%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.001	0.1	1	0.01	1	0.001	0.01	0.001	0.01	0.1	0.1	1	0.1	0.1	0.1	0.1	1	1	0.1	0.1
Pulp Duplicates																					
2600N5075E	Soil	0.146	46.4	76	0.98	1105	0.532	8.13	1.853	2.51	1.4	89.7	87	2.3	14.8	20.5	1.1	2	10	54.3	<0.1
REP 2600N5075E	QC	0.152	47.1	74	0.94	1096	0.521	8.00	1.810	2.57	1.2	88.1	94	2.5	15.0	19.3	1.1	2	9	51.1	<0.1
2700N5125E	Soil	0.207	39.4	62	0.88	908	0.427	8.68	1.379	2.10	1.5	86.9	90	2.2	16.0	15.1	0.8	2	8	46.7	<0.1
REP 2700N5125E	QC	0.214	37.2	63	0.87	904	0.422	8.97	1.377	2.14	1.4	82.9	87	2.1	15.6	14.3	0.8	2	9	48.8	<0.1
Reference Materials																					
STD OREAS24P	Standard	0.148	20.1	229	4.26	317	1.193	7.81	2.566	0.74	0.4	153.4	39	1.8	23.6	22.9	1.1	<1	19	8.0	<0.1
STD OREAS24P	Standard	0.151	19.3	224	4.29	314	1.198	7.91	2.520	0.71	0.5	161.1	39	1.6	23.0	23.0	1.2	<1	19	8.6	<0.1
STD OREAS24P	Standard	0.138	19.0	186	3.91	289	1.113	7.93	2.234	0.69	0.5	139.4	36	1.8	20.6	20.1	1.0	<1	19	8.1	<0.1
STD OREAS24P	Standard	0.132	19.7	189	4.20	293	1.142	7.91	2.198	0.73	0.4	138.0	36	1.6	22.0	21.2	1.1	<1	18	8.6	<0.1
STD OREAS24P Expected		0.136	17.4	196	4.13	285	1.1	7.66	2.34	0.7	0.5	141	37.6	1.6	21.3	21	1.04		20	8.7	
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	0.5	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1
BLK	Blank	<0.001	<0.1	<1	<0.01	<1	<0.001	<0.01	<0.001	<0.01	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<0.1



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Project: Jersey-HB

Report Date: May 25, 2010

Page: 1 of 1 Part 3

QUALITY CONTROL REPORT

VAN10002097.1

Table with 4 columns: Method, Analyte, Unit, MDL, 1EX Rb ppm, 1EX Hf ppm. Rows include Pulp Duplicates, 2600N5075E, REP 2600N5075E, 2700N5125E, REP 2700N5125E, Reference Materials, STD OREAS24P, and BLK.

hole_id	tag #	From_m	To_m	cert#
HB1001	546501	36	37.5	VAN10002228
HB1001	546502	47.6	49.1	VAN10002228
HB1001	546503	56.4	57.7	VAN10002228
HB1001	546504	60.4	61.9	VAN10002228
HB1001	546505	74.8	75.6	VAN10002228
HB1001	546506	75.9	78.7	VAN10002228
HB1002	546507	5.5	7.6	VAN10002228
HB1002	546508	11.6	14.6	VAN10002228
HB1002	546509	21.8	23.8	VAN10002228
HB1002	546510	45.1	48.1	VAN10002228
HB1002	546511	51.2	54.3	VAN10002228
HB1002	546512	63.4	66.5	VAN10002228
HB1002	546513	66.5	69.5	VAN10002228
HB1002	546514	69.5	72.6	VAN10002228
HB1002	546515	72.6	75.6	VAN10002228
HB1002	546516	81.7	84.8	VAN10002228
HB1002	546517	90.8	93.9	VAN10002228
HB1003	546518	2.1	3.7	VAN10002228
HB1003	546519	3.7	5.2	VAN10002228
HB1003	546520	5.2	6.1	VAN10002228
HB1003	546521	6.1	7.2	VAN10002228
HB1003	546522	7.2	7.9	VAN10002228
HB1003	546523	7.9	9	VAN10002228
HB1003	546524	9	9.9	VAN10002228
HB1003	546525	9.9	10.6	VAN10002228
HB1003	546526	10.6	11.1	VAN10002228
HB1003	546527	11.1	11.9	VAN10002228
HB1003	546528	11.9	12.4	VAN10002228
HB1003	546529	12.4	14.3	VAN10002228
HB1003	546530	14.3	17.4	VAN10002228
HB1003	546531	17.4	20.4	VAN10002228
HB1003	546532	29.6	31.1	VAN10002228
HB1003	546533	31.1	32.6	VAN10002228
HB1003	546534	59.1	59.5	VAN10002228
HB1003	546535	59.5	60.1	VAN10002228
HB1003	546536	66.8	69.2	VAN10002228
HB1003	546537	69.2	72.3	VAN10002228
HB1003	546538	72.3	74.7	VAN10002228
HB1004	546539	1.5	4	VAN10002228
HB1004	546540	4	5.5	VAN10002228
HB1004	546541	5.5	6.4	VAN10002228
HB1004	546542	6.4	7.3	VAN10002228
HB1004	546543	7.3	8.5	VAN10002228
HB1004	546544	8.5	11	VAN10002228
HB1004	546545	11	12.8	VAN10002228
HB1004	546546	12.8	14	VAN10002228
HB1004	546547	14	15.2	VAN10002228
HB1004	546548	15.2	15.9	VAN10002228
HB1004	546549	15.9	17.4	VAN10002228
HB1004	546550	17.4	18	VAN10002228
HB1004	546551	18	20.1	VAN10002228
HB1004	546552	20.1	21	VAN10002228
HB1004	546553	32.9	33.8	VAN10002228
HB1004	546554	33.8	36	VAN10002228
HB1004	546555	36	37.6	VAN10002228
HB1004	546556	37.6	39	VAN10002228
HB1004	546557	39	40.2	VAN10002228
HB1004	546558	40.2	42.1	VAN10002228
HB1004	546559	42.1	43.6	VAN10002228

hole_id	tag #	From_m	To_m	cert#
HB1004	546560	43.6	45.1	VAN10002228
HB1004	546561	45.1	46.6	VAN10002228
HB1004	546562	46.6	48.2	VAN10002228
HB1004	546563	48.2	49.7	VAN10002228
HB1004	546564	49.7	51.2	VAN10002228
HB1004	546565	62.2	63.4	VAN10002228
HB1004	546566	63.4	64.9	VAN10002228
HB1004	546567	64.9	66.5	VAN10002228
HB1004	546568	68.6	69.5	VAN10002228
HB1004	546569	70.6	72.6	VAN10002228
HB1004	546570	75.6	77.1	VAN10002228
HB1004	546571	82.2	84.8	VAN10002228
HB1005	546572	2.9	3.7	VAN10002228
HB1005	546573	3.7	4.6	VAN10002228
HB1005	546574	4.6	5.5	VAN10002228
HB1005	546575	5.5	7.3	VAN10002228
HB1005	546576	7.3	9	VAN10002228
HB1005	546577	9	10.4	VAN10002228
HB1005	546578	10.4	11.6	VAN10002228
HB1005	546579	11.6	13.7	VAN10002228
HB1005	546580	13.7	14.6	VAN10002228
HB1005	546581	14.6	17.7	VAN10002228
HB1005	546582	17.7	19.5	VAN10002228
HB1005	546583	19.5	21.8	VAN10002228
HB1005	546584	21.8	23.4	VAN10002228
HB1005	546585	23.4	24.8	VAN10002228
HB1005	546586	24.8	26.2	VAN10002228
HB1005	546587	26.2	27.8	VAN10002228
HB1005	546588	27.8	28.7	VAN10002228
HB1005	546589	28.7	30.3	VAN10002228
HB1005	546590	30.3	31.3	VAN10002228
HB1005	546591	31.3	32.4	VAN10002228
HB1005	546592	32.4	32.6	VAN10002228
HB1005	546593	32.6	33.5	VAN10002228
HB1005	546594	33.5	36	VAN10002228
HB1005	546595	36	38.1	VAN10002228
HB1006	546596	2.1	5.2	VAN10002228
HB1006	546597	5.2	8.2	VAN10002228
HB1006	546598	8.2	11.3	VAN10002228
HB1006	546599	11.3	13.7	VAN10002228
HB1006	546600	13.7	14.7	VAN10002228
HB1006	546601	17.4	20.4	VAN10002228
HB1006	546602	20.4	21.7	VAN10002228
HB1006	546603	21.7	23.5	VAN10002228
HB1006	546604	23.5	26.5	VAN10002228
HB1006	546605	39	40.5	VAN10002228
HB1006	546606	50.9	54	VAN10002228
HB1007	546607	42.8	44.1	VAN10002228
HB1007	546608	44.1	45.1	VAN10002228
HB1007	546609	45.1	46.2	VAN10002228
HB1007	546610	46.2	47	VAN10002228
HB1007	546611	47	48.4	VAN10002228
HB1007	546612	48.4	51.2	VAN10002228
HB1007	546613	51.2	54.3	VAN10002228
HB1008	546614	1.5	4.3	VAN10002228
HB1008	546615	4.3	4.7	VAN10002228
HB1008	546616	4.7	5.8	VAN10002228
HB1008	546617	5.8	6.7	VAN10002228
HB1008	546618	6.7	8.2	VAN10002228
HB1008	546619	8.2	9.2	VAN10002228

hole_id	tag #	From_m	To_m	cert#
HB1008	546620	9.2	10.3	VAN10002228
HB1008	546621	10.3	11.3	VAN10002228
HB1008	546622	11.3	12.9	VAN10002228
HB1008	546623	12.9	14.4	VAN10002228
HB1008	546624	14.4	14.9	VAN10002228
HB1008	546625	14.9	15.3	VAN10002228
HB1008	546626	15.3	17.7	VAN10002228
HB1008	546627	17.7	18.9	VAN10002228
HB1008	546628	18.9	19.5	VAN10002228
HB1008	546629	19.5	20.7	VAN10002228
HB1008	546630	20.7	21.6	VAN10002228
HB1008	546631	21.6	23.8	VAN10002228
HB1008	546632	27.7	29.9	VAN10002228
HB1008	546633	36	39	VAN10002228
Tr1001	Tr100101	1.5	3	VAN10002229
Tr1002	Tr100102	1	2	VAN10002229
Tr1003	Tr100103	0	1	VAN10002229