ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TITLE OF REPORT: 2014 Geological Report on the Angus Property

TOTAL COST: $16,620.91

AUTHOR(S): Hannah Mills and Bob Lane
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5526231 / Oct 12, 2014

YEAR OF WORK: 2014

PROPERTY NAME: ANGUS

CLAIM NAME(S) (on which work was done): 604330, 604336, 828862, 834409

COMMODITIES SOUGHT: Silica

MINERAL INVENTORY MINFILE NUMBER(S),IF KNOWN: 093J 042

MINING DIVISION: Cariboo
NTS / BCGS: 093J08W / 093J038
LATITUDE: 54° 23'49"
LONGITUDE: 122° 25' 28"
UTM Zone: 10 EASTING: 537367 NORTHING: 6027840

OWNER(S): Stikine Energy Corp.

MAILING ADDRESS: 490 – 1122 Mainland Street, Vancouver, B.C., V6B 5L1

OPERATOR(S) [who paid for the work]: Stikine Energy Corp.

MAILING ADDRESS: 490 – 1122 Mainland Street, Vancouver, B.C., V6B 5L1

REPORT KEYWORDS: Proterozoic, Misinchinka Group, Quartz Arenite, Quartzite

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:
31622, 32549

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	4 ha	604330, 604336, 828862, 834409	10,000
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt			
Rock	7	828862, 834409	4,620.91
Other			
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic	7	828862, 834409	2,000
Mineralographic			
Metallurgic			
PROSPECTING (scale/area)			
PREPATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
		TOTAL COST	**$16,620.91**

2014 Geological Report on the Angus Property

Cariboo Mining Division, British Columbia

BCGS Map: 093J038

Latitude 54.396908°N & Longitude 122.423091°W

Statement of Work Event: 5526231

Date: February 2nd, 2015

Prepared for:

Stikine Energy Corp
490 – 1122 Mainland Street
Vancouver, B.C., Canada, V6B 5L1

Prepared by:

Plateau Minerals Corp.
Hannah Mills, GIT
Bob Lane, P.Geo

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1 SUMMARY

Stikine Energy Corp. (Stikine) recognized the need for a northeastern British Columbia source of frac sand for the region's developing unconventional natural gas exploration and production sector. Frac sand is a fine-grained pure quartz material used in the hydraulic fracturing process. In 2009, Stikine identified and staked a number of prospective targets including the Angus property. The Angus property is located 19 km southeast of the community of Bear Lake, and 59 km north of Prince George. The core area of the property encompasses Mount Averil.

Stikine has previously completed aerial and ground reconnaissance of the Angus property and identified a northwest-trending belt of medium to coarse-grained quartz arenite belonging to the Proterozoic Misinchinka Group. Additional work of the Angus property includes diamond drilling, detailed mapping, petrographic thin section studies and the collection of a bulk sample in 2011 for processing in a pilot plant.

Follow-up work in 2014 consisted of a week-long field program in early October to identify and sample extensions of the quartz arenite to the northwest and southeast of the central claim area. In addition, a detailed cross-section of the newly identified outcrop to the southeast was completed. A suite of rock samples that characterize the exposure were collected and submitted for whole rock analysis and petrography.

Six of the seven samples came from an exposure of quartz arenite/quartzite at the south end of the mapped area. The resulting analyses show consistently pure quartz arenite/quartzite, with silica (SiO_2) contents ranging from 97.75-98.67 (average: 98.18% SiO_2), alumina (Al_2O_3) ranging from 0.29-0.84% (average: 0.56% $Al_2O_{3)}$, iron oxide (Fe_2O_3) ranging from 0.40-0.63% (average: 0.53% Fe_2O_3) and potassium (K_2O) ranging between 0.07-0.23% (average: 0.16% K_2O).

Petrographically, all seven samples examined were variably pure to slightly impure meta-quartz arenites (quartzites), composed primarily (95%+) of relatively well sorted, detrital quartz with minor to significant interstitial cement of secondary quartz and lesser sericite ± local limonite. Typically, well-rounded relict detrital quartz grain cores have optically continuous but readily distinguished quartz overgrowths (<0.1 to 0.25 mm thick) that mantle the primary grains and almost completely fill primary porosity. Quartz grains commonly display a bimodal distribution with relatively coarse grains up to 2.3 mm in diameter in a matrix of finer grains mostly <0.5 mm in diameter.

The modest exploration program completed in 2014 has established that the quartz arenite/quartzite formation of interest has a total semi-continuous strike length of approximately 8 km. The newly mapped and sampled exposure at the south end of the belt is readily accessible; whole rock geochemistry and petrography characterize the exposure as one of high quartz purity that has the potential to be viable frac sand. This area of the property should be considered for further assessment.

2 INTRODUCTION

This summary report has been prepared at the request of Stikine Energy Corp. to summarize results from the prospecting and mapping conducted in October 2014 on the Angus property. Project field work was conducted by Hannah Mills, GIT, and project management was provided by Bob Lane, PGeo, of Plateau Minerals Corp.

Staking and initial reconnaissance of the property occurred in 2009 and was followed in subsequent years by helicopter-supported and on-foot traverses to record and map outcrops, as well as bench-scale and bulk sample processing to confirm the suitability of the quartz arenite for frac sand. In 2014, a series of traverses were conducted to identify the extension of the quartz arenite unit from the central claim area.

2.1 LOCATION AND ACCESS

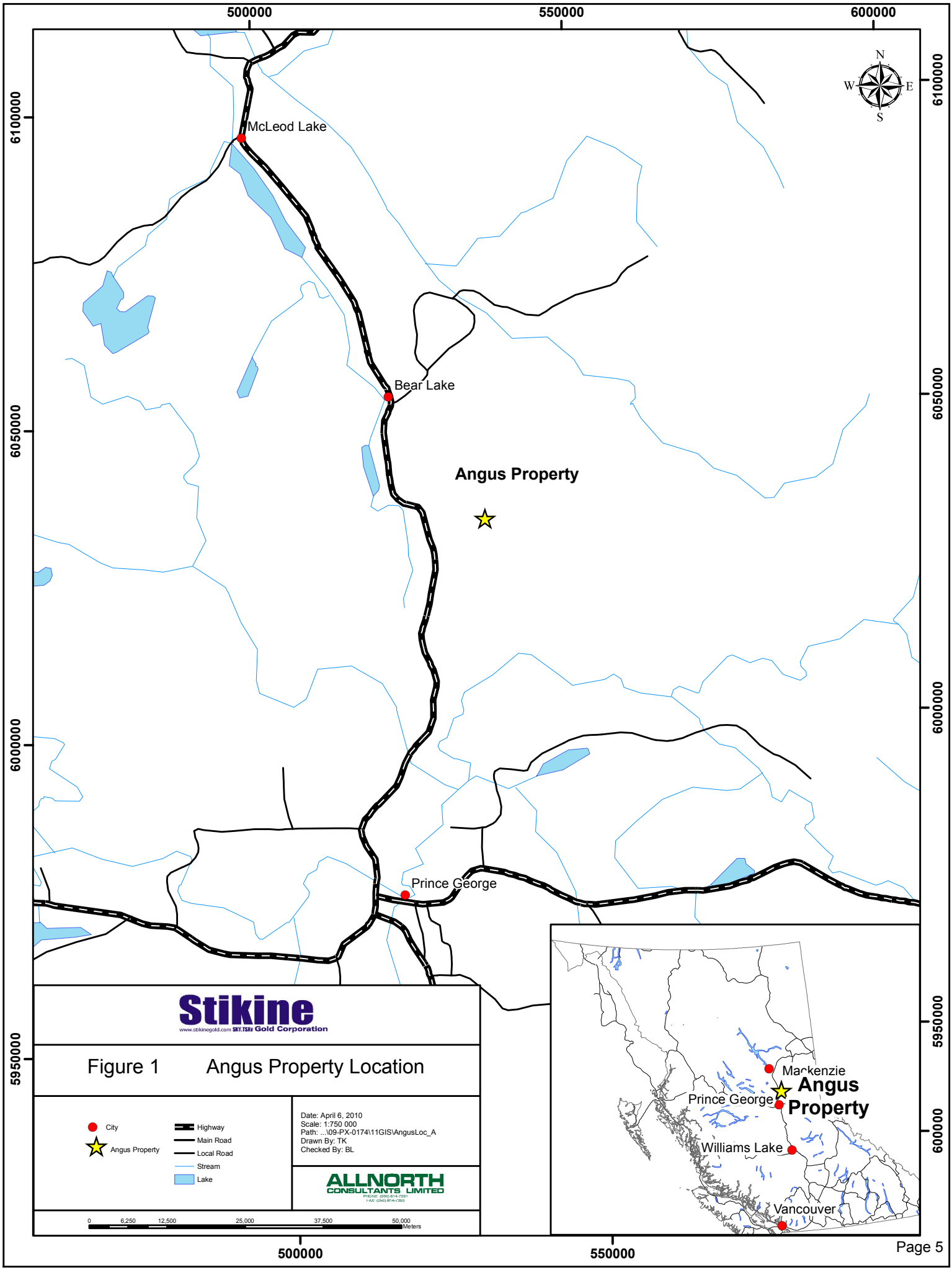
The Angus property encompasses Mount Averil in central British Columbia and is centered 19 km southeast of the community of Bear Lake in the Cariboo Mining Division Figure 1). The property is approximately one-half hour by air north of Prince George, representing a distance of 59 km. It is centered at Latitude 54.396908°N and Longitude 122.423091°W.

Road access to the property is provided by Highway 97 and the recently upgraded North Olsson Forest Service Road (FSR) which extends eastward from Highway 97. A spur road (formerly the partially decommissioned Darby FSR) at 17.5 km on the N. Olsson leads to the center of the property. The north end of the property is accessed by the 6600 Rd off of the Chuchinka FSR/700 Rd.

2.2 PHYSIOGRAPHY AND CLIMATE

The Angus property lies in the Interior Plateau physiographic region. Elevations within the claim group range from about 900 to 1310 meters. The Angus property covers the sparsely-treed subalpine northwest-trending ridge that peaks as Mount Averil. Lower elevation valleys are well-forested mature stands of spruce, balsam with some pine or previously logged plantations with thick underbrush, including alder and devil's club. Away from the central ridge, outcrop exposure is limited due to extensive glacial till cover.

Climate on the property is similar to that recorded for the town of Mackenzie, located about 60 km north of Bear Lake. Mackenzie experiences average daily maximum temperatures of -9.8°C for January, and 21.7°C for July. Average minimum temperature for the same two months are -18.7°C and 8°C. Average annual rainfall and snowfall for Mackenzie are 37.5 cm and 337.1 cm respectively.


500000
550000
600000
6100000
6050000
6000000
5950000
N
W
E
S
McLeod Lake
Bear Lake
Angus Property
Prince George
Stikine
www.stikinegold.com SKY.TSXV Gold Corporation
Figure 1 Angus Property Location
City
Angus Property
Highway
Main Road
Local Road
Stream
Lake
Date: April 6, 2010
Scale: 1:750 000
Path: ...\09-PX-0174\11GIS\AngusLoc_A
Drawn By: TK
Checked By: BL
ALLNORTH
CONSULTANTS LIMITED
0 6,250 12,500 25,000 37,500 50,000 Meters
Mackenzie
Angus
Property
Prince George
Williams Lake
Vancouver

2.3 MINERAL TENURE OWNERSHIP AND STATUS

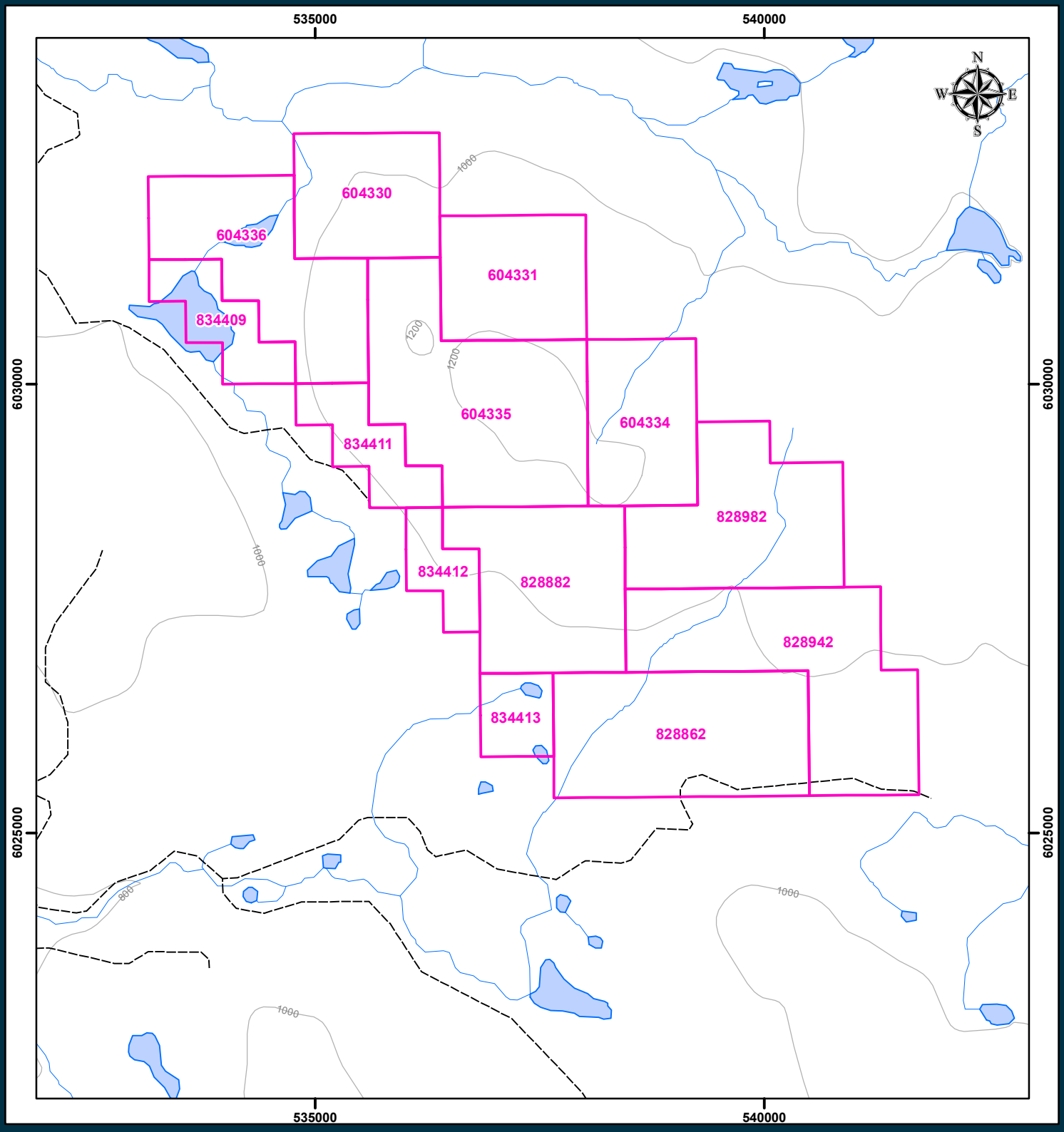
The Angus property consists of 13 mineral claims that cover 3,331.83 hectares of land (Table 1 and Figure 2). All of the mineral tenure was acquired by staking and is 100% -owned by Stikine (Free Miners Certificate 145114). The claims are not subject to any underlying interests. The Angus property is not encumbered by any provincial or national parks, or other protected areas.

2.4 EXPLORATION HISTORY

Prior to Stikine's interest, the Angus property had not been the subject of any recorded mineral exploration. The Angus property was staked in 2009 to cover an outcropping sequence of the sedimentary Upper Proterozoic Misinchinka Group that were thought to include quartz arenite/quartzite suitable for high-value frac sand (Lane, 2010). In 2010, an exploration program verified the geographic extent of the Misinchinka quartzites and quartz arenites, and representative samples for geochemical analysis and thin-sections were collected. In 2011, a bulk sample of 516 tonnes was excavated and shipped to Abbotsford, B.C., for processing in the company's pilot plant (Lane and DeGrace, 2011).

Table 1 List of Mineral Claims - Angus Property

Tenure Number	Claim Name	Owner	Map Number	Issue Date	Good To Date	Area (ha)
604330		145114 (100%)	093J	2009/may/11	2015/oct/30	225.731
604331		145114 (100%)	093J	2009/may/11	2015/oct/30	225.7771
604334		145114 (100%)	093J	2009/may/11	2016/mar/30	225.8541
604335	ANGUS	145114 (100%)	093J	2009/may/11	2016/mar/30	470.5008
604336		145114 (100%)	093J	2009/may/11	2015/oct/30	319.8402
828862		145114 (100%)	093J	2010/jul/27	2016/mar/30	395.5446
828882		145114 (100%)	093J	2010/jul/27	2016/mar/30	320.0862
828942		145114 (100%)	093J	2010/jul/27	2016/mar/30	433.1495
828982		145114 (100%)	093J	2010/jul/27	2016/mar/30	338.8625
834409	BOB15	145114 (100%)	093J	2010/sep/27	2015/oct/30	112.8994
834411	BOB17	145114 (100%)	093J	2010/sep/27	2015/oct/30	112.9313
834412	BOB18	145114 (100%)	093J	2010/sep/27	2015/oct/30	75.3111
834413	BOB19	145114 (100%)	093J	2010/sep/27	2015/oct/30	75.3382



STIKINE ENERGY CORP.

ANGUS PROPERTY

Figure 2 Mineral Tenure

50k Mapsheets: 093J
Date: 1/14/2015
Projection: NAD 1983 UTM Zone 10N
Scale:1:60,000
Author: tkwitkoski
Last Modified By: ainglis
Checked By: BL
Revision #:

0 1 2
Kilometers

Legend

- Road
- Mineral Tenure
- Limited Use Road
- Pipeline
- Railway
- Transmission Line
- Stream
- Contour
- Lake
- Wetland

Allnorth

Path: C:\12PG0354 BC Hydro - Forest Permit and Development\24 GIS\24.20 MXD\AngusClaim_60k_A.mxd

3 REGIONAL GEOLOGY

The Angus project claims cover part of the Cariboo/Cassiar terrane and the adjoining North American plate. A northwest-trending fault brings Cretaceous to Paleogene Wolverine Metamorphic Complex of the Cassiar terrrane into contact with the Rocky Mountain Assemblages of the Upper Proterozoic to Cambrian Misinchinka, Gog, Boulder Creek and Cariboo groups, the Cambrian to Ordovician Kechika Group, and the Ordovician to Silurian Monkman Quarzite (Struik, 1994).

The oldest rocks in the area are the metasedimentary and clastic sedimentary rocks of the Upper Proterozoic to Cambrian Misinchinka, Gog, Boulder Creek, and Cariboo groups that are the focus of the property (Figure 3). These rocks are in contact with the quartzite and quartz-rich clastic rocks of the Ordovician to Silurian Monkman Quartzite and the limey sediments and limestone of the Cambrian to Ordovician Kechika Group along several northwest trending faults.

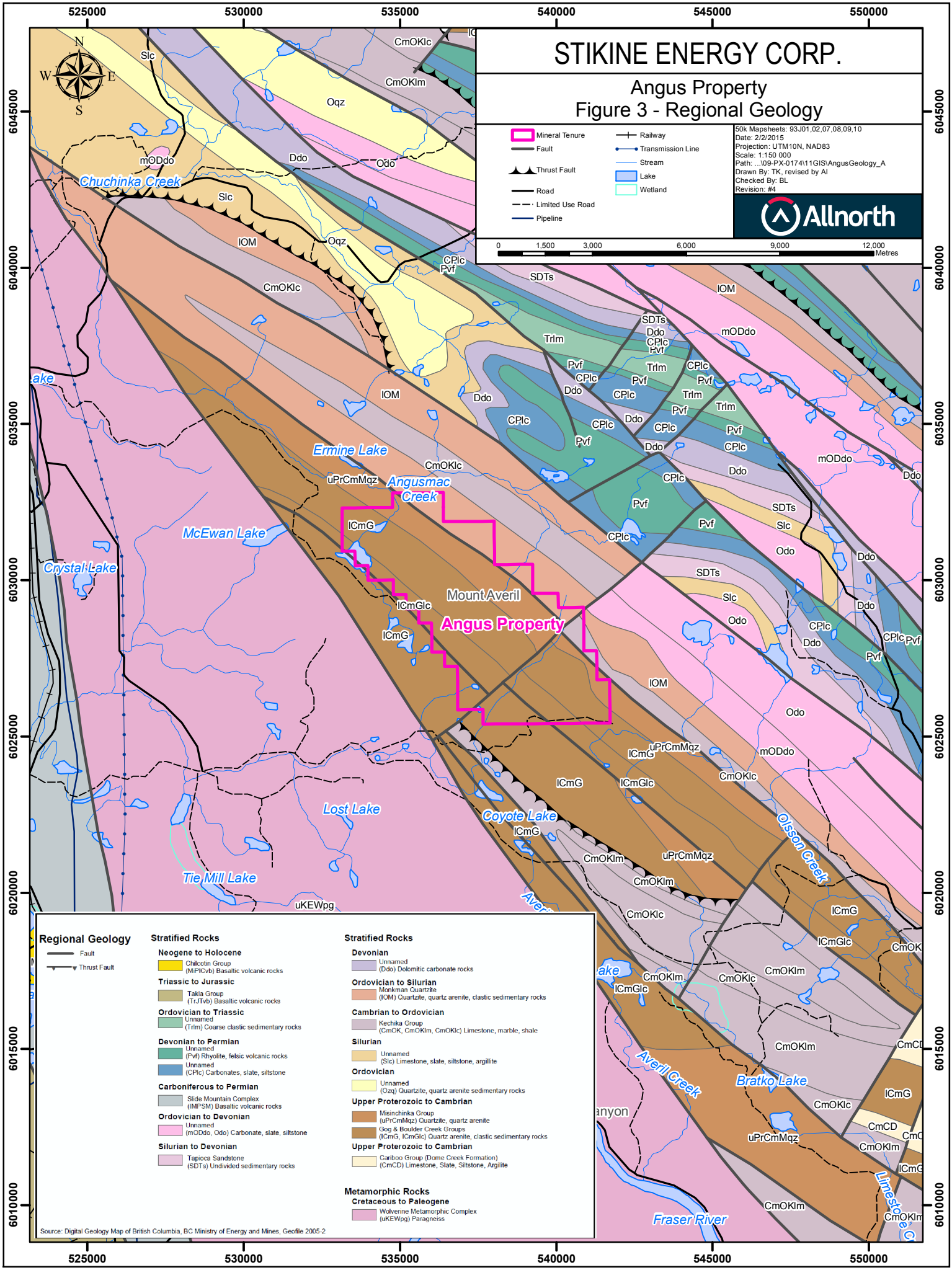
4 PROPERTY GEOLOGY

The Angus property is principally underlain by phyllite, quartzite/quartz arenite, and clastic sedimentary rocks of the Upper Proterozoic to Cambrian Misinchinka, Gog and Boulder Creek groups. The Mount Averil ridge that is the focus of the exploration is almost entirely underlain by Misinchinka Group quartzite striking ~120 degrees and dipping variably to the southwest. Within the quartzite/quartz arenite interval of interest a persistent quartz-pebble conglomerate layer of two to three meters of thickness serves as a marker unit along the strike length of the exposed deposit. Generally the Misinchinka Group consist of a fine- to medium-grained, well-sorted, subangular quartz sandstone and quartzite.

Limestone and shale, likely belonging to the Cambrian to Ordovician Kechika Group are exposed in the southern and northern part of the property, and are in fault contact with the older sedimentary rocks. Kechika Group fossiliferous limestone occurs in areas listed as Gog sedimentary rocks on the government map.

5 MINERALIZATION AND GEOLOGICAL MODEL

The Angus property covers a sequence of high-quartz arenite (sandstone) and quartzite belonging to the Upper Proterozoic Misinchinka Group. The persistence and homogeneity of the sedimentary beds along strike suggests a littoral depositional environment. Cross-beds in the quartzite are rare but do occur and are interpreted as intermittent channels between baymouth bars.


STIKINE ENERGY CORP.
Angus Property
Figure 3 - Regional Geology
Mineral Tenure
Fault
Thrust Fault
Road
Limited Use Road
Pipeline
Railway
Transmission Line
Stream
Lake
Wetland
50k Mapsheets: 93J01,02,07,08,09,10
Date: 2/2/2015
Projection: UTM10N, NAD83
Scale: 1:150 000
Path: ...\09-PX-0174\11GIS\AngusGeology_A
Drawn By: TK, revised by AI
Checked By: BL
Revision: #4
Allnorth
0 1,500 3,000 6,000 9,000 12,000 Metres
525000
530000
535000
540000
545000
550000
6045000
6040000
6035000
6030000
6025000
6020000
6015000
6010000
N
S
E
W
Chuchinka Creek
Ermine Lake
Angusmac Creek
McEwan Lake
Crystal Lake
Mount Averil
Angus Property
Lost Lake
Coyote Lake
Tie Mill Lake
Olsson Creek
Averil Creek
Bratko Lake
Fraser River
Limestone C
Regional Geology
Fault
Thrust Fault
Stratified Rocks
Neogene to Holocene
Chilcotin Group
(MiPlCvb) Basaltic volcanic rocks
Triassic to Jurassic
Takla Group
(TrJTvb) Basaltic volcanic rocks
Ordovician to Triassic
Unnamed
(TrIm) Coarse clastic sedimentary rocks
Devonian to Permian
Unnamed
(Pvf) Rhyolite, felsic volcanic rocks
Unnamed
(CPlc) Carbonates, slate, siltstone
Carboniferous to Permian
Slide Mountain Complex
(IMPSM) Basaltic volcanic rocks
Ordovician to Devonian
Unnamed
(mODdo, Odo) Carbonate, slate, siltstone
Silurian to Devonian
Tapioca Sandstone
(SDTs) Undivided sedimentary rocks
Stratified Rocks
Devonian
Unnamed
(Ddo) Dolomitic carbonate rocks
Ordovician to Silurian
Monkman Quartzite
(IOM) Quartzite, quartz arenite, clastic sedimentary rocks
Cambrian to Ordovician
Kechika Group
(CmOK, CmOKlm, CmOKlc) Limestone, marble, shale
Silurian
Unnamed
(Slc) Limestone, slate, siltstone, argillite
Ordovician
Unnamed
(Ozq) Quartzite, quartz arenite sedimentary rocks
Upper Proterozoic to Cambrian
Misinchinka Group
(uPrCmMqz) Quartzite, quartz arenite
Gog & Boulder Creek Groups
(ICmG, ICmGlc) Quartz arenite, clastic sedimentary rocks
Upper Proterozoic to Cambrian
Cariboo Group (Dome Creek Formation)
(CmCD) Limestone, Slate, Siltstone, Argillite
Metamorphic Rocks
Cretaceous to Paleogene
Wolverine Metamorphic Complex
(uKEWpg) Paragneiss
Source: Digital Geology Map of British Columbia, BC Ministry of Energy and Mines, Geofile 2005-2

6 2014 EXPLORATION PROGRAM

Exploration in 2014 consisted of prospecting for quartzite to the northwest and the southeast of the known exposed quartzite on the Mount Averil ridge in anticipation of reducing the property size. When appropriate, detailed geological mapping and sampling was performed. A total of 7 field days were conducted in October, 2014, to identify and map rock exposures. Location control was by handheld GPS unit.

7 RESULTS

7.1 Bedrock Mapping

Previously unknown exposures of quartzite were identified to the northwest and southeast of the central Mount Averil claim area extending the strike length of the quartzite to ~8 km. Additional outcrops of limestone and shale were also identified in these areas to provide constraints on the potential extent of quartzite. Bedrock mapping stations and rock sample locations are listed in Table 2 and shown on Figure 4.

The newly identified exposure of quartzite to the southeast is of particular interest as it is located immediately adjacent to the N. Olsson FSR, a wide, recently upgraded forest road suitable for hauling. Quartzite is exposed along the road and exposure continues uphill to the crest of a small rise. A detailed cross-section was completed in an area of good exposure halfway up the hill (Figure 5). This site is located ~1300 m to the south-southeast of the bulk sample site and is offset approximately 400 m to the southwest from the extension along strike of the most southwestern exposure of quartzite on the Mount Averil ridge.

The quartzite is generally white, well graded and very well sorted with subrounded to well-rounded grains. Grains are typically tightly packed with silica cement with individual grains measuring from 0.1-2 mm and only rare pebble sized grains. Pebble-rich sandstone and pebble conglomerate layers with significant (>2%) grains up to 10 mm in diameter are volumetrically subordinate to the better sorted sandstone. True pebble conglomerate (variably grades into a pebble-rich sandstone) is well confined to a ~2 meter thick interval near the base (northeastern side) of the exposed sequence. In pebble-rich sandstone, pebble-sized clasts generally occur as linear cross-beds and flattened-Y shaped scours. These scours can be up to 30 cm long and 10 cm wide but are typically smaller ~10 cm wide and 2-3 cm wide. The rock is thickly bedded, strikes approximately 115°-130° and dips 28° to 43° to the SW.

The unit is cut by white 1-2 cm wide quartz veins striking 0°-20° and dipping steeply (75°-90°) to the east. Veins are typically 1-2% of the rock but can be up to 10% over meter wide intervals. Veins are occasionally broken and offset en-echelon along the strike direction. Veining is possibly parallel to a widely-spaced joint set with the same orientation. Six quartzite samples were collected in this area as the detailed mapping allowed for good constraint on variation within the quartzite.

Stikine Energy Corp.

Angus Property
Figure 4A
2014 Property Geology

Angus Whole Rock Data - 2014

Sample	NAD83	NAD83	SiO2	Al2O3	Fe2O3	MgO	CaO	K2O	TiO2	P2O5	Cr2O3	Sc	LOI	Sum
ID	Easting	Northing	%	%	%	%	%	%	%	%	%	PPM	%	%
1401	539664	6026502	98.67	0.29	0.4	<0.01	0.01	0.07	0.03	0.02	0.004	<1	0.5	100
1402	539658	6026598	97.77	0.84	0.57	0.03	<0.01	0.23	0.06	0.02	0.005	<1	0.5	100
1403	539658	6026598	98.09	0.52	0.54	0.02	<0.01	0.15	0.05	0.02	0.007	<1	0.6	100
1404	539658	6026598	97.75	0.73	0.62	0.03	<0.01	0.23	0.09	0.01	0.009	1	0.5	100
1405	539658	6026598	98.47	0.56	0.44	0.02	<0.01	0.16	0.04	0.02	0.004	<1	0.3	100
1406	539658	6026598	98.34	0.41	0.63	0.02	<0.01	0.12	0.04	0.02	0.004	<1	0.4	100
1407	533567	6031351	96.09	1.68	0.64	0.05	<0.01	0.48	0.1	0.03	0.002	<1	0.9	99.99

- Rock Sample
- Bedding
- Jointing
- Quartz arenite/quartzite
- Quartz pebble Conglomerate
- Quartz Arenite
- Cross Section Start / End
- Cross Section
- Road
- Conglomerate Exposure
- Gradational Contact
- Road (TRIM)
- Limited Use Road / Trail
- Cut Block
- Log Landing
- Cliff or Terrain Dropoff
- Ridge - Definite
- Swamp
- Contour (TRIM)
- Mineral Tenure

20k Mapsheets:
Date: 11/18/2015
Projection: NAD 1983 UTM Zone 10N
Scale:1:4,000
Author: ainglis
Last Modified By: tkwitkoski
Checked By:
Revision #:

0 50 100 200
Metres

Map Extents over Angus Proptery

Allnorth

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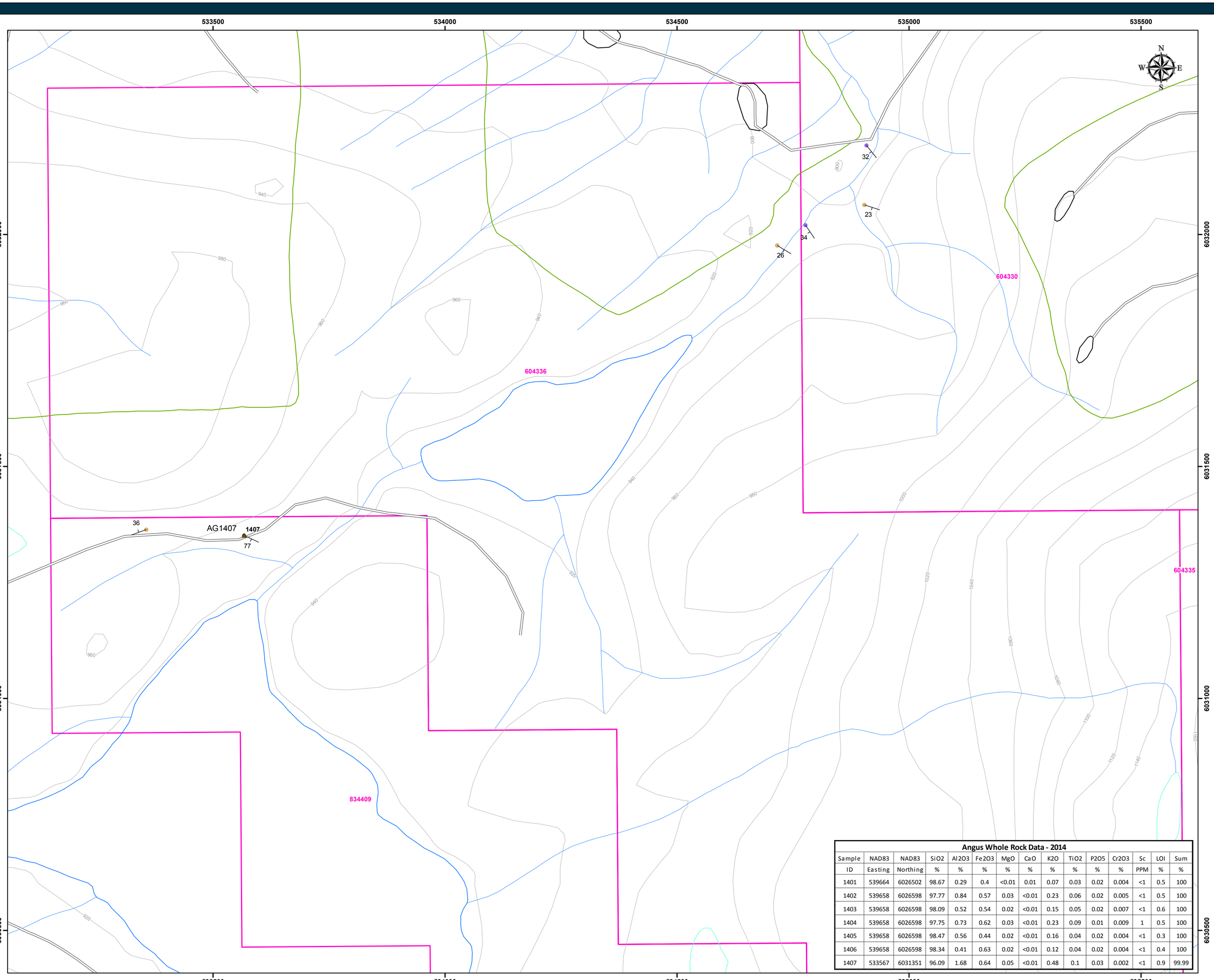
Stikine Energy Corp.

Angus Property
Figure 4B
2014 Property Geology

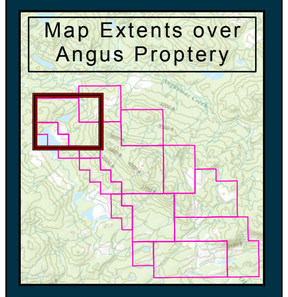


- Rock Sample
- Bedding
- Limestone
- Quartz arenite/quartzite
- Shale
- Road
- Limited Use Road / Trail
- Cut Block
- Log Landing
- Lake
- Stream
- Swamp
- Contour
- Mineral Tenure

20k Mapsheets:
Date: 11/18/2015
Projection: NAD 1983 UTM Zone 10N
Scale:1:5,000
Author: ainglis
Last Modified By: tkwitkoski
Checked By:
Revision #:

0 50 100 200
Metres

Map Extents over Angus Proptery



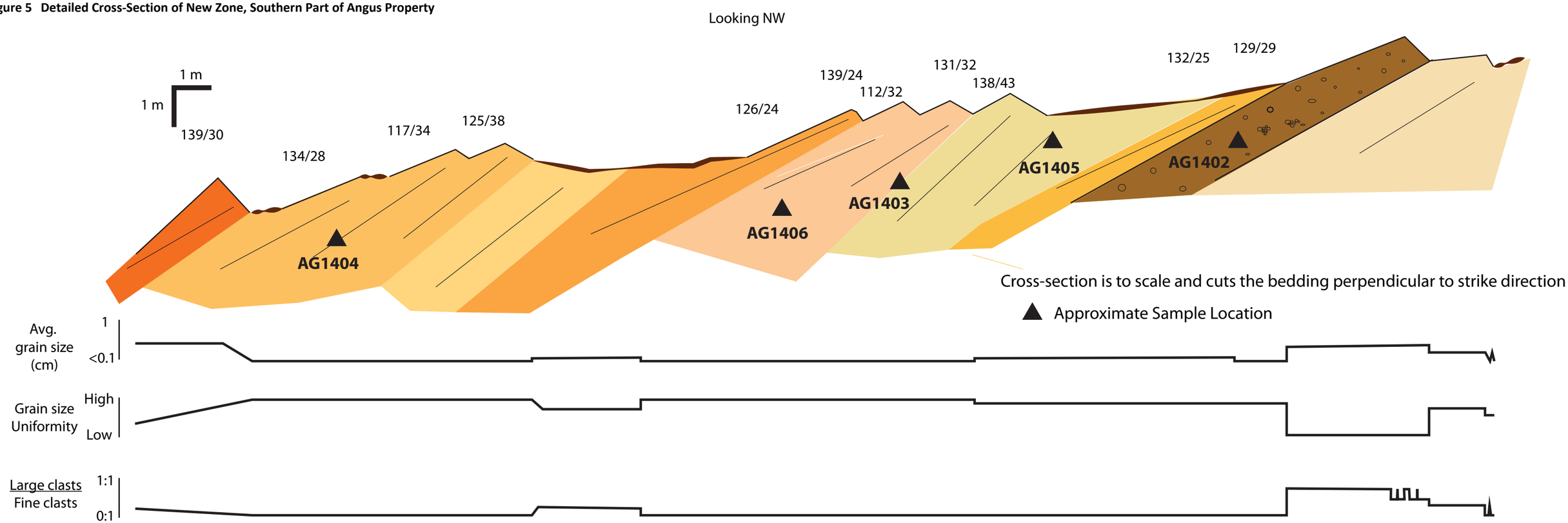
Allnorth

Angus Whole Rock Data - 2014

Sample	NAD83	NAD83	SiO2	Al2O3	Fe2O3	MgO	CaO	K2O	TiO2	P2O5	Cr2O3	Sc	LOI	Sum
ID	Easting	Northing	%	%	%	%	%	%	%	%	%	PPM	%	%
1401	539664	6026502	98.67	0.29	0.4	<0.01	0.01	0.07	0.03	0.02	0.004	<1	0.5	100
1402	539658	6026598	97.77	0.84	0.57	0.03	<0.01	0.23	0.06	0.02	0.005	<1	0.5	100
1403	539658	6026598	98.09	0.52	0.54	0.02	<0.01	0.15	0.05	0.02	0.007	<1	0.6	100
1404	539658	6026598	97.75	0.73	0.62	0.03	<0.01	0.23	0.09	0.01	0.009	1	0.5	100
1405	539658	6026598	98.47	0.56	0.44	0.02	<0.01	0.16	0.04	0.02	0.004	<1	0.3	100
1406	539658	6026598	98.34	0.41	0.63	0.02	<0.01	0.12	0.04	0.02	0.004	<1	0.4	100
1407	533567	6031351	96.09	1.68	0.64	0.05	<0.01	0.48	0.1	0.03	0.002	<1	0.9	99.99

Path: C:\09-PX-0174 Stikine Gold\11GIS\Angus2015PropertyGeology_North_C.mxd

Figure 5 Detailed Cross-Section of New Zone, Southern Part of Angus Property



Unit G - Gradual transition into unit G with the average grain size increasing to 1-2 mm and an increase in outlier 5-7 mm sized, subangular, quartz grains. Unit is very well sorted and monolithic. Minor quartz veining of very thin 2-3 mm wide veins. Unit dive under cover abruptly with no outcrop to the west.

Unit F - Fine < 1mm grain sized quartzite with barely visible quartz crystals. Patchy to layered pinky-orange alteration/weathering. Almost no quartz veining though there are thin fractures paralel to the vein orientation in other units.

Unit E - Grey-white weathering, quartzite with 0.7-1.2mm sized grains. Buff and white layering visible on fresh surfaces with buff layers decreasing moving up stratigraphy. Coarser than units C and D with a granular sugary appearance. Variation in grain size form 0.7-1.2mm is distributed evenly throughout and not in layers. This unit is low relief with only a few meters along strike exposed. Thickness is unknown as the depression between D and E hides the contact.

Unit D - Very fine grained <1mm sized , well sorted quartzite with minor orangey-pink weathering. Very similar to C unit below. Rare rusty spots from pyrite grains. 1-3% quartz veins, note that some veins that cut the unit below do not cut through this unit though the vein orientation suggests they should. Small en-echelon offsets along veining.

Unit C - Very fine grained to fine grained sugary, massive white and buff weathering quarzite. Trace to no anomalously large grains. Increase in 5-7% 1-3 cm white veins with minor small vugs with fine euhedral, clear quartz crystals.

Unit B - Buff and white weathering quartzite. Quite uniform throughout with rounded, closely packed ~1mm quartz grains, coarser than the A unit. Buff weathering may be cross-bedded controlled but it is not very distinct. Weak small scale layering of grain size variations. 1-3% white quartz veining.

Unit A- Very fine grain to fine grain sugary white, very well sorted quartzite. Unit is quite massive and pure white with very few buff weathering layers. Rare rounded clasts 3-5 mm in diameter. 1-3% quartz veins.

Pebble Quartzite -White quartzite with 85% 0.1-0.2 cm sized grains and 15% rounded, mainly quartz pebbles up to 2 cm in size. Unit has fine quartz grain supported layers with 20-30 cm by 2-3 cm scour layers of pebble sized grains with little to no fine quartz. 5-10% of the large grains are polylithic

Lower Quartzite- White quartzite typically fine grained (<0.1 cm) and sugary with coarser (0.2-0.4 cm), laterally continuous layers. Transitions into coarser layers are abrupt but not sharp.

Table 2 Bedrock Mapping Stations and Rock Sample Locations

		NAD 83 Zone 10						
Site ID	Sample ID	Easting	Northing	StrikeBDG	DipBDG	StrikeJNT	DipJNT	Rock Type
AG14-HM01	AG1401	539664	6026502	123	32	4	78	Quartz arenite / quartzite
AG14-HM02	AG1402 - AG1406	539658	6026598	125	35	19	83	Quartz arenite / quartzite
AG14-HM03		539620	6026662	126	28	24	74	Quartz arenite / quartzite
AG14-HM04		539594	6026669	132	32	281	39	Quartz pebble Conglomerate
AG14-HM05		539583	6026668	125	26	344	70	Quartz arenite / quartzite
AG14-HM06		539783	6026554					Limestone
AG14-HM07		534908	6032192	141	32			Limestone
AG14-HM08		534777	6032020	146	34			Limestone
AG14-HM09		534716	6031976	121	26			Shale
AG14-HM10		534904	6032063	108	23			Shale
AG14-HM11	AG1407	533567	6031351	115	77	191	38	Quartz arenite / quartzite
AG14-HM12		543574	6022548	312	45	62	87	Fossiliferous limestone
AG14-HM13		533356	6031364	250	36			Shale

The newly identified northwestern exposure of quartzite is a small ~20x10 meter area of quartzite weathering out of a bank along a deactivated block road. Exposure is sporadic with large blocks slumped out of the hillside. The quartzite exposed is generally finer and more crystalline in appearance than the quartzite in the southeast. The unit is heavily veined with up to 10% white quartz veins 3-5 cm wide with evidence of repeated influxes of quartz along the veins. Bedding is thick and poorly defined. The orientation of the unit is variable as the stratigraphy seems to roll over from striking NW and dipping steeply (>80°) to the NE at the eastern edge of the outcrop to striking SE and dipping steeply (>80°) to the SW on the western side of the outcrop. Rare thin interbedded fine green-grey shale occur within the quartzite. A single sample of quartzite was taken from this site.

A total of seven rock samples were submitted for whole rock analysis; the results are summarized below and the laboratory certificates are presented in Appendix A. The samples were also the subject of a petrographic evaluation; the results of this work are briefly summarized and the full report is presented in Appendix B.

7.2 Geochemical Results

Whole rock and trace element analyses were completed on seven samples that were collected in 2014 (Table 3 and Appendix A). Six of the seven samples came from an exposure of Proterozoic Misinchinka quartz arenite/quartzite at the south end of the mapped area. They provide a sound estimate of the geochemical characteristics of the exposure. The resulting analyses show consistently pure quartz arenite/quartzite, with silica (SiO_2) contents ranging from 97.75-98.67 (average: 98.18% SiO_2), alumina

(Al_2O_3) ranging from 0.29-0.84% (average: 0.56% $Al_2O_{3)}$, iron oxide (Fe_2O_3) ranging from 0.40-0.63% (average: 0.53% Fe_2O_3) and potassium (K_2O) ranging between 0.07-0.23% (average: 0.16% K_2O).

The seventh sample was collected from an exposure of quartz arenite/quartzite located in the northern part of the property. Its geochemical characteristics are similar to the other 2014 samples. A summary of the results for the seven samples is listed in Table 3.

Table 3 Whole Rock Geochemical Results

Sample ID	NAD83 Easting	NAD83 Northing	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	K2O %	TiO2 %	P2O5 %	Cr2O3 %	Sc PPM	LOI %	Sum %
1401	539664	6026502	98.67	0.29	0.4	<0.01	0.01	0.07	0.03	0.02	0.004	<1	0.5	100
1402	539658	6026598	97.77	0.84	0.57	0.03	<0.01	0.23	0.06	0.02	0.005	<1	0.5	100
1403	539658	6026598	98.09	0.52	0.54	0.02	<0.01	0.15	0.05	0.02	0.007	<1	0.6	100
1404	539658	6026598	97.75	0.73	0.62	0.03	<0.01	0.23	0.09	0.01	0.009	1	0.5	100
1405	539658	6026598	98.47	0.56	0.44	0.02	<0.01	0.16	0.04	0.02	0.004	<1	0.3	100
1406	539658	6026598	98.34	0.41	0.63	0.02	<0.01	0.12	0.04	0.02	0.004	<1	0.4	100
1407	533567	6031351	96.09	1.68	0.64	0.05	<0.01	0.48	0.1	0.03	0.002	<1	0.9	99.99

7.3 Petrography

A petrographic study of seven samples (1401 through 1407) was undertaken by Craig Leitch. His summary is provided below and his full report is presented in Appendix B.

"All seven samples examined are roughly similar, variably pure to slightly impure meta-quartz arenites (quartzites), composed primarily (95%+) of relatively well sorted, detrital quartz with minor to significant interstitial cement of secondary quartz and lesser sericite (1-3%) ±local limonite (<1 to 3%); both of the latter are locally partly plucked out to leave small voids.

Well rounded relict detrital quartz grains typically form cores optically continuous with but readily distinguished from significant quartz overgrowths <0.1 to 0.25 mm thick that mantle the primary grains and almost completely fill in primary porosity, significantly consolidating the rock. Quartz grains commonly display a more or less bimodal distribution with relatively coarse grains up to 2.3 mm in diameter in a matrix of finer grains mostly <0.5 mm, or the coarser grains may alternate with crudely developed sub-parallel zones of finer-grained quartz, poorly defining a faint bedding. Most grains are single-crystal clasts with only weak strain, but a minor proportion of the detrital grains are aggregates of highly strained, finer-grained metamorphic quartz ("schist") or less commonly very fine-grained "chert" (the latter are lithic clasts locally containing minor sericite).

Sericite (subhedral flakes mainly in the 15-50 µm size range, coating or interstitial to detrital quartz, and rare muscovite, as rounded-off euhedral flakes to 0.6 mm) are commonly associated with the finer-grained zones in the quartzites. Rare possible sphene and zircon both <0.1 mm are noted.

Limonite (mainly goethite; possible local hematite, jarosite?) also occurs along local narrow planar fractures or in weathered rinds; secondary quartz also occurs in poorly developed, relatively rare sub-planar to irregular, thin quartz veins suggestive of re-mobilization during metamorphism."

8 SAMPLING METHOD AND APPROACH

All 2014 samples were collected by the senior author and area characteristic of the mapped bedrock exposures. Each sample consisted of 4-6 fist-sized or larger pieces of rock from the location sampled. Each sample was packed in a thick poly bag and assigned a unique ID number. Each sample bag was secured with a zip tie and all sample bags were then packed in rice bags and shipped in heavy cardboard boxes. Samples were later reviewed and selected samples were similarly repackaged and sent to Acme Labs in Vancouver, B.C., for analysis. Sister samples of each sample sent to Acme were sent to Vancouver Petrographics in Langley, B.C., for preparation of thin sections. Representative specimens of each sample have been retained by the authors.

9 SAMPLE PREPARATION AND ANALYSIS

Each rock sample was individually crushed and pulverized and the resulting pulps were analyzed. Each rock sample was jaw crushed until 70% passed through a -10 mesh (2 mm) screen. Each sample was split and a 250 g riffle split sample was then pulverized in a mild steel ring-and-puck mill until 95% passed through a 150 mesh (100 µm) screen. Each resulting sample pulp was subjected to total whole rock characterization (major oxides by XRF and trace elements) by Acme methods LF202 and AQ200. Analytical Certificates are presented in Appendix A.

10 INTERPRETATIONS AND CONCLUSIONS

The southeastern extension of the quartzite is well-exposed and readily accessible by an upgraded, well-maintained forest service road. Whole rock geochemistry and petrographic studies of the samples collected from this new area are similar to those from the site of the bulk sample located in a somewhat more remote area 1.3 km to the northwest. Therefore, this site may be more appropriate for the initial development of the property because of its accessibility.

11 RECOMMENDATIONS

An expanded program should be undertaken on the newly identified southeastern extension of the Proterozoic Misinchinka quartz arenite/quartzite. Larger samples should be collected and subjected to bench scale processing to determine if the area, like the bulk sample site, is suitable for processing into frac sand. Further work could include overburden stripping, mapping, channel sampling or blast trenching, and core drilling to determine the dimensions of the potential deposit. A budget of approximately $50,000 would allow for collection of large samples and a series of bench scale tests that would determine the suitability of the material for use as frac sand.

12 ITEMIZED COST STATEMENT

ANGUS - 2014 Exploration Expenditures					
Personnel (Name) / Position	**Field Days (incl travel)**	**Days**	**Rate**	**Subtotal***	
B Lane, Geologist	Oct 1 - 3, 2014	3.25	$750.00	$2,437.50	
H Mills, Geologist	Oct 2 - 10, 2014	7	$525.00	$3,675.00	
N Teschke, Field Assistant	Oct 4, 2014	1	$350.00	$350.00	
C. Fournier, Field Assistant	Oct 5 - 9, 2014	5	$350.00	$1,750.00	
				$8,212.50	$8,212.50
Office Studies	**List Personnel**				
Bob Lane	Project Preparation	0.5	$750.00	$375.00	
Tina Kwitkoski	Preparation of field maps	0.5	$900.00	$218.31	
				$593.31	$593.31
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Acme Analytical Labs	Whole Rock and Trace Elemer	7	$60.48	$423.33	
				$423.33	$423.33
Other Operations	**Clarify**	**Units**	**Rate**	**Subtotal**	
Shipping	Greyhound and A.C.E.	1	1.00	$119.23	
Petrography	Vancouver Petrographics	7	259.65	$1,817.55	
Report Preparation	Plateau Minerals Corp.	3	750.00	$2,250.00	
				$4,186.78	$4,186.78
Transportation		**Units**	**Rate**	**Subtotal**	
Rental 4x4 Pickup	Bowmac	1	1	$786.21	
Fuel for Vehicles		1	1	$600.21	
Kilometre Charges – 4x4 pickup	Plateau Minerals Corp.	897	$0.65	$583.05	
				$1,969.47	$1,969.47
Food & Accomodation		**Units**	**Rate**	**Subtotal**	
Travel accomodation	Spruceland Inn	1	1	$147.94	
Travel Food		1	1	$65.09	
Sixteen mandays (field)		14	$15.00	$210.00	
				$423.03	$423.03
Equipment & Supplies		**Units**	**Rate**	**Subtotal**	
Communications	BK-2 Way; Int. Comm	1	1	312.03	
IPL - Prince George	Compasses, Rice Bags, Poly Bags, Zip Ties,				
	Crack Hammers, Chisels, PPE,	1	$1.00	500.46	
				$812.49	$812.49
TOTAL 2014 Expenditures					**$16,620.91**

13 REFERENCES

Lane, R.A. (2010): 2009 Assessment Report on the Angus Property; *BC Ministry of Energy and Mines;* Assessment Report 31622, 30 p.

Lane, R.A. and DeGrace, J.R. (2011): 2010 Geological and Geochemical Report on the Angus Property; *BC Ministry of Energy and Mines;* Assessment Report 32326, 51 p.

Massey, N.W.D., MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T. (2005): Geology of British Columbia (compilation); *BC Ministry of Energy and Mines*; Geoscience Map 2005-3.

Struik, L.C. (1994): Geology of the McLeod Lake Map Sheet (93 J); *Energy, Mines and Resources Canada*, Open File 2439.

14 STATEMENTS OF QUALIFICATIONS

I, Hannah Mills, Geol.I.T., residing in Prince George, B.C. do herby certify that:

1. I was employed as a consulting geologist by Plateau Minerals Corp, located at 3000 18th Street, Vernon, B.C. V1T 4A6 for the duration on this project.
2. I obtained a Bachelor of Science in Geology degree in 2010 from the University of Alberta and a Master of Science degree in Geology in 2014 from the Memorial University of Newfoundland.
3. I have worked as a geologist for a cumulative 2 years since my graduation from university.
4. I am a Geologist in Training (Geol.I.T.) registered with the Associate of Professional Engineers and Geoscientists of Alberta, license #102595.
5. I performed prospecting, geological mapping and rock sampling in the Mount Averil area that took place in October 2015. The data from that field work is presented, summarized and interpreted in this report.
6. I am the co-author of the report on the Angus project entitled "2014 Geological Report on the Angus Property, Cariboo Mining Division" dated February 2, 2015.

Dated this 2nd day of February, 2015, at Prince George, British Columbia.

X Hannah Mills

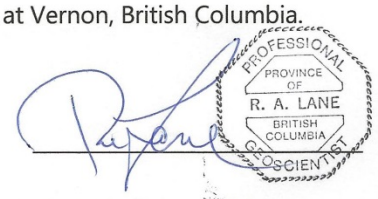
Hannah Mills, Geol.I.T.

Certificate of Qualifications

I, **R. A. (Bob) Lane** certify that:

1. I am the President of Plateau Minerals Corp., a mineral exploration consulting company with an office located at 3000 18th Street, Vernon, B.C.
2. I am a co-author of this assessment report, entitled "2014 Geological Report on the Angus Property, Cariboo Mining Division, British Columbia". The report presents the findings of 2014 exploration program and was filed with the B.C. Ministry of Energy and Mines on behalf of Stikine Energy Corp.
3. I managed the 2014 exploration program on the Angus property, spending one day in the field: Oct 2, 2014.
4. I am a graduate of the University of British Columbia in 1990 with a M.Sc. in Geology.
5. I am a Professional Geoscientist (P.Geo.) registered with the Association of Professional Engineers and Geoscientists of British Columbia (Registration #18993) and have been a member in good standing since 1992.
6. I have practiced my profession continuously since 1990 and have more than 25 years of experience investigating a number of mineral deposit types, primarily in British Columbia.
7. As a result of my experience and qualifications, I am a Qualified Person as defined by National Instrument 43-101 Standards for Disclosure for Mineral Projects.

Dated this 2nd day of February, 2015, at Vernon, British Columbia.



R. A. (Bob) Lane, P.Geo.

APPENDIX A

Laboratory Certificates

BUREAU VERITAS MINERAL LABORATORIES Canada

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.bureauveritas.com/um

Client: **Stikine Energy Corporation**
490 - 1122 Mainland St.
Vancouver BC V6B 5L1 Canada

Submitted By: Bob Lane
Receiving Lab: Canada-Vancouver
Received: December 15, 2014
Report Date: January 26, 2015
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN14004004.1

CLIENT JOB INFORMATION

Project: ANGUS
Shipment ID:
P.O. Number
Number of Samples: 7

SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT Dispose of Reject After 90 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
BAT01	1	Batch charge of <20 samples			VAN
PRP70-250	7	Crush, split and pulverize 250 g rock to 200 mesh			VAN
LF202	7	Total Whole Rock Characterization with AQ200	0.2	Completed	VAN
DRPLP	7	Warehouse handling / disposition of pulps			VAN
DRRJT	7	Warehouse handling / Disposition of reject			VAN

ADDITIONAL COMMENTS

Invoice To: Stikine Energy Corporation
490 - 1122 Mainland St.
Vancouver BC V6B 5L1
Canada

CC: Daves Skerlec
Scott Broughton

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Geochemical Laboratory Manager

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

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490 - 1122 Mainland St.
Vancouver BC V6B 5L1 Canada

Project: ANGUS
Report Date: January 26, 2015

CERTIFICATE OF ANALYSIS VAN14004004.1

	Method	WGHT	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200
	Analyte	Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs
	Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm
	MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1
1401	Rock	2.37	98.67	0.29	0.40	<0.01	0.01	<0.01	0.07	0.03	0.02	<0.01	0.004	<20	<1	0.5	100.01	8	<1	1.4	0.1
1402	Rock	1.85	97.77	0.84	0.57	0.03	<0.01	<0.01	0.23	0.06	0.02	<0.01	0.005	<20	<1	0.5	100.02	13	<1	1.4	<0.1
1403	Rock	2.58	98.09	0.52	0.54	0.02	<0.01	<0.01	0.15	0.05	0.02	<0.01	0.007	<20	<1	0.6	100.01	6	<1	0.9	0.1
1404	Rock	1.35	97.75	0.73	0.62	0.03	<0.01	<0.01	0.23	0.09	0.01	<0.01	0.009	<20	1	0.5	100.01	9	<1	0.3	0.2
1405	Rock	4.17	98.47	0.56	0.44	0.02	<0.01	<0.01	0.16	0.04	0.02	<0.01	0.004	<20	<1	0.3	100.02	7	<1	0.3	<0.1
1406	Rock	4.13	98.34	0.41	0.63	0.02	<0.01	<0.01	0.12	0.04	0.02	<0.01	0.004	<20	<1	0.4	100.01	7	<1	1.0	<0.1
1407	Rock	2.47	96.09	1.68	0.64	0.05	<0.01	<0.01	0.48	0.10	0.03	<0.01	0.002	<20	<1	0.9	99.99	50	<1	1.1	0.2

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Client: **Stikine Energy Corporation**
490 - 1122 Mainland St.
Vancouver BC V6B 5L1 Canada

Project: ANGUS
Report Date: January 26, 2015

CERTIFICATE OF ANALYSIS VAN14004004.1

	Method	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200
	Analyte	Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05
1401	Rock	3.8	1.0	1.0	2.5	<1	4.1	0.2	1.3	0.5	<8	<0.5	36.4	2.0	4.9	8.6	0.84	3.3	0.42	0.06	0.40
1402	Rock	4.4	1.8	1.1	5.9	<1	2.6	0.2	1.4	0.5	13	<0.5	68.3	2.6	5.4	11.4	1.16	4.5	0.74	0.08	0.47
1403	Rock	<0.5	1.4	6.5	3.6	<1	2.5	0.1	1.0	0.3	<8	<0.5	58.0	2.3	5.7	11.1	1.23	4.3	0.64	0.10	0.57
1404	Rock	<0.5	1.4	8.3	5.2	<1	3.4	0.2	1.5	0.3	9	<0.5	56.9	2.6	7.7	14.4	1.57	5.6	0.98	0.13	0.63
1405	Rock	<0.5	1.1	9.5	3.8	<1	2.5	<0.1	0.9	0.2	<8	<0.5	40.3	2.4	6.0	11.5	1.34	4.6	0.63	0.09	0.54
1406	Rock	<0.5	1.1	6.8	2.6	<1	2.8	<0.1	1.0	0.3	<8	<0.5	40.8	2.4	5.1	10.2	1.14	4.3	0.59	0.09	0.53
1407	Rock	4.8	2.9	2.0	10.8	<1	5.2	0.2	2.2	0.7	10	<0.5	98.4	3.9	7.9	17.0	1.60	4.9	0.65	0.09	0.63

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Vancouver BC V6B 5L1 Canada

Project: ANGUS
Report Date: January 26, 2015

CERTIFICATE OF ANALYSIS VAN14004004.1

	Method	LF200	LF200	LF200	LF200	LF200	LF200	LF200	TC000	TC000	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Tb	Dy	Ho	Er	Tm	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
	MDL	0.01	0.05	0.02	0.03	0.01	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5
1401	Rock	0.06	0.42	0.07	0.17	0.03	0.28	0.04	<0.02	<0.02	0.2	1.8	0.4	<1	1.8	1.1	<0.1	<0.1	<0.1	<0.1	1.5
1402	Rock	0.08	0.55	0.09	0.37	0.04	0.22	0.04	<0.02	<0.02	0.2	1.9	0.4	<1	2.5	0.9	<0.1	<0.1	<0.1	<0.1	<0.5
1403	Rock	0.07	0.39	0.07	0.28	0.03	0.28	0.04	<0.02	<0.02	0.1	1.4	0.4	<1	1.7	2.2	<0.1	<0.1	<0.1	<0.1	<0.5
1404	Rock	0.09	0.49	0.11	0.28	0.04	0.34	0.04	<0.02	0.03	0.1	2.3	0.6	1	0.7	1.0	<0.1	<0.1	<0.1	<0.1	0.7
1405	Rock	0.06	0.43	0.07	0.22	0.04	0.22	0.03	<0.02	<0.02	0.2	1.2	0.5	<1	1.0	1.5	<0.1	<0.1	<0.1	<0.1	<0.5
1406	Rock	0.07	0.39	0.07	0.26	0.03	0.26	0.03	<0.02	<0.02	0.2	2.0	0.4	<1	1.7	1.3	<0.1	<0.1	<0.1	<0.1	<0.5
1407	Rock	0.10	0.64	0.13	0.43	0.07	0.35	0.06	<0.02	<0.02	0.1	1.1	0.3	3	1.1	0.9	<0.1	<0.1	<0.1	<0.1	<0.5

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PHONE (604) 253-3158

Client: **Stikine Energy Corporation**
490 - 1122 Mainland St.
Vancouver BC V6B 5L1 Canada

Project: ANGUS
Report Date: January 26, 2015

CERTIFICATE OF ANALYSIS VAN14004004.1

		Method	AQ200	AQ200	AQ200
		Analyte	Hg	Tl	Se
		Unit	ppm	ppm	ppm
		MDL	0.01	0.1	0.5
1401	Rock		<0.01	<0.1	<0.5
1402	Rock		<0.01	<0.1	<0.5
1403	Rock		<0.01	<0.1	<0.5
1404	Rock		<0.01	<0.1	<0.5
1405	Rock		<0.01	<0.1	<0.5
1406	Rock		<0.01	<0.1	<0.5
1407	Rock		<0.01	<0.1	<0.5

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Vancouver BC V6B 5L1 Canada

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Report Date: January 26, 2015

QUALITY CONTROL REPORT VAN14004004.1

		Method	WGHT	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200
		Analyte	Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs
		Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm
		MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1
Reference Materials																						
STD DS10	Standard																					
STD GS311-1	Standard																					
STD GS910-4	Standard																					
STD OREAS45EA	Standard																					
STD SO-18	Standard		58.19	14.00	7.61	3.34	6.35	3.71	2.17	0.69	0.80	0.39	0.550	45	24	1.9	99.72	511	1	27.4	7.2	
STD SO-18	Standard		58.36	13.86	7.63	3.35	6.34	3.68	2.15	0.69	0.81	0.39	0.552	41	24	1.9	99.72	521	<1	27.2	7.2	
STD SO-18	Standard		58.07	14.21	7.60	3.39	6.42	3.61	2.10	0.69	0.78	0.39	0.548	45	24	1.9	99.73	498	2	25.3	6.8	
STD SO-18	Standard		57.93	14.23	7.67	3.38	6.46	3.63	2.11	0.70	0.77	0.39	0.551	38	24	1.9	99.74	487	2	25.0	6.6	
STD GS311-1 Expected																						
STD GS910-4 Expected																						
STD SO-18 Expected				58.47	14.23	7.67	3.35	6.42	3.71	2.17	0.69	0.83	0.39	0.55	44	25			514		26.2	7.1
STD DS10 Expected																						
STD OREAS45EA Expected																						
BLK	Blank																					
BLK	Blank		0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	<0.01	1	1	0.4	<0.1
BLK	Blank																					
Prep Wash																						
ROCK-VAN	Prep Blank		70.81	14.25	3.14	0.86	2.43	4.41	2.15	0.37	0.09	0.08	0.003	<20	7	1.2	99.84	809	2	4.8	0.4	

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Client: **Stikine Energy Corporation**
490 - 1122 Mainland St.
Vancouver BC V6B 5L1 Canada

Project: ANGUS
Report Date: January 26, 2015

QUALITY CONTROL REPORT VAN14004004.1

		Method	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200	LF200
		Analyte	Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		MDL	0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05
Reference Materials																						
STD DS10	Standard																					
STD GS311-1	Standard																					
STD GS910-4	Standard																					
STD OREAS45EA	Standard																					
STD SO-18	Standard		16.9	9.4	19.8	29.2	15	426.5	7.0	9.1	15.7	200	16.0	302.1	31.0	13.3	27.0	3.33	13.6	2.78	0.83	2.93
STD SO-18	Standard		17.5	9.3	20.0	28.8	15	425.8	6.6	10.0	16.3	201	14.0	301.5	31.1	13.3	27.6	3.35	12.8	2.78	0.87	2.97
STD SO-18	Standard		18.3	8.9	19.1	26.7	15	398.6	6.4	10.0	17.2	200	15.5	278.3	27.3	12.3	28.9	3.39	12.5	3.04	0.85	2.98
STD SO-18	Standard		16.4	8.9	17.4	26.5	14	376.8	6.3	9.2	16.3	198	14.7	272.3	29.9	12.6	27.2	3.29	13.8	2.63	0.83	2.74
STD GS311-1 Expected																						
STD GS910-4 Expected																						
STD SO-18 Expected			17.6	9.8	19.3	28.7	15	407.4	7.4	9.9	16.4	200	14.8	290	29	12.3	27.1	3.45	14	3	0.89	2.93
STD DS10 Expected																						
STD OREAS45EA Expected																						
BLK	Blank																					
BLK	Blank		1.3	<0.1	0.4	0.4	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	<0.05
BLK	Blank																					
Prep Wash																						
ROCK-VAN	Prep Blank		14.9	4.0	6.2	37.3	<1	213.4	0.4	3.0	1.8	43	0.7	138.9	19.0	13.7	26.3	3.07	11.7	2.47	0.76	2.91

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Project: ANGUS
Report Date: January 26, 2015

QUALITY CONTROL REPORT VAN14004004.1

	Method	LF200	LF200	LF200	LF200	LF200	LF200	LF200	TC000	TC000	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
	Analyte	Tb	Dy	Ho	Er	Tm	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb
	MDL	0.01	0.05	0.02	0.03	0.01	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5
Reference Materials																					
STD DS10	Standard										12.4	151.9	149.3	354	73.5	42.4	2.4	6.2	10.1	2.0	73.1
STD GS311-1	Standard								1.03	2.46											
STD GS910-4	Standard								2.67	8.37											
STD OREAS45EA	Standard										1.5	685.8	13.8	30	373.4	8.5	<0.1	0.2	0.2	0.2	42.7
STD SO-18	Standard	0.46	2.78	0.62	1.79	0.28	1.87	0.28													
STD SO-18	Standard	0.48	2.83	0.62	1.76	0.28	1.92	0.28													
STD SO-18	Standard	0.52	3.01	0.63	1.87	0.26	1.74	0.28													
STD SO-18	Standard	0.48	2.94	0.66	1.71	0.29	1.77	0.27													
STD GS311-1 Expected									1.02	2.35											
STD GS910-4 Expected									2.65	8.27											
STD SO-18 Expected		0.53	3	0.62	1.84	0.27	1.79	0.27													
STD DS10 Expected											14.69	154.61	150.55	370	74.6	43.7	2.49	8.23	11.65	2.02	91.9
STD OREAS45EA Expected											1.39	709	14.3	28.9	381	9.1	0.02	0.2	0.26	0.26	53
BLK	Blank								<0.02	<0.02											
BLK	Blank	<0.01	<0.05	<0.02	<0.03	<0.01	<0.05	<0.01													
BLK	Blank										<0.1	<0.1	<0.1	<1	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.5
Prep Wash																					
ROCK-VAN	Prep Blank	0.45	2.88	0.60	1.99	0.33	2.25	0.40	0.04	<0.02	0.6	5.4	1.1	33	0.9	1.2	<0.1	<0.1	<0.1	<0.1	<0.5

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Project: ANGUS
Report Date: January 26, 2015

QUALITY CONTROL REPORT VAN14004004.1

		Method	AQ200	AQ200	AQ200
		Analyte	Hg	Tl	Se
		Unit	ppm	ppm	ppm
		MDL	0.01	0.1	0.5
Reference Materials					
STD DS10	Standard		0.27	4.8	2.5
STD GS311-1	Standard				
STD GS910-4	Standard				
STD OREAS45EA	Standard		<0.01	<0.1	<0.5
STD SO-18	Standard				
STD SO-18	Standard				
STD SO-18	Standard				
STD SO-18	Standard				
STD GS311-1 Expected					
STD GS910-4 Expected					
STD SO-18 Expected					
STD DS10 Expected			0.3	5.1	2.3
STD OREAS45EA Expected				0.072	0.6
BLK	Blank				
BLK	Blank				
BLK	Blank		<0.01	<0.1	<0.5
Prep Wash					
ROCK-VAN	Prep Blank		<0.01	<0.1	<0.5

APPENDIX B

Petrographic Report

PETROGRAPHIC REPORT ON 7 SAMPLES OF QUARTZITE FROM ANGUS PROPERTY

Report for: Bob Lane
Stikine Energy Corp
490-1122 Mainland Street
Vancouver, B.C. V6B 5L1 (250) 540-1330

Invoice 140958

Jan. 2, 2015.

SUMMARY:

Samples are described as relatively pure quartz arenite (quartzite) from the Angus property of Stikine Energy Corp. The property covers Mount Averill and is underlain by Upper Proterozoic Misinchinka Group. All seven samples examined are roughly similar, variably pure to slightly impure meta-quartz arenites (quartzites), composed primarily (95%+) of relatively well sorted, detrital quartz with minor to significant interstitial cement of secondary quartz and lesser sericite (1-3%) ±local limonite (<1 to 3%); both of the latter are locally partly plucked out to leave small voids.

Well rounded relict detrital quartz grains typically form cores optically continuous with but readily distinguished from significant quartz overgrowths <0.1 to 0.25 mm thick that mantle the primary grains and almost completely fill in primary porosity, significantly consolidating the rock. Quartz grains commonly display a more or less bimodal distribution with relatively coarse grains up to 2.3 mm in diameter in a matrix of finer grains mostly <0.5 mm, or the coarser grains may alternate with crudely developed sub-parallel zones of finer-grained quartz, poorly defining a faint bedding. Most grains are single-crystal clasts with only weak strain, but a minor proportion of the detrital grains are aggregates of highly strained, finer-grained metamorphic quartz ("schist") or less commonly very fine-grained "chert" (the latter are lithic clasts locally containing minor sericite).

Sericite (subhedral flakes mainly in the 15-50 μm size range, coating or interstitial to detrital quartz, and rare muscovite, as rounded-off euhedral flakes to 0.6 mm) are commonly associated with the finer-grained zones in the quartzites. Rare possible sphene and zircon both <0.1 mm are noted.

Limonite (mainly goethite; possible local hematite, jarosite?) also occurs along local narrow planar fractures or in weathered rinds; secondary quartz also occurs in poorly developed, relatively rare sub-planar to irregular, thin quartz veins suggestive of re-mobilization during metamorphism.

Capsule descriptions are as follows:

AG 1401: relatively well sorted, pure meta-quartz arenite (quartzite) composed of ~1 mm detrital quartz, only minor cement of secondary quartz and sericite; traces of limonite mostly concentrated along what appear to be stylolitic partings or former bedding planes. Lithic clasts are rare, confined to very fine-grained "chert" (locally with minor sericite, limonite) or weakly foliated "schist".

AG1402: less well sorted, impure meta-quartz arenite (quartzite) composed of <0.7 mm detrital quartz with significant secondary quartz cement and local sericite, rare muscovite (concentrated along bedding with finer-grained quartz); traces of sphene?/limonite are mostly concentrated along what appear to be stylolitic partings or former bedding planes. Lithic clasts are rare, confined to very fine-grained "chert" (locally with minor sericite) or weakly foliated "schist".

AG1403: relatively well sorted, pure meta-quartz arenite (quartzite) composed of <1.3 mm detrital quartz with significant secondary quartz cement (local sericite and rare muscovite, both partly plucked out, are concentrated along bedding with finer-grained quartz?); traces of limonite are mostly

either concentrated along bedding or in planar fractures. Lithic clasts are rare, confined to very fine-grained “chert” (locally with minor sericite) or weakly foliated, strained “schist”.

AG1404: relatively well sorted, pure meta-quartz arenite (quartzite) composed of <1.1 mm detrital quartz, with significant secondary quartz cement and local sericite, rare muscovite (micas partly plucked out, concentrated along bedding with finer-grained quartz?); traces of limonite are mostly concentrated in weathered rinds. Lithic clasts are minor, confined to very fine-grained “chert” (locally with minor sericite) or rare foliated, strained “schist”.

AG1405: relatively well sorted, pure meta-quartz arenite (quartzite) composed of <2.3 mm detrital quartz, with significant secondary quartz cement and local sericite, (partly plucked out, concentrated along bedding with finer-grained quartz?); traces of limonite are mostly either concentrated along bedding or in planar fractures. Lithic clasts are common, either partly foliated, strained metamorphic quartz (“schist”) or rare very fine-grained “chert” (locally with minor sericite).

AG1406: relatively well sorted, pure meta-quartz arenite (quartzite) composed of <1.1 mm detrital quartz, with significant secondary quartz cement and local sericite, rare muscovite (micas partly plucked out, associated with limonite); limonite is mostly concentrated along or in sub-planar fractures. Lithic clasts are uncommon, confined to very fine-grained “chert” (locally with minor sericite) or weakly foliated, strained “schist”.

AG1407: relatively poorly sorted, impure meta-quartz arenite (quartzite) composed of <1.3 mm detrital quartz with significant secondary quartz cement and local sericite (partly plucked out, concentrated along bedding with finer-grained quartz and significant limonite). Lithic clasts are common, mainly partly foliated, strained metamorphic quartz (“schist”) or rare very fine-grained “chert” (locally with minor sericite).

Detailed petrographic descriptions and photomicrographs are appended (on CD/by email attachment). If you have any questions regarding the petrography, please do not hesitate to contact me.

Craig H.B. Leitch, Ph.D., P. Eng. (250) 653-9158 dromore61@gmail.com
492 Isabella Point Road, Salt Spring Island, B.C. Canada V8K 1V4

AG 1401: WELL SORTED, PURE QUARTZ ARENITE (QUARTZITE) ONLY MINOR CEMENT OF SECONDARY QUARTZ, SERICITE; TRACES OF LIMONITE MOSTLY CONCENTRATED ALONG WHAT APPEAR TO BE STYLOLITIC PARTINGS OR FORMER BEDDING PLANES

Hand specimen shows fine-grained, homogeneous, white to pale buff coloured quartzite with only widely spaced bedding (or fracture?) planes marked by faintly defined, weak concentrations of reddish-brown limonite (?). The rock is not magnetic, shows no reaction to cold dilute HCl, and no stain for K-feldspar in the etched offcut. Modal mineralogy in (uncovered) thin section is approximately:

Quartz (mainly detrital)	97%
Sericite (mainly interstitial, "cement")	~2%
Opaque (mainly limonite?)	~1%

This sample, as field described, consists mainly of quartz (detrital, well sorted, mostly in the <1 mm size range) with only very minor interstitial sericite and local planar (stylolitic?) concentrations of red-brown to opaque limonite.

Quartz grains are mostly subangular to subrounded, rarely up to 2 mm in diameter, with apparently random orientations. They are mainly single crystal clasts (minor weakly foliated "schist" clasts <1 mm in size consist of aligned sub/anhedra <0.35 mm long with length:width ratios up to 2:1, or very fine-grained "chert" clasts <0.25 mm composed of minute tightly interlocking grains <15 μm). The detrital grains are closely packed, in close contact virtually everywhere, with possible local pressure solution where projections contact adjacent grains, especially along stylolitic partings <0.5 mm thick (also marked by limonite concentrations). Only minor, local quartz overgrowths ("cement") are suspected, locally filling interstices around more subrounded cores almost as large as the currently visible grains. Strain is mostly weak to moderate (rarely strong, only in "schist" clasts), as indicated by common weak to locally strong undulose extinction, the latter associated with moderate sub-grain development and suturing of grain boundaries. Most quartz grains are unfractured or only locally fractured.

Size distribution of quartz grains is possibly crudely bimodal, with most framework grains in the 0.5 to 1.0 mm (very rarely to almost 2 mm) size range (approximately 70% of the sample) and lesser, mostly interstitial, <0.25 mm grains (perhaps 25% of the sample) plus 5% or less of the "schist" or "chert" grains (lithic clasts).

Sericite mostly occurs as minute shreddy subhedral flakes partly coating the interstices between quartz grains (rarely included within quartz grains), in the 15-50 μm size range although aggregates may rarely be up to ~0.15 mm.

Limonite mostly occurs along stylolitic partings or less commonly in cherty lithic clasts (partly mixed with sericite). The limonite varies from almost opaque or very dark red-brown (locally in rectangular to sub-cubic aggregates <0.2 mm long possibly suggestive of having pseudomorphed pyrite?) to pale yellow-brown, possibly corresponding to hematite and goethite, respectively although the latter tends to be associated with sericite, suggestive of partly stained sericite flakes.

In summary, this is relatively well sorted, pure meta-quartz arenite (quartzite) composed of ~1 mm detrital quartz with only minor cement of secondary quartz and sericite; traces of limonite are mostly concentrated along what appear to be stylolitic partings or former bedding planes. Lithic clasts are rare, confined to very fine-grained "chert" (locally with minor sericite, limonite) or weakly foliated "schist".

AG1402: LESS WELL SORTED, IMPURE QUARTZ ARENITE (QUARTZITE) COMPOSED OF DETRITAL QUARTZ, SIGNIFICANT SECONDARY QUARTZ CEMENT, LOCAL SERICITE, RARE MUSCOVITE (BOTH CONCENTRATED ALONG BEDDING, WITH FINER-GRAINED QUARTZ); TRACES OF SPHENE?/LIMONITE MOSTLY ALONG STYLOLITIC PARTINGS

Hand specimen shows fine-grained, homogeneous, white to pale buff-brownish coloured quartzite with only local bedding (?) marked by faintly defined, weak concentrations of sericite ±trace limonite (?). The rock is not magnetic, shows no reaction to cold dilute HCl, and no stain for K-feldspar in the etched offcut. Modal mineralogy in (uncovered) thin section is approximately:

Quartz (mainly detrital)	95%
Sericite (interstitial, "cement"), muscovite (detrital flakes)	3-5%
Sphene (?)	<1%
Opaque (mainly limonite?)	<1%

This sample consists mainly of quartz (detrital, well sorted, mostly in the <0.75 mm size range) but with local significant interstitial sericite (rare detrital muscovite flakes) concentrated along bedding, locally associated with sub-planar (stylolitic?) concentrations of sphene?/trace limonite.

Quartz grains are mostly subrounded to subangular, rarely to almost 1 mm in diameter, with apparently random orientations. They are mainly single crystal clasts (minor weakly foliated "schist" clasts <0.5 mm in size consist of aligned sub/anhedra <0.15 mm long with length:width ratios up to 2:1, or very fine-grained "chert" clasts <0.25 mm composed of minute tightly interlocking grains in the 15-50 μm size range, partly mixed with sericite; there may also be sericite-rich lithic clasts). The detrital grains are closely packed, in close contact everywhere, with possible local pressure solution where projections contact adjacent grains. Quartz overgrowth ("cement") is common and well defined, completely filling former porosity between originally more rounded cores somewhat smaller than the currently visible grains. The proportion of primary to secondary quartz is possibly ~90:10. Strain is mostly weak to moderate (rarely strong, in "schist" clasts), as indicated by common weak to locally strong undulose extinction in schist clasts, associated with common sub-grain development and suturing of grain boundaries. Most quartz grains are unfractured or only locally fractured.

Size distribution of quartz grains is possibly crudely bimodal, with most framework grains in the 0.4 to 0.7 mm size range (approximately 70% of the sample) and lesser, 0.1-0.35 mm grains (perhaps 25% of the sample) apparently locally concentrated along bedding with sericite, plus 5% or less of the "schist" or "chert" grains (lithic clasts).

Sericite mostly occurs as shreddy subhedral flakes in the 25-60 μm size range interstitial to quartz grains or in patches/aggregates up to ~0.15 mm between quartz grains (possible lithic clasts?), both particularly concentrated along bedding (?), where quartz is finer-grained. Muscovite forming sub/euhedral flakes up to 0.6 mm in diameter tend to be oriented sub-parallel to bedding and occur in the same (sericite-rich, finer-grained quartz) zones.

Sphene (?) as subhedra <0.1 mm mostly occurs along stylolitic partings. Trace limonite varies from almost opaque to dark red-brown, suggestive of hematite (rarely in rectangular to sub-cubic aggregates <50 μm long possibly suggestive of pyrite pseudomorphs?). Where limonite is associated with sericite, it partly stains adjacent sericite flakes.

In summary, this is less well sorted, impure meta-quartz arenite (quartzite) composed of <0.7 mm detrital quartz, with significant secondary quartz cement and local sericite, rare muscovite (both concentrated along bedding, with finer-grained quartz); traces of sphene?/limonite are mostly concentrated along what appear to be stylolitic partings or former bedding planes. Lithic clasts are rare, confined to very fine-grained "chert" (locally with minor sericite) or weakly foliated "schist".

AG1403: RELATIVELY WELL SORTED, PURE META-QUARTZ ARENITE (QUARTZITE): <1.3 MM DETRITAL QUARTZ, SIGNIFICANT SECONDARY QUARTZ CEMENT AND LOCAL SERICITE, RARE MUSCOVITE (PARTLY PLUCKED OUT, CONCENTRATED ALONG BEDDING WITH FINER-GRAINED QUARTZ?); TRACE LIMONITE

Hand specimen shows fine-grained, homogeneous, white to pale orange-brownish coloured quartzite with local bedding (?) marked by faintly defined, weak concentrations of sericite ±trace limonite, cut by prominent planar fractures partly filled/coated by amorphous orange-brown limonite. The rock is not magnetic, shows no reaction to cold dilute HCl, and no stain for K-feldspar in the etched offcut. Modal mineralogy in (uncovered) thin section is approximately:

Quartz (mainly detrital)	95%
Voids (partly due to plucking of sericite?)	2-3%
Sericite (interstitial, partly to largely plucked), rare muscovite	1-2%
Opaque (mainly limonite, goethitic?)	<1%

This sample consists mainly of quartz (detrital, well sorted, mostly in the <1 mm size range) but with local minor interstitial sericite (partly plucked out during section preparation to leave small voids) and rare detrital muscovite flakes concentrated along bedding, locally associated with poorly defined, irregular concentrations of limonite.

Quartz grains are mostly subrounded to subangular, locally to 1.3 mm in diameter, with apparently random orientations. They are mainly single crystal clasts (minor weakly foliated "schist" clasts <0.5 mm in size consist of aligned sub/anhedra <0.2 mm long with length:width ratios up to 2:1, or very fine-grained "chert" clasts <0.3 mm composed of minute tightly interlocking grains in the 15-50 µm size range, partly mixed with sericite of similar size). The detrital grains are closely packed, in close contact everywhere, with possible local pressure solution where projections contact adjacent grains. Quartz overgrowth ("cement") is abundant and well defined, completely filling former porosity between originally more rounded, obvious detrital cores somewhat smaller than the currently visible grains. The rims thus formed are mostly <0.1 but up to 0.2 mm thick; proportion of primary to secondary quartz is possibly ~80:20. Strain is mostly weak to moderate (rarely strong, only in "schist" clasts), as indicated by common weak to locally strong undulose extinction in schist clasts, associated with common sub-grain development and suturing of grain boundaries. Most quartz grains are unfractured or only locally fractured.

Size distribution of quartz grains is possibly crudely bimodal, with most framework grains in the 0.7 to 1.2 mm size range forming approximately 65% of the sample, and lesser, 0.2-0.4 mm grains (perhaps 35% of the sample) possibly partly concentrated along bedding with sericite, with 1% or less of the "schist" or "chert" grains (lithic clasts).

Voids are common, typically with sub-angular outlines <1 mm in maximum dimension, interstitial to quartz grains and closely associated with sericite, suggesting that many are due to plucking of soft sericite during section preparation; however, some of the larger examples may be due to plucking of quartz grains.

Sericite mostly occurs as shreddy subhedral flakes in the 35-75 µm size range, commonly partly stained by limonite, interstitial to quartz grains or in patches/aggregates up to ~0.6 mm long between quartz grains (possible lithic clasts?), both partly concentrated along bedding (?), with finer-grained quartz. Muscovite forming euhedral, rounded-off flakes up to 0.3 mm in diameter tend to be oriented sub-parallel to bedding and occur in the plucked (sericite-rich, ±finer-grained quartz) zones.

Minor limonite is mostly amorphous, pale orange-brown, suggestive of goethite, and commonly stains sericite flakes. Where limonite occurs along rarely seen fractures <20µm thick, it is a little darker and red-brown but still most likely goethitic.

In summary, this is relatively well sorted, pure meta-quartz arenite (quartzite) composed of <1.3 mm detrital quartz, with significant secondary quartz cement and local sericite, rare muscovite (micas partly plucked out, concentrated along bedding with finer-grained quartz?); traces of limonite are mostly either concentrated along bedding or in planar fractures. Lithic clasts are rare, confined to very fine-grained "chert" (locally with minor sericite) or weakly foliated, strained "schist".

AG1404: RELATIVELY WELL SORTED, PURE META-QUARTZ ARENITE (QUARTZITE) COMPOSED OF <1.1 MM DETRITAL QUARTZ, WITH SIGNIFICANT SECONDARY QUARTZ CEMENT AND LOCAL SERICITE, RARE MUSCOVITE (MICAS PARTLY PLUCKED OUT, CONCENTRATED ALONG BEDDING WITH FINER-GRAINED QUARTZ?); TRACES OF LIMONITE MOSTLY CONCENTRATED IN WEATHERED RINDS

Hand specimen shows fine-grained, homogeneous, pale grey-white to pale maroon coloured quartzite with possible bedding (?) marked by faintly defined, weak concentrations of sericite ±trace limonite, with traces of amorphous maroon limonite on outer weathered surfaces or rinds. The rock is not magnetic, shows no reaction to cold dilute HCl, and no stain for K-feldspar in the etched offcut. Modal mineralogy in (uncovered) thin section is approximately:

Quartz (mainly detrital)	95%
Sericite (interstitial, partly plucked), rare muscovite	2-3%
Voids (partly due to plucking of sericite?)	1-2%
Opaque (mainly limonite, hematitic?)	<1%

This sample consists mainly of quartz (detrital, well sorted, mostly in the <1 mm size range) with local minor interstitial sericite (partly plucked out during section preparation to leave small voids) and rare detrital muscovite flakes, possibly concentrated along bedding, locally associated with or stained by traces of limonite.

Quartz grains are mostly subrounded to subangular, locally to 1.1 mm in diameter, with more or less random orientations. They are mainly single crystal clasts (local very fine-grained "chert" clasts <0.4 mm composed of minute tightly interlocking grains in the 20-60 μm size range, partly mixed with sericite of similar size; rare weakly foliated "schist" clasts <0.8 mm in size composed of aligned sub/anhedra <0.6 mm long with length:width ratios up to 4:1). The detrital grains are closely packed, typically in close contact, with possible local pressure solution where projections contact adjacent grains. Quartz overgrowth ("cement") is significant, completely filling former porosity between originally more rounded, detrital cores somewhat smaller than the currently visible grains. The rims thus formed are mostly <0.1 mm thick; proportion of primary to secondary quartz is possibly ~85:15. Strain is mostly weak to moderate (rarely strong), as indicated by common weak, to rarely strong undulose extinction in schist clasts, associated with common sub-grain development and suturing of grain boundaries. Most quartz grains are unfractured or only rarely fractured.

Size distribution of quartz grains is possibly crudely bimodal, with most framework grains in the 0.5 to 1 mm size range forming approximately 70% of the sample, and lesser, 0.2-0.4 mm grains (perhaps 25% of the sample) possibly partly concentrated along bedding with sericite, with 5% or less of the "chert" or "schist" grains (lithic clasts, partly plucked out).

Voids are common, typically with sub-angular outlines <0.75 mm in maximum dimension, interstitial to quartz grains and closely associated with sericite, suggesting that many are due to plucking of soft sericite during section preparation; however, some of the larger examples may be due to plucking of entire quartz grains.

Sericite mostly occurs as shreddy subhedral flakes in the 25-50 μm size range, commonly partly stained by limonite, interstitial to quartz grains or in patches/aggregates up to ~0.8 mm long (possible lithic clasts?) between quartz grains, both partly concentrated along bedding (?), with finer-grained quartz. Muscovite forming euhedral, rounded-off flakes up to 0.4 mm in diameter tend to be oriented sub-parallel to bedding and occur in the plucked (sericite-rich, ±finer-grained quartz) zones.

Minor limonite is mostly amorphous, pale orange-brown, suggestive of goethite, commonly staining sericite flakes. Where limonite occurs along weathered rinds, it is darker (red-brown to opaque, possibly hematitic?).

In summary, this is relatively well sorted, pure meta-quartz arenite (quartzite) composed of <1.1 mm detrital quartz, with significant secondary quartz cement and local sericite, rare muscovite (micas partly plucked out, concentrated along bedding with finer-grained quartz?); traces of limonite are mostly concentrated in weathered rinds. Lithic clasts are minor, confined to very fine-grained "chert" (locally with minor sericite) or rare foliated, strained "schist".

AG1405: RELATIVELY WELL SORTED, PURE META-QUARTZ ARENITE (QUARTZITE) COMPOSED OF <2.3 MM DETRITAL QUARTZ OR METAMORPHIC CLASTS WITH SIGNIFICANT SECONDARY QUARTZ CEMENT, LOCAL SERICITE, (PARTLY PLUCKED OUT); TRACES OF LIMONITE MOSTLY ALONG BEDDING/IN PLANAR FRACTURES

Hand specimen shows fine-grained, white to pale orange-brownish coloured quartzite with local bedding (?) marked by faintly defined, weak variations of grain size, with traces of amorphous limonite on outer weathered surfaces or rinds. The rock is not magnetic, shows no reaction to cold dilute HCl, and no stain for K-feldspar in the etched offcut. Modal mineralogy in (uncovered) thin section is approximately:

Quartz (mainly detrital)	97%
Sericite (interstitial, partly to largely plucked)	~1%
Voids (partly due to plucking of sericite?)	~1%
Opaque (mainly limonite, goethite ±jarosite?)	<1%
Zircon (?)	<<1%

This sample consists mainly of quartz (detrital, well sorted, mostly in the <2 mm size range) but with local minor interstitial sericite (partly plucked out during section preparation to leave small voids), locally associated with poorly defined, irregular concentrations of limonite and rare zircon (?).

Quartz grains are mostly subrounded to rounded, locally to 2.2 mm in diameter, with more or less random orientations. They are largely single crystal clasts (lesser, locally weakly foliated multi-crystal, likely metamorphic quartz or "schist" clasts to 2.3 mm long consist of aligned sub/anhedra <0.4 mm long with length:width ratios up to 3:1; rare very fine-grained "chert" clasts <0.3 mm are composed of minute tightly interlocking grains in the 15-50 μm size range, rarely mixed with sericite of similar size). The detrital grains and clasts are closely packed, in contact at extremes (possible local pressure solution where projections contact adjacent grains), but originally had significant pore spaces between them. Quartz overgrowth ("cement") is abundant/well defined, completely filling former porosity between originally more rounded, obvious detrital cores smaller than the currently visible grains. The rims thus formed are mostly <0.1 but up to 0.25 mm thick. The proportion of primary to secondary quartz is possibly ~80:20. Strain is mostly weak to moderate (locally strong, in metamorphic quartz clasts), as indicated by common weak to locally strong undulose extinction, the latter associated with common sub-grain development and suturing of grain boundaries). Most quartz grains are weakly to locally moderately fractured near through-going fractures. Rare <0.2 mm quartz veins are marked by zones of fine-grained, strongly recrystallized/strained quartz (<0.1 mm size).

Size distribution of quartz grains is distinctly bimodal, with large (commonly composite, multi-crystal) grains in the 1 to 2 mm size range forming approximately 45% of the sample, set in a matrix of 0.2-0.6 mm grains (perhaps 50% of the sample; finer-grained areas possibly partly mark bedding); 5% or less are obvious metamorphic ("schist" or rare "chert") grains/lithic clasts.

Sericite occurs as shreddy subhedral flakes in the 15-35 μm size range, locally partly stained by limonite, coating/interstitial to quartz grains or in patches/aggregates up to ~0.6 mm long between quartz grains (lithic clasts?), partly concentrated along bedding (?), with the finer-grained quartz.

Voids are locally present, with sub-angular outlines to almost 2 mm long, interstitial to quartz grains and partly associated with sericite, suggesting they are due to plucking of soft sericite during section preparation; however, some of the larger examples may also be due to plucking of quartz.

Minor limonite is mostly amorphous, pale orange- to yellowish brown, suggestive of goethite and jarosite (?), and locally stains sericite flakes. Where limonite occurs along rarely seen fractures <50μm thick, it is a little darker and red-brown but still most likely goethitic.

In summary, this is relatively well sorted, pure meta-quartz arenite (quartzite) composed of <2.3 mm detrital quartz, with significant secondary quartz cement and local sericite, (partly plucked out, concentrated along bedding with finer-grained quartz?); traces of limonite are mostly either concentrated along bedding or in planar fractures. Lithic clasts are common, either partly foliated, strained metamorphic quartz ("schist") or rare very fine-grained "chert" (locally with minor sericite).

AG1406: RELATIVELY WELL SORTED, PURE META-QUARTZ ARENITE (QUARTZITE): <1.1 MM DETRITAL QUARTZ, SIGNIFICANT SECONDARY QUARTZ CEMENT, LOCAL SERICITE, RARE MUSCOVITE (MICAS PARTLY PLUCKED OUT, LIMONITE STAINED); LIMONITE MOSTLY CONCENTRATED ALONG OR IN SUB-PLANAR FRACTURES

Hand specimen shows fine-grained, variegated, white to pale orange-brownish coloured quartzite with variable weathering marked by weak concentrations of orange-brown limonite, cut by planar limonite fractures or local sub-planar veinlets of milky white quartz surrounded by amorphous orange-brown limonite. The rock is not magnetic, shows no reaction to cold dilute HCl, and no stain for K-feldspar in the etched offcut. Modal mineralogy in (uncovered) thin section is approximately:

Quartz (mainly detrital)	95%
Sericite (interstitial, partly to largely plucked), rare muscovite	1-2%
Opaque (mainly limonite, goethitic?)	1-2%
Voids (partly due to plucking of sericite, limonite?)	1-2%

This sample consists mainly of quartz (detrital, well sorted, mostly in the <1 mm size range) with local minor interstitial sericite, locally associated with irregular concentrations of limonite (partly plucked out during section preparation to leave small voids), and rare detrital muscovite flakes.

Quartz grains are mostly subrounded to subangular, rarely to 1.1 mm in diameter, with apparently random orientations. They are mainly single crystal clasts (minor weakly foliated "schist" clasts <0.6 mm in size consist of aligned sub/anhedra <0.15 mm long with length:width ratios up to 2:1, or very fine-grained "chert" clasts <0.25 mm composed of minute tightly interlocking grains in the 15-50 μm size range, partly mixed with sericite of similar size). The detrital grains are closely packed, in close contact everywhere due to secondary quartz infill (possible local pressure solution where projections contact originally adjacent detrital grains). Quartz overgrowth ("cement") is abundant and well defined, completely filling former porosity between originally more rounded, obvious detrital cores somewhat smaller than the currently visible grains. The rims thus formed are mostly <0.1 but up to 0.2 mm thick. Proportion of primary to secondary quartz is possibly ~80:20. Strain is mostly weak to moderate (rarely strong, only in "schist" clasts), as indicated by common weak to locally strong undulose extinction in the latter, associated with sub-grain development and suturing of grain boundaries. Most quartz grains are unfractured or only locally fractured.

Size distribution of quartz grains is possibly crudely bimodal, with scattered framework grains in the 0.5 to 1.1 mm size range forming only about 35% of the sample, in a matrix of more abundant, 0.2-0.4 mm grains (perhaps 60% of the sample) not obviously distributed along bedding, with 5% or less of the "schist" or "chert" grains (lithic clasts).

Minor limonite is mostly amorphous, pale orange-brown, commonly staining sericite flakes, (likely goethite. Where limonite occurs along fractures <50μm or fracture zones up to ~1 mm thick, it is dark red-brown/opaque (possibly hematite). However, it all appears transported (no pseudomorphs likely to be after sulfides). The milky white quartz veins seen in hand sample are not seen in section.

Sericite mostly occurs as shreddy subhedral flakes in the 10-35 μm size range, commonly partly stained by limonite, coating or interstitial to quartz grains, or rarely in patches/aggregates up to ~0.3 mm long between quartz grains (i.e. possible lithic clasts?), typically associated with the finer-grained quartz. Muscovite forming euhedral, rounded-off flakes up to 0.3 mm in diameter are rare but tend to occur in association with the sericite-rich, ±finer-grained quartz areas.

Voids are not common; they typically display sub-angular outlines <1.3 mm in maximum dimension, interstitial to quartz grains and closely associated with sericite, suggesting that many are due to plucking of interstitial soft sericite during section preparation. However, some of the larger examples with ovoid outlines appear to be due to plucking of entire quartz grains.

In summary, this is relatively well sorted, pure meta-quartz arenite (quartzite) composed of <1.1 mm detrital quartz, with significant secondary quartz cement and local sericite, rare muscovite (micas partly plucked out, associated with limonite); limonite is mostly concentrated along or in sub-planar fractures. Lithic clasts are uncommon, confined to very fine-grained "chert" (locally with minor sericite) or weakly foliated, strained "schist".

AG1407: RELATIVELY POORLY SORTED, IMPURE META-QUARTZ ARENITE (QUARTZITE): <1.3 MM DETRITAL QUARTZ WITH SIGNIFICANT SECONDARY QUARTZ CEMENT AND LOCAL SERICITE (PARTLY PLUCKED OUT, CONCENTRATED ALONG BEDDING WITH FINER-GRAINED QUARTZ AND SIGNIFICANT LIMONITE)

Hand specimen shows fine-grained, faintly bedded, white to pale orange-brownish coloured quartzite with bedding marked by poorly defined, weak variations of grain size and amorphous limonite (limonite also occurs on local sub-planar fracture surfaces sub-parallel to bedding). The rock is not magnetic, shows no reaction to cold dilute HCl, and no stain for K-feldspar in the etched offcut. Modal mineralogy in (uncovered) thin section is approximately:

Quartz (mainly detrital)	95%
Opaque (mainly limonite, goethite ±jarosite?)	2-3%
Sericite (interstitial, partly plucked), rare muscovite	1-2%
Voids (due to plucking of sericite, limonite?)	~1%

This sample consists mainly of quartz (detrital, poorly sorted, mostly in the <1.5 mm size range) with local minor interstitial limonite and sericite (partly plucked out during section preparation to leave small voids), commonly associated with poorly defined zones of finer grained quartz.

Quartz grains are mostly subrounded to rounded, locally to 1.3 mm in diameter, with more or less random orientations. They are largely single crystal clasts but are mostly more strained than in previous samples (as indicated by common moderate to locally strong undulose extinction, the latter associated with common strongly developed planar features or local sub-grain development, and suturing of grain boundaries). There are also local partly foliated multi-crystal, metamorphic quartz or "schist" clasts to 1.5 mm composed of somewhat aligned sub/anhedra <0.8 mm long with length:width ratios up to 3:1; or rare very fine-grained "chert" clasts <1 mm composed of minute tightly interlocking grains in the 15-100 μm size range, partly mixed with sericite of similar size. The detrital grains and clasts are closely packed, in contact at the extremes (possible local pressure solution where projections contact adjacent grains), but originally had significant pore spaces between them. Quartz overgrowths ("cement") are abundant/well defined, largely filling former porosity between originally more rounded, obvious detrital cores smaller than the currently visible grains. The rims thus formed are variable, but mostly <0.15 mm thick. The proportion of primary to secondary quartz is possibly ~85:15. Most quartz grains are weakly to locally moderately fractured near through-going fractures or near fine-grained zones that appear to grade to irregular <1 mm vein zones of fine-grained, strongly recrystallized/strained quartz (<0.1 mm size).

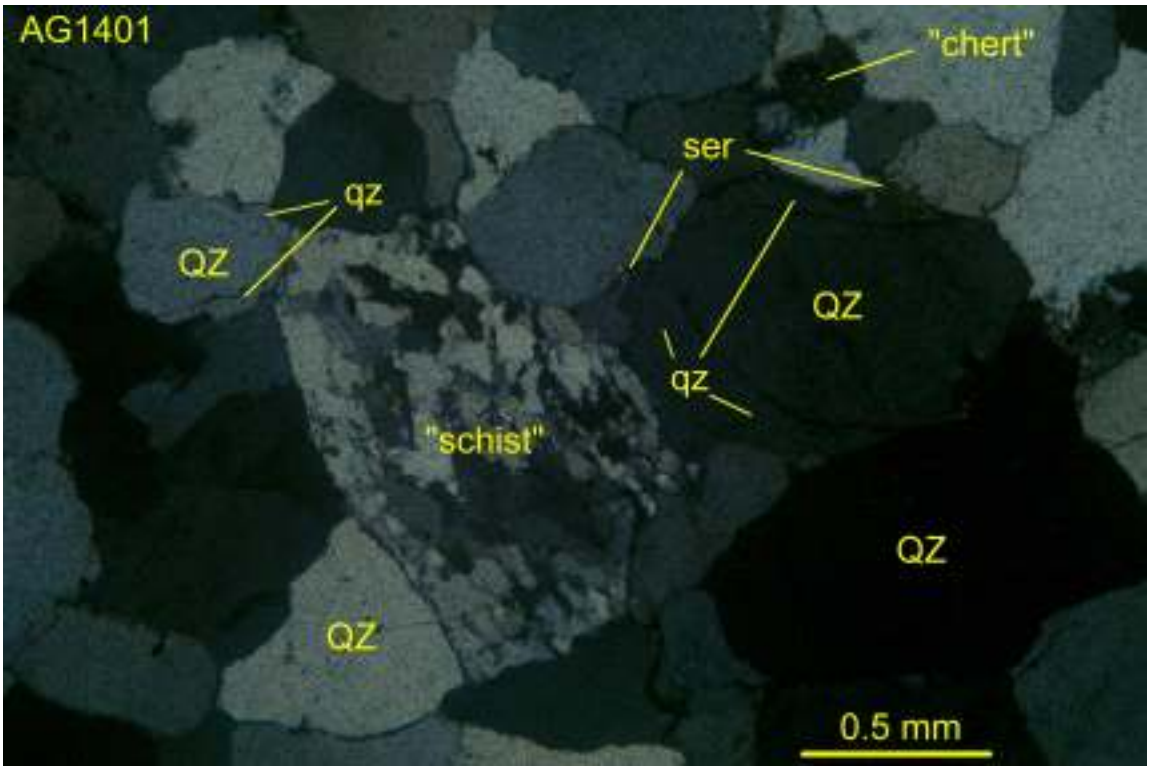
Size distribution of quartz grains is distinctly bimodal, with large (locally composite, multi-crystal) grains in the 0.75 to 1.5 mm size range forming approximately 40% of the sample, set in a matrix of 0.2-0.6 mm grains (perhaps 40% of the sample; these finer-grained areas probably define the bedding); ~20% are metamorphic ("schist" or rarely "chert") grains/lithic clasts.

Most limonite is amorphous, orange-brown to locally red-brown or rarely opaque, suggestive of goethite and minor hematite (?), commonly staining sericite flakes. It is typically concentrated along the bedding, forming filigreed irregular aggregates up to ~1 mm across, interstitial to quartz.

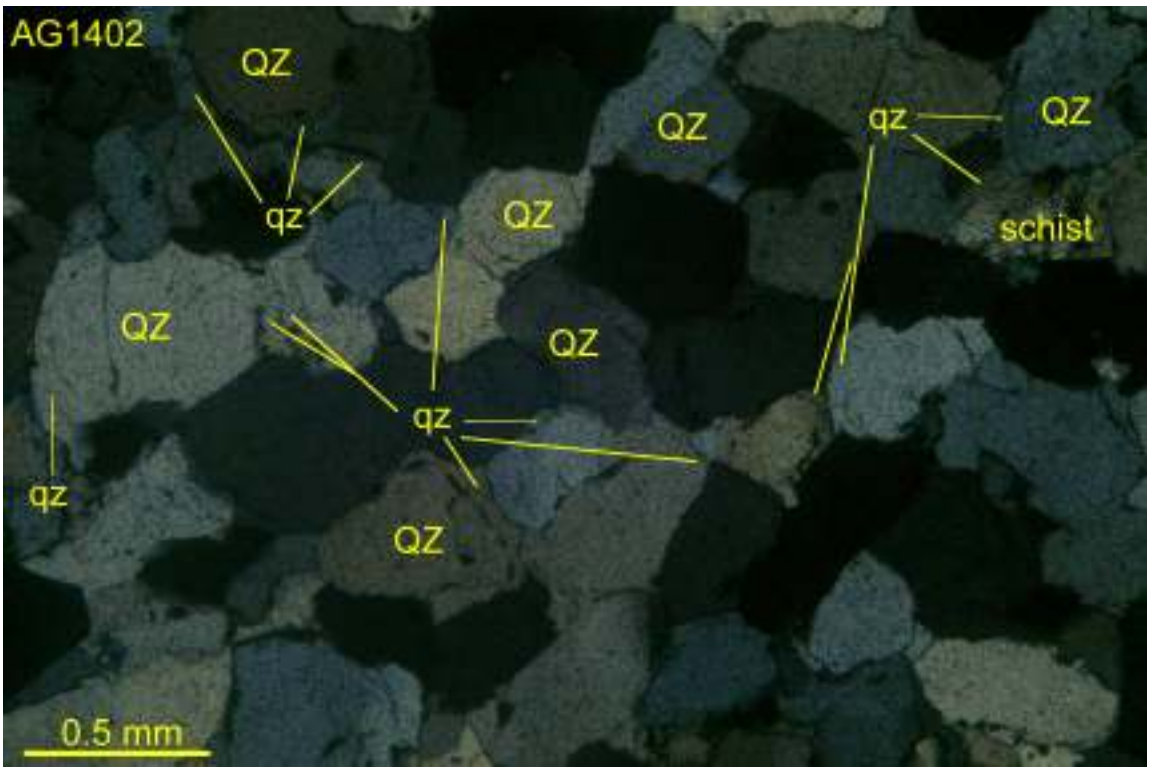
Sericite occurs as shreddy subhedral flakes in the 15-35 μm size range, locally partly stained by limonite, coating/interstitial to quartz grains or in patches/aggregates up to ~0.6 mm long between quartz grains (some may be lithic clasts?), partly concentrated along bedding (?) with the finer-grained quartz. Muscovite forming euhedral, rounded-off flakes up to 0.4 mm in diameter show random orientations and tend to occur in the plucked (sericite-rich, ±finer-grained quartz) zones.

Voids are locally present, with sub-angular outlines mostly <0.8 mm, interstitial to quartz grains and associated with sericite, suggesting they are due to plucking of soft sericite/limonite during section preparation; however, some of the larger examples may also be due to plucking of quartz.

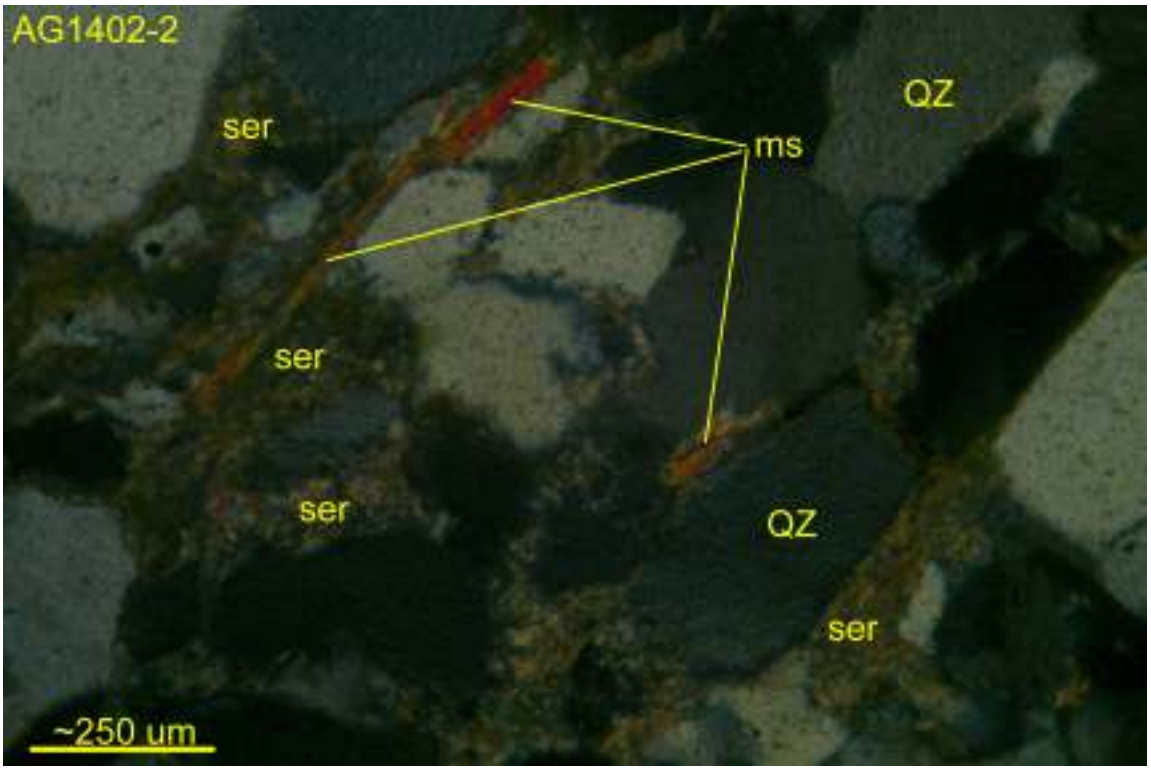
In summary, this is relatively poorly sorted, impure meta-quartz arenite (quartzite) composed of <1.3 mm detrital quartz with significant secondary quartz cement and local sericite (partly plucked out, concentrated along bedding with finer-grained quartz and significant limonite). Lithic clasts are common, mainly foliated, strained metamorphic quartz ("schist")/rare very fine-grained "chert".



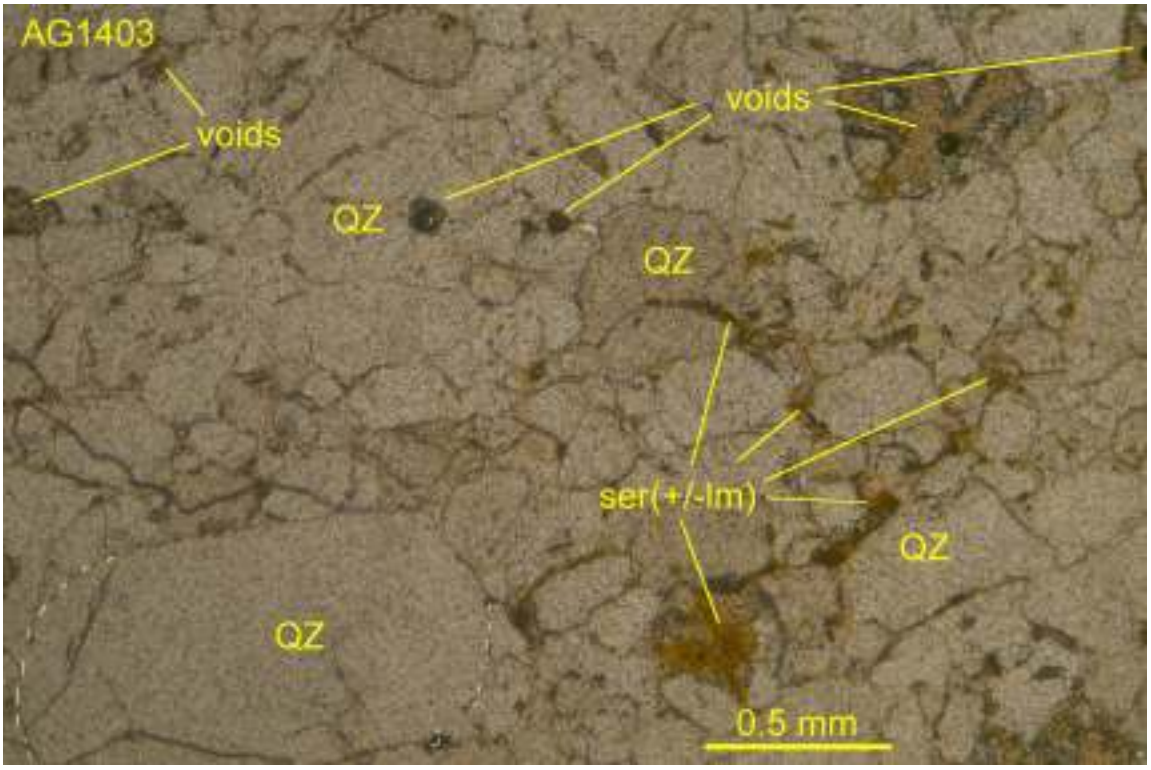
AG1401: relatively pure quartzite composed mainly of subrounded/subangular, closely packed 0.5-1 mm or <0.25 mm quartz grains (QZ; only minor weakly foliated schist or very fine-grained chert lithic clasts). Very minor interstitial "cement" of secondary quartz (qz) and sericite (ser). Transmitted light, crossed polars, field of view ~3 mm wide.



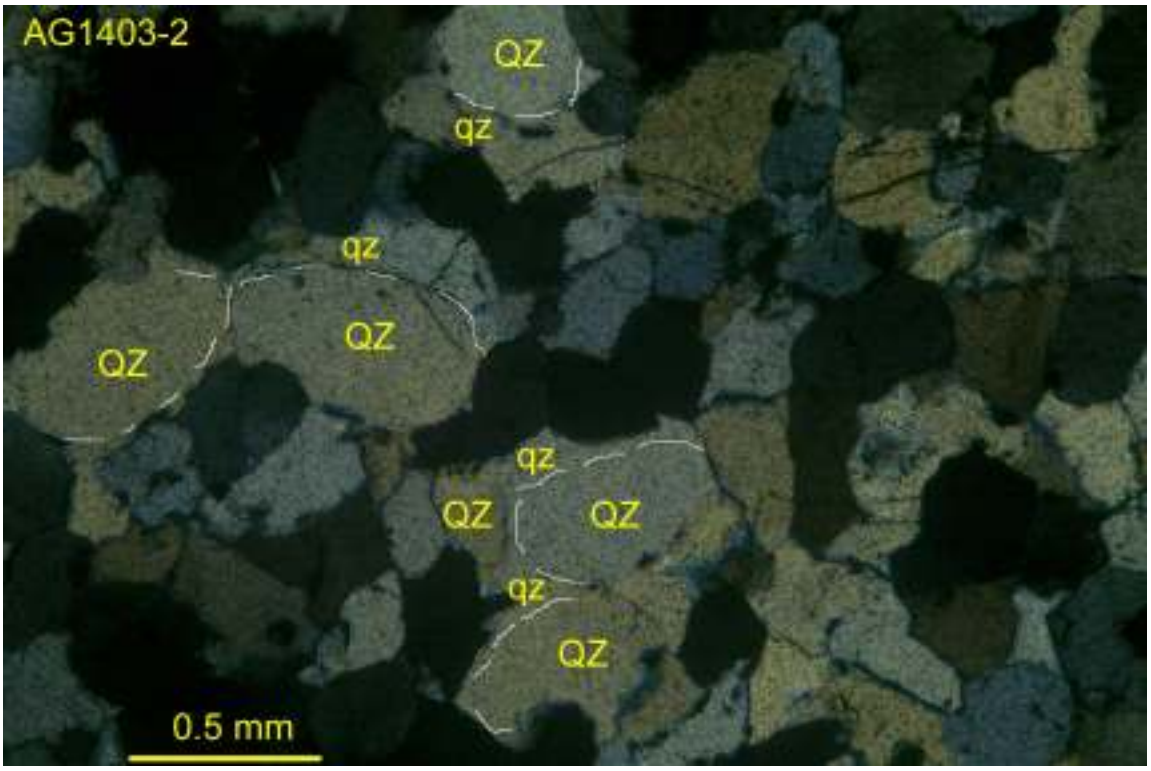
AG1402: quartzite in which subrounded detrital quartz cores (QZ) are clearly visible overgrown by secondary quartz cement (arrowed, qz) at rims. Grain size is mostly in the 0.4-0.7 mm range; rare schist lithic clasts are more strongly strained than single-crystal detrital quartz. Transmitted light, crossed polars, field of view ~3 mm wide.



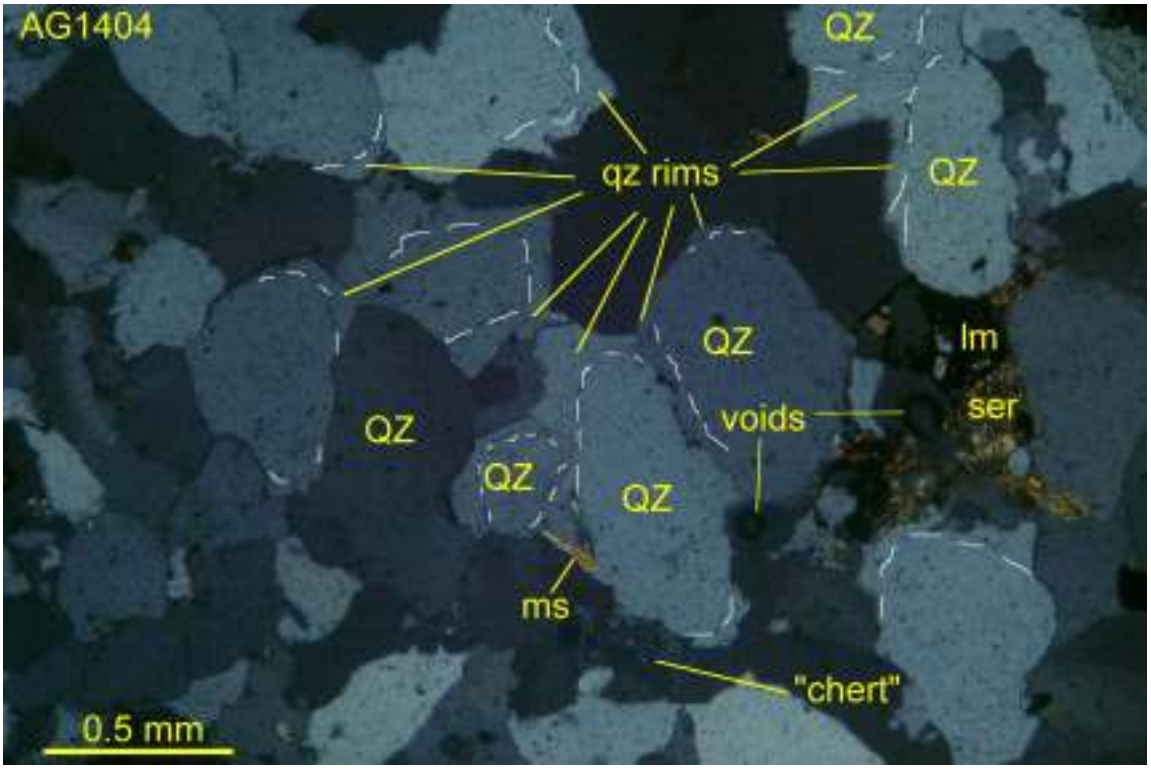
AG1402-2: detailed view to show local abundance of interstitial sericite (ser) and local detrital muscovite (ms) flakes, the alignment of the latter possibly indicating bedding planes, roughly parallel to concentrations of sericite associated with finer grained quartz. Transmitted light, crossed polars, field of view ~1.5 mm wide.



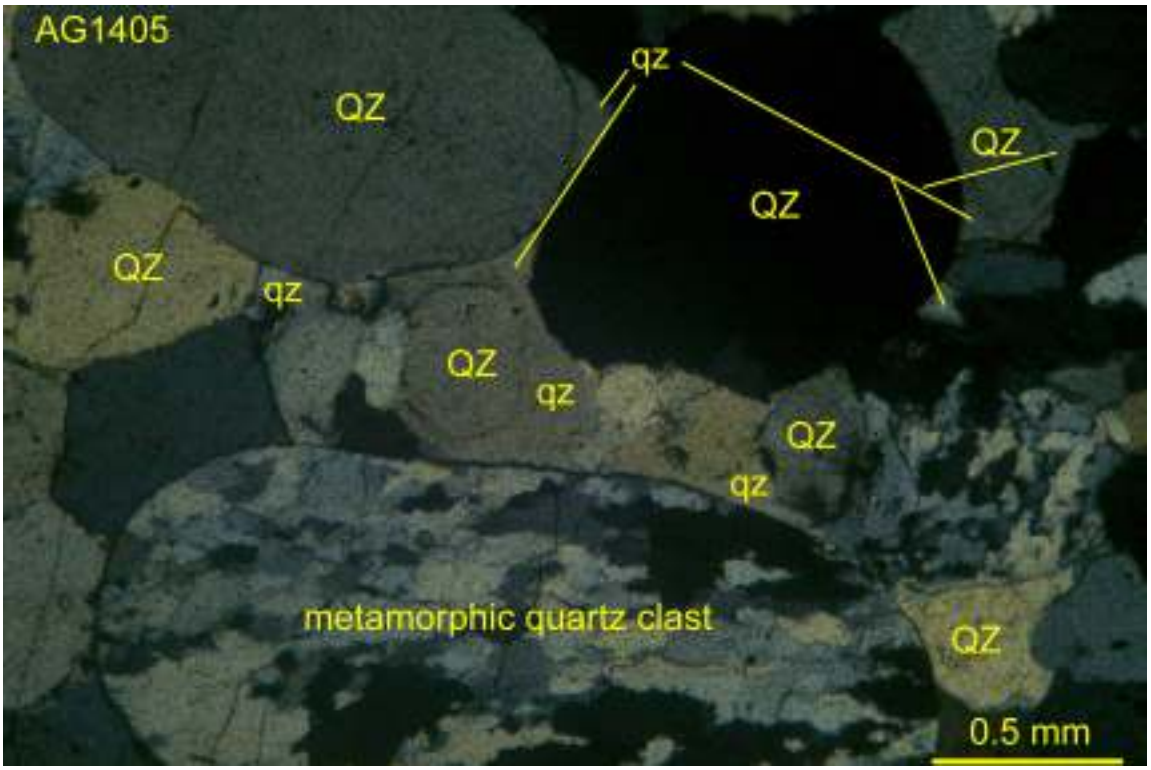
AG1403: Typical variation in grain size between larger framework grains (QZ, up to 1.3 mm long) and smaller (<0.4 mm) interstitial grains, commonly coated/infilled by secondary quartz (qz), associated with voids that in part appear to represent plucked sericite (ser) partly stained by amorphous limonite (lm). Transmitted plane light, field of view ~3 mm.



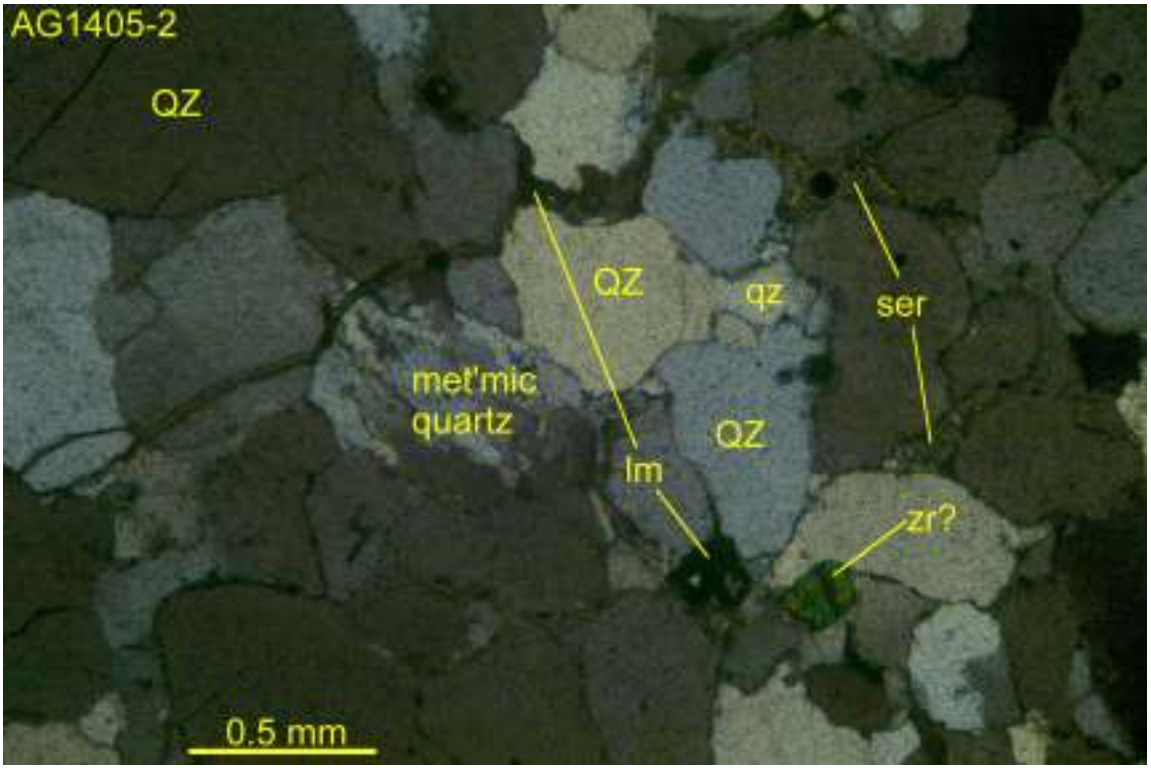
AG1403-2: Rounded detrital quartz cores (QZ; outlines highlighted), clearly surrounded and infilled by secondary quartz (qz) that may be difficult to distinguish from fine-grained detrital quartz grains interstitial to the larger grains. Transmitted light, crossed polars, field of view ~3 mm wide.



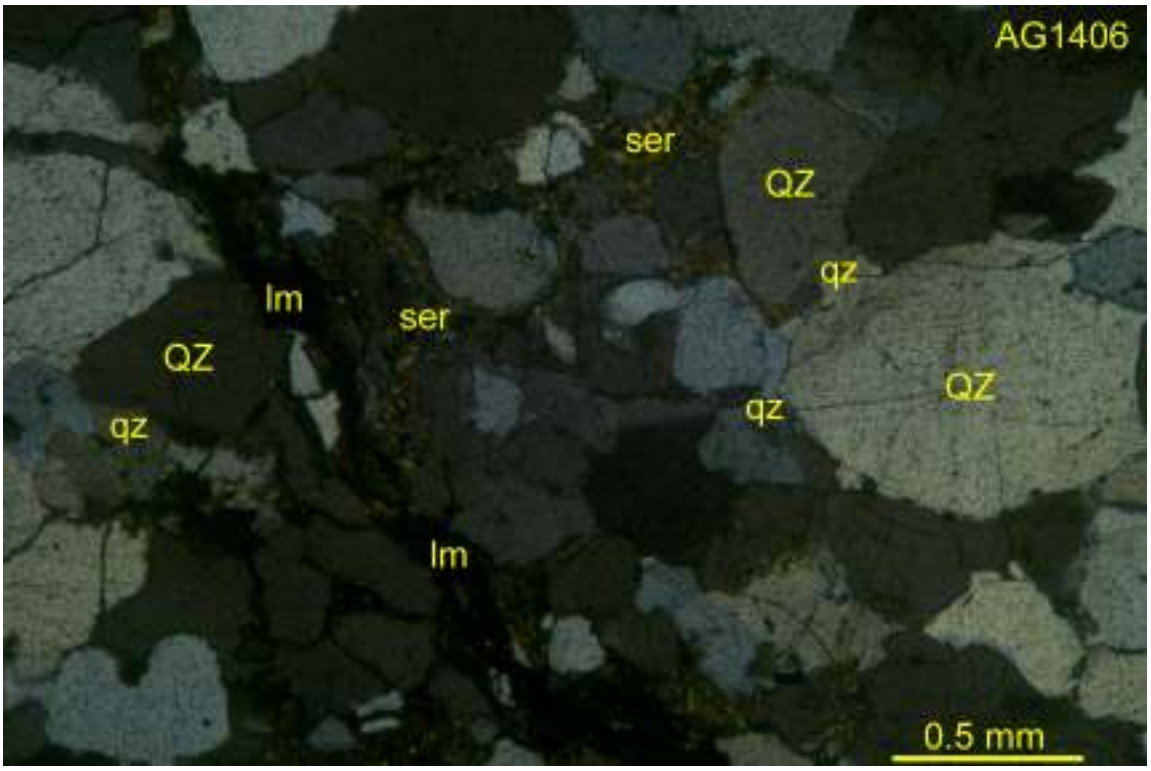
AG1404: coated portion of slide where distinction between rounded detrital cores and secondary rims is difficult to see, but interstitial sericite (partly plucked out to leave voids, associated with limonite) and rare muscovite, or "chert" clasts, are more clearly visible. Transmitted light, partly uncrossed polars, field of view ~3 mm wide.



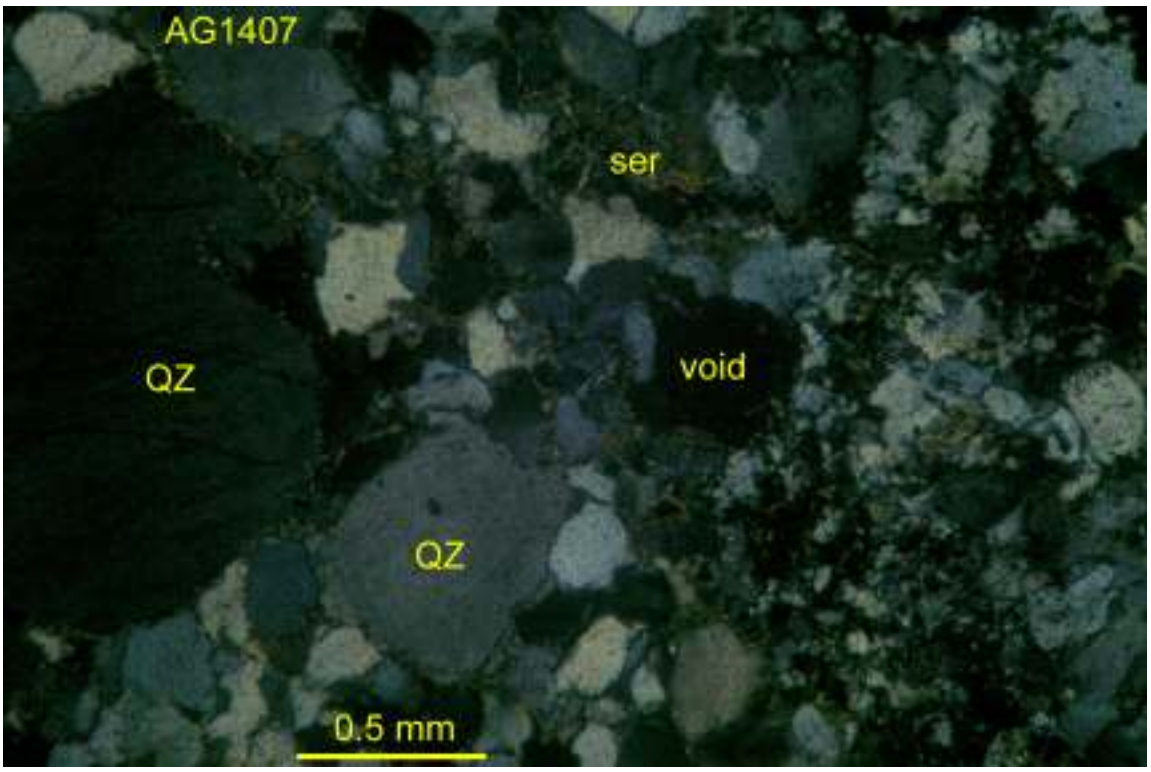
AG1405: bimodal, large/small, rounded to elongate detrital quartz and schistose metamorphic quartz clasts with clearly defined cores overgrown/cemented by interstitial secondary quartz. Transmitted light, crossed polars, field of view ~3 mm wide.



AG1405-2: finer-grained quartz/local metamorphic clasts associated with minor sericite (partly plucked out to leave small voids) and rare zircon (zr?), cut by narrow fracture partly filled with limonite (lm); limonite also occurs interstitially. Transmitted light, partly uncrossed polars, field of view ~3 mm wide.



AG1406: meta-quartz arenite (quartzite) composed of somewhat bimodally distributed detrital quartz grains locally with pressure solution at contact points, strongly overgrown and cemented by secondary quartz, local interstitial sericite, partly stained by limonite concentrated along fractures. Transmitted light, partly uncrossed polars, field of view ~3 mm wide.



AG1407: view across bedding to show variation in grain size from coarse, somewhat strained/planar featured quartz to finer-grained quartz with more abundant, interstitial sericite and limonite, locally plucked out to leave voids. Transmitted light, partly uncrossed polars, field of view ~3 mm wide.

Overview of thin sections and offcuts (blue semi-circles mark photomicrograph locations).