

**TECHNICAL REPORT**

JUDY 1 (tenure no. 735182)

MCDAME MTN (tenure no. 821402)

LIARD MINING DIVISION

BRITISH COLUMBIA, CANADA

NTS 104P

UTM (Zone 9) 455000E, 6575000N

Event No. 5400212

Owner: Stephen Gerald (Gerry) Diakow

Operator: Farshad Shirvani, MSc.

Terracad Geoscience Services Ltd.

Date of Report: October 3, 2012.

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## 1.0 INTRODUCTION

The Judy 1 and McDame Mtn mineral tenures, located from three to six km northeast of Cassiar townsite, northwestern British Columbia, Canada (Figures 1 and 2) comprise 413 ha and 214.9 ha respectively. They lie on the east flank of McDame Mountain of the Cassiar Ranges, at the headwaters area of several small northeast flowing tributaries of Quartz Creek. Elevations vary from 1220 to 2070 metres (4000 to 6800 feet) a.s.l. The terrain is entirely alpine with steep slopes and few evergreen trees. The tenures may be accessed from the valley of Quartz Creek but fieldwork, for practical purposes, is likely to require helicopter support.

The mineral tenures are held by Stephen Gerry Diakow of Tsawwassen, B.C. and are situated immediately east of the former Cassiar mine. In addition to the Cassiar mine, the district is host to a broad range of mineral deposits, including significant but non-economic molybdenum, tungsten, gold, silver, lead, zinc, and barite occurrences. Principal infrastructure elements are Highway 37, the Stewart-Cassiar route, and small settlements of Good Hope Lake, population 90, and Cassiar, population 25. Seasonal placer mining operations are situated on several nearby streams and the former Cusac and Erickson underground gold mines are 20 km south.

The Judy 1 and McDame Mtn tenures were acquired in recognition of their location in a geologically prospective area that, due in part to its proximity to the Cassiar mine, appeared to be under-explored. In addition, Quartz Creek in the valley has a long history of placer gold production. Gold is reported to be consistently coarse grained and “rough”, indicative of a nearby source. That source is attributed, by provincial geologists among others, to quartz veins related to carbonate and listwanite alteration in various basaltic members of the Sylvester Allocthon and, more specifically, the Slide Mountain Complex (SMC) of Paleozoic to Mesozoic age. The SMC overlies continental sedimentary rocks of Paleozoic age and comprises a diverse assemblage of fine clastic sedimentary rocks, basalt, and ultramafic and gabbroic units. Rare occurrences of eclogite are indicative of very deep reaching, possibly mantle level, structures. Figure 3 of this report illustrates not only the local and regional geology of the area but also the imbricated thrust faults and crustal shortening resulting from emplacement of the Sylvester and the later emplacement of the massive granitic Cassiar Batholith.

## 2.0 STRUCTURAL STUDY

Terracad Geoscience Services Ltd., at the request of Mr. Diakow, examined the apparent structural fabric of the Judy 1 and McDame Mtn mineral tenures. The study included an area centered on the tenures and extending up to ten km from the tenures. Working with, variously, Geosoft, ArcGIS, AutoCAD and MicroDEM, computer software packages, images developed from digital elevation models, and using a light source at variable elevations and orientations, with reference to physical features, including streams, mountain ranges, and mapped fault systems, approximately 980 observations of fractures and lineaments were recorded. The systematic rotation of the assumed distant light source from 0° to 045° to 090°, as shown in Figures 4 to 6, ensured more complete coverage in an area of high topographic relief and enabled observations in areas that would otherwise have been obscured by shadows. Figure 7 includes a series of rose diagrams that summarize the orientation and lengths of the fractures and lineaments. The diagrams are divided in 7.5° increments.

Figure 7(a) illustrates the observed median length and number of fractures and lineaments in each 7.5° segment; Figure 7(b) partitions on the basis of frequency; Figure 7(c), on the basis of length, and 7(d) presents the average length of features. Figure 7(c) shows greatest lengths in the 060° direction, with strong 135° and moderately strong 000°. The number of east-west and north-south features (Figure 7(b)) are about equal whereas Figure 7(c) gives a distorted interpretation of “length” that results from the observation of a very long and strong lineament positioned against the southeast facing escarpment of a mountain range located south of Troutline Creek. That lineament appears to persist across that creek and at its northeast end may be erased or cut by the major thrust fault. If that

feature were eliminated from the data, a more credible pattern of northwest and north fracturing, more compatible with observable geographic and geomorphologic data, would emerge. Figure 7(d), showing the average length of fractures and lineaments, is in fairly close agreement with Figure 7(a), thus indicating that, statistically speaking, the data are sound. The strongest direction is 052.5° to 075°, the second, 015°, and the 090° features are the shortest.

The structural patterns observed from the imagery analysis show a strong concentration of fracture features in the area lying between Quartz Creek on the east and the Cassiar Batholith to the west. This is attributed at least in part to the presence in that area of the westernmost and perhaps strongest, deep-seated thrust fault that marks the limit of the Sylvester Allocthon. That thrust, which may be composite, emplaced numerous ultramafite bodies, including that which generated the Cassiar (open pit) and McDame Mountain (underground) orebodies. No distinctive features were found to be specifically associated with the Judy 1 and McDame Mtn mineral tenures.

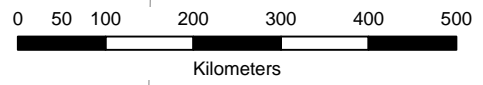
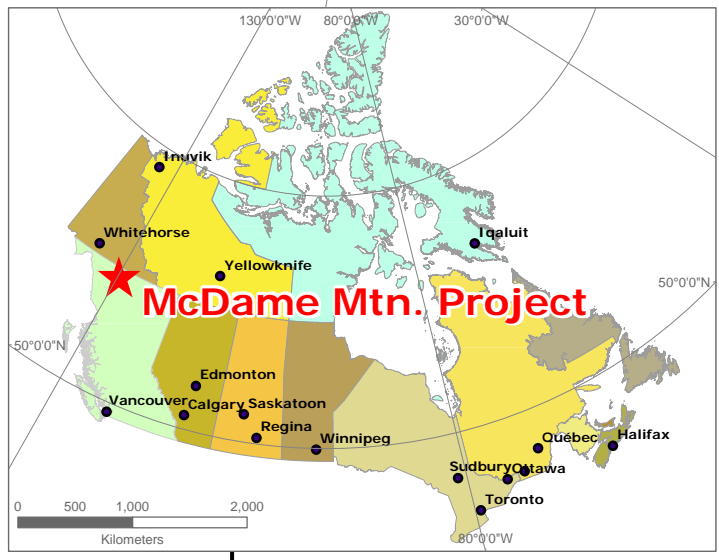
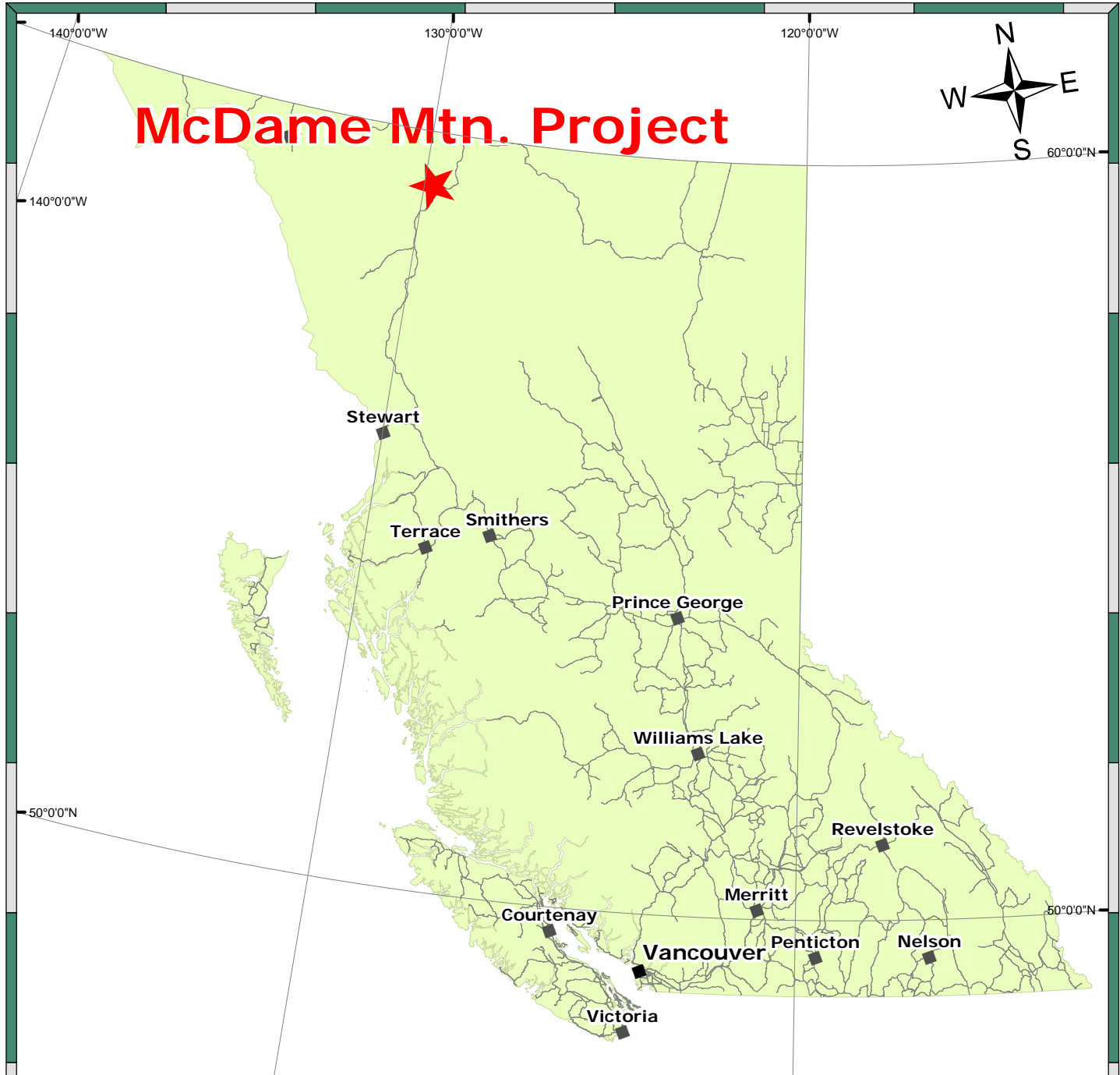
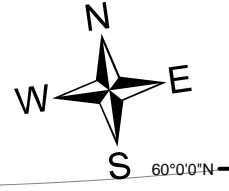
### **3.0 STATEMENT OF QUALIFICATIONS**

Terracad Geoscience Services Ltd. prepared the structural analysis of the Judy 1 and McDame Mtn mineral tenures that is the subject of this report. Farshad Shirvani, MSc., principal of Terracad, recorded the structural features and the rose diagram statistical composites. Mr. Shirvani is a geologist with many years experience in working with satellite imagery and with various software programs used in the analysis of such imagery.

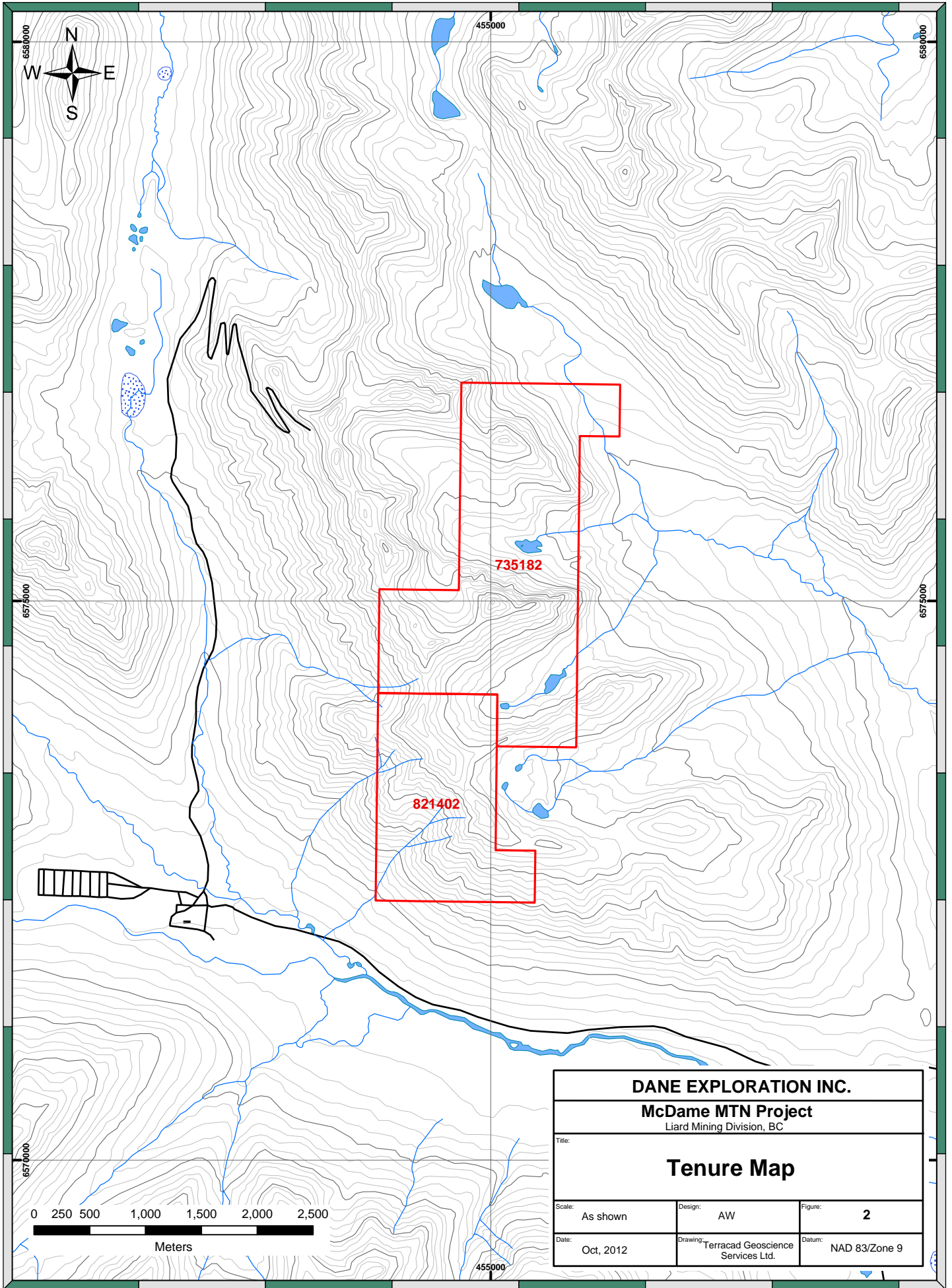
### **4.0 COST STATEMENT**

The cost of the structural analysis that is the subject of this report, complete with preparation of this report, was \$5200.

# McDame Mtn. Project



<b>DANE EXPLORATION INC.</b>		
<b>McDame Mtn. Project</b> Liard Mining Division, BC		
Title: <b>Project Location in British Columbia</b>		
Scale: As shown	Design: FS	Figure: 1
Date: Oct, 2012	Drawing: Terracad Geoscience Services Ltd.	Datum: Long/Lat



**DANE EXPLORATION INC.**

**McDame MTN Project**

Liard Mining Division, BC

Title:

**Tenure Map**

Scale:

As shown

Design:

AW

Figure:

2

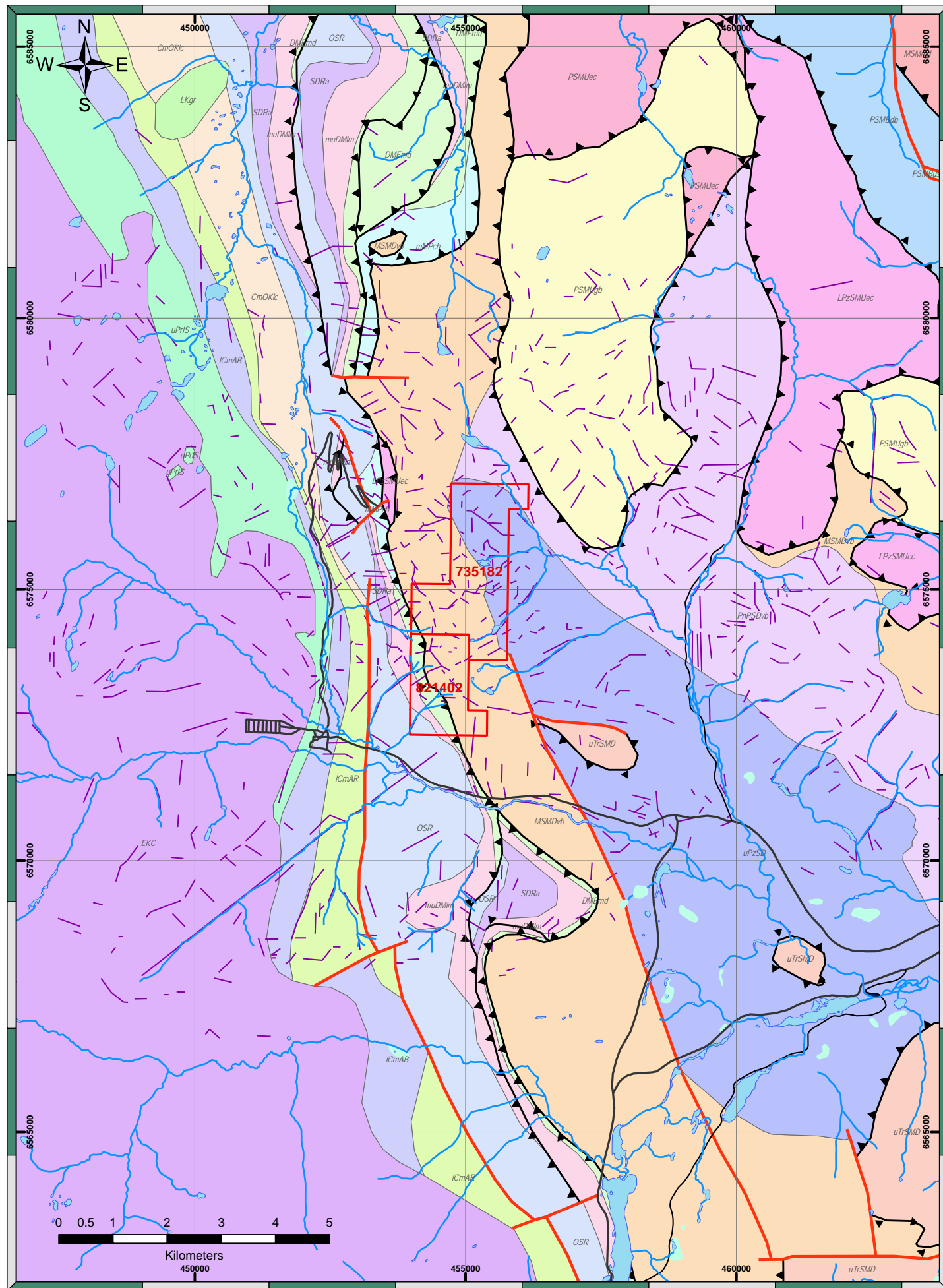
Date:

Oct. 2012

Drawing: Terracad Geoscience  
Services Ltd.

Datum:

NAD 83/Zone 9



### Legend

- Claim Boundary
- Lineaments
- Fault
- Thrust

### Geological Unit

- LKgr - Mesozoic - Unnamed granite, alkali feldspar granite intrusive rocks
- EKC - Mesozoic - Cassiar Batholith granite, alkali feldspar granite intrusive rocks
- uTrSMD - Mesozoic - Slide Mountain Complex - Division li limestone, slate, siltstone, argillite
- PSMBdb - Paleozoic - Slide Mountain Complex - Blue Dome Fault Zone diabase, basaltic intrusive rocks
- PSMBus - Paleozoic - Slide Mountain Complex - Blue Dome Fault Zone serpentinite ultramafic rocks
- PSMUec - Paleozoic - Slide Mountain Complex - Ultramafic and Gabbroic Thrust Sheets eclogite/mantle tectonite
- PSMUgb - Paleozoic - Slide Mountain Complex - Ultramafic and Gabbroic Thrust Sheets gabbroic to dioritic intrusive rocks
- uPzSD - Paleozoic - Slide Mountain Complex - Division li basaltic volcanic rocks
- PnPSDvb - Paleozoic - Slide Mountain Complex - Division li basaltic volcanic rocks
- mMPch - Paleozoic - Unnamed chert, siliceous argillite, siliciclastic rocks
- MSMDvb - Paleozoic - Slide Mountain Complex - Division li basaltic volcanic rocks
- MSMmd - Paleozoic - Slide Mountain Complex mudstone/laminite fine clastic sedimentary rocks
- LPzSMUec - Paleozoic - Slide Mountain Complex - Ultramafic and Gabbroic Thrust Sheets eclogite/mantle tectonite
- DMEmd - Paleozoic - Earn Group mudstone/laminite fine clastic sedimentary rocks
- muDMlm - Paleozoic - McDame Group limestone, marble, calcareous sedimentary rocks
- SDRa - Paleozoic - Ramhorn Group quartzite, quartz arenite sedimentary rocks
- OSR - Paleozoic - Road River Group limestone, slate, siltstone, argillite
- CmOKlc - Paleozoic - Kechika Group limestone, slate, siltstone, argillite
- ICmAB - Paleozoic - Atan Group - Boya Formation quartzite, quartz arenite sedimentary rocks
- ICmAR - Paleozoic - Atan Group - Rosella Formation limestone, marble, calcareous sedimentary rocks
- uPrIS - Proterozoic - Ingenika Group - Stelkuz Formation undivided sedimentary rocks

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Liard Mining Division, BC

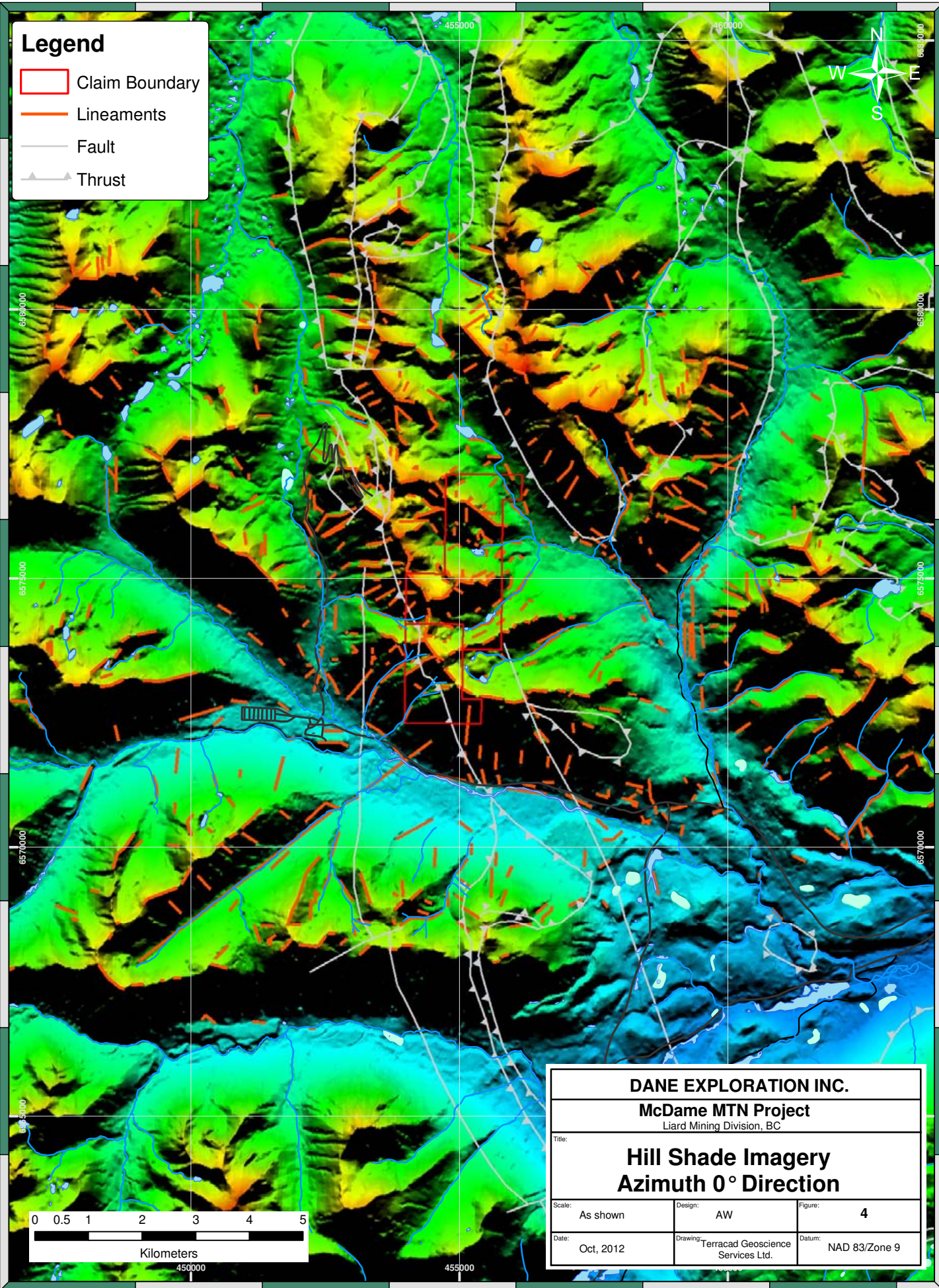
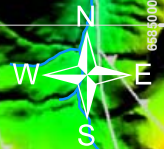
Title:

**Geology Map**

Scale:	As shown	Design:	AW	Figure:	<b>3</b>
Date:	Oct, 2012	Drawing:	Terracad Geoscience Services Ltd.	Datum:	NAD 83/Zone 9

# Legend

-  Claim Boundary
-  Lineaments
-  Fault
-  Thrust

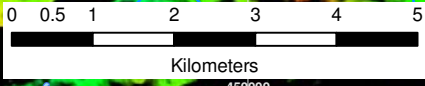


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**McDame MTN Project**  
Liard Mining Division, BC





Title:  
**Hill Shade Imagery**  
**Azimuth 0° Direction**

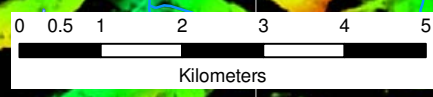
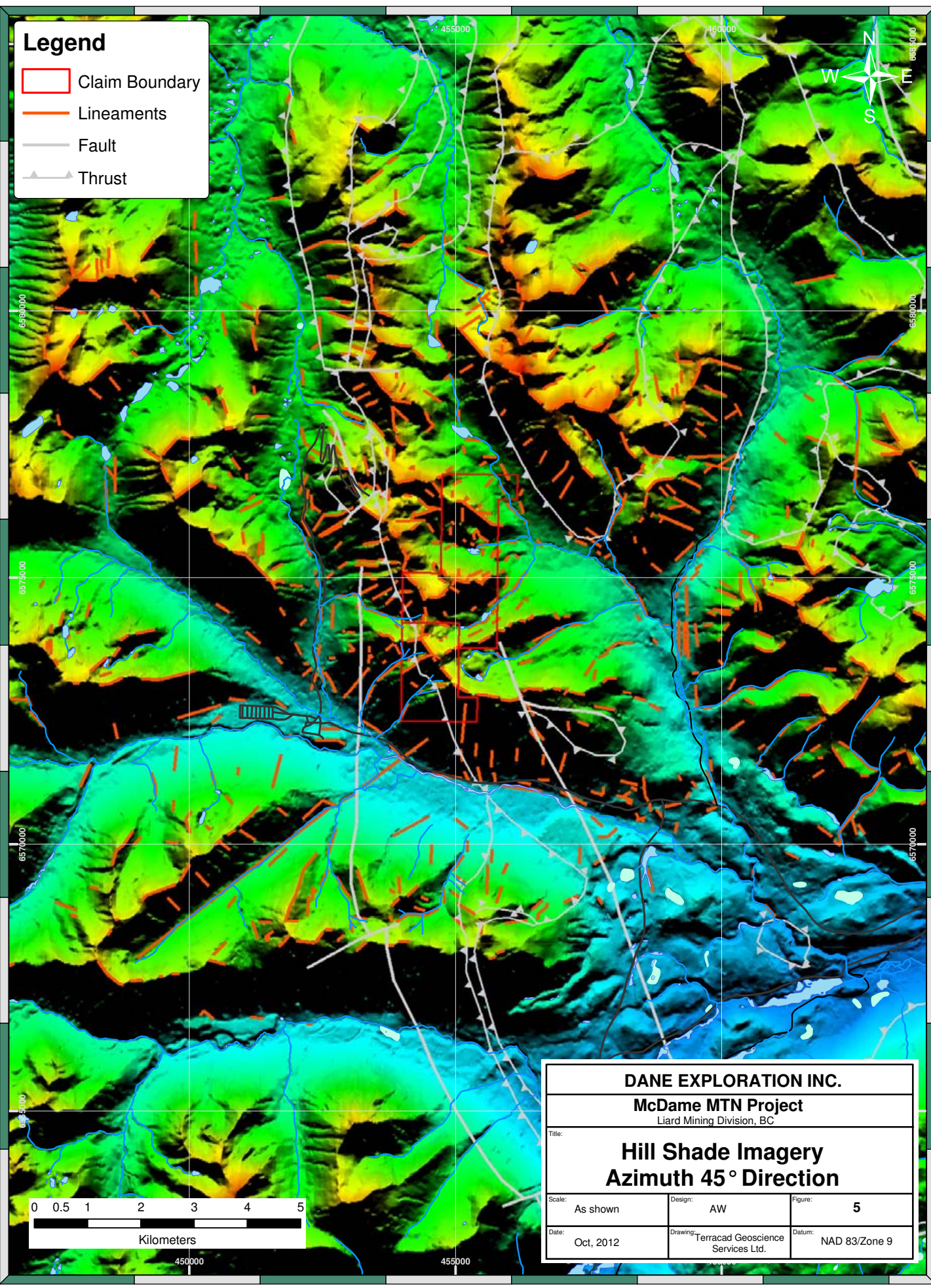
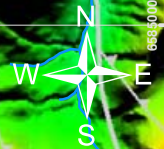
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Date: Oct, 2012	Drawing: Terracad Geoscience Services Ltd.	Datum: NAD 83/Zone 9









**Legend**

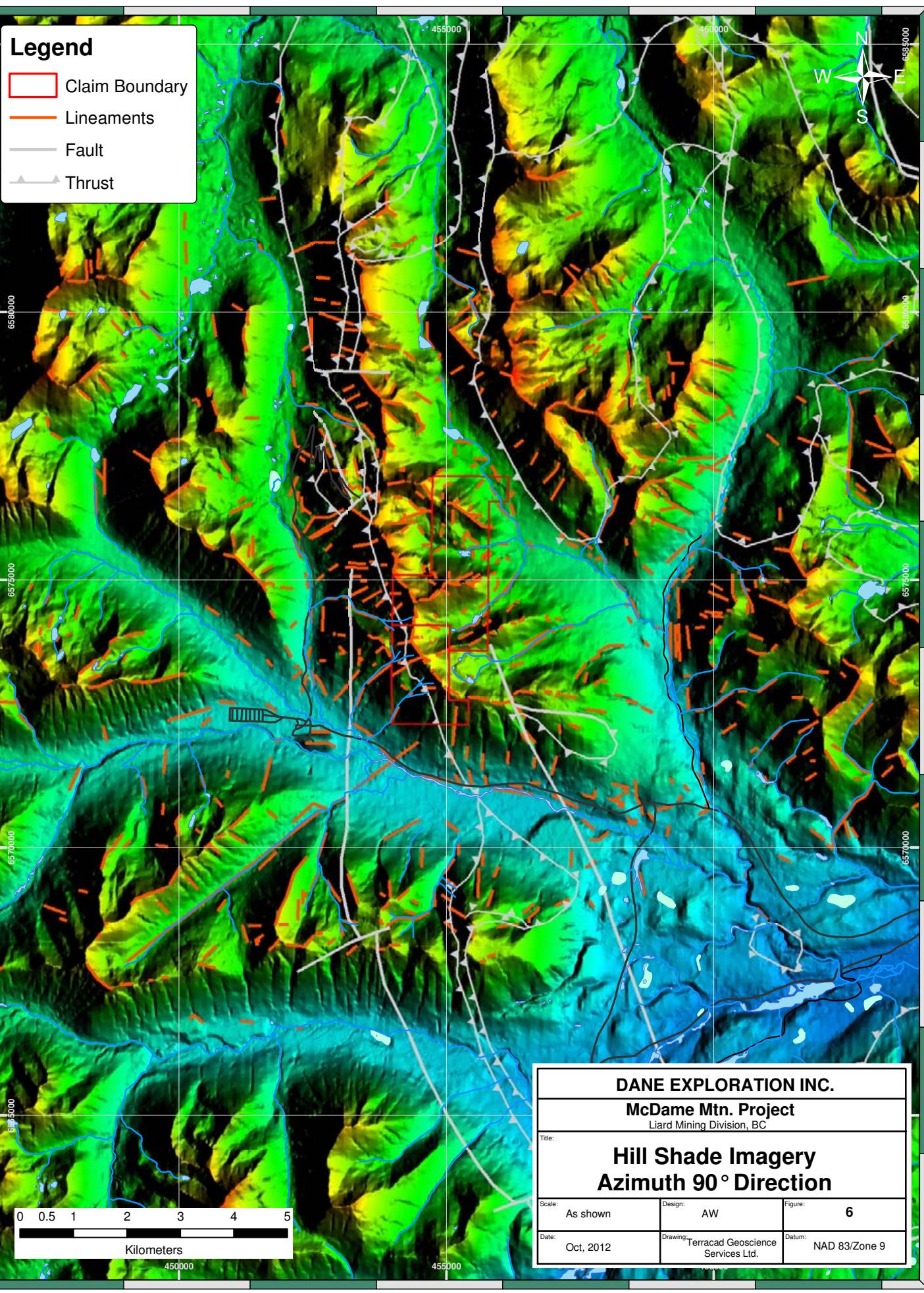
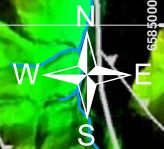
-  Claim Boundary
-  Lineaments
-  Fault
-  Thrust



<b>DANE EXPLORATION INC.</b>		
<b>McDame MTN Project</b>		
Liard Mining Division, BC		
Title: <b>Hill Shade Imagery</b> <b>Azimuth 45° Direction</b>		
Scale: As shown	Design: AW	Figure: 5
Date: Oct, 2012	Drawing: Terracad Geoscience Services Ltd.	Datum: NAD 83/Zone 9

# Legend

-  Claim Boundary
-  Lineaments
-  Fault
-  Thrust



**DANE EXPLORATION INC.**

**McDame Mtn. Project**  
Liard Mining Division, BC

Title:

**Hill Shade Imagery**  
**Azimuth 90° Direction**

Scale: As shown	Design: AW	Figure: 6
Date: Oct, 2012	Drawing: Terracad Geoscience Services Ltd.	Datum: NAD 83/Zone 9

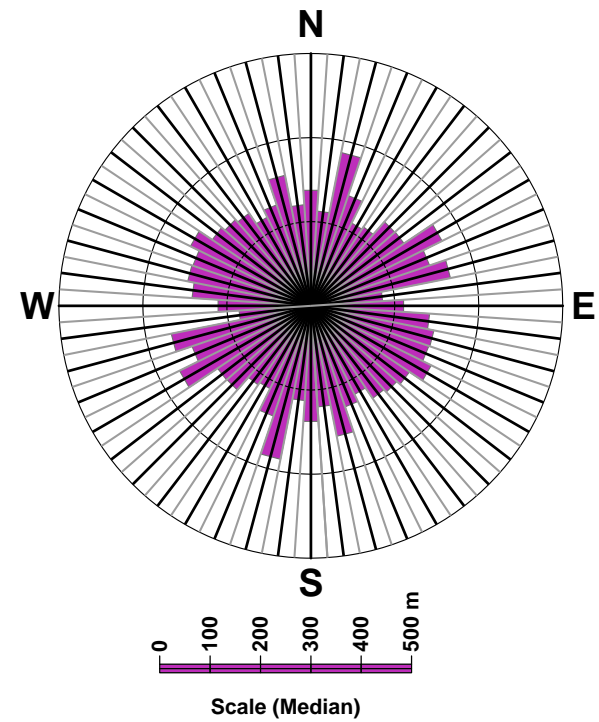


Fig 7(a): Median Length

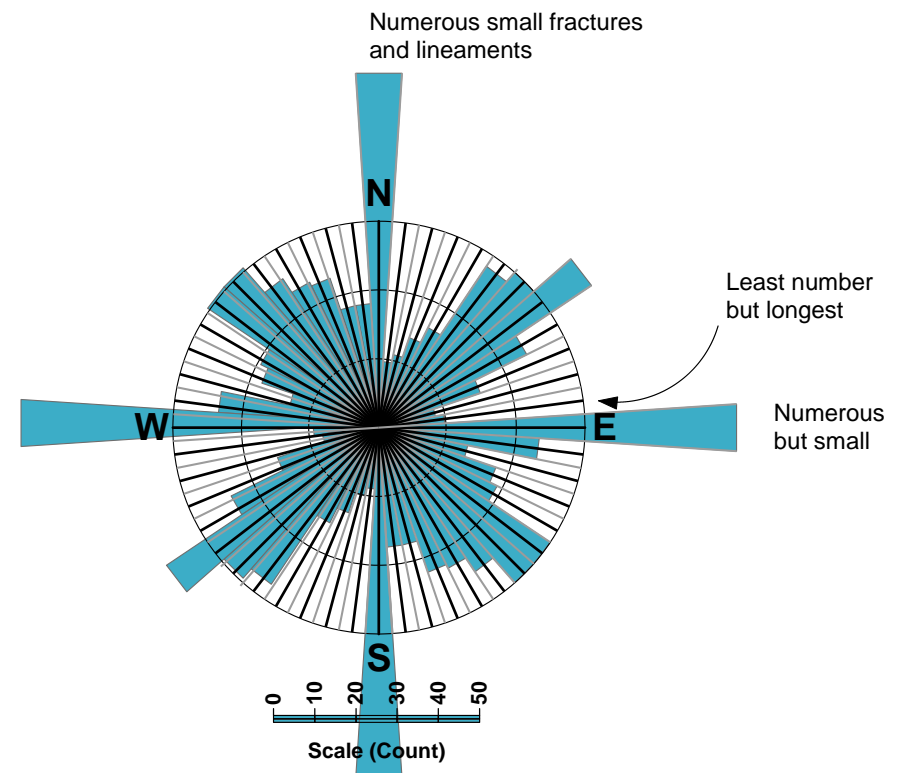


Fig 7(b): Number

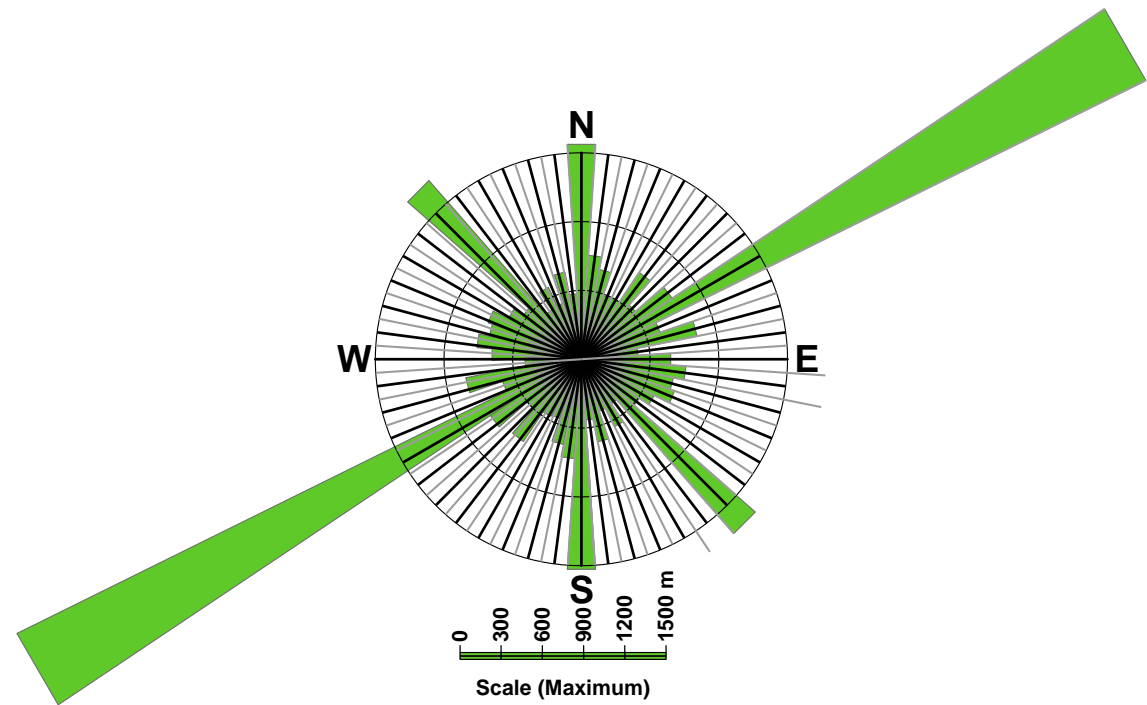


Fig 7(c): Length

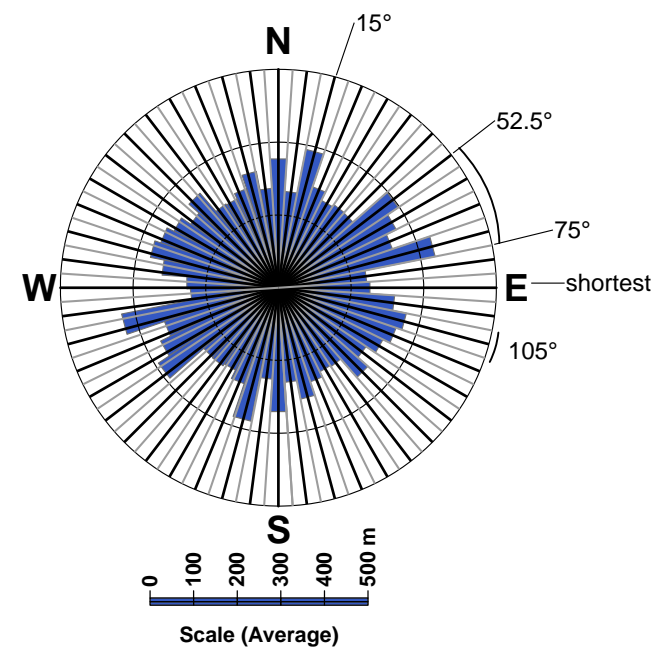


Fig 7(d): Average Length

<b>DANE EXPLORATION INC.</b>		
<b>McDame Mtn. Project</b> Liard Mining Division, BC		
<b>Lineament Statistics</b>		
Scale: As shown	Design: AW	Figure: 7
Date: Oct, 2012	Drawing: Terracad Geoscience Services Ltd.	Datum: NAD 83/Zone 9