LD PROPERTY Geological Report with Interpretation of IP Geophysical Survey

Nicola Mining Division British Columbia, Canada

NTS - 92I/02 Latitude 50°04'N Longitude 120°42.5'W UTM 619000E; 5559000N (UTM ZONE 10; NAD 83)

> BC Geological Survey Assessment Report 32183

Prepared for

Navigo Ventures Inc.

Owner and Operator Event # 4825543

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> July 2, 2010 Revised October 6, 2011

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1 Introduction

1.1 Summary

This report was commissioned by Navigo Ventures Inc. to summarize the geology, mineralization and exploration potential on the LD property near Merritt, British Columbia. The purpose of this report is to review historical exploration work on the property, to report on recent geological and geophysical surveys carried out on the property and if warranted to make recommendations for an ongoing exploration program.

The LD property is located within the Nicola Mining Division, British Columbia. The property is situated on the east and northeast slopes of Iron Mountain, approximately 7 kilometres southeast of Merritt. The mineral property consists of four mineral tenures (claims) with a total area of 1,970.32 hectares. Mineral tenure to the LD claim is held by Navigo Ventures Inc. under an option agreement. Mineral tenures to the JPG, JPG2, and JPG3 claims are owned by Navigo Ventures Inc.

The property lies within the Interior Plateau physiographic province of British Columbia, consisting of rolling uplands dissected by steep valleys. The topography is moderate to locally steep, with elevations ranging from 970 metres above sea level in the north of the claims in the Godey Creek valley, rising steadily to 1660 metres above sea level in the southwest corner of the claim group. The semi-arid climate of this part of the province is typical of the southern interior of British Columbia with annual rainfall of approximately 25 cm. The summer field season is generally warm and dry, with daily high temperatures ranging from 20° to $+35^{\circ}$ C, and extends from mid to late April through to late October. Winters are cold with significant snow accumulations.

The logistics of working in this part of the province are excellent. Gravel and dirt road access allows the movement of supplies and equipment by road to many parts of the property. Heavy equipment is available locally in Merritt, as are supplies, fuel and lodging. Unskilled labour is also available locally. Skilled labour and exploration contractors are available from Kamloops, Vancouver and the Okanagan. Depending on the type of exploration program to be conducted, the field season generally extends from late April to early November.

The current field program, conducted by Navigo Ventures Inc. during the period from April 26 to June 23, 2009, included geological mapping and a ground geophysical survey of line cutting and induced polarization. Geological mapping confirmed the presence of a stratigraphic section of mafic to felsic volcanics, volcanic sediments, and marine sediments that has the characteristics of a Kuroko-type volcanogenic massive sulphide environment.

Three types of silver-lead-zinc-copper-(gold) mineralization in Kuroko-type sulphides have been found in outcrops on the property.

The first is silver-lead-zinc-barite bedded and replacement mineralization that occurs at the LD outcrops. Moderately coarse crystalline galena partially fills open spaces between fragments of limestone, brecciated limestone, and calcareous siltstone. Rotated blocks of bedded impure barite carry sphalerite, galena, and minor amounts of grey copper (tetrahedrite?). Bedding in the blocks is discontinuous and contorted. Veinlets of barite may contain sulphides. A selected grab sample taken as a check sample by the author of this report contains 7.1 ppm Ag, 1.125% Pb, and 2.31% Zn.

The second type of mineralization is represented by chalcopyrite in rhyolite and volcanic breccia, stratigraphically beneath and adjacent to beds that contain silver-lead-zinc sulphides at the LD showing. Rock samples collected by previous investigators contained 0.14 to 0.32% Cu.

The third type of mineralization is exhibited in structurally controlled quartz-specularitechalcopyrite-(gold) veins, one located 500 m to the north and one located 200 m west of the LD occurrence. These veins may belong to a system of feeder vents in footwall rocks beneath a VMS stratigraphic horizon. A chip-channel sample across 1.3 m taken as a check sample by the author of this report contains 16.5 ppm Ag, 2.17% Cu, and 301 ppb Au.

An induced polarization survey was completed on thirteen north-south lines spaced 100m apart that ranged from 1,500 m to 2,000 m in length, for a total of 22.1 km of surveying. The survey was successful in defining two chargeability anomalies that correspond to mineralization that has been sampled on surface.

Background chargeabilities are low, in the range of 3 to 5 milliseconds (ms). Higher chargeabilities, in the range of 8 to 12 ms, are considered to reflect disseminated sulphides. This is indicated in the northern anomaly (Chargeability Anomaly 1) where disseminated galena, chalcopyrite, and pyrite were observed in bedrock.

In the stratigraphic zone of interest the surface traces of low resistivity responses of approximately 200-400 ohm-m are coincident with or adjacent and overlapping with the trends of higher chargeabilities. Background resistivities are in the range of 550–650 ohm-m, and high resistivities from 850-1000 ohm-m.

The analyses of 1.125% Pb and 2.17% Zn from the LD occurrence, 0.32% Cu from the rhyolite and silica-flooded zone, and 2.17% Cu from quartz-chalcopyrite vein mineralization demonstrate the potential for the discovery of economic Kuroko-type massive and disseminated mineralization on the LD property.

The exploration targets for the LD property are volcanogenic massive and disseminated sulphide base and precious metal deposits.

A preliminary drill program of three holes, for a total of 1,050 m, is recommended to test the mineralization potential along strike and down dip of the LD horizon.

The estimated budget for the 1,050 m drill program is \$275,000.

1.2 Property Location

The LD property is located within NTS Map Sheet 92I/02 and TRIM claim sheet 092I007 in the Nicola Mining Division, British Columbia. The centre of the Property lies 6 kilometres southeast of Merritt on the east and northeast slopes of Iron Mountain.



Figure 1. LD Property Location Map

2 **Property Description**

The property consists of four claims totalling 1,970.32 hectares. The geographic centre of the property is approximately 664000E and 5548000N (UTM ZONE 10; NAD 83). The claims were staked using British Columbia's Mineral Titles Online ("MTO") system. In this report the four claims are collectively named LD.



Figure 2. LD Mineral Claim Map

Tenure Number	Claim Name	Owner	Good To Date	Area (ha)
548949	LD	Navigo Ventures Inc.	01-Feb-11	726.02
712742	JPG	Navigo Ventures Inc.	04-Mar-11	497.76
712802	JPG2	Navigo Ventures Inc.	04-Mar-11	497.72
712842	JPG3	Navigo Ventures Inc.	04-Mar-11	248.82
Total Area				1,970.32

Table 1. LD mineral claim list

During 2010 work was done on the LD claim, tenure number 548949. Exploration during 2010 includes a total of 30 km of grid linecutting and 22.1 km of induced polarization (IP) survey on the grid. Geological mapping at a scale of 1:5000 an covered an area of 2.5 sq km within and surrounding the grid. One chip-channel sample and one selected grab sample of mineralization were collected for geochemical analyses.

2.1 Accessibility

The property can be reached from the town of Merritt that is located at the junction of the Coquihalla Highway (Hwy 5) and Highway 97C. Driving time from Vancouver to Merritt is three hours (300 km) and from Kamloops is one hour. Access is via the paved Coldwater road that departs from the eastern edge of Merritt and trends southerly, parallel to the west side of the Coquihalla Highway. At approximately 2 km on the Coldwater road the Fox Farm road branches to the east, passes under the Coquihalla Highway, and follows the valley of Godey Creek. Gravel and dirt roads pass through much of the property. A straight-line distance from Merritt to the centre of the property is 7 km; driving distance is approximately 10 km.

2.2 Climate

The semi-arid climate is typical of the southern interior of British Columbia. The summer field season from mid to late April to late October is generally warm and dry, with daily high temperatures ranging from 20° to $+35^{\circ}$ C. Annual rainfall is approximately 25 cm. Winters are cold with significant snow accumulations. Temperatures can drop to minus 20° C for extended periods.

2.3 Local Resources and Infrastructure

The logistics of working in this part of the province are excellent. Gravel and dirt road access allows the movement of supplies and equipment by road to many parts of the property. Heavy equipment is available locally in Merritt, as are supplies, fuel and lodging. Unskilled labour is also available locally. Skilled labour and exploration contractors are available from Kamloops, Vancouver, and the Okanagan. Depending on the type of exploration program to be conducted, the field season generally extends from late April to early November.

2.4 Physiography

The property lies within the rolling uplands and steep dissected valleys of the Interior Plateau physiographic province. Topography is moderate to locally steep, with elevations ranging from 970

metres above sea level (ASL) in the north in the Godey Creek valley, rising steadily to 1660 metres above sea level in the southwest corner of the claim group.

Water is available for exploration purposes in Godey Creek and tributaries that flow northerly and northwesterly.

Vegetation consists mainly of widely spaced pine with small patches of grassland at higher elevations, changing to balsam, spruce, and cedar along creek valleys. Thick brush consisting of alder and willow is common along most of the stream gullies and road cuts, and in swales between topographic highs.

Soil and glacial till are extensive and generally shallow. Thicker deposits of till fill stream valleys at lower elevations. Bedrock exposure is moderate, but is locally abundant on ridges and in some stream gullies.

2.5 History

Numerous individuals and companies have explored the Iron Mountain area beginning in 1896. Most of the work was focused on the Comstock and Charmer occurrences, located one to three km south of the LD claims. Investigations in the 1980s recognized the style of mineralization to be of volcanogenic massive sulphide deposition around rhyolite domes in a Kuroko-type setting (Howell, 1981; Crooker, 1987; Christopher, 1989).

Historical exploration work on the LD property has been limited to prospecting and sampling around the original showings, usually as work incidental to other projects. Two of these programs (Boronowski, 1984; Christopher, 1989) included analyses from several rock samples and soil samples, ground magnetics, and very low frequency electromagnetics (VLF EM). In 2007 and 2008 two survey lines of induced polarization and six lines of mobile metal ion soil sampling were completed to the east of the LD mineral occurrence (Mark, 2009).

3 Geological Setting

3.1 Regional Geology

The LD property lies within the Intermontane Belt of the Canadian Cordillera. The claims are underlain by marine and continental volcanic and sedimentary rocks of the Upper Triassic Nicola Group, classified by Preto (1979) as part of the Western Belt of the Nicola Group that is situated west of the Allison Fault zone. The area is segmented by northeasterly, northwesterly and northerly trending faults.

3.2 Property Geology

Detailed geological mapping at 1:5000 scale of the western portion of the LD property during 2010 as shown on Figure 4 used the stratigraphic column developed by McMillan (1979, 1981). Description of local geology in this section of the report is quoted, paraphrased, and expanded from McMillan (1979).

Descriptions and analyses of one chip-channel rock sample and one selected grab rock sample that were collected as checks by the author of this report in June 2010 are shown in Table 2. Sheets of analyses are included in Appendix I.



Figure 3. LD Property Regional Geology

Sample #	UTM Coords	Description	Ag ppm	Pb ppm	Zn ppm	Cu ppm	Au ppb
LD-03- 06-10-1	0661894E 5547889N	Quartz-chalcopyrite vein. Chip- channel, 1.3m, across fault zone trending Az 320° 85°SW. Chalcopyrite-malachite-azurite- hematite in quartz. Rhyolite lens in vein. Andesite and andesite porphyry in SW wall.	16.5	247	165	21700 (2.17%)	301
LD-03- 06-10-2	0661814E 5547454N	LD showing. Selected grab. Reef limestone and breccia, fragments of siltstone, rounded black chert nodules. Vugs and open spaces between fragments. Barite, crystalline calcite. Occasional galena crystals, possible honey sphalerite.	7.1	11250 (1.125%)	23100 (2.31%)	116	<1

Table 2. Sample descriptions and selected analyses, 2010

Analytical results from sampling by investigators at the two sample sites are shown in Table 3 below. In Tables 2 and 3, analyses of Pb, Zn, and Cu that are reported as percent in the 2010 sheets of analyses have been converted to ppm (parts per million) for comparison to previous results. Values that were obtained in 2010 at the two sites compare satisfactorily with values that were obtained during previous programs by Boronowski (1984) and Christopher (1989).

Table 3.	Comparison	of metal	values in	rock samples,	2010 and	previous	samples
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2010 Sample #	Ag ppm	Pb ppm	Zn ppm	Cu ppm	Au ppb	Previous Sample #	Ag ppm	Pb ppm	Zn ppm	Cu ppm	Au ppb
Quartz-cpy vein LD-03-06-10-1	16.5	247	165	21700	301	14936	4.2	48	175	11623	129
LD Zone LD-03-06-10-2	7.1	11250	23100) 116	<1	14935 AB 16359	27.9 3.7	8989 6390	13514 14507	590 164	1 1

The two rock samples collected by the author of this report were placed in plastic bags, marked with the sample number, sealed, and were retained in his possession until they were personally delivered to ALS Labs in North Vancouver. Sample sites were chosen so as to be at approximate locations where documented analyses were available for previous samples. Sample locations with numbers were marked by flagging. Analytical procedures and sheets of analyses are included in Appendix 1.

Analytical procedures, codes, and quality control using duplicates and standards are described in the ALS Chemex Certificate of Analysis, Appendix I. The author of this report is satisfied that the analyses received from ALS Chemex Labs are correct and within acceptable analytical variations.



Figure 4. LD Property Geology with Rock Sample Analyses

3.2.1 Lithology and stratigraphy

A 5,000 metre thick section of Nicola Group is exposed on Iron Mountain. At the base of the section is a microdiorite of unknown thickness. The microdiorite is overlain by an approximately 1500 metre-thick sequence of basaltic andesite flows that contain units that are dominated by flow breccia and mappable zones of andesitic volcanic breccia. Uncommonly layers of dacitic tuff and welded tuff occur. Near the top of the unit, andesitic breccias become widespread and in many areas grade upward to andesitic breccias carrying some felsic volcanic clasts. These 'rhyolite' andesite breccias are overlain by and interfingered with rhyolitic breccias, dark-coloured relatively potassum-rich rhyolitic lavas and lesser amounts of distinctive chloritic fragment silicic breccias (ash flow tuffs?) and andesitic breccia. Towards the south the andesitic flows give way up-section to potassium-rhyolites with no intervening breccias. Generally potassium-rhyolite flows overlie the mixed breccias or are separated from them by thin to thick chloritic fragment felsic breccias.

The felsic lava and breccia zone is overlain and wedges out southward into basaltic to andesitic flows. Thus the felsic zone comprises a composite domal body that has mafic flow rocks both above and interfingering with it. Within the mafic flows periods of quiescence were marked by deposition of argillaceous limestone and periods of explosive activity by felsic tuffs and breccia. To the northeast, the mafic flows pinch out and the rhyolitic zone is overlain by a sequence of sandy to pebbly volcano-sedimentary rocks with areas of limestone breccia which in turn is overlain by a thin but persistent impure limestone. Further northeast, both the rhyolitic succession and overlying sedimentary rocks abut against an andesitic lapilli to bomb breccia unit which forms a large irregularly lensoid body in andesitic to basaltic country rock. Overlying the breccia is the same thin persistent limestone that overlies the adjoining rocks. These volcanic breccias appear to be both of pyroclastic and reworked pyroclastic origin.

An excellent marker unit consists of variably feldspathic, often quartz-bearing, red accretionary lapilli tuff. It has been reworked locally but persists along a strike length of at least eight kilometres. To the south it overlies mafic volcanic rocks and is overlain by limestone bodies; to the north it is overlain by mixed andesitic to felsic volcano-sediments and breccias that contain fossiliferous, locally crossbedded, limestone layers. In the northeast the top of this sedimentary unit is a distinctive golden brown-weathering argillite-shale-sandstone succession, ranging in thickness from a few to about ten metres.

Above the sedimentary unit to the northeast and within the limestones to the south are lensoid bodies of green to dark grey, potassium-poor, siliceous volcanic rocks. A single chemical analysis indicates that the rock is dacite but more analyses are needed to define its range in composition. East of Iron Mountain peak dacite interfingers with dark green massive to bedded fragmental plagioclase-bearing crystal lithic tuffs and flows (?). Relationships between the dacite and the feldspathic volcanics are obscured by faulting but they appear to be interlayered. The feldspathic volcanics appear to be largely of pyroclastic origin but because they contain lenses of limestone they were evidently deposited in a submarine environment. The variations resemble those of subaerial cinder cones; perhaps this unit formed a shallow marine cinder cone. Many porphyritic dykes cut the underlying rocks; fewer cut the 'cinder cone'.

Red sandstones which give way to red to purple volcanic breccias overlie the dacite / feldspathic volcanic zone. Bombs and broken bombs are recognizable in the red to purple andesitic breccias. These grade up-section to a calcareous reefoid unit in which calcareous organic remains lie in a dark hematite red matrix. Thickness of the reefoid unit varies considerably but it is laterally persistent along a strike length of about four kilometres. The rocks up-section are a mixed assemblage of felsic

breccias, grey to purple andesitic breccias, andesitic flows and tuffs, felsic tuffs, some dacitic rocks, as well as an area of dark green feldspathic volcanic rocks like those in the supposed cinder cone. Outcrop is poor above the reefoid unit but in some outcrops there are layers of the felsic and mafic members on a scale of several metres.

Detailed geological mapping during 2010 has subdivided a sequence of volcanic and sedimentary beds within the LD area (Figure 4, scale 1:5,000). Host rock to silver-lead-zinc mineralization at the LD zone consists of limestone, reefoid limestone with shell fragments, limestone breccia, and lesser black cherty argillite and brown calcareous siltstone. The limestone breccia has many rounded limestone inclusions and includes quartz clasts that appear to be fragments of quartz veins. Segments of the horizon have the appearance of chaotic deposition in a reef environment, possibly in shallow channels crosscutting the strike of the units. Alternatively, the chaotic appearance may be attributed to late breccia pipes or collapse features.

Small fine-grained andesite dykes were noted but were not included on the scale of mapping. Characteristics are: aphanitic, greenish-grey, mafics altered to chlorite, feldspars lightly altered to epidote and / or chlorite.

3.2.2 Structure

Rock units strike northerly to northeasterly and dip moderately to steeply easterly. Limited evidence from tops of flows and beds indicates that rock units are progressively younger in an easterly direction.

The area is dissected by northwest trending structures that control the location of Godey Creek valley. Northwest structures may contain auriferous quartz-chalcopyrite-hematite veins. Northwest structures are cut and slightly offset in a right lateral direction by structures that strike northerly to northeasterly on the east and northeast sides of Iron Mountain.

3.2.3 Alteration

Patches of epidote are common throughout the mafic volcanics and are evidence of very low-grade regional prophylitic alteration. Clay within the calcareous siltstone appears to be syndepositional and not a late overprinted alteration. Surficial oxidation of reefoid limestone and limestone breccia has created boxworks and gossan after sulphides.

3.2.4 Mineralization

The exploration target for the LD property is a volcanogenic massive sulphide (VMS) base and precious metal deposit. Bedrock mineralization has been found in several locations on the property.

At the LD occurrence moderately coarse crystalline galena partially fills open spaces between fragments of limestone, brecciated limestone, and calcareous siltstone. Rotated blocks of bedded impure barite carry sphalerite, galena, and minor amounts of grey copper (tetrahedrite?). Bedding in the blocks of barite is discontinuous and contorted. Veinlets of barite may contain sulphides.

A related type of mineralization exposed 1 km southwest of the LD property at the Comstock zone is comprised of banded veins and possibly bedded zinc-lead-barite mineralization in a flow-banded, potassium-rich felsic lava (rhyolite). Both types of zinc-lead-barite occurrences formed penecontemporaneously. The Comstock type formed in association with felsic volcanism in

rhyolitic domes. The LD style of mineralization is interpreted as transportation into sedimentary basins flanking the domes.

Stratigraphically below and adjacent to the LD occurrence an early stage of silica flooding and quartz veining is followed by a later stage of crosscutting quartz +/- carbonate veinlets with associated orange-brown limonite and trace amounts of chalcopyrite and galena. This horizon may represent the stratiform chalcopyrite "yellow ore" and the underlying stringer mineralization of the Kuroko model.

Another type of mineral showing present in the area and on the LD property is structurally controlled auriferous quartz-chalcopyrite-specularite-(gold) veins. These veins trend northerly and northwesterly, oriented in the prevailing directions of faulting. In the Kuroko model, quartz-chalcopyrite veins grade downwards into siliceous chimneys that were sea floor feeder vents, in a similar setting to silicious sinter around present-day hot springs (Urabe and Sato, 1978).

The LD occurrence has been examined in previous exploration programs (Boronowski and Hendrickson, 1984; Christopher, 1989). Descriptions of the Boronowski (1984) rock samples have not been found. Descriptions of the Christopher (1989) rock samples are included in Table 3. Geochemical analyses of the Boronowski (1984) and Christopher (1989) rock samples are shown in Table 4. Both groups of values are plotted on the property geology map, Figure 4.

Tag N°	Туре	Width, m	Location	Comments
14935	Select	-	L77+80N 56+15E	LD showing; galena, sphalerite, malachite
14936	Chip	1.8	L82+05N 54+80E	Malachite, azurite, chalcopyrite, pyrite, bornite in shear zone
14937	Chip	0.3	L79+10N 56+35E	Malachite, azurite, possible galena, in quartz-carbonate vein

 Table 4. Rock sample descriptions, Christopher (1989)

	KIDD CREEK PROJECT # 948 FILE # 84-2224																														
SAMPLE #	MO PPM	CU PPM	P8 PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS PPM	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	Р %	LA PPM	CR PPM	MG %	BA PPM	П %	B PPM	AL %	NA Si	к %	W PPM	AU PPS
AB-16359 AB-16425 AB-16426 AB-16427 AB-16428	103 2 4 1 2	164 121 1473 3240 3032	6390 6 331 311 176	14607 38 564 413 3253	3.7 .4 44.9 59.4 9.9	2 1 3 2 6	1 10 7 3 11	451 121 3042 784 2248	.89 7.15 4.23 1.31 3.80	24 8 199 551 5	5555	ND ND ND ND	25242	216 4 100 23 73	223 1 12 13 53	26 2 533 851 5	54223	16 4 49 7 30	.57 .06 4.61 .70 3.70	.12 .05 .03 .04 .06	25223	32552	.03 .02 1.66 .12 1.39	67 232 177 1068 689	.01 .01 .01 .01 .01	4 2 3 7	.13 .17 .17 .20 .49	01 01 01 01 01	.06 .15 .07 .08 .21	45 6 2 2 2	1 2960 4 18 1
PETER A. CHRISTOPHER PROJECT GOLDEN DYNASTY FILE # 89-1394																															
SAMPLE #	No PPH	Cu PPM	Pb PPH	In PPH	.hg PPM	Bi PPM	Co PPM	Mn PPH	Fe %	.Rs PPH	U 99%	Au PPH	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V 99%	Ca %	9 10	La PPH	Cr PPM	Mg %	Ва РРМ	Ti B	В 92%	Al %	Sa k	ж ъ	Ш 22%	Au 228
C 14935 C 14936 C 14937	57 4 3	590 11623 725	8989 48 159	13514 175 200	27.9 4.2 13.7	4 3 7	1 14 2	404 718 187	.66 7.71 .55	30 5 80	5 5 5	10 10 10	1 1	331 7 23	160 2 3	106 6 122	3 4 3	11 10 6	.51 .20 .06	.047	2 3 2	4 1 7	.03 .07 .07	104 388 1381	.00	5 2 2 2	.15 .71 .22	.01 .01 .01	.09	1 9 1	1 129 18

Table 5. LD property, Boronowski (1984) and Christopher (1989) rock geochemistry

3.3 LD Zone

Chrisopher (1989) describes the mineralization of the LD area as follows:

"At the LD showing silver-lead-zinc-copper-barite-gold has been exposed in several old pits. Samples of float and outcrop by Kidd Creek Mines personnel (Boronowski and Hendrickson, 1984) gave copper values ranging from 10 to 3240 ppm, silver values ranging from 0.4 to 59.4 ppm, and gold values ranging from 1 t o 2960 ppb."

Christopher (1989) collected one sample from the LD mineralization with analyses of 27.9 ppm (parts per million) Ag, 8989 ppm Pb, 13514 ppm Zn, 590 ppm Cu, and 1 ppb (parts per billion) Au.

An old dozer cut exposes a 1.5 m to 2.0 m width of massive barite within gray limestone. Attitude of the barite is not clear but may be rotated northwesterly. Barite that has been excavated from the trench contains indistinct banding and < 1% disseminated galena and < 1% sphalerite. In the east end of the dozer trench the limestone is adjoined by a 15 m long exposure of calcareous sandstone and siltstone that is folded and faulted but maintains an attitude of Az 312° 52°SW.

At the LD trench and sample site, 2010 field notes recorded possible low-iron white to ivorycoloured (honey) sphalerite (Goldsmith, 2010, sample LD-03-06-10-2). Dark brown sphalerite with resinous lustre was not seen. Low-iron sphalerite is a characteristic mineral the in silver-lead-zincbarite facies of Kuroko deposits.

3.4 Chalcopyrite Zone

Rhyolite, red-clast volcanic breccia, and green to red andesite and tuff outcrop between 100 and 200 m northeast of the LD showing. An interval of silica flooding is 5 to 10 m wide and 75 m in length. An early stage of silica flooding and quartz veining is followed by a later stage of crosscutting quartz +/- carbonate veinlets with associated orange-brown limonite and trace amounts of chalcopyrite and galena. The veinlets extend for several tens of metres east and south of the zone of silica flooding. Analyses from three rock samples collected by Boronowski (1984) from this area contain copper content of 3240, 3032, and 1473 ppm (0.32, 0.30, and 0.14 % Cu). One sample taken by Christopher (1989) contains 13.7 ppm Ag, 159 ppm Pb, 210 ppm Zn, 725 ppm Cu, and 18 ppb Au. This horizon may represent the stratiform chalcopyrite "yellow ore" and the underlying stringer mineralization of the Kuroko model.

3.5 Quartz-chalcopyrite-specularite Veins

Structurally controlled quartz-chalcopyrite-specularite-(gold) veins cut mafic country rock adjacent to plagioclase porphyry dykes. An example is located 500 m north of the LD zone at 661894E 5547889N (Christopher, 1989, Sample # 14936; Goldsmith, 2010, sample # LD-03-06-10-1). At this location a 1.3 m wide quartz-chalcopyrite-specularite vein trends Az 320° 85° SW. Another example is near 661575E 5547425N where a sample taken by Boronowski (1984) contains 2960 ppb gold. These veins appear to have been footwall feeder vents that channelled mineralized solutions into sites of seafloor deposition.

3.6 Gossanous Limestone Breccia

At 661672E 5547489N approximately 100 m west of the LD occurrence and near the western margin of the reefoid limestone, gossanous limestone breccia boulders and cobbles are scattered on

an east-facing slope. Limonite and hematite boxworks are developed after sulphides. The gossanous limestone extends for as much as 200 m in a north-south direction.

3.7 Jasperoid Zone

Andesite tuff breccia is poorly exposed in a mineralized outcrop that measures approximately 5 m x 25 m and is surrounded by glacial till and stream alluvium. Abundant clasts of hematite and red jasperoid locally contain 5% pyrite and irregular quartz veining (662012E 5547351N). Traces of galena and disseminated magnetite are hosted in finely-banded cherty tuff. A coincident silver-lead-zinc-barite anomaly was reported by Christopher (1989).

4 Deposit Types

A stratigraphic horizon contains several lead-zinc-barite-silver-(gold) deposits that were originally described as veins, and are now thought to represent "Kuroko"-type polymetallic volcanogenic massive sulphide deposits. The LD mineralization is hosted in this horizon on the property. The depositional model that is recognized by the United States Geological Survey and the Geological Survey of British Columbia is described below.

VMS or Kuroko model: Typical characteristics are:

- Each mine or camp consists of a number of closely clustered deposits.
- Each deposit may be from 6 to 190 meters thick and range from 40 x 50 meters in surface area to 700 m x 350 m.
- Zoned massive stratiform mineralization, typically oval shaped in plan, grades down into less economically important stockwork mineralization (siliceous mineralization) that generally has a funnel-shape and occurs in silicified felsic volcanics.
- Thin beds or small lenses of ferruginous chert are commonly present either directly overlying the stratiform deposit or within hanging wall tuffs. Lenticular or irregular masses of gypsum and/or anhydrite are also present in most cases.
- The boundary between hanging wall rocks and mineralization is sharp.
- Deposits are generally vertically zoned with "Black Ore" (sphalerite-galena rich) at the top, and "Yellow Ore" (chalcopyrite-rich) at the bottom above stringer mineralization. Areas of massive gypsum, anhydrite, or barite may or may not be present.
- Mineralization in stringer zones is generally coarse in veins with quartz and carbonate while massive mineralization is fine-grained and may be breccia.
- Colloform textures are common in massive mineralization.
- Each deposit is generally associated with a felsic domal center built up in a single short eruptive cycle.
- Deposits are generally underlain by coarse felsic tuff.
- There are gradations between stratiform deposits, stockwork mineralization and fissure-filling veins; these formed penecontemporaneously from similar hydrothermal ore solutions.
- Deposits are surrounded by clay-rich alteration zones. The stockwork (stringer) mineralization is associated with quartz, sericite and magnesium-chlorite. The stratiform mineralization is surrounded by sericite or sericite/montmorillonite and kaolinite alterations, which grade outward to chlorite-rich and zeolite-rich alteration zones.

- Deposits are generally aligned along faults or directions of elongation of lava flows.
- Minor disseminations of pyrite and other sulfides may occur in hangingwall rocks. Vein deposits can be found at varying distances from stratiform deposits, but tend to be at stratigraphically lower levels.



Figure 5. Diagrammatic cross section, Kuroko-type volcanogenic massive sulphide

Three types of Kuroko mineralization are known on the property. The first is silver-lead-zinc-barite volcanogenic massive sulphide bedded and replacement mineralization that occurs in limestone and calcareous siltstone at the LD outcrops.

The second type of mineralization is represented by chalcopyrite that is hosted in rhyolite and volcanic breccia, stratigraphically beneath and adjacent to beds that contain silver-lead-zinc sulphides at the LD showing.

The third type of mineralization is exhibited in structurally controlled quartz-specularitechalcopyrite-(gold) veins, one located 500 m to the north and one located 200 m west of the LD occurrence. These veins may belong to a system of feeder vents in footwall rocks to a VMS stratigraphic horizon.

Features of Kuroko environments on the LD property include the presence of dacitic to rhyolitic flows and flow breccias, and discontinuous pods and thin jasper beds. Mineralogical similarities include: sulphide fragments, bedded gypsum, and silver-galena-sphalerite-barite mineralization in inter-flow sediments; rhyolite and volcanic breccia-hosted chalcopyrite stratigraphically beneath

and adjacent to beds that contain silver-lead-zinc sulphides; and structurally controlled quartz-specularite-chalcopyrite-(gold) veins in footwall rocks.

A volcanic centre is suggested near the LD occurrence.

5 Geochemistry

5.1 1984 Program [after Boronowski, 1984]

Soil samples taken in the Boronowski (1984) program on a regular grid in the LD area were analyzed for gold only. A map shows the gold results: anomalous values were not detected. Multiple element ICP analyses were completed on five rock samples.

5.2 1989 Program [after Christopher, 1989]

Multiple element ICP analyses were completed on soil and rock samples in the LD area (Christopher 1989). Maps (Appendix IV) show silver-gold, lead-zinc, and copper-barium results. Soil sampling detected elevated lead, zinc, and barite at the LD outcrop and downslope to the east and northeast, along the trend of the favourable geology. No follow-up exploration was done at that time.

5.3 2008 Program [after Mark, 2009]

During 2007-2008 a mobile metal ion (MMI) soil geochemical survey (Mark 2009) was completed in the eastern part of the LD claim. The Boronowski (1984) soil grid is shown in the compilation maps for positioning of the Mark (2009) MMI soil geochemistry with respect to the LD occurrence. It is noted that only gold values are included on the Boronowski section of the grid on each of the maps.

The Mark (2009) grid was found on the ground to correspond with the UTM coordinates as recorded. The grid was incorrectly positioned with respect to the presumed intent to include the outcrop of mineralization at the LD showing within the area of the survey. UTM coordinates taken in 2010 position the LD outcrop 1 km to the west of the location where it is shown on the map in the Mark report.

Description of the sampling procedure does not mention that an "Orientation Survey" preceded the MMI survey as recommended by SGS Canada Inc., the service provider for the MMI analytical technique. A partial description of a MMI Orientation Survey is quoted and copied below. The full text is available from the SGS Canada Inc. website (References, this report).

"Before a full **MMI**TM exploration project is undertaken, it is important that you test the technique using a properly designed Orientation Survey at a small scale over a known area of mineralization. This will ensure **MMI**TM applicability, and will help determine optimum survey parameters."

The area within the MMI grid was inspected. No mineralization was observed that could have been used for an Orientation Survey.

Elevated values of zinc, copper, silver, and lead when contoured appear to display a northeasterly trend that may reflect a concealed extension of the host stratigraphy of the LD VMS mineralization.

6 Geophysics

6.1 1989 Program [after Christopher, 1989]

Ground magnetic and VLF EM surveys (Christopher, 1989) were completed on a grid over the LD occurrence and vicinity. Weak magnetic lows and VLF conductors are associated with northeasterly trending stream valleys and may outline structures. A VLF conductor was identified at the location of the quartz-chalcopyrite vein at 0661894E 5547889N.

6.2 1994 Program [after Vincent, 1994]

Airborne total magnetic, first derivative vertical magnetic gradient, electromagnetic, resistivity, and VLF EM surveys were flown over an area to the northeast of the LD showing (Vincent, 1995). Airborne survey grids ended approximately 500-1000 m north and east of the LD occurrence. Part of the LD claim and all of the area of the JPG, JPG2, and JPG3 claims are within the survey area. Contoured values of responses generally show irregular low-amplitude patterns that are typical of volcanic terrane. The resistivity contours show northeasterly-trending high-low features that may mark the projected trend of the host LD stratigraphy.

6.3 2007 Program [after Mark, 2009]

Induced polarization (IP) readings were taken on two lines, documented in the report as L4800E and L4900E. As noted in section 10.2.3 (above) the LD mineralization is located approximately 1 km to the west and not on the Mark survey grid.

Anomalies A and B in the Mark survey were not detected in the 2010 survey. The response designated as Anomaly C is coincident with wire fencing around a corral.

6.4 2010 Program [Navigo]

Between 26 April and 29 June 2010, Prospec MB Inc. completed a program of 22.1 km of time domain Induced Polarization (IP) survey including line cutting under contract from Navigo Ventures Inc. on the LD property, located about 10 km east of Merritt, British Columbia. Northsouth lines were spaced 100m apart and are 1,500 m to 2,000 m in length. A total of 30 km of lines were cut. The crew included Marc Beaupre, party chief geophysical technician, (Mark Goldie, Senior Geophysicist), and six labourers.

The units of measurement collected and presented for apparent resistivity are ohm metres and for apparent chargeability are millivolts/volt.

Equipment:

BRGM Elrec 6 receiver, GDD Tx11 5000 watt transmitter, Honda 5kw generator. The pole-dipole IP array utilized a 50 meter dipole spacing with level of n=1 to n=8.

IP Inversion Modeling:

Raw pole-dipole chargeability and resistivity data were inverted with the smoothness- constrained least-squares method technique using RES2DINV (ver. 3.55, Geotomo Software) to produce the inverted sections. Horizontal plans and N-S sections were derived from a three-dimensional geophysical model created from the same data using RES3DINV (ver. 2.15).





Figure 6. IP Grid and Anomalies on Property Geology Map

The IP survey was successful in defining two anomalies within the felsic volcanic, and volcanic and marine sedimentary portion of the stratigraphy. The grid and the locations of anomalous responses in plan view are shown on Figure 6.

The surface trace of the northern anomaly (Chargeability Anomaly 1) includes both silver-lead-zinc and copper mineralization that has been observed and sampled. The surface trace of the southern anomaly (Chargeability Anomaly 2) is mostly covered by shallow overburden with the exception of one jasperoid outcrop at 662012E 5547351N that contains 5% pyrite and traces of galena and disseminated magnetite as described in Section 8.5. Both chargeability anomalies appear to dip southerly, concordant with the stratigraphy, and are offset in a predictable pattern across northwest-striking faults with small displacements.

Background chargeabilities are low, in the range of 3 to 5 milliseconds (ms). Higher chargeabilities, in the range of 8 to 12 ms, are considered to reflect disseminated sulphides. This is indicated in Chargeability Anomaly 1 where disseminated galena, chalcopyrite, and pyrite were observed in bedrock.

In the stratigraphic zone of interest the surface traces of low resistivity responses of approximately 200-400 ohm-m are coincident with or adjacent and overlapping with the trends of higher chargeabilities. Background resistivities are in the range of 550–650 ohm-m, and high resistivities from 850-1000 ohm-m.

The northern part of the grid at surface is underlain by mafic volcanics. Broad chargeability highs and coincident resistivities as high as 2600 ohm-m were recorded. It is considered that the responses may be attributed to disseminated sulphides in a rhyolite dome.

The data presented in Figures 7a, 7b, 8a, and 8b have been modelled using the IP inversion modelling program developed by the University of British Columbia. Stacked chargeability profiles on grid lines 661700E to 662300E are shown in Figures 7a and 7b, and of stacked resistivity profiles on lines 62400E to 662900E in Figures 8a and 8b. The surface expression of chargeability anomalies 1 and 2 are marked on the profiles. The figures are included for interpretative and illustrative purposes and are not to scale. Originals of both raw and inverted pseudosections in pdf format are included in Appendix II.



Figure 7a. LD property, IP - stacked inversion-modeled chargeability profiles [For interpretive and illustrative purposes, not to scale]



Figure 7b. LD property, IP - stacked inversion-modeled chargeability profiles



Figure 8a. LD property, IP - stacked inversion-modeled resistivity profiles



Figure 8b. LD property, IP - stacked inversion-modeled resistivity profiles

7 Interpretation and Conclusions

7.1 Interpretation

To the north of the LD occurrence footwall rocks are mafic volcanics within which structurally controlled quartz-chalcopyrite-specularite-(gold) veins were feeder vents for the transport of metals in solution to sites of VMS deposition on a seafloor. A succession of intermediate to rhyolite volcanic flows and interflow sandy and silty limestones surrounds a rhyolite dome or domes. The geological environment is that of an exhalative Kuroko-type volcanogenic massive sulphide. The east-northeasterly strike and 65-80° southeasterly dip of the strata are a combination of original depositional slopes around domes, collapse or slumping of depositional slopes, folding, and faulting.

Mineralization in silty limestone at the LD occurrence is typical of the upper deposition level of the silver-lead-zinc-barite "black ore" facies of the Kuroko model. Copper in rock samples is located in volcanosedimentary beds stratigraphically below the LD occurrence (Boronowski, 1984, Figure 9; Figure 4 and Table 3 of this report) and may be an expression of the copper "yellow ore" facies of the Kuroko model.

Elevated levels of lead-zinc-copper in soil geochemistry indicate that mineralization continues to the east-northeast of the LD outcrop.

Results of the 2010 IP survey indicate that the host stratigraphy to VMS mineralization continues both to the east-northeast and down dip from the LD outcrop. Chargeability anomalies are coincident with silver-lead-zinc and copper mineralization at surface and appear to be concordant with the southern dip of the host strata.

7.2 Conclusions

Geology on the LD property is permissive to host Kuroko-type VMS deposits. Exploration has been successful in identifying VMS base and precious metal mineralization in outcrops that contain leadzinc-silver and copper-gold mineralization with characteristics that are similar to those of productive Kuroko-type deposits.

IP survey results indicate that two mineralized horizons continue down dip and along strike.

Dimensions of the favourable stratigraphy are adequate to host economic concentrations of mineralization both along strike and down dip from the LD occurrence.

8 Recommendations

Preliminary exploration has been completed and encouraging results have been obtained. Drilling is warranted as the next phase. A program of three holes of NQ core diameter for a total of 1,050 m is recommended as a preliminary drill test of the target area described above.

The LD stratigraphic section should be tested with three holes, each 300-350 m in length. The first hole should be collared approximately 200 m southeast of the LD showing and drilled at Az 320° - 50° to cross the favourable horizons and pass into the footwall rocks. The drill site is in a flat valley and is easily accessible from an adjacent logging road. Subsequent holes should be sited using information from the first hole. A move to a second site 200 m northeasterly or southwesterly from the first hole to a second hole, to be drilled at Az 320°, might be considered as a provisional plan. A

small stream 100 m from the drill site has adequate water flowing in June for drilling; it is not known if the flow continues throughout the year.

9 Cost Estimate

Drilling		
Direct drill cost, \$130/m all-inclusive, 1050 m	\$ 136,500	
Mob/demob	7,500	
Site preparation, reclamation	5,000	
Water truck	<u>4,000</u>	
	153,000	\$153,000
Personnel		
Geologist	24,000	
Sampler	<u>7,000</u>	
	31,000	31,000
Analyses, 200 @ \$45.00/sample	9,000	
Vehicle, fuel	5,000	
Room and board	8,500	
Communications	500	
Field supplies, expediting	1,000	
Report		
Preparation, drafting, materials	<u>5,000</u>	
	29,000	<u>29,000</u>
Subtotal		213,000
Contingencies @ 15%, approximately		<u>32,000</u>
		\$ 245,000
HST @ 12%, approximately		<u>30,000</u>
Total		\$ 275,000



Vancouver, B.C. July 2, 2010 Rev: October 6, 2011 Locke B. Goldsmith, P.Eng., P.Geo. Consulting Geologist

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11 Engineer's and Geologist's Certificate

Locke B. Goldsmith, M.Sc., P. Geo., P. Eng.

1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Provinces of Ontario and British Columbia, and a Registered Professional Geologist in the Province of British Columbia and the States of Oregon, Minnesota, and Wisconsin. My address is 401–545 Clyde Ave., West Vancouver, B.C. My occupation is that of Consulting Geologist.

2. I have a Mining Technician Certificate from the Haileybury School of Mines, a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study at Michigan Technological University and the University of Nevada. I am a member of the Society of Economic Geologists and the AIME.

3. I have been engaged in mining exploration for the past 51 years. I have conducted exploration programs and evaluations of mineral deposits worldwide.

4. I have written the report entitled "LD Property, Geological Report with Interpretation of Induced Polarization Survey, Nicola Mining Division, British Columbia, Canada", dated July 2, 2010, revised October 6, 2011.



Vancouver, B.C July 2, 2010 Rev: October 6, 2011 Locke B. Goldsmith, P.Eng., P.Geo. Consulting Geologist

12 Cost Statement, 2010 Program

Personnel

L.B. Goldsmith, period April 25 – June 30,		
total 12 ½ days @ \$924.00/day	\$11,550.00	
P. Kallock, period April 26 – June 28		
total 29 ³ / ₄ days @ \$788.10/day	23,446.00	
	34,996.00	\$34,996.00
Geophysical Survey		
Republic Resources Inc., IP survey,		
period April 26 – June 23, total 16 days,		
22.1 line-km	90,553.50	
= \$4097.44 / line-km		
Food, Accommodation		
Total cost of $2483.73 \div 23$ man days	2,483.73	
= \$107.99/man/day		
Transportation		
Vehicle # 1, 4 days @ \$60.00/day	\$ 240.00	
Vehicle # 2, 23 days, 3100 km @ \$0.30/km	<u>930.00</u>	
	1,170.00	1,170.00
= \$43.33 / day		
Report		
Drafting, word processing, photocopies, scans, j	prints	<u>6,566.15</u>
	Total	\$135,769.38

Appendix I - Analytical Procedures and Analyses



ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd. 2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com To: NAVIGO VENTURES INC. 1128 - 789 WEST PENDER ST. VANCOUVER BC V6C 1H2

Page: 1 Finalized Date: 18-JUN-2010 Account: NAVVEN

CE	RTIFICATE VA1007	2980	SAMPLE PREPARATION						
			ALS CODE	DESCRIPTION					
Project: LD			WEI-21	Received Sample Weight					
P.O. No.			LOG-22	Sample login - Rcd w/o BarCode					
This report is for 2 Back com	alaa aubmittad ta aur lab in Va	nacuwar BC Canada an	CRU-31	Fine crushing - 70% <2mm					
	bies submitted to our lab in va	Incouver, BC, Canada on	SPL-21	Split sample - riffle splitter					
The following have access	to data associated with thi	s certificate:	PUL-31 Pulverize split to 85% <75 um						
	PAT MORRIS								
E.B. COLDOWITH				ANALYTICAL PROCEDURES					
			ALS CODE	DESCRIPTION					

ALS CODE	DESCRIPTION	
ME-MS61	48 element four acid ICP-MS	
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Cu-OG62	Ore Grade Cu - Four Acid	VARIABLE
Pb-OG62	Ore Grade Pb - Four Acid	VARIABLE
Zn-OG62	Ore Grade Zn - Four Acid	VARIABLE
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES

To: NAVIGO VENTURES INC. ATTN: L.B. GOLDSMITH 401 - 545 CLYDE AVENUE WEST VANCOUVER BC V7T 1C5

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

2 Signature: Colin Ramshaw, Vancouver Laboratory Manager



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Project: LD

Page: 2 - A Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18-JUN-2010 Account: NAVVEN

										CERTIF		OF ANA	LYSIS	VA100	072980	
Sample Description	Method	WEI-21	Au-ICP21	ME-MS61												
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.001	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
LD-03-06-10-1		1.22	0.301	16.50	3.51	146.5	470	0.27	0.39	0.11	1.09	7.69	9.8	6	1.46	>10000
LD-03-06-10-2		1.40	<0.001	7.10	1.41	20.5	320	0.11	0.03	0.74	315	7.38	2.8	11	0.34	116.0

***** See Appendix Page for comments regarding this certificate *****



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Project: LD

VANCOUVER BC V6C 1H2

Page: 2 - B Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18-JUN-2010 Account: NAVVEN

										CERTIF		OF ANA	LYSIS	VA100	072980	
Sample Description	Method Analyte Units LOR	ME-MS61 Fe % 0.01	ME-MS61 Ga ppm 0.05	ME-MS61 Ge ppm 0.05	ME-MS61 Hf ppm 0.1	ME-MS61 In ppm 0.005	ME-MS61 K % 0.01	ME-MS61 La ppm 0.5	ME-MS61 Li ppm 0.2	ME-MS61 Mg % 0.01	ME-MS61 Mn ppm 5	ME-MS61 Mo ppm 0.05	ME-MS61 Na % 0.01	ME-MS61 Nb ppm 0.1	ME-MS61 Ni ppm 0.2	ME-MS61 P ppm 10
Sample Description LD-03-06-10-1 LD-03-06-10-2	LOR	0.01 9.39 1.10	0.05 9.03 2.84	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5 279 1240	0.05 4.19 72.7	0.01 0.05 <0.01	0.1	0.2	10 590 350

***** See Appendix Page for comments regarding this certificate *****



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Project: LD

Page: 2 - C Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18-JUN-2010 Account: NAVVEN

										CERTIF	ICATE (OF ANA	LYSIS	VA100	072980	
Sample Description	Method	ME-MS61														
	Analyte	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	TI	U
	Units	ppm	ppm	ppm	%	ppm	%	ppm	ppm							
	LOR	0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1
LD-03-06-10-1		247	55.3	<0.002	0.33	84.7	9.5	12	0.6	12.5	0.08	0.13	0.8	0.139	0.19	0.9
LD-03-06-10-2		>10000	9.5	0.012	0.56	11.75	3.3	5	0.3	1255	0.05	<0.05	0.3	0.068	0.30	2.0

***** See Appendix Page for comments regarding this certificate *****



ALS CALLENCE IN ALS Canada Ltd.		IEX CHEMISTRY
2103 Dollarton Hwy North Vancouver BC V Phone: 604 984 0221	7H 0A7 Fax: 604 984 0218	www.alschemex.com

To: NAVIGO VENTURES INC. 1128 - 789 WEST PENDER ST. VANCOUVER BC V6C 1H2

Project: LD

Page: 2 - D Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 18-JUN-2010 Account: NAVVEN

										CERTIFICATE OF ANALYSIS	VA10072980
Sample Description	Method Analyte Units LOR	ME-MS61 V ppm 1	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5	Cu-OG62 Cu % 0.001	Pb-OG62 Pb % 0.001	Zn-OG62 Zn % 0.001		
Sample Description LD-03-06-10-1 LD-03-06-10-2	Units	ppm 1 38 89	ppm 0.1 9.6 0.3	ppm 0.1 9.7 6.0	ppm 2 165 >10000	ppm 0.5 20.9 20.2	% 0.001 2.17	% 0.001	% 0.001 2.31		

**** See Appendix Page for comments regarding this certificate *****



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ALS Chemex EXCELLENCE IN ANALYTICAL CHEMISTRY ALS Canada Ltd. 2022 Deflorten Hurr

2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com To: NAVIGO VENTURES INC. 1128 - 789 WEST PENDER ST. VANCOUVER BC V6C 1H2 Page: Appendix 1 Total # Appendix Pages: 1 Finalized Date: 18-JUN-2010 Account: NAVVEN

Project: LD

CERTIFICATE OF ANALYSIS VA10072980

Method	CERTIFICATE COMMENTS
ME-MS61	REE's may not be totally soluble in this method.

Appendix II – IP Geophysical Data





Horizontal scale is 40.00 pixels per unit spacing Vertical exaggeration in model section display = 1.00 First electrode is located at 46900.0 m. Last electrode is located at 48500.0 m.

Unit Electrode Spacing = 50.0 m.





Horizontal scale is 40.00 pixels per unit spacing Vertical exaggeration in model section display = 1.00 First electrode is located at 46900.0 m. Last electrode is located at 48400.0 m.

Unit Electrode Spacing = 50.0 m.







Horizontal scale is 40.00 pixels per unit spacing Vertical exaggeration in model section display = 1.00 First electrode is located at 46900.0 m. Last electrode is located at 48500.0 m.

Unit Electrode Spacing = 50.0 m.







1.50 3.50 5.50 7.50 9.50 11.5 13.5 15.5 Chargeability in mV/V

Horizontal scale is 40.00 pixels per unit spacing Vertical exaggeration in model section display = 1.00 First electrode is located at 46900.0 m. Last electrode is located at 48500.0 m.

LD Property N-S Line 62100E

Unit Electrode Spacing = 50.0 m.





Horizontal scale is 40.00 pixels per unit spacing Vertical exaggeration in model section display = 1.00 First electrode is located at 46900.0 m. Last electrode is located at 48500.0 m.

Unit Electrode Spacing = 50.0 m.







1200-



Horizontal scale is 40.00 pixels per unit spacing Vertical exaggeration in model section display = 1.00 First electrode is located at 46900.0 m. Last electrode is located at 48500.0 m.



Unit Electrode Spacing = 50.0 m.



LD PROPERTY GEOPHYSICAL FIELD REPORT NAVIGO VENTURES INC.

DATE: 27 June 2010

- TO: NAVIGO VENTURES INC. 1128 – 789 West Pender St. Vancouver, B.C. V6C 1H2 Canada
- FROM: PROSPEC MB INC. (associated with Almaden Minerals Ltd.) 2760 Du Manege Canton d'Hatley Quebec CANADA Cell.Canada.U.S.A :1-819-565-4097 Cell Mexico: 011-52-1-771-109-3096

SUBJECT: LD Project Geophysical Survey, Iron Mountain Area, B.C.

Between 26 April and 29 June 2010, Prospec MB Inc. completed a program of 22.1 km of time domain Induced Polarization survey under contract from Navigo Ventures Inc. on the LD property, located about 10 km east of Merritt, British Columbia. The crew included Marc Beaupre, party chief geophysical technician, (Mark Goldie, Senior Geophysicist), and six labourers including two natives from the Merrit area.

Equipment:

BRGM Elrec 6 receiver, GDD Tx11 5000 watt transmitter, Honda 5kw generator. The poledipole IP array utilized a 50 meter dipole spacing with level of n=1 to n=8.

Daily Diary:

Line cutting 25 April, mobilize From Vancouver to Merritt. From 26 April to 16 May 2010 more than 30km. of line was cut. (3 men crew)

From May 31 to June 29, geophysical survey, IP.

May 31 Mobilize (Prospec MB) from Hatley (QC) to Vancouver. June 01 Prepared equipment, bought a new truck, and mobilize to Merritt (BC). June 02 Recon, Prepared infinity 3.0km June 03 IP geophysic LN:61700E 1.6km. June 04 IP geophysic LN:61800E 1.5km. June 05 IP geophysic LN:61900E 1.6km. June 06 IP geophysic LN:62000E 1.6km June 07 IP geophysic LN:62100E 1.6km. June 08 IP geophysic LN:62200E 1.6km. June 09 IP geophysic LN:62300E 1.6km. June 10 IP geophysic (pick up line and extended infinity)

[Next page]

****Personal time off ****

IRON MOUNTAIN project (cont)

June 17 IP geophysic LN:62400E 1.6km. June 18 IP geophysic LN:62500E 1.7km. June 19 IP geophysic LN:62600E 1.7km. June 20 IP geophysic LN:62700E 2.0km. June 21 IP geophysic LN:62800E 1.0km. June 22 IP geophysic LN:62800E 1.0km. June 23 IP geophysic LN:62900E 2.0km. June 24 IP geophysic Pik up line and infinity.

June 29 Demobilize to Vancouver.

IP Inversion Modeling:

Raw pole-dipole chargeability and resistivity data were inverted with the smoothnessconstrained least-squares method technique using RES2DINV (ver. 3.55, Geotomo Software) to produce the inverted sections. Horizontal plans and N-S sections were derived from a threedimensional geophysical model created from the same data using RES3DINV (ver. 2.15).

Attached – Pseudo-sections with self potential profiles.