

BC Geological Survey  
Assessment Report  
31645

HD MINERAL PROPERTY

DIAMOND DRILLING  
ASSESSMENT REPORT

2010



OMINECA MINING DIVISION, BRITISH COLUMBIA  
93L047

LATITUDE: 54° 27' N      LONGITUDE: 126° 39' W

GPS: NAD 83 UTM ZONE 9

NORTHING: 6035660      EASTING: 0651911

OWNERS: JOHN WESLEY MOLL, GLORIA MAY MERKLEY, DANIEL MORICE MERKLEY

DRILL CORE LOGGED BY: RICK KEMP, P.GEO.

REPORT BY DANIEL MERKLEY

AUGUST 2010

31,645

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

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

**ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY**

TITLE OF REPORT [type of survey(s)]	TOTAL COST
HD MINERAL PROPERTY DIAMOND DRILLING ASSESSMENT REPORT	\$8,961.00

AUTHOR(S) DANIEL MERKLEY SIGNATURE(S) *Daniel Merkley*

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) N/A YEAR OF WORK 2010

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 4679931

PROPERTY NAME HD

CLAIM NAME(S) (on which work was done) TENURE NUMBER: 516488

COMMODITIES SOUGHT Cu, Zn, Pb, Mo, Ag, Au

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 93L-203, 93L-204, 93L-205

MINING DIVISION OMINECA NTS 093L/7E

LATITUDE 54 ° 27 ' \_\_\_\_\_ " LONGITUDE 126 ° 39 ' \_\_\_\_\_ " (at centre of work)

OWNER(S)  
1) JOHN WESLEY MOLL 2) DANIEL MORICE MERKLEY  
GLORIA MAY MERKLEY

MAILING ADDRESS  
P. O. BOX 1182; HOUSTON, B. C. 3313 HWY 16 E; HOUSTON, B. C.  
VOJ 1Z0 VOJ 1Z2

OPERATOR(S) [who paid for the work]  
1) AS ABOVE 2) \_\_\_\_\_

MAILING ADDRESS  
AS ABOVE

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):  
JURASSIC AGE HAZELTON GROUP TELKWA FORMATION. MICROSYPENITE, GABBRO, QUARTZ FELDSPAR  
PORPHYRY. RHYOLITE, ANDESITE, BASALT, JASPER, CHERT, LIMESTONE, MUDSTONE. SILICIFICATION,  
HEMATIZATION. SPHALERITE, CHALCOPYRITE, BORNITE, GALENA, TETRAHEDRITE, FLUORITE,  
MOLYBDENITE, GOLD.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS 05020, 09849, 10796, 14157,  
15360, 15864, 18360, 18864, 18911, 25891, 26288, 26577, 26887, 27195, 27456, 27810,  
28456, 29129, 29567, 30313.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping _____			
Photo interpretation _____			
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic _____			
Electromagnetic _____			
Induced Polarization _____			
Radiometric _____			
Seismic _____			
Other _____			
Airborne _____			
<b>GEOCHEMICAL</b>			
(number of samples analysed for ...)			
Soil _____			
Silt _____			
Rock 1 GRAB SAMPLE/Au, Pt, Pd by F.A.		TENURE NUMBER: 516488	\$300.00
Other _____			
<b>DRILLING</b>			
(total metres; number of holes, size)			
Core 1 HOLE: 25 METERS/EX SIZE		TENURE NUMBER: 516488	\$8,661.00
Non-core _____			
<b>RELATED TECHNICAL</b>			
Sampling/assaying _____			
Petrographic _____			
Mineralographic _____			
Metallurgic _____			
<b>PROSPECTING (scale, area)</b> _____			
<b>PREPARATORY/PHYSICAL</b>			
Line/grid (kilometres) _____			
Topographic/Photogrammetric (scale, area) _____			
Legal surveys (scale, area) _____			
Road, local access (kilometres)/trail _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____			
<b>TOTAL COST</b>			<b>\$8,961.00</b>

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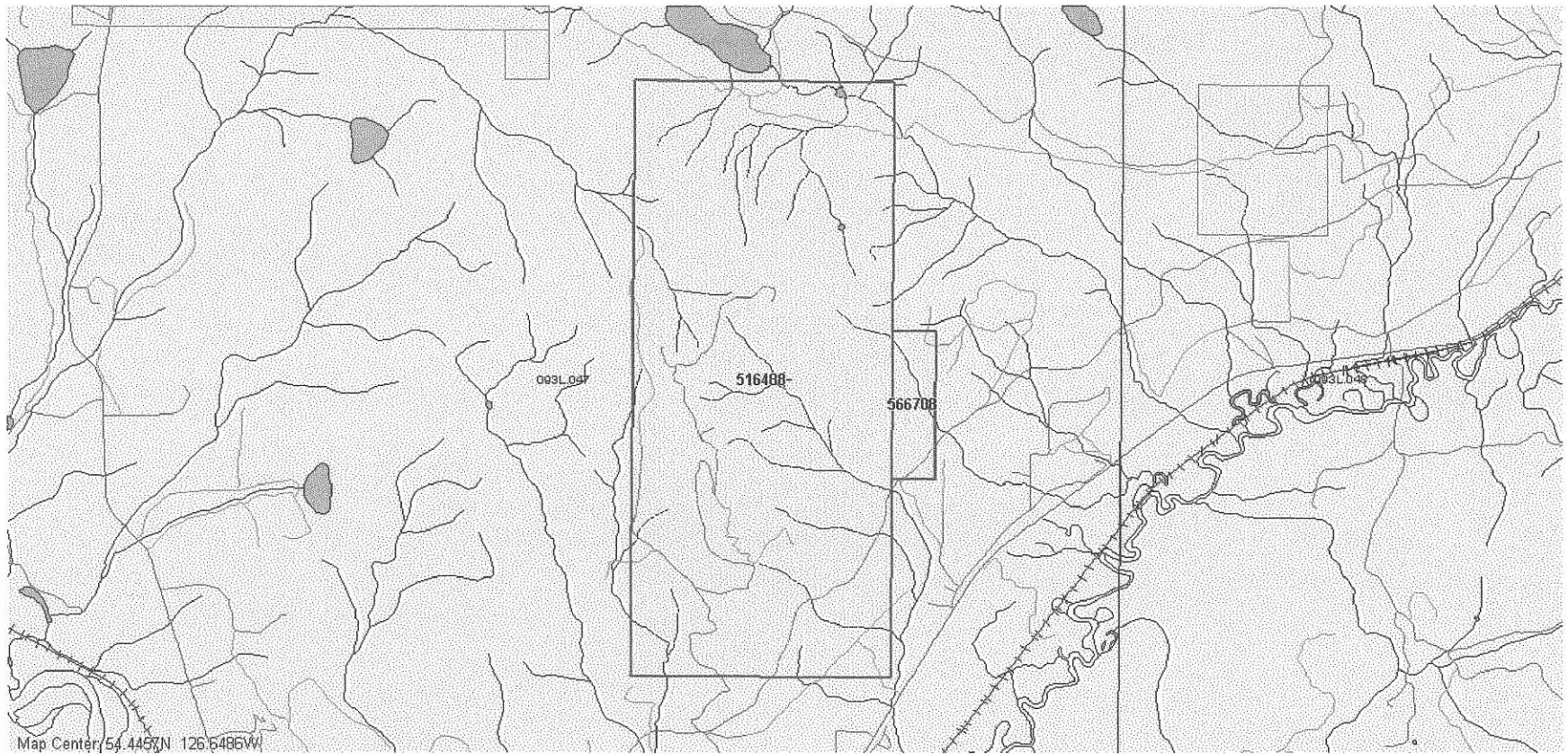
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# PROVINCIAL MAP PROPERTY LOCATION



Map Center: 54.4781N 124.7082W

# MINERAL CLAIM MAP



2

HOUSTON

## LOCATION:

The HD mineral property is situated on Mount Harry Davis, approximately 5.5 km north of the village of Houston, in West-Central British Columbia.

## ACCESS:

Access to the HD property is by way of a good gravel road named Mt. Davis Way, which departs from highway 16 at the east of the village of Houston, just before crossing the Bulkley River overpass. The road is hard-surfaced before it traverses "The North Road"; from there it is gravel surfaced and accessible with two-wheel drive vehicle. Several spur roads branch from the main access road near the crest of Mt. Harry Davis. These roads are used to service Microwave, Television and VOR (Visual Omnirange) antenna at the mountain summit. These roads and several mineral exploration roads (not accessible by vehicle) provide access to historic and more recent exploration work sites on the mountain.

## HISTORY:

1908—An old post with the name *Fraser, 1908* was discovered by **Melvin McQuatt**, a Houston prospector, on the easterly slope of Mt. Harry Davis.

1918-1920's—The *Mammoth, Mison* and *B. C. Leader* mineral claims are held by **Paul Tickoles** a Houston prospector. **Paul Tickoles** digs several test pits and trenches at various locations on Mt. Harry Davis. He also drives two adits on polymetallic mineralization at the lower slope of the mountain's north side and another south of the mountain summit. The northerly adit was driven on high-grade copper/zinc/gold, where a gold assay read 0.09 ounces per ton and the related zinc assay was greater than 40%. The southern adit was driven on a narrow zinc (blackjack) vein, which was hosted by purple fluorite.

The *Minister Of Mines Annual Report for 1929* states: "The northeast of the claim was known as the B. C. Leader property in the 1920's. Work consisted of a series of open cuts which encountered zinc, silver and copper mineralization". On pages A74-A75, The *Minister Of Mines Annual Report for 1931* states: "**Paul Tickoles** has accomplished a great deal, single-handed, at this property, in the way of open-cuts and one tunnel 30 feet in length".

1924—Two Houston-based prospectors by the names of **Andrew Martenson** and **Martin Bellicini** sink a ±40-foot shaft at the south-easterly region of Mt. Harry Davis.

The work targets a  $\pm 3$ -foot vein of copper-silver mineralization (Chalcopyrite, bornite, tetrahedrite), which is a larger vein of a reticulate stockwork, which extends for at least 200 meters in a northeast/southwest direction, and approximately 50 meters northwest/southeast. The two prospectors construct a log cabin comprised of large logs approaching a meter in diameter near the workings. It was stated by the old timers that some high-grade ore was shipped from this shaft to a smelter by way of the Prince Rupert port, but this is not confirmed by any historic documents.

1950's-1960's—**Melvin McQuatt** discovers the old workings of **Paul Tickoles** on the northerly slope of Mt. Harry Davis. He and **William H. Merkley** prospect the mountain for several years. **William H. Merkley** stakes the *Eagle claims* on the mountain's easterly sector.

1960's—**Edward Westgarde**, et al, stake copper/silver mineralization exposed at the south sector of Mt. Harry Davis during construction of "The Northroad", the logging road which connects the Houston sawmills to the Babine Lake district. **Edward Westgarde** and **William H. Merkley** option their mineral claims to **Moly mine Exploration Limited**. The work performed by the company is detailed in *British Columbia Mines and Petroleum Report 1967, page 108*. The work included 13 trenches, for a total of 440 meters in length, and stripping 38 trenches for a total length of 1737 meters.

During the '60's **Texas Gulf Sulphur Company** also explored the southern base of Mt. Harry Davis. That company's work involved geological mapping, soil geochemistry, induced polarization and diamond drilling. The work is discussed in the publication: *British Columbia Exploration and Mining 1969 on page 121* and also in the *1970 publication on page 151*.

1976—While hunting grouse, **Wes Moll** discovers more than 30 meters of polymetallic mineralization (Cu, Zn, Pb, Ag, Au) has been exposed during construction of the access road to the VOR antenna. **Wes Moll** and **Dan Merkley** subsequently stake the *Grouse* and *Hilltop 2-post* mineral claims to cover the newly-discovered mineralization and the mineralization discovered by **Paul Tickoles** on the northerly slope of Mt. Harry Davis.

1977—The mineralization discovered by **Wes Moll** at the side of the VOR access road is investigated by **Noranda Exploration**. The company undertakes a soil sample program, which covers the newly-discovered mineralization and extends several survey lines to the north and south for several hundred meters. The program is discussed in *British Columbia Exploration and Mining 1977 on page 195*.

1981—The **Endako Mines Division of Placer Development Limited** restakes the ground covered by the original *HD-1, HD-2, HD-3* and *HD-4* mineral claims held by **Wes Moll, Gloria Merkley** and **Dan Merkley** with new 4-post claims. The company completes extensive programs including geological mapping, a geochemical soil survey, a geochemical rock survey and a broad VLF-EM survey, which covered the upper region of Mt. Harry Davis and centered on the area designated the *Hilltop Zone*.



1985—**Wes Moll, Gloria Merkley and Dan Merkley** option the *HD* property to **Eldor Resources Limited**. The company performs a gravimeter survey over the *Hilltop* and *Switchback Zones*; rock samples were gathered from several test pits, trenches and showings. A winky drill puts down two holes in the north area of the *Switchback Zone* where a depression and a previously completed magnetometer survey demark a northeast/southwest striking fault.

1988—After optioning the *HD* property from **Wes Moll, Gloria Merkley and Dan Merkley, Equity Silver Mines Limited** stakes the *HD-5* mineral claim. The company completes several hundred meters of trenching south of the *Switchback Zone*, an IP survey in the general area, soil geochemistry and rock sample analysis. Six diamond drill holes are put down in this southern region of the *HD* property for a total of 776 meters.

1993—**Teck Exploration Limited** drills a total of 649 meters for NQ size core in 4 diamond drill holes at the summit of Mt. Harry Davis on the *Hilltop* and *Chert Knoll Zones*.

1999—**Wes Moll, William R. Merkley and Dan Merkley** drill 86.9 meters for EX size diamond drill core in 6 holes with an X-Ray drill.

2000-2010—**Wes Moll, Mary Jean Moll, William R. Merkley and Dan Merkley** hold the *HD* property in good standing by performing diamond drilling, geochemical surveys and trail rehabilitation.

## CLAIM STATUS:

The HD mineral property consists of 2 claims, which comprise a total of 75 contiguous cells. The area covered by the claims totals 1410.41 hectares, which is 3485.12 acres. The larger of the 2 tenures is tenure #516488, comprised of 72 cells. Tenure #566708 consists of 3 cells and is named HD1. The tenures are joined on their southeast and west borders, respectively. With acceptance of this assessment report the HD property will remain in good standing until July 25th, 2011.

The HD mineral property is owned by John Wesley Moll (33.34%), Gloria May Merkley (33.33%) and Daniel Morice Merkley (33.33%).

The description of the HD mineral property is outlined in the table below:

CLAIM NAME	TOTAL CELLS	TENURE NUMBER	OLD EXPIRY DATE	NEW EXPIRY DATE
N/A	72	516488	2010/Jun/20	2011/Jul/25
HD1	3	566708	2010/Jun/20	2011/Jul/25

DIAMOND DRILLING  
HD MINERAL PROPERTY

**PURPOSE:**

Diamond drill hole HD-2010-01 was drilled in the vicinity of an exhalite horizon with the intention to intercept the horizon at depth. Similar remobilized polymetallic mineralization occurs at the drill hole collar as that found at surface where the exhalite horizon was discovered by diamond drilling in 2003.

**PROCEDURE:**

During the spring of 2010, Wes Moll, Mary Jean Moll and Dan Merkley undertook a diamond drill program of the HD mineral property. The drill site at the summit of Mount Harry Davis was shrouded in fog on the 21<sup>st</sup> of May—the first day of the drill program—and a light dusting of snow remained on the higher elevations. During the afternoon of the 22<sup>nd</sup> the fog dissipated and the 23<sup>th</sup> of May was a pleasant day. The drill program entailed 3 days: May 21<sup>st</sup>, May 22<sup>nd</sup> and May 23<sup>d</sup>. Diamond drill hole was completed on May 23<sup>d</sup>, 2010, after attaining a depth of 25 meters.

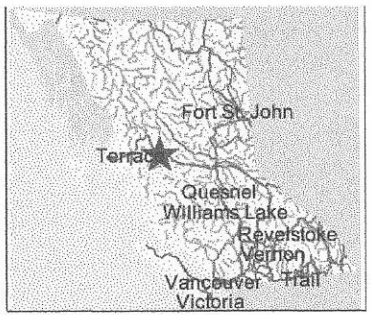
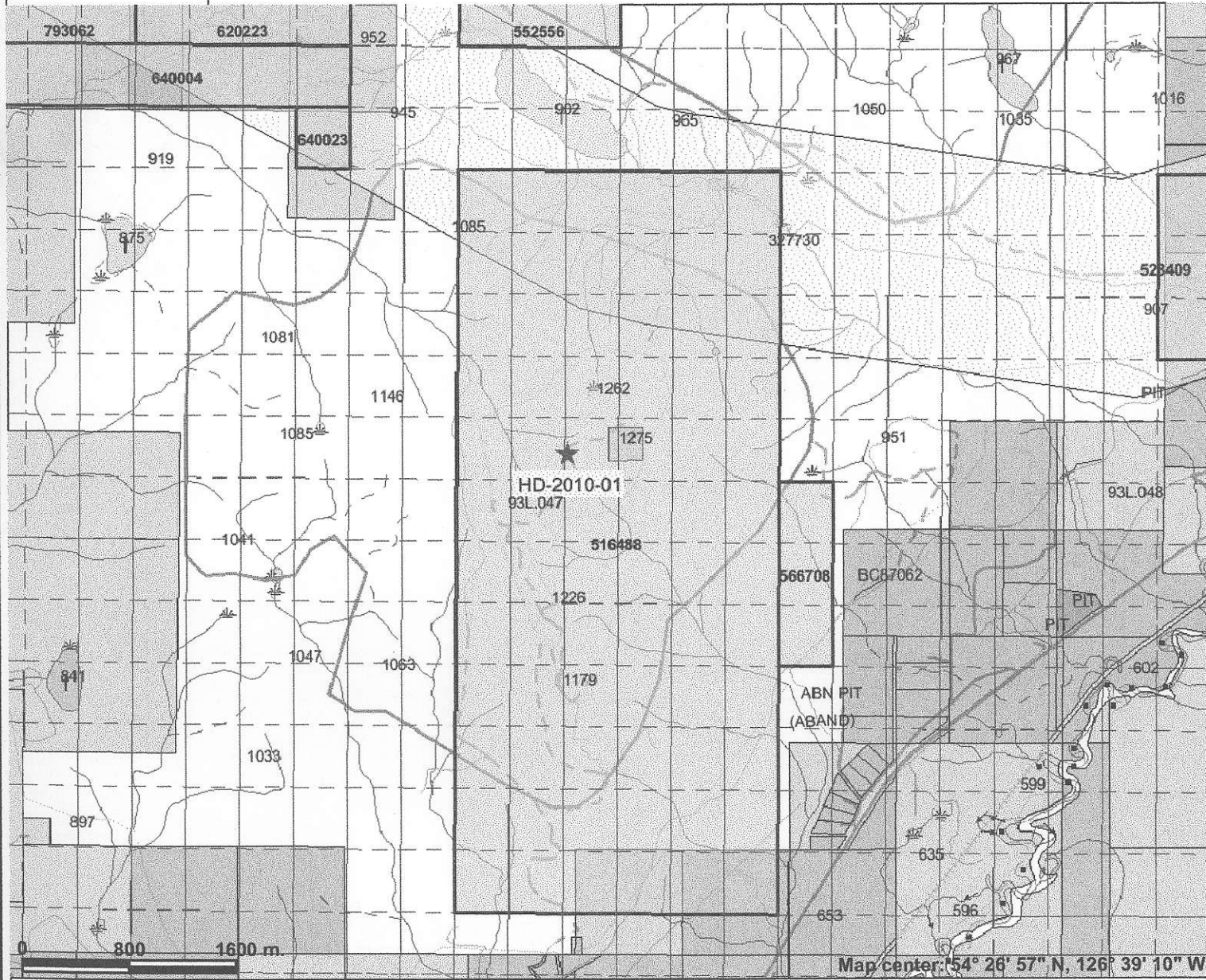
**DIAMOND DRILL HOLE SUMMARY:**

DDH DESIGNATION	LOCATION		AZIMUTH	INCLINATION
	NORTHING	EASTING		
HD-2010-01	0652018	6036417	N/A	— 90°

**CONCLUSION:**

Similar mineralization to that found in the exhalite horizon drilled to the northeast of diamond drill hole HD-2010-01 was not present in the drill core discussed in this report. The lack of polymetallic mineralization similar to that found in the area of the exhalite horizon at surface to the northeast suggests the exhalite horizon strikes in a different direction from that targeted by this present drill program. An inclined hole of shallow attitude could possibly be more instrumental in intercepting the exhalite horizon.

# DIAMOND DRILL HOLE HD-2010-01



### Legend

- Indian Reserves
- National Parks
- Conservancy Areas
- Parks
- MTO Grid (MTO)**
- Blocked by MEM
- Other
- Mineral Tenure (current)**
- Mineral Claim
- Mineral Lease
- Mineral Reserves (current)**
- Placer Claim Designation
- Placer Lease Designation
- No Staking Reserve
- Conditional Reserve
- Release Required Reserve
- Surface Restriction
- Recreation Area
- Others
- Survey Parcels
- BCGS Grid
- Contours (1:250K)**
- Contour - Index
- Contour - Intermediate
- Area of Exclusion
- Area of Indefinite Contours
- Transportation - Points (TRIM)**
- Helipad
- Transportation - Lines (TRIM)**
- Airfield
- Airport
- Airstrip

Map center: 54° 26' 57" N, 126° 39' 10" W

Scale: 1:45,124

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Notes: SCALE: 1:20,000

**DIAMOND DRILL HOLE HD-10-01 CROSS SECTION**

LITHOLOGY	STRATIGRAPHY	DEPTH	MINERALIZATION ALTERATION
	CASING OVERBURDEN	1.20 METERS	
RHYOLITE HARD/SILICIFIED INTERVALS HOSTING 0-1 CM SCALE LAPILLI CLASTS	JURASSIC  LAPILLI TUFF		MODERATE TO STRONG HEMATITIC ALTERATION  MANGANESE STAINED MICROFRACTURES
RHYOLITE PALE GREEN INTENSE RANDOMLY ORIENTED HAIRLINE FRACTURES	JURASSIC POLYMICHTIC LAPILLI	10.50 METERS	QUARTZ-CARBONATE HEALED FRACTURES
RHYOLITE RED-TO-PURPLE COLORATION  HARD/SILICIFIED  FIAMME	JURASSIC  HEMATITIC TUFF LAPILLI TUFF	13.10 METERS	SILICIFICATION HEMATIZATION
	END OF HOLE	25.0 METERS	



HD PROPERTY - Drill Hole Log																		
Tests:	Depth	Azimuth	Dip	Tests:	Depth	Azimuth	Dip	Comments	PROPERTY: HD Property									
1				11					Zone	Date Started: D/M/Y	21-May-10							
2				12					UTM ZONE:	9	Date Finished: D/M/Y	23-May-10						
3				13					UTM Datum	NAD 83	Logged by:	Rick Kemp						
4				14					Easting:	651801	Log date: D/M/Y	27-Aug-10						
5				15					Northing:	6036295	Depth (m):	25m						
6				16					Elevation:	1219m	Core size:	EX						
7				17					Azimuth:	NA	Drill Company:	Wes Moll						
8				18					Dip:	-90	Analytical Lab:							
9				19					Dip Tests									
10				20					To ADD NEW TABS below "Press CTRL+Shif+H, then double click on tab to insert new number, also change in Cell L14									
LONE PINE PROPERTY									DRILL HOLE # HD-10-01									
FROM	TO	UNIT	DESCRIPTION						SAMPLE #	Recovery	From	To	Length	ASSAY				
														ICP	ICP	ICP		
														Cu (ppm)	Mo (ppm)	Ag (ppm)		
0.00	1.20		Casing / Overburden															
1.20	10.50		Rhyolite Tuff / Lapilli Tuff															
			The interval is pale olive green in color, fine grained and very hard / silicified. The interval varies from fine grained aphanitic to intervals hosting <1cm scale subrounded lapilli sized clasts.															
			1.1- 5.7m: Interval is altered and bleached to a beige - cream coloration exhibiting intervals of moderate to strong hematitic alteration. The interval is cross cut by fine mm scale maganese stained microfractures.															
10.50	25.00		Hematitic Tuff / Lapilli Tuff															
			The interval exhibits a characteristic red to purple coloration hosting sub rounded to sub angular polymictic lapilli to pyroclastic clasts up to 2cm in size. The interval is hard and silicified, near rhyolitic in character and locally exhibits fiamme like features. Millimeter scale quartz and quartz carbonate healed fractures are randomly noted.															
			10.5-13.1m: Interval is pale green to greenish beige in color hosting polymictic lapilli to pyroclastic fragments. The interval is strongly fractured and blocky due to intervals of intense randomly oriented hairline fractures.															
	25.00		End of Hole															



**ROCK GEOCHEMISTRY  
HD MINERAL PROPERTY**



## PURPOSE:

A grab sample of rock was collected from the "Road Cut Showing" at the *Hilltop Zone*. The coordinates of the sample site were:

ELEVATION: 1227 METERS

NORTHING	EASTING
6036417	0652018

A description of the rock is tabled below:

LITHOLOGY	STRATIGRAPHY	MINERALIZATION	ALTERATION
GRAY RHYOLITE SILICIFIED LIMESTONE	JURASSIC VOLCANIC/SEDIMENT	Zn (SPHALERITE $\cong$ 2%) Pb (GALENA $\cong$ 0.5 %)	SILICIFICATION CALCAREOUS ALTERATION

## PROCEDURE:

The sample was collected during the early spring of 2010. At the time the winter's snow remained on Mt. Harry Davis and transport to the sample site was by snowmobile. Snow had drifted over the mineralized one hundred-foot embankment at the side of the VOR antenna access road and to reach bedrock required the removal of approximately 6 feet of snow. Several large samples were collected and a representative sample was separated from the others. The sample was fist-sized. The sample was then bagged and delivered to the Assayers Canada office in Telkwa, B. C. The sample was subsequently assayed by Fire Assay.

## RESULTS:

The sample assayed 0.66 grams per tonne gold. This was a very encouraging result. When considered in concert with the zinc mineralization present in the sample, the precious metal content provides an added value for the base metal mineralization and a buffer for times of depressed base metal prices.



**Assayers Canada**  
8282 Sherbrooke St.  
Vancouver, B.C.  
V5X 4R6  
Tel: (604) 327-3436  
Fax: (604) 327-3423

*Quality Assaying for over 35 Years*

**Assay Certificate**

**0S-0010-RA1**

Company: **Wes Moll**  
Project: **Hilltop**  
Attn: **Wes Moll**

**Apr-07-10**

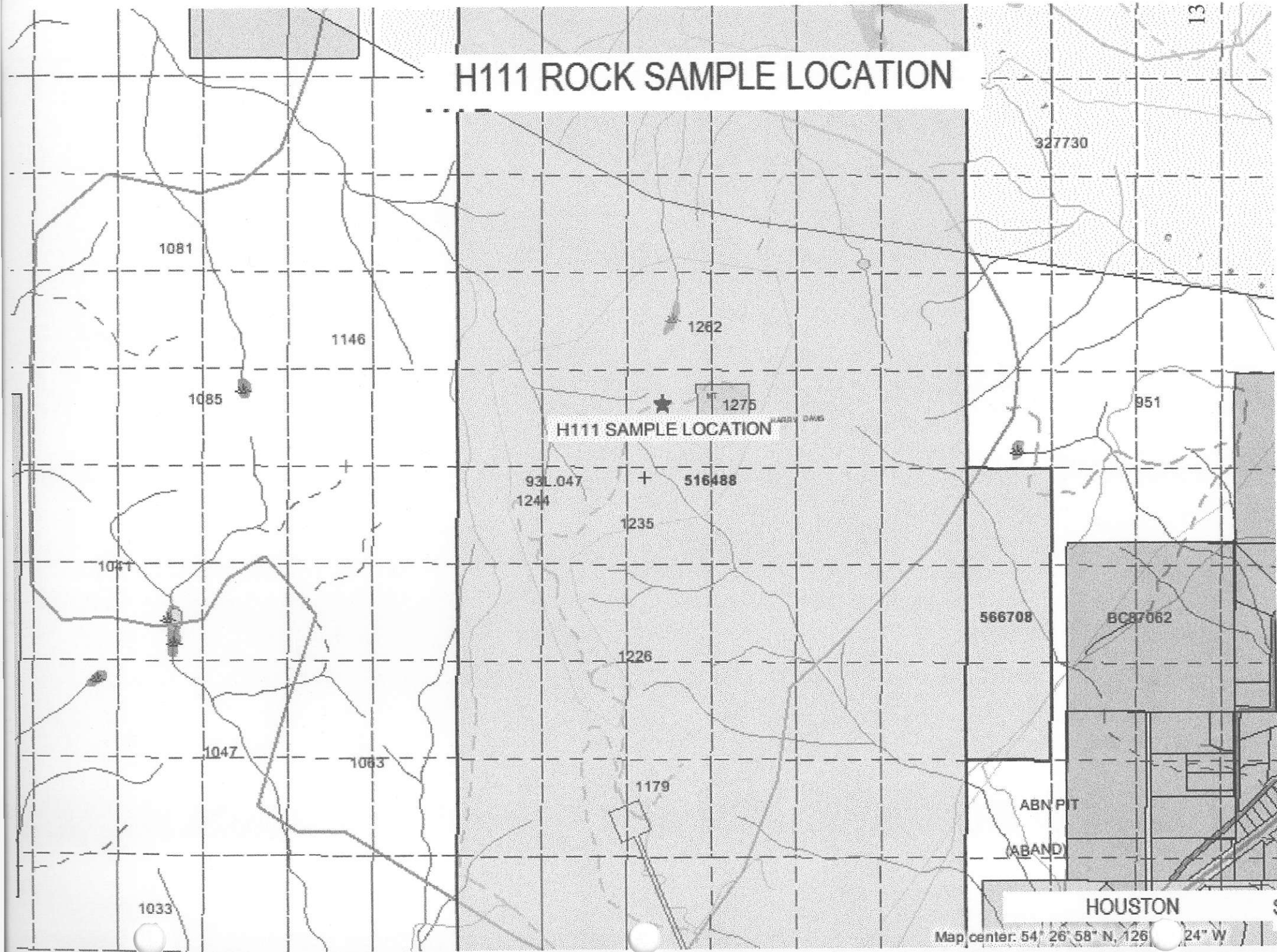
We hereby certify the following assay of 1 core sample submitted Mar-24-10

<b>Sample Name</b>	<b>Au g/tonne</b>	<b>Pt g/tonne</b>	<b>Pd g/tonne</b>	<b>Sample-wt Kg</b>
1-16507	0.66	<0.01	<0.01	0.3
*DUP 1-16507	0.60	<0.01	<0.01	
*PtPd 5	1.13	1.17	1.79	
*BLANK	<0.01	<0.01	<0.01	

Au,Pt,Pd by F.A.

Certified by \_\_\_\_\_

# H111 ROCK SAMPLE LOCATION



2010 EXPENDITURES
-------------------


ATV	(5 DAYS) @ (\$100/DAY)	\$500.00
BOARD	(3 PERSONS) X (5 DAYS) @ (\$45.00/DAY)	\$675.00
CORE LOGGING & HANDLING		\$350.00
DRILLING	25 METERS (82 FEET @ \$28.00/FOOT)	\$2,296.00
MOB & DEMOB		\$1,800.00
PICKUP TRUCK	3 DAYS @ \$100.00/DAY	\$300.00
POWERSAW	3 DAYS @ \$35.00/DAY	\$105.00
REPORT PREPARATION		\$300.00
ROCK DRILL (COPCO)	3 DAYS @ \$50.00/DAY	\$150.00
SAMPLE ANALYSIS & HANDLING		\$300.00
TRAILER	2 DAYS @ \$65.00/DAY	\$130.00
WATER PUMP	3 DAYS @ \$35.00/DAY	\$105.00
WATER TRUCK	3 DAYS @ \$650.00/DAY	\$1,950.00
<u>TOTAL</u>		<u>\$8,961.00</u>

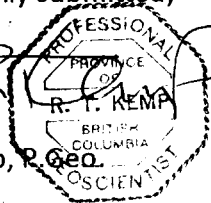
**STATEMENT OF QUALIFICATIONS:**

I, Rick Kemp, of 2769 William Ave, North Vancouver, British Columbia do hereby certify:

1. THAT I graduated from Haileybury School of Mines with a Mining Technician Certificate (1971);
2. THAT I hold a Bachelor Degree of Science (Geology) from Lakehead University (1981);
3. That I am registered as a Professional Geoscientist by the Association of Professional Engineers and Geoscientists of British Columbia;
4. That I have practiced my profession as a geologist for 29 years;
5. That I examined and logged drill core provided to me by the owners of the HD property. I have not conducted a site visit of the HD property nor am I familiar with the drill hole location;
6. That I have no financial interest in the HD Mineral Property.

Respectfully submitted,

  
Rick Kemp, P. Geo.

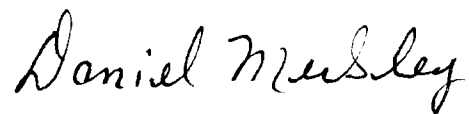


## AUTHOR'S QUALIFICATIONS

I, Daniel Merkley, do hereby certify that:

- (1) I am a prospector and reside at 3313 Hwy 16 East, Houston, B. C.
- (2) I have more than 40 years of prospecting experience
- (3) I prepared this report

Respectfully submitted

A handwritten signature in cursive script that reads "Daniel Merkley".

Daniel Merkley  
Prospector