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Exploration & Evaluation

REGALPOINT RESOURCES LTD

A Field Evaluation of EPM 16431

Kitchen Creek Project

Georgetown, Queensland

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Executive Summary

EPM 16431, which is located at the western edge of the Newcastle Ranges, some 15–20 kilometres south east of Georgetown, is held by Regalpoint Resources Ltd.

The tenement straddles the western edge of the Carboniferous rhyolite pyroclastics of the Newcastle Range Volcanics, with the Mid Proterozoic gneiss and granitoids of the Einasleigh Metamorphics.

Six magnetic low anomalies are coincident with quartz-feldspar and quartz porphyritic ignimbrite. No intrusive rocks were noted.

The radiometric data for U, Th and K were reviewed. The U and Th data were generally very weak and better definition of anomalies was obtained by overlying the K, U and Th data.

Three of the KUTh anomalies are associated with quartz–feldspar–biotite–mica pegmatite of the Einasleigh Metamorphics west of the Newcastle Ranges. Other KUTh anomalies are associated with feldspar rich ignimbrite, lava and dykes. Weak U anomalies are also associated with these KUTh anomalies. These K-rich rocks are generally unaltered except for quartz–chlorite–epidote–clay alteration at the KUTh 4 anomaly.

A separate distinct Th anomaly is associated with pegmatite and granite of the Einasleigh Metamorphics in the northwest section of the tenement.

From Spear Creek to the northern edge of the tenement there is a +2 kilometre long K anomaly associated with silica-clay-sulphide veining and alteration, which coincides with north trending shearing and brecciation of rhyolite lava. This alteration zone is 50 to 200m wide.

There is a short, northeast-trending quartz vein within the metamorphics with old gold diggings (Au601) on the vein edges within its shear contact with the metamorphics.

The total count scintillometer readings are generally low. The better readings of 500 and 515cps were measured at the Th and KUTh7 anomalies. In comparison the U–Mo–F mineralisation of Laura Jean, exposed in a road cutting at the eastern edge of the Newcastle Ranges on the Gulf Development Road, has readings of 1500-2500cps.

The only significant anomaly is K1, which has the size to host significant mineralisation. Samples 20–24 were submitted for analyses. This alteration zone also crops out in Spear Creek, a further kilometre to the south, from which samples 012–015 were submitted to ALS. Other rock samples submitted for assay include 01–03 (Laura Jean), 04–05, 11 and 18 (KUTh anomalies), 06–08, 10 and 19 (pegmatite). The mineralised quartz vein at Au601, sample 09 was also submitted for assay.

The only significant geochemical data are REE's—Ce, La, Y, to 347, 240 and 146ppm respectively. The ignimbrite of Mg1 contains 733ppm Ce+La+Y. The pegmatites associated

with the KUTh anomalies assay up to 191ppm Ce, 111ppm La and 80ppm Nd. The Thorium anomaly pegmatite assays 96ppm Th, 325ppm Ce and 133ppm Nd.

The quartz vein of the Au601 diggings contains 2.2 g/t gold and 88g/t silver with anomalous bismuth (24ppm), lead (500ppm), and tellurium (12ppm). This geochemistry is similar to that of the quartz vein at Laura Jean.

There are no base metals associated with the K1 Anomaly north of Spear Creek. The elevated (+4%) K chemistry reflects the K radiometric data. The only significant data are the REE's—to 222ppm Ce, 93ppm Y and 122ppm La. These numbers are anomalous but not of ore grade.

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1 Introduction

EPM 16431 is located some 15–20 kilometres southeast of Georgetown centred on the western edge of the Newcastle Ranges, south of Routh Station homestead. This 5 sub-block EPM is held by Regalpoint Resources Ltd. (Figure 1).

Access from Georgetown is east along the sealed Gulf Development Road towards Mt Surprise for 18 kilometres, to the Routh Station turn off. A formed gravel road is then followed for 4.7 kilometres to the Routh Station homestead owned by Mr Ken Cameron. The field area is accessed by a station vehicular track from Routh homestead to Spear Creek, a distance of 5.9 kilometres. This track is difficult to follow as it is used infrequently.

The five sub-blocks of EPM 16431 are:

Sheet	Block	Sub-blocks
Normanton	2805	f, g, l, m, r

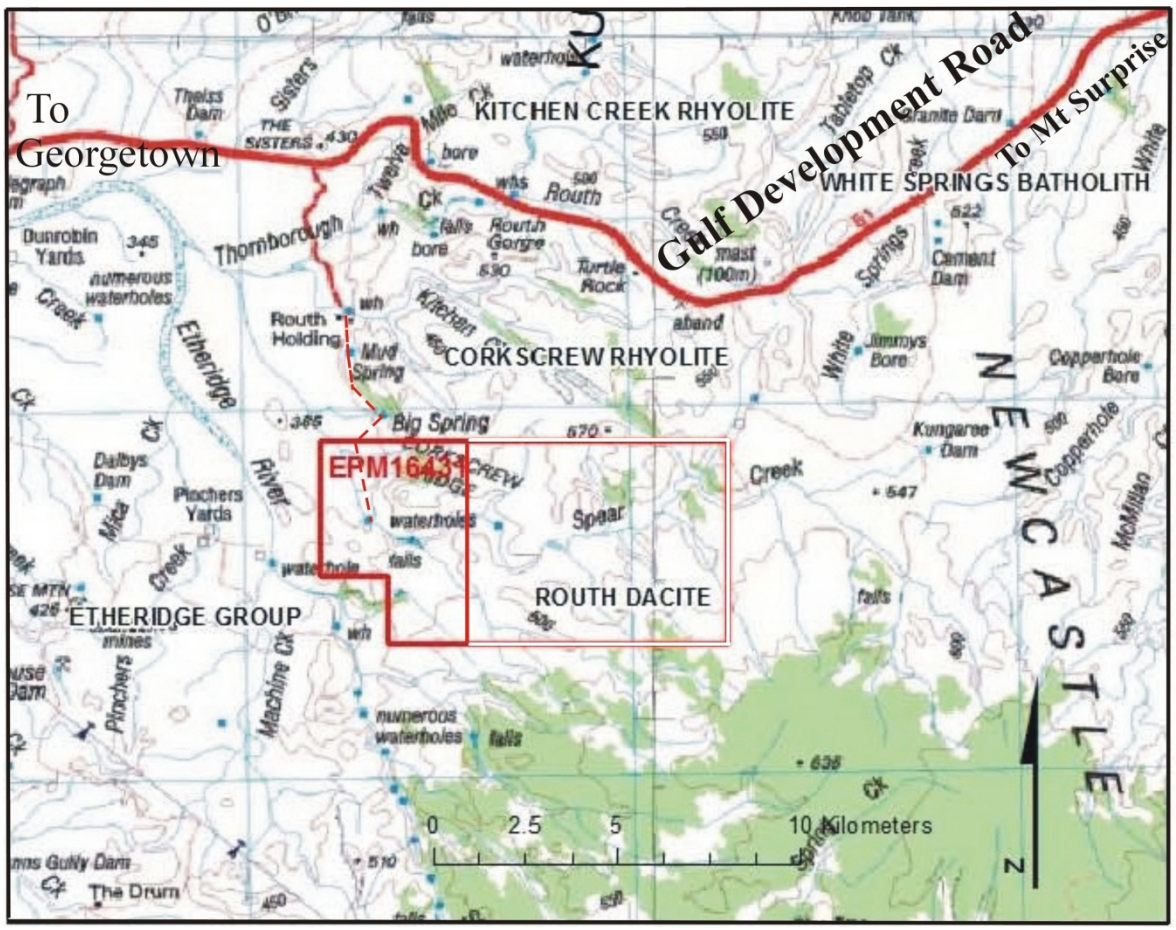

Figure 1. Location Plan

2 Work Program

CSA Global was commissioned by tenement holder Regalpoint Resources Ltd to complete a field based review of EPM 16431. The field work was completed by the author and a field assistant in the period 1–7 June, 2012.

Prior to travelling to Georgetown, geological data together with regional aeromagnetic and radiometric uranium, potassium and thorium data were reviewed and compared with Google satellite imagery.

Prior to commencing the field investigations a type outcrop of the Laura Jean U–Mo–F mineralisation, outcropping in a road cutting on the Gulf Development Road on the eastern edge of the Newcastle Range Volcanics, was surveyed and sampled.

Field traverses were carried out of the magnetic low anomalies and combined KUTh anomalies along the western edge of the Newcastle Ranges. Surveying was with a Garmin GPSmap 60CSx, using the UTM UPS format and the WGS 84 or GDA 94 map datum. The radiometric anomalies were checked using a total count scintillometer sourced from Fugro. Representative rock chip samples were collected from the rock types coinciding with the anomalies.

The section along Spear Creek through the Newcastle Range Volcanics was traversed to its junction with Seventeen Mile Creek and the coincident magnetic low anomaly. Above this junction sieved stream sediment samples were collected from trap sites such as pot holes, rock crevices and tree roots. An additional stream sediment sample was collected from Spear Creek down-stream of the Newcastle Range Volcanics.

A 2 kilometre long by 100 metre wide K anomaly, located to the north of Spear Creek, was sampled. Altered rocks were also located in float and outcrop in Spear Creek a further 2 kilometres to the south.

Twenty two rock chip samples and three stream sediments samples were collected and submitted to ALS Laboratory in Townsville for analyses. All samples were assayed for gold using the AA25 method. These samples were also assayed for the ICP suite using the ME-MS61 method. The granite and pegmatite samples were also assayed for a rare earth suite using the ME-MS61r method (Appendix 1).

3 Geology

The tenement covers the contact between the Carboniferous Newcastle Range Volcanics and the Mid Proterozoic basement of the Einasleigh Metamorphics and associated granitoids.

The Einasleigh Metamorphics consist of biotite gneiss and schist with quartzite and amphibolite. Minor intrusions of migmatite, granitoid and pegmatite are present. The pegmatite commonly consists of feldspar, quartz, muscovite and biotite. Quartz veins are commonly associated with the pegmatite.

The BMR-GSQ mapping indicates the following units within the Newcastle Range Volcanics in the tenement:

- **Cn_{iv}**- Rhyolite ignimbrite and lava with air-fall tuff and agglomerate;
- **Cn_{iii}**- Dacite lava and ignimbrite with chloritised hornblende;
- **Cn_{iid}**- Rhyolite ignimbrite
- **Cn_{sb}**- Volcaniclastic sediments
- **Cn_{sa}**- Epiclastic sedimentary rocks.

The current review of the Newcastle Volcanics indicates that there are three main subdivisions. The western-most unit is a feldspar phenocryst-rich ignimbrite which flows together with intrusive dykes (F). This unit has a pinkish hue on the Landsat image. These rocks equate to BMR–GSQ Rhyolite Ignimbrite Unit—Cn_{iid}. Numerous thin and thicker rhyolite dykes intrude the Einasleigh Metamorphics to the west of the extrusive volcanics.

Underlying this unit in the southwest corner of the tenement are epiclastic sedimentary rocks. A fine-grained sandstone/arkose was located in the field.

To the east and overlying the feldspar volcanics is a quartz-feldspar ignimbrite and lava (QF), equivalent to the Dacite lava/ignimbrite—Cn_{iii} of the BMR–GSQ. The lava exhibits thin flow banding which is commonly contorted and folded around ignimbrite units. Within this unit there is zone of shearing and brecciation, and silica-clay-sulphide alteration with quartz-sulphide veining. This unit crops out from the northern boundary of the tenement to Spear Creek. This unit thins from +100m in the north to 1–10 metres in Spear Creek. This structure appears to be associated with lava or maybe a dome. Three units: A, B and C, can been seen on the Landsat image. Unit A exhibits clay alteration and limonite fracturing. The central unit B is whiter in colour due to higher clay alteration, quartz-sulphide veining and brecciation. Unit C consists of lava grading up through air-fall tuff and agglomerate to ignimbrite. These units were mapped by the BMR-GSQ as volcaniclastic sediments—Cn_{sb}.

Overlying the quartz-feldspar ignimbrite unit is a whitish, quartz-rich ignimbrite with white clay-altered, flattened pumice fragments and lava (Q). This is the BMR–GSQ mapped rhyolite ignimbrite and lava—Cn_{iv}.

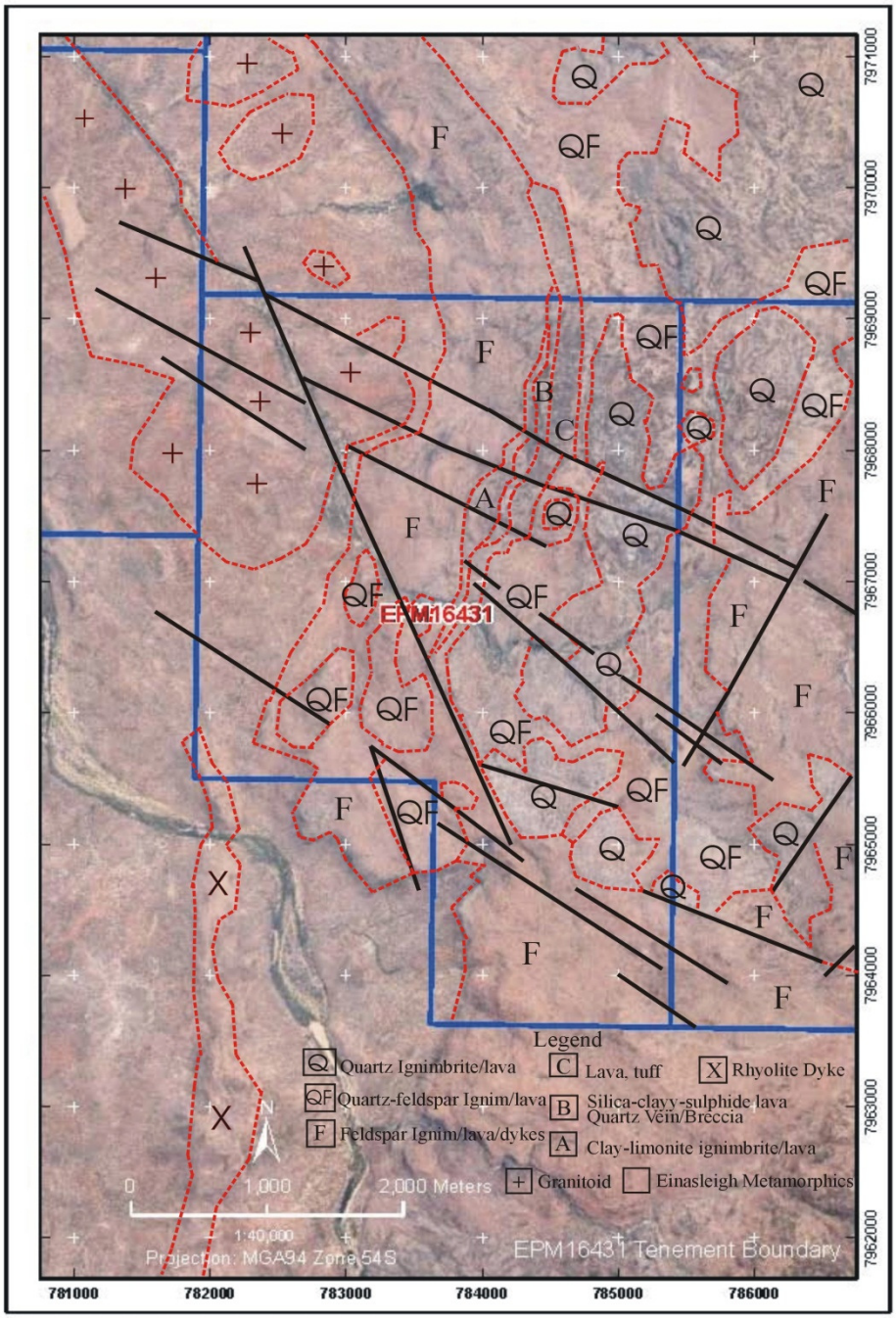

Figure 2. Geology

4 Anomalies

4.1 Laura Jean

At Laura Jean, in a road cutting on the Gulf Development Road, U–Mo–F mineralisation is exposed as a breccia at the eastern edge of the Newcastle Range Volcanics. The breccia occurs immediately east of a quartz porphyry dyke, which is intrusive into rhyolite ignimbrite volcanics. East of the breccia there is a post-breccia, carbonate-altered andesite dyke, which has slivers of 10cm wide quartz-malachite veining in the footwall. East of the breccia and andesite dyke is granitic basement (Photo 1).

Total count scintillometer readings of the breccia are 1500–2500cps against a local background of 100–300 cps. The quartz porphyry has radiometric signature of 4–500cps.

Three samples (01–03) were collected from the hotter breccia, andesite and the quartz–malachite vein.

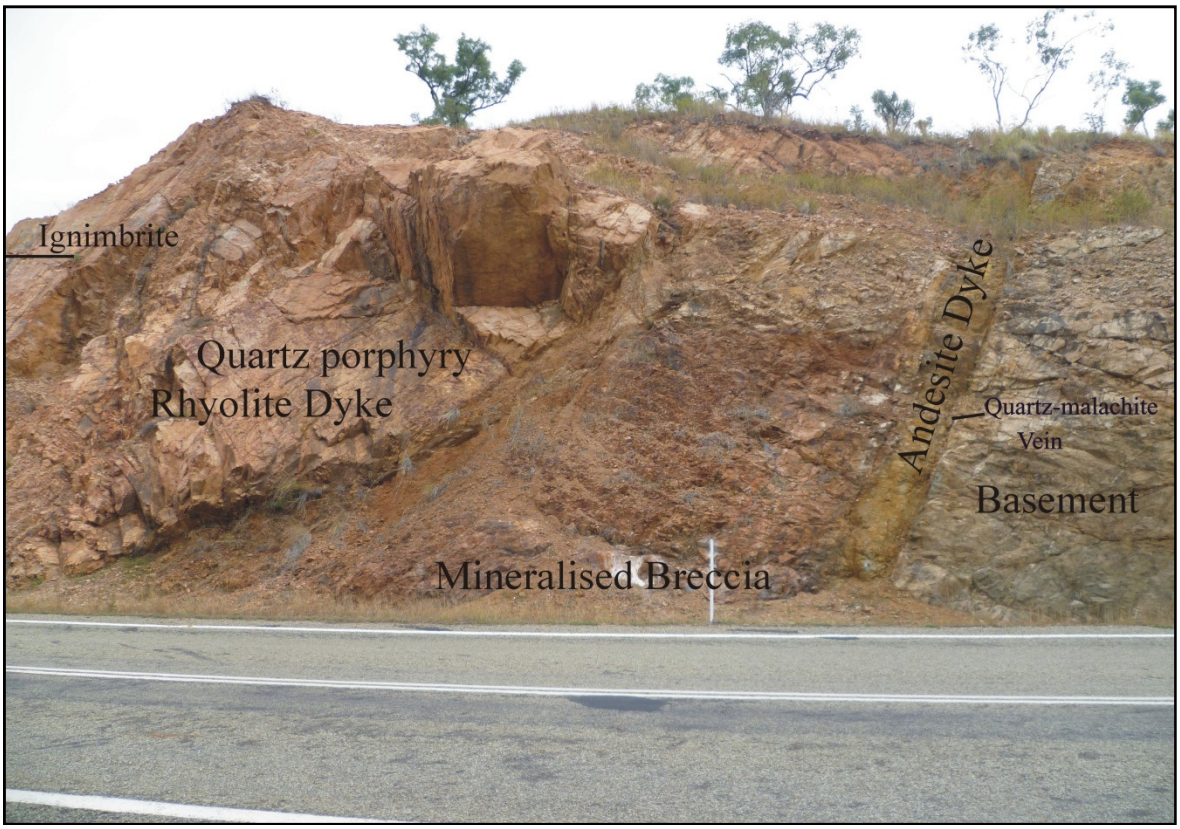

Photo 1. Laura Jean Cross Section

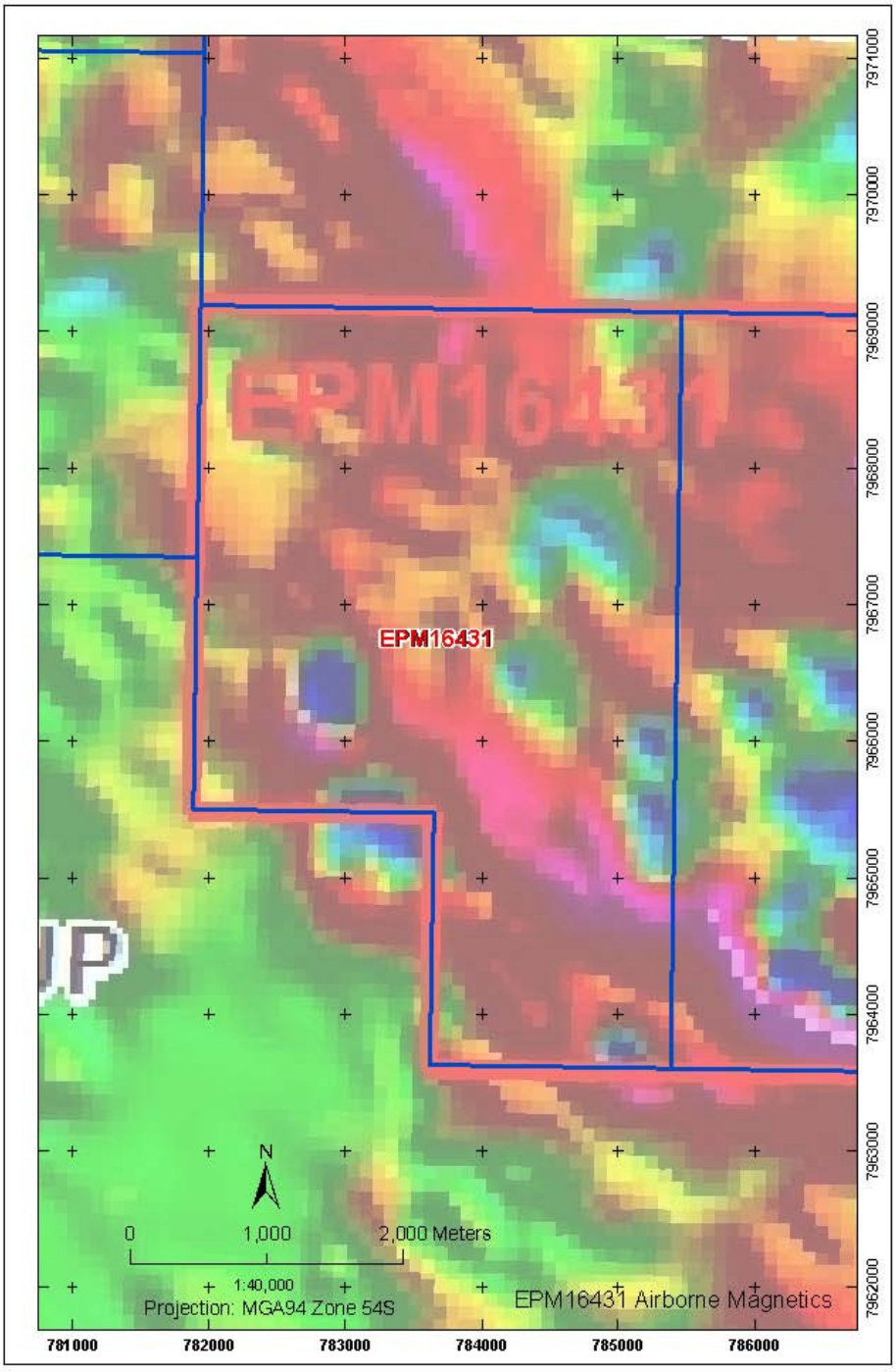

Figure 3. Magnetics

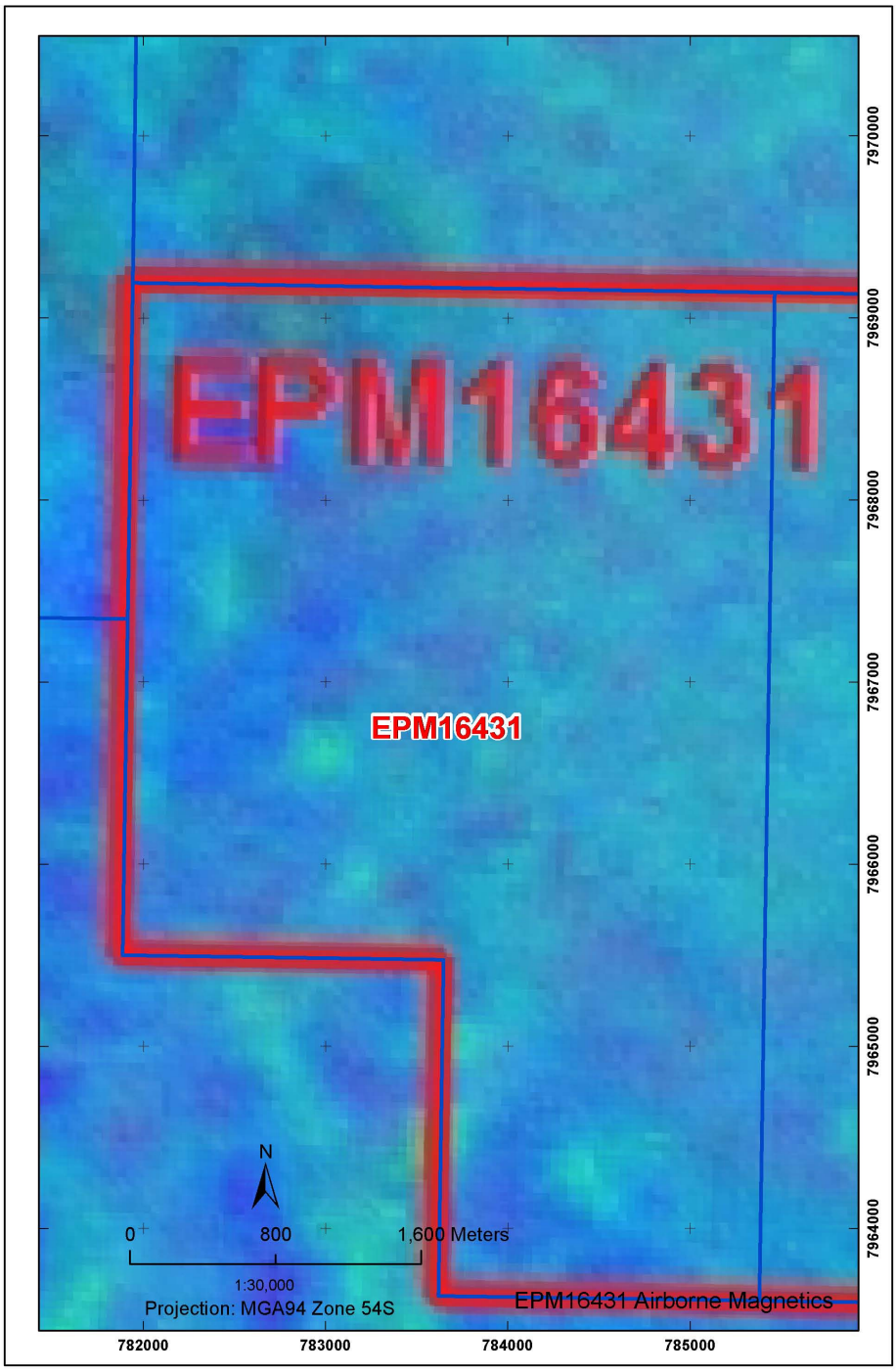

Figure 4. Radiometrics – KUTh

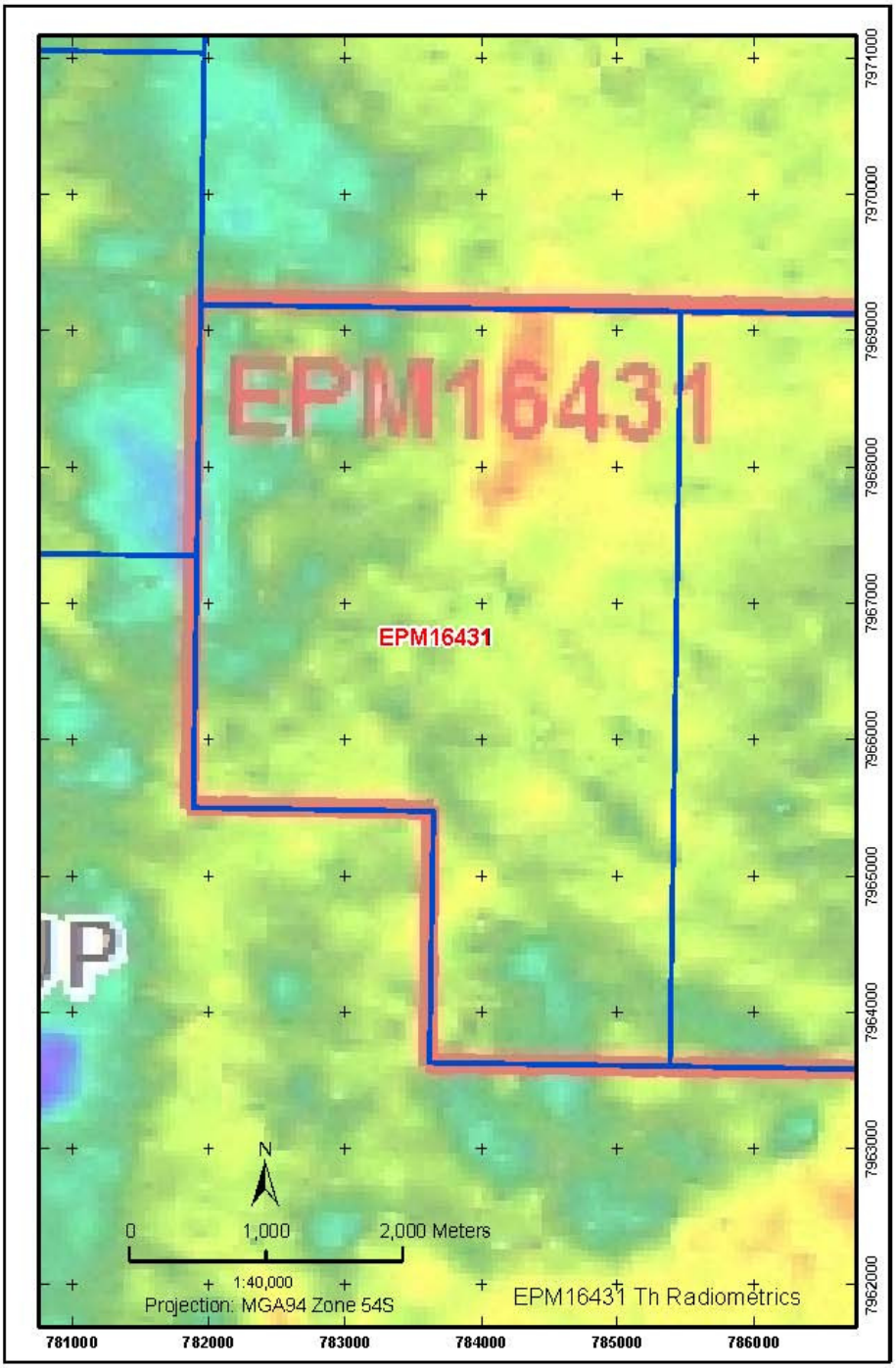

Figure 5. Radiometrics – Potassium

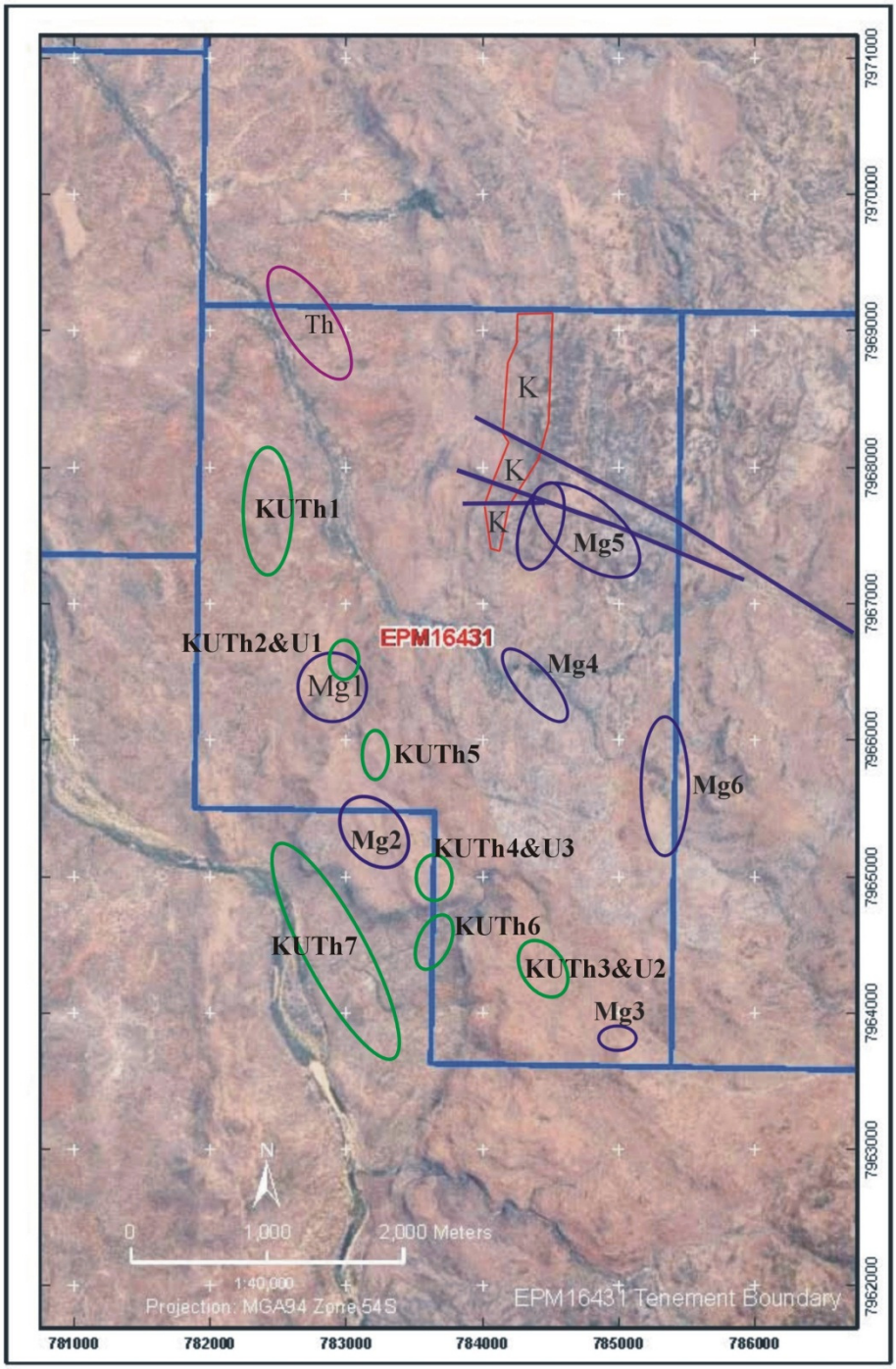

Figure 6. Anomalies

4.2 Magnetics.

Six magnetic lows (Figures 3 and 6; Mg1–6) were highlighted, to test the potential for altered and brecciated porphyry intrusives in the caldera structures associated with the pyroclastic volcanics. Two of these anomalies Mg1 and 2 occur along the western rim of the Newcastle Ranges. The other anomalies Mg3–6 occur within the caldera.

Field work has indicated that anomalies Mg1 and 2 are associated with islands of quartz–feldspar ignimbrite within feldspar-rich ignimbrite, lava and dykes. Anomalies Mg 4, 5 and 6 occur within quartz rich ignimbrite. The pumice fragments within the ignimbrite of Mg4 are white clay-altered.

Scintillometer readings from rocks within these magnetic low anomalies are generally low–less than 250cps.

4.3 Radiometrics – KUTh

These anomalies are generally weak. To enhance the results the three element plots were overlaid and re-plotted (Figure 4). Better definition would result from a ratio of the uranium and thorium digital data, which was unfortunately not available.

Seven anomalies are located along the western edge of the Newcastle Ranges (Figure 6). Anomalies KUTh 1, 5, and 7 occur within the Einasleigh Metamorphics. These anomalies are coincident with quartz–feldspar–biotite–mica pegmatite within associated granitoid or migmatite. Samples 06–08 were collected from pegmatite outcrops of Anomaly KUTh1. Scintillometer readings of this material peaked at 370cps. Pegmatite material (sample 17) from anomaly KUTh7, just outside the tenement, had scintillometer readings up to 515cps.

Anomalies KUTh 2, 3, 4 and 5 together with associated uranium anomalies U1, 2 and 3 are associated with the magnetic low anomalies Mg1 and 2. The radiometric anomalies are associated with the feldspar-rich ignimbrite and dykes. The rocks are generally not altered and only weakly fractured. The ignimbrite of KUTh 4 however, exhibits chlorite–epidote and clay alteration with minor quartz (Sample 18). The scintillometer readings over this material range up to 400cps.

In the northwest section of the tenement there is a thorium anomaly associated with pegmatite (Sample 10) within granitoid. This pegmatite resulted in scintillometer readings to 500cps.

4.4 Radiometrics – K

South from the northern edge of the tenement there is a distinctive potassium anomaly extending south for approximately 2 kilometres (Figures 5 and 6). It is 50–200m wide. It coincides with Units A and B, which are silica–clay–limonite altered lava and pyroclastics. Unit B has been mapped as quartz-veined and brecciated lava associated with a north trending shear structure. Sulphides +/- limonite occur within the quartz veins. Limonite after pyrite occurs in the wallrock of the veins and within the brecciated lava.

4.5 Gold Diggings – Au601

Gold has been mined from two parallel lines of diggings at the east and west edge of a massive quartz vein 5-10m wide, over a strike length of approximately 40 metres. The vein is oriented northeast with a steep 85^{o} dip to the east. The vein is hosted by a rolling shear within foliated granite/gneiss and pegmatite. The better mineralised rock is along the eastern edge of the vein. Sample 09 shows quartz veining with limonite boxwork after sulphides such as pyrite, chalcopyrite and sphalerite.

Figure 7. Sample Locations on Landsat

5 Geochemistry

The details of the sample locations and significant geochemical observations are highlighted in Tables 1 and 2. The results of the analysis carried out by ALS Laboratory in Townsville are given in Appendix 1.

The Laura Jean mineralisation is anomalous in calcium (4.7%) from fluorite, molybdenum (6,860ppm), silver (3ppm), bismuth (12ppm), antimony (9ppm), uranium (190ppm), thorium (115ppm) and yttrium (114ppm). The malachite bearing quartz vein, associated with the andesite dyke intruding the molybdenum bearing breccia, contains 6,000ppm copper, 74ppm silver, 491ppm bismuth, 148ppm antimony, 123ppm molybdenum, 6,890ppm lead, 672ppm zinc and 21ppm tellurium.

The gold mineralisation at the Au601 diggings has a similar geochemistry to the quartz vein at Laura Jean. This mineralisation has 2.1g/t gold, 88g/t silver, 520ppm lead and 12ppm tellurium.

The other significant geochemical association is that of cerium, thorium, lanthanum, yttrium, phosphorus, neodynium and to a lesser extent uranium. These elements are weakly anomalous in the Laura Jean mineralisation, the pegmatites, thorium anomalies, some of the KUTh anomalies, the magnetic low anomaly M1 and the K1 anomaly. This suite of elements suggests that the mineral monazite is present.

The K1 anomaly which hosts the quartz veining and brecciation with clay alteration is characterised by elevated K, Ce, and Y–K alteration and monazite. The samples collected from Spear Creek along strike from the K1 anomaly have a similar geochemistry.

There is 100ppm molybdenum in the ignimbrite sample collected from the magnetic low anomaly M1. This sample is also anomalous in cerium (347ppm), lanthanum (240ppm) and yttrium (146ppm). GBM Resources have announced a drill intersection of 45m of +1000ppm REE's (Ce, Nd, La and Y) in the Mt Isa district. This magnetic low anomaly has an adjacent U anomaly.

TABLE 1.	SAMPLE	REGISTRAR					
Sample No	Type	Location	Easting	Northing	RL	Description	TC
1	rock	Laura Jean	784245	7973368	507	Breccia Rhyolite, green-black-yellow hydrothermal matix	1500-2500
2	rock	Laura Jean	784245	7973368	507	Andesite dyke	
3	rock	Laura Jean	784245	7973368	507	5cm Quartz Vein, malachite fractures	
4	rock	U1	782812	7966430		Feldspar porphyritic Rhyolite dyke	
5	rock	Mg1	782869	7966369		Quartz-Feldspar pophyritic Breccia/Ignimbrite; K po fragments; silica matrix quartz phenocrysts	
6	rock	KUTh1	782462	7967483	347	Quartz-Feldspar-Mica Pegmatite; black mineral	330-370
7	rock	KUTh1	782447	7967473	351	Quartz-Feldspar porphyritic Rhyolite; 2-5% disseminated hematite-?pyrite	220-240
8	rock	KUTh1	782447	7967473	351	Quartz-Feldspar-Biotite/Mica Pegmatite; ?limonite	330-370
9	rock	Au601	782570	7966407	367	Quartz; hematite/limonite box work after chalcopyrite/pyrite; minor yellow limonite after sphalerite	100-160
10	rock	Th1	782896	7968916	334	Pegmatite/Granite fragments in soil	350-500
11	float	Spear Ck	783252	7967201	341	Silica Breccia/Ignimbrite; Feldspar porphyritic fragments in Quartz porphyry matrix	
12	float	Spear Ck	783419	7966944	343	Quartz porphyritic Ignimbrite; cross cut quartz veinlets; sericite/clay alteration	
13	rock	Spear Ck	783515	7966924	342	Brecciated Rhyolite; dark rhyolite matrix; sericite/clay iron stained fragments	380-420 in mx; 300-320 fgs
14	rock	Spear Ck	783883	7966775	357	Breccia; Quartz rhyolite fragments; Feldspar rhyolite matrix; Quartz veinlets 5-10cm apart	320-330
15	rock	Spear Ck	783883	7966777	358	Banded clay-sericite altered rhyolite with Feldspar porphyritic rhyolite fragment, edge of Breccia; 0°/85E	240-290
16	s sed	Spear Ck	784642	7966526	399	Stream Sediment - 2 TS's; Pot hole and base of Paperbark	
17	s sed	17mile ck	784630	7966355	402	Stream Sediment - 1 TS; Crevices between rocks; root bound	
18	rock	KUTh4	783606	7964935	463	Quartz-Feldspar porphyritic Ignimbrite; chlorite-epidote-clay alteration of fiamme; yellow-greenn fragments; cavitiess with Quartz/?Zeolite; 2-5cm spaced NW fractures	to 400
19	rock	KUTh7	783038	7964719	381	Quartz-Feldspar-Mica Granite-Pegmatite veins; black mineral ?Tantalite	450-515
20	rock	K1	784309	7968488	456	Hematite (pyrite) fractured Feldspar po Rhy with ferromags; se-cy alt zone 50cm wide	to 400
21	rock	K1	784356	7968482	472	Pink rhyolite/Ignimbrite with Quartz veinlets; limonite (pyrite) cubes in rhyolite	270-315
22	rock	K1	784414	7968474	489	Silica-sericite altered rock with 2-3% disseminated limonite/pyrite cubes (1-2mm)	
23	rock	K1	784414	7968474	489	Black quartz +/- sulphide vein with breccia rock fragments 10-20cm wide	310
24	rock	K1	784414	7968474	489	Breccia; silica rhyolite fragments (0.5-5cm) coarser up section; clay matrix, patches silica + limonite	
25	s sed	Spear Ck	783064	7967430	337	Stream Sediment - 2TS's at base of paperbarks, root bound	

Table 1. Sample location and descriptions

SAMPLE				Au	Ag	Te	Bi	Sb	Mo	Cu	Pb	Zn	K	P	Ce	La	Y	Nd	Th	U
DESCRIPTION	Location	Easting	Northing	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1	Laura Jean	784245	7973368	0.02	**3.31**	1.76	**12.65**	9.37	**6860**	32.2	99.8	39	0.25	**1140**	72.2	34.4	**114.5**		**115.5**	**190**
2	Laura Jean	784245	7973368	<0.01	0.16	0.07	0.28	2.41	39.8	18.5	20	144	2.74	**1250**	67.7	31.4	25.1		6.3	3.8
3	Laura Jean	784245	7973368	0.09	**74.1**	**20.7**	**491**	**148**	**123.5**	**6000**	**6890**	**672**	0.23	300	30.1	15	8.4		5.7	5.6
4	U1	782812	7966430	0.01	0.22	0.1	1.45	1.78	4.63	16.9	42.8	113	2.62	**800**	95.6	67.4	42.2		13.2	1.9
5	Mg1	782869	7966369	0.01	0.15	0.07	1.12	0.81	**99.1**	13.5	42.6	60	2.88	240	**347**	**240**	**146.5**		18.7	5.8
6	KUTh1	782462	7967483	<0.01	<0.01	<0.05	0.08	0.37	1.19	5.2	34.9	20	3.57	**870**	**191**	95.2	19.9	**79.7**	45.9	3.5
7	KUTh1	782447	7967473	<0.01	0.24	0.1	1.81	3.8	2.12	26.1	50.8	49	3.02	210	**100**	56.3	41.3	46.7	17.1	2.5
8	KUTh1	782447	7967473	<0.01	0.03	<0.05	0.07	0.61	0.83	7.7	6	6	0.38	80	7.7	3.9	1.4	3.5	1.4	0.7
9	Au601	782570	7966407	**2.1**	**88.2**	**12.25**	**24.4**	13.15	38.4	59.7	**520**	3	0.24	60	6.31	5.4	2.8		1	0.3
10	Th1	782896	7968916	0.01	0.04	0.05	0.06	0.08	0.6	7.3	49.3	23	3.83	370	**325**	154	21	**133.5**	**96**	8.7
11	Spear Ck	783252	7967201	0.08	1.78	0.2	0.63	0.69	4.2	7	54.7	43	3.99	60	45.1	17.4	40		16.6	2.6
12	Spear Ck	783419	7966944	<0.01	0.52	0.06	0.6	0.8	1.23	6.5	93.3	66	3.11	140	76.9	33.3	52.8		13.8	2
13	Spear Ck	783515	7966924	<0.01	0.42	0.09	0.17	1.26	1.9	3.5	26.8	107	**4.53**	480	106	48.1	38.8		19.5	3
14	Spear Ck	783883	7966775	<0.01	0.08	<0.05	0.19	1.83	0.33	3.2	54.8	63	**5.25**	90	**129.5**	44.2	34.4		17.4	1.9
15	Spear Ck	783883	7966777	<0.01	0.21	0.05	0.27	0.45	4.74	22.2	53.5	67	2.71	400	**145**	47.9	38.8		15.6	8.2
16	Spear Ck	784642	7966526	<0.01	0.04	<0.05	0.08	0.35	0.5	3.8	19.5	27	1.86	120	27.4	15.5	13		8	1.2
17	17mile ck	784630	7966355	<0.01	0.06	<0.05	0.09	0.4	0.6	3.3	14.7	29	2.58	90	36.8	22.5	14.4		8.3	1.1
18	KUTh4	783606	7964935	<0.01	0.1	<0.05	0.32	0.41	1.22	6	36.9	94	2.64	250	96.3	50	44.6		24.8	**13.7**
19	KUTh7	783038	7964719	<0.01	<0.01	<0.05	0.11	0.14	1.52	5.8	28.6	43	3.49	580	**129**	62.1	20.7	**63.4**	45.6	4.8
20	K1	784309	7968488	0.01	0.02	0.11	0.14	0.42	4.15	5.7	19.1	101	**4.61**	**920**	**149**	**111**	52.2		16.3	**11.2**
21	K1	784356	7968482	<0.01	<0.01	0.26	0.31	0.22	3.41	1.6	17.6	10	**6.32**	180	72.7	42.6	33		18	2
22	K1	784414	7968474	<0.01	0.07	0.1	0.48	0.95	2.31	17.4	37.4	21	**4.25**	140	72.9	37.6	46		16.5	2.7
23	K1	784414	7968474	<0.01	0.06	<0.05	0.91	0.55	1.28	38.3	33.8	38	**4.88**	190	**222**	**122**	**93.2**		18	3.2
24	K1	784414	7968474	<0.01	0.06	<0.05	0.29	0.85	1.51	31.1	29.6	41	**5.55**	170	76.4	30.8	52.5		20.2	2.7
25	Spear Ck	783064	7967430	<0.01	0.04	<0.05	0.11	0.42	0.62	6.5	22.6	39	1.99	200	59.3	32.6	21.2		13.8	2

Table 2. Significant geochemistry

6 Conclusions

A field review of anomalies in EPM 16431 indicates:

- The magnetic low anomalies are associated with quartz and quartz–feldspar-rich ignimbrite. A sample from the Mg1 anomaly contains 347ppm Ce, 146ppm Y and 99ppm Mo. This data may indicate the presence of monazite or a similar mineral but the origin of the 100ppm Mo is uncertain.

- The KUTh anomalies are associated with feldspar–quartz–biotite–mica pegmatite in the basement rocks.

- KUTh and U anomalies are also associated with feldspar-rich ignimbrite located at the edges of the magnetic low anomalies.

- A potassium anomaly north of Spear Creek is associated with quartz–clay–sulphide alteration and sulphide and quartz–sulphide veins in sheared ignimbrite and lava. These sulphides are weathered to limonite boxwork. These shear-controlled veins are associated with silica–clay altered breccia. The elevated K assays (+4% K) support the high K radiometric data and the clay alteration. However, the only significant assays are of cerium (to 222ppm) and yttrium (to 93ppm)—most likely indicating monazite.

- Gold mineralisation occurs at the edges of short, shear-controlled quartz veins within the Einasleigh Metamorphics basement. The gold appears to be associated with sulphide mineralisation such as pyrite, chalcopyrite and lesser sphalerite. Geochemically the signature is similar to that at Laura Jean, suggesting it may be related to the volcanics and associated intrusives and not older granitoids.

The only anomaly that could have some potential is the potassium anomaly. The alteration occurs over a large enough area to host significant mineralisation, even if outcrops are small. As seen at Laura Jean, the mineralisation rapidly thins and swells. However, the geochemistry only indicates weakly anomalous Ce and Y—possibly reflecting the presence of monazite.

The combined REE's (Ce, La, Nd and Y) values may be significant for these KUTh anomalies. GBM Resources have recently reported 45m of 1014ppm REE's (La+Nd+Ce+Y) in the Milo Breccia in the Mt Isa district. The sample analysed from the Magnetic low anomaly M1 (Sample 05) assays 733ppm Ce+La+Y. Metallica Minerals Ltd has been exploring for scandium, a related rare earth in the Greenvale district, evaluating grades of +150ppm Sc.

Appendix 1 Geochemical Sample Analysis Results

TV12134033 - Finalized

CLIENT : "CSAAUS - CSA Global"

# of SAMPLES : 27
DATE RECEIVED : 2012-06-14 DATE FINALIZED : 2012-06-29

PROJECT : " "
CERTIFICATE COMMENTS : "ME-MS61r:Interference: Mo>400ppm on ICP-MS Cd ICP-AES results shown. ME-MS61r:REE's may not be totally soluble in this method.
"

PO NUMBER : "Email from Patrick"

SAMPLE DESCRIPTION	Au-AA25 Au ppm	ME-MS61r Ag ppm	ME-MS61r Al %	ME-MS61r As ppm	ME-MS61r Ba ppm	ME-MS61r Be ppm	ME-MS61r Bi ppm	ME-MS61r Ca %	ME-MS61r Cd ppm	ME-MS61r Ce ppm	ME-MS61r Co ppm	ME-MS61r Cr ppm	ME-MS61r Cs ppm	ME-MS61r Cu ppm	ME-MS61r Fe %	ME-MS61r Ga ppm	ME-MS61r Ge ppm	ME-MS61r Hf ppm	ME-MS61r In ppm	ME-MS61r K %	ME-MS61r La ppm	ME-MS61r Li ppm
1	0.02	**3.31**	6.77	8.1	70	0.84	**12.65**	**4.68**	0.17	72.2	12.4	6	0.84	32.2	2.01	22.3	0.1	7.6	0.046	0.25	34.4	13.7
2	<0.01	0.16	7.68	1.3	200	2.6	0.28	**6.89**	1.36	67.7	21.1	17	6.37	18.5	3.37	20.5	0.13	5.4	0.094	2.74	31.4	30.5
3	0.09	**74.1**	2.03	25.2	100	0.92	**491**	0.22	1.58	30.1	6.4	30	0.86	**6000**	2.49	5.9	<0.05	1.4	0.117	0.23	15	18.2
4	0.01	0.22	6.93	2.6	1330	1.98	1.45	0.94	0.1	95.6	8.3	10	0.85	16.9	3.64	21.2	0.14	5.8	0.053	2.62	67.4	19.7
5	0.01	0.15	6.4	2.7	2140	3.95	1.12	0.21	0.06	**347**	3.5	6	0.97	13.5	2.07	23.7	0.47	4.9	0.073	2.88	**240**	9.7
6	<0.01	<0.01	6.03	3.7	1410	1.3	0.08	0.52	0.02	**191**	4.1	14	1.59	5.2	1.39	14.55	0.2	4.1	0.025	3.57	95.2	4.5
7	<0.01	0.24	6.37	15.5	2520	1.65	1.81	0.51	0.11	**100**	3	3	1.8	26.1	1.78	17.45	0.15	4	0.041	3.02	56.3	4.8
8	<0.01	0.03	0.59	2.9	80	0.11	0.07	0.04	<0.02	7.7	0.9	7	0.34	7.7	0.89	1.76	<0.05	0.1	0.006	0.38	3.9	0.5
9	**2.1**	**88.2**	0.78	8	130	0.18	**24.4**	0.01	0.02	6.31	0.9	17	0.39	59.7	2.21	2.63	<0.05	0.2	0.013	0.24	5.4	2.4
10	0.01	0.04	5.74	0.8	770	1.56	0.06	0.41	0.02	**325**	4.1	14	1.5	7.3	1.92	17.2	0.29	6.7	0.028	3.83	154	3.4
11	0.08	1.78	6.07	1.8	1260	2.58	0.63	0.13	0.09	45.1	0.9	4	2.17	7	1.42	19.95	0.1	4.7	0.06	3.99	17.4	11
12	<0.01	0.52	5.74	1.7	1170	3.76	0.6	1.27	0.1	76.9	1.9	7	1.68	6.5	1.79	18.05	0.16	4.5	0.06	3.11	33.3	13.8
13	<0.01	0.42	6.65	3.9	1130	1.66	0.17	0.65	0.16	106	4.3	6	1.26	3.5	2.63	21.5	0.19	3.9	0.056	**4.53**	48.1	4.4
14	<0.01	0.08	6.51	3.3	2190	2.5	0.19	0.06	0.02	**129.5**	2.3	3	7.88	3.2	1.8	19.65	0.15	4.4	0.052	**5.25**	44.2	19.1
15	<0.01	0.21	6.27	10.9	1630	3.21	0.27	0.13	0.06	**145**	6.9	10	12.2	22.2	5.2	19.35	0.18	4.4	0.06	2.71	47.9	15.8
16	<0.01	0.04	3.15	2.2	680	0.89	0.08	0.29	<0.02	27.4	2	14	1.17	3.8	1.9	9.09	0.08	2.7	0.025	1.86	15.5	7.8
17	<0.01	0.06	3.98	2	1160	0.88	0.09	0.22	0.02	36.8	1.4	7	1.36	3.3	1.65	10.95	0.1	2.7	0.031	2.58	22.5	8.4
18	<0.01	0.1	6.7	5.5	1710	2.45	0.32	0.22	0.17	96.3	2.3	9	0.74	6	2.33	23	0.17	4.7	0.065	2.64	50	11.9
19	<0.01	<0.01	6.52	1.8	990	0.82	0.11	0.21	0.02	**129**	9.3	14	2.96	5.8	1.9	20.2	0.22	2.3	0.036	3.49	62.1	4.4
20	0.01	0.02	4.89	7.4	3640	7.35	0.14	0.05	0.16	**149**	0.8	2	1.85	5.7	7.44	15.45	0.27	3.7	0.056	**4.61**	**111**	1.9
21	<0.01	<0.01	6.39	2.3	2930	0.92	0.31	0.06	<0.02	72.7	0.7	3	1.36	1.6	1.48	21.4	0.15	4.6	0.049	**6.32**	42.6	1.3
22	<0.01	0.07	4.9	2.6	1760	1.11	0.48	0.04	<0.02	72.9	0.3	4	1.26	17.4	1.5	16.7	0.16	4.8	0.075	**4.25**	37.6	4.2
23	<0.01	0.06	5.85	1.8	2290	1.45	0.91	0.05	<0.02	**222**	0.5	9	1.48	38.3	1.69	24.7	0.31	5.1	0.151	**4.88**	**122**	3.2
24	<0.01	0.06	6.12	2.2	1680	1.86	0.29	0.03	<0.02	76.4	0.5	2	1.74	31.1	1.83	30.4	0.14	5.9	0.229	**5.55**	30.8	4.4
25	<0.01	0.04	4.31	2.4	780	1.26	0.11	0.33	0.02	59.3	3.4	20	1.78	6.5	2.43	13	0.12	3.4	0.041	1.99	32.6	11.2

SAMPLE DESCRIPTION	ME-MS61r Mg %	ME-MS61r Mn ppm	ME-MS61r Mo ppm	ME-MS61r Na %	ME-MS61r Nb ppm	ME-MS61r Ni ppm	ME-MS61r P ppm	ME-MS61r Pb ppm	ME-MS61r Rb ppm	ME-MS61r Re ppm	ME-MS61r S %	ME-MS61r Sb ppm	ME-MS61r Sc ppm	ME-MS61r Se ppm	ME-MS61r Sn ppm	ME-MS61r Sr ppm	ME-MS61r Ta ppm	ME-MS61r Te ppm	ME-MS61r Th ppm	ME-MS61r Ti %	ME-MS61r Tl ppm	ME-MS61r U ppm
1	0.22	212	**6860**	4.46	12.6	7.6	1140	99.8	15.7	0.004	0.02	9.37	27.9	2	1.6	228	0.78	1.76	**115.5**	0.468	1.41	**190**
2	1.01	719	39.8	0.63	9.8	32.6	1250	20	134.5	<0.002	<0.01	2.41	18.3	1	1.2	169	0.52	0.07	6.3	0.646	1.96	3.8
3	0.31	406	**123.5**	0.82	5.1	14.8	300	**6890**	15.8	<0.002	0.03	**148**	4.1	2	0.8	33.3	0.29	**20.7**	5.7	0.095	0.19	5.6
4	0.77	647	4.63	3.08	11.2	8.1	800	42.8	100.5	0.002	0.03	1.78	12.5	1	1.2	119.5	0.74	0.1	13.2	0.339	0.66	1.9
5	0.12	307	**99.1**	3	14.6	4.8	240	42.6	150.5	0.003	0.03	0.81	9.4	3	1.9	126	0.93	0.07	18.7	0.125	0.82	5.8
6	0.21	133	1.19	1.37	4.7	9.1	870	34.9	132.5	0.002	<0.01	0.37	4.7	1	0.5	263	0.25	<0.05	45.9	0.143	0.68	3.5
7	0.17	436	2.12	2.37	12.5	8.2	210	50.8	140.5	0.002	0.05	3.8	6.7	1	2	136.5	0.83	0.1	17.1	0.101	1.13	2.5
8	0.02	105	0.83	0.06	1.5	4.3	80	6	17.7	<0.002	<0.01	0.61	1	<1	0.4	9.7	0.15	<0.05	1.4	0.032	0.1	0.7
9	0.03	142	38.4	0.04	0.7	4.5	60	520	11.2	<0.002	0.16	13.15	1	2	0.3	4.5	<0.05	**12.25**	1	0.024	0.06	0.3
10	0.13	299	0.6	0.79	10.1	5.5	370	49.3	213	0.002	<0.01	0.08	4.8	1	1.2	112	0.79	0.05	**96**	0.315	1.19	8.7
11	0.09	168	4.2	1.63	14	2.2	60	54.7	184	0.002	0.01	0.69	5.5	1	2.1	63.7	0.86	0.2	16.6	0.054	1.05	2.6
12	0.16	514	1.23	1.94	13.1	5.7	140	93.3	147	0.002	<0.01	0.8	7.7	1	2	65.6	0.8	0.06	13.8	0.095	0.88	2
13	0.11	903	1.9	2.22	14	7.1	480	26.8	178.5	0.002	0.01	1.26	10.5	1	1.7	85.8	0.88	0.09	19.5	0.189	0.94	3
14	0.23	309	0.33	0.58	12.3	13.8	90	54.8	255	0.002	<0.01	1.83	7.2	1	2	80.2	0.83	<0.05	17.4	0.113	1.54	1.9
15	0.23	703	4.74	1.88	12.2	6.4	400	53.5	163.5	0.002	0.02	0.45	7.7	1	2	113	0.77	0.05	15.6	0.15	0.84	8.2
16	0.08	180	0.5	0.6	6	3.7	120	19.5	88.5	<0.002	<0.01	0.35	3.5	<1	1	61.8	0.39	<0.05	8	0.189	0.57	1.2
17	0.07	179	0.6	0.78	6.5	2.7	90	14.7	105.5	0.002	<0.01	0.4	3.6	<1	0.9	46.6	0.4	<0.05	8.3	0.132	0.66	1.1
18	0.23	754	1.22	3.29	12.7	3.3	250	36.9	106	0.002	0.01	0.41	11	1	1.9	94.9	0.77	<0.05	24.8	0.144	0.48	**13.7**
19	0.23	161	1.52	1.58	12.8	7	580	28.6	197.5	0.002	<0.01	0.14	7.3	1	1.7	189	0.89	<0.05	45.6	0.212	1.03	4.8
20	0.08	258	4.15	0.09	10.5	1.4	920	19.1	218	0.002	0.04	0.42	6.6	1	1.8	49.2	0.68	0.11	16.3	0.092	1.03	**11.2**
21	0.06	123	3.41	0.53	13	1	180	17.6	253	0.002	0.08	0.22	6.9	1	2	67	0.85	0.26	18	0.115	1.34	2
22	0.05	103	2.31	0.27	13	1	140	37.4	199	0.002	0.01	0.95	6	1	2.5	29.3	0.83	0.1	16.5	0.06	1.12	2.7
23	0.07	128	1.28	0.55	18.7	1.7	190	33.8	239	0.002	0.02	0.55	7.3	2	3.6	48.1	1.01	<0.05	18	0.11	1.24	3.2
24	0.1	194	1.51	0.09	16.6	6.5	170	29.6	300	0.002	0.01	0.85	6.8	1	3.3	34.6	1.04	<0.05	20.2	0.061	1.52	2.7
25	0.14	322	0.62	0.58	10.9	9.4	200	22.6	103	<0.002	0.01	0.42	6.5	1	1.2	65.5	0.68	<0.05	13.8	0.419	0.63	2

SAMPLE DESCRIPTION	ME-MS61r V ppm	ME-MS61r W ppm	ME-MS61r Y ppm	ME-MS61r Zn ppm	ME-MS61r Zr ppm	ME-MS61r Dy ppm	ME-MS61r Er ppm	ME-MS61r Eu ppm	ME-MS61r Gd ppm	ME-MS61r Ho ppm	ME-MS61r Lu ppm	ME-MS61r Nd ppm	ME-MS61r Pr ppm	ME-MS61r Sm ppm	ME-MS61r Tb ppm	ME-MS61r Tm ppm	ME-MS61r Yb ppm
1	53	23.3	114.5	39	291												
2	147	3	25.1	144	221												
3	17	4.5	8.4	672	49.7												
4	49	2.7	42.2	113	210												
5	11	2	146.5	60	140												
6	29	0.8	19.9	20	160.5	4.94	1.61	2.08	8.92	0.72	0.18	79.7	21.9	13.25	1.12	0.2	1.16
7	7	1.4	41.3	49	111	6.93	3.96	1.47	7.41	1.37	0.59	46.7	12.55	8.71	1.15	0.59	3.83
8	5	0.5	1.4	6	3.1	0.3	0.13	0.09	0.45	0.05	0.02	3.5	0.96	0.64	0.06	0.02	0.13
9	8	2.5	2.8	3	6.1												
10	31	0.5	21	23	231	5.13	1.61	1.11	11.5	0.74	0.18	133.5	37.6	21.8	1.23	0.2	1.19
11	3	1.2	40	43	116.5												
12	10	1.9	52.8	66	119.5												
13	24	4.3	38.8	107	110												
14	7	1.7	34.4	63	130												
15	34	4.8	38.8	67	132												
16	29	0.7	13	27	88.8												
17	15	0.9	14.4	29	90.9												
18	10	0.8	44.6	94	143.5												
19	34	0.8	20.7	43	83.4	4.57	1.65	1.01	6.91	0.74	0.14	63.4	17.25	10.8	0.94	0.2	1.01
20	8	5.2	52.2	101	117.5												
21	5	1.7	33	10	131.5												
22	4	1.1	46	21	122												
23	7	2.1	93.2	38	143												
24	6	1.4	52.5	41	145												
25	34	1.3	21.2	39	118												