BRITISH COLUMBIA

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

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TITLE OF REPORT [type of survey(s)]: Mt. Milligan (East) Limestone Mapping

TOTAL COST:

AUTHOR(S): Anna Fonseca SIGNATURE(S): Anna de Fonseca

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): YEAR OF WORK: 2005

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

PROPERTY NAME: Mt. Milligan

CLAIM NAME(S) (on which work was done): 512942 ; 512944 ; 512945

COMMODITIES SOUGHT: limestone

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Omenica NTS: 93O/04

LATITUDE: 55 ° 07 ' 48 " LONGITUDE: 123 ° 44 ' 18 " (at centre of work)

OWNER(S)
1) Placer Dome (CLA) Limited 2)

MAILING ADDRESS
1600-1055 Dunsmuir St.
Vancouver, B.C.

OPERATOR(S) [who paid for the work]
1) Placer Dome (CLA) Limited 2)

MAILING ADDRESS
1600-1055 Dunsmuir St.
Vancouver, B.C.

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Andesite, monzonite, Triassic-Jurassic, Witch Lake Fm., potassic propylitic, limestone

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 16966, 17936, 19121, 19268, 21682, 22294, 25299

(OVER)

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	1:20,000; 5km^2	512942, 512944, 512945	$9179.66
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt			
Rock	19 Wholerock - XRF	512942, 512944, 512945	$2,294.92
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST	$11,474.58

Mt. Milligan (East) Project,

Limestone Mapping

Omineca Mining Division

(NTS 93O/04)

55°07’48” N Latitude / 123°44’18” W Longitude

Prepared for Placer Dome (CLA) Limited

February, 2006

Work performed in claims:
512942
512944
512945

Anna Fonseca, M. Sc.

SUMMARY

A preliminary investigation of limestone in Klein and See16 claims was carried out between July 11th and 17th, 2005. Limestone outcrops were located on Sparky, 1242 and Klein knobs, and forming low hills on the northeast part of the map area. Outcrops form less than 1% of the map area, and consist of massive, cliff-forming micritic to locally moderately recrystallized limestone with fossil contents up to 20%. Three limestone beds with thickness <350 metres are interpreted from the map pattern. A syncline with axis along the valley between Sparky and 1242 knobs is inferred, but the massive character and visual homogeneity makes bedding attitudes difficult to recognize, and therefore other interpretations are possible.

Major oxide whole rock analyses of limestone samples indicate generally good purity and good potential for use in acid neutralization and hydrometallurgical applications. Silica content in most outcrops is below 1%, with the exception of Klein knob, where SiO_2 varies from <1% to 3.35%. Dolomite content ranges up to 10% in Sparky and lower Klein knobs, but is low in all other outcrops.

Given the sparsity of outcrop, drilling may be required in order to establish systematic variations in limestone purity, and to perform volume and tonnage calculations.

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INTRODUCTION

The 2005 Mt. Milligan limestone mapping project employed standard field mapping and whole rock geochemistry. This project aimed at characterizing limestone outcrops in the eastern portion of the Mt. Milligan claim block. Specific objectives of the project included:

- To characterize composition, texture, and cleanliness of limestone outcrops;
- To quantify the amount and thickness of interbedded volcanic and sedimentary units;
- To establish local variations in carbonate composition through a combination of field descriptions and whole rock major oxides XRF analyses;
- To provide a summary of outcrop access, locations, and compositions that will assist in decision making regarding potential use of this limestone as acid neutralizer.

SCOPE, METHODS, AND FIELD LOGISTICS

This report summarizes the results of five days of bedrock mapping and sampling that took place between July 11th and 17th, 2005. The mapping crew was based in Phillip Logging Camp, and consisted of geologist Anna Fonseca, and field assistants Willie Moise, Dwight Prince, and Paul Jago.

1:20,000 scale aerial photographs and a georeferenced landsat 7 image were used to identify areas lacking vegetation, which were considered potential outcrop areas. UTM coordinates of non-vegetated areas were entered in a GPS unit which was used to navigate through dense vegetation. Outcrops, rubblecrop, talus, and samples were mapped on 1:1,000 scale topographic basemaps that were enlarged from 1:20,000 scale topographic trim data of NTS sheet 93O/012

16 rock chip samples were collected and submitted to whole rock XRF analyses. All samples were chipped from at least 1.5 inches beneath the weathering surface. Each sample contains chips collected over approximately 10 m inferred strike length, and 4 m inferred dip section. 5 of those samples were cut into thin sections for petrographic descriptions.

LOCATION AND ACCESS

The Mt. Milligan deposit is located in north-central British Columbia, approximately 155 km northwest of Prince George, 86 km north of Fort St. James, 95 km west of Mackenzie, and 38 km west of Phillip Logging Camp (Figure 1). The town of Mackenzie is the closest supply center. Government officials from the Fort St. James town expressed interest in expanding the Rainbow Road, which would provide direct access from the town to Mt. Milligan property.

A network of forestry roads and old mineral exploration roads provide partial access to most sample sites. PL 4 claim is accessed by the North Phillip road to km 47, then 2 km heading north on the newly upgraded Dun Cho road, then another 1.5 km heading northwest from the 2 km mark on Dun Cho road until road conditions decay. The final 2 km to the end of the road are accessible by foot. PL5 road is accessed on foot by a 1.5 km long old logging road trending southwest from the 8 km mark on Dun Cho road. See 16 (Sparky Knob) can be accessed by an old logging road that heads north at the 53 km mark on North Phillip road, and is drivable for the initial 4 km, then blocked by fallen trees. The final 3 km to the end of the old road were accessed on foot.

CLIMATE AND VEGETATION

The Mt. Milligan property is located in the Interior Plateau climatic zone, which is immediately to the east of, and sheltered from moist westerly airflow by the Coast Mountains. Average

Figure 1. Location map

temperatures are 15^o C in summer, and –12^o C in winter, and average yearly precipitation is 63 cm.

Vegetation consists of spruce forests that tend to grow on the lowland till deposits because of high soil water content in the clay matrix. Jackpine forests tend to grow in glacial outwash terraces in the major valleys. Old roads support dense willow growth. Outcrop typically constitutes less than one percent of the area.

PROPERTY DESCRIPTION AND OWNERSHIP

The Mt Milligan property consists of 43 claims that were converted to British Columbia's new claim block system (Figure 2). All claims within the survey area are 100% owned by Placer Dome Inc. Table 1 lists claim number, area, and anniversary date. The claims are in Nak'azdli First Nation Traditional Territory. Nak'azdli First Nation land claim is not settled. Claims 512942, 512944, and 512945 were mapped during this project.

PROPERTY HISTORY

Mt. Milligan Main deposit was discovered in 1987. Initial regional exploration work was carried out by Selco Inc. and BP Resources Canada Limited. Lincoln Resources carried out subsequent exploration work and intersected significant copper-gold mineralization in the Main deposit. Additional work by United Lincoln and Continental Gold Corp led to the discovery of Southern Star deposit in 1989. This work also identified low-grade porphyry gold and copper-gold mineralization in Goldmark and North Slope zones. Placer Dome Inc. purchased BP's interest in the mineral claims and acquired Continental Gold in 1990, and completed a pre-feasibility study in 1991.

SEE 16 claim was staked by Continental Gold Corp. and transferred to Placer Dome Inc. in 1990. PL4 and PL5 claims were acquired by Placer Dome Inc. in 2003.

PREVIOUS WORK

Regional bedrock mapping at 1 inch to 6 mile scale of map sheets 93K and 93N by Armstrong (1948, 1965), who first defined Takla Group and Hogem batholith. Nelson and Bellefontaine, 1996 describe 1:50,000 scale geological mapping of an area extending from the Mt. Milligan deposit to Discovery Creek, provide detailed descriptions of stratified and intrusive units, and propose the use of the term "succession " rather than formation for subunits of Takla Group that have interfingering contacts and a variable internal stratigraphy.

Clark (1990) conducted outcrop mapping, sampling, major oxide analyses, and rough volume calculation of limestone in See 15, 16 and 19 claims. Whole rock analyses were consistent with results expected for visually pure limestone. Clark concluded that limestone from Sparky's and 1242 knobs have excellent neutralizing properties.

REGIONAL GEOLOGY

The Mt. Milligan property is located in central Quesnellia Terrane of British Columbia (Figure 3). Quesnellia is characterized by widespread Late Triassic to Early Jurassic arc rocks comprising: 1) Augite-phyric volcaniclastic rocks and subordinate coherent volcanic rocks of basaltic to dacitic compositions; 2) coeval and partly comagmatic plutons ranging from calc-alkaline to alkaline and shoshonitic affinity; 3) sedimentary rocks including shale, limestone, and epiclastic deposits.

Table 1. Converted claim numbers, areas, and anniversary date.

Claim #	NTS	Anniversary	Area (Ha.)
512884	093N	2006/DEC/29	369.632
512887	093N	2006/DEC/29	295.844
512888	093N	2006/DEC/29	369.979
512890	093N	2006/SEP/10	296.121
512891	093N	2010/FEB/28	554.449
512892	093N	2006/DEC/29	443.767
512894	093N	2006/DEC/29	554.969
512896	093N	2011/JUN/20	444.183
512897	093N	2006/SEP/10	444.34
512901	093N	2010/APR/26	554.48
512903	093N	2011/APR/26	462.331
512904	093N	2011/APR/26	555.115
512907	093N	2006/SEP/08	424.903
512909	093N	2006/SEP/10	351.094
512910	093O	2006/SEP/10	332.824
512912	093O	2006/SEP/10	388.557
512913	093O	2006/SEP/02	665.236
512915	093O	2006/MAR/05	554.852
512917	093O	2006/SEP/03	555.14
512919	093N	2006/SEP/10	444.319
512921	093O	2006/SEP/03	518.369
512923	093O	2010/APR/03	332.428
512924	093O	2010/APR/01	665.165
512925	093O	2010/APR/01	73.961
512927	093O	2010/APR/01	406.695
512930	093O	2010/APR/03	480.648
512931	093O	2010/APR/03	480.341
512932	093O	2010/APR/01	92.341
512933	093O	2010/APR/03	517.134
512934	093O	2010/APR/03	554.332
512935	093O	2010/APR/03	443.673
512936	093O	2010/APR/03	720.559
512937	093O	2010/APR/04	517.346
512938	093O	2010/APR/04	462.136
512939	093O	2010/APR/04	462.135
512940	093O	2010/APR/01	462.134
512941	093O	2010/APR/01	665.851
512942	093O	2010/APR/04	554.875
512943	093O	2010/APR/04	370.069
512944	093O	2006/AUG/26	369.861
512945	093O	2006/AUG/26	462.324
512960	093O	2010/APR/04	203.414
512982	093O	2006/SEP/02	295.8

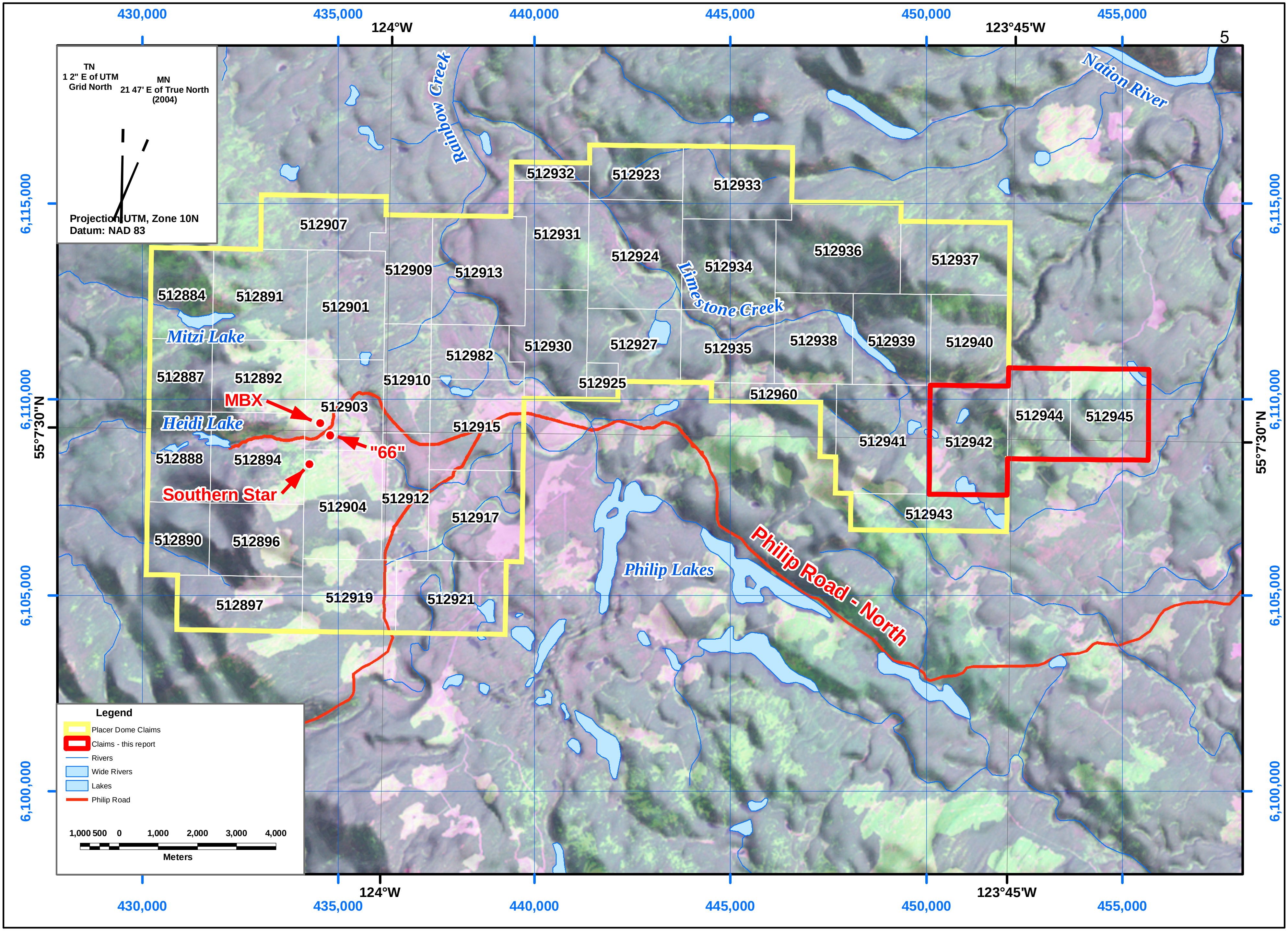

Figure 2. Converted claims covering Mt. Milligan property. - 1:125 000

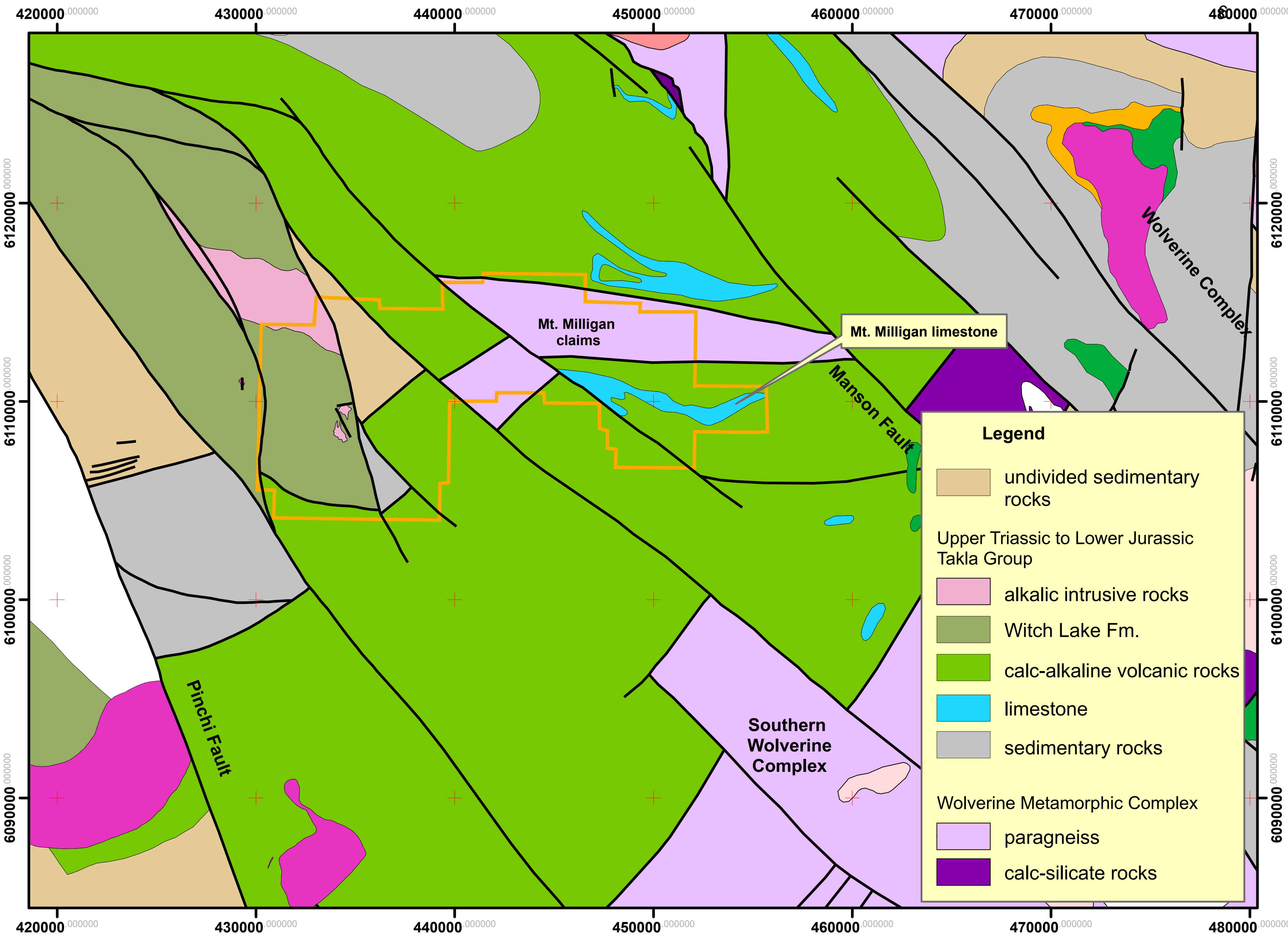

Figure 3. Regional geology of central Quesnellia and Mt. Milligan property. 1:250,000 scale.

In the Mt. Milligan area, Quesnellia consists of Triassic to Lower Jurassic volcanic and subordinate sedimentary rocks of Takla Group, and Hogem intrusive suite, which is interpreted as Takla Group's intrusive equivalent. Many Cu-Au mineral showings are associated with Hogem Batholith and smaller coeval intrusions. Takla Group in the Mt. Milligan area is informally subdivided into a lower, predominantly sedimentary Inzana Lake Succession, and an upper, predominantly volcaniclastic Witch Lake Succession, which hosts the Mt. Milligan deposit. Wolverine Complex is a metamorphic core complex well exposed to the northeast of Quesnellia (east of Manso Fault). Slices of Wolverine Complex rocks are exposed by east-west-trending detachment faults and form windows in Takla Group. Figure 3 shows the regional geology of central Quesnellia and Mt. Milligan area.

GEOPHYSICS

A regional airborne magnetic and gamma ray spectrometric survey flown by the GSC shows a large regional magnetic high centered over Mt. Milligan, and interpreted as related to the Mount Milligan Intrusive Complex which underlies volcanic and sedimentary strata. Limestone outcrops are underlain by small magnetic high features (Figure 4).

PROPERTY GEOLOGY

Figure 5 shows outcrop locations and interpreted bedrock geology of the eastern portion of Mt. Milligan property. The highest elevation peaks in Klein and See16 claims are underlain by white to gray weathering, cliff-forming, brown-gray, massive, sparsely fossiliferous, and locally recrystallized limestone (Plates 1, 2). Limestone outcrops consist predominantly of biomicrite, with 12 to 20% bioclasts that are recrystallized to sparry calcite (Plate 3). Locally, strongly recrystallized limestone have a weak foliation and bioclasts that consist of micrite (Plate 4). Some outcrops contain bioclasts replaced by quartz (Plate 5). Sparry calcite veins <2 cm thick are common in various orientations, and locally can form up to 20-25% of rock volume (Plate 6). Detrital grains are seldom observed in thin section (Plate 7).

The homogeneous and massive character of the limestone, lack of silty bands, and intense jointing makes bedding attitudes difficult to discern (Plate 8). Where limestone bedding is unequivocally observed it forms northwesterly dip slopes on 1242 and Klein knobs. By analogy, southeasterly dip slope attitudes in Sparky knob are inferred to represent bedding. A northeast-trending syncline axis is inferred approximately along the kettle lake valley between Sparky and 1242 knobs. This limestone unit is underlain by brown weathering, recessive epiclastic unit containing feldspar-poor, light grey fine-sand and subordinate coarse sand arkosic wacke. The wacke unit is in turn underlain by white to light gray weathering resistant limestone. The thickly vegetated, highest elevation hill in claim PL5 is underlain by light gray weathering limestone which overlays rare greywacke rubble to the north.

Cross-section A-A' shows the interpreted syncline with axis parallel to the lowest elevation region between 1242 and Sparky knobs. This structural interpretation is supported by arcuate chains of lakes along the southwestern and northwestern portions of the mapped area. Inferred limestone thickness at 1242 knob limb is approximately 350 metres, whereas in the Sparky Knob it is less than 200 metres. This significant difference in thickness may be explained by: a) uneven bioherm nature of the limestone; b) recessive epiclastic beds, rather than limestone underlaying the intensely vegetated area between Klein Knob and the cliff-forming outcrops in the 300 metres

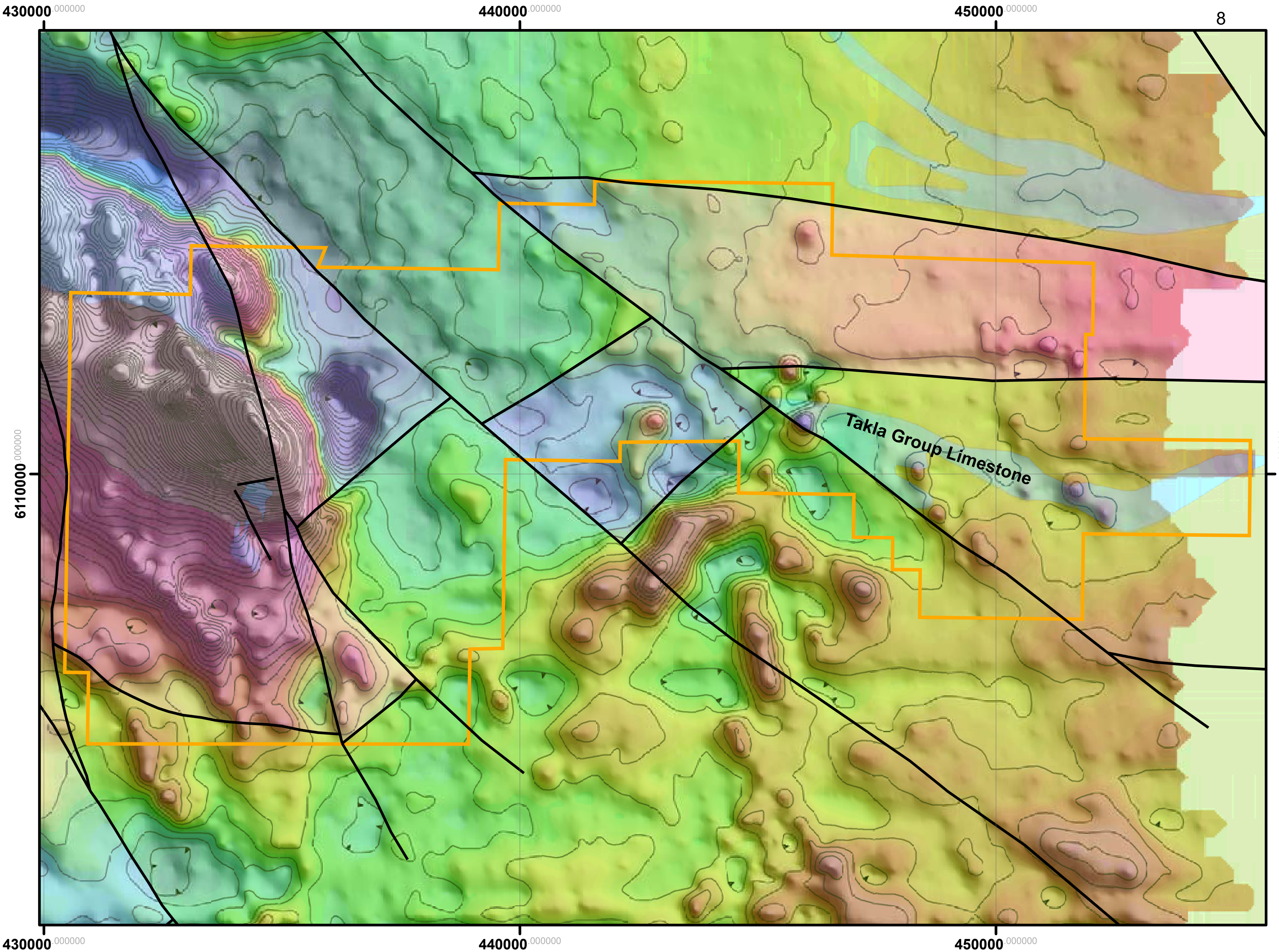

Figure 4. Regional airborne magnetics (GSC) overlain by lithology. 1:100,000 scale.

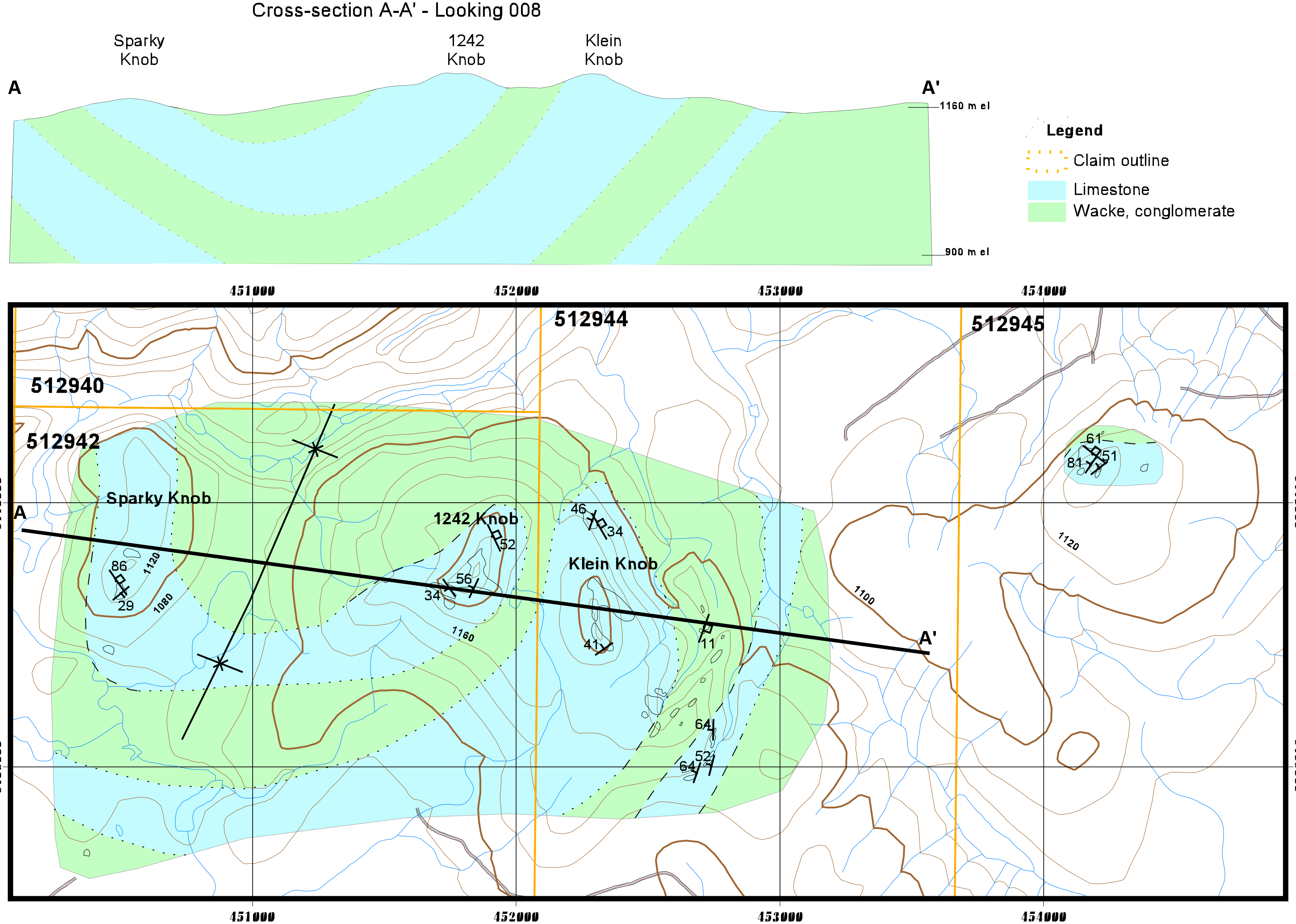

Figure 5. Outcrop location, and interpreted bedrock geology. 1:20,000 scale.

Plate 1. White weathering, massive, cliff-forming limestone on Sparky knob.

Plate 2. Cliff-forming limestone in Klein (near) and 1242 (far) knobs - looking southwest.

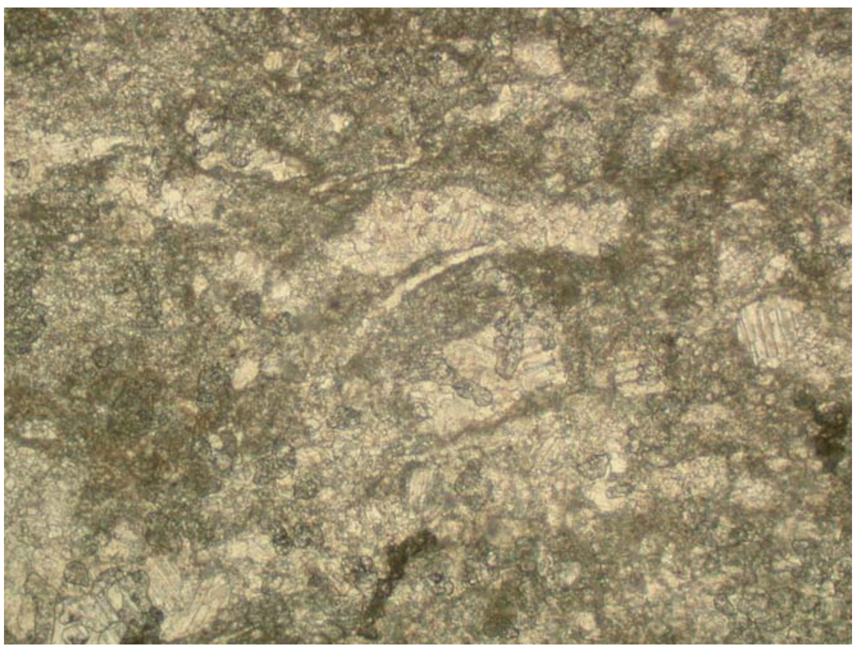

Plate 3. Disarticulated ostracod valve (thin curved shell) composed of sparry calcite. Field of view: 3.6 mm. Plane polarized light.

Plate 4. Disarticulated ostracod valve (thin curved shell) and deformed brachipod composed of biomicrite in a sparry calcite matrix. Field of view: 3.6 mm. Plane polarized light.

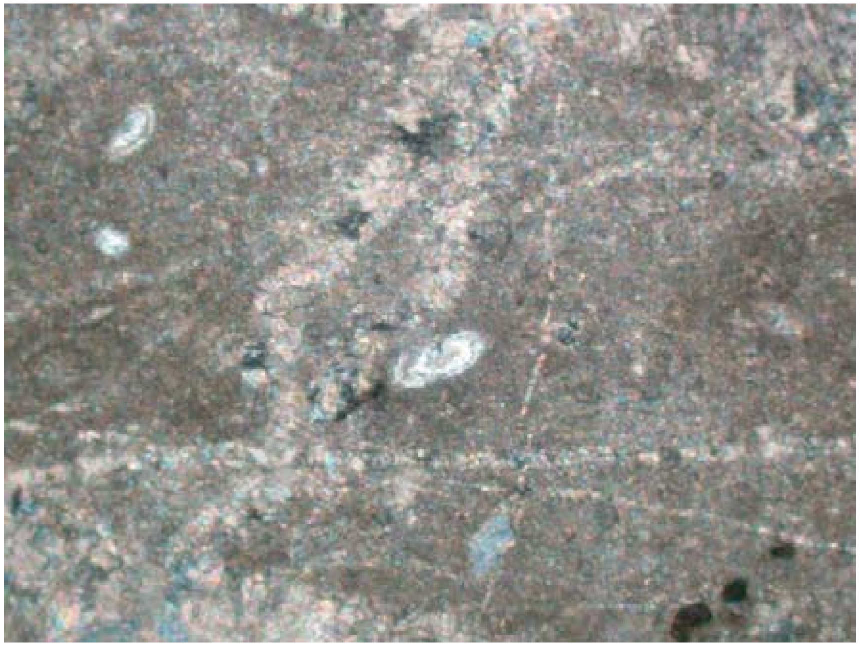

Plate 5. Silicified, deformed brachiopods making up to 3% of the rock volume in upper Klein knob. Field of view: 3.6 mm. Crossed polars.

Plate 6. Sparry calcite veins in various orientations locally form up to 25% of the rock volume.

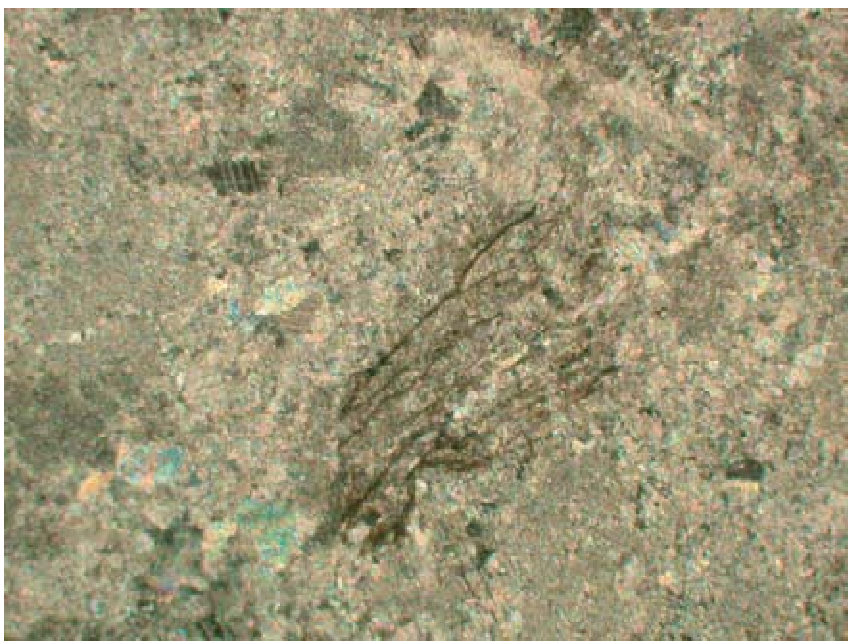

Plate 7. Detrital grain coated in iron oxide. Field of view: 7.2 mm. Plane polarized light.

Plate 8. Massive, intensely jointed limestone outcrop. Primary features such as beddding are rarely recognizeable.

southeast of Klein Knob; or c) dip slopes in massive homogeneous limestone of Sparky Knob represent joints rather than bedding, and Sparky Knob limestone constitutes a fourth, northwest-dipping limestone bed.

SAMPLE LOCATIONS

Sample sites were located using Garmin Etrex GPS units. Large outcrops were sampled separately at the top and bottom. Figure 6 shows the location of rock chip samples. Table 2 contains field descriptions of samples.

Table 2. Field descriptions.

Sample number	Colour chipped	Allochem %	Classification (Folk, 1959)	Comments
B373470	dk grey	1	micrite	Micrite with abundant irregular coarsely recrystallized calcite veinlets forming <25% of rock volume.
B373471	dk grey	1	micrite & dismicrite	Micrite matrix with rare recrystallized dismicrite
B373472	lt tan	12	biosparite	Strongly recrystallized sparse fossiliferous biosparite
B373473	dk grey	12	sparse biomicrite	Dark lime mudstone - sparse biomicrite.
B373474	md grey	7	fossiliferous micrite	Moderately recrystallized lime mudstone - fossiliferous biosparite.
B373475	md grey	15	fossiliferous micrite	Moderately recrystallized lime mudstone - fossiliferous biosparite.
B373476	lt grey	15	biosparite	Moderately recrystallized lime mudstone - sparse biosparite.
B373477	lt grey	20	biosparite	Moderately recrystallized lime mudstone - sparse biosparite.
B373478	lt grey	20	biosparite	Moderately recrystallized lime mudstone - sparse biosparite.
B373479	lt/md grey	20	biosparite	Moderately recrystallized lime mudstone - sparse biosparite.
B373480	dk grey	15	biomicrite	Sparse biomicrite
B373481	dk grey	20	biomicrite	Sparse biomicrite
B373482	dk grey	20	biomicrite	Sparse biomicrite
B373483	lt grey	12	biosparite	Strongly recrystallized sparse biosparite.
B373484	lt grey	12	biosparite	Strongly recrystallized sparse biosparite.
B373485	lt grey	10	biosparite	Strongly recrystallized sparse biosparite.
B373486	white		granite	QC sample collecte at km 16.5 Phillip Road
B373487	md grey	0	Calcareous schist	Banded schist/silty limestone from quarry at km 19.5 Phillip road
B373488	md grey	0	Calcareous schist	Banded schist/silty limestone from quarry at km 19.5 Phillip road

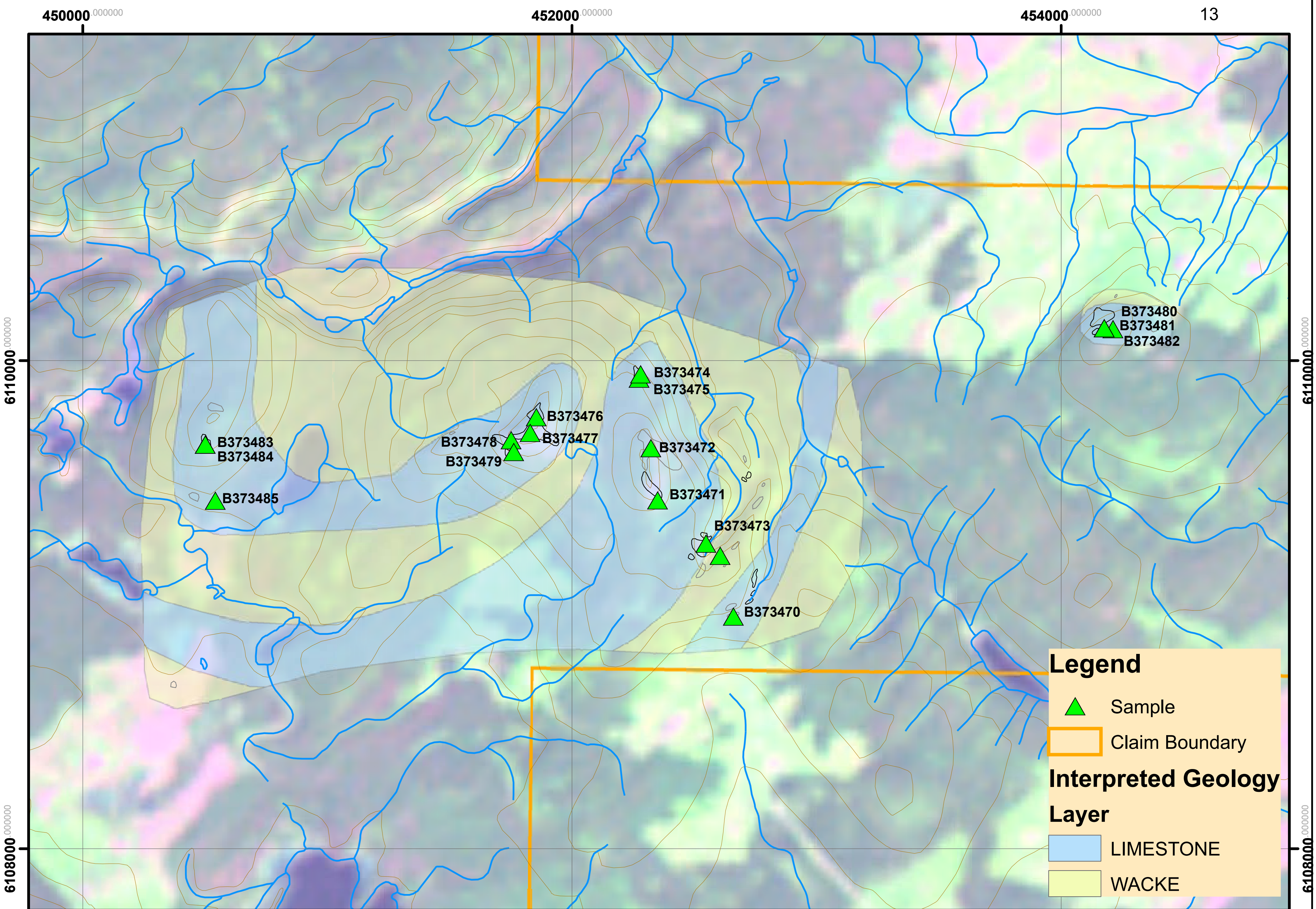

Figure 6. Sample location map and interpreted geology. 1:20,000 scale.

LABORATORY PROCEDURES

SAMPLE PREPARATION

All samples were sent to ALS Chemex Labs of Vancouver for preparation and analyses. Each entire sample was coarse crushed. A 250 g split of the crushed sample was pulverized to –75 microns, and sent to analysis.

ANALYTICAL PROCEDURES

Pulverized splits were analyzed by lithium borate fusion and XRF (Chemex code ME-XRF06). Major and minor elements are reported as oxides. Table 3 reports upper and lower detection limits.

Table 3. Analyte ranges.

Analyte	Lower limit	Upper limit
SiO2	0.01	100
Al2O3	0.01	100
Fe2O3	0.01	100
CaO	0.01	100
MgO	0.01	100
Na2O	0.01	100
K2O	0.01	100
Cr2O3	0.01	100
TiO2	0.01	100
MnO	0.01	100
P2O5	0.01	100
SrO	0.01	100
BaO	0.01	100
LOI	0.01	100

QUALITY CONTROL

A sample of granite collected at km 16.5 on Philip Forestry road was used as blank, and duplicate samples of calcareous siltstone collected at km 19.5 on the Phillip Forestry road were used to test reproducibility at lower CaO levels. No standard was inserted into the analytical batch.

DESCRIPTION OF RESULTS

Figure 7 shows histograms of CaO, Fe_2O_3, MgO, SiO_2, and P_2O_5 contents of samples collected in 2005, and figures 8 through 12 display ranges for the oxides. CaO in most samples ranges from 49.4 to 54.84, with the exception of two samples with significantly lower contents: sample B373484 (southwestern Sparky ridge) yielded 40.17% CaO, and sample B373473 (lower Klein cliff outcrop on creek) yielded 40.19% CaO. Sample B373484 yielded the highest MgO content, but low silica and phosphate contents. Sample B373473 yielded the highest Fe_2O_3, high MgO

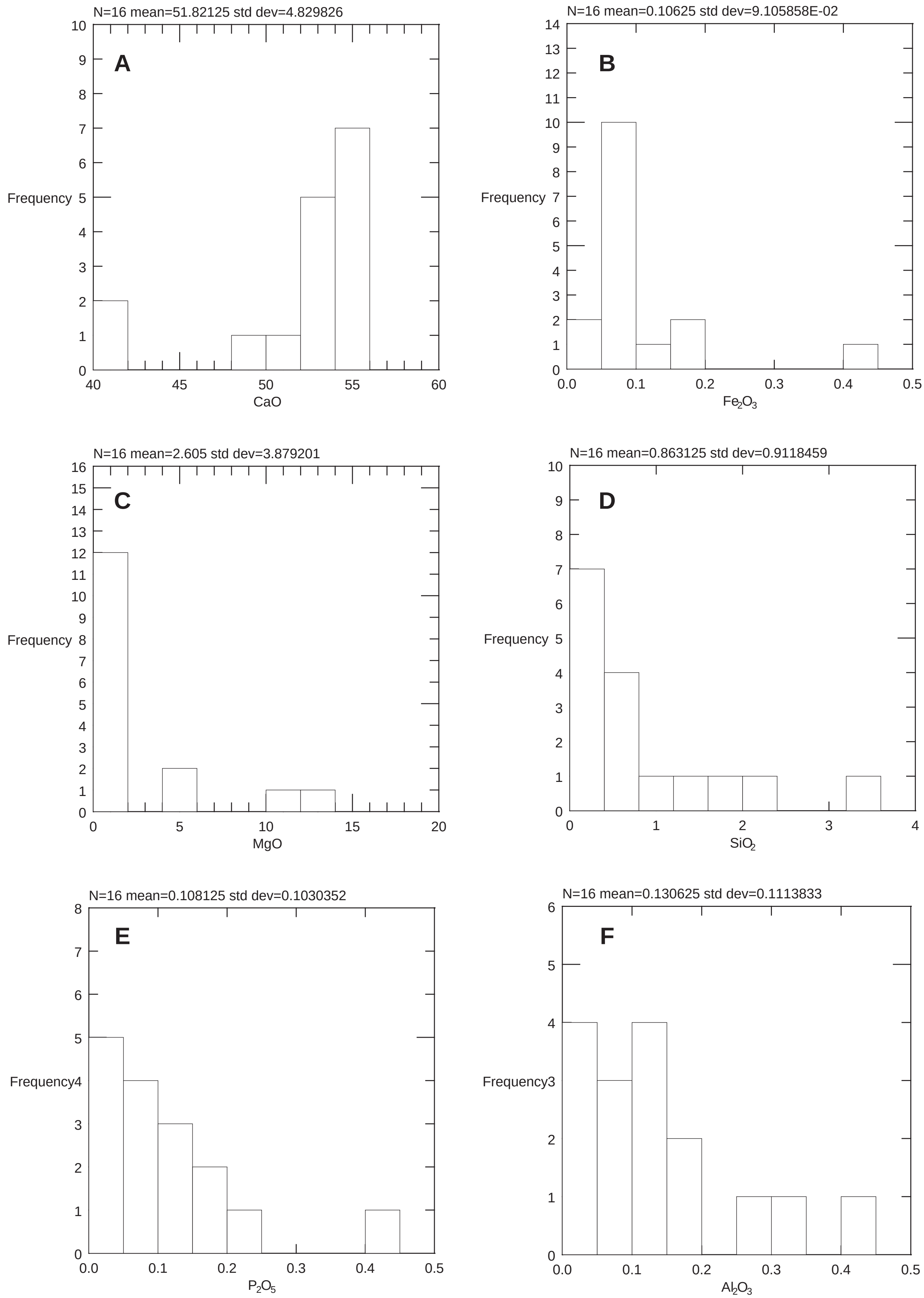

Figure 7. Histogram showing frequencies in major element analyses of limestone samples collected in 2005: A) CaO; B) Fe2O3; C) MgO; D) SiO2; E) P2O5; F) Al2O3.

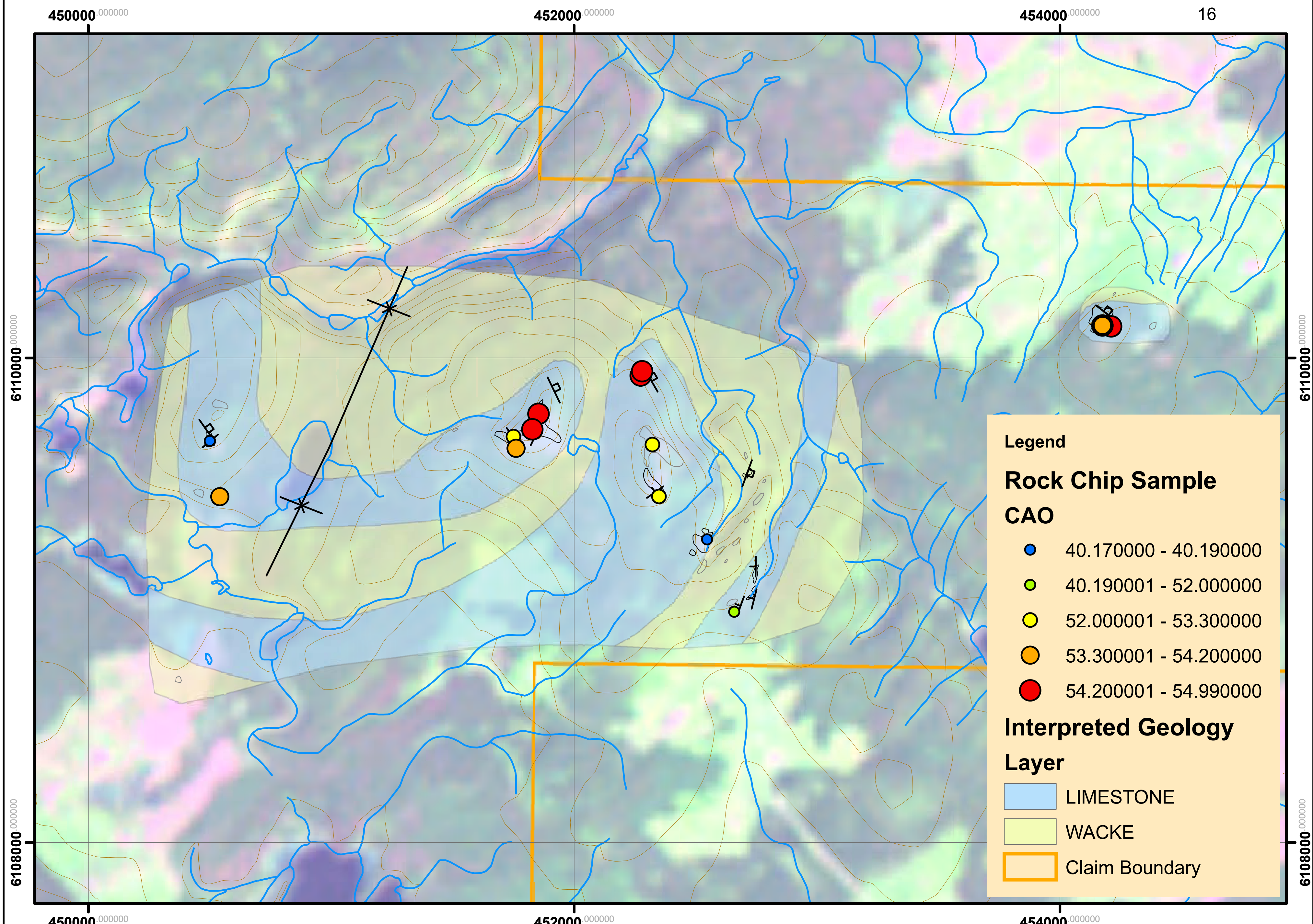

Figure 8. CaO ranges in whole rock analyses of chip samples. 1:20,000 scale.

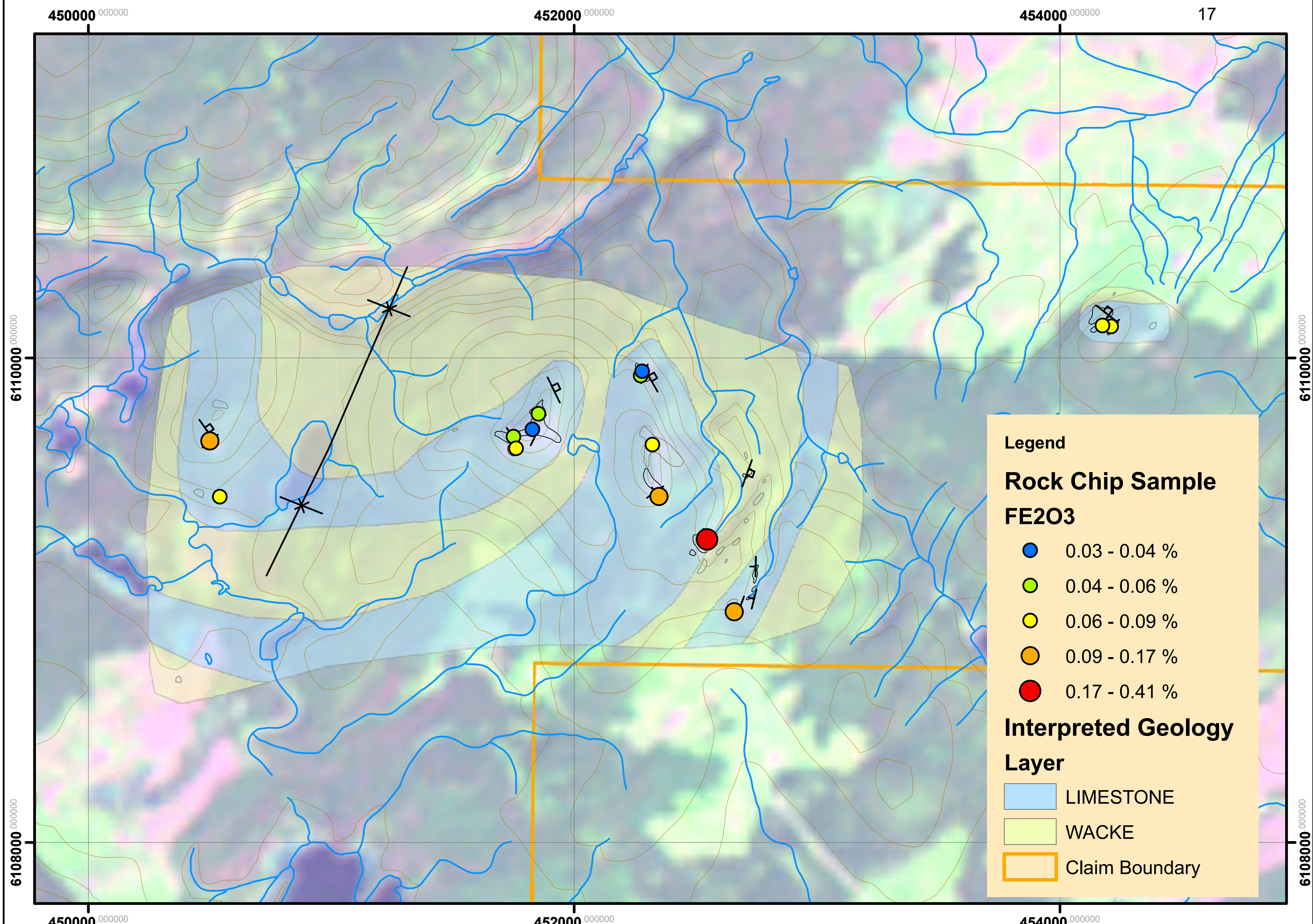

Figure 9. Fe2O3 ranges in whole rock analyses of chip samples. 1:20,000 scale.

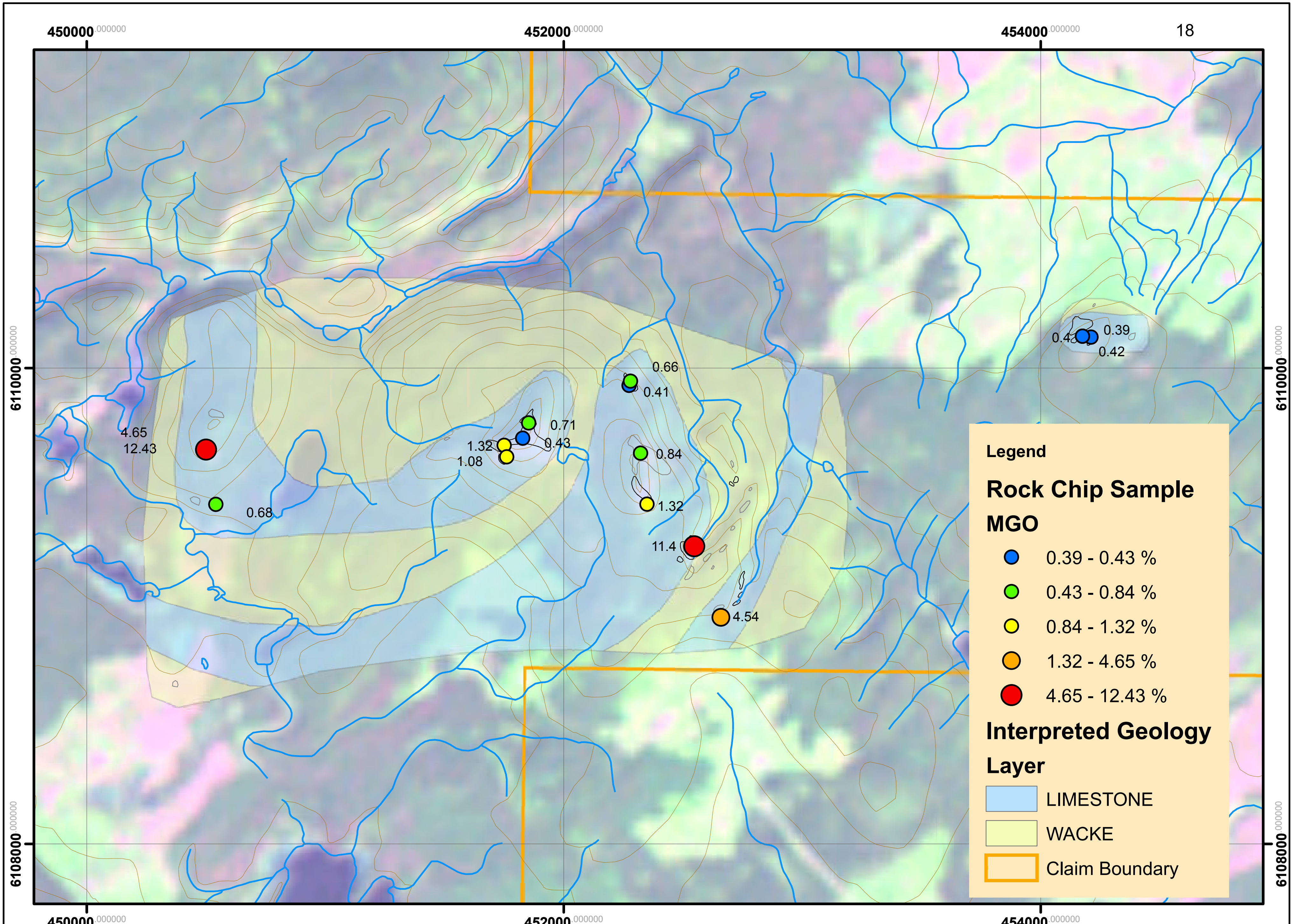

Figure 10. MgO ranges and values in whole rock analyses of chip samples. 1:20,000 scale.

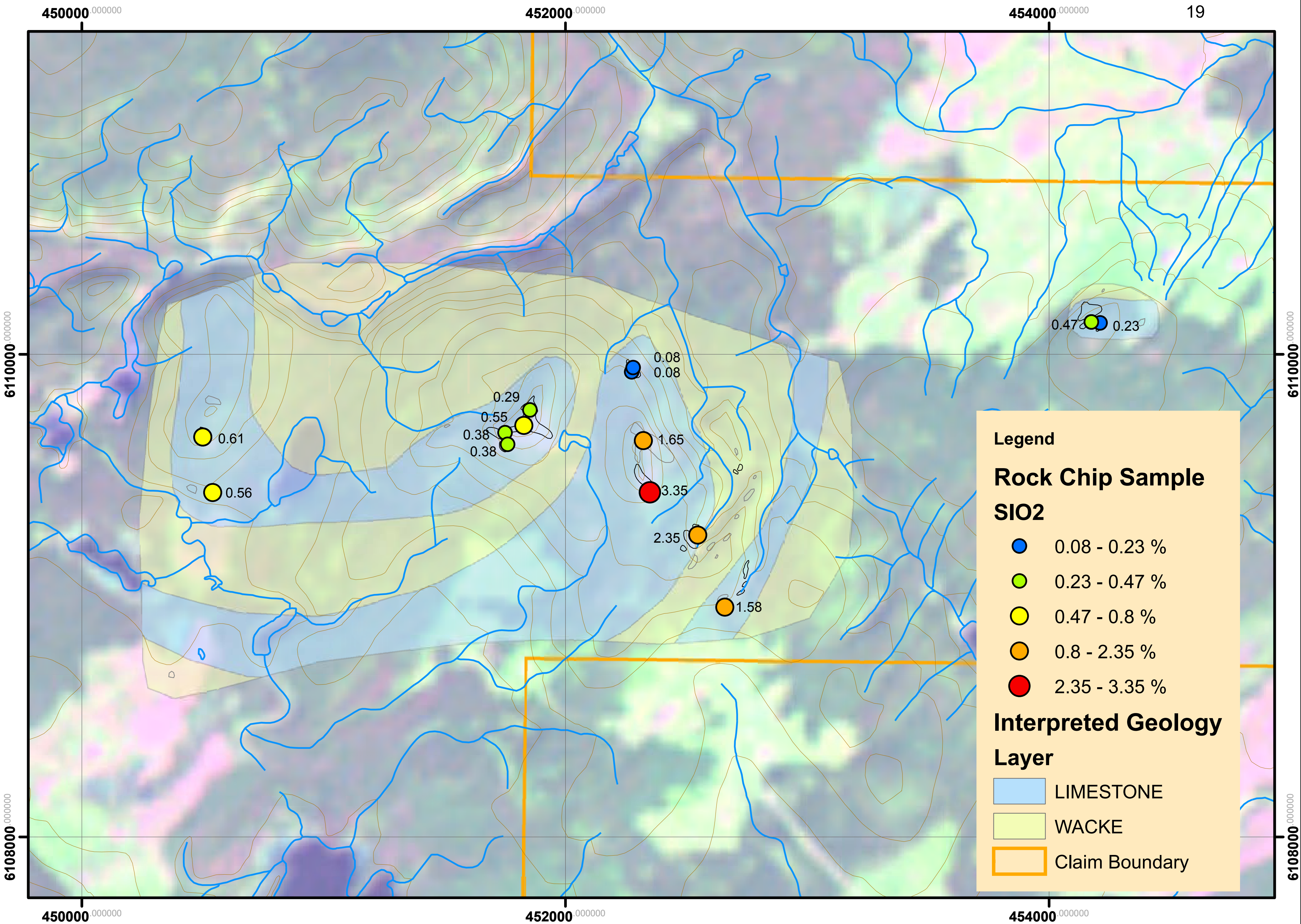

Figure 11. SiO2 ranges and values in whole rock analyses of chip samples. 1:20,000 scale.

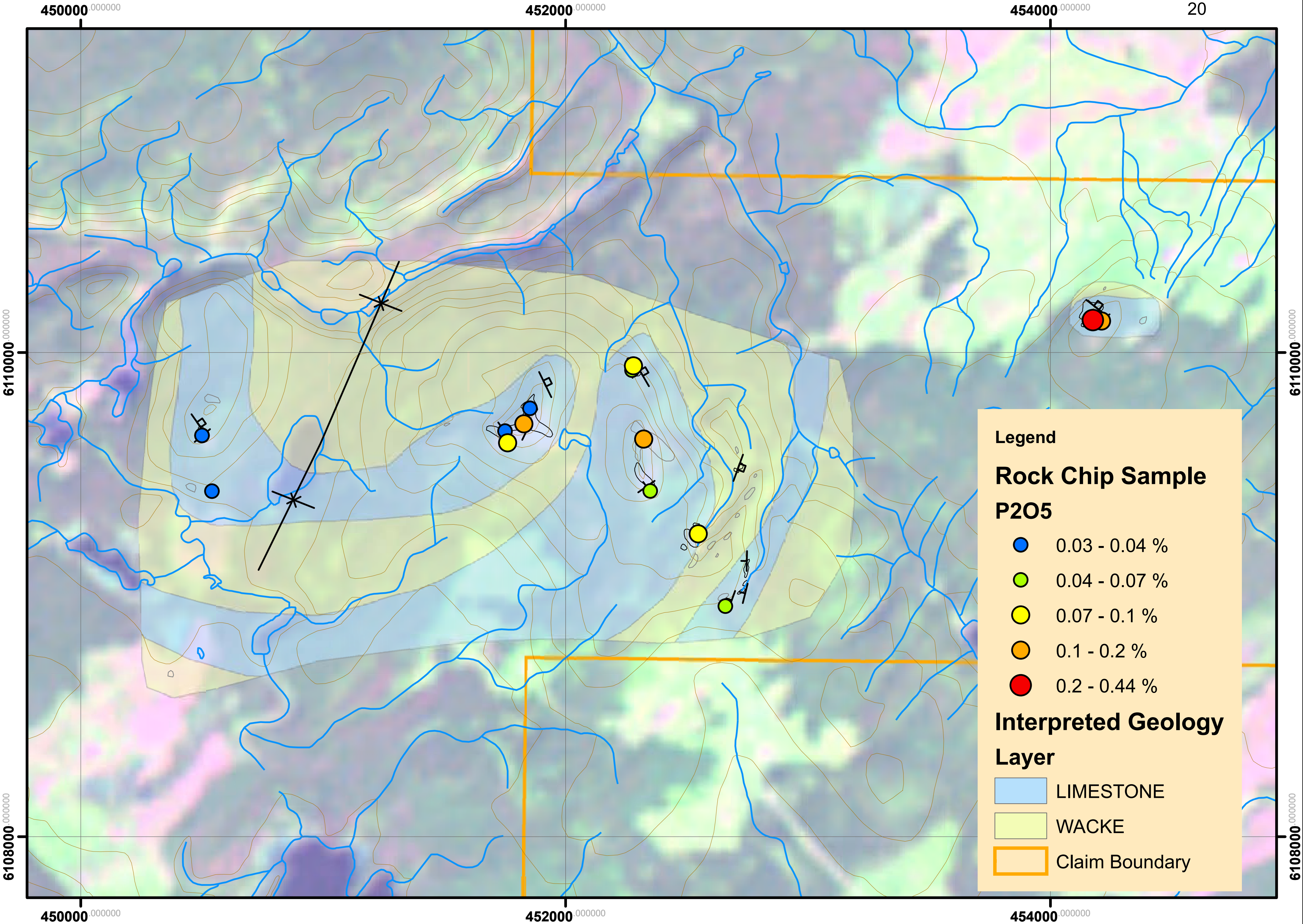

Figure 12. P2O5 ranges in whole rock analyses of chip samples. 1:20,000 scale.

and SiO_2 contents. Sample B373471 (Klein Knob) yielded the highest SiO_2 content of 3.35%. Sample B373482 yielded the highest P_2O_5 content of 0.44%.

Figure 13 shows bivariate plots and includes whole rock analyses by Clark (1990) from samples collected in Sparky and 1242 knobs. A plot of Fe_2O_3 versus CaO shows three outliers, and a cluster of data towards 50 to 55% CaO and 0 to 0.15% Fe_2O_3. The MgO versus CaO plot shows two outliers at >10% MgO, a group of 4 samples with MgO values around 4 to 6%, and a cluster at MgO values <2%. The K_2O versus CaO plot displays a strong negative correlation between potassium and calcium. The P_2O_5 versus CaO plot displays a weaker trend of increasing potassium with calcium content. A plot of loss on ignition versus CaO shows a range of loss on ignition from 41.5 to 44.7 %, with highest LOI values corresponding to lowest CaO values (samples B373484 and B373473). The plot of totals versus CaO shows higher totals for samples analyzed in 2005 than for those analyzed in 1990.

Figure 14 shows log-ratio covariance plots in which each oxide is normalized to the geometric mean of the following components: CaO, Fe_2O_3, MgO, K_2O, P_2O_5, Al_2O_3, and SiO_2. These plots show different ranges, but generally similar trends as in Figure 13.

Discussion of Results

Sample B373484 is interpreted as having high dolomitic content, which is in line with observations by Clark (1990) of dolomitic limestone and dolomite samples collected in Sparky Knob. Samples B373470, B373471, B373473, and B373472 with silica contents exceeding 1% were collected on the lowermost Klein Peak limestone unit (B373470), and at the base of the cliff that forms the lowest part of Klein Knob (B373473) limestone unit and at Klein Ridge (B373472 and B373471).

Figure 11 shows high silica contents in samples collected in the southeastern part of Klein Knob, but significantly lower silica contents in samples collected in the northern portion of Klein Knob. This suggests a stronger detrital component towards the base and top of this limestone unit, but very low detrital input towards the intermediate portion of the unit.

Figure 13 shows correlations that may relate to limestone purity. The negative correlation between calcium and potassium may be the result of potassic alteration due to hydrothermal activity associated with buried intrusions. Loss on ignition is generally high, suggesting high total volatile contents. The correlation of highest LOI with lowest CaO suggests that volatile elements occupy calcium sites in the calcite matrix. It is important to note that correlations drawn from bivariate plots or from oxide percentages may be consequences of closure, and may or may not be related to geological effects. Figure 14 shows each major oxide is normalized to the mean of all 7 oxides of interest, thereby overcoming the problem of closure. Similar trends are observed in figures 13 and 14, suggesting that these trends are related to geological variations rather than strictly to closure.

Conclusions

- **Outcrops** are sparse, form less than 1% of the map area, and consist of massive cliff-forming, visually pure micritic limestone with <20% allochems. Outcrop sparsity and massive, homogeneous limestone character make bedding attitudes difficult to recognize, which result in unequivocal map pattern interpretations and inferred thickness of beds.
- **Limestone purity:** Outcrops in Sparky and 1242 knobs, and on the easternmost low hills mapped are pure, with silica contents below 1%. This limestone can be used for acid neutralization and hydrometallurgical applications. Samples from Klein knob have higher silica contents (<3.35%) in the lower and uppermost parts of the limestone section, and may have more limited use in hydrometallurgical applications.

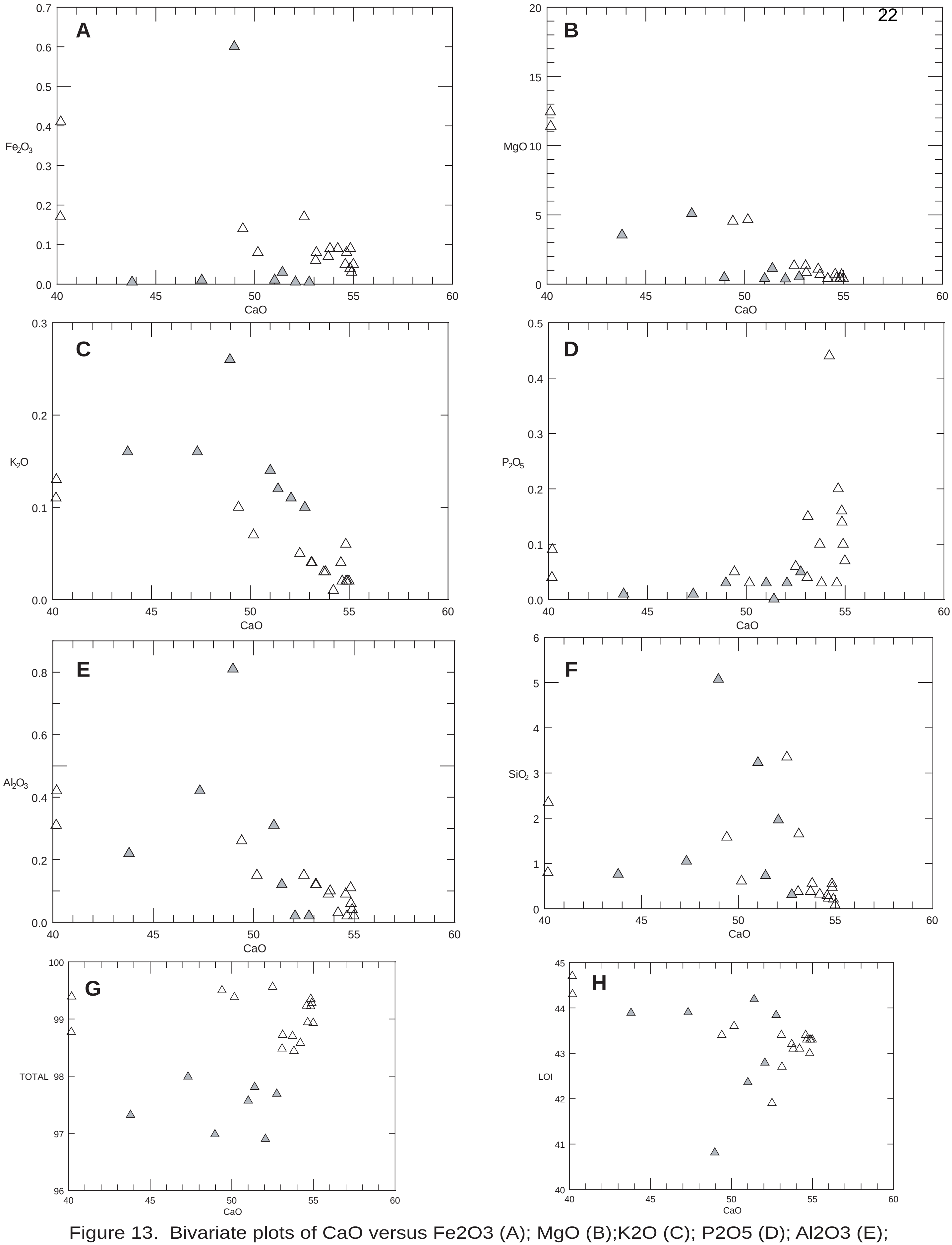

Figure 13. Bivariate plots of CaO versus Fe2O3 (A); MgO (B);K2O (C); P2O5 (D); Al2O3 (E); SiO2 (F); Loss on ignition (G); and calculated total oxides (H).

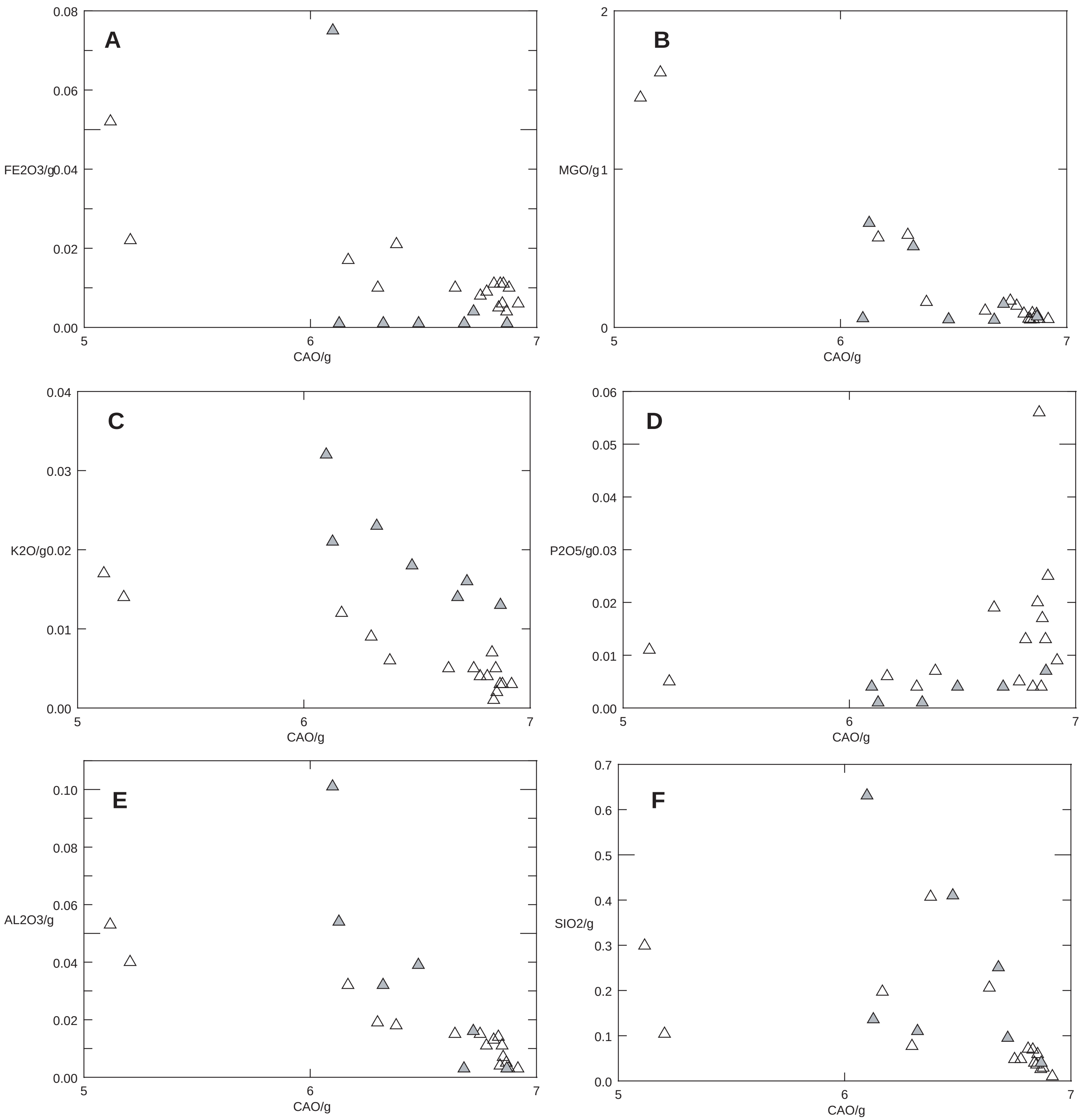

Figure 14. Log-ratio covariance plots of CaO/g versus Fe2O3/g (A); MgO/g (B);K2O/g (C); P2O5/g (D); Al2O3/g (E); SiO2/g (F), where g is the geometric mean of the 7 components for each sample.

- **Dolomitic content:** Limestone from upper Sparky knob and lower Klein knob have high MgO content (>10%), which may have a negative effect on acid neutralization potential. Limestone from 1242 knob, upper Klein knob and the easternmost low hill have low MgO content, and therefore good acid neutralization potential.

RECOMMENDATIONS

If limestone from Klein and See claims are considered to have good tonnage and to be suitable for acid neutralization and for hydrometallurgical applications, then more systematic sampling should be undertaken in Klein and Sparky knobs to determine if MgO and SiO_2 contents variations are common, and to assess how these variations may affect potential hydrometallurgical and acid neutralization use.

Drilling may be necessary to establish true thickness and attitude of limestone beds. Reverse circulation drilling would be efficient in this geological environment, given the massive character of the limestone beds.

REFERENCES

Armstrong, J.E., 1948, Fort St. James. Geological Survey of Canada Map 907A, 1:380,160 scale.

Armstrong, J.E., 1965, Fort St. James Map Area, Cassiar and Coast Districts, BC. Geol. Surv. Of Canada Memoir 252, 210 p.

Clark, A.M.S., 1990, Report on Limestone Investigation on the See 15, 16, and 19 claims, Omineca Mining Division, British Columbia. Internal report for Continental Gold Corp., 19 p.

Nelson, J.L., and Bellefontaine, K.A., 1996, The Geology and Mineral Deposits of North-Central Quesnellia; Tezzeron Lake to Discovery Creek, Central British Columbia. British Columbia Ministry of Employment and Investment – Energy and Minerals Division – Geological Survey Branch Bulletin 99, 112 p.

STATEMENT OF EXPENDITURES

Field Personnel		
PDI, Paul Jago	$350.00	
NakAzdli Band - Contract	$2,150.00	
Total		$2,500.00
Consultants		
Anna Fonseca	$3,661.15	
Total		$3,661.15
Food and Accomodation		$800.13
Mobilization/Demobilization		$451.83
Vehicle Rentals		$423.93
Equipment and Supplies		$704.98
Laboratory Analysis		$832.57
Report Preparation		$2,100.00
Total Expenditures		**$11,474.58**

Statement of Qualifications

I, Anna Fonseca, certify that:

1. I have been involved in geological mapping and mineral exploration in British Columbia, Yukon, Alaska, Russia and Mexico since 1994.

2. I am a graduate of the University of Alaska Fairbanks with a degree in Geology (B.S.. 1993) and I obtained a Masters of Science degree in economic geology from the University of British Columbia (M.Sc., 1998).

3. I have been working as a Geological Consultant for Placer Dome Inc. since May 2004.

4. I am the author of all sections of this report on Placer Dome Inc.'s Mount Milligan East Limestone Mapping.

5. I was directly involved in the 2005 mapping work described in the report.

6. I have no direct or indirect interest in the properties or securities of Placer Dome Inc. or affiliated companies, nor do I expect to acquire such interest.

Anna da Fonseca

APPENDix I
Analytical Certificates

ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.

212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: **PLACER DOME INC.**
1600-1055 DUNSMUIR ST
VANCOUVER BC V7X 1P1

Finalized Date: 2-AUG-2005
Account: QYY

CERTIFICATE VA05060979

Project: Mt. Milligan

P.O. No.:

This report is for 19 Rock samples submitted to our lab in Vancouver, BC, Canada on 21-JUL-2005.

The following have access to data associated with this certificate:

GARY LUSTIG	DARREN O BRIEN	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM

To: **PLACER DOME INC.**
ATTN: DARREN O BRIEN
1600-1055 DUNSMUIR ST
VANCOUVER BC V7X 1P1

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

Signature:

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Project: Mt. Milligan

CERTIFICATE OF ANALYSIS VA05060979

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.01	ME-XRF06 SrO % 0.01	ME-XRF06 BaO % 0.01	ME-XRF06 LOI % 0.01
B373470		2.08	1.58	0.26	0.14	49.40	4.54	<0.01	0.10	<0.01	0.01	<0.01	0.05	0.03	<0.01	43.40
B373471		1.48	3.35	0.15	0.17	52.50	1.32	<0.01	0.05	<0.01	0.01	0.05	0.06	0.03	<0.01	41.90
B373472		1.22	1.65	0.12	0.08	53.12	0.84	<0.01	0.04	<0.01	0.01	0.01	0.15	0.02	<0.01	42.70
B373473		1.92	2.35	0.42	0.41	40.19	11.40	0.03	0.13	<0.01	0.01	0.02	0.39	0.04	<0.01	44.30
B373474		1.82	0.08	0.02	0.05	54.99	0.41	<0.01	0.02	<0.01	<0.01	<0.01	0.37	0.03	<0.01	43.30
B373475		2.04	0.21	0.04	0.03	54.90	0.66	<0.01	0.02	<0.01	<0.01	<0.01	0.10	0.02	0.01	43.30
B373476		1.68	0.29	0.09	0.05	54.58	0.71	<0.01	0.04	<0.01	<0.01	0.01	0.33	0.03	<0.01	43.40
B373477		1.98	0.55	0.11	0.04	54.63	0.43	<0.01	0.06	<0.01	0.01	0.01	0.16	0.03	<0.01	43.00
B373478		2.34	0.38	0.12	0.06	53.08	1.32	<0.01	0.04	<0.01	0.01	<0.01	0.34	0.03	<0.01	43.40
B373479		1.82	0.38	0.09	0.07	53.72	1.08	<0.01	0.03	<0.01	<0.01	0.01	0.10	0.02	<0.01	43.20
B373480		2.22	0.23	0.02	0.08	54.65	0.42	<0.01	0.02	<0.01	<0.01	0.01	0.20	0.02	<0.01	43.30
B373481		2.16	0.47	0.06	0.09	54.64	0.40	<0.01	0.02	<0.01	<0.01	0.02	0.14	0.02	0.01	43.30
B373482		1.38	0.32	0.03	0.09	54.20	0.39	<0.01	0.01	<0.01	<0.01	0.02	0.44	0.02	<0.01	43.10
B373483		2.12	0.61	0.15	0.08	50.16	4.65	<0.01	0.07	<0.01	<0.01	0.01	0.03	0.02	<0.01	43.60
B373484		2.22	0.80	0.31	0.17	40.17	12.43	<0.01	0.11	<0.01	0.01	0.01	0.04	0.03	<0.01	44.70
B373485		2.16	0.56	0.10	0.09	53.81	0.68	<0.01	0.03	<0.01	<0.01	0.02	0.03	0.02	0.01	43.10
B373486		1.58	67.90	13.77	2.12	3.50	1.00	3.70	4.12	<0.01	0.28	0.04	0.12	0.06	0.13	2.96
B373487		1.74	37.11	2.38	0.68	30.56	0.76	0.03	0.64	<0.01	0.11	0.02	1.80	0.08	0.01	24.80
B373488		1.62	37.89	2.56	0.79	30.06	0.65	0.05	0.69	<0.01	0.12	0.02	1.86	0.07	0.03	24.10

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CERTIFICATE OF ANALYSIS VA05060979

Sample Description	Method / Analyte / Units / LOR	ME-XRF06 / Total / % / 0.01
B373470		99.50
B373471		99.56
B373472		98.72
B373473		99.39
B373474		98.93
B373475		99.28
B373476		99.23
B373477		99.22
B373478		98.46
B373479		98.70
B373480		98.94
B373481		99.35
B373482		98.58
B373483		99.38
B373484		98.77
B373485		98.44
B373486		99.71
B373487		98.98
B373488		98.87