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CRA EXPLORATION PTY. LIMITED
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MOUNT DUNDAS EL 45/92, TASMANIA
REPORT ON EXPLORATION FOR THE SECOND YEAR OF TENURE, 16/4/94 TO 15/3/95

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VOLUME 1 OF 2

CONTENTS

1. SUMMARY

CRA Exploration Pty. Limited (CRAE) is exploring EL45/92 for stratabound Zn-Pb carbonate-hosted deposits in the Ordovician Gordon Limestone and surficial deposits derived by decomposition of mineralised limestone.

Three targets were selected for detailed work during 1994/95; Mariposa, Blackjacks, Sunny Corner -Bannockburn,with reconnaissance work being carried out throughout the EL. Activities included open-file data compilation, bedrock sampling and diamond drilling.

Air-core drilling by CRAE during 1994-95 at Sunny Corner-Bannockburn returned significant intersections from the Upper Zone contact with Crotty Quartzite including:-

DS37	6m	@	3.2% Zn	1.8% Pb	23 ppm Ag
DS38	15m	@	3.6% Zn	2.2% Pb	18 ppm Ag
DS53	3m	@	5.4% Zn	4.8% Pb	23 ppm Ag
DS68	12m	@	1.3% Zn	6.7% Pb	27 ppm Ag

Air-core drilling by CRAE during 1994-95 at Blackjacks identified substantial thicknesses of siderite alteration up to 50m wide at the Lower Zone contact with underlying clastics. Zinc intercepts were highly anomalous, but generally sub-percent. Better results included:-

DB35	3m	@	1.6% Zn
DB78	3m	@	1.6% Zn
DB99	3m	@	1.9% Zn
DB109	1.5m	@	2.2% Zn (ended in mineralisation)

Diamond drilling of the E contact with the Dundas Group at Mariposa has led to a revision of the stratigraphy in this area. Mineralisation was originally interpreted to be structurally controlled at a major faulted boundary. Diamond drilling and remapping of an exposure on Krummels road has shown this contact to be essentially an unconformity, with perhaps only minor later movement. The Ordovician clastic sequence is still present, but only a few metres thick. This result implies the presence of a major Ordovician basin-bounding structure between Mariposa and Sunny Corner.

Drilling at Mariposa therefore tested the Gordon Limestone Lower Zone. Thick clays with patchy siderite were intersected, passing upwards into dolomite alteration, then veined limestone. Stratabound Zn-Pb-Ag mineralisation occurred in the dolomite zone. Best intersections include:-

58850N	DM209	7.7m	@	2.1% Zn	<0.1% Pb	<5ppm Ag
59400N	DM210	5.4m	@	1.4% Zn	1.7% Pb	25ppm Ag
59400N	DM211	1.8m	@	9.8% Zn	6.5% Pb	107ppm Ag
59200N	DM212	0.7m	@	3.8% Zn	5.4% Pb	45ppm Ag

Sulphur analyses and visual observation confirm Zn mineralogy is dominated by sphalerite.

Additional wacker bedrock sampling is underway in the Blackjacks and King Billy areas, and open-file bedrock geochemistry was compiled for Leatherwood, Ewart Creek and Razorback West areas. No significant anomalies have been detected to date, although sampling is continuing.

Work planned during 1995/96 includes a high-resolution magnetic surveys to identify concealed siderite alteration systems, wacker and air-core bedrock sampling to locate sub-cropping alteration-mineralisation, and diamond drilling at identified siderite alteration and Zn mineralisation at Blackjacks and Sunny Corner.

2. INTRODUCTION

Mount Dundas EL45/92 was granted to CRA Exploration Pty. Limited on 16th April 1993. EL45/92 covers 70 sqkm located E of Zeehan on the Tasmanian W coast (Plan Tv498). During the first two years of tenure, CRAE has a statutory obligation to spend $33000.

CRAE is exploring EL45/92 for stratabound Zn-Pb carbonate-hosted deposits in the Ordovician Gordon Limestone and surficial deposits derived by decomposition of mineralised limestone.

Three targets were selected for detailed work during 1994/95; Mariposa, Blackjacks, Sunny Corner - Bannockburn,with reconaissance work being carried out throughout the EL. Activities included open-file data compilation, bedrock sampling and diamond drilling.

This report details all exploration activities conducted within EL45/92 by CRAE during the second year of tenure, 16/3/94 to 16/3/95.

3. CONCLUSIONS

Air-core and diamond drilling during the period has further highlighted the importance of the siderite altered Lower Zone contact at the base of the Gordon Limestone as a favourable site for mineralisation. Sub-percent to several percent levels of Zn were intersected in this position at Blackjacks and Mariposa.

The upper contact with the Crotty Quartzite has also been identified as favourable for mineralisation at Sunny Corner, Blackjacks and Mariposa, although mineralisation lacks a distinct pattern in this stratigraphic position.

Re-interpretation of regional stratigraphy has led to the recognition of NW-striking Ordovician basin-bounding faults that control deposition of Ordovician clastics may be crucial in localising ore deposits. Within EL45/92, the NE margin of the Ordovician clastic basin is the extension of the Balstrup Fault, which passes through the Sunny Corner to Mariposa area. This further enhances the prospectivity of these targets, already flagged as significant due to abundant alteration and base-metal anomalism.

4. RECOMMENDATIONS

Diamond drilling is required to test Zn mineralisation, siderite alteration, and to define limestone stratigraphy at Blackjacks and Sunny Corner.

Additional bedrock sampling (wacker) should be completed S of Mariposa, in the vicinity of the interpreted Ordovician basin margin.

Bedrock sampling (wacker and air-core) should also attempt to cover all remaining areas of limestone that have not yet been tested. This includes completing King Billy, Leatherwood, Ewart Creek, and sundry smaller blocks.

Heli-borne magnetic surveys will be flown with the aim of detecting weakly magnetic siderite alteration haloes that may be pointers to mineralising systems.

5. REGIONAL GEOLOGY

See Parkinson (1994).

6. MINERALISATION

See Parkinson (1994).

7. PREVIOUS EXPLORATION BY COMPETITORS

See Parkinson (1994).

8. EXPLORATION BY CRAE PRIOR TO 16/3/94

Year 1: (Parkinson 1994) Reviews of Amoco-CSR open-file data highlighted the Mariposa and Sunny Corner areas as having anomalous surface geochemistry. At Mariposa prospect, costeans returned best results of 14m @ 3.0% Zn from the historically exploited upper zone, and 8m @ 6.2% Zn and 395ppm Ag from the lower zone contact with the Dundas Group. Costeans at Sunny Corner produced up to 22m at 3.9% Zn, including 6m at 9.7% Zn and 74ppm Ag. Percent levels of Zn were also detected in costeans at Blackjacks and Bannockburn.

Limited drilling by Amoco-CSR failed to locate economic mineralisation, although sub-percent levels of Pb and Zn were common over wide areas, indicating substantial alteration systems.

Air-core drilling by CRAE during 1993-94 at Mariposa returned significant intersections from the lower zone contact with the Dundas Group including:-

59450N	DM70	10m	@	4.1% Zn	2.5% Pb	19 ppm Ag
59400N	DM13	6m	@	4.1% Zn	1.5% Pb	16 ppm Ag
59350N	DM97	8m	@	5.0% Zn	2.9% Pb	60 ppm Ag
300N	DM102	8m	@	18.5% Zn	16.9% Pb	231 ppm Ag
59250N	DM118	8m	@	4.6% Zn	6.5% Pb	95 ppm Ag
59150N	DM150	6m	@	3.5% Zn	2.5% Pb	88 ppm Ag
58850N	DM199	8m	@	4.6% Zn	3.2% Pb	185 ppm Ag

Mineralisation appears to be subvertical and narrow, the widths above being apparent thicknesses.

The best result from Blackjacks was:-

61000N	DB11	14m	@	1.4% Zn

Results of air-core drilling from Sunny Corner-Bannockburn and additional drilling at Blackjacks were unavailable for inclusion in the Year 1 report.

Zinc mineralogy is dominated by low-Fe sphalerite. No smithsonite has been recorded, and Zn clays are rare.

9. EXPLORATION ACTIVITIES FOR THE PERIOD 16/4/94 TO 16/3/95

9.1 Exploration Philosophy

CRAE's principal commodity of interest in the Zeehan area is Zn. Ordovician Gordon Limestone is prospective for carbonate-hosted Zn-Pb, and secondary deposits derived from the decomposition of the carbonate. During 1994, these styles of mineralisation dominated the exploration focus and will continue to do so during 1995.

Three targets were selected for detailed work during 1994/95; Mariposa, Blackjacks, Sunny Corner -Bannockburn,with reconaissance work being carried out throughout the EL. Activities included open-file data compilation, bedrock sampling and diamond drilling.

9.2 Mariposa Prospect

9.2.1 Introduction

Mariposa prospect is 5km E of Zeehan, adjacent to the Murchison Highway (Plan Tv761). The prospect is within Gordon Limestone on the E margin of the Zeehan Basin. Vegetation, organic clays and minor alluvial gravels obscure the limestone, which has eroded to form a valley between a prominent ridge of Crotty Quartzite and an undulating surface of Dundas Group siltstones.

Mariposa was selected based on highly anomalous open-file costean geochemistry suggesting potential for sufficient Zn accumulations to justify CRAE's interest.

During the period, targets at the E lower zone contact with the Dundas Group, defined by detailed air-core drilling, were diamond drilled. Prospect-scale and regional-scale geological mapping has led to a reinterpretation of the stratigraphy and structure of the Ordovician sequence in the Mariposa area.

9.2.2 Geology

Mariposa prospect is hosted in Ordovician Gordon Limestone (Plan Tv717). The base of the Gordon Limestone at Mariposa was originally interpreted as a faulted contact with siltstones of the Dundas Group. Diamond drilling (DM209, and DM211), and remapping of units on Krummels track have shown that a thin sequence of Ordovician clastics are present at the contact, and that the contact is probably slightly unconformable.

The Dundas Gp at Mariposa is mostly a pebbly siltstone. In hole DM211 the siltstone is green and chloritic. The top few metres of the unit immediately below the contact with the Ordovician is oxidised to a yellowish colour possibly indicating exposure and weathering in early Ordovician time.

Above the Dundas Gp is a thin clastic sequence, probably less than 10m that is thought to be the full sequence of Ordovician clastics deposited in this area. Hole DM211 intersected 0.2m of conglomerate (Owen Conglomerate?) overlain by a few metres of poorly consolidated sandstone (Moina Sandstone). On Krummels track about 10m of sandstone is present. Bedding to core-axis angles in DM211 suggest a slight angular unconformity of about 20deg between Cambrian and Ordovician sequences.

Along strike to the SW at Sunny Corner, several hundred metres of Ordovician clastics crop out. This implies the presence of a major Ordovician basin-bounding structure between Mariposa and Sunny Corner.

The Ordovician Gordon Limestone at Mariposa is about 300m thick. The base of the unit is comprised of clays up to 50m thick, with minor patchy siderite alteration. Above the clay-siderite zone there is a band of dolomitised carbonate a few metres wide, overlain by veined limestone about 10m thick. In the dolomitised sub-unit is a narrow band of massive Fe-Mn carbonate containing several percent of coarse-grained sphalerite and galena. This is stratabound, and has been intersected in a number of holes at the same stratigraphic position.

The altered and veined carbonates pass upward into unaltered and unveined limestone. Elsewhere in the Zeehan area the upper portion of the Gordon Limestone is dolomitised, however it has not yet been determined whether this is so at Mariposa. Sufficient evidence to do so is available, but has not yet been reviewed.

Conformably overlying the limestone is Silurian Crotty Quartzite that forms a prominent strike ridge. Mapping by Amoco shows the limestone to be faulted out by this unit immediately S of Krummels track. This has been shown to be incorrect. The Crotty Quartzite (and probably the Gordon Limestone) continues up to 1000m further S.

At Mariposa the Gordon Limestone dips steeply W, but is locally overturned. Average dip is probably of the order 70deg to 80deg.

Erosion has reduced the limestone to rare outcrops in Quaternary gravel and vegetation-covered valleys between ridges of sandstone and quartzite. Gravels may be locally up to 5m thick. In-situ weathering has further degraded the limestone to a black decarbonated clay. This weathering surface is variable in depth but may locally reach 30m, averaging 3-10m.

9.2.3 Diamond Drilling

During the period, five diamond holes totalling 554m testing the lower contact were completed between sections 58800N and 59400N (DM208 to DM212).

Core was halved and sampled to lithological/alteration boundaries at 1-2m intervals in altered sections. Barren zones were not sampled apart from a single interval of 3m to 5m for background geochemistry. Poor recovery zones were sampled between drillers core blocks. Samples were assayed at Analabs Perth by ICP-OES (aqua regia-perchloric acid-hydroflouric acid digest) for Ag-Al-As-Ba-Ca-Cu-Fe-K-Mg-Mn-Pb-Zn. Samples over-range for this method were subsequently redetermined by AAS (aqua regia-perchloric acid-hydroflouric acid digest). Samples exceeding 0.5% Zn were also analysed for S by leco furnace.

Diamond drilling of the E contact with the Dundas Group at Mariposa has led to a revision of the stratigraphy in this area. Mineralisation was originally interpreted to be structurally controlled at a major faulted boundary. Diamond drilling and remapping of an exposure on Krummels road has shown this contact to be essentially an unconformity, with perhaps only minor later movement. The Ordovician clastic sequence is still present, but only a few metres thick. This result implies the presence of a major Ordovician basin-bounding structure between Mariposa and Sunny Corner.

Drilling at Mariposa therefore tested the Gordon Limestone Lower Zone. Thick clays with patchy siderite were intersected, passing upwards into dolomite alteration, then veined limestone. Stratabound Zn-Pb-Ag mineralisation occurred in the dolomite zone. Best intersections include:-

58850N	DM209	7.7m	@	2.1% Zn	<0.1% Pb	<5ppm Ag
59400N	DM210	5.4m	@	1.4% Zn	1.7% Pb	25ppm Ag
59400N	DM211	1.8m	@	9.8% Zn	6.5% Pb	107ppm Ag
59200N	DM212	0.7m	@	3.8% Zn	5.4% Pb	45ppm Ag

Sulphur analyses and visual observation confirm Zn mineralogy is dominated by sphalerite.

Drillhole collar information, logs and assays for DM208 to DM212 are reported in Appendices 1 and 2. Drill-hole locations are shown on Plan Tv717. Cross sections between 58800N and 59600N showing geology and Zn-Fe analyses are plotted on Plans Tv723 to Tv739.

9.2.4 Resampling of EZ Diamond Drill Holes

Tim Moody, seconded from CRAE Mount Isa, relogged two holes from Mariposa, DTM3 and DTM6. Selected zones were resampled, including a siderite altered zone in DTM3 not previously analysed that contained 0.73% Zn (Appendix 3). No samples returned over 1% Zn.

A more systematic and complete approach to relogging and resampling is required.

9.2.5 Air-core Bottom-of-Hole Sampling

Where possible, a sample of the formation at the bottom of each air-core hole was collected for description and multi-element analysis. Two samples of approximately 50g each were collected for description and analysis. Samples were assayed at Analabs Perth by ICP-OES (aqua regia-perchloric-hydroflouric acid digest) for Ag-Al-As-Ba-Ca-Cu-Fe-K-Mg-Mn-Pb-Zn. For samples with over 0.5% Zn, S was determined by Leco furnace.

Some samples were logged by Tim Moody, seconded from CRAE Mount Isa. Moody's report, sample descriptions and assays are presented in Appendix 4. His work shows a complex pattern of variably altered limestones and dolomites (Plan Tv866).

To complement the logging program, lithological discrimination was attempted using multi-element geochemistry. The following classifications were made:-

- siderite	>10% Fe	
- limestone	>20% Ca	<4% Mg
- dolomite	>12% Ca	>4% Mg
- impure carbonate	12-20% Ca	<4% Mg
- pelite (siltstone)	<12% Ca	>4% Al
- sandstone	<12% Ca	<4% Al

Scatterplots of Ca% vs Mg%, Ca% vs Al% and Al% vs K% with the lithological subdivisions are shown in Appendix 4 together with a statistical summary of the geochemistry of each lithological group for all CRAE air-core holes in the Zeehan area.

Results show this simple discriminant function effectively identifies the major lithologies and alteration trends within the limestone throughout the Zeehan area.

9.2.6 Mineralogical Studies

Petrology: Paul Ashley of University of New England studied a number of core samples to determine alteration characteristics and paragenesis (Appendix 5). He concluded four alteration/mineralisation phases were present. Earliest was pervasive dolomitisation, followed by siderite alteration that introduced Fe-Mn-Zn. Sulphur was added at stage three, which partly replaced metal carbonates with metal sulphides. Finally, late-stage sparry carbonate filled fractures and voids.

This cute picture must be tempered with cruelty of reality. Samples came from different prospects with possibly widely different mineralisation mechanisms (i.e. Ordovician v's Devonian). The four events may not actually occur at each carbonate-hosted Zn prospect in the Zeehan area. None-the-less, individual sample observations are extremely valuable. Additional work is required.

9.2.6 Proposed Work Program 1994/95

The realisation that the carbonate sequence probably extends up to 1000m further S from the main prospect area is an important result. The possibility of an Ordovician syn-depositional fault in this direction enhances the prospectivity of this S area.

Consequently, bedrock sampling is required to identify the geology alteration and possible sub-cropping mineralisation in this S block, followed by diamond drilling of any targets defined.

Compilation of geology from all drillholes, including comprehensive relogging of Amoco holes, is still needed.

9.3 Sunny Corner - Bannockburn Prospect

9.3.1 Introduction

Sunny Corner - Bannockburn prospect straddles the Dundas River 5km SE of Zeehan, accessible via the old Mariposa tramway from the Murchison Hwy (Plan Tv761). The prospect is within a structurally complex block of Gordon Limestone. Vegetation, organic clays and minor alluvial gravels obscure the limestone, which has eroded to form a semi-circular valley surrounded by ridges of Crotty Quartzite and Moina Sandstone.

Sunny Corner - Bannockburn was selected based on highly anomalous open-file costean geochemistry suggesting potential for sufficient Zn accumulations to justify CRAE's interest.

During the period, analyses of air-core drillholes were received, end-of-hole air-core samples were logged and the prospect was remapped.

9.3.2 Geology

Sunny Corner - Bannockburn prospect is hosted in Ordovician Gordon Limestone. Beneath the limestone is a 500m thickness of Moina Sandstone, underlain by variably developed Owen Conglomerate up to 100m thick. Sediments of the Cambrian Dundas Gp form local basement.

The 500m thickness of Ordovician clastics at Sunny Corner is in marked contrast to the virtual absence of the clastics at Mariposa, only 2km away. This suggests Sunny Corner lies on the basinal side of the postulated Ordovician syn-depositional fault.

The lower contact between the Gordon Limestone and Moina Sandstone strikes N and dips steeply W. Some dips in the Moina Sandstone are to the E, indicating overturning. Due to a lack of exposure and limited drilling, internal stratigraphy in the Gordon Limestone at Sunny Corner - Bannockburn is unknown. Similarly, true thickness is unknown, but the horizontal width is up to 300m.

In the W of the prospect the Gordon Limestone is overlain by Crotty Quartzite. At Sunny Corner the sequence is folded so that the limestone is exposed in a breached dome. There is circumstantial evidence to suggest that the limestone/quartzite contact S and E of the dome is faulted.

In the N of the prospect area the Devonian Bell Shale is faulted (thrust?) against the Silurian and Ordovician stratigraphy.

Erosion has reduced the limestone to rare outcrops in Quaternary gravel and vegetation-covered valleys between ridges of sandstone and quartzite. Gravels may be locally up to 5m thick. In-situ weathering has further degraded the limestone to a black decarbonated clay. This weathering surface is variable in depth but may locally reach 30m, averaging 3-10m.

Interpreted geology based on air-core drilling and recent mapping traverses is shown as Plan Tv716.

9.3.3 Air-core Drilling

The air-core program was undertaken in January - February 1994. Sixty holes were completed at Sunny Corner (DS1 to DS60), and a further 36 holes were drilled at Bannockburn (DS61 to DS96). Total metreage was 1740m. Analyses were not available for inclusion in the 1994 report.

Cuttings were collected at 2m or 3m intervals, with a wet 1-2kg sample "snatched" by hand for analysis. Samples were assayed at Analabs Burnie by AAS (aqua regia-perchloric acid digest) for Ag-Cu-Pb-Zn-Fe-Mn. Numerous samples were over-range for this method, and were subsequently redetermined by AAS (aqua regia-perchloric acid-hydroflouric acid digest). Samples exceeding 1% Zn were analysed for S by leco furnace.

A summary of the program is given by Laurie Veska (Appendix 6).

Significant intersections from the Upper Zone contact with Crotty Quartzite included:-

DS37	6m	@	3.2% Zn	1.8% Pb	23 ppm Ag
DS38	15m	@	3.6% Zn	2.2% Pb	18 ppm Ag
DS53	3m	@	5.4% Zn	4.8% Pb	23 ppm Ag
DS68	12m	@	1.3% Zn	6.7% Pb	27 ppm Ag

There were numerous intersections of highly anomalous but sub-percent Zn values. Sulphur analyses and visual observation confirm Zn to be as sphalerite.

No holes tested the Lower Zone contact.

Drill-hole locations are shown on Plan Tv716. Collar information and down-hole logs are tabulated in Appendices 1 and 6.

9.2.4 Air-core Bottom-of-Hole Sampling

Where possible, a sample of the formation at the bottom of each air-core hole was collected for description and multi-element analysis. Samples were logged by Tim Moody, seconded from CRAE Mount Isa. Moody's report, sample descriptions and assays are presented in Appendix 4. His work shows a complex pattern of variably altered limestones and dolomites (Plan Tv865 and Tv867).

Lithological discrimination using multi-element geochemistry is summarised in Appendix 4.

9.3.5 Proposed Work Program 1994/95

The Lower Zone contact at Sunny Corner - Bannockburn has not been tested by bedrock sampling or drilling. In light of the prospectivity of this stratigraphic position elsewhere in the Zeehan area, further work is needed.

Relogging and if necessary, resampling of Amoco drill holes at Sunny Corner should be completed.

Diamond drilling is planned to test the anomalous Zn-Pb-Ag zone at the limestone - Crotty Quartzite contact beneath DS38, Amoco holes DTSC-84-1 and DTSC-84-2, and the mineralised costean. One hole is recommended, collared in Crotty Quartzite. Ideally this hole should be drilled through the entire limestone sequence for stratigraphic information and to test the Lower Zone in this area.

Another hole is planned to test the full sequence at the N of the prospect. The hole should be collared in Crotty Quartzite, will test below old workings next to the Dundas River, and will also probe the Lower Zone close to the interpreted syn-depositional fault.

Helicopter support is necessary.

9.4 BlackjacksProspect

9.4.1 Introduction

Blackjacks prospect straddles Zeehan Hwy 4km E of Zeehan and 2km N of Mariposa (Plan Tv761). The prospect is within Gordon Limestone on the E margin of the Zeehan Basin. Vegetation, organic clays and minor gravels obscure the limestone, which has eroded to form a valley between a prominent ridge of Crotty Quartzite in the W and an undulating surface of Moina Sandstone and Dundas Group siltstones to the E. In essence, Blackjacks is the N strike continuation of Mariposa. The intervening ground is heavily vegetated and poorly explored and thus creates an artificial barrier to joining the two prospects. Blackjacks is defined here as the carbonates from N of the Dundas River to the junction of the Zeehan and Murchison Highways.

Blackjacks was selected based on moderately anomalous open-file costean geochemistry suggesting potential for sufficient Zn accumulations to justify CRAE's interest.

During February - March 1994, air-core drilling at 200m x 25m spacings was completed, but results were unavailable for inclusion the previous period's report.

9.4.2 Geology

Blackjacks prospect is hosted in Ordovician Gordon Limestone. On the published Zeehan 1:50000 geological map the limestone is shown in faulted contact with Dundas Gp conglomerate and siltstone (Misery Hill Conglomerate). Inspection of outcrops exposed in a track up the W side of Misery Hill, the hill itself, and a quarry on the N end of the hill provide evidence for the formations to be Ordovician. The Ordovician clastics occupy a small depositional basin appoximately 2000m long and 500m deep in the centre.

The Moina Sandstone at Blackjacks is sandy to silty, and may be quite chloritic toward the base. A maximum thickness of 300m is suggested. Below the sandstone is typical Owen conglomerate, essentially a monomict quartzitic cobble conglomerate passing downward into a haematitic polymict conglomerate.

The Ordovician clastics are steep W dipping and facing, to steep E dipping and overturned. The contact with the Gordon Limestone is thought to be conformable. Diamond hole DB110, drilled in the current program, passed through typical Lower Zone sub-units comprising clays and siderite alteration before terminating in sandstone. No fault dividing the clastics from the limestone could be identified. At Blackjacks the Gordon Limestone varies from about 250m thick in the S to 450m thick to the N. The sequence dips steeply W.

At present the Gordon Limestone in the Blackjacks area has not been subdivided. Diamond hole DB110 is almost a complete section, minus the upper contact. Combined with Amoco holes DTBJ1 and DTBJ2 drilled through the Crotty Quartzite, it should now be possible to produce a stratigraphic column for this area. Bedrock specimens collected during air-core drilling may help further define local carbonate facies variations and alteration trends. This work had not commenced at time of writing.

Conformably overlying the limestone is Silurian Crotty Quartzite, that forms a prominent strike ridge. Dips are moderate to steep W.

Erosion has reduced the limestone to rare outcrops in Quaternary gravel and vegetation-covered valleys between ridges of sandstone and quartzite. Gravels may be locally up to 5m thick. In-situ weathering has further degraded the limestone to a black decarbonated clay. This weathering surface is variable in depth but may locally reach 30m, averaging 3-10m.

Interpreted geology based on air-core drilling, open-file Amoco data, and recent CRAE mapping is shown as Plan Tv 936.

9.4.3 Air-core Drilling

During February - March 1994, air-core drilling at 200m x 25m spacings was completed, but results were unavailable for inclusion the previous period's report. Cuttings were collected at 2m intervals, with sampling and analysis techniques as for Sunny Corner.

A summary of the program is given by Laurie Veska (Appendix 7).

Substantial thicknesses of siderite alteration up to 50m wide were drilled at the Lower Zone contact with underlying clastics (see section 61700N). Zinc intercepts were highly anomalous, but generally sub-percent. Better results included:-

DB35	3m	@	1.6% Zn
DB78	3m	@	1.6% Zn
DB99	3m	@	1.9% Zn
DB109	1.5m	@	2.2% Zn (ended in mineralisation)

Reference samples of fresh bedrock were retained to aid geological mapping of the limestone facies and to define alteration trends. This work had not commenced at time of writing.

Drill-hole locations are shown on Plan Tv 936, and sections showing Fe and Zn geochemistry are plotted on Plans Tv762 to Tv773. Collar information and down-hole logs and assays for holes DB14 to DB109 are tabulated in Appendices 1 and 7.

9.4.4 Air-core Bottom-of-Hole Sampling

Where possible, a sample of the formation at the bottom of each air-core hole was collected for description and multi-element analysis. Samples had not been logged at time of writing.

Lithological discrimination using multi-element geochemistry is summarised in Appendix 4.

8.4.5 Proposed Work Program 1994/95

Relogging and if necessary, resampling of Amoco drill holes at Blackjacks should be completed.

Diamond drilling is planned to test Zn-anomalous siderite alteration at the Lower Zone with two wide-spaced holes. This program is currently in progress. The first hole will be drilled through the entire limestone sequence also to gain stratigraphic information in this area.

10. REGIONAL EXPLORATION

10.1 Bedrock Geochemistry

During the period, remaining open-file Amoco and CSR wacker bedrock geochemistry was compiled. This sampling covered parts of Sunny Corner, Mariposa, Blackjacks, Ewart Creek, Nevada, Razorback, Pyramid and Leatherwood areas (Appendix 8). Zinc, Pb, Fe and Mn geochemistry is plotted as Plans Tv932 to Tv935.

CRAE commenced wacker sampling at 400m x 25m spacing in the King Billy area, to be followed by air-core sampling at Leatherwood and Ewart Creek. Work is continuing. Results and interpretation have not been completed for inclusion in this year's report.

10.2 Geophysics

Applicability of geophysics to exploring for carbonate-hosted Zn at Zeehan was reviewed. Open-file information for Oceana shows the siderite alteration at this prospect to be weakly magnetic. Susceptibility measurements on core from Grieves prospect (EL38/89) shows the siderite alteration there is also magnetic. On the basis of these results, a detailed helimag survey at 100m line spacing and 25m flight height was commissioned. The survey is currently in progress.

VLF EM conducted by Amoco at Sunny Corner, Mariposa and Blackjacks was effective in identifying the thick clay zones that overlie altered / mineralised carbonates. This may have applications for identifying carbonate-hosted Zn targets for geochemical sampling on regional tenements. Moving-source Genie EM may be more reliable than VLF EM, but still retain the advantages of speed and ease of use.

10.3 Relogging of Previous Drilling

The Mines Dept in the mid 1980's drilled a hole on Howard's Road that passed through conglomerates and shales (Dundas Gp?) before intersecting 100m of the Lower Zone Gordon Limestone.

Unfortunately, poor drilling led to several metres of core loss at the contact. Siderite alteration, and decomposed carbonate was intersected, but no mineralisation was detected (Appendix 9). The lack of mineralisation may be a result of being some distance from the interpreted Ordovician clastic basin margin.

10.4 Zinc Mineralisation in the Gordon Limestone

CRAE's exploration and research activities directed at locating carbonate-hosted Zn-Pb mineralisation within Gordon Limestone at Zeehan have led to a number of mineralisation styles being recognised. The following discussion is a synthesis of CRAE's current level of knowledge, gained from work throughout the Zeehan area.

CRAE's exploration activities in the Zeehan area have indicated that Zn-Pb mineralisation within the Gordon Limestone may be pre-Devonian in age, and therefore unrelated to the Tabberabberan Orogeny. On this basis, it is possible that carbonate-hosted Zn-Pb mineralisation may be more widespread than that presently under evaluation at Zeehan.

The Gordon Limestone originally occupied a large area, deposited at the close of a major period of tectonic activity that produced the metal-rich Mount Read Volcanics. During and immediately before carbonate deposition the tectonic regime was still unstable, evidenced by rapid changes in stratigraphic thickness of Ordovician strata. Hydrothermal systems may have continued to emit metals into this system, focussed by basement irregularities and syn-sedimentary faults. Basin-bounding syn-sedimentary faults in the Zeehan area are WNW-trending, and include the Firewood Siding Fault on the SW side, and Professor Range and Balstrup Faults on the NE side.

The present Gordon Limestone exposure is a vestige of Devonian deformation. Ordovician mineralisation may have a distribution totally independent of the well-documented Devonian systems.

Five targets are recognised for the carbonate-hosted Zn mineralisation in Gordon Limestone at Zeehan, subdivided by the stratigraphic interval in which they are hosted (Figure 1):-
- stratabound at the lower limestone-sandstone contact
- stratabound at the upper limestone-quartzite contact
- stratabound within a sub-unit in the middle of the limestone sequence
- structurally controlled discordant mineralisation
- surficial "clay-hosted" accumulations developed above primary mineralisation

Stratabound at the lower limestone-sandstone contact
Mineralisation at Grieves and Mariposa falls into this category. Alteration located at Blackjacks, Pyramid and Professor Range may also belong to this deposit type.

This position is characterised by carbonaceous and/or ferruginous clays resting on the Moina Sandstone, in turn overlain by a massive siderite zone. The siderite zone passes stratigraphically upward either gradationally or abruptly into unaltered and unmineralised limestone. The clay layer may be up to 50m thick and the siderite zone up to 25m thick. Both may contain Zn mineralisation up to several percent. The clay and siderite zone are laterally quite uniform and it may be that the mineralisation is actually stratiform.

Mineralisation of this style has an alteration halo that is both visually and geochemically distinct. This halo, characterised by vuggy, broken or massive recrystallised Fe-carbonate and Fe-rich clays, may extend laterally hundreds of metres beyond the main Zn mineralisation, and thus presents a considerably larger target than the mineralised core. Lateral alteration geochemistry is reflected by Fe-Mn-As-Zn. Stratigraphically above the mineralised core is a weaker halo of elevated Zn ($\pm$ As).

Ore mineralogy, based on work at Grieves, is complex with a mixture of zincian siderite and minor sphalerite in the siderite zone, and a Zn-clay with minor to moderate amounts of sphalerite in the clay zone. It is not known whether this is a regional characteristic of this position. It could be possible that the complex clay mineralogy is a supergene weathering process acting on an original sphalerite-pyrite mineralised black shale. The siderite may be capping the sulphide system, preserved in its primary form due to its low porosity and permeability.

The stratiform character, replacive style of alteration/mineralisation, intense Fe-Mn alteration, and reasonably predictable geometry suggest similarities to Navan or Reocin.

Stratabound at the upper limestone-quartzite contact

Low-grade but widely anomalous zones from Firewood Siding, Grieves, Professor Range, Sunny Corner, and Mariposa are examples of this type.

Upper zone mineralisation occurs near the contact between the limestone and overlying Crotty Quartzite. Mineralisation is not closely bound to the upper quartzite contact, but may "wander" up to 100m stratigraphically below the contact.

Mineralisation appears characterised by widespread but low-level Zn in the 0.1% to 2% Zn range. None of the prospects tested has revealed a higher-grade core, although given the limited drilling it is entirely possible high-grade cores may exist. Limited mineralogy suggests all Zn to be as sphalerite.

Air-core drilling shows the mineralised zones to be comprised of clays and decomposed carbonate. Rare fresher material is usually a granular recrystallised dolomite, and can be ferroan. Intense siderite alteration is absent. A detailed geochemical study of the alteration has not been completed.

The upper zone style may be occurring within karstic structures formed by Ordovician weathering before deposition of the Crotty Quartzite. This setting is analogous to Bleiberg or Cracow-Silesia.

Stratabound in a middle sub-unit of the limestone sequence

Currently two occurrences fall into this grouping, Grieves middle zone, and Oceana. Apart from their stratigraphic concurrence, these two deposits may not share many other similarities.

The mineralised middle sub-unit is equidistant from the upper and lower contacts, although facies variations may affect the location at other prospects.
Mineralisation is breccia hosted, and in the case of Grieves has a linear aspect. For Grieves there is very little indication of proximity to mineralisation as there is virtually no alteration outside the breccia zone itself.

Mineralogy at Grieves is a mixture of zincian siderite and sphalerite. Oceana is dominated by galena with subordinate (?) sphalerite. There is also intense siderite alteration at Oceana, presumably containing Zn?
Zinc grades at both prospects are high, locally forming massive sulphide.

There has been insufficient work completed at Grieves middle zone to suggest any controlling mechanisms.

Structurally controlled discordant mineralisation

Most mineralisation in the Zeehan area is structurally controlled. Mineralisation at the historic Mariposa mine, and at Myrtle belong to this type. Possibly some of the mineralisation at Oceana is also structurally controlled.

Structurally controlled mineralisation may occur at any stratigraphic level. It appears to be late-stage filling of brittle fractures. Alteration of wall-rocks is absent, and the gangue to mineralisation may be pure calcite. Mineralisation within the structures is patchily distributed. Ore minerals are coarse-grained sulphides.

Devonian deformation is the likely cause of the fracturing and mineralisation. Potential deposit size is small, although the presence of discordant mineralisation may indicate a nearby stratabound source. Late-strage structurally controlled deposits *per se* are not currently considered a valid CRAE target.

Surficial "clay-hosted" accumulations developed above primary mineralisation

Surficial Zn accumulations within decomposed carbonate was CRAE's original target for carbonate exploration at Zeehan. All currently tested prospects were selected due to the presence of known surficial mineralisation.

It has now been conclusively demonstrated that the surficial mineralisation occupies the surface trace of underlying stratabound mineralisation. Geometry of the surficial deposits are therefore dependent on the shape and extent of this underlying mineralisation. Depth extent of the Zn-rich clays and decomposed carbonates averages 10m to 20m, but have been reported to be over 100m at Oceana.

A thin layer of decomposed carbonate exists over large areas of limestone, but this layer only thickens and becomes substantially Zn-rich as "basement" mineralisation is approached. Areas of +0.1% Zn in the clay layer are regionally extensive, indicating substantial dispersions from the primary zone. Clay thickness and Zn grade may be useful vectors toward primary zones. Geochemically inert peat and gravels up to 5m thick obscure the clays and limestone over virtually the entire trace of the Gordon Limestone.

Zinc ore mineralogy is dominantly to exclusively sphalerite.

Because of their restriction to the surface zone, the potential size of the surficial deposits is somewhat limited. They are probably unlikely to be a CRA target in themselves. Their main attraction is their usefulness as an indicator of the underlying primary mineralisation. If a large primary deposit suitable to CRAE's requirements can be identified, then the surficial deposits would possibly be an easy way to generate short-term cash-flow whilst the major deposit was being developed.

Zinc-rich clay deposits overlying primary carbonate mineralisation have been described at Tynagh and Silvermines.

11. ENVIRONMENT AND REHABILITATION

The past two years has seen a substantial amount of exploration work completed in relatively small areas. More than 400 air-core holes and five diamond holes have been drilled in an area not much greater than 1sqkm at Mariposa, Blackjacks and Sunny Corner -Bannockburn prospects.

The air-core rig was chosen to minimise impact on the button grass. Most tracks will recover and disappear in one season, evidenced by the difficulty in locating drill sites from the early 1993 program. Some softer areas will take longer to naturally recover, however no lasting impact is expected.

Most drill cuttings from the air-core program were bagged to enable the samples to be easily returned to the holes or removed from site. This was completed mid 1994. Bags used are photo-degradable, and will rapidly break down in disposal sites.

Diamond drill sites were positioned in areas of previous disturbance. Sumps were dug to contain water return, and oil-absorbant products were positioned where needed. Sumps were filled and drill sites ripped on completion of the programs.

All rubbish was removed to disposal sites.

REFERENCES

PARKINSON R.G. 1994 Mount Dundas EL45/92, Tasmania. Report on exploration for the first year of tenure, 16/4/93 to 15/3/94. *CRAE Report No.* 19675.

KEYWORDS

TASMANIA, ORDOVICIAN, CARBONATE-HOSTED, GORDON LIMESTONE, LITERATURE REVIEW, DIAMOND DRILLING, AIR-CORE DRILLING, BEDROCK GEOCHEMISTRY, ZINC, LEAD, SILVER.

LOCATION

QUEENSTOWN	SK55-5	1:250000
PIEMAN	7914	1:100000
ZEEHAN	7914-S	1:50000

LIST OF DPOs

77653 DD
77669 DD
77671 DD
77147 DD
77675 DD
77652 AC
77144 AC
77145 AC
77661 AC
77143 AC
71533 AC
77656 AC
77657 AC
77680 WK
77679 WK
77678 RK

LIST OF PLANS

Plan No.	Title	Scale
Tv498	Application for EL - "Zeehan 5"	1:10,000
Tv761	Zeehan Area Gordon Limestone Propect & Drillhole Location Plan	1:50,000
Tv717	Mt. Dundas EL 45/82 Mariposa Prospect Drillhole Location Plan	1:2,500
Tv723	Mt. ~~Frankland~~ Dundas EL 49/92 Mariposa Prospect *Section 58,800N Iron & Zinc Geochemistry*	1:500
Tv724	Mt. Frankland EL 49/92 Mariposa Prospect Section 58,850N Iron & Zinc Geochemistry	1:500
Tv725	Mt. Frankland EL 49/92 Mariposa Prospect *Section 58,900N Iron & Zinc Geochemistry*	1:500
Tv726	Mt. Frankland EL 49/92 Mariposa Prospect Section 58,950N Iron & Zinc Geochemistry	1:500
Tv727	Mt. Frankland EL 49/92 Mariposa Prospect Section 59,000N Iron & Zinc Geochemistry	1:500
Tv728	Mt. Frankland EL 49/92 Mariposa Prospect Section 59,050N Iron & Zinc Geochemistry	1:500
Tv729	Mt. Frankland EL 49/92 Mariposa Prospect Section 59,100N Iron & Zinc Geochemistry	1:500
Tv730	Mt. Frankland EL 49/92 Mariposa Prospect Section 59,150N Iron & Zinc Geochemistry	1:500
Tv731	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,200 Iron & Zinc Geochemistry	1:500

Tv732	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,250 Iron & Zinc Geochemistry	1:500
Tv733	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,300 Iron & Zinc Geochemistry	1:500
Tv734	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,350 Iron & Zinc Geochemistry	1:500
Tv735	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,400 Iron & Zinc Geochemistry	1:500
Tv736	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,450 Iron & Zinc Geochemistry	1:500
Tv737	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,500 Iron & Zinc Geochemistry	1:500
Tv738	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,550 Iron & Zinc Geochemistry	1:500
Tv739	Mt. Frankland EL 45/92 Mariposa Prospect Section 59,600 Iron & Zinc Geochemistry	1:500
Tv866	Mariposa Prospect Geology Interpreted from end of hole aircore samples	1:2.500
Tv716	Mt. Dundas EL 45/82 Sunny Crn - Bannockburn Prospect Drill Location Plan	
Tv865	Zeehan - Tas Bannockburn Prospect Geology interpreted from end of hole air core samples	1:2,500
Tv867	Zeehan - Tas Sunny Corner Prospect Geology interpreted from end of hole aire core samples	1:2,500
Tv936	Mt. Dundas EL 45/92 Blackjack Prospect Geology & Drill Hole Location	1:2,500

Tv762	Mt. Dundas EL 45/92 Blackjacks Prospect Section 60,800N Fe & Zn Geochemistry	1:500
Tv763	Mt. Dundas EL 45/92 Blackjacks Prospect Section 60,900N Fe & Zn Geochemistry	1:500
Tv764	Mt. Dundas EL 45/92 Blackjacks Prospect Section 60,950N Fe & Zn Geochemistry	1:500
Tv7651	Mt. Dundas EL 45/92 Blackjacks Prospect Section 61,000N Fe & Zn Geochemistry	1:500
Tv766	Mt. Dundas EL 45/92 Blackjacks Prospect Section 61,050N Fe & Zn Geochemistry	1:500
Tv767	Mt. Dundas EL 45/92 Blackjacks Prospect Section 61,100N Fe & Zn Geochemistry	1:500
Tv768	Mt. Dundas EL 45/92 Blackjacks Prospect Section 61,300N Fe & Zn Geochemistry	1:500
Tv769	Mt. Dundas EL 45/92 Blackjacks Prospect Section 61,500N Fe & Zn Geochemistry	1:500
Tv770	Mt. Dundas EL 45/92 Blackjacks Prospect Section 61,700N Fe & Zn Geochemistry	1:500
Tv771	Mt. Dundas EL 45/92 Blackjacks Prospect Section 61,900N Fe & Zn Geochemistry	1:500
Tv772	Mt. Dundas EL 45/92 Blackjacks Prospect Section 62,100N Fe & Zn Geochemistry	1:500
Tv773	Mt. Dundas EL 45/92 Blackjacks Prospect Section 62,200N Fe & Zn Geochemistry	1:500
Tv932	Mt. Dundas EL 45/92 Bedrock Geochemistry - Mn ppm	1:25,000

Tv933	Mt. Dundas EL 45/92 Bedrock Geochemistry - Zn ppm	1:25,000
Tv934	Mt. Dundas EL 45/92 Bedrock Geochemistry - Pb ppm	1:25,000
Tv935	Mt. Dundas EL 45/92 Bedrock Geochemistry - Fe %	1:25,000

LIST OF APPENDICES

APPENDIX 1:	Drillhole collar database
APPENDIX 2:	Mariposa diamond drill logs and geochemistry
APPENDIX 3:	Mariposa Relogged EZ Diamond drill hole logs and geochemistry
APPENDIX 4:	Air-core end-of-hole sample ledgers and geochemistry
APPENDIX 5:	Paul Ashley petrological study
APPENDIX 6:	Sunny Corner Air-core drilling ledgers and geochemistry
APPENDIX 7:	Blackjacks Air-core drilling ledgers and geochemistry
APPENDIX 8:	Open-file and CRAE regional wacker geochemistry
APPENDIX 9:	Howard's Road diamond drill log and geochemistry

APPENDIX 1

DRILLHOLE COLLAR DATABASE

APPENDIX : Mount Dundas EL45/92. Drill hole collar database.

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim AMG	Incl.
NBH1	NBH1	MARIPOSA		NBH							-45
NBH2	NBH2	MARIPOSA		NBH							-48
NBH3	NBH3	MARIPOSA		NBH							
NBH4	NBH4	MARIPOSA		NBH	367366.0	5359090.9	67123	59050	107.29	256	-45
NBH5	NBH5	MARIPOSA		NBH	367349.6	5359083.1	67105	59048	76.50	257	-35
NBH6	NBH6	MARIPOSA		NBH	367368.2	5359059.9	67115	59020	111.25	255	-45
NBH7	NBH7	MARIPOSA		NBH	367379.9	5358995.2	67105	58955	76.50	255	-45
NBH8	NBH8	MARIPOSA		NBH	367373.9	5359028.0	67110	58988	80.47	257	-45
NBH9	NBH9	MARIPOSA		NBH	367389.7	5358966.8	67105	58925	81.08	257	-45
NBH10	NBH10	MARIPOSA		NBH	367391.7	5358951.7	67102	58910	74.68	257	-45
NBH11	NBH11	MARIPOSA		NBH					134.11	257	-45
NBH12	NBH12	MARIPOSA		NBH							-54
MM4	ZDDH4	MARIPOSA	SPL46	MACINTYRE	367346.1	5358893.7	67040	58870	87.63	68	-55
DTM1	DTM-84-1	MARIPOSA	EL15/76	AMOCO	367565.6	5358895.2	67248	58800	124.60	72	-52
DTM2	DTM-84-2	MARIPOSA	EL15/76	AMOCO	367281.3	5358955.9	66999	58950	186.00	72	-60
DTM3	DTM-84-3	MARIPOSA	EL15/76	AMOCO	367595.3	5358931.8	67288	58825	70.00	72	-40
DTM4	DTM-84-4	MARIPOSA	EL15/76	AMOCO	367496.2	5359287.0	67310	59193	77.30	72	-40
DTM5	DTM-84-5	MARIPOSA	EL15/76	AMOCO	367352.1	5359244.7	67160	59200	145.70	252	-40
DTM6	DTM-84-6	MARIPOSA	EL15/76	AMOCO	367402.3	5359129.8	67170	59075	238.00	252	-45
DTM7	DTM-84-7	MARIPOSA	EL15/76	AMOCO	367413.2	5359497.4	67300	59419	65.50	72	-45
DTM8	DTM-84-8	MARIPOSA	EL15/76	AMOCO	367273.0	5359640.5	67214	59600	112.00	252	-45
DTM9	DTM-84-9	MARIPOSA	EL15/76	AMOCO	367252.4	5359166.0	67040	59158	200.00	72	-60
DM1	AC93DM1	MARIPOSA	EL45/92	CRAE	367239.3	5359618.4	67175	59590	22.50	0	-90
DM2	AC93DM2	MARIPOSA	EL45/92	CRAE	367263.0	5359626.5	67200	59590	20.00	0	-90
DM3	AC93DM3	MARIPOSA	EL45/92	CRAE	367286.6	5359634.7	67225	59590	12.20	0	-90
DM4	AC93DM4	MARIPOSA	EL45/92	CRAE	367310.3	5359642.8	67250	59590	12.40	0	-90
DM5	AC93DM5	MARIPOSA	EL45/92	CRAE	367333.9	5359650.9	67275	59590	10.00	0	-90
DM6	AC93DM6	MARIPOSA	EL45/92	CRAE	367357.5	5359659.1	67300	59590	14.00	0	-90
DM7	AC93DM7	MARIPOSA	EL45/92	CRAE	367381.2	5359667.2	67325	59590	14.00	0	-90
DM8	AC93DM8	MARIPOSA	EL45/92	CRAE	367404.8	5359675.4	67350	59590	24.00	0	-90
DM9	AC93DM9	MARIPOSA	EL45/92	CRAE	367348.5	5359455.0	67225	59400	41.50	0	-90
DM10	AC93DM10	MARIPOSA	EL45/92	CRAE	367372.1	5359463.1	67250	59400	41.10	0	-90
DM11	AC93DM11	MARIPOSA	EL45/92	CRAE	367395.8	5359471.3	67275	59400	18.10	0	-90
DM12	AC93DM12	MARIPOSA	EL45/92	CRAE	367419.4	5359479.4	67300	59400	20.00	0	-90
DM13	AC93DM13	MARIPOSA	EL45/92	CRAE	367443.0	5359487.6	67325	59400	26.00	0	-90
DM14	AC93DM14	MARIPOSA	EL45/92	CRAE	367466.7	5359495.7	67350	59400	6.00	0	-90
DM15	AC93DM15	MARIPOSA	EL45/92	CRAE	367323.8	5359235.0	67130	59200	48.00	0	-90
DM16	AC93DM16	MARIPOSA	EL45/92	CRAE	367342.7	5359241.5	67150	59200	22.00	0	-90
DM17	AC93DM17	MARIPOSA	EL45/92	CRAE	367366.3	5359249.6	67175	59200	16.50	0	-90
DM18	AC93DM18	MARIPOSA	EL45/92	CRAE	367390.0	5359257.8	67200	59200	3.60	0	-90
DM19	AC93DM19	MARIPOSA	EL45/92	CRAE	367413.6	5359265.9	67225	59200	1.00	0	-90
DM20	AC93DM20	MARIPOSA	EL45/92	CRAE	367437.2	5359274.0	67250	59200	1.00	0	-90
DM21	AC93DM21	MARIPOSA	EL45/92	CRAE	367460.9	5359282.2	67275	59200	0.80	0	-90
DM22	AC93DM22	MARIPOSA	EL45/92	CRAE	367484.5	5359290.3	67300	59200	1.10	0	-90
DM23	AC93DM23	MARIPOSA	EL45/92	CRAE	367508.2	5359298.5	67325	59200	28.70	0	-90
DM24	AC93DM24	MARIPOSA	EL45/92	CRAE	367531.8	5359306.6	67350	59200	32.00	0	-90
DM25	AC93DM25	MARIPOSA	EL45/92	CRAE	367555.4	5359314.7	67375	59200	6.00	0	-90
DM26	AC93DM26	MARIPOSA	EL45/92	CRAE	367435.1	5358850.3	67110	58800	2.00	0	-90
DM27	AC93DM27	MARIPOSA	EL45/92	CRAE	367472.9	5358863.3	67150	58800	1.00	0	-90
DM28	AC93DM28	MARIPOSA	EL45/92	CRAE	367496.6	5358871.4	67175	58800	2.30	0	-90
DM29	AC93DM29	MARIPOSA	EL45/92	CRAE	367520.2	5358879.6	67200	58800	1.10	0	-90
DM30	AC93DM30	MARIPOSA	EL45/92	CRAE	367543.8	5358887.7	67225	58800	4.70	0	-90
DM31	AC93DM31	MARIPOSA	EL45/92	CRAE	367567.5	5358895.8	67250	58800	0.50	0	-90
DM32	AC93DM32	MARIPOSA	EL45/92	CRAE	367591.1	5358904.0	67275	58800	0.70	0	-90
DM33	AC93DM33	MARIPOSA	EL45/92	CRAE	367614.7	5358912.1	67300	58800	20.00	0	-90
DM34	AC93DM34	MARIPOSA	EL45/92	CRAE	367638.4	5358920.3	67325	58800	12.90	0	-90
DM35	AC93DM35	MARIPOSA	EL45/92	CRAE	367662.0	5358928.4	67350	58800	12.00	0	-90
DM36	AC93DM36	MARIPOSA	EL45/92	CRAE	367250.7	5359622.3	67187	59590	5.90	0	-90
DM37	AC93DM37	MARIPOSA	EL45/92	CRAE	367274.3	5359630.4	67212	59590	16.00	0	-90
DM38	AC93DM38	MARIPOSA	EL45/92	CRAE	367395.4	5359672.1	67340	59590	32.00	0	-90
DM39	AC93DM39	MARIPOSA	EL45/92	CRAE	367441.5	5359645.7	67375	59550	6.00	0	-90
DM40	AC93DM40	MARIPOSA	EL45/92	CRAE	367432.0	5359642.4	67365	59550	60.00	0	-90
DM41	AC93DM41	MARIPOSA	EL45/92	CRAE	367417.8	5359637.5	67350	59550	41.00	0	-90
DM42	AC93DM42	MARIPOSA	EL45/92	CRAE	367408.4	5359634.3	67340	59550	20.10	0	-90
DM43	AC93DM43	MARIPOSA	EL45/92	CRAE	367398.9	5359631.0	67330	59550	32.50	0	-90
DM44	AC93DM44	MARIPOSA	EL45/92	CRAE	367383.3	5359615.1	67310	59540	12.30	0	-90
DM45	AC93DM45	MARIPOSA	EL45/92	CRAE	367370.6	5359621.3	67300	59550	10.20	0	-90

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim	Incl.
DM46	AC93DM46	MARIPOSA	EL45/92	CRAE	367323.3	5359605.0	67250	59550	14.00	0	-90
DM47	AC93DM47	MARIPOSA	EL45/92	CRAE	367302.7	5359603.2	67230	59555	43.00	0	-90
DM48	AC93DM48	MARIPOSA	EL45/92	CRAE	367294.9	5359595.2	67220	59550	19.30	0	-90
DM49	AC93DM49	MARIPOSA	EL45/92	CRAE	367283.8	5359596.7	67210	59555	18.80	0	-90
DM50	AC93DM50	MARIPOSA	EL45/92	CRAE	367276.0	5359588.7	67200	59550	30.00	0	-90
DM51	AC93DM51	MARIPOSA	EL45/92	CRAE	367266.6	5359585.4	67190	59550	19.40	0	-90
DM52	AC93DM52	MARIPOSA	EL45/92	CRAE	367257.1	5359582.2	67180	59550	9.70	0	-90
DM53	AC93DM53	MARIPOSA	EL45/92	CRAE	367252.4	5359580.6	67175	59550	16.00	0	-90
DM54	AC93DM54	MARIPOSA	EL45/92	CRAE	367292.3	5359541.4	67200	59500	22.00	0	-90
DM55	AC93DM55	MARIPOSA	EL45/92	CRAE	367301.7	5359544.7	67210	59500	26.00	0	-90
DM56	AC93DM56	MARIPOSA	EL45/92	CRAE	367311.2	5359547.9	67220	59500	37.40	0	-90
DM57	AC93DM57	MARIPOSA	EL45/92	CRAE	367320.7	5359551.2	67230	59500	48.70	0	-90
DM58	AC93DM58	MARIPOSA	EL45/92	CRAE	367330.1	5359554.4	67240	59500	29.00	0	-90
DM59	AC93DM59	MARIPOSA	EL45/92	CRAE	367339.6	5359557.7	67250	59500	39.70	0	-90
DM60	AC93DM60	MARIPOSA	EL45/92	CRAE	367349.0	5359561.0	67260	59500	41.00	0	-90
DM61	AC94DM61	MARIPOSA	EL45/92	CRAE	367358.5	5359564.2	67270	59500	50.00	0	-90
DM62	AC94DM62	MARIPOSA	EL45/92	CRAE	367367.9	5359567.5	67280	59500	16.00	0	-90
DM63	AC94DM63	MARIPOSA	EL45/92	CRAE	367386.8	5359574.0	67300	59500	20.20	0	-90
DM64	AC94DM64	MARIPOSA	EL45/92	CRAE	367396.3	5359577.2	67310	59500	31.00	0	-90
DM65	AC94DM65	MARIPOSA	EL45/92	CRAE	367405.8	5359580.5	67320	59500	23.50	0	-90
DM66	AC94DM66	MARIPOSA	EL45/92	CRAE	367423.7	5359586.7	67339	59500	6.30	0	-90
DM67	AC94DM67	MARIPOSA	EL45/92	CRAE	367415.2	5359583.7	67330	59500	3.00	0	-90
DM68	AC94DM68	MARIPOSA	EL45/92	CRAE	367449.2	5359540.4	67348	59448	6.00	0	-90
DM69	AC94DM69	MARIPOSA	EL45/92	CRAE	367440.9	5359539.7	67340	59450	50.00	0	-90
DM70	AC94DM70	MARIPOSA	EL45/92	CRAE	367432.4	5359536.8	67331	59450	44.50	0	-90
DM71	AC94DM71	MARIPOSA	EL45/92	CRAE	367423.0	5359533.5	67321	59450	30.10	0	-90
DM72	AC94DM72	MARIPOSA	EL45/92	CRAE	367412.6	5359530.0	67310	59450	45.30	0	-90
DM73	AC94DM73	MARIPOSA	EL45/92	CRAE	367403.1	5359526.7	67300	59450	16.50	0	-90
DM74	AC94DM74	MARIPOSA	EL45/92	CRAE	367379.5	5359518.6	67275	59450	13.80	0	-90
DM75	AC94DM75	MARIPOSA	EL45/92	CRAE	367355.8	5359510.4	67250	59450	28.00	0	-90
DM76	AC94DM76	MARIPOSA	EL45/92	CRAE	367344.5	5359506.5	67238	59450	11.80	0	-90
DM77	AC94DM77	MARIPOSA	EL45/92	CRAE	367335.0	5359503.3	67228	59450	5.00	0	-90
DM78	AC94DM78	MARIPOSA	EL45/92	CRAE	367323.7	5359499.4	67216	59450	4.80	0	-90
DM79	AC94DM79	MARIPOSA	EL45/92	CRAE	367336.2	5359450.8	67212	59400	48.90	0	-90
DM80	AC94DM80	MARIPOSA	EL45/92	CRAE	367360.3	5359459.1	67238	59400	35.70	0	-90
DM81	AC94DM81	MARIPOSA	EL45/92	CRAE	367384.9	5359467.5	67264	59400	14.80	0	-90
DM82	AC94DM82	MARIPOSA	EL45/92	CRAE	367407.1	5359475.2	67287	59400	26.20	0	-90
DM83	AC94DM83	MARIPOSA	EL45/92	CRAE	367431.7	5359483.7	67313	59400	22.50	0	-90
DM84	AC94DM84	MARIPOSA	EL45/92	CRAE	367454.9	5359491.6	67338	59400	32.50	0	-90
DM85	AC94DM85	MARIPOSA	EL45/92	CRAE	367478.5	5359499.8	67363	59400	12.00	0	-90
DM86	AC94DM86	MARIPOSA	EL45/92	CRAE	367328.8	5359395.4	67187	59350	30.00	0	-90
DM87	AC94DM87	MARIPOSA	EL45/92	CRAE	367341.8	5359397.7	67200	59348	31.80	0	-90
DM88	AC94DM88	MARIPOSA	EL45/92	CRAE	367356.0	5359402.6	67215	59348	32.20	0	-90
DM89	AC94DM89	MARIPOSA	EL45/92	CRAE	367369.8	5359408.4	67230	59349	23.20	0	-90
DM90	AC94DM90	MARIPOSA	EL45/92	CRAE	367378.9	5359412.6	67240	59350	12.80	0	-90
DM91	AC94DM91	MARIPOSA	EL45/92	CRAE	367402.6	5359420.8	67265	59350	16.20	0	-90
DM92	AC94DM92	MARIPOSA	EL45/92	CRAE	367416.8	5359425.6	67280	59350	22.00	0	-90
DM93	AC94DM93	MARIPOSA	EL45/92	CRAE	367435.7	5359432.1	67300	59350	57.00	0	-90
DM94	AC94DM94	MARIPOSA	EL45/92	CRAE	367445.1	5359435.4	67310	59350	13.10	0	-90
DM95	AC94DM95	MARIPOSA	EL45/92	CRAE	367454.6	5359438.7	67320	59350	55.20	0	-90
DM96	AC94DM96	MARIPOSA	EL45/92	CRAE	367464.0	5359441.9	67330	59350	43.80	0	-90
DM97	AC94DM97	MARIPOSA	EL45/92	CRAE	367473.5	5359445.2	67340	59350	38.50	0	-90
DM98	AC94DM98	MARIPOSA	EL45/92	CRAE	367483.0	5359448.4	67350	59350	55.10	0	-90
DM99	AC94DM99	MARIPOSA	EL45/92	CRAE	367492.4	5359451.7	67360	59350	14.00	0	-90
DM100	AC94DM100	MARIPOSA	EL45/92	CRAE	367532.3	5359412.5	67385	59300	14.00	0	-90
DM101	AC94DM101	MARIPOSA	EL45/92	CRAE	367508.7	5359404.4	67360	59300	40.70	0	-90
DM102	AC94DM102	MARIPOSA	EL45/92	CRAE	367499.2	5359401.2	67350	59300	27.20	0	-90
DM103	AC94DM103	MARIPOSA	EL45/92	CRAE	367489.8	5359397.9	67340	59300	10.00	0	-90
DM104	AC94DM104	MARIPOSA	EL45/92	CRAE	367480.3	5359394.6	67330	59300	5.20	0	-90
DM105	AC94DM105	MARIPOSA	EL45/92	CRAE	367456.7	5359386.5	67305	59300	20.20	0	-90
DM106	AC94DM106	MARIPOSA	EL45/92	CRAE	367447.2	5359383.2	67295	59300	20.80	0	-90
DM107	AC94DM107	MARIPOSA	EL45/92	CRAE	367428.3	5359376.7	67275	59300	1.50	0	-90
DM108	AC94DM108	MARIPOSA	EL45/92	CRAE	367404.7	5359368.6	67250	59300	2.00	0	-90
DM109	AC94DM109	MARIPOSA	EL45/92	CRAE	367381.0	5359360.5	67225	59300	20.00	0	-90
DM110	AC94DM110	MARIPOSA	EL45/92	CRAE	367371.6	5359357.2	67215	59300	29.00	0	-90
DM111	AC94DM111	MARIPOSA	EL45/92	CRAE	367362.1	5359353.9	67205	59300	57.00	0	-90
DM112	AC94DM112	MARIPOSA	EL45/92	CRAE	367352.7	5359350.7	67195	59300	47.80	0	-90
DM113	AC94DM113	MARIPOSA	EL45/92	CRAE	367343.2	5359347.4	67185	59300	39.00	0	-90
DM114	AC94DM114	MARIPOSA	EL45/92	CRAE	367333.8	5359344.2	67175	59300	41.00	0	-90
DM115	AC94DM115	MARIPOSA	EL45/92	CRAE	367324.3	5359340.9	67165	59300	23.50	0	-90

805030

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim	Incl.
DM116	AC94DM116	MARIPOSA	EL45/92	CRAE	367314.9	5359337.7	67155	59300	30.90	0	-90
DM117	AC94DM117	MARIPOSA	EL45/92	CRAE	367562.8	5359370.2	67400	59250	8.00	0	-90
DM118	AC94DM118	MARIPOSA	EL45/92	CRAE	367539.1	5359362.0	67375	59250	57.00	0	-90
DM119	AC94DM119	MARIPOSA	EL45/92	CRAE	367529.7	5359358.8	67365	59250	26.50	0	-90
DM120	AC94DM120	MARIPOSA	EL45/92	CRAE	367520.2	5359355.5	67355	59250	19.90	0	-90
DM121	AC94DM121	MARIPOSA	EL45/92	CRAE	367510.8	5359352.2	67345	59250	19.70	0	-90
DM122	AC94DM122	MARIPOSA	EL45/92	CRAE	367496.9	5359346.4	67330	59249	8.00	0	-90
DM123	AC94DM123	MARIPOSA	EL45/92	CRAE	367473.0	5359339.2	67305	59250	9.50	0	-90
DM124	AC94DM124	MARIPOSA	EL45/92	CRAE	367449.3	5359331.1	67280	59250	1.20	0	-90
DM125	AC94DM125	MARIPOSA	EL45/92	CRAE	367331.1	5359290.4	67155	59250	1.00	0	-90
DM126	AC94DM126	MARIPOSA	EL45/92	CRAE	367307.5	5359282.2	67130	59250	12.50	0	-90
DM127	AC94DM127	MARIPOSA	EL45/92	CRAE	367298.0	5359279.0	67120	59250	7.00	0	-90
DM128	AC94DM128	MARIPOSA	EL45/92	CRAE	367330.9	5359237.4	67138	59200	29.00	0	-90
DM129	AC94DM129	MARIPOSA	EL45/92	CRAE	367354.5	5359245.6	67163	59200	19.80	0	-90
DM130	AC94DM130	MARIPOSA	EL45/92	CRAE	367378.1	5359253.7	67188	59200	14.50	0	-90
DM131	AC94DM131	MARIPOSA	EL45/92	CRAE	367401.8	5359261.8	67213	59200	2.50	0	-90
DM132	AC94DM132	MARIPOSA	EL45/92	CRAE	367425.4	5359270.0	67238	59200	1.20	0	-90
DM133	AC94DM133	MARIPOSA	EL45/92	CRAE	367354.5	5359245.6	67163	59200	1.00	0	-90
DM134	AC94DM134	MARIPOSA	EL45/92	CRAE	367475.1	5359287.1	67290	59200	1.00	0	-90
DM135	AC94DM135	MARIPOSA	EL45/92	CRAE	367496.3	5359294.4	67313	59200	1.30	0	-90
DM136	AC94DM136	MARIPOSA	EL45/92	CRAE	367520.0	5359302.5	67338	59200	18.50	0	-90
DM137	AC94DM137	MARIPOSA	EL45/92	CRAE	367543.6	5359310.7	67363	59200	45.50	0	-90
DM138	AC94DM138	MARIPOSA	EL45/92	CRAE	367570.0	5359310.0	67388	59190	15.00	0	-90
DM139	AC94DM139	MARIPOSA	EL45/92	CRAE	367302.2	5359174.7	67090	59150	37.00	0	-90
DM140	AC94DM140	MARIPOSA	EL45/92	CRAE	367312.6	5359178.3	67101	59150	16.00	0	-90
DM141	AC94DM141	MARIPOSA	EL45/92	CRAE	367322.1	5359181.5	67111	59150	36.00	0	-90
DM142	AC94DM142	MARIPOSA	EL45/92	CRAE	367330.6	5359184.4	67120	59150	38.00	0	-90
DM143	AC94DM143	MARIPOSA	EL45/92	CRAE	367340.1	5359187.7	67130	59150	16.60	0	-90
DM144	AC94DM144	MARIPOSA	EL45/92	CRAE	367349.5	5359191.0	67140	59150	4.00	0	-90
DM145	AC94DM145	MARIPOSA	EL45/92	CRAE	367373.1	5359199.1	67165	59150	2.00	0	-90
DM146	AC94DM146	MARIPOSA	EL45/92	CRAE	367567.0	5359265.8	67370	59150	15.00	0	-90
DM147	AC94DM147	MARIPOSA	EL45/92	CRAE	367557.5	5359262.6	67360	59150	13.00	0	-90
DM148	AC94DM148	MARIPOSA	EL45/92	CRAE	367548.1	5359259.3	67350	59150	10.00	0	-90
DM149	AC94DM149	MARIPOSA	EL45/92	CRAE	367546.4	5359264.1	67350	59155	57.00	0	-90
DM150	AC94DM150	MARIPOSA	EL45/92	CRAE	367538.6	5359256.1	67340	59150	57.00	0	-90
DM151	AC94DM151	MARIPOSA	EL45/92	CRAE	367530.1	5359250.0	67330	59147	4.70	0	-90
DM152	AC94DM152	MARIPOSA	EL45/92	CRAE	367520.7	5359246.7	67320	59147	1.00	0	-90
DM153	AC94DM153	MARIPOSA	EL45/92	CRAE	367477.2	5359234.9	67275	59150	1.00	0	-90
DM154	AC94DM154	MARIPOSA	EL45/92	CRAE	367317.6	5359127.1	67089	59100	4.60	0	-90
DM155	AC94DM155	MARIPOSA	EL45/92	CRAE	367328.0	5359130.7	67100	59100	5.70	0	-90
DM156	AC94DM156	MARIPOSA	EL45/92	CRAE	367337.4	5359133.9	67110	59100	9.50	0	-90
DM157	AC94DM157	MARIPOSA	EL45/92	CRAE	367346.9	5359137.2	67120	59100	36.00	0	-90
DM158	AC94DM158	MARIPOSA	EL45/92	CRAE	367365.8	5359143.7	67140	59100	33.90	0	-90
DM159	AC94DM159	MARIPOSA	EL45/92	CRAE	367384.7	5359150.2	67160	59100	28.00	0	-90
DM160	AC94DM160	MARIPOSA	EL45/92	CRAE	367403.6	5359156.7	67180	59100	16.70	0	-90
DM161	AC94DM161	MARIPOSA	EL45/92	CRAE	367422.5	5359163.2	67200	59100	0.90	0	-90
DM162	AC94DM162	MARIPOSA	EL45/92	CRAE	367469.8	5359179.5	67250	59100	1.00	0	-90
DM163	AC94DM163	MARIPOSA	EL45/92	CRAE	367569.1	5359213.7	67355	59100	27.10	0	-90
DM164	AC94DM164	MARIPOSA	EL45/92	CRAE	367554.9	5359208.8	67340	59100	11.50	0	-90
DM165	AC94DM165	MARIPOSA	EL45/92	CRAE	367545.4	5359205.5	67330	59100	5.70	0	-90
DM166	AC94DM166	MARIPOSA	EL45/92	CRAE	367517.1	5359195.8	67300	59100	1.50	0	-90
DM167	AC94DM167	MARIPOSA	EL45/92	CRAE	367559.8	5359157.6	67328	59050	2.80	0	-90
DM168	AC94DM168	MARIPOSA	EL45/92	CRAE	367533.3	5359148.5	67300	59050	1.00	0	-90
DM169	AC94DM169	MARIPOSA	EL45/92	CRAE	367486.1	5359132.2	67250	59050	2.50	0	-90
DM170	AC94DM170	MARIPOSA	EL45/92	CRAE	367438.8	5359115.9	67200	59050	1.20	0	-90
DM171	AC94DM171	MARIPOSA	EL45/92	CRAE	367391.5	5359099.7	67150	59050	1.10	0	-90
DM172	AC94DM172	MARIPOSA	EL45/92	CRAE	367344.2	5359083.4	67100	59050	1.80	0	-90
DM173	AC94DM173	MARIPOSA	EL45/92	CRAE	367327.2	5359077.5	67082	59050	2.20	0	-90
DM174	AC94DM174	MARIPOSA	EL45/92	CRAE	367341.6	5359029.6	67080	59000	2.10	0	-90
DM175	AC94DM175	MARIPOSA	EL45/92	CRAE	367360.5	5359036.1	67100	59000	1.20	0	-90
DM176	AC94DM176	MARIPOSA	EL45/92	CRAE	367407.8	5359052.4	67150	59000	1.00	0	-90
DM177	AC94DM177	MARIPOSA	EL45/92	CRAE	367455.1	5359068.7	67200	59000	1.50	0	-90
DM178	AC94DM178	MARIPOSA	EL45/92	CRAE	367495.8	5359103.8	67250	59020	1.30	0	-90
DM179	AC94DM179	MARIPOSA	EL45/92	CRAE	367549.6	5359101.2	67300	59000	1.00	0	-90
DM180	AC94DM180	MARIPOSA	EL45/92	CRAE	367596.9	5359117.5	67350	59000	23.80	0	-90
DM181	AC94DM181	MARIPOSA	EL45/92	CRAE	367606.4	5359120.8	67360	59000	30.50	0	-90
DM182	AC94DM182	MARIPOSA	EL45/92	CRAE	367616.5	5359122.1	67370	58998	14.00	0	-90
DM183	AC94DM183	MARIPOSA	EL45/92	CRAE	367587.4	5359114.2	67340	59000	7.00	0	-90
DM184	AC94DM184	MARIPOSA	EL45/92	CRAE	367613.2	5359070.2	67350	58950	31.10	0	-90
DM185	AC94DM185	MARIPOSA	EL45/92	CRAE	367603.7	5359067.0	67340	58950	7.50	0	-90

805031

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim	Incl.
DM186	AC94DM186	MARIPOSA	EL45/92	CRAE	367565.9	5359053.9	67300	58950	1.20	0	-90
DM187	AC94DM187	MARIPOSA	EL45/92	CRAE	367518.6	5359037.7	67250	58950	0.50	0	-90
DM188	AC94DM188	MARIPOSA	EL45/92	CRAE	367471.4	5359021.4	67200	58950	1.00	0	-90
DM189	AC94DM189	MARIPOSA	EL45/92	CRAE	367424.1	5359005.1	67150	58950	1.00	0	-90
DM190	AC94DM190	MARIPOSA	EL45/92	CRAE	367627.6	5359022.3	67348	58900	31.80	0	-90
DM191	AC94DM191	MARIPOSA	EL45/92	CRAE	367620.0	5359019.7	67340	58900	16.80	0	-90
DM192	AC94DM192	MARIPOSA	EL45/92	CRAE	367610.5	5359016.4	67330	58900	6.00	0	-90
DM193	AC94DM193	MARIPOSA	EL45/92	CRAE	367582.2	5359006.7	67300	58900	1.20	0	-90
DM194	AC94DM194	MARIPOSA	EL45/92	CRAE	367534.9	5358990.4	67250	58900	0.90	0	-90
DM195	AC94DM195	MARIPOSA	EL45/92	CRAE	367487.6	5358974.1	67200	58900	0.80	0	-90
DM196	AC94DM196	MARIPOSA	EL45/92	CRAE	367645.7	5358975.7	67350	58850	15.00	0	-90
DM197	AC94DM197	MARIPOSA	EL45/92	CRAE	367636.3	5358972.4	67340	58850	20.90	0	-90
DM198	AC94DM198	MARIPOSA	EL45/92	CRAE	367626.8	5358969.2	67330	58850	30.10	0	-90
DM199	AC94DM199	MARIPOSA	EL45/92	CRAE	367617.4	5358965.9	67320	58850	26.00	0	-90
DM200	AC94DM200	MARIPOSA	EL45/92	CRAE	367607.9	5358962.6	67310	58850	6.30	0	-90
DM201	AC94DM201	MARIPOSA	EL45/92	CRAE	367551.2	5358943.1	67250	58850	1.00	0	-90
DM202	AC94DM202	MARIPOSA	EL45/92	CRAE	367503.9	5358926.8	67200	58850	1.10	0	-90
DM203	AC94DM203	MARIPOSA	EL45/92	CRAE	367456.6	5358910.6	67150	58850	1.00	0	-90
DM204	AC94DM204	MARIPOSA	EL45/92	CRAE	367421.4	5358951.3	67130	58900	1.20	0	-90
DM205	AC94DM205	MARIPOSA	EL45/92	CRAE	367602.9	5358908.0	67288	58800	10.80	0	-90
DM206	AC94DM206	MARIPOSA	EL45/92	CRAE	367626.6	5358916.2	67313	58800	12.50	0	-90
DM207	AC94DM207	MARIPOSA	EL45/92	CRAE	367645.9	5358922.9	67333	58800	7.30	0	-90
DM208	DD94DM208	MARIPOSA	EL45/92	CRAE	367617.4	5358962.7	67319	58847	49.20	0	-90
DM209	DD94DM209	MARIPOSA	EL45/92	CRAE	367646.1	5358974.7	67350	58849	141.70	253	-70
DM210	DD94DM210	MARIPOSA	EL45/92	CRAE	367462.6	5359492.2	67345	59398	62.60	252	-70
DM211	DD94DM211	MARIPOSA	EL45/92	CRAE	367494.1	5359508.3	67380	59403	150.60	252	-45
DM212	DD94DM212	MARIPOSA	EL45/92	CRAE	367579.1	5359322.9	67400	59200	150.00	250	-45

805032

APPENDIX : Mount Dundas EL45/92. Drill hole collar database.

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim	Incl.
DTSC1	DTSC-84-1	SUNNY CORNER	EL15/76	AMOCO	365823.0	5357726.0	65388	57781	70.00	40	-45
DTSC2	DTSC-84-2	SUNNY CORNER	EL15/76	AMOCO	365791.0	5357752.0	65356	57807	70.20	30	-45
DTSC3	DTSC-84-3	SUNNY CORNER	EL15/76	AMOCO	366305.0	5357745.0	65870	57800	72.10	91	-45
DTSC4	DTSC-84-4	SUNNY CORNER	EL15/76	AMOCO	366055.0	5357855.0	65620	57910	105.00	215	-45
DTSC5	DTSC-84-5	SUNNY CORNER	EL15/76	AMOCO	365872.0	5358015.0	65437	58070	54.00	222	-45
DTSC5a	DTSC-84-5a	SUNNY CORNER	EL15/76	AMOCO	365872.0	5358017.0	65437	58072	142.00	222	-50
DS1	AC94DS1	SUNNY CORNER	EL45/92	CRAE	365948.0	5357777.0	65513	57832	11.50	0	-90
DS2	AC94DS2	SUNNY CORNER	EL45/92	CRAE	365942.0	5357739.0	65507	57794	57.00	0	-90
DS3	AC94DS3	SUNNY CORNER	EL45/92	CRAE	365853.0	5357730.0	65418	57785	11.50	0	-90
DS4	AC94DS4	SUNNY CORNER	EL45/92	CRAE	365854.0	5357745.0	65419	57800	17.80	0	-90
DS5	AC94DS5	SUNNY CORNER	EL45/92	CRAE	365854.0	5357756.0	65419	57811	36.50	0	-90
DS6	AC94DS6	SUNNY CORNER	EL45/92	CRAE	365854.0	5357770.0	65419	57825	57.00	0	-90
DS7	AC94DS7	SUNNY CORNER	EL45/92	CRAE	365854.0	5357782.0	65419	57837	25.50	0	-90
DS8	AC94DS8	SUNNY CORNER	EL45/92	CRAE	365873.0	5357793.0	65438	57848	14.10	0	-90
DS9	AC94DS9	SUNNY CORNER	EL45/92	CRAE	365889.0	5357815.0	65454	57870	45.50	0	-90
DS10	AC94DS10	SUNNY CORNER	EL45/92	CRAE	365899.0	5357830.0	65464	57885	27.00	0	-90
DS11	AC94DS11	SUNNY CORNER	EL45/92	CRAE	365909.0	5357852.0	65474	57907	28.80	0	-90
DS12	AC94DS12	SUNNY CORNER	EL45/92	CRAE	365920.0	5357878.0	65485	57933	9.00	0	-90
DS13	AC94DS13	SUNNY CORNER	EL45/92	CRAE	365924.0	5357887.0	65489	57942	16.00	0	-90
DS14	AC94DS14	SUNNY CORNER	EL45/92	CRAE	365927.0	5357897.0	65492	57952	13.80	0	-90
DS15	AC94DS15	SUNNY CORNER	EL45/92	CRAE	365932.0	5357908.0	65497	57963	30.00	0	-90
DS16	AC94DS16	SUNNY CORNER	EL45/92	CRAE	365937.0	5357918.0	65502	57973	8.00	0	-90
DS17	AC94DS17	SUNNY CORNER	EL45/92	CRAE	365941.0	5357928.0	65506	57983	17.30	0	-90
DS18	AC94DS18	SUNNY CORNER	EL45/92	CRAE	365944.0	5357939.0	65509	57994	29.20	0	-90
DS19	AC94DS19	SUNNY CORNER	EL45/92	CRAE	365948.0	5357948.0	65513	58003	9.40	0	-90
DS20	AC94DS20	SUNNY CORNER	EL45/92	CRAE	365840.0	5357986.0	65405	58041	17.40	0	-90
DS21	AC94DS21	SUNNY CORNER	EL45/92	CRAE	365834.0	5357977.0	65399	58032	33.00	0	-90
DS22	AC94DS22	SUNNY CORNER	EL45/92	CRAE	365828.0	5357969.0	65393	58024	16.00	0	-90
DS23	AC94DS23	SUNNY CORNER	EL45/92	CRAE	365821.0	5357961.0	65386	58016	24.50	0	-90
DS24	AC94DS24	SUNNY CORNER	EL45/92	CRAE	365815.0	5357945.0	65380	58000	33.00	0	-90
DS25	AC94DS25	SUNNY CORNER	EL45/92	CRAE	365803.0	5357930.0	65368	57985	33.00	0	-90
DS26	AC94DS26	SUNNY CORNER	EL45/92	CRAE	365795.0	5357923.0	65360	57978	10.60	0	-90
DS27	AC94DS27	SUNNY CORNER	EL45/92	CRAE	365768.0	5357925.0	65333	57980	23.50	0	-90
DS28	AC94DS28	SUNNY CORNER	EL45/92	CRAE	365755.0	5357928.0	65320	57983	9.90	0	-90
DS29	AC94DS29	SUNNY CORNER	EL45/92	CRAE	365742.0	5357926.0	65307	57981	15.40	0	-90
DS30	AC94DS30	SUNNY CORNER	EL45/92	CRAE	365733.0	5357928.0	65298	57983	12.10	0	-90
DS31	AC94DS31	SUNNY CORNER	EL45/92	CRAE	365726.0	5357929.0	65291	57984	12.20	0	-90
DS32	AC94DS32	SUNNY CORNER	EL45/92	CRAE	365756.0	5357830.0	65321	57885	8.10	0	-90
DS33	AC94DS33	SUNNY CORNER	EL45/92	CRAE	365764.0	5357834.0	65329	57889	6.40	0	-90
DS34	AC94DS34	SUNNY CORNER	EL45/92	CRAE	365778.0	5357838.0	65343	57893	3.70	0	-90
DS35	AC94DS35	SUNNY CORNER	EL45/92	CRAE	365788.0	5357841.0	65353	57896	5.20	0	-90
DS36	AC94DS36	SUNNY CORNER	EL45/92	CRAE	365798.0	5357845.0	65363	57900	3.70	0	-90
DS37	AC94DS37	SUNNY CORNER	EL45/92	CRAE	365811.0	5357728.0	65376	57783	42.00	0	-90
DS38	AC94DS38	SUNNY CORNER	EL45/92	CRAE	365802.0	5357718.0	65367	57773	42.00	0	-90
DS39	AC94DS39	SUNNY CORNER	EL45/92	CRAE	365802.0	5357727.0	65367	57782	26.50	0	-90
DS40	AC94DS40	SUNNY CORNER	EL45/92	CRAE	365792.0	5357728.0	65357	57783	22.00	0	-90
DS41	AC94DS41	SUNNY CORNER	EL45/92	CRAE	365792.0	5357736.0	65357	57791	16.60	0	-90
DS42	AC94DS42	SUNNY CORNER	EL45/92	CRAE	365792.0	5357747.0	65357	57802	19.10	0	-90
DS43	AC94DS43	SUNNY CORNER	EL45/92	CRAE	365792.0	5357755.0	65357	57810	17.90	0	-90
DS44	AC94DS44	SUNNY CORNER	EL45/92	CRAE	365792.0	5357765.0	65357	57820	15.50	0	-90
DS45	AC94DS45	SUNNY CORNER	EL45/92	CRAE	365792.0	5357774.0	65357	57829	14.60	0	-90
DS46	AC94DS46	SUNNY CORNER	EL45/92	CRAE	365792.0	5357782.0	65357	57837	15.10	0	-90
DS47	AC94DS47	SUNNY CORNER	EL45/92	CRAE	365794.0	5357791.0	65359	57846	4.60	0	-90
DS48	AC94DS48	SUNNY CORNER	EL45/92	CRAE	365788.0	5357880.0	65353	57935	30.00	0	-90
DS49	AC94DS49	SUNNY CORNER	EL45/92	CRAE	365981.0	5357813.0	65546	57868	8.80	0	-90
DS50	AC94DS50	SUNNY CORNER	EL45/92	CRAE	365978.0	5357805.0	65543	57860	30.00	0	-90
DS51	AC94DS51	SUNNY CORNER	EL45/92	CRAE	365973.0	5357785.0	65538	57840	6.80	0	-90
DS52	AC94DS52	SUNNY CORNER	EL45/92	CRAE	365948.0	5357755.0	65513	57810	30.00	0	-90
DS53	AC94DS53	SUNNY CORNER	EL45/92	CRAE	366116.0	5357592.0	65681	57647	7.10	0	-90
DS54	AC94DS54	SUNNY CORNER	EL45/92	CRAE	366128.0	5357592.0	65693	57647	2.50	0	-90
DS55	AC94DS55	SUNNY CORNER	EL45/92	CRAE	366142.0	5357592.0	65707	57647	6.10	0	-90
DS56	AC94DS56	SUNNY CORNER	EL45/92	CRAE	366162.0	5357547.0	65727	57602	8.00	0	-90
DS57	AC94DS57	SUNNY CORNER	EL45/92	CRAE	366115.0	5357495.0	65680	57550	7.90	0	-90
DS58	AC94DS58	SUNNY CORNER	EL45/92	CRAE	366126.0	5357495.0	65691	57550	11.20	0	-90
DS59	AC94DS59	SUNNY CORNER	EL45/92	CRAE	366134.0	5357495.0	65699	57550	5.30	0	-90
DS60	AC94DS60	SUNNY CORNER	EL45/92	CRAE	366146.0	5357495.0	65711	57550	11.40	0	-90

APPENDIX : Mount Dundas EL45/92. Drill hole collar database.

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim	Incl.
DTB1	DTB-84-1	BANNOCKBURN	EL15/76	AMOCO	366135.0	5356845.0	65700	56900	101.50	91	-50
DTB1a	DTB-84-1a	BANNOCKBURN	EL15/76	AMOCO	366134.0	5356845.0	65699	56900	212.70	91	-50
DS61	AC94DS61	BANNOCKBURN	EL45/92	CRAE	366260.0	5356895.0	65825	56950	44.00	0	-90
DS62	AC94DS62	BANNOCKBURN	EL45/92	CRAE	366253.0	5356895.0	65818	56950	7.30	0	-90
DS63	AC94DS63	BANNOCKBURN	EL45/92	CRAE	366244.0	5356895.0	65809	56950	17.00	0	-90
DS64	AC94DS64	BANNOCKBURN	EL45/92	CRAE	366235.0	5356895.0	65800	56950	3.80	0	-90
DS65	AC94DS65	BANNOCKBURN	EL45/92	CRAE	366223.0	5356895.0	65788	56950	3.10	0	-90
DS66	AC94DS66	BANNOCKBURN	EL45/92	CRAE	366212.0	5356895.0	65777	56950	4.00	0	-85
DS67	AC94DS67	BANNOCKBURN	EL45/92	CRAE	366201.0	5356895.0	65766	56950	15.00	0	-90
DS68	AC94DS68	BANNOCKBURN	EL45/92	CRAE	366192.0	5356895.0	65757	56950	30.00	0	-90
DS69	AC94DS69	BANNOCKBURN	EL45/92	CRAE	366183.0	5356895.0	65748	56950	12.40	0	-90
DS70	AC94DS70	BANNOCKBURN	EL45/92	CRAE	366223.0	5356937.0	65788	56992	20.70	0	-90
DS71	AC94DS71	BANNOCKBURN	EL45/92	CRAE	366218.0	5356937.0	65783	56992	2.50	0	-90
DS72	AC94DS72	BANNOCKBURN	EL45/92	CRAE	366211.0	5356937.0	65776	56992	4.90	0	-90
DS73	AC94DS73	BANNOCKBURN	EL45/92	CRAE	366205.0	5356937.0	65770	56992	11.80	0	-90
DS74	AC94DS74	BANNOCKBURN	EL45/92	CRAE	366198.0	5356937.0	65763	56992	15.30	0	-90
DS75	AC94DS75	BANNOCKBURN	EL45/92	CRAE	366265.0	5356945.0	65830	57000	22.00	0	-90
DS76	AC94DS76	BANNOCKBURN	EL45/92	CRAE	366255.0	5356945.0	65820	57000	16.00	0	-90
DS77	AC94DS77	BANNOCKBURN	EL45/92	CRAE	366245.0	5356945.0	65810	57000	23.20	0	-90
DS78	AC94DS78	BANNOCKBURN	EL45/92	CRAE	366237.0	5356945.0	65802	57000	33.70	0	-90
DS79	AC94DS79	BANNOCKBURN	EL45/92	CRAE	366228.0	5356945.0	65793	57000	47.30	0	-90
DS80	AC94DS80	BANNOCKBURN	EL45/92	CRAE	366330.0	5357045.0	65895	57100	15.50	0	-90
DS81	AC94DS81	BANNOCKBURN	EL45/92	CRAE	366317.0	5357045.0	65882	57100	2.50	0	-90
DS82	AC94DS82	BANNOCKBURN	EL45/92	CRAE	366308.0	5357045.0	65873	57100	20.90	0	-90
DS83	AC94DS83	BANNOCKBURN	EL45/92	CRAE	366298.0	5357045.0	65863	57100	2.70	0	-90
DS84	AC94DS84	BANNOCKBURN	EL45/92	CRAE	366289.0	5357045.0	65854	57100	21.70	0	-90
DS85	AC94DS85	BANNOCKBURN	EL45/92	CRAE	366277.0	5357045.0	65842	57100	31.00	0	-90
DS86	AC94DS86	BANNOCKBURN	EL45/92	CRAE	366257.0	5357045.0	65822	57100	36.00	0	-90
DS87	AC94DS87	BANNOCKBURN	EL45/92	CRAE	366245.0	5357045.0	65810	57100	8.30	0	-90
DS88	AC94DS88	BANNOCKBURN	EL45/92	CRAE	366232.0	5357045.0	65797	57100	7.10	0	-90
DS89	AC94DS89	BANNOCKBURN	EL45/92	CRAE	366218.0	5357045.0	65783	57100	13.10	0	-90
DS90	AC94DS90	BANNOCKBURN	EL45/92	CRAE	366203.0	5357045.0	65768	57100	12.70	0	-90
DS91	AC94DS91	BANNOCKBURN	EL45/92	CRAE	366373.0	5356795.0	65938	56850	14.20	0	-90
DS92	AC94DS92	BANNOCKBURN	EL45/92	CRAE	366365.0	5356745.0	65930	56800	12.80	0	-90
DS93	AC94DS93	BANNOCKBURN	EL45/92	CRAE	366367.0	5356845.0	65932	56900	3.20	0	-90
DS94	AC94DS94	BANNOCKBURN	EL45/92	CRAE	366359.0	5356895.0	65924	56950	25.10	0	-90
DS95	AC94DS95	BANNOCKBURN	EL45/92	CRAE	366357.0	5356945.0	65922	57000	30.00	0	-90
DS96	AC94DS96	BANNOCKBURN	EL45/92	CRAE	366365.0	5357045.0	65930	57100	15.80	0	-90

APPENDIX : Mount Dundas EL45/92. Drill hole collar database.

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim	Incl.
DTBJ1	DTBJ-84-1	BLACKJACKS	EL15/76	AMOCO	366611.0	5360596.0	67225	60830	102.50	91	-40
DTBJ2	DTBJ-84-2	BLACKJACKS	EL15/76	AMOCO	366479.7	5360803.1	67160	61050	98.50	75	-45
DB1	AC93DB1	BLACKJACKS	EL45/92	CRAE	366605.9	5360566.7	67200	60800	26.00	0	-90
DB2	AC93DB2	BLACKJACKS	EL45/92	CRAE	366630.1	5360573.2	67225	60800	19.70	0	-90
DB3	AC93DB3	BLACKJACKS	EL45/92	CRAE	366654.2	5360579.7	67250	60800	17.30	0	-90
DB4	AC93DB4	BLACKJACKS	EL45/92	CRAE	366673.4	5360595.7	67275	60800	9.80	0	-90
DB5	AC93DB5	BLACKJACKS	EL45/92	CRAE	366692.5	5360611.8	67300	60800	20.00	0	-90
DB6	AC93DB6	BLACKJACKS	EL45/92	CRAE	366711.7	5360627.9	67325	60800	10.50	0	-90
DB7	AC93DB7	BLACKJACKS	EL45/92	CRAE	366730.8	5360643.9	67350	60800	32.00	0	-90
DB8	AC93DB8	BLACKJACKS	EL45/92	CRAE	366750.0	5360660.0	67375	60800	18.00	0	-90
DB9	AC93DB9	BLACKJACKS	EL45/92	CRAE	366531.7	5360767.1	67200	61000	8.00	0	-90
DB10	AC93DB10	BLACKJACKS	EL45/92	CRAE	366555.9	5360773.5	67225	61000	14.20	0	-90
DB11	AC93DB11	BLACKJACKS	EL45/92	CRAE	366580.0	5360780.0	67250	61000	22.60	0	-90
DB12	AC93DB12	BLACKJACKS	EL45/92	CRAE	366604.0	5360787.0	67275	61000	26.70	0	-90
DB14	AC94DB14	BLACKJACKS	EL45/92	CRAE	366617.2	5360686.5	67260	60900	29.00	0	-90
DB15	AC94DB15	BLACKJACKS	EL45/92	CRAE	366597.9	5360681.0	67240	60900	25.50	0	-90
DB16	AC94DB16	BLACKJACKS	EL45/92	CRAE	366578.7	5360675.5	67220	60900	23.70	0	-90
DB17	AC94DB17	BLACKJACKS	EL45/92	CRAE	366564.3	5360671.3	67205	60900	18.00	0	-90
DB18	AC94DB18	BLACKJACKS	EL45/92	CRAE	366593.8	5360731.8	67250	60950	30.00	0	-90
DB19	AC94DB19	BLACKJACKS	EL45/92	CRAE	366574.5	5360726.3	67230	60950	25.10	0	-90
DB20	AC94DB20	BLACKJACKS	EL45/92	CRAE	366555.3	5360720.8	67210	60950	23.20	0	-90
DB21	AC94DB21	BLACKJACKS	EL45/92	CRAE	366536.1	5360715.3	67190	60950	33.00	0	-90
DB22	AC94DB22	BLACKJACKS	EL45/92	CRAE	366508.5	5360811.4	67190	61050	49.00	0	-90
DB23	AC94DB23	BLACKJACKS	EL45/92	CRAE	366527.7	5360816.9	67210	61050	32.50	0	-90
DB24	AC94DB24	BLACKJACKS	EL45/92	CRAE	366547.0	5360822.4	67230	61050	34.00	0	-90
DB25	AC94DB25	BLACKJACKS	EL45/92	CRAE	366512.0	5360864.4	67208	61100	26.30	0	-90
DB26	AC94DB26	BLACKJACKS	EL45/92	CRAE	366492.8	5360858.9	67188	61100	20.20	0	-90
DB27	AC94DB27	BLACKJACKS	EL45/92	CRAE	366475.5	5360853.9	67170	61100	32.50	0	-90
DB28	AC94DB28	BLACKJACKS	EL45/92	CRAE	366377.1	5361033.8	67125	61300	28.00	0	-90
DB29	AC94DB29	BLACKJACKS	EL45/92	CRAE	366353.1	5361026.9	67100	61300	14.30	0	-90
DB30	AC94DB30	BLACKJACKS	EL45/92	CRAE	366329.1	5361020.0	67075	61300	7.70	0	-90
DB31	AC94DB31	BLACKJACKS	EL45/92	CRAE	366305.0	5361013.1	67050	61300	51.00	0	-90
DB32	AC94DB32	BLACKJACKS	EL45/92	CRAE	366281.0	5361006.2	67025	61300	33.00	0	-90
DB33	AC94DB33	BLACKJACKS	EL45/92	CRAE	366257.0	5360999.3	67000	61300	5.90	0	-90
DB34	AC94DB34	BLACKJACKS	EL45/92	CRAE	366232.9	5360992.4	66975	61300	18.00	0	-90
DB35	AC94DB35	BLACKJACKS	EL45/92	CRAE	366205.1	5360984.4	66946	61300	24.20	0	-90
DB36	AC94DB36	BLACKJACKS	EL45/92	CRAE	366223.0	5361197.6	67022	61500	19.60	0	-90
DB37	AC94DB37	BLACKJACKS	EL45/92	CRAE	366249.9	5361205.4	67050	61500	25.00	0	-90
DB38	AC94DB38	BLACKJACKS	EL45/92	CRAE	366273.9	5361212.3	67075	61500	45.70	0	-90
DB39	AC94DB39	BLACKJACKS	EL45/92	CRAE	366298.0	5361219.1	67100	61500	16.10	0	-90
DB40	AC94DB40	BLACKJACKS	EL45/92	CRAE	366322.0	5361226.0	67125	61500	1.70	0	-90
DB41	AC94DB41	BLACKJACKS	EL45/92	CRAE	366218.8	5361404.5	67075	61700	4.00	0	-90
DB42	AC94DB42	BLACKJACKS	EL45/92	CRAE	366194.8	5361397.6	67050	61700	6.60	0	-90
DB43	AC94DB43	BLACKJACKS	EL45/92	CRAE	366170.7	5361390.7	67025	61700	19.10	0	-90
DB44	AC94DB44	BLACKJACKS	EL45/92	CRAE	366624.5	5360896.7	67325	61100	28.30	0	-90
DB45	AC94DB45	BLACKJACKS	EL45/92	CRAE	366600.5	5360889.8	67300	61100	12.60	0	-90
DB46	AC94DB46	BLACKJACKS	EL45/92	CRAE	366576.4	5360882.9	67275	61100	43.30	0	-90
DB47	AC94DB47	BLACKJACKS	EL45/92	CRAE	366552.4	5360876.0	67250	61100	31.50	0	-90
DB48	AC94DB48	BLACKJACKS	EL45/92	CRAE	366536.1	5360871.3	67233	61100	37.10	0	-90
DB49	AC94DB49	BLACKJACKS	EL45/92	CRAE	366406.0	5361042.0	67155	61300	26.50	0	-90
DB50	AC94DB50	BLACKJACKS	EL45/92	CRAE	366425.2	5361047.6	67175	61300	22.00	0	-90
DB51	AC94DB51	BLACKJACKS	EL45/92	CRAE	366449.2	5361054.5	67200	61300	7.30	0	-90
DB52	AC94DB52	BLACKJACKS	EL45/92	CRAE	366473.3	5361061.3	67225	61300	4.10	0	-90
DB53	AC94DB53	BLACKJACKS	EL45/92	CRAE	366501.1	5361069.3	67254	61300	29.00	0	-90
DB54	AC94DB54	BLACKJACKS	EL45/92	CRAE	366521.3	5361075.1	67275	61300	42.00	0	-90
DB55	AC94DB55	BLACKJACKS	EL45/92	CRAE	366545.4	5361082.0	67300	61300	33.00	0	-90
DB56	AC94DB56	BLACKJACKS	EL45/92	CRAE	366565.5	5361087.8	67321	61300	24.00	0	-90
DB57	AC94DB57	BLACKJACKS	EL45/92	CRAE	366586.3	5361301.8	67400	61500	1.00	0	-90
DB58	AC94DB58	BLACKJACKS	EL45/92	CRAE	366562.3	5361294.9	67375	61500	3.80	0	-90
DB59	AC94DB59	BLACKJACKS	EL45/92	CRAE	366538.3	5361288.1	67350	61500	9.00	0	-90
DB60	AC94DB60	BLACKJACKS	EL45/92	CRAE	366514.3	5361281.2	67325	61500	8.50	0	-90
DB61	AC94DB61	BLACKJACKS	EL45/92	CRAE	366490.2	5361274.3	67300	61500	45.60	0	-90
DB62	AC94DB62	BLACKJACKS	EL45/92	CRAE	366466.2	5361267.4	67275	61500	27.10	0	-90
DB63	AC94DB63	BLACKJACKS	EL45/92	CRAE	366442.2	5361260.5	67250	61500	14.80	0	-90
DB64	AC94DB64	BLACKJACKS	EL45/92	CRAE	366421.0	5361254.4	67228	61500	8.80	0	-90
DB65	AC94DB65	BLACKJACKS	EL45/92	CRAE	366394.1	5361246.7	67200	61500	12.50	0	-90
DB66	AC94DB66	BLACKJACKS	EL45/92	CRAE	366370.1	5361239.8	67175	61500	16.30	0	-90
DB67	AC94DB67	BLACKJACKS	EL45/92	CRAE	366346.0	5361232.9	67150	61500	2.60	0	-90

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azim	Incl.
DB68	AC94DB68	BLACKJACKS	EL45/92	CRAE	366242.8	5361411.4	67100	61700	7.00	0	-90
DB69	AC94DB69	BLACKJACKS	EL45/92	CRAE	366266.9	5361418.3	67125	61700	2.20	0	-90
DB70	AC94DB70	BLACKJACKS	EL45/92	CRAE	366290.9	5361425.2	67150	61700	2.90	0	-90
DB71	AC94DB71	BLACKJACKS	EL45/92	CRAE	366314.9	5361432.1	67175	61700	6.00	0	-90
DB72	AC94DB72	BLACKJACKS	EL45/92	CRAE	366387.0	5361452.7	67250	61700	5.00	0	-90
DB73	AC94DB73	BLACKJACKS	EL45/92	CRAE	366411.1	5361459.6	67275	61700	10.30	0	-90
DB74	AC94DB74	BLACKJACKS	EL45/92	CRAE	366435.1	5361466.5	67300	61700	7.30	0	-90
DB75	AC94DB75	BLACKJACKS	EL45/92	CRAE	366459.1	5361473.4	67325	61700	13.10	0	-90
DB76	AC94DB76	BLACKJACKS	EL45/92	CRAE	366483.2	5361480.3	67350	61700	17.20	0	-90
DB77	AC94DB77	BLACKJACKS	EL45/92	CRAE	366507.2	5361487.2	67375	61700	14.90	0	-90
DB78	AC94DB78	BLACKJACKS	EL45/92	CRAE	366531.2	5361494.1	67400	61700	24.10	0	-90
DB79	AC94DB79	BLACKJACKS	EL45/92	CRAE	366555.3	5361501.0	67425	61700	1.50	0	-90
DB80	AC94DB80	BLACKJACKS	EL45/92	CRAE	366189.1	5361598.8	67100	61895	4.00	0	-90
DB81	AC94DB81	BLACKJACKS	EL45/92	CRAE	366211.7	5361610.5	67125	61900	23.10	0	-90
DB82	AC94DB82	BLACKJACKS	EL45/92	CRAE	366235.8	5361617.4	67150	61900	19.00	0	-90
DB83	AC94DB83	BLACKJACKS	EL45/92	CRAE	366259.8	5361624.3	67175	61900	8.50	0	-90
DB84	AC94DB84	BLACKJACKS	EL45/92	CRAE	366283.8	5361631.2	67200	61900	3.00	0	-90
DB85	AC94DB85	BLACKJACKS	EL45/92	CRAE	366307.9	5361638.1	67225	61900	2.00	0	-90
DB86	AC94DB86	BLACKJACKS	EL45/92	CRAE	366331.9	5361645.0	67250	61900	7.50	0	-90
DB87	AC94DB87	BLACKJACKS	EL45/92	CRAE	366355.9	5361651.9	67275	61900	2.40	0	-90
DB88	AC94DB88	BLACKJACKS	EL45/92	CRAE	366380.0	5361658.8	67300	61900	1.50	0	-90
DB89	AC94DB89	BLACKJACKS	EL45/92	CRAE	366404.0	5361665.7	67325	61900	3.50	0	-90
DB90	AC94DB90	BLACKJACKS	EL45/92	CRAE	366428.0	5361672.6	67350	61900	4.90	0	-90
DB91	AC94DB91	BLACKJACKS	EL45/92	CRAE	366228.7	5361823.5	67200	62100	1.30	0	-90
DB92	AC94DB92	BLACKJACKS	EL45/92	CRAE	366252.7	5361830.4	67225	62100	1.00	0	-90
DB93	AC94DB93	BLACKJACKS	EL45/92	CRAE	366276.8	5361837.2	67250	62100	1.00	0	-90
DB94	AC94DB94	BLACKJACKS	EL45/92	CRAE	366300.8	5361844.1	67275	62100	0.80	0	-90
DB95	AC94DB95	BLACKJACKS	EL45/92	CRAE	366324.8	5361851.0	67300	62100	1.00	0	-90
DB96	AC94DB96	BLACKJACKS	EL45/92	CRAE	366348.9	5361857.9	67325	62100	0.90	0	-90
DB97	AC94DB97	BLACKJACKS	EL45/92	CRAE	366372.9	5361864.8	67350	62100	5.50	0	-90
DB98	AC94DB98	BLACKJACKS	EL45/92	CRAE	366396.9	5361871.7	67375	62100	19.50	0	-90
DB99	AC94DB99	BLACKJACKS	EL45/92	CRAE	366421.0	5361878.6	67400	62100	25.70	0	-90
DB100	AC94DB100	BLACKJACKS	EL45/92	CRAE	366440.2	5361884.1	67420	62100	25.30	0	-90
DB101	AC94DB101	BLACKJACKS	EL45/92	CRAE	366225.2	5361926.5	67225	62200	1.00	0	-90
DB102	AC94DB102	BLACKJACKS	EL45/92	CRAE	366273.2	5361940.3	67275	62200	1.10	0	-90
DB103	AC94DB103	BLACKJACKS	EL45/92	CRAE	366321.3	5361954.0	67325	62200	1.10	0	-90
DB104	AC94DB104	BLACKJACKS	EL45/92	CRAE	366369.4	5361967.8	67375	62200	12.20	0	-90
DB105	AC94DB105	BLACKJACKS	EL45/92	CRAE	366393.4	5361974.7	67400	62200	35.20	0	-90
DB106	AC94DB106	BLACKJACKS	EL45/92	CRAE	366417.4	5361981.6	67425	62200	2.60	0	-90
DB107	AC94DB107	BLACKJACKS	EL45/92	CRAE	366441.5	5361988.5	67450	62200	11.10	0	-90
DB108	AC94DB108	BLACKJACKS	EL45/92	CRAE	366423.6	5361463.2	67288	61700	10.60	0	-90
DB109	AC94DB109	BLACKJACKS	EL45/92	CRAE	366331.3	5361436.8	67192	61700	1.50	0	-90

APPENDIX : Mount Dundas EL45/92. Drill hole collar database.

Hole	Full Name	Prospect	EL	Company	AMG E	AMG N	Local E	Local N	Depth	Azimi	Incl.
HR1	HOWARD RD 1	HOWARD'S ROAD		DOM	371549.0	5354897.6			303.70	252	-45

APPENDIX 2

MARIPOSA DIAMOND DRILL LOGS AND GEOCHEMISTRY

805038

?

49.2m

CRA EXPLORATION PTY. LIMITED

DRILL-HOLE SUMMARY LOG

EL NAME: MT DUNDAS
EL NUMBER: EL45/92
DATE DRILLED: MAY 1994
LOGGED BY: RGP

HOLE NAME: DD94DM208
PROSPECT: MARIPOSA

AMG EAST: _____
AMG NORTH: _____
RL: _____

GRID EAST: 67319
GRID NORTH: 58847
TOTAL DEPTH: 49.2

DEPTH	AZIM. (~~MAG~~ AMG)	INCLIN.
0	–	-90°
36	190	-89°
49	330	-83°

OBJECTIVES OF HOLE: To intersect suspected sub-vertical structurally controlled mineralisation adjacent to faulted contact between limestone + Dundas Gp.

LITHOLOGICAL SUMMARY:

DFROM	DTO	COMMENTS
0	11.7	NO CORE
11.7	41.0	PARTIAL TO TOTALLY DECOMPOSED LIMESTONE
41.0	49.2	LIMESTONE

MINERALISATION SUMMARY:

DFROM	DTO	COMMENTS

CONCLUSIONS:

Hole abandoned at 49.2 due to severe hole deviation. Target not intersected.

SHEET No. 1 of 2

MARIPOSA

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

TENEMENT NAME MT DUNDAS No EL 4457

PLAN – MAP REFERENCE

CO-ORDINATES 67319 E 58847 N AZIMUTH – DRILLERS DD TAS COMMENCED 16/5/94 DEPTH 49.2 HOLE No DD94DM2C

RL COLLAR INCLINATION -90° DRILL TYPE LY38 COMPLETED 20/5/94 CASING LEFT DPO No(s) 77653

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log RQD	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by)
0	10.0				PRECOLLAR - no core.						
0.0	11.7	-	HQ	5	NO RECOVERY						
11.7	20.3		HQ	5x	CLAY AND BROKEN LIMESTONE. DECOMPOSED. Grey. Mixed fragments of decomposed brecciated limestone, clay pug and carbonate sand. i.e. weathered.		3187408 409	11.7 15.15	15.15 20.3		
20.3	26.1		HQ	4x	PARTLY DECOMPOSED STYLOLAMINATED LIMESTONE Light grey fine g/s limestone with well developed planar stylolaminations. Core is locally decomposed to a light grey to white carbonate sand - mud. 21.2 S_0 - C.A. ∢ 15° 21.5 S_0 ∢ 10°						
26.1	31.2		HQ	5X	DECOMPOSED LIMESTONE Grey. Limestone fragments, puggy clay and carbonate sand.		410	26.1	31.2		
31.2	33.6		HQ	2F	LEACHED LIMESTONE Grey med g/s limestone with rough etched and leached texture. Transition from decomposed lst above to fresh lst below. No obvious bedding. Cut by several 0.2-10mm light brown calcite veins at low ∢ - C.A. 32.6 sid vn - C.A. ∢ 10° 33.0 -"- -"- ∢ 0°						

DRILL RUNS FR	TO	REC	R
0	10	-	
	11.7	0	5
	12.6	0.5	5
	14.0	0.6	
	15.15	0.6	
	16.0	0.35	
	17.0	0.3	
	17.6	0.4	
	18.6	0.1	
	19.15	0.7	
	20.0	0.85	
	21.9	1.4	4
	23.0	0.8	5
	26.0	2.2	4
	27.2	0.3	5
	29.0	0.35	
	29.7	0.4	
	31.0	0.5	
	32.0	0.8	7
	35.0	2.8	2

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. 2 of 3

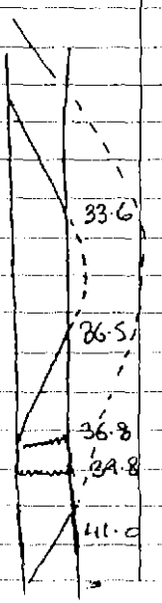
TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM208

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log RQD	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ..... DRILL RUNS FR	TO	REC	RQD
33.6	36.5	·	HQ	3F	LIMESTONE BRECCIA? Grey fresh limestone comprising what looks to be jig-saw-fit clasts with minor interstitial dark grey carbonaceous matrix. Some interstitial material looks almost like stylolites. If a breccia then probably would be syn-diagenetic – not battle tectonic. Upper & lower contacts at very low ∠ to C.A. ⇒ very thin unit really? Minor ½–10 mm siderite veins 33.6 S_0 – C.A ∠ +20° 33.8 S_0 ∠ −20° 34.5 sid vn ∠ 10° 35.0 sid vn ∠ 0° 36.5 S_0 ∠ 22°						35.0	36.8	1.15	31
												39.8	–	–
												41.0	0.25	5
											REDUCE	NXQ		41
36.5	36.8		HQ	3F	LEACHED LIMESTONE As for 31.2–33.6 m									
36.8	39.8	0	HQ	5	NO RECOVERY									
39.8	41.0		HQ	5x	PARTLY DECOMPOSED STYLOLAMINATED LIMESTAE As for 20.3–26.1									
					Core barrel lost down hole at 41m. Unable to be recovered and ctd NQ.	Cased off								



C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. 3 of 3

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM208

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log Rec	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)
41.0	49.2	8.2	NQ	2F	MASSIVE FINE GRAINED LIMESTONE. Light grey to grey massive fine gls limestone, similar to 20.3 – 26.1 but with only minor planar stylolites. Stylo bands become thicker (1–3mm) + more common toward 49.2. Core very competent, mostly not veined. If stylolites are // bedding, then very low to c.A. 44.7 stylos – c.A ∡ 0° 47.5 " " ∡ 0° Regular fractures (± calcite veinlets at high ∡ – cA. Late stage? e.g 43.3 fracture – c.A ∡ 70°					
	EOH				Hole abandoned at 49.2 due to severe deviation in rods. DH SURVEYS 0m –90° – 36m –89° → 190 AMG 49m –83° → 330 AMG					

ASSAY VALUES (Analysed by .....)

DRILL RUNS FR	TO	REC	RC
41.0	44.0	1.9	2
	44.75	0.6	2
	46.5	1.85	3
	49.2	2.7	2

805042

CRA EXPLORATION PTY. LIMITED

DRILL-HOLE SUMMARY LOG

EL NAME: MT DUNDAS — HOLE NAME: DD94 DM209
EL NUMBER: EL45/92 — PROSPECT: MARIPOSA
DATE DRILLED: MAY 1994
LOGGED BY: RGP

AMG EAST: — GRID EAST: 67350
AMG NORTH: — GRID NORTH: 58849
RL: — TOTAL DEPTH: 141.7

DEPTH	AZIM. (MAG) AMG	INCLIN.
0	253	-70°
60	259	-72.5°
100	257	-73°
140	?	-75°

OBJECTIVES OF HOLE: To intersect structurally controlled mineralisation at faulted contact between Gordon Limestone and Dundas Gp.

LITHOLOGICAL SUMMARY:

DFROM	DTO	COMMENTS
0	30.0	PRECOLLAR - coloured clays after Ed? in cuttings
30.0	46.0	DOLOMITE
46.0	51.9	CLAY
51.9	59.6	SIDERITE ZONE
59.6	68.85	SHALEY LIMESTONE
68.85	79.8	CLAY
79.8	81.15	SIDERITE ZONE
81.15	110.4	CLAY
110.4	113.0	DOLOMITE - CLAY
113.0	124.3	CLAY
124.3	125.0	SIDERITE ZONE
125.0	139.05	CLAY
139.05	141.7	SANDSTONE (MOINA SST?)

MINERALISATION SUMMARY:

DFROM	DTO	COMMENTS
51.9	59.6	7.7m @ 2.11% Zn (40% core rec) (Est true width ~ 3m)

CONCLUSIONS: No obvious sulphide mineralisation. Siderite + clay zones may be stratabound zone at base of Gordon Limestone sequence. Sandstone at EOH would then be Moina Sst. This is exposed in track 60m to S - Amoco mapped as Cothy (unlikely).
Hole drilled down bedding plane.
Stratabound target requires more testing.

805043

MARIPOSA

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 5

TENEMENT NAME MT DUNDAS No. EL 45/9

PLAN – MAP REFERENCE

673500E
CO ORDINATES 58849N AZIMUTH 253 AMG DRILLERS DD TAS COMMENCED 20/5/94 DEPTH 141.7 m. HOLE No. DD94DM20

RL COLLAR INCLINATION -70° DRILL TYPE LY38 COMPLETED 28/5/94 CASING LEFT DPO No(s) 77653

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log RQD	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by) Zn%
0	30.0				PRECOLLAR – no core. Some coloured clays after Dundas Group seals in cuttings.						
30.0	46.0		HQ	5X	DOLOMITE Dark grey massive dolomitised limestone – weak reaction with HCl ⇒ minor $CaCO_3$. Sideritic zones between 33.1 – 36.2m. Dolomite fragments cut by 5mm wide cream dolomite veins with fibrous texture ⇒ tensional. i.e.  Core is rubbly with very poor recovery. Includes puggy clay + carbonate sand.		3981411	30.0	34.1		
							412	34.1	38.0		
							413	39.1	42.5		
							414	42.5	46.0		
46.0	51.9		HQ	5	CLAY Dark grey puggy carbonaceous clay.		415	46.0	49.5		
							416	49.5	51.9		
51.9	59.6	40%	HQ	5X	SIDERITE ZONE Dark yellow grey massive to spongey siderite with some puggy clay and decomposed carbonate sand. Severe core loss, losing clay + sand? Toward 59.6 contact between siderite and rubbly clay is ll to c.A. Reduce to NQ 56.6m.		417	51.9	54.5	1.3	3.30
							418	54.5	56.6	0.6	1.38
							419	56.6	59.6	1.2	1.58

DRILL RUNS

FR	TO	Rec	R
0	30.0	–	–
	32.0	0.4	5
	33.1	–	–
	34.1	0.1	5
	35.0	0.05	
	36.2	0.3	
	38.0	0.2	
	39.1	–	–
	40.0	0.4	5
	40.3	0.4	4
	41.0	0.25	5
	41.6	0.2	
	42.5	0.2	
	44.0	0.05	
	45.0	0.1	
	46.0	0.1	5
	47.0	0.3	5
	48.5	1.4	
	50.0	1.7	
	50.6	1.0	
	51.2	1.0	
	52.2	0.75	
	53.0	0.6	5
	53.85	0.4	1
	54.5	0.1	5
	56.0	0.25	
	56.6	0.35	
REDUCE		NQ	5
	57.5	0.2	4
	58.1	0.2	4
	59.0	0.35	

805044

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2 of 5

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. Dm 209

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Core Loss Rec	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by .....) DRILL RUNS FR	TO	REC	RQ
59.6	68.85		NQ	5x	SHALEY LIMESTONE Mixed light grey, grey and yellow grey. Dominantly light grey to dark grey shaley limestone, carbonaceous bands possibly stylolitic. Ust is fine gls carbonate mud with some coarser crystalline irregular calcite patches. Core strongly broken with severe core loss. Interval includes puggy clays + carbonate sand zones.		8987420	59.6	65.0		59.0	59.6	0.45	4x
							421	65.0	68.85			60.6	0.5	5x
												62.6	0.66	
												65.0	0.7	
												66.5	0.7	
												68.0	0.6	
												68.85	0.85	4x
												71.0	–	–
												71.65	0.05	5
												73.0	0.15	5
												74.0	0.5	5
68.85	71.0				NO RECOVERY							74.6	0.7	
												76.2	0.7	
71.0	79.8		NQ	5	CLAY Light grey, dark grey and yellow brown puggy clay with minor fragments of silicified carbonate. Similar to to 59.6 – 68.85 but lacking zones of identifyable limestone. Poor recovery.		422	71.0	76.2			77.0	0.05	
							423	76.2	79.8			77.6	0.05	
												78.9	0.65	
												79.5	–	–
												80.0	0.3	5
												81.1	0.85	2
												82.1	0.4	5
												83.5	–	–
79.8	81.15		NQ	3F	SIDERITE ZONE Dark yellow grey massive siderite. Core is speckled with 0.5mm gls white + yellow crystalline grains, some may be sphalerite? Good core recovery.		424	79.8	81.15			84.15	0.8	
												85.0	0.55	
												86.0	–	–
												87.2	0.9	
												88.6	0.5	
												89.0	0.6	
81.15	89.5		NQ	5	CLAY White to light yellow grey puggy clay with minor gritty quartz. Between 81.15 + 82.1 clay contains siderite fragments.		425	81.15	82.1			89.9	1.3	
							426	83.5	89.5					

805045

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 3 of 5

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM209

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)
89.5	100.0		NQ	5	CLAY Orange-brown puggy clay. 100mm sandstone band at 97.7-97.85m. Minor gritty ferruginous fragments throughout clay.		3987427	89.5	95.0	
							428	95.0	100.0	
00.0	101.0				NO RECOVERY.					
01.0	110.4		NQ	5	CLAY White puggy clay + minor gritty shaley fragments. Similar to 83.5-89.5m. Looks to be symmetry about orange-brown clays (89.5-100.0) as if contact is swinging above/below hole (i.e. ⊥ to C.A.).		429	101.0	107.0	
							430	110.0	110.4	
10.4	113.0		NQ	5	DOLOMITE + CARBONACEOUS CLAY Dark grey med gls dolomite with a foliation defined by carbonaceous films. Uncertain whether bedding or cleavage. Patchy weak siderite. Dark grey carbonaceous puggy clay, particularly above/below main dolomite band between 111.0 - 112.0m. 111.3m bedding or cleavage? = C.A ∡ 30°		431	110.4	113.0	
13.0	124.3		NQ	5	CLAY White puggy clay with minor dark grey carbonaceous fragments to 118.45, then minor light brown quartz sand grains to 122.0m.		432	113.0	118.45	
							433	118.45	124.3	

ASSAY VALUES (Analysed by .....)

DRILL RUNS FR	To	REC	RC
89.9	90.8	0.7	
	91.4	0.5	
	92.0	1.0	
	93.8	2.0	
	95.0	0.75	
	96.2	1.4	
	96.8	0.6	
	97.3	0.4	
	98.0	0.6	
	100.0	0.6	
	101.0	–	
	104.0	1.3	
	105.35	1.1	
	107.00	0.55	
	110.0	–	
	110.6	0.45	
	111.1	0.2	
	112.0	0.5	
	113.0	0.2	
	114.6	1.3	
	116.0	1.5	
	118.45	1.15	
	119.0	0.4	
	120.2	1.0	
	122.0	1.15	
	123.2	–	
	123.8	0.6	

805046

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM209

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log RQD	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)
4.3	125.0		NQ	4X	SIDERITE AND CARBONACEOUS CLAY Dark yellow grey massive siderite and dark grey to Black carbonaceous clay. Siderite has a wispy carbonaceous foliation. 124.6 Foliation – C.A ∠ 32° Boundary between siderite and clay is ll to C.A.		3987434	124.3	125.0	
5.0	139.05		NQ	5	CLAY White - light yellow-brown puggy clay. Band of light grey to white massive dolomite 129.8 – 134.4, brecciated and mixed with the clay. Minor gritty fragments of dolomite throughout.		435 436 437	125.0 130.0 134.0	130.0 134.0 139.05	
39.05	141.7		NQ	5X	SANDSTONE Light grey to white coarse gls quartz sandstone. Prominent 5mm wide white bands in core at 139.3 – consisting of massive silica cement. Bedding? 139.3 S_0 – C.A. ∠ 30° Core is quartz veined. Very rubbly with poor recovery. Unable to be drilled through due to caving rubble. MAY BE MOINA SANDSTONE.		438	139.05	141.7	

DOWN HOLE SURVEYS

0 m	-70°	→	253 AMG
60 m	-72.5	→	259 AMG
100 m	-73°	→	257 AMG
140 m	-75°	→	?

ASSAY VALUES (Analysed by .....)

DRILL RUNS FR	TO	REC	RQD
23.8	125.0	0.8	5/4
	126.5	0.6	5
	128.0	0.5	
	129.3	0.2	
	130.0	0.7	
	130.4	0.25	
	131.0	0.1	
	131.6	0.5	
	133.1	0.5	
	134.0	0.8	
	135.5	0.35	
	137.0	0.45	
	138.2	1.0	
	138.8	0.65	
	139.3	0.5	5/5
	139.6	0.1	5
	140.85	0.2	
	141.2	0.2	
	141.7	0.2	

805047

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

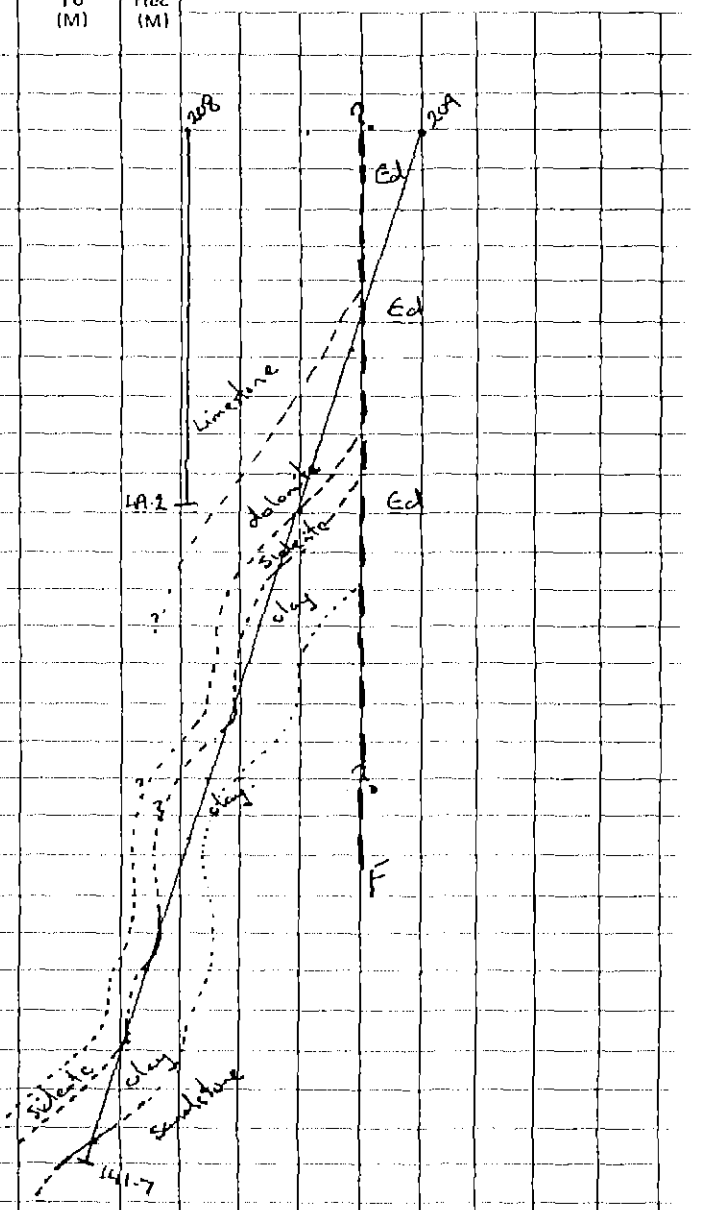
SHEET No. 5 of 5

TENEMENT NAME ..... No. .....

PLAN — MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. Dm 209

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by .....)
					Drillhole is probably drilling almost along bedding, possibly crossing back & forth through the siderite-clay contact zone near base of limestone sequence. Sandstone at EOH may be Moina sst. Same as that exposed on track at about 58780 N. Unlikely to be Cotty quartzite as mapped by Amoco.						

805048

CRA EXPLORATION PTY. LIMITED

DRILL-HOLE SUMMARY LOG

EL NAME: _____ HOLE NAME: DD94 DM210
EL NUMBER: EL45/92 PROSPECT: MARIPOSA
DATE DRILLED: JUN 94
LOGGED BY: RGP

AMG EAST: _____ GRID EAST: 67345
AMG NORTH: _____ GRID NORTH: 59398
RL: _____ TOTAL DEPTH: 62.6

DEPTH	AZIM. (AMG)	INCLIN.
0	252	-70

NO DH SURVEYS.

OBJECTIVES OF HOLE: To test mineralisation at contact between Dundas Gp - Gordon Lst. Originally thought to be structural, now possibly basal stratabound mineral. Mana sst condensed or absent?

LITHOLOGICAL SUMMARY:

DFROM	DTO	COMMENTS
0	~17m	COLOURED CLAYS (Ed?)] NO RECOVERY.
~17	18.5	DARK CLAYS (Og?)]
18.5	20.5	SIDERITE ZONE
20.5	25.9	CLAY + BRECCIA
25.9	28.4	DOLOMITE BRECCIA + Ga-Sp.
28.4	35.0	DECOMPOSED CARBONATE
35.0	38.0	VEINED LIME MUDSTONE
38.0	54.5	LIME MUDSTONE
54.5	57.2	STYLOLAMINATED LIMESTONE
57.2	62.6	CALCARENITE.

MINERALISATION SUMMARY:

DFROM	DTO	COMMENTS
23.0	28.4	5.4m @ 1.37% Zn 1.66% Pb 25 ppm Ag

CONCLUSIONS: Precollared through Ed - Og contact. Basal zone of clays - siderite is a significant stratabound target. Mineralised dolomite breccia above siderite zone may also be stratabound.

Ed?

Og

EOH 62.6

805049

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. 1 of 1

TENEMENT NAME MT DUNDAS No. EL 4615

PLAN – MAP REFERENCE

CO-ORDINATES 67345E 59398N AZIMUTH 252 AMG / Drill Le checked. DRILLERS DD TAS COMMENCED 31/5/94 DEPTH 62.6 HOLE No. DD94DM2

RL COLLAR INCLINATION -~~60~~ 70° DRILL TYPE L-38 COMPLETED 6/6/94 CASING LEFT DPO No(s)

DEPTH From (M)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by DRILL RUNS) Zn%	Pb%	Ag				FR	TO	REC	RC
0	18.5	–			NO RECOVERY												0	18	PREVIOUS	
					0-17 Colored clays (Dundas Gp?)													18.5	–	
					17-18.5 Dark sludge (Gordon Lst?)													19.0	0.4	5
																		20.0	0.8	
18.5	20.5		HQ		MASSIVE SIDERITE		3984439	18.5	20.5									21.0	1.0	
					Dark yellow grey dense massive siderite. Cut by minor cream dolomite (ferroan?) veins at low to 0° to C.A.													22.0	0.6	
																		23.0	0.5	
					Strongly fractured.	No visible sulphides.												23.5	0.1	
																		24.0	0.3	
																		24.4	0.1	
20.5	25.9		HQ		CLAY + BRECCIA.		440	20.5	23.0									24.6	0.15	
					Yellow grey sidertic clay and brecciated carbonate to		441	23.0	25.9		1.16	2.45	29					25.1	0.3	
					about 21.5m then dark grey carbonaceous													25.3	0.2	
					clay and brecciated carbonate to 25.9.													25.9	0.35	
					Transitional zone from siderite to dolomite													26.3	0.3	
					breccia.													26.9	0.6	
																		27.45	0.5	
25.9	28.4		HQ		DOLOMITE BRECCIA + MINOR GALENA-SPHALERITE		442	25.9	26.3		3.09	2.80	45					28.4	0.7	
					Grey massive dolomite. Intensely veined/		443	26.3	28.4		1.32	0.35	15					28.8	0.3	
					brecciated by light brown dolomite (ferroan?)													30.0	0.6	
					Veins/breccia cement ~ 60% of interval.													31.2	1.0	
					Between 25.9-26.3 is 5-10% Ga+Sp in													32.0	0.5	
					dolomite vein/breccia. Minor Ga-Sp, <1%, &													32.7	0.4	
					decreasing toward 28.4.													33.4	0.6	
					Core strongly fractured.													35.0	1.5	
28.4	35.0		HQ		DECOMPOSED CARBONATE		444	28.4	31.2											
					Yellow grey to dark grey carbonate, partly		445	31.2	35.0											
					altered/decomposed to clay. Weakly															
					siderific to 31.0 then carbonaceous 31.0-35.0.															
					Becomes less decomposed toward 35.0.															

[redacted]

80000

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2 of 3

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM210

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by .....)	DRILL RUNS FR	To	REC	RC
5·0	38·0		HQ		VEINED LIME MUDSTONE Dark grey irregular wispy banded lime mudstone. Strongly veined by coarse white - light brown calcite+dolomite veins at low ∡ to C.A. Veins ≈40% of interval. 37·0 Vc – C.A ∡ 10°		2A844446	35·0	38·0			36·0	38·0	2.95	2F
													41·0	3·0	3[illegible]
													44·0	3·0	3[illegible]
													47·0	3·0	2[illegible]
													49·15	1·8	4[illegible]
													50·0	0·7	4[illegible]
													52·4	2·3	3[illegible]
8·0	54·5		HQ		LIME MUDSTONE Dark grey irregular wispy banded lime mudstone. Mid grey fine grained lime mud with irregular wisps of dark grey coarser carbonate + possibly non-carbonate clastic grains. Minor 3-30 mm calcite-dolomite veins at low ∡ – C.A, ≤5% of interval. 41·3 fossil band – C.A ∡ 8° " stylobands ∡ 26° fossil band – stylobands ∡ 0° Darker wisps may be defining cleavage, perhaps transposed bedding? 52·0 fossil band – C.A ∡ 20° 52·5 carbonaceous band ∡ 24°		447	38·0	41·0				54·0	1·4	3[illegible]
													55·0	0·9	4[illegible]
													59·0	3·0	4[illegible]
4·5	57·2		HQ		STYLOLAMINATED LIMESTONE Light grey fine grained limestone with well developed planar stylolaminae forming a strong parting. Core is fissile and partly decomposed 55·5 stylolams – C.A ∡ 30°										

805051

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 3 of 3

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED .....

DEPTH 62.6 HOLE No. DM210

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED .....

CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ..... DRILL RODS)
7.2	62.6		HQ		CALCARENITE Grey massive to weakly stylobanded medium grained limestone. Core cut by minor 20mm white and light brown calcite-dolomite veins at low ∢ to 80° to c.a. Also cut by later pink rhodocrosite veins (or Mn-calcite?) 1-2mm wide at high ∢ to c.a. Rhodocrosite veins cut and displace cc-dol veins. 59.6 stylobands - c.a ∢ 20° 58.2 stylobands (S_o) ∢ 24° V cc-dol ∢ 10° V rhodocrosite ∢ 65° S_o - V_{cc-dol} ∢ +270° S_o - V_{rhod} ∢ ~+215°						

HOLE ABANDONED AFTER HOLE WEDGED BEHIND BARREL. UNABLE TO BE RETRIEVED.
APPEARS THAT TARGET WAS INTERSECTED EARLY - i.e. <18.5 - 35.0.

NO DOWNHOLE SURVEYS.

DRILL RODS FR	TO	REC	R
59.9	60.1	1.0	3
	62.0	1.9	2
	62.6	0.69	2

805052

CRA EXPLORATION PTY. LIMITED

DRILL-HOLE SUMMARY LOG

EL NAME: MT DUNDAS
EL NUMBER: EL45/92
DATE DRILLED: JUN '94
LOGGED BY: RGP

HOLE NAME: DD94 DM211
PROSPECT: MARIPOSA

AMG EAST:
AMG NORTH:
RL:

GRID EAST: 67380 E
GRID NORTH: 59403 N
TOTAL DEPTH: 150.6

DEPTH	AZIM. (~~MAGN~~ AMG)	INCLIN.
0	252	-45
50	245	-44.5
100	245	-44
150	246	-41

OBJECTIVES OF HOLE: To test for structurally controlled or stratabound mineralisation at Dundas Gp - Gordon Lst contact.

LITHOLOGICAL SUMMARY:

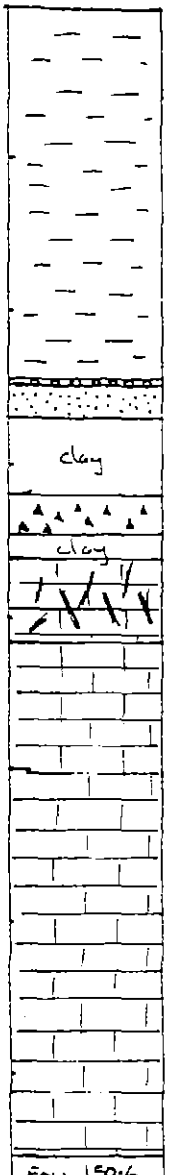
DFROM	DTO	COMMENTS
0	49.25	DUNDAS GROUP SILTSTONE
49.25	49.45	OWEN CONGLOMERATE ? ?? ??
49.45	53.95	MOINA SANDSTONE
53.95	64.0	CARBONACEOUS CLAY
64.0	69.5	DOLOMITE BRECCIA - Gt+Sp 67.5 - 69.3.
69.5	72.2	DECOMPOSED LIMESTONE
72.2	83.4	VEINED CALCARENITE
83.4	150.6	CALCARENITE - LIME MUDSTONE

MINERALISATION SUMMARY:

DFROM	DTO	COMMENTS
67.5	69.3	1.8 m @ 9.84% Zn 6.5% Pb 67 ppm Ag

CONCLUSIONS: Contact between Dundas Gp - Gordon Lst is NOT faulted. Thin conglom - sst units between Dundas Gp - Lst may be all that was deposited of the Owen Conglom - Moina sst, i.e. the Mariposa area may have been an Ordovician topo high.

Clays - mineralised dolomite breccia may be an important stratabound location for mineral.



805053

MARIPOSA

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 1

TENEMENT NAME MT. DUNDAS No. E4451

PLAN – MAP REFERENCE

CO-ORDINATES 67380E 59403N AZIMUTH 252° DRILLERS DD TAS COMMENCED 7/6/94 DEPTH 150.6 m. HOLE No. DD94DM2

RL COLLAR INCLINATION -45° DRILL TYPE LY38 COMPLETED 16/6/94 CASING LEFT DPO No(s)

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Geotech RQD	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by)
0	30.0	–	–		PRECOLLAR Dundas Gp siltstones?						
30.0	49.25		HQ	3B	DUNDAS GP - CHLORITIC SILTSTONE Banded green and red chloritic and haematitic shale/siltstone. Chlorite is dominant with haematite probably after oxidation of chlorite. Core is strongly fissile, but it is unclear if partings are bedding or cleavage. From 48.0 - 49.25, siltstone is slightly yellowish, possibly Ordovician weathering? 35.2 S_0? = C.A. ≯ 70° 39.3 " ≯ 60° 42.8 " ≯ 68° 46.3 " ≯ 63° 48.8 " ≯ 66°		3987448	44.8	49.25		
49.25	49.45		HQ	5X	CONGLOMERATE (OWEN CONGLOMERATE?) Red haematitic pebble conglomerate consisting of rounded quartzite clasts and minor angular chloritic siltstone clasts derived from underlying unit. Possibly a condensed equivalent of Owen conglomerate? Contact is not faulted, probably disconformable. Yellowing of underlying siltstone suggests some time break?		449	49.25	49.45		

DRILL RUNS FR	TO	REC	R
0	30.0	–	–
	33.0	3.1	3
	36.0	2.95	3
	39.0	2.8	3
	42.0	2.85	3
	44.8	2.9	4
	48.0	2.8	4

805054

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2 of 2

TENEMENT NAME ..... No. .....

PLAN -- MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM 211

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log RQD	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ..... DRILL RUNS FR	TO	REC	RQD
49.45	53.95		HQ	5x	SANDSTONE (MOINA SANDSTONE ?) Pinkish-yellow to dark grey unit consisting of unconsolidated quartz sand and grit, massive quartzite, porous sandstone, siltstone and minor clays. Siltstone bands are well bedded Possible condensed Moina Sandstone. No evidence for faulting at either upper or lower contact. Bedding to C.A. angles suggest ~20° angular discordance between sandstone and Dundas Grp siltstone. 51.3 S_o - C.A. ∢ 46° 52.2 S_o ∢ 48° 52.6 S_o ∢ 42°		3987450	49.45	53.95			48.0	51.0	2.5	5
												54.0	2.6	5
												56.5	2.8	5
												57.0	0.55	5
												60.0	2.9	5
												63.0	2.1	5
												65.3	2.1	4
												65.9	0.55	5
												67.0	0.7	5
53.95	64.0		HQ	5	CARBONACEOUS CLAY. Start of Gordon Limestone. Dark grey to black massive carbonaceous clay. Minor yellow-grey sideritic clay between approx 57.2 - 57.6. Becomes intermixed with rubbly dolomite from 59.0 - 64.0		451	53.95	56.0						
							452	56.0	58.0					
							453	58.0	60.0					
							454	60.0	62.0		1.41 Zn, 1.61 Pb			
							455	62.0	64.0					
64.0	67.5		HQ	5x	BRECCIATED DOLOMITE Grey massive recrystallised dolomite cut by 1-5mm light brown dolomite (ferroan?) veins. Core strongly broken + becoming more veined toward 67.5m.		456	64.0	65.9					
							457	65.9	67.5					

805055

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

TENEMENT NAME ..... No. .....
PLAN — MAP REFERENCE .....
CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. Dm 211
RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ..... Zn%	Pb%	Ag	DRILL RUNS FR	TO	REC	RC
67.5	69.3		HQ		DOLOMITE BRECCIA WITH GALENA-SPHALERITE Light yellow brown. Fragments of grey brecciated dolomite floating in matrix of light yellow-brown dolomite (siderite?). Only 10% breccia fragments. Galena-Sphalerite minerals in dol-siderite matrix ~ 10% Ga, 5% Sp.		3987458	67.5	69.3		9.84	6.50	107	67.0	69.0	1.9	3
															72.0	2.65	5
															74.75	2.65	4
															76.3	1.5	3
															78.0	1.4	3
															81.0	2.9	3
															83.25	2.25	4
															83.75	0.5	4
69.3	69.5		HQ		BRECCIATED DOLOMITE As for 64.0 - 67.5.		459	69.3	69.5					REDUCE TO NQ			
														83.75	84.8	0.9	2
															86.6	1.7	
69.5	72.2		HQ		DECOMPOSED LIMESTONE Dark grey strongly decomposed limestone, locally totally decomposed to clay.		460	69.5	72.2						88.4	1.8	
															91.4	3.0	
															94.4	3.0	
															97.4	2.95	
72.2	83.4		HQ		VEINED CALCARENITE Light grey medium grained calcarenite locally well bedded (e.g. 80°). Cut by irregular veins of white calcite & light brown dolomite. Veins ~ 10% of interval. 80.0 S_0 = C.A. @ 49°		461	72.2	75.9						100.6	3.0	
							462	75.9	79.7						103.4	2.95	2
							463	79.7	83.4						105.85	2.45	3
															108.95	3.05	2
															112.0	3.0	2
															113.2	0.65	2
															115.4	2.1	3
83.4	147.6		NQ		INTERBEDDED CALCARENITE - LIME MUDSTONE Grey to dark grey irregularly banded lime mudstone with common 1-5 m interbeds of light grey med g/s calcarenite. Approx proportions lime mudstone 60% - calcarenite 40% Bands in lime mud can be planar but dismembered, to teased & wispy - varying degrees of sedimentary boudinage - "boudins"										118.4	3.0	1
															121.4	3.0	2
															124.4	DIDN'T MEA	
															127.4	2.85	3
															130.4	3.05	
															133.4	3.0	
															136.2	2.75	
															139.2	3.0	1
															141.9	1.95	2

805056

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 4 of 4

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM211

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPD No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ..... DRILL RUNS)
											FR / TO / REC / RC
3.4	147.6				are bounded by stylolites. locally original bedding is preserved.						141.0 / 142.9 / 1.5 / 4
	CTD										144.0 / 1.1 / 3
					84.4 S_0 – C.A.	∠ 55°					147.1 / 3.1 / 2
					86.2 S_0	∠ 48°					148.1 / 0.9 / 3
					95.2 S_0	∠ 47°					150.6 / 2.45 / 2
					105.9 S_0	∠ 44°					
					110.0 S_0	∠ 36°					
					111.0 S_0	∠ 52°					
					135.8 S_0	∠ 51°					
					141.8 S_0	∠ 50°					
					143.3 S_0	∠ 50°					
147.6	150.6		NQ		PLANAR BANDED LIME MUDSTONE						
	EOH				Grey well laminated lime mudstone. 5cm pug band at 147.6m.						
					148.1 S_0 – C.A	∠ 50°					
					149.3 S_0	∠ 50°					
					DOWNHOLE SURVEYS.						
					50 m –44.5° → 245 AMG						
					100 m –44° → 245 AMG						
					150 m –41° → 246 AMG						

805057

CRA EXPLORATION PTY. LIMITED

DRILL-HOLE SUMMARY LOG

EL NAME: MT DUNDAS
EL NUMBER: EL 45/92
DATE DRILLED: JUNE 1994
LOGGED BY: RGP

HOLE NAME: DD94 DM 212
PROSPECT: MARIPOSA

AMG EAST: _____
AMG NORTH: _____
RL: _____

GRID EAST: 67400 E
GRID NORTH: 59200 N
TOTAL DEPTH: 150.0

DEPTH	AZIM. (~~MAG~~ AMG)	INCLIN.
0	253250	-45°
4.0	256	-45
50.0	(214 ?)	-47°
100.0	242	-51°
150.0	243	-49°

OBJECTIVES OF HOLE: To test for possible stratabound minerals at base of limestone. Amoco costean returned 8m @ 6.2% Zn 395 ppm Ag. 3.3% Pb

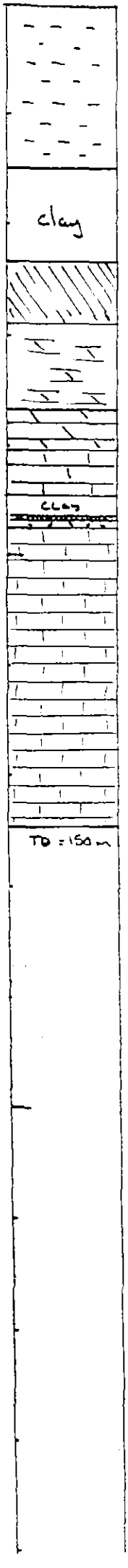
LITHOLOGICAL SUMMARY:

DFROM	DTO	COMMENTS
0	~30.0	COLOURED CLAYS AFTER DUNDAS Gp ?
~30.0	47.2	~~GRAB~~ CLAY
47.2	58.1	CARBONACEOUS CLAY + SIDERITE
58.1	74.0	" " + DOLOMITE / ANKERITE
74.0	81.0	DOLOMITE
81.0	89.5	CALCARENITE
89.5	92.95	CLAY + DECOMPOSED CO_3
92.95	93.65	DOLOMITE VEIN / BRECCIA FILL WITH Ga + Sp
93.65	95.1	CALCITE VEINED LIMESTONE
95.1	150.0	LIMESTONE

MINERALISATION SUMMARY:

DFROM	DTO	COMMENTS
92.95	93.65	0.7 m @ 3.8% Zn 5.4% Pb 45 ppm Ag.

CONCLUSIONS:



805058

MARIPOSA

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 4

TENEMENT NAME MT DUNDAS No EL 45/9

PLAN – MAP REFERENCE

CO-ORDINATES 67400 E 59200 N AZIMUTH 253° Amg DRILLERS DD TAS COMMENCED 18/6/94 DEPTH 150.0 HOLE No DD94DM21

RL COLLAR INCLINATION -45° DRILL TYPE LY38 COMPLETED 25/6/94 CASING LEFT DPO No(s) 77671

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)
0	30.0				PRECOLLAR - no core. Sludge was orange clays ⇒ Dundas Gp?					
30.0	31.0		HQ		NO RECOVERY					
31.0	46.7		HQ		CLAY Light grey and dark grey clays. Massive, structureless + plastic.		3987464	31.0	35.3	
							465	35.3	39.65	
							466	39.65	43.2	
							467	43.2	46.7	
46.7	47.2		HQ		PYRITE Dark yellow grey nubbly zone of semi-massive pyrite. Pyrite occurs as irregular bands + locally as "stalagtites" in dark grey carbonaceous mud.		468	46.7	47.2	
47.2	58.1		HQ		CARBONACEOUS CLAY AND MINOR SIDERITE Dark grey to black carbonaceous clay, grading from a fine clay at 47.2 to a fine puggy sand/silt at 58.1. Minor bands of massive dark yellow-grey siderite throughout, e.g. 47.2, 52.6, 56.1–57.0 m.		469	47.2	49.9	
							470	49.9	52.3	
							471	52.3	54.0	
							472	54.0	56.1	
							473	56.1	58.1	
58.1	72.0		HQ		CARBONACEOUS CLAY AND ALTERED CARBONATE Dark grey to black sandy carbonaceous clay and minor decomposed carbonate. The carbonate is very porous and light weight, massive + fine-med grained. Totally altered dolomite-ankerite rock? Carbonate is probably decomposing to form the sandy clay. Because of this decomposition		474	58.1	60.0	
							475	60.0	63.0	
							476	63.0	65.0	
							477	65.0	67.0	
							478	67.0	69.0	
							479	69.0	72.0	

ASSAY VALUES (Analysed by .....)

FR	To	DRILL RUNS REC	RE
0	30	–	–
	31	–	–
	31.6	0.5	5
	32.2	0.75	
	33	0.5	
	34.2	0.7	
	34.9	0.7	
	35.3	0.8	
	36.0	0.75	
	36.75	0.9	
	37.4	0.85	
	38.2	1.2	
	38.9	1.0	
	39.65	1.05	
	40.2	0.85	
	41.1	1.55	
	42.0	1.4	
	42.55	0.5	
	43.2	0.25	
	43.7	0.5	
	44.3	0.6	
	45.0	0.6	
	45.95	1.0	
	46.55	0.4	
	47.2	0.65	
	48	0.6	
	49.1	0.65	
	49.9	0.85	
	51	0.9	
	52.3	1.2	

CORE EXPANDING (STRETCHING)

805059

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2 of 4

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DM 212

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by DRILL AIDS) FR	TO	REC	RC
8·1	72·0				core has the appearance of being brecciated.						52·3	53·15	0·6	5
	CTD				Between 67·0 – 72·0 m core is cut by							54	0·85	
					ferroan dolomite veins with trace py ± ga ± sp.							55	0·35	
												56·1	0·5	
2·0	74·0		HQ		CAVITIES							57	0·2	
					NO recovery.							58·1	0·4	
												59·15	0·5	
4·0	81·0		HQ		DOLOMITE		3987480	74·0	77·4			60	0·55	
					Dark grey massive fine-med grained totally		481	77·4	81·0			60·9	0·3	
					recrystallised dolomite. Partly decomposed to							61·5	0·4	
					dark grey silty clay. Minor patchy pervasive							62·2	0·4	
					siderite alteration. Core rubbly.							63	0·25	
												64	0·85	
1·0	89·5		HQ		CALCARENITE		482	81·0	85·5			65	0·85	
			NQ		Grey med g/s calcarenite with strong foliation		483	85·5	89·5			66	0·85	
	REDUCE TO NQ				defined by crispy but planar stylolams.							67	0·85	
		AT	85·5	m.	Probably not bedding?							68·25	1·15	
					Core is locally decomposing to carbonate							69	0·6	
					sand + clay.							70·2	0·85	
					Abrupt change from $CaCO_3$ to dolomite at							71	0·05	
					81·0 and again at 89·5m.							72	0·3	
					84·2 foliation – c.A. ∡ 46°							74	–	
												75	0·2	
89·5	92·95		NQ		CLAY + DECOMPOSED CARBONATE		484	89·5	92·95			75·4	0·4	
					Dark grey poor recovery zone of clays with							76·25	0·65	
					minor decomposed dolomitic carbonate between							77·4	0·35	
					90·7 – 91·5m, and siderititic carbonate between							78	0·35	
					91·5 – 92·1m.							79·2	0·35	
												79·8	0·25	
												81	0·35	

805060

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 3 of 4

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. Dm212

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ..... DRILL RUNS) Zn%	Pb%	As			FR	To	Rec	Rq
92.95	93.65		NQ		FERROAN DOLOMITE WITH GALENA - SPHALERITE Light brown massive ferroan dolomite with 10% each of disseminated ga + sp. Dolomite is vein / breccia fill? Occupies same stratabound(?) position as mineralised dolomite in Dm210, Dm211.		3987485	92.95	93.65		3.8	5.4	45			81	82.15	0.8	4
																	83.2	0.8	4
																	84.5	0.9	3
																	85.5	0.05	5
																REDUCE TO NQ			
																85.5	86.2	0.6	4
																	87.1	0.35	5
93.65	95.1		NQ		CALCITE VEINED LIMESTONE Grey partly decomposed limestone with 10-20% irregular barren calcite veins.		486	93.65	95.1								88.5	0.45	1
																	89.5	0.35	
																	90.7	0.45	
																	91.5	0.1	
95.1	112.5		NQ		STYLOLAMINATED LIMESTONE Grey med g/s massive limestone with well developed closely spaced planar stylolaminations. Between 108.0 - 110.6 is minor 5mm $MnCO_3$ veins, 5% of interval.		487	95.1	99.7								92.1	0.1	5
																	92.7	–	–
																	93.0	0.2	5
																	93.4	0.3	4
																	94.2	0.6	4
					96.0 S_o - C.A.	∡ 35°											97.25	3.1	2
					97.4 S_o	∡ 16°											99.7	2.45	2
					100.4 S_o	∡ 27°											102.8	3.1	2
					108.8 S_o	∡ 40°											105.85		2
					" V_{MnCO_3}	∡ 44°											107.85		2
					" $S_o - V_{Mn}$	∡ 180°											110.95		1
																	112.5		2
112.5	133.8		NQ		LIMESTONE Grey massive med g/s limestone. Some white calcite infilling 1-2mm sized voids, perhaps after fossil fragments?												115.5	0	2
																	118.5	0	2
																	121.5	0	1
																	124.5		
																	127.5		
																	130.5		
																	133.5		1

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 4 of 1

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DM 212

RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s).....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)
13.8	126.2		NQ		STYLOLAMINATED LIMESTONE Light grey medium g/s limestone with regular well developed planar stylolites. Similar to 95.1 – 112.5m. 113.9 S_o – c.a. ∡ 30° 126.2 S_o ∡ 26°					
126.2	150.0		NQ		WISPY BANDED LIMESTONE Grey medium grained limestone with irregular wisps, bands & ellipsoids of coarser grained limestone. Each wisp etc is bounded by irregular stylolite surfaces.					

ASSAY VALUES (Analysed by.....)

DRILL RUNS

FR	TO	REC	RQD
133.5	136.5	1	1
	139.5	3	
	142.5	3	
	145.5	3	
	148.8	3.3	
	150.0	1.2	1

From 102.8 – 15
recoveries not measured but usually the reco is estimated at 100%. No brok or boggy zones where core could be lost.

Appendix 2: Mariposa prospect. Diamond drillhole ledgers and geochemistry.

Hole	DFrom	DTo	Sampno	DPO	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
DM208	0.00	10.00			Og	Ccy?				*Precollar - no core*
DM208	10.00	11.70			Og	Ccy?				No recovery
DM208	11.70	15.15	3987408	77653	Og	SlsCcy	WeBx		G	Decomposed limestone and clay
DM208	15.15	20.30	3987409	77653	Og	SlsCcy	WeBx		G	Decomposed limestone and clay
DM208	20.30	26.10			Og	Sls	WeLm		LG	Stylo-laminated limestone
DM208	26.10	31.20	3987410	77653	Og	SlsCcy	We		G	Decomposed limestone and clay
DM208	31.20	33.60			Og	Sls	LeVn	Sd	G	Leached limestone with minor siderite veins
DM208	33.60	36.50			Og	SlsSbx?	Vn	Sd	G	Limestone breccia? with minor siderite veins
DM208	36.50	36.80			Og	Sls	LeVn	Sd	G	Leached limestone with minor siderite veins
DM208	36.80	39.80				Ox				No recovery
DM208	39.80	41.00			Og	Sls	WeLm		LG	Stylo-laminated limestone
DM208	41.00	49.20			Og	Sls	Ma		GLG	Hole abandoned due to severe deviation

Hole	DFrom	DTo	Sampno	DPO	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	S%	Zn ppm
DM208	0.00	10.00															
DM208	10.00	11.70															
DM208	11.70	15.15	3987408	77653	-5	1.18	30	90	19.80	18	3.23	0.55	5.82	1300	97		875
DM208	15.15	20.30	3987409	77653	-5	1.21	-20	71	23.50	15	1.66	0.62	5.29	780	-50		164
DM208	20.30	26.10															
DM208	26.10	31.20	3987410	77653	-5	1.80	-20	65	24.20	19	1.67	0.95	3.19	512	84		684
DM208	31.20	33.60															
DM208	33.60	36.50															
DM208	36.50	36.80															
DM208	36.80	39.80															
DM208	39.80	41.00															
DM208	41.00	49.20															

Hole	DFrom	DTo	Sampno	DPO	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
DM209	0.00	30.00			Ed?Og	Ccy				Precollar. Some coloured clays - Dundas Gp?
DM209	30.00	34.10	3987411	77653	Og	Sdl	Ma		DG	Dolomitised limestone, patchy weak siderite
DM209	34.10	38.00	3987412	77653	Og	Sdl	Ma		DG	Dolomitised limestone, patchy weak siderite
DM209	38.00	39.10				Ox				No recovery
DM209	39.10	42.50	3987413	77653	Og	Sdl	Ma		DG	Dolomitised limestone
DM209	42.50	46.00	3987414	77653	Og	Sdl	Ma		DG	Dolomitised limestone
DM209	46.00	49.50	3987415	77653	Og	Ccy			DG	Carbonaceous clay
DM209	49.50	51.90	3987416	77653	Og	Ccy			DG	Carbonaceous clay
DM209	51.90	54.50	3987417	77653	Og	Sdl	Al	Sd	DYG	Massive and spongey siderite
DM209	54.50	56.60	3987418	77653	Og	Sdl	Al	Sd	DYG	Massive and spongey siderite
DM209	56.60	59.60	3987419	77653	Og	Sdl	Al	Sd	DYG	Massive and spongey siderite
DM209	59.60	65.00	3987420	77653	Og	SlsSsh			MGLGYG	Shaley limestone
DM209	65.00	68.85	3987421	77653	Og	SlsSsh			MGLGYG	Shaley limestone
DM209	68.85	71.00				Ox				No recovery
DM209	71.00	76.20	3987422	77653	Og	Ccy			LGDGYB	Puggy clay
DM209	76.20	79.80	3987423	77653	Og	Ccy			LGDGYB	Puggy clay
DM209	79.80	81.15	3987424	77653	Og	Sdl	AlMaDs?	SdSp?	DYG	Massive siderite
DM209	81.15	82.10	3987425	77653	Og	Ccy			WLYG	Clay with minor siderite fragments
DM209	82.10	83.50				Ox				No recovery
DM209	83.50	89.50	3987426	77653	Og	Ccy			WLYG	Clay. Decomposed sst 89.0 - 89.5
DM209	89.50	95.00	3987427	77653	Og	Ccy			OB	Puggy clay
DM209	95.00	100.00	3987428	77653	Og	Ccy			OB	Puggy clay. Ferrug sst 97.7 - 97.85
DM209	100.00	101.00				Ox				No recovery
DM209	101.00	107.00	3987429	77653	Og	Ccy			W	Puggy clay
DM209	107.00	110.40	3987430	77653	Og	Ccy			W	Puggy clay
DM209	110.40	113.00	3987431	77653	Og	SdlCcy	Al	Sd	DG	Weakly sid altd dolomite + carbonaceous clay
DM209	113.00	118.45	3987432	77653	Og	Ccy			W	Puggy clay
DM209	118.45	124.30	3987433	77653	Og	Ccy			W	Puggy clay
DM209	124.30	125.00	3987434	77653	Og	SdlCcy	Al	Sd	DYG	Massive siderite + carbonaceous clay
DM209	125.00	130.00	3987435	77653	Og	Ccy			WLYB	Puggy clay
DM209	130.00	134.00	3987436	77653	Og	Ccy			WLYB	Puggy clay
DM209	134.00	139.05	3987437	77653	Og	Ccy			WLYB	Puggy clay
DM209	139.05	141.70	3987438	77653	Om?	Sss			LGW	sandstone

Hole	DFrom	DTo	Sampno	DPO	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	S%	Zn ppm
DM209	0.00	30.00															
DM209	30.00	34.10	3987411	77653	-5	1.72	21	94	10.80	15	12.80	0.87	5.62	17400	290		3140
DM209	34.10	38.00	3987412	77653	-5	1.30	27	95	8.82	22	19.40	0.63	4.10	32300	688	0.76	5120
DM209	38.00	39.10															
DM209	39.10	42.50	3987413	77653	-5	1.72	23	76	14.20	16	8.82	0.88	7.17	12700	206		2360
DM209	42.50	46.00	3987414	77653	-5	1.75	21	71	16.80	21	4.43	0.91	8.61	5440	215		1420
DM209	46.00	49.50	3987415	77653	-5	4.56	51	163	16.20	27	3.92	2.38	1.27	7390	156		1060
DM209	49.50	51.90	3987416	77653	-5	4.44	27	167	14.20	22	5.10	2.33	2.29	8680	226		2570
DM209	51.90	54.50	3987417	77653	-5	1.85	109	111	7.88	21	22.70	0.91	0.69	41600	954	3.40	33000
DM209	54.50	56.60	3987418	77653	-5	2.38	49	104	19.10	22	7.95	1.24	0.63	10300	470	1.45	13800
DM209	56.60	59.60	3987419	77653	-5	2.06	50	109	13.60	20	15.70	1.05	0.95	12200	1110	1.39	15800
DM209	59.60	65.00	3987420	77653	-5	3.24	-20	121	22.00	22	3.05	1.68	0.46	3400	175		1330
DM209	65.00	68.85	3987421	77653	-5	1.97	20	94	20.80	30	6.96	1.00	1.44	13300	730	0.35	5120
DM209	68.85	71.00															
DM209	71.00	76.20	3987422	77653	-5	3.95	-20	161	11.20	25	10.70	2.04	1.38	10400	290		1590
DM209	76.20	79.80	3987423	77653	19	5.01	-20	226	1.21	105	12.90	2.40	0.44	16100	1070		4350
DM209	79.80	81.15	3987424	77653	-5	0.56	-20	125	5.45	16	29.00	0.24	2.01	40900	292	0.26	6330
DM209	81.15	82.10	3987425	77653	6	4.33	-20	229	1.30	41	18.00	2.14	0.43	23100	1060	0.08	5640
DM209	82.10	83.50															
DM209	83.50	89.50	3987426	77653	5	5.75	-20	249	1.30	68	16.80	2.49	0.43	17000	1960		4200
DM209	89.50	95.00	3987427	77653	-5	8.21	48	287	0.14	78	10.20	3.59	0.57	1130	1820		2530
DM209	95.00	100.00	3987428	77653	-5	8.32	31	252	0.27	56	8.64	3.34	0.51	2400	2830		1760
DM209	100.00	101.00															
DM209	101.00	107.00	3987429	77653	-5	8.35	-20	310	0.48	22	9.65	3.67	0.69	10600	519		1430
DM209	107.00	110.40	3987430	77653	-5	7.90	-20	272	0.10	36	0.69	3.92	0.63	108	51		779
DM209	110.40	113.00	3987431	77653	-5	3.61	-20	221	2.71	17	15.70	1.93	1.15	48700	-50		3020
DM209	113.00	118.45	3987432	77653	-5	8.21	-20	277	0.15	20	1.29	3.78	0.63	804	-50		518
DM209	118.45	124.30	3987433	77653	-5	8.47	-20	267	0.31	24	5.68	3.59	0.60	3560	151		634
DM209	124.30	125.00	3987434	77653	-5	4.02	-20	198	1.26	28	18.20	2.10	0.55	36300	203		2750
DM209	125.00	130.00	3987435	77653	-5	6.63	23	263	0.10	35	0.63	3.76	0.56	199	206		628
DM209	130.00	134.00	3987436	77653	-5	5.26	-20	260	0.04	19	1.24	3.58	0.51	632	84		619
DM209	134.00	139.05	3987437	77653	-5	10.40	-20	307	0.10	26	3.29	4.10	0.58	1870	224		395
DM209	139.05	141.70	3987438	77653	-5	1.55	74	84	0.02	31	0.84	1.01	0.12	176	485		1080

Hole	DFrom	DTo	Sampno	DPO	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
DM210	0.00	17.00			Ed?	Ccy			OB	Precollar. Coloured clays - Dundas Gp?
DM210	17.00	18.50			Og?	Ccy			DG	Precollar. Dark clays - Gordon Lst?
DM210	18.50	20.50	3987439	77669	Og	Sdl	Al	Sd	DYG	siderite
DM210	20.50	23.00	3987440	77669	Og	CcySdl	Bx		DG	Carbonaceous clay and dol breccia
DM210	23.00	25.90	3987441	77669	Og	CcySdl	Bx		DG	Carbonaceous clay and dol breccia
DM210	25.90	26.30	3987442	77669	Og	Sdl	BxVcVs	GaSp	LYB	Dolomite breccia with 10% Ga+Sp
DM210	26.30	28.40	3987443	77669	Og	Sdl	BxVc		LYB	Dolomite breccia
DM210	28.40	31.20	3987444	77669	Og	Sls	WeAl	Sd	DYG	Decomposed lst, weak siderite
DM210	31.20	35.00	3987445	77669	Og	Sls	We		DG	Decomposed lst.
DM210	35.00	38.00	3987446	77669	Og	Sls	Vc		DG	Veined lime mudstone
DM210	38.00	41.00	3987447	77669	Og	Sls			DG	Lime mudstone
DM210	41.00	54.50			Og	Sls			DG	Lime mudstone
DM210	54.50	57.20			Og	Sls	Lm		LG	Stylolaminated limestone
DM210	57.20	62.60			Og	Sls	Ma		G	calcarenite

Hole	DFrom	DTo	Sampno	DPO	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	S%	Zn ppm
DM210	0.00	17.00															
DM210	17.00	18.50															
DM210	18.50	20.50	3987439	77669	-5	0.84	-20	124	4.12	-5	34.90	0.37	1.15	18690	333		1230
DM210	20.50	23.00	3987440	77669	-5	0.66	-20	100	10.37	-5	22.80	0.29	4.39	12180	667		2300
DM210	23.00	25.90	3987441	77669	29	1.82	-20	280	15.97	21	7.42	0.84	7.29	14175	24500	1.65	11600
DM210	25.90	26.30	3987442	77669	45	0.29	-20	63	18.80	53	6.70	0.09	7.51	14280	28000	2.20	30900
DM210	26.30	28.40	3987443	77669	15	0.79	-20	157	18.91	57	7.22	0.31	7.55	14490	3500	1.15	13200
DM210	28.40	31.20	3987444	77669	6	2.12	-20	289	12.39	14	12.30	1.05	6.12	6720	372		1450
DM210	31.20	35.00	3987445	77669	6	1.63	-20	135	21.41	14	3.53	0.84	4.05	1880	281		1250
DM210	35.00	38.00	3987446	77669	7	0.89	-20	55	27.71	10	1.49	0.47	3.23	969	77		173
DM210	38.00	41.00	3987447	77669	5	1.27	-20	67	24.88	8	1.25	0.67	4.54	672	-50		139
DM210	41.00	54.50															
DM210	54.50	57.20															
DM210	57.20	62.60															

Hole	DFrom	DTo	Sampno	DPO	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
DM211	0.00	30.00			Ed	Ssi?				Precollar. Dundas Gp siltstone
DM211	30.00	44.80			Ed	Ssi	Fi	He	ARV	chloritic and haematitic siltstone
DM211	44.80	48.00	3987448	77669	Ed	Ssi	Fi	He	ARV	chloritic and haematitic siltstone
DM211	48.00	49.25	3987448	77669	Ed	Ssi	FiWe		AYV	*Ordovician? weathering of chloritic siltstone*
DM211	49.25	49.45	3987449	77669	Oo?	Scg		He	R	Owen Conglom?
DM211	49.45	53.95	3987450	77669	Om	Sss			KY+DG	Moina Sandstone?. Unconsolidated
DM211	53.95	56.00	3987451	77669	Og	Ccy			DG	Carbonaceous clay.
DM211	56.00	58.00	3987452	77669	Og	Ccy			DG	Carbonaceous clay.
DM211	58.00	60.00	3987453	77669	Og	Ccy			DG	Carbonaceous clay.
DM211	60.00	62.00	3987454	77669	Og	Ccy			DG	Carbonaceous clay.
DM211	62.00	64.00	3987455	77669	Og	Ccy			DG	Carbonaceous clay.
DM211	64.00	65.90	3987456	77669	Sdl	Sdl	BxVc		G	Dolomite
DM211	65.90	67.50	3987457	77669	Sdl	Sdl	BxVc		G	Dolomite
DM211	67.50	69.30	3987458	77669	SdlOvc	SdlOvc	BxVcVs?	GaSp	LYB	Brecciated Dolomite with 10% Ga+Sp
DM211	69.30	69.50	3987459	77669	Sdl	Sdl	BxVc		G	*Dolomite*
DM211	69.50	72.20	3987460	77669	Og	Sls	We		DG	Decomposed lst.
DM211	72.20	75.90	3987461	77669	Og	Sls	Vc		LG	Veined calcarenite
DM211	75.90	79.70	3987462	77669	Og	Sls	Vc		LG	Veined calcarenite
DM211	79.70	83.40	3987463	77669	Og	Sls	Vc		LG	Veined calcarenite
DM211	83.40	147.60			Og	Sls	Ib		G	Interbedded calcarenite and lime mudstone
DM211	147.60	150.60			Og	Sls	Lm		G	Laminated lime mudstone

Hole	DFrom	DTo	Sampno	DPO	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	S%	Zn ppm
DM211	0.00	30.00															
DM211	30.00	44.80															
DM211	44.80	48.00	3987448	77669	-5	10.30	-20	288	0.11	6	3.41	4.21	1.40	105	-50		182
DM211	48.00	49.25	3987448	77669	-5	10.30	-20	288	0.11	6	3.41	4.21	1.40	105	-50		182
DM211	49.25	49.45	3987449	77669	-5	4.29	-20	140	0.10	145	1.40	1.97	0.29	66	222		508
DM211	49.45	53.95	3987450	77669	-5	4.98	-20	160	0.02	240	1.43	2.25	0.31	26	295		371
DM211	53.95	56.00	3987451	77669	-5	5.89	65	193	0.05	300	3.03	2.64	0.39	37	664		1300
DM211	56.00	58.00	3987452	77669	-5	5.65	-20	197	0.74	14	13.80	2.41	0.36	8768	88		1760
DM211	58.00	60.00	3987453	77669	-5	3.34	-20	148	4.84	12	17.20	1.62	2.13	12075	244		1890
DM211	60.00	62.00	3987454	77669	18	2.54	-20	198	7.54	39	13.90	1.25	2.85	32025	16000	2.00	14200
DM211	62.00	64.00	3987455	77669	7	3.70	-20	354	10.74	20	9.07	1.87	4.93	7403	982		2900
DM211	64.00	65.90	3987456	77669	9	1.34	-20	177	18.69	8	4.06	0.65	8.71	7109	1740	2.00	7490
DM211	65.90	67.50	3987457	77669	12	1.79	-20	265	14.45	20	10.00	0.75	5.89	18900	4280	1.55	7080
DM211	67.50	69.30	3987458	77669	107	0.47	47	65	8.42	478	14.10	0.11	3.16	69000	65000	6.70	98400
DM211	69.30	69.50	3987459	77669	14	1.48	-20	309	19.23	21	5.18	0.64	6.93	16065	2650		4570
DM211	69.50	72.20	3987460	77669	9	2.01	-20	165	19.78	15	3.60	1.04	5.13	3392	847		1690
DM211	72.20	75.90	3987461	77669	10	0.98	-20	48	29.45	11	0.83	0.53	1.70	581	-50		118
DM211	75.90	79.70	3987462	77669	10	0.78	-20	31	30.10	8	0.86	0.43	2.43	652	-50		53
DM211	79.70	83.40	3987463	77669	9	0.85	-20	32	31.62	9	0.60	0.47	1.69	571	-50		20
DM211	83.40	147.60															
DM211	147.60	150.60															

Hole	DFrom	DTo	Sampno	DPO	MRTLlth	FieldID	Texture	Alt/Min	Colour	Comments
DM212	0.00	30.00			Ed	Ccy	We		O	Precollar in Dundas Gp clays
DM212	30.00	31.00				Ox				No rec.
DM212	31.00	35.30	3987464	77671	Og	Ccy	Ma		LGDG	Plastic massive clays
DM212	35.30	39.65	3987465	77671	Og	Ccy	Ma		LGDG	Plastic massive clays
DM212	39.65	43.20	3987466	77671	Og	Ccy	Ma		LGDG	Plastic massive clays
DM212	43.20	46.70	3987467	77671	Og	Ccy	Ma		LGDG	Plastic massive clays
DM212	46.70	47.20	3987468	77671	Og	Oms	Ms	Py	DLG	Rubbly semi-massive Py in clay
DM212	47.20	49.90	3987469	77671	Og	CcySdl	Al	Sd	DGN	Clay and minor massive siderite
DM212	49.90	52.30	3987470	77671	Og	CcySdl	Al	Sd	DGN	Clay and minor massive siderite
DM212	52.30	54.00	3987471	77671	Og	CcySdl	Al	Sd	DGN	Clay and minor massive siderite
DM212	54.00	56.10	3987472	77671	Og	CcySdl	Al	Sd	DGN	Clay and minor massive siderite
DM212	56.10	58.10	3987473	77671	Og	CcySdl	Al	Sd	DGN	Clay and minor massive siderite
DM212	58.10	60.00	3987474	77671	Og	CcySdl	Al	Sd?Dl	DGN	Clay and decomposed ankerite/dolomite altered carbonat
DM212	60.00	63.00	3987475	77671	Og	CcySdl	Al	Sd?Dl	DGN	Clay and decomposed ankerite/dolomite altered carbonat
DM212	63.00	65.00	3987476	77671	Og	CcySdl	Al	Sd?Dl	DGN	Clay and decomposed ankerite/dolomite altered carbonat
DM212	65.00	67.00	3987477	77671	Og	CcySdl	Al	Sd?Dl	DGN	Clay and decomposed ankerite/dolomite altered carbonat
DM212	67.00	69.00	3987478	77671	Og	CcySdl	Al	Sd?Dl	DGN	Clay and decomposed ankerite/dolomite altered carbonat
DM212	69.00	72.00	3987479	77671	Og	CcySdl	Al	Sd?Dl	DGN	Clay and decomposed ankerite/dolomite altered carbonat
DM212	72.00	74.00				Ox				Cavities, no rec
DM212	74.00	77.40	3987480	77671	Og	Sdl	MaAl		DG	Totally recrystallised dolomite. Minor siderite altn
DM212	77.40	81.00	3987481	77671	Og	Sdl	MaAl		DG	Totally recrystallised dolomite. Minor siderite altn
DM212	81.00	85.50	3987482	77671	Og	Sls			G	Partly decomposed calcarenite
DM212	85.50	89.50	3987483	77671	Og	Sls			G	Partly decomposed calcarenite
DM212	89.50	92.95	3987484	77671	Og	CcySdl	Al	DlSd	DG	Clay and dolomitic and sideritic carbonate
DM212	92.95	93.65	3987485	77671	Og	Sdl	Ds	GaSp	LB	Fe-Mn carbonate with dissem sulphides
DM212	93.65	95.10	3987486	77671	Og	Sls	Vc		G	Calcite veined limestone
DM212	95.10	99.70	3987487	77671	Og	Sls	Lm		G	Stylolam lst
DM212	99.70	112.50			Og	Sls	Lm		G	Stylolam lst
DM212	112.50	133.80			Og	Sls	Ma		G	Massive lst
DM212	133.80	136.20			Og	Sls	Lm		LG	Stylolam lst
DM212	136.20	150.00			Og	Sls	Bn		G	Wispy banded lime mudstone

Hole	DFrom	DTo	Sampno	DPO	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	S%	Zn ppm
DM212	0.00	30.00															
DM212	30.00	31.00															
DM212	31.00	35.30	3987464	77671	-5	7.38	35	344	0.15	30	5.76	3.88	0.75	4940	1150		3470
DM212	35.30	39.65	3987465	77671	8	7.56	32	343	0.01	27	1.37	4.38	0.70	59	1120		1760
DM212	39.65	43.20	3987466	77671	11	7.88	187	312	0.10	40	4.88	4.07	0.67	3480	818		2110
DM212	43.20	46.70	3987467	77671	-5	4.22	111	221	0.53	29	23.60	2.17	0.42	31800	926		2650
DM212	46.70	47.20	3987468	77671	-5	1.34	3810	23	0.41	16	39.40	0.63	0.16	14400	101		1140
DM212	47.20	49.90	3987469	77671	-5	2.68	892	72	0.81	19	31.50	1.32	0.28	22600	249		1370
DM212	49.90	52.30	3987470	77671	-5	6.14	331	74	0.55	27	16.40	3.21	0.53	8350	143		942
DM212	52.30	54.00	3987471	77671	-5	3.25	51	111	0.37	24	12.00	1.61	0.27	4630	591		716
DM212	54.00	56.10	3987472	77671	-5	2.36	38	108	1.08	32	24.30	1.20	0.36	15200	1610		1290
DM212	56.10	58.10	3987473	77671	-5	3.13	47	144	4.12	11	22.80	1.61	2.03	16900	137		802
DM212	58.10	60.00	3987474	77671	-5	2.49	90	99	11.90	10	10.30	1.31	6.14	6840	51		592
DM212	60.00	63.00	3987475	77671	-5	2.70	21	91	14.50	9	2.46	1.44	7.64	1080	-50		287
DM212	63.00	65.00	3987476	77671	-5	3.20	60	117	11.70	12	6.57	1.68	6.25	3840	-50		567
DM212	65.00	67.00	3987477	77671	-5	4.38	27	159	8.39	15	6.35	2.30	4.51	3280	125		780
DM212	67.00	69.00	3987478	77671	11	2.53	35	144	12.50	26	8.34	1.28	5.77	11200	2300	2.73	5880
DM212	69.00	72.00	3987479	77671	11	2.33	38	132	14.40	23	6.95	1.20	7.26	5270	790		2860
DM212	72.00	74.00															
DM212	74.00	77.40	3987480	77671	5	2.07	25	61	16.50	16	2.71	1.09	8.05	2120	107		684
DM212	77.40	81.00	3987481	77671	-5	2.53	-20	78	15.00	13	2.98	1.31	7.97	2660	89		567
DM212	81.00	85.50	3987482	77671	5	2.14	-20	69	20.90	14	1.56	1.14	5.24	1220	78		552
DM212	85.50	89.50	3987483	77671	-5	2.40	-20	74	19.00	15	2.16	1.13	4.20	1530	103		420
DM212	89.50	92.95	3987484	77671	5	2.30	20	99	11.00	20	11.30	1.15	5.42	10200	648		1480
DM212	92.95	93.65	3987485	77671	45	0.58	32	126	4.07	143	21.80	0.22	1.18	101500	53600	3.86	38200
DM212	93.65	95.10	3987486	77671	14	1.33	25	100	21.30	34	3.77	0.63	2.53	12900	2150		4780
DM212	95.10	99.70	3987487	77671	10	0.74	-20	38	28.40	16	0.55	0.39	1.07	2180	258		491
DM212	99.70	112.50															
DM212	112.50	133.80															
DM212	133.80	136.20															
DM212	136.20	150.00															

APPENDIX 3

MARIPOSA RELOGGED EZ DIAMOND DRILL HOLE LOGS AND GEOCHEMISTRY

805073

AMOCO DDH. DTM-84-3 MARIPOSA.

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 2

TENEMENT NAME..... No. .....

PLAN – MAP REFERENCE.....

CO-ORDINATES 67288E/58825N AZIMUTH 060° DRILLERS..... COMMENCED 19.6.84 DEPTH 70m HOLE No DTM-84-3

RL COLLAR..... INCLINATION -45 DRILL TYPE..... COMPLETED 23.6.84 CASING LEFT..... DPO No(s).....

DEPTH from (M)	DEPTH To(M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)
2	10				CALC. SILTITE Mid-dark grey, variably mottled locally brown carbonaceous-stain and wisps/bands of dark grey carbonaceous material; locally Stylolitic.	Trace of white carb. vein local pale sphalerite + galena in veinlets. Cleavage 50°-C.A.					
10	11.5				DOL-SILTITE. Mid grey + brecciated + carbonaceous, recrystallised with abundant calc-Sil Bx fill.	Abundant white calcite + creamy ankerite-Sidorite alteration minor sphalerite.	3784280	8.5	10		
11.5	14.4				DOL-SILTITE Mid-dark grey; strongly rugby; mottled.	Calcite-Ankerite ± galena ± sphalerite veins; minor cream-white clay developed in some fractures & cavities.	281 282 3984273 274 275 276 277 278 279	10 11.5 13 14.4 15 18 59 62.5 65.5	11.5 13.0 14.4 15 18 21 62.5 65.5 70.0		
14.4	15.0				DOL SPARITE. Pale grey-cream coasely recrystallised carbonate rock.	Minor galena and calcite/ankerite veins + pervasive ankerite flooding.					
15.0	17.5				ALTERED SILTY LIMESTONE. Cream dolomitic, pervasively altered-mottled mid-dark grey; does not react to HCl(10%) or weakly reactive. trace of v. pale. Sphalerite. Locally intensely crackled / calcite veined.						
17.5	17.6				DECOMPOSED LIMESTONE Str. sulphidic dark grey porous, graphitic/carbonaceous.						
17.6	18.0				ALTERED SILTY LIMESTONE. As per 15-17.5. local pyritic veins.						
18.0	21.0				CALC LUTITE-ARENITE. Irregularly banded dark grey carbonaceous calc siltite + mid grey calcareous and Calc lutite.						

805074

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. PTM-84-

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by .....)
21.0	33.0				ALTERED-MINERALIZED LIMESTONE BRECCIA. Intensely replaced/recrystallised cream anhedrite + local siderite altered rock. Locally friable with strongly carbonaceous-silt bands. Fine disseminated sphalerite + local coarse galena. Minor fine disseminated pyrite.						
33.0	51.0				CALC LUTITE-CLAY. Pale-mid grey - locally brown oxidised/sideritic with friable unconsolidated grit-clay; decomposed.						
51.0	59.0				CLAY-MUD. Dark grey + brown clay + silty grit; poorly consolidated/indurated; locally yellowish - sulphidic.						
59.0	65.5				ALTERED SILTITE-ARENITIC LIMESTONE. Dark grey - locally brown/yellow stained porous-vuggy; locally brecciated with coarsely crystalline cream carbonate filling veins and breccia matrix. (Solution breccia).						
65.5	70.0				CLAY						
	EOH.				White - yellow clay with 10cm band of dark grey carbonaceous silt; locally brown - siderite? - weakly ferruginous.						

805075

AMOCO DDH DTM-84-6

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 7

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES 67170E/59075N AZIMUTH 234° DRILLERS ..... COMMENCED 10/8/84 DEPTH 238.5 HOLE No. DTM-84-6

RL COLLAR ..... INCLINATION -45° DRILL TYPE ..... COMPLETED 23/8/84 CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by .....
54.5	157.2				CALC-DOL LUTITE						
					Irregularly interspersed	156-157 Barite veined	3984283	154.5	156		
					dark grey locally weakly	partly decomposed carbonaceous	284	156	157		
					dolomitised-carbonaceous	rubbly siltst-limestone	285	174.5	176.2		
					calcilutite + mid grey calcilutite	Sharp contact between	286	172	174.5		
					May be kerogenous in part.	unaltered H.W. and altered					
					with dark grey stylolites and	zone at 156 m.					
					wisps filled with kerogenous						
					carbonaceous material; minor shell fragments.						
57.2	158.0				ALTERED / DECOMPOSED LIMESTONE.						
					Brecciated (solution) barite, siderite, calcite veined -						
					rubbly partly decomposed limestone with trace of						
					Galena ± sphalerite ± pyrite.						
158	166.5				SIDERITE ALTERED CARBONATE.						
					Totally recrystallised - Brown oxidised siderite altered						
					rock intensely sideritised - med. g. + local very coarse						
					sparry solution / cavern fill calcite-anherite showing						
					growth banding and minor spotting with py, sph +						
					minor galena, with local disseminated grains of barite /						
					calcite. ; minor disseminated galena veins + trace of sph.						
					local clay patches.						
166.5	197				ANKERITE ALTERED SILTITE-LUTITE.						
					Strong-abundant pervasive ankerite (cream) recrystalisation						
					or alteration with abundant carbonate crackle veining						
					and breccia cemented by carbonate. local traces disseminated pyrite -						
					vein of galena, sphalerite and minor siderite. Veining and						
					brecciation is most intense adjacent siderite alteration						
					zone (158-166.5); core is very heavy; minor						
					saddle dolomite; intensely sidiritic band at 196.5-196.7m.						
197	238.5				CALC-SILTITE -						
					Calcareous stylolitic, minor dark grey carbonaceous						

805076

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. 2 of 4

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. DTM-84-4

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (M)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by .....
					whisps/bands; rare calcite filled burrows (208m). Very weak patches of dolomitisation or weak anhydrite alteration; patch of disseminate + stylolite-hosted pyrite; Minor calcite veins (trace of sphalerite at 214.0m). Rare saddle dolomite lined voids closer to anhydrite alteration zone.						
			156-166.5		Intense Siderite alteration zone with galena-sphalerite mineralisation and intense veining/brecciation.						
			166.5-197		Anhydrite Alteration zone with abundant calcite veins with traces of galena and sph.						

Appendix 3: Mariposa prospect. Relogged EZ Diamond drillhole ledgers and geochemistry.

Hole	DFrom	DTo	Sampno	DPO	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments	Ag ppm	Ba ppm	Cu ppm	Fe%	Mn ppm	Pb ppm	Zn ppm
DTM3	0.00	2.20		AMOCO	Qha	CgCv											
DTM3	2.20	8.50		AMOCO	Og	Sls			G								
DTM3	8.50	10.00	3984280	77147	Og	Sls			G		1		9	1.29	778	89	298
DTM3	10.00	11.50	3984281	77147	Og	Sdl					5		11	1.84	4837	616	513
DTM3	11.50	13.00	3984282	77147	Og	Sdl	Vu				7		14	1.40	1050	283	812
DTM3	13.00	14.40	3984273	77147	Og	Sdl	Vu				2		9	3.38	2920	123	248
DTM3	14.40	15.00	3984274	77147	Og	Sdl					2		168	5.51	7300	695	442
DTM3	15.00	18.00	3984275	77147	Og	Sdl					-1		30	3.58	4057	51	122
DTM3	18.00	21.00	3984276	77147	Og	Sls					-1		7	1.35	883	46	63
DTM3	21.00	22.00	103850	AMOCO	Og	Sdl	BxVc	SdCc	LGW		57	180	16		20500	16200	3700
DTM3	22.00	23.00	103851	AMOCO	Og	Sdl	BxVc	SdCc	LGW		17	190	16		12200	1650	1850
DTM3	23.00	24.00	103852	AMOCO	Og	Sdl	BxVc	SdCc	LGW		35	25	470		7700	1050	610
DTM3	24.00	25.00	103853	AMOCO	Og	Sdl	BxVc	SdCc	LGW		1	20	26		4600	50	160
DTM3	25.00	26.00	103854	AMOCO	Og	Sdl	BxVc	SdCc	LGW		1	50	34		2400	125	280
DTM3	26.00	27.00	103855	AMOCO	Og	Sdl	BxVc	SdCc	LGW		5	125	28		2600	920	2400
DTM3	27.00	28.00	103856	AMOCO	Og	Sdl	BxVc	SdCc	LGW		3	2200	10		6100	600	2200
DTM3	28.00	29.00	103857	AMOCO	Og	Sdl	BxVc	SdCc	LGW		3	250	20		15000	490	15500
DTM3	29.00	30.00	103858	AMOCO	Og	Sdl	BxVc	SdCc	LGW		5	25	32		23300	2200	7400
DTM3	30.00	31.00	103859	AMOCO	Og	Sdl	BxVc	SdCc	LGW		8	80	20		15500	3900	19000
DTM3	31.00	32.00	103860	AMOCO	Og	Sdl	BxVc	SdCc	LGW		1	40	10		3100	210	6700
DTM3	32.00	33.00	103861	AMOCO	Og	Sls			GLG		1	100	10		1800	180	1250
DTM3	33.00	34.00	103862	AMOCO	Og	Sls			GLG		-1	70	14		1850	120	510
DTM3	34.00	35.00	103863	AMOCO	Og	Sls			GLG		1	220	16		1650	250	860
DTM3	35.00	36.00	103864	AMOCO	Og	Sls			GLG		1	340	24		940	600	2300
DTM3	36.00	37.00	103865	AMOCO	Og	Sls			GLG		-1	130	6		970	175	920
DTM3	37.00	38.00	103866	AMOCO	Og	Sls			GLG		-1	105	8		1650	30	220
DTM3	38.00	39.00	103867	AMOCO	Og	Sls			GLG		1	115	16		840	460	5000
DTM3	39.00	40.00	103868	AMOCO	Og	Sls			GLG		1	100	10		800	590	2200
DTM3	40.00	41.00	103869	AMOCO	Og	Sls			GLG		-1	40	6		870	140	640
DTM3	41.00	42.00	103870	AMOCO	Og	Sls			GLG		-1	35	12		1150	140	1000
DTM3	42.00	43.00	103871	AMOCO	Og	Sls			GLG		-1	20	38		1200	230	580
DTM3	43.00	44.00	103872	AMOCO	Og	Sls			GLG		-1	55	16		820	540	3800
DTM3	44.00	46.00	103873	AMOCO	Og	CcySls	We?		DG		-1	60	8		3000	65	550
DTM3	46.00	47.00	103874	AMOCO	Og	CcySls	We?		DG		-1	80	6		6600	40	660
DTM3	47.00	48.00	103875	AMOCO	Og	CcySls	We?		DG		-1	95	10		9500	75	1350
DTM3	48.00	49.00	103876	AMOCO	Og	CcySls	We?		DG		-1	90	8		6200	9	165

Appendix 2: Mariposa prospect. Relogged EZ Diamond drillhole ledgers and geochemistry.

Hole	DFrom	DTo	Sampno	DPO	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments	Ag ppm	Ba ppm	Cu ppm	Fe%	Mn ppm	Pb ppm	Zn ppm
DTM3	49.00	50.00	103877	AMOCO	Og	CcySls	We?		DG		-1	55	6		800	34	460
DTM3	50.00	51.00	103878	AMOCO	Og	CcySls	We?		DG		-1	65	6		2700	75	1000
DTM3	51.00	52.00	103879	AMOCO	Og	Ccy			DG		-1	80	8		1350	34	1200
DTM3	52.00	53.00	103880	AMOCO	Og	Ccy			DG		1	45	10		1350	26	300
DTM3	53.00	54.00	103881	AMOCO	Og	Ccy			DG		-1	85	6		1950	22	470
DTM3	54.00	55.00	103882	AMOCO	Og	Ccy			DG		-1	100	10		3500	18	210
DTM3	55.00	56.00	103883	AMOCO	Og	Ccy			DG		1	90	8		1350	65	270
DTM3	56.00	57.00	103884	AMOCO	Og	Ccy			DG		1	70	18		2500	100	1100
DTM3	57.00	58.00	103885	AMOCO	Og	Ccy			DG		1	85	22		3400	145	2200
DTM3	58.00	59.00	103886	AMOCO	Og	Ccy			DG		1	40	12		23500	50	240
DTM3	59.00	62.50	3984277	77147	Og	Sdl	AlVu	Sd	DG+YB		-1		6	30.10	18000	79	465
DTM3	62.50	65.50	3984278	77147	Og	Sdl	AlVu	Sd	DG+YB		4		96	24.80	19700	1849	7300
DTM3	65.50	70.00	3984279	77147	Og	Ccy			WY		2		20	9.04	6800	1716	2732
DTM3	0.00	2.30		AMOCO	Qha	CgCv											
DTM3	2.30	13.00		AMOCO	Og	Sls											
DTM6	0.00	1.50		AMOCO	Qha	CgCv				No rec							
DTM6	1.50	154.50		AMOCO	Og	Sls											
DTM6	154.50	156.00	3984283	77147	Og	Sls					-1		5	0.47	364	50	156
DTM6	156.00	157.00	3984284	77147	Og	Sls	AlBxVc	CcSd			1		4	1.02	2140	648	361
DTM6	157.00	158.00		AMOCO	Og	Sls	AlBxVc	CcSd									
DTM6	158.00	159.00	113187	AMOCO	Og	Sdl	Al	Sd	B		35	140	14		69000	22000	4200
DTM6	159.00	160.00	113188	AMOCO	Og	Sdl	Al	Sd	B		70	110	48		77000	63500	6700
DTM6	160.00	161.00	113189	AMOCO	Og	Sdl	Al	Sd	B		22	18700	8		45000	4300	1100
DTM6	161.00	162.00	113190	AMOCO	Og	Sdl	Al	Sd	B		25	160	6		100000	11400	1900
DTM6	162.00	163.00	113191	AMOCO	Og	Sdl	Al	Sd	B		80	5600	140		90000	42400	3100
DTM6	163.00	164.00	113192	AMOCO	Og	Sdl	Al	Sd	B		37	11200	20		94000	27400	2900
DTM6	164.00	165.00	113193	AMOCO	Og	Sdl	Al	Sd	B		65	1700	28		97000	23400	8000
DTM6	165.00	166.00	113194	AMOCO	Og	Sdl	Al	Sd	B		24	730	14		84000	48200	5200
DTM6	166.00	167.00	113195	AMOCO	Og	Sdl	Al	Sd	B		5	400	6		24000	7050	1900
DTM6	167.00	172.00		AMOCO	Og	Sdl	AlVc	Sd									
DTM6	172.00	174.50	3984286	77147	Og	Sdl	AlVc	Sd			1		5	2.40	4132	1175	1133
DTM6	174.50	176.20	3984285	77147	Og	Sdl	AlVc	Sd			1		3	3.26	4234	366	318
DTM6	176.20	197.00		AMOCO	Og	Sdl	AlVc	Sd									
DTM6	197.00	238.50		AMOCO	Og	Sls											

APPENDIX 4

AIR-CORE END-OF-HOLE SAMPLE LEDGERS AND GEOCHEMISTRY

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October 1994

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ZEEHAN CARBONATE-HOSTED Zn-(Pb-Ag) MINERALISATION & ALTERATION PATTERNS

Summary:

A zoned hydrothermal alteration pattern is associated with carbonate-hosted zinc mineralisation in the Zeehan area, Tasmania. The characterisation of the alteration pattern provides a vector for potentially locating high-grade Zn-(Pb-Ag) mineralisation within a broader assemblage of altered limestones.

Alteration characteristics include:

- Zonation from unaltered or "calcite-dominated" limestones to altered "dolomitised" limestones which include an outer dolomite zone (weak alteration), ankerite-dolomite zone (moderate alteration) and siderite-ankerite zone (intense alteration) associated with increasing Zn-Pb-Ag mineralisation.
- Disseminated or pervasive carbonate mineral species become more Zn, Mg, Fe and Mn rich as alteration intensifies.
- Hydrothermal maturation of organic material to pyrobitumen and/or mobilisation of hydrocarbon material is associated with alteration and mineralisation.
- Disseminated, vein and replacement style zinc, lead, silver, iron and rare copper sulphides and barite mineralisation increase with increasing alteration.

Areas of silicification have also been identified, although not as useful as an indicator of proximity to zinc mineralisation. Character of the alteration varies according to primary lithology, porosity and limestone facies distribution.

There is potentially a close spatial relationship of zinc mineralisation in the Gordon Limestone to basement relief or flanks of basement highs in the underlying Moina Sandstone (e.g. as indicated at the Grieves Prospect). There is also some suggestion that faulting and possibly folding/transpression may have influenced mineralisation as indicated at the Sunny Corner and Bannockburn Prospects. Sulphide-pyrobitumen bearing stylolites are also interpreted to indicate some mobilisation of sulphide with hydrocarbon material during deformation.

The alteration style and mineralisation characteristics appear more similar to the Irish-type zinc ore deposits than classic MVT type mineralisation. Petrographic and XRD analyses support this conclusion.

Alteration and mineralisation logged in some EZ and Amoco core appears to belong to the peripheral alteration assemblage and occasionally intersected significant mineralisation. Systematic logging of limestone facies and alteration types in all these drill holes is warranted, to possibly determine vectors to blind base metal mineralisation.

Introduction:

This report details the results of an examination of alteration associated with Ordovician Gordon Limestone-hosted zinc-mineralisation in Western Tasmania at the Grieves, Sunny Corner, Firewood Siding, Mariposa, Myrtle, Bannockburn and Pyramid Prospects. This has involved detailed examination of air core end-of-hole samples, logging recent CRAE diamond drill holes, minor re-logging and sampling diamond drill holes completed by EZ and Amoco and minor field checking. Ledgers for the end-of-hole sample descriptions are provided in Appendix 1.

Several drill core and hand specimen samples were collected for petrographic, XRD and probe analyses to help identify and characterise the geochemistry of the alteration phases associated with the zinc mineralisation. Brief sample descriptions, drill hole and depth information supplied for the petrographic study are provided in Appendix 2. Details of the results of this study are provided in a report by Ashley (1994).

The aim of this report is to describe the alteration styles and spatial distribution of the alteration at some of the prospects from which the data was collected. Maps showing the inferred geology and alteration associated with several of the Zeehan Prospects are provided in Plans Tv 865-869.

Alteration Characteristics:

An alteration pattern is recognised associated with zinc mineralisation at each of the CRAE zinc-carbonate prospects examined. The Oceana Deposit in the same district exhibits similar alteration characteristics.

The pattern of increasing alteration and Zn-Pb-Ag mineralisation includes:

- Un-mineralised limestones typically display weak dolomitisation and diagenetic silica alteration. Organic matter is less thermally mature than in altered limestones associated with zinc mineralisation.

- *Dolomite zone*. Involves subtle fine grained pervasive dolomitisation and re crystallisation characterised by weak/slow reactivity to dilute HCl. This process may have involved some introduction of carbonate into some less carbonatic facies, rare vein/fracture-hosted Zn-Pb mineralisation and possibly an increase in bituminous stylolites (?due to calcite dissolution);

- *Ankerite-Dolomite zone*. This includes increased and coarser recrystallised dolomite alteration and introduction of fine-medium grained sparry ferroan dolomite and ankerite. Dolomite and ankerite veining and brecciation increase approaching high grade base metal mineralisation. This zone is associated occasionally with development of saddle dolomite lined voids, destruction of primary textures or fabrics and minor disseminated and vein-hosted pyrite±galena±sphalerite±chalcopyrite±marcasite. In the ankerite-dolomite and dolomite zones, field discrimination between ankerite and dolomite is not precise. Visual indicators for this pervasive dolomite ankerite mineralisation include bone or cream coloured veins and/or oxidation of exposed limestones or cut surfaces to a cream colour. In fresh samples the altered limestones in this zone become inert or very weakly reactive to dilute HCl, specific gravity and veining/fracturing increase, and blocky rhombs of bone/opaque ankerite or dolomite can be observed under 10x and 25x magnification.;

- *Siderite-Ankerite zone*. Characterised by intense pervasive iron-carbonate (siderite and ankerite±dolomite) alteration and replacement (completely obliterating primary textures), local intense solution and fracture-controlled brecciation, colloform banded carbonate replacement, sparry colourless calcite, rare barite veining, pervasive and vein/open-space sphalerite-galena-(pyrite) mineralisation. Limestones in this zone may also decompose to a poorly consolidated puggy carbonaceous material (yellow or brownish when zinc mineralised). This alteration is most obvious in the silty-sandy clastic and oolitic limestone facies. In black lutites or "black matrix breccias"/ wackestones the alteration and very fine grained *high-grade zinc carbonate & sulphide mineralisation may be very difficult to identify* with the naked eye (e.g. compare sample 3970003 & 3970004, Appendix 2 & Ashley, 1994). Higher grade mineralisation is indicated by inertness to dilute HCl, breccia texture in some samples and oxidation of core or chips to a chocolate brown colour on exposed surfaces.

Examples of the various alteration are shown in photos 1 to 4 from diamond drill hole DTM84-6.

Organic material/bituminous material in fractures and brown organic staining is more common immediately peripheral to the iron-carbonate alteration zones. Thermal alteration of organic material to pyrobitumen is intimately associated with zinc carbonate and sulphide mineralisation. At least two generations of stylolite development are present with an early set developed along bedding and later "post" stylolite steeply cross cutting the earlier set. The post stylolites contain pyrobitumen and locally traces of pyrite and sphalerite suggesting later deformation linked timing of some of the sphalerite mineralisation.

The petrographic and electron microprobe data highlight the following:

- The limestones are dominantly composed of clastic material often containing preserved fossil fragments and a dark pigmentation due to organic material.

- Almost all mineralised samples submitted have been pervasively altered to dolomite/ferroan dolomite-ankerite assemblages.

- High grade zinc-lead mineralisation is spatially associated with intense hydrothermal zincian-manganoan-magnesian siderite, ankerite and local illite-sericite alteration, and volume decrease creating void space.

- Ore-related sulphide mineralisation generally partially succeeds Zn-Mn-Mg-Fe carbonate mineralisation but may partly overlap with a later phase of sparry sulphide-free iron carbonate and calcite mineralisation.

- Sulphide mineralisation is often intimately associated with pyrobitumen aggregates.

- The sulphide mineralisation probably accompanied increased sulfur fugacity, copper activity and salinity during replacement of earlier Zn, Mg, Mn carbonates.

- Sphalerite is generally a pale-coloured, transparent, low-Fe species or has a dark colour due to chalcopyrite disease in the most intensely altered limestones (consistent with Sedex or Irish type mineralisation).

- The most sulphide rich samples also contain traces of marcasite, tetrahedrite and chalcopyrite.

- Some pyrite may have a biogenic or diagenetic origin and was subsequently recrystallised during alteration and ore-related mineralisation.

- Finer grained-silty limestone facies are apparently more susceptible to alteration and mineralisation (e.g. samples 3970003, 3970004, 3970016).

- There is some evidence for migration of organic material coincident with sulphide mineralisation (e.g. sample 3970014).

- There is potential for significant silver credits with zinc mineralisation in zones of intense alteration.

Distribution of Alteration:

The strongest alteration is most common immediately above the Moina Sandstone and immediately beneath the Crotty Quartzite, but may occur at several levels in the stratigraphy. The alteration is apparently asymmetric and may correspond to an alteration-mineralising front/migration pathway. Boundaries between the alteration zones may also be sharp. The intense alteration and associated base metal mineralisation is often associated with basin margin facies near reef, slope and back-reef mud facies immediately overlying apparent irregularities in the underlying Moina Sandstone and higher in the stratigraphy. This may reflect preparation of limestones by early porosity associated with dolomitisation, limestone composition (finer grained facies more susceptible to alteration), primary and solution porosity, faults and basement architecture (indicated by limestone facies distribution).

The Moina Sandstone is locally haematitic and oxidised (e.g. Pyramid Prospect), and often weathered near the contact with the overlying Gordon Limestone sequence (e.g. Grieves Prospect). The sandstones are a possible source of iron and oxidised fluids potentially important in the ore mineralisation process. The porous nature of the altered, often oolitic, limestone near the base of the Gordon Limestone may have facilitated deep weathering or ground water activity. This may be responsible for development of soft limestone pug to considerable depth.

The association of hydrothermal maturation of organic matter to pyrobitumen observed both in core and thin section, demonstrate alteration and zinc-lead-silver mineralisation are associated with a thermal anomalism. This may be verified by vitrinite reflectance studies and hydrocarbon maturation indices.

Comparison with Irish Carbonate-hosted Base metal Deposits:

The Zeehan carbonate-hosted deposits have many similarities with the Irish Zn-Pb-Ag mineralisation, including:

- Mineralisation is hosted by basin margin marine facies deposited during a marine transgression, including platform muds and mixed shallow-water carbonate facies - micritic, oolitic, argillaceous;
- Blanket bogs overlie some of the deposits in Ireland and Zeehan which are also locally mineralised;
- Tectonism and alteration are probably coincident with basin subsidence/deformation as indicated by similar matrix material in both cavity- and fracture-fill material, and in the altered host;
- Proximity to thermal anomalies;
- Stronger similarities with Sedex class deposits than MVT, indicated by significant silver and minor copper, structural control on ore distribution, and absence of fluorite;
- Similar metal zonation and enrichment characteristics, including high Fe, S, Mn, As, Ba, Zn, Pb, Ag $\pm$ Cu associated with most intense alteration;
- Black matrix breccias have been described at Lisheen and Silvermines.

These similarities suggest a similar exploration rationale may be applied.

Discussion and Recommendations:

Zinc mineralisation at Zeehan is associated with well developed hydrothermal alteration systems. The limestone facies are a mix of impure clastic limestones variably endowed with organic material in reef, back reef, fore reef and slope facies. Distribution of the various facies is related to morphology of the underlying Moina Sandstone and basement architecture.

The limestones hosting the zinc-lead mineralisation have been regionally dolomitised and overprinted by ankerite-ferroan dolomite alteration with Zn-Mn-Mg rich siderite, dolomite and ankerite closer to sulphide mineralisation. Sulphide and sparry carbonate mineralisation replace the limestones and overprint earlier zinc carbonate mineralisation in zones of most intense alteration, probably associated with increasing salinity of hydrothermal brines and sulfur activity. Hydrothermal maturation of organic material has accompanied ore related mineralisation and alteration. Some sulphide mineralisation has probably accompanied deformation associated with intense fracturing, post-stylolite development, folding and at least local hydrocarbon migration. Some mineralisation may have accumulated in brine/hydrocarbon trap sites such as fold hinges and pinch-out structures.

Genesis of the deposits is most akin to the Irish type and Sedex class deposits, hence similar exploration rationale for these deposits are valid at Zeehan.

The maps compiled from end-of-hole air core sample information and minor field reconnaissance provide only an approximate guide to the two dimensional distribution of alteration associated with zinc-lead mineralisation at the various prospects examined. The maps are highly interpretive and could be greatly improved with more detailed mapping, incorporation of diamond drill hole information and more detailed air core drilling.

There is room for a large high-grade carbonate-hosted Zn-Pb deposit within the region. With the wealth of information available in diamond drill holes, it is possible to piece together facies variation and alteration pattern, distribution of Pb-Zn mineralisation and limestone facies on a regional scale. New targets for bedrock carbonate-hosted Zn deposits or extensions to known mineralisation in the Zeehan region may arise from a broader view of the region stepping away from the known mineralisation (e.g. wide spaced air-core drill traverses), applying some of the knowledge exposed in this report and guides provided in a previous report by D. Taylor (CRAE Report 14590). Detailed logging of the facies and alteration types of the EZ and Amoco drill holes is recommended.

Interpretation of the alteration mineralogy and discrimination between calcite, dolomite and siderite may be assisted in the field by using dilute HCl and staining samples with Alizarin Red S. Features such as destruction of primary limestone texture, inert or weak reactivity to dilute HCl, increased specific gravity, veining, brecciation and sulphide mineralisation are obvious field criteria for identifying potential zinc mineralisation.

It is possible that not all the zinc resources have been identified at the Oceana Carbonate-hosted Pb-Zn deposit

T.C. Moody
Project Geologist

APPENDIX 1

Zeehan Carbonate-Hosted Zinc Project
Bottom of Hole Sample Description Ledger

ZEEHAN CARBONATE-HOSTED Zn PROJECT

BOTTOM OF HOLE SAMPLE DESCRIPTION LEDGER

HOLE No		GSOLITH	FIELD ID	TEXTURE	ALT/MIN	COLOUR	COMMENTS
SUNNY CORNER PROSPECT							
DS	1	Og	Sdl-sl	Fs	Py	DG	Graphitic, tr. green cy and unidentified brown specs.
DS	2	Og	Sdl	Vu		DG-G	Fossiliferous, friable, vughs lined with amorphous silica
DS	3	Og	Sdl-ls			DG-G	Fossiliferous, weakly friable
DS	4	Og	Sls	Ds	Py	G,M	Bioclastic calcarenite-siltite
DS	5	Og	Sls	Fs,Bn	Py	DG,M	Calcsiltite
DS	6	Og	Sls	Vu		DG	Calcsiltite, tr. green cy, minor vughs.
DS	7	Og	Sls-dl			DG	Calc/dol lutite-siltite, minor shell fossils
DS	8	Og	Sls-dl	Fs,Ds	Py	DG	Calc/dol lutite-siltite
DS	9	Og	Sdl	Fr, Ds	Py	DG	Dol siltite, tr. Quartz
DS	10	Og	Sdl	Vn	Sd	M,G-DG	Weakly dol siltite-arenite, minor ankerite-(Qtz) vein
DS	11	Og	Sdl.Ovc-vq	Vn,Fs,Ds	Py	DG	Graphitic dol siltite, weakly silicified
DS	12	Og	Sdl	Al,Vu,Ds	Sd,Py	G-LG	Crse dol-siltite, str. pervasive bone ankerite-altered
DS	13	Og	Sdl.Ovq	Al,Vu,Ds	Sd,Py,Ga	G-LG	Crse dol-siltite, str. pervasive bone ankerite-altered,
							weakly silicified
DS	14	Og	Sdl.Ovc	Fr,Al,Ds	Sd,Py	G-LG	Crse dol-siltite, mod. pervasive bone ankerite-altered
DS	15	Og	Sdl.Ovc	Fr,Vn	Sd.	G-LG	Crse dol-siltite, minor bone ankerite veinlets, org. residue
							on some fractures
DS	16	Og	S	Al,Fr,Ds	Py,Ga,So	LG	Totally silicified, minor org. residue, cerussite, Ga, Sp Fr;
							trace Ds Ga.
DS	17	Og	S.Ovq	Al,Vn	Py	LG-BG	Totally silicified siltite-f.g. arenite, minor org. residue on Fr
DS	18	Og	S.Ovq	Al,Vn	Py	LG-G	weakly silicified siltite-f.g. arenite
DS	19	Og	Sdl, Obx,Ovq	Vn	Py,Gn	DG-BG	weakly silicified siltite-f.g. arenite, minor-abun. Qtz-Ga Vn
DS	20	Og	Sdl.Obx			DG-BG	V. finely porous crs Slst., brown carbonaceous stain
DS	21						
DS	22	Og	Sls	Fr		M,DG-LG	Calc siltite
DS	23	Og	Sls	Ds,Fs	Py,(Ga)	DG	Calc-siltite, rare Ds Ga
DS	24	Og	Sls-dl.Ovq-c	Fr,Vn	Cc,Sd,Py	DG-G	Dol-weak calc. siltite, tr. qtz-Py-calcite-ankerite veinlets
DS	25	Og	Sdl	Fr,Vu,Bx		DG	Dol-siltite, tr. yellow-brown unidentified min. on Fr.
DS	26	Og	Sdl	Ds	Py	DG	Massive dol-siltite
DS	27	Og	Sls.Ovc	Fr		G	Calc-siltite
DS	28	Og	Sls	Ds	Py	DG-G	DG calcsiltite irreg. interspersed with G fossiliferous ls
DS	29	Og	Sls	Ds	Py	G-DG	Calc siltite-lutite
DS	30	Og	Sls-dl.Obx	Al,Ds	Sd,Py	LG-DG	Calc-siltite-lutite, weakly dolomitised, weak pervasive
							silicification+ankerite alteration.
DS	31						
DS	32	Og	Sdl.sl.Obx	Al,Ds	Sd,Py	G	weakly dolomitic siltite-lutite, weak pervasive ankerite Al
DS	33	Og	Sdl	Al, Ds	Sd, Ga, Sp	LG	Str. Ankerite altd, m.g. recrystallsed carbonate, tr. Ga,Sp
DS	34	Og	Sdl.Ovc	Fr,Ds	Py	M,G	V.wk dolomitic-non dolomitic lutite, brown organic stain,
DS	35	Og	Sdl. Obx	Al	Sd	DG-VBG	Str. pervasive ankerite-siderite altd, wk silic lutite, high SG
DS	36	Og	Sdl-sl			DG	Weakly dolomitic graphitic mudstone-f.g. siltite
DS	37	Og	Sdl-sl			DG	Weakly dolomitic graphitic mudstone-f.g. siltite
DS	38	Og	Sdl-sl			DG	Weakly dolomitic graphitic mudstone-f.g. siltite
DS	39	Og	SOx	Al,Fr,Ds	Py	W-LG	V.Str. silicified rock
DS	40	Og	Sls			DG-G	Calc-lutite, minor shell fossils and soft sed deformation.
DS	41	Og	Sdl-ls,Ovc-q	Fr		G-LG	Wk-calc-dol lutite with lesser irregular DG siltite bands
DS	42	Og	Sls.Ovc-q	Fr		G-DG	Calc-siltite
DS	43						
DS	44						
DS	45	Og	Sdl	Ds	Py	DG	Dolsiltite
DS	46	Og	Sls	Sh,Ds	Py	G-DG	G calc-siltite-lutite with irregular bands of DG siltite
DS	47	Og	Sdl	Fr,Ds	Py	DG	V.weakly dolomitic silitite
DS	48	Og	Sdl	Fr,Sh		DG	V.weakly dolomitic silitite
DS	49	Og	Sdl.Ovc-q	Al,Ds,Fs	Sd,Py	G	Str. pervasive bone-ankerite altered, silicified carbonate
							(does not react to dil HCl), minor Qtz-white/bone Ank Vn.
DS	50	Og	Sdl	Fr		DG	Dol siltite-lutite
DS	51	Og	Sdl.Ovc	Fr,Vn	Cc	G	Weakly silicified & dolomitic siltite, minor calcite veinlets
DS	52	Og	Sdl	Al,Fr,Ds	Py	DG,LG	Dol-siltite, weak ankerite altn/recrystalisation
DS	53	Og	Sdl.Ovc-q	Al,Vu,(Ds),Vn	Sd,Py,Ga,So	LG-W	Str. ank-sid? altd, veined & recryst, local silicified, minor So

DS	54	Og	Sdl.Ovc-q	Al.Vn	Sd,Qtz	G-DG	v.wk dolomitic siltite, wk-mod. silicified & ankerite altered
DS	55	Og	Sdl.Ovc-a	Al,Fr,Ds,Vn	Sd,Qtz,Ga,So,Py	WB-LG	V.str.pervasive ankerite altd & Vn, minor Ga, trace So.
DS	56	Og	Sdl	Bx	Sd	DBG	Calcite-ankerite cemented brecciated dol-siltite
DS	57	Og	Sdl	Fr		G-DG	Dol-siltite, minor shell fossil
DS	58	Og	Sdl	Bx.Vn	Sd.Qtz	G-DG	Str. Bx-Vn Ankerite, weakly dolomitic siltite
DS	59	Og	Sdl	Bx.Vn.Vu	Sd.Qtz	G-DG	Str. Bx-Vn Ankerite, weakly dolomitic siltite
DS	60	Og	Sdl	Bx.Vn	Sd.Qtz	G-DG	Str. Bx-Vn Ankerite, weakly dolomitic siltite
BANNOCKBURN PROSPECT							
DS	61	Og	Sdl			DG,LG	Dol siltite, irreg Bn Dg & (LG), fr crinoid stem/burrow casts
DS	62	Og	Sdl-ls	Al.Vn	Sd.So	G	Dol-calc siltite-sparite (some sandy text), minor gastropod
							fossils. 1% Vn Sp, weak ankerite veined & altd
DS	63	Og	Sls-dl	Vn	Sd	LG,DG	Irreg Bn LG fossiliferous ls & DG carbonaceous calc siltite
DS	64	Og	Sdl	Al.Vn.Fr	Ga,(Sp),Py	G	Mod pervasive ankerite altn & Vn. siltite (No react to HCl)
DS	65	Og	Sdl-sl	Al.Vn	Sd	DG.G	weak dolomitic-siliceous siltite, patchy pervasive ank altn.
DS	66	Og	Sdl	Al.Vn	Sd	DG	weak/de-dolomitised siltite, patchy pervasive ank altn.
DS	67	Og	Sdl			SG	Dol siltite-f.g. arenite, minor calcite replaced shell fossils
DS	68	Og	Sdl-sl	Ds	Py	DG	weakly dolomitic-siliceous siltite
DS	69	Og	Sdl.Ova	Vn.Fr.Vu	Py.Sp	DG	80% banded va, 20% dol siltite, minor-abun. crse So-Py
DS	70	Og	Sdl.Ovc-q			DG-G	Dol siltite
DS	71	Og	Sdl	Al,Vu.Vn	Sd	G	Weak dolomitic siltite, mod pervasive bone ank altn + Vn
DS	72	Og	Sdl	Al.Vu		G	Weak dolomitic siltite, weak-mod pervasive bone ank altn
DS	73	Og	Sdl.Ovc	Al.Ds	Py	G,(DG)	Irreg banded weak dolomitic G & DG siltite, weak ank altn
DS	74	ScDM-?	Sss	We		LG-LYB	Clayey, fine-med g
DS	75	Og	Sls.Ovc-q			DG	v.f.g. calc-arenite-siltite, minor calc-sparite
DS	76	Og	Sls.Ovc			G-LG	Irreg interspersed LG & G calc siltite-lutite
DS	77	Og	Sdl	Ds	Py	DG	Weak-non dolomitic siltite, fr calcite replaced shell fossils
DS	78	Og	Sls-Ovc	Ds	Py	LG,DG	Irreg interspersed LG biocalstic ls and DG calc-siltite
DS	79	Og	Sls			DG	Calc siltite, minor gastropod casts
DS	80	Og	Sls			G-DG	Calc siltite-lutite, weakly banded/laminated
DS	81	Og	Ovc-a.Sls			G,DG	70% va-c(calcite), 30% G and DG calc siltite
DS	82	Og	Sls			G,DG	Bioclastic grainstone and minor DG calc siltite
DS	83	Og	Sls			G,DG	Bioclastic grainstone and minor DG calc siltite
DS	84	Og	Sls			G,DG	Bioclastic grainstone and minor DG calc siltite
DS	85	Og	Sdl-sl	Ma		DG	weakly dolomitic-siliceous siltite
DS	86	Og	Sls	Vu,(Al)		DG	Graphitic calc-siltite, v weak calcite-ankerite altn/recryst.
DS	87	Og	Sls	Ds	Py	DG	Graphitic calc-siltite+lesser LG calc siltite-lutite, rare fossils
DS	88	Og	Sdl	Al,Ds,Vn	Sd,Py,Ga,(Sp)	G	Mod-str pervasive white-bone ank altd, wk-non dolsiltite
DS	89	Og	Sdl	Al,Ds	Py	M,G	Mod-str pervasive ankerite altn/m.g recryst. sandy sparite
DS	90	Sc	Sss		(Ga)?	W	med.g. Quartz arenite, minor clay. 1 galena grain ?contam.
DS	91	Og	Sdl	Fr,Bx,Al		G	Recrystallised dol arenite-sparite, weak ankeritic alteration
DS	92	Og	Ssl.Obx	Vu		DG	Non-ex dolomitic, soft carbonaceous siltstone, solution bx
DS	93	Og	Sdlss			G	Siliceous-weakly dolomitic f.g. arenite
DS	94	Og	Sls.Ovc-q	Bx.Vn	Sd,Py	DG.LG	LG fossiliferous- (brachiopods) calc-siltite & DG calc siltite
DS	95	Og	Sls	Vu		DG	Wk calc-siltite-lutite, strongly carbonaceous
DS	96	Og	Sls			DG	Crse.g. calc-siltite, with abundant vfg q sand grains
MARIPOSA PROSPECT							
DM	36	Og	Sls.Obx	Al.Vn.Bx	Sd	G	Weak-mod pervasive ankerite altd calc-siltite
DM	37	Og	Sdl		Ga	G,DG	wk dol calc-siltite-arenite & DG calc siltite, trace Ga
							?replacing fossil.
DM	38	Og	Sdl	Al,Fr,Vu	Mn,Sd	G-DG	vfg. Dol arenite, str Vu, wk altd?/calcite grain overgrowths
DM	41	Og	Sdl	Al,Vu,Vn		GB	Str pervasive ankerite-(siderite) altd-recrystalised rock
DM	42	Og	Sdl	Al,Vn	Sd	GB	Mod. pervasive ankerite-siderite altd. siltite
DM	43	Og	Sls,Ovc	Bn,Al)		G-DG	V wk altd calc-arenite & calc-lutite
DM	44	Og	Sls	Ds	Py	G	Foliated graphitic calc-siltite
DM	45	Og	Sdl	Ma,Al,Vu	Sd	W-LG	Str. pervasive vfg ankerite altd siltite-lutite/micrite
DM	46	Og	Sls	Fr		G-LG	Calc-siltite-lutite
DM	47	Og	Sls	Bn		G-LG	f.-m.g. calc-arenite, weakly banded; bed dip 05deg to C.A.
DM	48	Og	Sls	Ma,Fr		DG	Graphitic calc-siltite
DM	49	Og	Sls,Ovc			G	Calc-arenite, Slicken-side surface 85deg to C.A.
DM	50	Og	Sls	Al,Vn	Sd	DG	Calc-siltite, minor calcite-ankerite veining
DM	51	Og	Sls			DG	Calc-siltite, abundant gastropod & brachiopod fossils

DM	52	Og	Sdl	Al,Vn		G	Sandy str ankerite altd rock & weakly altd dol-siltite
DM	53	Og	Sdl	Al,Ds	Py	M,G	Mod-str pervasive ankerite-Py altd rock, high S.G.
DM	54	Og	Sdl,Ovc	Al		G	Weakly altd? v.f.g. dol-arenite
DM	55	Og	Sdl	Al,Vn,Vu	Sd	DG	Dol-siltite, abundant sid-ank Vn, weak v.f.g. ankerite altn.
DM	56	Og	Sdl-sl	Al		DG,(LG)	v. weak dolomitic, DG graphitic & lesser LG siltite, wk altd.
DM	57	Og	Sls			M,N-DG	Carbonaceous calc-siltite
DM	58	Og	Sdl-sl			DG	Carbonaceous-graphitic calc-siltite, weak foln, shell fossils
DM	60	Og	Sls,Obx	Vn	Sd	DG	Stronly ankerite Vn-Bx calc siltite, weak ankerite altn.
DM	61	Og	Sls			DG,(LG)	Foliated (S1=05deg to C.A.) graphitic calc-siltite, lesser LG.
DM	62	Og	Sls,Ovc			DG-G	calc-siltite with minor LG patches
DM	63	Og	Sls	Fl		G	Str. cleaved calc-lutite-siltite with graphitic slickensides
DM	64	Og	Sls			G	strongly cleaved calc-siltite
DM	65	Og	S,Ovc	Al	Sd	W-LG	Intensely recrystalised/altd & Vn ankerite-?siderite rock
DM	66	OgDM-?	Ssl	We		LV,P	bedding // S1 = 40deg to C.A.
DM	67	Og	Ssl			LB	
DM	68	Og	Sss			YW	poorly sorted med.g. quartz-arenite
DM	69	Og	Sdl	Al,Vn	Sd,Ga	G-W	Str. pervasive ankerite altered-veined ?siltite, abund. Ga
DM	70	Og	Sdl	Fr		DG	Kerogenous/carbonaceous dol siltite
DM	71	Og	Sls	Vn,Fr,Vu	Sd		30% Bone ankerite Vn, 40% G arenite, 30% YB Sch-siltite
DM	72	Og	Sls,Ovc	Al,Vu	Sd	G	V. weakly pervasive ankerite altd. porous calc-arenite
DM	73	Og	Sls,Obx	Al,Vu,Vn	Sd	G	Str. pervasive ankerite altd.-bx siltite
DM	74	Og	Sls	Vn	Sd	DG,(LG)	DG calc-siltite with minor LG siltite filling burrows/tubes
DM	75	Og	Ssl-dl	Al		G	dol-siltite/siltst.,weak v.f. pervasive ankerite altn.
							str.spaced cleavage <5deg to C.A.
DM	76	Og	Sls			M,G-DG	Calc-siltite
DM	77	Og	Sls				
DM	78	OmDM-?	Sss			W	F.g. Qtz arenite
DM	79	Og	Sdl			G	Str. carbonaceous/graphitc crse.g. calc-siltite-f.g. arenite
DM	80	Og	Sdl			G	Str. carbonaceous/graphitc crse.g. calc-siltite
DM	81	Og	Sls			LG	Crse.g. calc-siltite, minor Mn/graphitic cleavages
DM	82	Og	Sls	Ma		LG	F.G. calc-arenite
DM	83	Og	Sdl	Al,Vn	Sd	G	v.weak/non dolomitic-siltite, Mod. pervasive f.g. ankerite altn.
DM	84	Og	Ox	Al,Vn	Sd	W	Intense crse. ankerite altd. rock/Vn. abundant Ga-Sph-(Py)
DM	85	Og	Ssl	Ma,We?		KB	Cleavage to C.A. 45deg
DM	86	Og	Sdl	Ds	Py	G-LG	Dol-siltite, weak pervasive ankerite alteration
DM	87	Og	Sls			DG,LG	DG calc-siltite, lesser irreg. Bn/patches of LG fg. arenite
DM	88	Og	Sls				
DM	89	Og	Sls,(Ovc)			M,DG-LG	Crse-f.g. calc-siltite: trace calcite veinlet
DM	90	Og	Sls			DG	Calc-siltite
DM	91	Og	Sls	Ds	Py	DG,LG	DG pyritic calc-siltite-lutite, LG vfg. calc-arenite
DM	92	Og	Sls	Al,Vn	Sd	LG	calc-siltite, weak pervasive ankerite alteration
DM	93	Og	Sdl,Ovc	Al,Vn,Vu	Sd	G	v.wk.-non-dolomitic siltite: mod. pervasive ankerite altn.
DM	94	Og	Sdl,Ovc	Al,Vn	Sd	G	v.wk.Dol-siltite, weak pervasive ankerite altn & Vn
DM	95	Og	Sdl	(Al),Vn	Py,Sd	DG	70% crse ankerite-(py), 30% DG weakly ankeritic dol-siltite
DM	96	Og	Sls	Vn	Sd,Py	M,DG-G	crse. calc-siltite, minor crse. ankerite-pyrite Vn
DM	97	Og	Sls	Bn		M,LG-G	f.g. calc-arenite
DM	98	Og	Sdl,Ovc	Al,Vn	Sd	DG-YG	Weakly siderite? altd ex?-dol-siltite, minor crse ank vn
DM	99	Og?	Ssl-cy	We?		K-W	clayey siltstone
DM	100	Og?	Ssl-cy	We?		W-LY	clayey fissile siltstone-mudstone
DM	101	Og	SOx	Al,Vu,Bx	Sd	DG-DYG	Str. altd. rock?, trace of detrital silt grains in yellow sideritic?
							matrix, High S.G.
DM	102	Og	Sdl	Al,Fr,Ds	Sd,Ga,Py,So	M,G	Weak pervasive ankerite-siderite altd ?dol-siltite, minor-
							abundant crse Ga,Py,So, tr. Ds Py-?Ga
DM	103	Og	Sls	We		LG	Weakly We stylolitic-cleaved dol-lutite
DM	104	Og	Sls	Al		M,G-DG	calc-siltite, weak patchy ankerite altered
DM	105	Og	Sls			LG-G	Str. cleaved/foliated graphitic dol-lutite
DM	106	Og	Sls			LG,G,DG	Mix of crse calc-arenite, str. cleaved calc-lutite, Qtz grains
DM	107	Og	Sls			DG	Str. cleaved dol-lutite
DM	108	Og	Ssh			DG	Carbonaceous; minor-rare shell fossils
DM	109	Og	Sls			DG	Carbonaceous calc-siltite; rare fossil casts?
DM	110	Og	Sls				

DM	111	Og	Sdl	Ds	Py	M.G-DG	Carbonaceous dol-lutite, rare f.g. pyrite aggregates
DM	112	Og	Sls			G-DG	Irreg intersoersed LG & lesser DG calc-lutite, stviolitic
DM	113	Og	Ssl			N	Str. carbonaceous
DM	114	Og	Sls	Al	Sd	G	weak pervasive ankerite alteration
DM	115	Og	Sdl			G-DG	Dol-siltite, stviolitic
DM	116	Og	Sls			LG-G	Irreg. interpersed DG & LG calc-siltite with colonial
							coralite fragments (mass-flow deposit)
DM	117	Og?	Sss			LY	Poorly std. qtz-arenite with minor clay matrix
DM	118	Og	Ssl?	Al?	Sd	DG-DYG	Carbonaceous, ?sideritic crse. siltstone
DM	119	Og	Sls	(Al)		DG-G.LG	DG-G & lesser LG calc-siltite, minor YG ?altd siltstone
DM	120	Og	Sls			LG	Porous calc-arenite
DM	121	Og	Sdl	Vu.Al		DG	dol-siltite, minor-parchy ankerite alteration
DM	122	Og	Sls.(Ovc)			DG.G	DG cherty dol-lutite, G calc-siltite, minor calcite vein
DM	123	Og	Sdl			M.G-DG	dol-siltite
DM	124	Og	Sls				
DM	125	Og	Sls				
DM	126	Og	Sdl.Ox		Py	(DG)	98% crse bone ankerite-minor Py: 2%DG, dol-siltite
DM	127	Og	Sls-dl			LG.DG	DG cherty dol-lutite, LG dol-calc-arenite
DM	128	Og	Sdl?	Vu.Al		DG-YG	Str. carbonaceous, altd? sideritic? siltite
DM	129	Og	Sls			DG	Calc-lutite-siltite
DM	130	Og	Sls	Ma.Fs	Py	G	Calc-siltite
DM	131	Og	Sdl			DG,LG,YG	mix dol-lutite & dol-siltite
DM	132	Og	Sls	Fr		LG	calc-lutite-siltite: tr. graphitic Fr
DM	133	Og	Sls			LG	clayey calc-lutite
DM	134	Og	Sdl.Ovc			DG	dol-lutite & crse Vn Qtz
DM	135	Og	Sls			LG.DG	DG cherty calc-lutite, LG calc-siltite; bedding-C.A. 90deg
DM	136	Og	Sdl	(Al)		G	weak pervasive ankerite altd dol-siltite
DM	137	Og	SOx			DG.YG	DG arenite, YG cherty ?sideritic siltite
DM	138	Og	Ssl			LY	clayey siltstone/mudstone
DM	139	Og	Sls			M.G-DG	calc-siltite
DM	140	Og	Sls	Ma		DG	calc-siltite-lutite
DM	141	Og	Sls	Vn	Cc	M.G	calc-siltite, tr. vein calcite
DM	142	Og	Sls			M.G-DG	calc-siltite
DM	143	Og	Sls			DG.G	DG carbonaceous calc-lutite with colonial coralite fossils
							& G crse bioclastic? calc-grainstone
DM	144	Og	Sls			M.G-DG	Calc-siltite
DM	145	Og	Sls-dl	Vu.(Al)		G-DG	Dol-arenite & dol-lutit-siltite, ?weakly altd.
DM	146	Og?	Ssl	We/Ox		LB	Clayey siltstone
DM	147	Og?	Sss/Ovq			Y-YG	Poorly std qtz-arenite; pink-white crse. Qtz veins
DM	148	Og	Sls				
DM	149	Og	Sls				
DM	150	Og	Ssh			DG	Graphitic shale
DM	184	Og	Ssh-sl	Vn	Q.Py	DG	graphitic
GRIEVES PROSPECT							
ZG	29	Og	Ssl	Fs.Ds	Py	DG.G	Siltte-lutite (decomposed limest.?), minor tubes/fossils; G
							siltite
ZG	30	Og	Ssl	Al?		DG	Str. foliated lutite-siltite, ?altd.; minor bioturbation relics?
ZG	31	Og	Sls				
ZG	32	Og	Sls				
ZG	33	Og	Sls				
ZG	34	Og	Sls				
ZG	35	Og	Sls				
ZG	36	Og	Sls				
ZG	37	Og	Sls				
ZG	38	Og	Sls				
ZG	39	Og	Sls				
ZG	40	Og	Sls				
ZG	41	Og	Sls			M.DG-G	Calc-lutite-siltite
ZG	42	Og	Sls	Vn	Cc	G-DG	Calc-lutite: weakly stviolitic: minor calcite Vn
ZG	43	Og	Sls			DG	Calc-lutite: minor fossil fragments
ZG	44	Og	Sls			DG	Carbonaceous calc-lutite

Zeehan Project. Air-core EOH samples

Lithology is calculated from analyses

Siderite	>10% Fe	
Limestone	>20% Ca	<4% Mg
Dolomite	>12% Ca	>4% Mg
Impure carb	12 - 20% Ca	<4% Mg
Pelite	<12% Ca	>4% Al
Sandstone	<12% Ca	<4% Al

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DM36	3986091	367250.7	5359622.3	77652	dolomite	-5	0.64	11	57	20.50	6	2.56	0.21	10.60	1470	222	372	
DM37	3986092	367274.3	5359630.4	77652	dolomite	41	1.62	5	167	17.40	106	4.53	0.53	7.17	17400	12000	19200	0.97
DM38	3986093	367395.4	5359672.1	77652	*dolomite*	-5	1.25	6	47	17.50	8	3.12	0.66	9.14	1900	-50	108	
DM41	3986094	367417.8	5359637.5	77652	pelites	-5	8.67	18	333	1.93	42	5.16	3.74	1.38	1500	336	1050	
DM42	3986095	367408.4	5359634.3	77652	siderite	-5	0.96	22	57	8.87	6	23.70	0.45	4.11	20700	252	2940	
DM43	3986096	367398.9	5359631.0	77652	dolomite	-5	1.22	11	49	14.60	11	2.17	0.62	5.91	764	64	681	
DM44	3986097	367383.3	5359615.1	77652	limestone	-5	2.69	6	102	20.60	11	2.07	1.45	2.93	765	-50	392	
DM45	3986098	367370.6	5359621.3	77652	siderite	-5	1.55	18	92	2.65	10	33.90	0.77	0.28	40400	1690	8650	0.05
DM46	3986099	367323.3	5359605.0	77652	limestone	-5	3.29	3	156	20.30	12	0.96	1.82	1.72	190	-50	38	
DM47	3986100	367302.7	5359603.2	77652	*impure carbonate*	-5	2.64	5	162	19.30	11	0.88	1.37	2.16	268	-50	23	
DM48	3987601	367294.9	5359595.2	77652	dolomite	-5	2.08	7	121	17.60	7	0.92	1.06	7.00	210	-50	786	
DM49	3987602	367283.8	5359596.7	77652	limestone	-5	0.26	7	15	32.90	8	0.36	0.12	0.56	183	-50	261	
DM50	3987603	367276.0	5359588.7	77652	limestone	-5	0.71	5	35	31.50	9	0.50	0.34	1.70	118	-50	68	
DM51	3987604	367266.6	5359585.4	77652	limestone	-5	2.84	7	164	20.30	10	1.34	1.43	3.02	194	-50	65	
DM52	3987605	367257.1	5359582.2	77652	dolomite	-5	1.28	8	152	18.40	8	1.13	0.55	10.90	568	237	565	
DM53	3987606	367252.4	5359580.6	77652	dolomite	-5	0.58	6	56	19.50	6	0.86	0.21	11.50	613	89	126	
DM54	3987607	367292.3	5359541.4	77652	dolomite	-5	1.22	61	167	13.50	81	6.31	0.56	7.81	749	4630	16600	6.80
DM55	3987608	367301.7	5359544.7	77652	dolomite	-5	1.63	7	191	17.90	6	4.21	0.59	8.15	7830	1570	14400	0.64
DM56	3987609	367311.2	5359547.9	77652	dolomite	-5	2.42	13	128	16.10	10	1.96	1.26	8.35	478	-50	529	
DM57	3987610	367320.7	5359551.2	77652	dolomite	-5	2.42	10	128	13.70	7	1.27	1.19	5.95	127	-50	150	
DM58	3987611	367330.1	5359554.4	77652	pelites	-5	7.45	10	394	0.53	15	1.49	3.27	0.80	35	-50	63	
DM59	3987612	367339.6	5359557.7	77652	pelites	-5	10.20	10	595	1.87	18	2.52	4.65	1.34	102	90	252	
DM60	3987613	367349.0	5359561.0	77652	dolomite	-5	0.41	13	40	19.80	9	2.25	0.14	10.00	1250	-50	152	
DM61	3914514	367358.5	5359564.2	77144	*impure carbonate*	-5	1.39	-25	66	14.80	23	0.43	0.77	0.26	342	845	449	
DM62	3914515	367367.9	5359567.5	77144	limestone	6	1.05	-25	51	27.00	20	1.16	0.58	3.42	354	53	454	
DM63	3914516	367386.8	5359574.0	77144	dolomite	5	2.59	-25	119	20.80	23	2.88	1.42	4.02	770	130	365	
DM64	3914517	367396.3	5359577.2	77144	dolomite	-5	3.13	-25	138	12.90	48	6.56	1.69	5.96	4420	377	4290	
DM65	3914518	367405.8	5359580.5	77144	siderite	19	0.46	-25	135	13.00	22	20.00	0.16	5.22	23800	2640	4060	
DM66	3914519	367423.7	5359586.7	77144	pelites	-5	9.78	-25	280	0.05	74	4.32	4.17	1.59	150	-50	193	
DM67	3914520	367415.2	5359583.7	77144	pelites	-5	8.10	-25	270	0.03	18	1.97	4.52	0.68	81	173	149	
DM68	3914521	367449.2	5359540.4	77144	sandstones	-5	1.37	-25	47	0.02	6	0.46	0.60	0.08	17	-50	14	
DM69	3914522	367440.9	5359539.7	77144	dolomite	24	1.75	34	153	15.20	49	4.07	0.91	7.14	3850	88000	4810	
DM70	3914523	367432.4	5359536.8	77144	siderite	-5	2.82	-25	133	10.70	17	15.00	1.46	3.94	10600	224	1520	
DM71	3914524	367423.0	5359533.5	77144	siderite	-5	1.84	-25	67	13.80	11	13.10	0.97	5.77	8880	76	603	
DM72	3914525	367412.6	5359530.0	77144	dolomite	5	0.39	-25	21	22.50	15	1.71	0.19	8.89	813	-50	80	

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DM73	3914526	367403.1	5359526.7	77144	dolomite	40	1.05	37	113	15.80	200	7.51	0.41	6.27	16500	45000	9170	2.00
DM74	3914527	367379.5	5359518.6	77144	dolomite	5	2.67	-25	97	18.90	15	1.85	1.48	4.56	415	106	75	
DM75	3914528	367355.8	5359510.4	77144	pelites	-5	5.67	25	297	9.17	15	2.77	3.02	4.18	404	159	98	
DM76	3914529	367344.5	5359506.5	77144	dolomite	-5	2.29	-25	163	19.80	17	1.67	1.22	4.79	119	-50	22	
DM78	3914530	367323.7	5359499.4	77144	sandstones	-5	1.24	-25	74	0.18	11	0.31	0.61	0.13	64	114	28	
DM79	3914531	367336.2	5359450.8	77144	sandstones	-5	2.99	-25	138	11.70	17	1.60	1.63	4.42	136	132	7000	1.10
DM80	3914532	367360.3	5359459.1	77144	dolomite	-5	2.92	-25	107	13.30	16	1.68	1.63	5.98	136	-50	48	
DM81	3914533	367384.9	5359467.5	77144	limestone	14	0.63	-25	34	37.50	22	1.06	0.34	2.20	230	-50	27	
DM82	3914534	367407.1	5359475.2	77144	limestone	6	1.21	25	49	23.10	20	1.39	0.70	3.67	396	-50	50	
DM83	3914535	367431.7	5359483.7	77144	dolomite	-5	1.01	-25	42	17.10	12	1.78	0.55	8.66	810	-50	36	
DM84	3914536	367454.9	5359491.6	77144	siderite	13	0.23	-25	38	4.01	7	26.40	0.05	2.29	135000	7830	2660	
DM85	3914537	367478.5	5359499.8	77144	pelites	-5	9.87	-25	307	0.03	83	6.13	3.82	1.19	224	88	117	
DM86	3914538	367328.8	5359395.4	77144	dolomite	-5	0.18	-25	19	20.10	10	1.16	0.07	10.60	948	162	143	
DM87	3914539	367341.8	5359397.7	77144	pelites	-5	6.08	-25	317	5.37	19	2.05	3.53	2.70	128	-50	278	
DM88	3914540	367356.0	5359402.6	77144	pelites	-5	5.05	-25	215	8.44	18	1.78	2.94	2.61	96	-50	73	
DM89	3914541	367369.8	5359408.4	77144	pelites	-5	4.67	-25	191	8.18	19	2.27	2.54	2.21	62	-50	467	
DM90	3914542	367378.9	5359412.6	77144	limestone	8	1.65	-25	84	28.40	18	0.62	0.98	1.07	103	-50	66	
DM91	3914543	367402.6	5359420.8	77144	sandstones	-5	3.28	35	147	4.98	14	2.96	1.36	1.40	305	-50	259	
DM92	3914544	367416.8	5359425.6	77144	limestone	8	0.38	-25	26	31.60	18	1.02	0.18	0.98	715	69	138	
DM93	3914545	367435.7	5359432.1	77144	dolomite	-5	1.77	-25	54	16.10	14	3.64	0.92	7.91	1370	-50	59	
DM94	3914546	367445.1	5359435.4	77144	dolomite	-5	1.62	-25	84	17.40	16	2.53	0.86	9.01	537	-50	142	
DM95	3914547	367454.6	5359438.7	77144	dolomite	-5	0.85	27	39	18.20	13	4.42	0.43	8.38	2880	53	341	
DM96	3914548	367464.0	5359441.9	77144	dolomite	-5	1.61	44	59	20.90	23	3.62	0.88	5.41	702	260	4170	
DM97	3914549	367473.5	5359445.2	77144	dolomite	-5	2.07	-25	72	20.60	15	2.57	1.10	5.99	1450	96	1050	
DM98	3914550	367483.0	5359448.4	77144	siderite	-5	2.14	72	85	8.09	53	18.40	1.06	3.89	14000	348	11900	3.25
DM99	3914551	367492.4	5359451.7	77144	pelites	-5	10.70	-25	314	0.11	5	2.98	4.51	0.99	72	134	127	
DM100	3914552	367532.3	5359412.5	77144	pelites	-5	10.90	-25	311	0.14	52	3.75	3.55	0.56	437	-50	486	
DM101	3914553	367508.7	5359404.4	77144	siderite	-5	1.18	-25	47	1.37	8	28.20	0.65	0.46	21400	-50	1020	
DM102	3914554	367499.2	5359401.2	77144	dolomite	43	0.93	35	201	15.90	128	7.17	0.45	7.27	21900	46000	20200	4.20
DM103	3914555	367489.8	5359397.9	77144	impure carbonate	5	1.83	-25	71	18.10	17	0.87	1.01	1.36	286	206	161	
DM104	3914556	367480.3	5359394.6	77144	dolomite	-5	2.80	-25	89	16.30	33	2.63	1.43	4.35	160	110	308	
DM105	3914557	367456.7	5359386.5	77144	limestone	-5	1.88	80	86	20.70	16	1.75	1.13	1.30	422	-50	84	
DM106	3914558	367447.2	5359383.2	77144	sandstones	-5	0.94	-25	46	5.33	11	0.65	0.54	0.30	42	-50	21	
DM107	3914559	367428.3	5359376.7	77144	siderite	-5	1.33	-25	68	8.04	28	11.50	0.72	2.87	1520	-50	250	
DM108	3914560	367404.7	5359368.6	77144	pelites	-5	6.27	-25	352	1.08	31	1.55	4.29	1.09	31	104	25	
DM109	3914561	367381.0	5359360.5	77144	limestone	12	0.95	-25	47	31.20	19	0.49	0.55	1.13	72	-50	31	
DM111	3914562	367362.1	5359353.9	77144	dolomite	8	2.00	-25	104	20.60	26	1.66	1.14	5.83	1070	223	420	
DM112	3914563	367352.7	5359350.7	77144	limestone	8	2.35	-25	131	23.20	16	0.94	1.39	1.64	241	-50	103	
DM113	3914564	367343.2	5359347.4	77144	impure carbonate	-5	4.60	-25	188	12.10	18	2.51	2.61	3.91	108	-50	341	
DM114	3914565	367333.8	5359344.2	77144	pelites	-5	5.52	26	283	9.80	27	2.25	2.90	4.26	95	352	269	
DM115	3914566	367324.3	5359340.9	77144	pelites	-5	7.07	-25	305	1.91	22	3.04	4.16	0.98	66	149	581	
DM116	3914567	367314.9	5359337.7	77144	pelites	-5	6.78	25	436	6.99	17	2.42	3.75	1.47	130	100	673	
DM117	3914568	367562.8	5359370.2	77144	sandstones	8	1.35	-25	70	0.05	12	0.76	0.60	0.09	17	512	25	
DM118	3914569	367539.1	5359362.0	77144	siderite	-5	10.00	66	288	0.91	38	17.00	3.55	0.81	11200	65	640	
DM119	3914570	367529.7	5359358.8	77144	impure carbonate	7	0.83	63	52	15.80	28	9.54	0.45	1.86	20900	731	4370	

Appendix 4: Zeehan Project. Air-core EOH samples.

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DM120	3914571	367520.2	5359355.5	77144	limestone	26	0.77	26	35	27.80	38	1.34	0.33	0.99	159	373	1060	
DM121	3914572	367510.8	5359352.2	77144	sandstones	-5	3.12	36	173	9.60	18	7.56	1.41	4.47	144	2470	8210	9.40
DM122	3914573	367496.9	5359346.4	77144	impure carbonate	6	0.89	-25	37	18.90	12	0.59	0.52	1.90	79	-50	65	
DM123	3914574	367473.0	5359339.2	77144	sandstones	-5	1.94	-25	89	1.05	26	1.51	1.26	0.56	42	107	236	
DM126	3914575	367307.5	5359282.2	77144	dolomite	8	1.35	36	65	23.00	20	2.41	0.76	5.51	1020	172	290	
DM127	3914576	367298.0	5359279.0	77144	sandstones	7	1.22	-25	87	7.10	14	0.56	0.66	0.95	58	540	305	
DM128	3914577	367330.9	5359237.4	77144	pelites	-5	8.28	44	278	0.92	16	2.82	3.47	0.88	45	331	2530	
DM129	3914578	367354.5	5359245.6	77144	dolomite	6	2.39	-25	105	20.50	18	1.23	1.36	5.19	114	-50	65	
DM130	3914579	367378.1	5359253.7	77144	limestone	11	1.07	-25	50	28.80	21	1.41	0.63	1.65	861	-50	175	
DM131	3914580	367401.8	5359261.8	77144	sandstones	-5	2.83	-25	138	11.70	19	2.89	1.54	1.32	112	-50	87	
DM132	3914581	367425.4	5359270.0	77144	sandstones	-5	1.29	-25	59	3.13	12	0.63	0.70	0.87	67	210	54	
DM133	3914582	367354.5	5359245.6	77144	limestone	12	1.46	-25	71	28.80	21	0.42	0.80	0.53	117	-50	12	
DM134	3914583	367475.1	5359287.1	77144	impure carbonate	7	1.57	-25	73	16.90	42	0.78	0.89	1.21	124	-50	41	
DM135	3914584	367496.3	5359294.4	77144	limestone	11	0.83	-25	33	28.00	17	0.65	0.47	0.96	107	-50	22	
DM136	3914585	367520.0	5359302.5	77144	dolomite	5	1.36	-25	52	17.20	10	2.28	0.78	9.02	1050	176	297	
DM137	3914586	367543.6	5359310.7	77144	siderite	5	1.67	66	129	1.45	22	33.40	0.89	0.28	21400	238	574	
DM138	3914587	367570.0	5359310.0	77144	pelites	6	6.96	-25	254	0.03	62	1.31	3.64	0.42	43	1170	164	
DM139	3914588	367302.2	5359174.7	77144	impure carbonate	-5	4.46	-25	334	13.60	14	1.80	2.49	3.08	363	-50	83	
DM140	3914589	367312.6	5359178.3	77144	pelites	5	6.05	38	407	5.99	23	2.04	3.33	2.89	255	1510	412	
DM141	3917544	367322.1	5359181.5	77144	dolomite	-5	2.45	-25	120	16.70	10	1.34	1.12	6.41	217	-50	285	
DM142	3914590	367330.6	5359184.4	77144	impure carbonate	-5	5.50	-25	327	12.10	12	1.77	3.14	3.46	196	-50	87	
DM143	3914591	367340.1	5359187.7	77144	pelites	-5	6.52	27	458	2.88	19	1.88	4.36	1.15	71	71	269	
DM144	3914592	367349.5	5359191.0	77144	impure carbonate	-5	3.11	-25	123	13.10	18	1.28	1.63	2.18	228	267	110	
DM145	3914593	367373.1	5359199.1	77144	sandstones	-5	2.09	-25	91	11.60	18	1.00	1.17	4.93	237	129	1770	
DM146	3914594	367567.0	5359265.8	77144	pelites	-5	9.66	-25	309	0.15	39	7.16	3.62	0.90	1790	91	4310	
DM147	3914595	367557.5	5359262.6	77144	sandstones	7	0.71	-25	47	0.04	8	0.44	0.32	0.07	32	86	96	
DM150	3914596	367538.6	5359256.1	77144	pelites	-5	11.10	42	351	0.39	56	3.23	5.36	0.86	111	586	2050	
DM151	3914597	367530.1	5359250.0	77144	limestone	9	1.72	-25	78	26.50	16	3.04	0.94	2.88	529	73	100	
DM152	3914598	367520.7	5359246.7	77144	dolomite	-5	0.52	-25	43	12.70	10	1.08	0.24	4.04	457	-50	44	
DM153	3914599	367477.2	5359234.9	77144	impure carbonate	5	3.34	-25	163	19.50	16	1.21	1.97	2.26	146	-50	13	
DM154	3914600	367317.6	5359127.1	77144	pelites	-5	6.87	29	330	8.48	24	2.82	3.73	1.38	56	100	188	
DM155	3917501	367328.0	5359130.7	77144	sandstones	-5	0.26	-25	15	3.12	19	4.13	0.13	0.33	152	-50	252	
DM156	3917502	367337.4	5359133.9	77144	sandstones	-5	2.03	-25	98	11.10	17	0.76	1.08	3.01	145	111	55	
DM157	3917503	367346.9	5359137.2	77144	pelites	-5	6.25	-25	418	4.14	14	1.37	3.45	1.49	72	-50	24	
DM158	3917504	367365.8	5359143.7	77144	pelites	-5	5.06	-25	474	1.92	22	1.76	4.33	0.98	50	-50	81	
DM159	3917505	367384.7	5359150.2	77144	limestone	13	0.51	-25	44	31.30	21	0.64	0.28	1.83	644	175	473	
DM160	3917506	367403.6	5359156.7	77144	sandstones	-5	0.61	-25	42	0.71	-5	0.36	0.28	0.18	20	-50	122	
DM162	3917507	367422.5	5359163.2	77144	limestone	7	1.68	-25	75	31.00	13	0.92	0.78	1.23	127	-50	-5	
DM163	3917508	367469.8	5359179.5	77144	dolomite	-5	2.47	-25	95	14.10	10	9.00	1.15	5.75	9300	-50	1560	
DM165	3917509	367569.1	5359213.7	77144	pelites	-5	7.78	-25	322	1.84	29	1.75	4.61	1.56	57	53	277	
DM166	3917510	367554.9	5359208.8	77144	limestone	-5	1.77	-25	82	26.20	12	0.88	0.86	3.29	114	-50	44	
DM167	3917511	367559.8	5359157.6	77144	dolomite	-5	0.57	-25	36	19.90	6	6.00	0.23	7.67	5610	713	1370	
DM169	3917512	367486.1	5359132.2	77144	dolomite	-5	4.83	25	152	15.70	15	2.48	2.30	4.11	297	-50	122	
DM171	3917513	367391.5	5359099.7	77144	dolomite	-5	3.30	-25	130	14.70	5	1.08	1.57	5.92	139	-50	30	
DM172	3917514	367344.2	5359083.4	77144	pelites	-5	7.18	25	403	11.80	47	1.51	3.31	1.22	112	136	289	

Appendix 4: Zeehan Project. Air-core EOH samples.

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DM173	3917515	367327.2	5359077.5	77144	sandstones	-5	3.41	-25	203	11.90	8	1.15	1.58	2.87	211	111	52	
DM174	3917516	367341.6	5359029.6	77144	sandstones	-5	0.14	-25	22	0.08	-5	0.43	-0.05	0.02	433	588	51	
DM176	3917517	367407.8	5359052.4	77144	dolomite	-5	2.54	-25	199	18.00	12	1.33	1.15	5.97	2380	6240	452	
DM177	3917518	367455.1	5359068.7	77144	limestone	6	1.51	-25	96	22.00	17	1.21	0.63	2.11	1090	3100	497	
DM178	3917519	367495.8	5359103.8	77144	impure carbonate	-5	3.95	-25	210	14.50	33	1.45	1.82	3.45	653	1330	261	
DM180	3917520	367596.9	5359117.5	77144	dolomite	-5	2.92	40	91	19.00	28	2.67	1.39	5.43	1400	1120	2320	
DM181	3917521	367606.4	5359120.8	77144	siderite	-5	1.19	-25	90	9.86	5	22.10	0.51	4.19	23000	105	1930	
DM182	3917522	367616.5	5359122.1	77144	sandstones	-5	2.81	-25	79	0.18	-5	0.31	0.97	0.22	32	60	36	
DM183	3917523	367587.4	5359114.2	77144	pelites	-5	7.38	-25	358	8.82	19	2.10	3.30	2.79	622	531	713	
DM184	3917524	367613.2	5359070.2	77144	pelites	-5	8.03	84	133	1.04	31	4.53	4.56	1.23	52	232	23800	6.00
DM185	3917525	367603.7	5359067.0	77144	dolomite	-5	3.36	-25	127	18.30	15	1.23	1.69	5.36	413	54	217	
DM186	3917526	367565.9	5359053.9	77144	impure carbonate	-5	1.23	-25	42	16.00	15	1.15	0.48	3.43	104	-50	241	
DM188	3917527	367471.4	5359021.4	77144	sandstones	-5	1.67	-25	55	10.30	50	1.58	0.71	3.37	668	60	98	
DM189	3917528	367424.1	5359005.1	77144	limestone	9	0.25	-25	16	35.00	20	0.55	0.10	0.27	476	71	196	
DM190	3917529	367627.6	5359022.3	77144	sandstones	-5	3.97	52	123	0.29	16	4.47	1.86	0.47	43	306	1520	
DM191	3917530	367620.0	5359019.7	77144	sandstones	-5	2.13	79	85	0.34	23	5.28	0.89	0.20	35	141	184	
DM192	3917531	367610.5	5359016.4	77144	pelites	-5	6.24	-25	311	8.91	46	1.34	2.76	2.50	107	487	1040	
DM194	3917532	367534.9	5358990.4	77144	limestone	-5	2.54	-25	111	23.80	20	0.97	1.20	0.95	150	-50	20	
DM195	3917533	367487.6	5358974.1	77144	limestone	-5	1.94	-25	70	21.80	29	0.93	0.89	2.34	265	52	65	
DM197	3917534	367636.3	5358972.4	77144	siderite	-5	0.94	-25	61	3.52	5	38.30	0.37	1.16	46300	-50	171	
DM198	3917535	367626.8	5358969.2	77144	dolomite	-5	3.33	-25	113	15.40	7	1.95	1.56	7.64	934	-50	176	
DM199	3917536	367617.4	5358965.9	77144	limestone	-5	0.60	-25	18	27.50	9	1.35	0.26	4.51	613	93	137	
DM200	3917537	367607.9	5358962.6	77144	limestone	6	0.37	-25	12	31.20	11	1.09	0.15	2.35	573	-50	22	
DM202	3917538	367503.9	5358926.8	77144	impure carbonate	-5	3.45	-25	129	16.70	16	1.83	1.67	3.15	190	70	65	
DM203	3917539	367456.6	5358910.6	77144	impure carbonate	-5	1.09	-25	37	15.60	7	1.39	0.47	3.56	398	112	71	
DM204	3917540	367421.4	5358951.3	77144	pelites	-5	7.45	-25	427	7.92	15	1.61	3.34	1.61	451	1700	301	
DM205	3917541	367602.9	5358908.0	77144	dolomite	-5	2.46	27	89	16.00	24	3.91	1.13	7.63	3420	-50	397	
DM206	3917542	367626.6	5358916.2	77144	dolomite	-5	2.24	29	102	12.40	25	7.29	0.98	6.19	5600	606	924	
DM207	3917543	367645.9	5358922.9	77144	siderite	-5	1.74	42	143	0.79	12	40.20	0.74	0.24	21800	121	1170	

Appendix 4: Zeehan Project. Air-core EOH samples.

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DS1	3917545	365948.0	5357777.0	77145	pelites	-5	4.65	20	302	8.56	14	2.13	2.50	4.18	351	152	143	
DS2	3917546	365942.0	5357739.0	77145	pelites	-5	4.13	-25	498	0.18	22	1.80	3.96	0.98	55	-50	565	
DS3	3917547	365853.0	5357730.0	77145	siderite	-5	1.33	-25	72	10.70	17	16.80	0.71	4.81	4940	74	2020	
DS4	3917548	365854.0	5357745.0	77145	limestone	-5	1.34	-25	66	25.20	16	1.27	0.70	2.63	325	131	789	
DS5	3917549	365854.0	5357756.0	77145	dolomite	-5	2.91	-25	143	14.20	19	1.87	1.66	6.46	250	-50	36	
DS6	3917550	365854.0	5357770.0	77145	pelites	-5	4.19	-25	295	10.20	12	2.65	2.41	5.46	435	-50	289	
DS7	3917551	365854.0	5357782.0	77145	dolomite	-5	2.84	-25	191	13.70	9	1.99	1.57	6.82	646	140	658	
DS8	3917552	365873.0	5357793.0	77145	dolomite	-5	2.80	-25	141	14.30	9	1.82	1.62	7.08	306	-50	23	
DS9	3917553	365889.0	5357815.0	77145	sandstones	-5	3.96	-25	340	2.72	9	1.88	2.75	1.57	240	199	688	
DS10	3917554	365899.0	5357830.0	77145	pelites	-5	4.43	-25	319	9.29	7	3.02	2.55	5.07	448	-50	92	
DS11	3917555	365909.0	5357852.0	77145	pelites	-5	5.15	-25	358	9.15	9	2.58	2.96	4.77	326	-50	45	
DS12	3917556	365920.0	5357878.0	77145	dolomite	-5	0.44	-25	20	19.00	10	2.06	0.09	10.60	1210	260	745	
DS13	3917557	365924.0	5357887.0	77145	dolomite	-5	0.67	-25	41	15.10	16	2.36	0.23	8.83	944	2560	2230	
DS14	3917558	365927.0	5357897.0	77145	dolomite	-5	0.67	21	45	14.30	17	3.10	0.28	8.22	570	2720	4510	
DS15	3917559	365932.0	5357908.0	77145	dolomite	-5	1.71	-25	138	15.80	8	2.32	0.86	9.25	1050	215	414	
DS16	3917560	365937.0	5357918.0	77145	sandstones	-5	1.11	51	72	0.07	16	0.97	0.60	0.11	17	4620	3130	
DS17	3917561	365941.0	5357928.0	77145	sandstones	-5	1.10	-25	70	0.06	11	1.35	0.60	0.10	19	302	672	
DS18	3917562	365944.0	5357939.0	77145	sandstones	-5	1.18	26	84	0.04	8	1.34	0.69	0.10	16	304	483	
DS19	3917563	365948.0	5357948.0	77145	sandstones	-5	0.85	39	100	0.01	5	0.41	0.67	0.08	-15	1220	4560	
DS20	3917564	365790.0	5357986.0	77145	siderite	-5	1.32	-25	61	0.99	-5	40.10	0.64	0.26	11900	125	7450	0.49
DS22	3917565	365778.0	5357969.0	77145	siderite	-5	1.78	-25	86	15.70	9	10.60	1.00	3.73	2550	74	444	
DS23	3917566	365771.0	5357961.0	77145	dolomite	-5	3.49	-25	208	12.40	8	2.40	2.04	5.46	458	-50	66	
DS24	3917567	365765.0	5357945.0	77145	dolomite	-5	1.02	-25	61	17.70	7	2.04	0.56	9.71	577	328	840	
DS25	3917568	365753.0	5357930.0	77145	dolomite	-5	2.13	-25	139	14.40	7	2.56	1.22	7.74	582	286	950	
DS26	3917569	365745.0	5357923.0	77145	dolomite	-5	3.18	-25	153	12.20	9	2.42	1.84	6.30	731	70	516	
DS27	3917570	365718.0	5357925.0	77145	limestone	-5	0.54	-25	30	30.70	18	0.47	0.30	1.19	85	-50	42	
DS28	3917571	365705.0	5357928.0	77145	limestone	-5	0.57	-25	38	30.10	17	0.52	0.32	1.56	120	-50	87	
DS29	3917572	365692.0	5357926.0	77145	siderite	-5	3.62	40	107	5.70	44	18.50	1.00	0.98	3130	2000	2050	
DS30	3917573	365683.0	5357928.0	77145	siderite	-5	0.77	-25	57	12.30	10	13.60	0.36	7.07	3280	466	3720	
DS32	3917574	365671.0	5357830.0	77145	siderite	-5	2.34	89	140	6.91	14	21.50	1.14	3.44	2900	530	6270	14.40
DS33	3917575	365679.0	5357834.0	77145	dolomite	-5	0.64	-25	31	16.40	17	2.56	0.26	9.30	518	4410	1290	
DS34	3917576	365693.0	5357838.0	77145	dolomite	-5	1.22	-25	62	16.90	13	1.89	0.60	9.33	474	188	1600	
DS35	3917577	365703.0	5357841.0	77145	siderite	-5	0.76	-25	40	2.64	6	39.70	0.30	1.10	15600	1480	8320	0.71
DS36	3917578	365713.0	5357845.0	77145	sandstones	-5	3.57	-25	197	9.49	11	7.97	1.96	4.71	2520	-50	2650	
DS37	3917579	365811.0	5357728.0	77145	dolomite	-5	1.60	-25	85	15.60	9	5.29	0.87	7.37	1540	-50	532	
DS38	3917580	365802.0	5357718.0	77145	dolomite	13	3.20	-25	141	12.10	199	2.04	1.71	6.46	1200	45000	5140	2.10
DS39	3917581	365802.0	5357727.0	77145	sandstones	5	1.55	-25	114	0.10	11	0.53	0.81	0.19	57	145	88	
DS40	3917582	365792.0	5357728.0	77145	limestone	-5	2.35	-25	125	26.30	20	0.60	1.24	0.59	173	-50	94	
DS41	3917583	365792.0	5357736.0	77145	dolomite	-5	1.93	-25	116	13.50	10	2.43	0.93	7.24	580	57	203	
DS42	3917584	365792.0	5357747.0	77145	limestone	-5	0.98	-25	51	26.20	16	0.35	0.51	3.85	287	63	53	
DS44	3917585	365792.0	5357765.0	77145	sandstones	-5	1.98	-25	347	0.15	10	2.09	0.83	0.18	368	-50	57	
DS45	3917586	365792.0	5357774.0	77145	limestone	-5	1.65	-25	98	21.20	17	1.57	0.92	3.63	355	-50	410	
DS46	3917587	365792.0	5357782.0	77145	dolomite	-5	3.24	-25	198	12.30	12	2.41	1.78	4.11	451	120	870	
DS47	3917588	365794.0	5357791.0	77145	sandstones	-5	3.98	-25	254	8.21	10	7.41	2.24	4.21	1860	-50	1110	
DS48	3917589	365786.0	5357880.0	77145	pelites	-5	5.27	-25	510	0.09	13	1.32	4.26	0.83	37	-50	449	

Appendix 4: Zeehan Project. Air-core EOH samples.

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DS49	3917590	365981.0	5357813.0	77145	dolomite	-5	0.86	-25	61	17.60	9	1.24	0.41	10.00	346	350	732	
DS50	3917591	365978.0	5357805.0	77145	dolomite	-5	2.36	-25	153	13.90	9	3.47	1.31	7.57	1180	-50	54	
DS51	3917592	365973.0	5357785.0	77145	dolomite	-5	3.01	-25	200	13.70	10	1.46	1.61	7.36	405	-50	65	
DS52	3917593	365948.0	5357755.0	77145	dolomite	-5	1.93	-25	93	15.50	10	2.10	1.04	8.35	917	362	546	
DS53	3917594	366116.0	5357592.0	77145	dolomite	-5	1.01	-25	82	15.90	27	1.68	0.48	9.11	1170	11800	7840	1.20
DS54	3917595	366128.0	5357592.0	77145	dolomite	-5	1.27	-25	100	16.50	62	1.80	0.58	9.34	881	1360	3120	
DS55	3917596	366142.0	5357592.0	77145	dolomite	-5	2.03	64	145	14.40	29	2.12	0.80	8.55	725	2380	3520	
DS56	3917597	366132.0	5357547.0	77145	dolomite	-5	0.61	-25	45	17.40	13	4.14	0.24	10.20	2630	664	1780	
DS57	3917598	366115.0	5357495.0	77145	dolomite	-5	2.64	-25	162	14.60	15	1.22	1.36	7.86	214	229	502	
DS58	3917599	366126.0	5357495.0	77145	dolomite	-5	0.53	-25	47	18.30	15	1.98	0.25	10.20	1640	371	307	
DS59	3917600	366134.0	5357495.0	77145	dolomite	-5	0.61	-25	45	18.60	14	1.50	0.29	10.40	1590	145	86	
DS60	3984401	366146.0	5357495.0	77145	dolomite	-5	0.57	-25	35	18.20	8	3.43	0.26	9.44	2390	78	272	
DS61	3984402	366260.0	5356895.0	77145	dolomite	-5	2.91	-25	235	14.40	10	1.67	1.58	6.19	277	-50	31	
DS62	3984403	366253.0	5356895.0	77145	dolomite	-5	1.71	-25	110	15.00	16	2.66	0.90	7.13	724	893	5210	1.15
DS63	3984404	366244.0	5356895.0	77145	dolomite	-5	2.19	-25	161	18.40	12	1.57	1.16	4.67	443	-50	135	
DS64	3984405	366235.0	5356895.0	77145	dolomite	-5	0.29	-25	45	18.40	13	1.61	0.13	10.10	1180	5480	425	
DS65	3984406	366223.0	5356895.0	77145	dolomite	-5	0.89	-25	66	18.10	14	0.85	0.44	10.00	605	133	263	
DS66	3984407	366212.0	5356895.0	77145	dolomite	-5	0.95	-25	49	17.30	9	1.15	0.32	9.98	437	369	571	
DS67	3984408	366201.0	5356895.0	77145	dolomite	-5	1.07	-25	64	16.60	8	1.31	0.53	9.19	482	-50	92	
DS68	3984409	366192.0	5356895.0	77145	dolomite	-5	2.83	-25	168	14.60	10	1.35	1.48	7.47	218	-50	307	
DS69	3984410	366183.0	5356895.0	77145	sandstones	-5	2.41	35	137	5.62	40	1.84	1.05	3.21	130	6030	4710	
DS70	3984411	366223.0	5356937.0	77145	dolomite	-5	2.84	-25	196	16.80	13	2.12	1.57	4.28	459	-50	102	
DS71	3984412	366218.0	5356937.0	77145	dolomite	-5	1.01	-25	62	18.50	13	1.01	0.51	10.30	403	51	575	
DS72	3984413	366211.0	5356937.0	77145	dolomite	-5	0.87	-25	56	18.00	18	1.00	0.43	10.40	382	119	592	
DS73	3984414	366205.0	5356937.0	77145														
DS74	3984415	366198.0	5356937.0	77145	sandstones	-5	1.65	-25	92	0.06	13	0.81	0.73	0.14	18	124	16	
DS75	3984416	366265.0	5356945.0	77145	impure carbonate	-5	3.04	-25	228	13.00	15	1.86	1.50	2.80	66	-50	533	
DS76	3984417	366255.0	5356945.0	77145	dolomite	-5	1.54	-25	114	20.40	16	1.06	0.83	6.19	100	-50	131	
DS77	3984418	366245.0	5356945.0	77145	pelites	-5	3.99	-25	519	0.10	20	1.95	4.18	0.63	32	978	1270	
DS78	3984419	366237.0	5356945.0	77145	pelites	-5	4.39	21	331	10.50	15	2.10	2.36	2.13	158	189	1560	
DS79	3984420	366228.0	5356945.0	77145	pelites	-5	5.01	-25	360	8.80	11	1.71	2.72	4.35	552	185	686	
DS80	3984421	366330.0	5357045.0	77145	pelites	-5	6.61	-25	436	4.89	11	1.51	4.16	2.83	90	93	175	
DS81	3984422	366317.0	5357045.0	77145	sandstones	-5	3.30	-25	179	5.30	10	2.06	1.60	0.68	74	-50	60	
DS82	3984423	366308.0	5357045.0	77145	dolomite	-5	1.73	-25	115	22.00	15	1.23	0.96	4.19	83	-50	78	
DS83	3984424	366298.0	5357045.0	77145	dolomite	-5	0.40	-25	28	23.40	14	0.63	0.19	6.14	96	-50	49	
DS84	3984425	366289.0	5357045.0	77145	limestone	-5	1.03	-25	85	29.60	18	0.49	0.58	1.29	191	-50	30	
DS85	3984426	366277.0	5357045.0	77145	pelites	-5	4.77	-25	601	0.43	12	1.82	4.69	0.79	39	-50	56	
DS86	3984427	366267.0	5357045.0	77145	dolomite	-5	1.31	-25	99	17.60	10	0.90	0.72	8.90	127	-50	393	
DS87	3984428	366245.0	5357045.0	77145	dolomite	-5	1.60	-25	111	17.90	12	1.17	0.91	6.45	147	-50	109	
DS88	3984429	366232.0	5357045.0	77145	dolomite	-5	0.31	-25	33	18.80	10	3.61	0.13	9.58	3450	4080	827	
DS89	3984430	366218.0	5357045.0	77145	dolomite	-5	0.50	-25	42	18.80	10	3.30	0.24	9.71	2450	196	430	
DS90	3984431	366203.0	5357045.0	77145	sandstones	6	1.84	23	188	0.09	31	0.97	1.21	0.21	26	7490	131	
DS91	3984432	366373.0	5356795.0	77145	dolomite	-5	0.53	-25	41	18.80	12	0.73	0.24	11.00	174	162	123	
DS92	3984433	366365.0	5356745.0	77145	pelites	7	8.85	68	210	0.26	177	2.05	1.59	0.35	20	2570	7400	2.95
DS93	3984434	366367.0	5356845.0	77145	sandstones	-5	2.66	-25	288	0.04	10	0.62	1.73	0.25	17	-50	76	

Appendix 4: Zeehan Project. Air-core EOH samples.

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DS94	3984435	366359.0	5356895.0	77145	dolomite	-5	2.42	25	1520	16.40	47	2.54	1.27	5.62	1030	1710	107	
DS95	3984436	366357.0	5356945.0	77145	pelites	-5	4.15	-25	246	9.37	11	2.09	2.34	4.10	247	-50	86	
DS96	3984437	366365.0	5357045.0	77145	impure carbonate	-5	3.12	-25	180	18.20	23	1.23	1.68	0.67	105	-50	34	

Appendix 4: Zeehan Project. Air-core EOH samples.

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DB14	3987615	366617.2	5360686.5	77661	limestone	-5	1.25	-25	78	28.00	16	0.94	0.63	2.15	186	-50	83	
DB15	3987616	366597.9	5360681.0	77661	limestone	-5	1.18	-25	65	23.70	14	1.39	0.63	3.66	239	-50	80	
DB16	3987617	366578.7	5360675.5	77661	dolomite	-5	2.06	-25	106	22.00	9	1.28	1.08	4.41	231	77	175	
DB17	3987618	366564.3	5360671.3	77661	limestone	-5	2.61	-25	166	22.80	12	1.13	1.43	1.90	263	674	361	
DB18	3987619	366593.8	5360731.8	77661	limestone	-5	0.41	-25	31	31.80	12	0.30	0.21	1.18	88	94	32	
DB19	3987620	366574.5	5360726.3	77661	limestone	-5	1.16	-25	70	29.50	13	0.43	0.63	0.75	114	-50	96	
DB20	3987621	366555.3	5360720.8	77661	limestone	-5	0.12	-25	19	34.50	21	0.25	0.05	0.41	102	-50	13	
DB21	3987622	366536.1	5360715.3	77661	dolomite	-5	1.58	-25	88	23.00	13	2.37	0.82	4.18	694	-50	414	
DB22	3987623	366508.5	5360811.4	77661	dolomite	-5	0.90	-25	59	19.10	6	3.04	0.36	9.87	1440	152	642	
DB23	3987624	366527.7	5360816.9	77661	limestone	-5	2.30	-25	148	25.40	13	1.27	1.26	2.23	431	-50	77	
DB24	3987625	366547.0	5360822.4	77661	limestone	-5	1.11	-25	67	28.90	15	0.56	0.60	1.12	164	-50	102	
DB25	3987626	366512.0	5360864.4	77661	dolomite	-5	1.97	-25	113	18.50	12	1.93	1.02	6.20	592	-50	138	
DB26	3987627	366492.8	5360858.9	77661	dolomite	-5	0.53	-25	32	19.40	8	7.56	0.25	7.46	2310	-50	146	
DB27	3987628	366475.5	5360853.9	77661	dolomite	-5	0.73	-25	64	18.60	7	1.35	0.34	10.70	542	79	40	
DB28	3987629	366377.1	5361033.8	77661	sandstones	-5	3.99	-25	207	2.51	15	1.93	1.80	0.81	51	-50	900	
DB29	3987630	366353.1	5361026.9	77661	limestone	-5	1.16	-25	62	27.80	10	0.53	0.64	1.22	75	-50	49	
DB30	3987631	366329.1	5361020.0	77661	dolomite	-5	0.78	-25	46	22.90	11	1.93	0.41	5.64	462	-50	71	
DB31	3987632	366305.0	5361013.1	77661	pelites	-5	8.77	33	318	0.14	22	6.39	4.69	0.90	28	-50	132	
DB32	3987633	366281.0	5361006.2	77661	dolomite	-5	1.79	-25	105	12.70	11	1.28	0.96	4.70	132	-50	23	
DB33	3987634	366257.0	5360999.3	77661	impure carbonate	-5	3.76	-25	237	15.70	23	0.78	1.96	2.69	81	-50	111	
DB34	3987635	366232.9	5360992.4	77661	pelites	-5	7.21	-25	380	0.66	30	2.42	4.09	1.37	58	74	76	
DB35	3987636	366205.1	5360984.4	77661	limestone	-5	0.33	-25	20	32.30	17	0.24	0.17	0.76	72	72	188	
DB36	3987637	366223.0	5361197.6	77661	pelites	-5	5.41	31	190	10.80	26	3.12	1.81	3.15	181	378	1850	
DB37	3987638	366249.9	5361205.4	77661	impure carbonate	-5	3.47	-25	192	14.70	10	1.67	1.89	3.89	107	-50	20	
DB38	3987639	366273.9	5361212.3	77661	dolomite	-5	2.52	-25	138	17.10	14	1.51	1.31	6.90	143	53	205	
DB39	3987640	366298.0	5361219.1	77661	dolomite	-5	1.94	-25	97	19.80	12	1.19	1.03	5.05	244	186	968	
DB40	3987641	366322.0	5361226.0	77661	dolomite	-5	2.05	-25	123	17.30	13	0.96	1.10	5.79	296	232	2800	
DB41	3987642	366218.8	5361404.5	77661	pelites	-5	6.00	-25	343	10.30	13	2.52	3.19	3.19	287	171	504	
DB42	3987643	366194.8	5361397.6	77661	pelites	-5	6.43	-25	389	4.69	16	2.63	3.31	3.54	154	-50	58	
DB43	3987644	366170.7	5361390.7	77661	pelites	-5	5.47	-25	329	2.03	18	2.14	2.86	1.35	46	-50	2340	
DB44	3987645	366624.5	5360896.7	77661	sandstones	-5	0.46	34	19	0.05	9	6.94	0.20	0.05	-15	-50	138	
DB45	3987646	366600.5	5360889.8	77661	sandstones	-5	1.48	-25	75	0.02	15	0.46	0.79	0.18	-15	-50	456	
DB46	3987647	366576.4	5360882.9	77661	pelites	-5	6.09	71	123	0.04	20	9.10	2.71	0.58	28	64	565	
DB47	3987648	366552.4	5360876.0	77661	pelites	-5	5.52	-25	302	11.60	8	2.51	2.96	4.74	403	-50	131	
DB48	3987649	366536.1	5360871.3	77661	dolomite	-5	1.80	-25	101	22.10	16	1.76	0.95	5.81	452	144	85	
DB49	3987650	366406.0	5361042.0	77661	dolomite	-5	1.38	-25	61	21.50	12	1.47	0.78	4.80	293	-50	15	
DB50	3987651	366425.2	5361047.6	77661	sandstones	-5	3.15	-25	145	7.96	18	6.37	1.66	1.57	1000	271	2140	
DB51	3987652	366449.2	5361054.5	77661	siderite	-5	0.91	-25	44	2.11	15	39.40	0.47	0.16	10900	-50	58	
DB52	3987653	366473.3	5361061.3	77661	siderite	-5	1.22	-25	55	1.15	7	42.00	0.63	0.22	8720	-50	29	
DB53	3987654	366501.1	5361069.3	77661	siderite	-5	1.41	-25	69	0.90	6	40.30	0.74	0.27	6870	-50	271	
DB54	3987655	366521.3	5361075.1	77661	siderite	-5	1.68	-25	88	1.13	10	37.90	0.89	0.26	8880	-50	106	
DB55	3987656	366545.4	5361082.0	77661	siderite	-5	2.90	-25	161	0.65	12	34.90	1.56	0.46	6650	-50	38	
DB56	3987657	366565.5	5361087.8	77661	siderite	-5	1.88	-25	87	0.63	10	39.60	1.00	0.35	8400	75	231	
DB59	3987658	366538.3	5361288.1	77661	sandstones	-5	1.44	-25	81	0.01	13	0.34	0.63	0.08	28	-50	16	
DB60	3987659	366514.3	5361281.2	77661	sandstones	-5	2.43	-25	134	0.01	16	0.64	1.08	0.12	53	-50	17	

Hole No.	Sampno.	east	north	DPO	Lithology	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn	S%
DB61	3987660	366490.2	5361274.3	77661	impure carbonate	-5	2.75	-25	128	16.90	15	1.74	1.58	2.73	235	-50	10	
DB62	3987661	366466.2	5361267.4	77661	siderite	-5	3.07	112	106	0.04	22	13.20	1.00	0.24	17	67	1520	
DB63	3987662	366442.2	5361260.5	77661	siderite	-5	1.39	-25	59	9.42	8	21.00	0.74	4.66	4900	-50	24	
DB64	3987663	366421.0	5361254.4	77661	siderite	-5	1.02	-25	76	1.09	10	43.10	0.44	0.14	11000	7570	5270	0.99
DB65	3987664	366394.1	5361246.7	77661	dolomite	-5	1.95	-25	95	17.70	10	2.49	1.10	6.33	504	99	68	
DB66	3987665	366370.1	5361239.8	77661	dolomite	-5	2.63	-25	100	15.10	10	2.28	1.47	6.15	634	133	132	
DB67	3987666	366346.0	5361232.9	77661	dolomite	-5	2.52	-25	103	14.80	24	1.33	1.44	7.13	124	-50	59	
DB68	3987667	366242.8	5361411.4	77661	limestone	-5	0.77	-25	40	27.10	15	1.78	0.40	3.88	636	-50	41	
DB69	3987668	366266.9	5361418.3	77661	dolomite	-5	3.08	27	123	16.60	25	1.64	1.68	6.06	173	99	302	
DB70	3987669	366290.9	5361425.2	77661	dolomite	-5	1.55	-25	65	18.30	18	1.78	0.85	8.10	231	-50	156	
DB71	3987670	366314.9	5361432.1	77661	impure carbonate	-5	2.92	-25	135	18.00	16	1.41	1.58	3.42	178	-50	57	
DB72	3987671	366387.0	5361452.7	77661	limestone	-5	0.57	-25	34	29.70	21	0.74	0.31	1.45	224	-50	21	
DB73	3987672	366411.1	5361459.6	77661	dolomite	-5	0.62	-25	27	22.00	13	3.15	0.23	6.74	2270	869	3370	
DB74	3987673	366435.1	5361466.5	77661	dolomite	-5	0.35	27	18	19.50	7	4.59	0.07	8.18	5470	50	1000	
DB75	3987674	366459.1	5361473.4	77661	siderite	-5	1.02	-25	42	1.46	7	44.30	0.48	0.41	11200	-50	26	
DB76	3987675	366483.2	5361480.3	77661	siderite	-5	1.61	-25	65	3.35	9	33.60	0.47	1.51	8790	-50	119	
DB77	3987676	366507.2	5361487.2	77661	siderite	-5	0.93	-25	44	1.44	-5	42.60	0.43	0.16	12700	-50	27	
DB78	3987677	366531.2	5361494.1	77661	siderite	-5	1.68	-25	73	9.91	12	18.60	0.84	4.96	6070	-50	167	
DB80	3987678	366189.1	5361598.8	77661	dolomite	-5	1.98	-25	105	19.60	12	1.37	0.97	6.37	191	-50	134	
DB81	3987679	366211.7	5361610.5	77661	pelites	-5	6.78	30	408	6.36	21	2.61	3.63	1.81	254	-50	50	
DB82	3987680	366235.8	5361617.4	77661	dolomite	-5	1.76	-25	97	22.20	13	1.19	0.94	4.41	141	-50	22	
DB83	3987681	366259.8	5361624.3	77661	dolomite	-5	2.61	-25	109	14.40	16	1.57	1.37	7.04	176	-50	101	
DB84	3987682	366283.8	5361631.2	77661	pelites	-5	6.21	-25	290	5.94	24	1.30	3.36	2.99	70	-50	56	
DB85	3987683	366307.9	5361638.1	77661	limestone	-5	0.75	-25	33	29.90	16	0.40	0.37	1.78	91	-50	25	
DB86	3987684	366331.9	5361645.0	77661	limestone	-5	1.05	-25	56	24.40	14	0.86	0.58	1.69	137	-50	8	
DB87	3987685	366355.9	5361651.9	77661	dolomite	-5	0.56	-25	28	17.50	11	1.11	0.28	4.07	112	-50	21	
DB88	3987686	366380.0	5361658.8	77661	dolomite	-5	1.32	-25	65	22.00	12	0.89	0.76	4.41	127	-50	23	
DB89	3987687	366404.0	5361665.7	77661	limestone	-5	1.41	-25	57	25.10	12	0.75	0.78	0.96	138	-50	5	
DB90	3987688	366428.0	5361672.6	77661	limestone	-5	0.89	-25	54	29.10	23	0.66	0.52	1.21	127	-50	22	
DB91	3987689	366228.7	5361823.5	77661	impure carbonate	-5	3.77	-25	158	16.80	14	1.24	2.19	1.48	106	-50	20	
DB92	3987690	366252.7	5361830.4	77661	impure carbonate	-5	2.41	-25	131	12.50	24	1.29	1.40	2.82	154	67	47	
DB93	3987691	366276.8	5361837.2	77661	limestone	-5	0.73	-25	34	30.10	19	0.37	0.43	0.55	75	-50	12	
DB96	3987692	366348.9	5361857.9	77661	limestone	-5	2.01	-25	82	21.90	20	1.27	1.05	2.64	218	-50	11	
DB97	3987693	366372.9	5361864.8	77661	limestone	-5	1.05	-25	51	24.90	14	1.32	0.55	3.84	199	-50	194	
DB98	3987694	366396.9	5361871.7	77661	sandstones	-5	3.33	-25	135	11.80	20	2.09	1.76	2.72	166	-50	42	
DB99	3987695	366421.0	5361878.6	77661	limestone	-5	1.99	-25	81	20.20	13	1.87	1.06	3.53	417	-50	335	
DB100	3987696	366440.2	5361884.1	77661	dolomite	-5	0.87	-25	43	20.30	14	1.15	0.46	9.24	549	-50	46	
DB103	3987697	366321.3	5361954.0	77661	dolomite	-5	0.84	-25	44	20.40	16	1.48	0.44	4.80	220	59	36	
DB104	3987698	366369.4	5361967.8	77661	limestone	-5	0.88	34	57	21.00	13	3.28	0.40	3.02	702	-50	120	
DB105	3987699	366393.4	5361974.7	77661	limestone	-5	3.14	-25	138	21.90	14	0.80	1.71	0.64	381	60	107	
DB106	3987700	366417.4	5361981.6	77661	siderite	-5	0.86	-25	39	1.37	6	39.90	0.41	0.15	16100	-50	113	
DB107	3987401	366441.5	5361988.5	77661	pelites	-5	6.80	-25	326	0.02	12	3.89	3.11	1.00	115	-50	197	
DB108	3987402	366423.6	5361463.2	77661	dolomite	-5	2.63	-25	156	18.90	14	3.23	1.36	6.54	882	159	172	
DB109	3987403	366331.3	5361436.8	77661	dolomite	18	4.00	34	185	15.60	29	2.91	2.00	7.76	2300	19600	24200	3.10

AIR-CORE END OF HOLE SAMPLES
GEOCHEMICAL CHARACTERISTICS

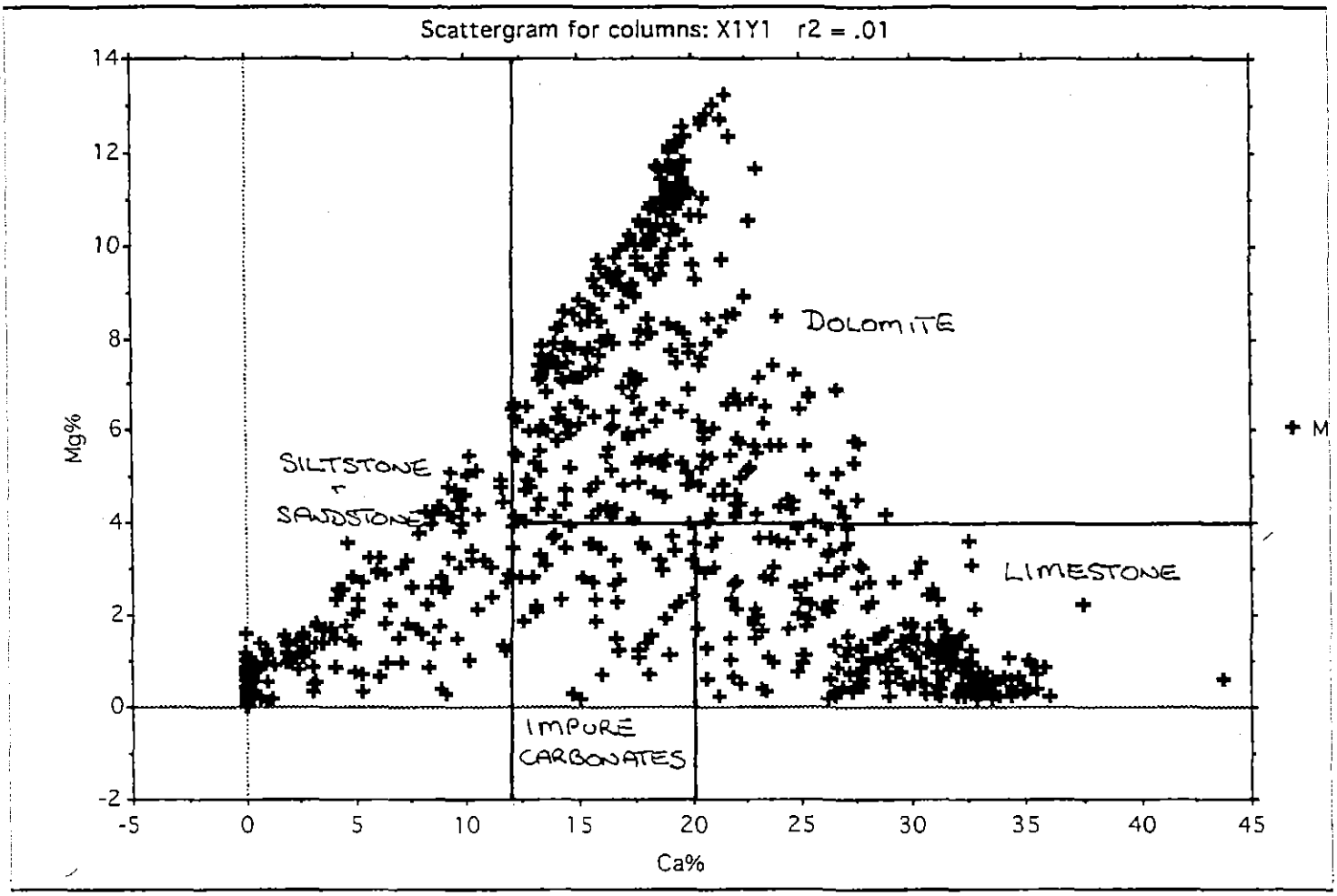
	Percentile	Ca%	Mg%	Fe%	Mn ppm	Al%	K%	Pb ppm	Zn ppm	Ba ppm	number
SIDERITE	90%	13.20	5.60	40.70	21640	3.13	1.11	1876	49000	134	
	median	3.29	1.06	30.00	10900	1.17	0.47	67	2050	59	69
(>10% Fe)	10%	0.64	0.16	0.13	1856	0.28	0.07	-50	72	8	
LIMESTONE	90%	33.70	30.60	1.50	419	2.14	1.06	70	552	117	
(>20% Ca)	median	28.90	1.21	0.64	123	0.86	0.23	-50	57	46	241
(<4% Mg)	10%	23.00	0.32	0.22	68	0.35	0.14	-50	-8	17	
DOLOMITE	90%	22.00	11.20	4.15	1925	3.13	1.57	715	2832	186	
(>12% Ca)	median	18.30	7.47	1.60	338	1.55	0.74	-50	206	88	284
(>4% Mg)	10%	13.70	4.59	0.72	123	0.24	0.08	-50	23	13	
IMPURE CARBONATES	90%	19.20	3.69	2.51	363	4.54	2.44	340	889	306	
(12-20% Ca)	median	16.00	2.73	1.39	146	3.34	1.58	-50	71	164	45
(<4% Mg)	10%	13.00	1.04	0.78	79	1.39	0.53	-50	16	60	
PELITIC SILTSTONES	90%	8.86	3.02	3.90	224	10.64	4.61	553	1930	605	
(<12% Ca)	median	1.91	1.15	1.97	59	6.78	3.36	-50	214	380	111
(>4% Al)	10%	0.05	0.46	1.18	18	4.77	2.28	-50	39	227	
SANDSTONES	90%	8.80	1.87	3.29	167	3.40	1.61	1092	2230	212	
(<12% Ca)	median	0.15	0.19	0.76	30	1.63	0.69	57	122	96	93
(<4% Al)	10%	0.02	0.06	0.29	-15	0.73	0.29	-50	15	39	

805101

ZEEHAN PROJECT

AIR-CORE EOH SAMPLES

Ca% vs Mg%

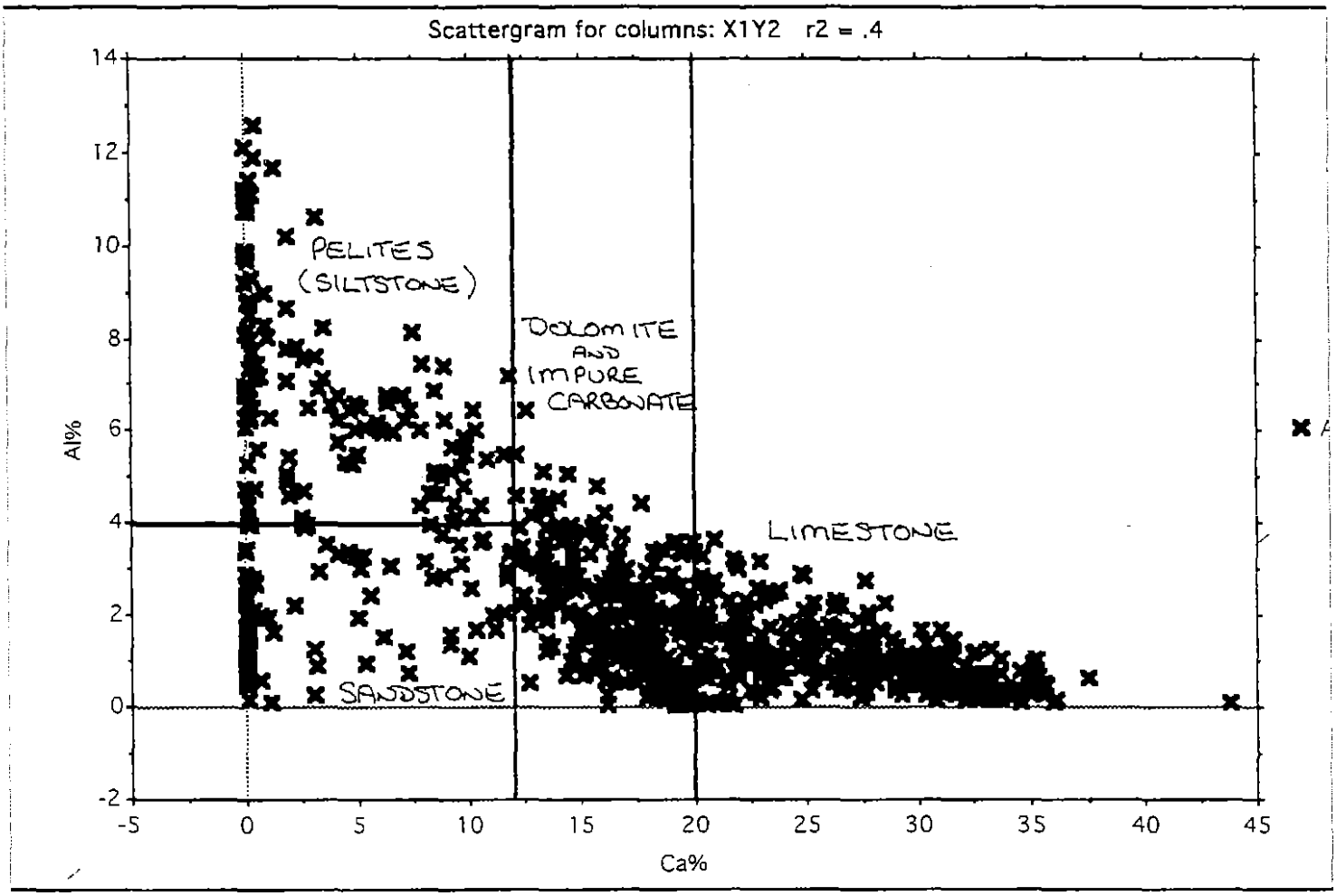


805102

ZEEHAN PROJECT

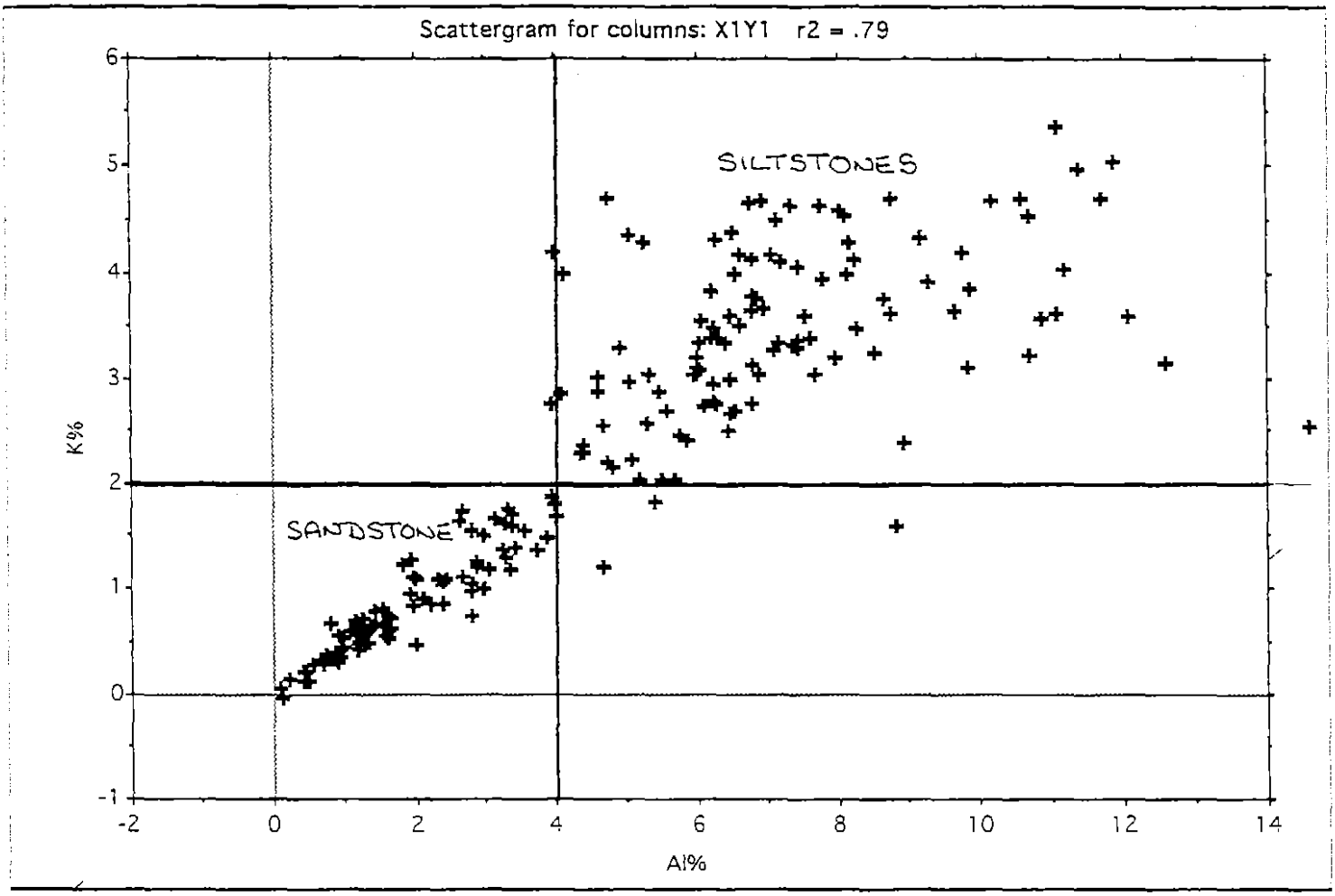
AIR-CORE END-OF-HOLE SAMPLES

Ca% V's Al%



Air-core EOH samples. Al% vs K% for siltstones (Ca <12%)

805103



APPENDIX 5

PAUL ASHLEY PETROLOGICAL STUDY

805105

REPORT ON PETROGRAPHIC OBSERVATIONS AND ELECTRON MICROPROBE RESULTS ON CARBONATE-HOSTED LEAD-ZINC MINERALISATION, ZEEHAN DISTRICT, TASMANIA

for

CRA Exploration Limited

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July, 1994

15a

ZEEHAN CARBONATE-HOSTED Zn-Pb DEPOSITS
DESCRIPTIONS OF SELECTED CORE/HAND SPECIMEN SAMPLES & INSTRUCTIONS/SUGGESTED WORK

[redacted]
ZWG 1, 8 mbc. 2% Pb & 6% Zn: Strong ?cream ankerite altered, veined & brecciated limestone with minor pyrite and 2-5% galena filling veins or breccia matrix.

TS/PTS describe alteration and Pb-Zn mineralisation and identify where the Zn is. What was this limestone?. Photograph polished slab/cut surface.

[redacted]
ZWG 1, 13.8 mbc. 10% Zn & 1% Pb. Strong siderite-ankerite replaced/altered limestone.

TS/PTS describe alteration and Pb-Zn mineralisation and identify where the Zn is. Probe/XRD?. Photograph polished slab/cut surface.

[redacted]
ZWG 1, 9.7 mbc. <1% Zn. Carbonaceous carbonatic-dolomitic black matrix breccia. Weak very fine iron-carbonate alteration (only apparent in weathered core surfaces or barely discernable at 25x magnification.

TS/PTS describe alteration and Pb-Zn mineralisation and identify where the Zn is. Probe/XRD?.

[redacted]
ZWG 1, 15.1 mbc. 7% Zn & 2% Pb. Carbonaceous carbonatic-dolomitic black matrix breccia. Weak very fine iron-carbonate alteration (only apparent in weathered core surfaces or barely discernable at 25x magnification. Decarbonated/less reactive to 10% HCl than 3970003 and probably hosts more iron carbonate. [difficult to identify as Zn mineralised in fresh core, clues include high S.G, inert to 10% HCl and fine iron-carbonate speckling visable under 25x hand lens].

TS/PTS describe alteration and Pb-Zn mineralisation and identify where the Zn is. Probe/XRD?. Photograph polished slab/cut surface. Compare with 3970003.

3970005
DTM 84-2, 133.7-133.9 mbc. 8% Pb & 1% Zn. Colloform banded and cavern fill siderite, ankerite, 5-10% galena & 2% sphalerite and totally replaced/altered limestone fragments.

TS/PTS describe alteration and Pb-Zn mineralisation and identify where the Zn is. Probe/XRD?. Photograph polished slab/cut surface.

[redacted]
ZG1002, 108 mbc. Intense brown siderite and creak ankerite altered oolitic grainstone/limestone. Moderately decomposed and spongy. Probably grades up to % levels Zn.

TS/PTS describe alteration. Photograph TS.

3970007
DTM 84-2, 77.7 mbc. Weak-moderately pervasive ankerite altered siltite-limestone. Weak cream/white carbonate veining and spectacular curved saddle dolomite lined voids. Trace of sphalerite in vein intersection.

Too good a sample to cut-up, reference sample only. Photograph.

3970008
DTM 84-2, 74 mbc. Intensely iron-carbonate veined-brecciated and moderate-intense pervasive cream ankerite altered heavy onchalitic? bioclastic limestone.

TS/PTS describe alteration and Pb-Zn mineralisation. Probe/XRD?. Photograph cut surface.

~~3970009~~
ZG 1012, 48 mbc. Mottled moderate-strong pervasive ankerite altered, recrystalised and weakly veined limestone with 2-3% rootless carbonate veinlets and carbonate filled voids.. Probably anomalous in Zn.

TS/PTS describe alteration and Pb-Zn mineralisation and identify where the Zn is. What was this limestone?. Photograph polished slab/cut surface.

~~3970010~~ stet
DTM 84-2, 77 mbc. Moderately pervasive ankerite altered onchalitic skeletal boundstone/limestone with interstitial carbonate veining or open-space cement with traces of pyrite.

Reference sample, Photograph.

3970011
DTM 84-2, 90.1 mbc. Pervasive moderately ankerite altered & carbonate veined limestone.

Reference sample only.

~~3970012~~
ZG 1012, 67.6 mbc. Unaltered/weakly ankerite altered algal laminated micrite/lutite limestone. Former crusts/algal mats show some development of ?compaction and ?dehydration brecciation.

TS, describe and photograph TS and cut hand-specimen surface.

3970013
Massive galena ore with balls/aggregates of sphalerite. Probably cavern fill mineralisation

PTS, describe texture etc. and identify any sulphides other than galena and sphalerite. Photograph polished slab.

805108

SUMMARY

Eighteen samples of drill core from the Zeehan district of western Tasmania were submitted for petrographic examination, and where necessary, for electron microprobe analysis to determine the composition of representative carbonate minerals. Polished thin sections were prepared of each sample and the offcuts of these sections were etched with dilute HCl then stained with Alizarin Red S solution in order to obtain information on carbonate species. Following petrographic examination, eight samples (3970002, -04, -05, -06, -08, -10, -17 and 3970018) were selected for electron microprobe analysis, using a JEOL electron microprobe at the University of New England. Subsequently, most of the samples were photographed, involving several of the handspecimens and polished thin sections.

Summary descriptions of each of the samples are listed below:

3970001. Brecciated limestone which has been altered to fine grained sideritic carbonate, then partly replaced by fine grained low-Fe sphalerite, pyrite and galena, and infilled by white sparry ferroan dolomite/ankerite containing traces of sulphides.

3970002. Intensely hydrothermally altered and mineralised limestone containing turbid brownish zincian magnesian siderite aggregates infilled by sparry white calcite. Minor disseminated galena and traces of Fe-poor sphalerite are disseminated throughout but are concentrated at the margins of the turbid carbonate aggregates where sulphides have locally replaced the carbonate.

3970003. Brecciated limestone which has been hydrothermally altered to ankerite/ferroan dolomite with deposition of minor disseminated Fe-poor sphalerite and traces of galena, pyrite and pyrobitumen. Interstices of the breccia have been infilled with early ankerite/ferroan dolomite and later coarser, sparry calcite.

3970004. Recrystallised, hydrothermally altered and mineralised wackestone, locally grading to carbonate-bearing carbonaceous siltstone. Rock has been replaced by zincian ankerite, grading to ferroan dolomite and dolomite, with deposition of minor fine grained galena and Fe-poor sphalerite. Former organic material has been hydrothermally matured to pyrobitumen.

3970005. Intensely hydrothermally altered and mineralised limestone with complete replacement by turbid brown manganoan magnesian siderite, followed by disseminated and veinlet galena, Fe-poor sphalerite and pyrite, overlapping with white sparry calcite (plus minor galena, sphalerite) and late infilling manganoan ankerite. All carbonates are cut by thin veinlets of marcasite and pyrite.

3970006. Intensely hydrothermally altered ?bioclastic limestone with initial replacement by zincian siderite, with development of abundant open space voids. Partial infilling by fine grained crystalline dolomite has occurred. Traces of disseminated pyrite are found in both types of carbonate, with rare fine grained marcasite and sphalerite in the dolomite infillings.

3970007. Massive recrystallised micritic limestone with alteration to ferroan dolomite/ankerite. Rock is locally fractured and contains veins and vugh infillings of white, sparry ferroan dolomite (locally "saddle dolomite"). Minor fine grained pyrite is disseminated in the recrystallised limestone, along with traces of Fe-poor sphalerite, galena and pyrobitumen. Sparry dolomite infillings contain traces of disseminated pyrite and sphalerite.

3970008. Strongly fractured and dolomitised limestone, originally rich in bioclastic fragments dominated by oncolitic material. Rock has been totally recrystallised and contains a little fine

ZCG 1
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grained disseminated pyrite, plus traces of pyrobitumen and galena. Fractures are filled with white, sparry slightly ferroan dolomite.

3970009. Recrystallised ?bioclastic limestone with a few carbonaceous siltstone fragments. Sample has been altered to ferroan dolomite, with precipitation of minor disseminated pyrite, sphalerite, galena and pyrobitumen. Fractures and vughy patches contain sparry ankerite, with minor quartz, sphalerite and galena. ZG1012 EL38/89

3970010. Oncolitic grainstone which underwent alteration to dolomite-ferroan dolomite and development of sparry cement of ferroan dolomite-ankerite with minor quartz and pyrite. Traces of galena and sphalerite have slightly replaced pyrite.

3970011. Massive limestone which has been recrystallised and altered to ferroan dolomite/ankerite. Strong fracturing has resulted in the formation of numerous veins and dilational infillings of white sparry ferroan dolomite/ankerite. Minor pyrite is concentrated along stylolites and traces of low-Fe sphalerite and galena have been introduced with the ferroan dolomite/ankerite alteration and veining. EL45/92

3970012. Laminated and locally stylolitic micritic limestone with partial recrystallisation to fine to medium grained aggregates of ferroan dolomite. Sample contains minor disseminated fine grained pyrite and a trace of sphalerite. ZG1012 EL38/89

3970013. Semi-massive medium to coarse grained sulphide-rich rock, dominated by galena, with subordinate low-Fe sphalerite and minor to trace amounts of tetrahedrite, marcasite, pyrite and chalcopyrite. Sulphides (especially galena) have partly replaced illite/sericite-altered mudstone-siltstone and minor sideritic carbonate. EL45/92

3970014. Recrystallised and altered micritic limestone. Alteration is dominated by ferroan dolomite/ankerite. Rock is rather dark due to fine bituminous material interstitial to carbonate grains. A few stylolites have developed, forming concentrations of bituminous material and finely disseminated pyrite.

3970015. Strongly fossiliferous wackestone with abundant partly recrystallised fossil fragments in a micritic matrix which is also partly recrystallised. The matrix is locally darkly pigmented by fine organic matter and contains traces of disseminated pyrite.

3970016. Bedded packstone with intercalated recrystallised silty carbonate. The packstone is rich in broken fossil fragments and the silty layers have been altered to crystalline sparry ferroan dolomite/ankerite. Fine grained pyrite is disseminated throughout, but along with traces of bituminous material, tends to be concentrated in the recrystallised silty carbonate layers. ZG1012 EL38/89

Alteration and mineralisation has been imposed upon facies of the Ordovician Gordon Limestone. The sample suite is dominated by different limestone types, including micrite, grainstone, packstone and wackestone. Several samples

preserve fossil fragments. Much of the original limestone was slightly impure and appears to have contained a minor component of organic material and fine disseminated pyrite. The latter may have been of biogenic/diagenetic origin and is locally framboidal. A few samples show gradation into carbonaceous calcareous siltstone, whereas others contain scattered small grains of detrital quartz. The organic material and pyrite have caused a dark pigmentation in many samples and are locally concentrated along thin anastomosing stylolites.

Several samples have been fractured (with local dilational jogs and breccia zones being formed), with infillings of sparry carbonate, in places accompanied by sulphides and minor quartz. It is likely that all samples have undergone pervasive alteration to dolomite/ferroan dolomite-ankerite (hereafter termed "dolomitisation"), but whether this alteration is related to fracturing is unclear. The fact that many unfractured rocks are dolomitised may suggest that the pervasive alteration preceded fracturing. Dolomitisation is characterised by complete recrystallisation of the rocks; this is best manifested in fine micritic material, but bioclastic material is also variably recrystallised, with some preservation of outlines. Ultimately, a fine polygonal texture results.

Following the pervasive dolomitisation of limestone, more restricted and intense alteration occurred, with complete destruction of primary bedding and bioclastic textures, as well as stylolites. Several samples show replacement by strongly Fe-bearing carbonates, in places with significant Mn, Mg and Zn contents (ferroan dolomite, ankerite, siderite). Minor quartz is locally associated. Early pyrite has probably recrystallised into coarser grains and organic material hydrothermally matured into small aggregates of pyrobitumen. In these intensely altered rocks, relict siltstone (e.g. as small breccia clasts) has been replaced by illite/sericite and siderite.

It appears as though little sulphide was deposited as this stage and interestingly, several samples contain strongly zincian carbonates (e.g. up to 21.6 mol. % $ZnCO_3$ in 3970002). Deposition of the ferroan carbonates (with Mn, Mg, Zn) was succeeded by a sulphide stage. This has ranged from tiny traces of sphalerite and galena in some samples, to development of semi-massive sulphides in others (e.g. 3970013). In many samples, the amount of sulphide, especially sphalerite, is not immediately obvious, due to fine grainsize and the fact that sphalerite is a pale-coloured, transparent, low-Fe variety. There is good textural evidence for the partial replacement of ferroan carbonate by sulphides.

There is a considerable range in sphalerite/galena ratios in the mineralised samples. However, sphalerite is generally subordinate to galena, with the latter being locally abundant (e.g. 3970005, 3970013). High Zn assays in several samples (e.g. 3970002, 3970004) are explained by the presence of zincian carbonates, rather than by abundant sphalerite. Although pyrite is present in small amounts in most samples, the most sulphide-rich rocks also contain traces of marcasite, chalcopyrite and tetrahedrite.

Deposition of sulphides overlapped with a succeeding stage of sparry carbonate deposition. This may have taken place in void space created by

volume decrease during replacement of the original rock, and in tectonically prepared fractures. The late carbonates include calcite, dolomite, ferroan dolomite, ankerite and siderite. They tend to be medium to coarse grained and contain scattered tiny 2-phase (liquid + vapour) fluid inclusions. Small amounts of sulphide minerals are locally intergrown, but in many samples the late sparry carbonate is sulphide-free.

In conclusion, it is interpreted that the original rocks were dominated by clastic limestone, locally grading into siltstone. They contained minor carbonaceous organic material and biogenic/diagenetic pyrite. Limestone underwent pervasive dolomitisation, with development of fracturing. Subsequently there was fracture-controlled and pervasive replacement of the rocks, probably caused by the incursion of hotter, more saline, metal-bearing fluids. This resulted in alteration to strongly Fe-bearing carbonates, with locally high Mn, Mg and Zn contents, plus minor quartz. Pyrite was recrystallised and organic material matured into pyrobitumen. The Fe-bearing carbonate stage was apparently followed by an increase in sulphur fugacity of the fluid, leading to partial replacement of carbonate by sulphides. The latter are dominated by galena, with subordinate Fe-poor sphalerite, minor pyrite and maracsite, and traces of chalcopyrite and tetrahedrite. A late fracture- and void-filling stage of sparry carbonate of diverse compositions completed the alteration-mineralisation episodes. The characteristics of the alteration-mineralisation are most consistent with SEDEX mineralisation, specifically with the so-called "Irish-type". There is little direct analogy with Mississippi Valley-type mineralisation when the characteristics are examined in detail (e.g. the abundance of Fe-rich carbonate alteration, the presence of zincian and manganoan carbonates, the occurrence of pyrobitumen and the fact that higher grade sulphides contain tetrahedrite). It is likely that assaying of the mineralisation would reveal significant Ag values. It is proposed that alteration-mineralisation has been caused by moderate temperature SEDEX-type brines (e.g. at ~ 150-200°C) reacted in the subsurface with suitable host rocks, e.g. dolomitised and fractured limestone.

3970005. Intensely hydrothermally altered and mineralised limestone with complete replacement by turbid brown manganoan magnesian siderite, followed by disseminated and veinlet galena, Fe-poor sphalerite and pyrite, overlapping with white sparry calcite (plus minor galena, sphalerite) and late infilling manganoan ankerite. All carbonates are cut by thin veinlets of marcasite and pyrite.

Drill core handspecimen shows a fine to medium grained carbonate-rich rock with aggregates and veins of galena. Three types of carbonate are evident - an early brown type, containing patches and veins up to 10 mm across of white sparry carbonate, infilled with medium grained brown carbonate (Photo 6). Galena patches and veins are mainly restricted to the early brown carbonate (Photo 6), but a small amount occurs in the white carbonate. Staining of the section offcut with Alizarin Red S indicated that the early brown carbonate is sideritic, the white carbonate is calcite and the late brown carbonate ferroan dolomite/ankerite.

In the section, about 75 volume % is comprised of a fine to medium grained interlocking mass of turbid brown carbonate with a typical grainsize of 0.1-0.5 mm. Some grains have curved cleavage and zoning. Disseminations and aggregates of galena are up to 1.5 mm across (Photo 7) and these grade into thin veins, clearly transgressing the turbid brown carbonate (Photo 8). Galena is commonly intergown with, and infills small patches of vughy clear carbonate (Photo 7). Minor disseminated pyrite in grains up to 0.4 mm across occur in the brown turbid carbonate. In places, pyrite is enclosed in galena aggregates and has been partly replaced by the latter.

Clear, medium grained carbonate occurs as veins up to 5 mm wide cutting the turbid brown carbonate, and as irregular vughy patches, commonly with infillings of galena (Photo 7). The clear carbonate is locally zoned, has a typical grainsize range of 0.2-1 mm and contains rare 2-phase liquid + vapour fluid inclusions. It also contains a few small aggregates of galena and Fe-poor sphalerite. In the central parts of wider veins of clear carbonate are aggregates of medium grained turbid brown carbonate. This is similar to that bordering the veins, but is distinctly coarser.

There is about 8-10 volume % sulphides in the section. Galena is dominant, occurring as disseminations and thin, planar to anastomosing veins, with traces of included pyrite and sphalerite, cutting the early turbid brown carbonate (Photo 8). There is also a small amount of galena in the clear carbonate, accompanied by minor Fe-poor sphalerite. Minor pyrite (about 0.5 volume %) is disseminated in the early turbid brown carbonate. All phases of carbonate are cut by thin veinlets up to 0.1 mm wide of fine grained marcasite and pyrite (Photo 7).

Electron microprobe analyses of the carbonates showed that the early turbid brown type is manganoan magnesian siderite, with 19.1-23.3 mol. % $MnCO_3$ (Fig. 3; Appendix). The white sparry carbonate in veins and patches associated with galena is relatively pure calcite, whereas the later brown carbonate infilling is manganoan ankerite (Fig. 3; Appendix). No detectable Zn was found

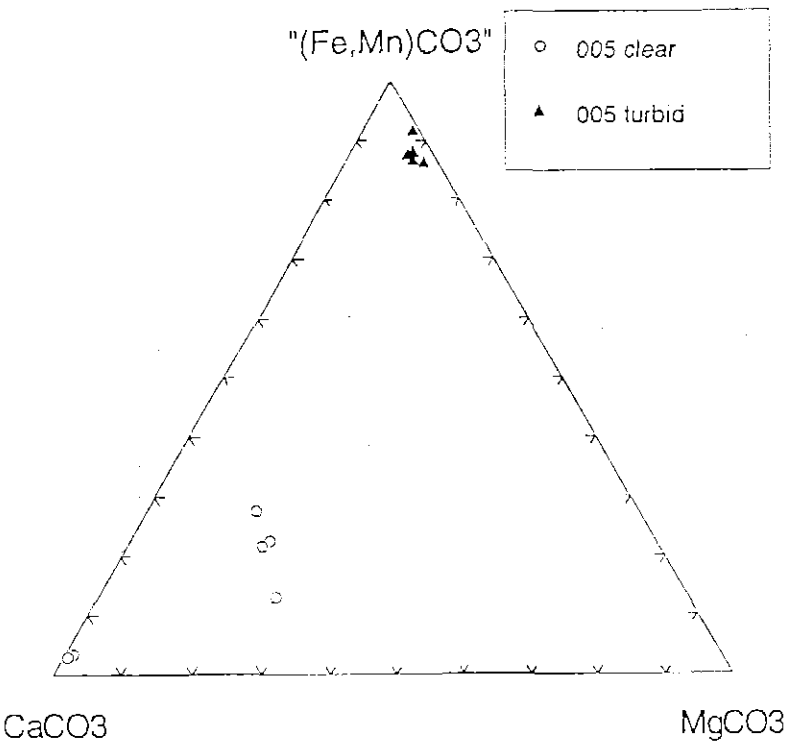


Figure 3. Electron microprobe analytical data of carbonate minerals for sample 3970005, showing results in terms of the system $(Fe,Mn)CO_3$-$CaCO_3$-$MgCO_3$.

in the carbonates and it is assumed that most Zn is accommodated in the minor disseminated sphalerite in the sample. It is noteworthy that the ankerites are Ca-rich, with >50 mol. % $CaCO_3$. Apparently, this is possible with ankerite compositions, but some Ca can also be accommodated in ultrafine calcitic ribbons irresolvable under the probe beam.

It is interpreted that the rock represents an intensely altered and mineralised limestone. Initial alteration was by pervasive manganoan magnesian siderite, with recrystallisation of pyrite (perhaps earlier biogenic/diagenetic material). This replacement probably led to volume decrease and formation of fractures and voids. These were subsequently filled with galena and minor Fe-poor sphaleite, with sulphide depostion overlapping with white sparry calcite. Late carbonate infilling was by manganoan ankerite, with subsequent fracturing being occupied by thin marcasite-pyrite veinlets.

3970007. Massive recrystallised micritic limestone with alteration to ferroan dolomite/ankerite. Rock is locally fractured and contains veins and vugh infillings of white, sparry ferroan dolomite (locally "saddle dolomite"). Minor fine grained pyrite is disseminated in the recrystallised limestone, along with traces of Fe-poor sphalerite, galena and pyrobitumen. Sparry dolomite infillings contain traces of disseminated pyrite and sphalerite.

Drill core shows a massive fine grained dark grey limestone which has been fractured and cut by a network of white, carbonate-filled gash veins up to 3 mm wide (Photo 11), some of which are connected to vughs up to 30 mm across. The vughs are partly filled with coarse grained subhedral to euhedral carbonate displaying curved crystal faces ("saddle dolomite")(Photo 12). Staining of the section offcut with Alizarin Red S indicated that the grey limestone has been altered to ferroan dolomite/ankerite and that the veins and vugh infillings are likely to be ferroan dolomite. Traces of fine grained pyrite occur in the altered limestone and in the veins, and the latter contain rare patches of pale brown, Fe-poor sphalerite up to 3 mm across.

In the section, the rock is strongly fractured, with domains of recrystallised limestone, cut and locally brecciated by carbonate-rich veins. In the original rock, no relict textures are preserved and total recrystallisation to a fine grained interlocking aggregate of ferroan dolomite/ankerite has occurred. Typical grainsize is 0.05-0.2 mm. The recrystallised limestone contains about 1 volume % of fine grained disseminated pyrite in grains from 0.01-0.2 mm across. There are also a few grains and aggregates of Fe-poor sphalerite, accompanied by traces of galena, interstitial to the recrystallised carbonate. Sulphides are locally associated with aggregates up to 0.1 mm across of a grey, low-reflectance, soft substance with undulose anisotropism. The latter is considered to be pyrobitumen. The recrystallised limestone also contains a few thin wavy stylolites which are defined by concentrations of fine grained pyrite (aggregates up to 1 mm in length)(Photo 13), with traces of sphalerite and pyrobitumen.

Cutting the fractured recrystallised limestone are irregular veins up to 3 mm wide containing ferroan dolomite with a typical grainsize of 0.5-2 mm (Photo 13). Grains commonly have curved cleavages and contain scattered tiny two-phase liquid + vapour fluid inclusions. Although sulphides are rare in the veins, there are a few grains of subhedral pyrite up to 0.3 mm across, plus traces of Fe-poor sphalerite.

The sample is interpreted to have been a rather massive, possibly micritic, limestone, originally containing minor biogenic/diagenetic pyrite and organic material. The rock was fractured and hydrothermally altered, with complete replacement by ferroan dolomite/ankerite and traces of Fe-poor sphalerite and galena. Recrystallisation of pyrite occurred along with hydrothermal maturation of organic material to pyrobitumen. Fractures and vughs were sites for preciptation of sparry ferroan dolomite with traces of pyrite and sphalerite.

3970008. Strongly fractured and dolomitised limestone, originally rich in bioclastic fragments dominated by oncolitic material. Rock has been totally recrystallised and contains a little fine grained disseminated pyrite, plus traces of pyrobitumen and galena. Fractures are filled with white, sparry slightly ferroan dolomite.

Drill core sample shows a dark grey limestone with abundant relict fossil fragments, dominated by oncolitic material (Photo 14), but also including a few coral fragments. The rock has been strongly fractured, with a network of planar to anastomosing veins having been formed and locally grading into elongate microbreccia zones up to 20 mm in width (Photo 14). The latter have the characteristics of tectonically induced hydrothermal breccias, possibly formed in an extensional environment. Veins and breccia zones atre filled with white, sparry medium grained carbonate (Photo 14). Staining of the section offcut with Alizarin Red S indicated that both types of carbonate were likely to be ferroan dolomite and that therefore the original limestone had been altered.

In section, all of the relict biogenic textures in the former limestone have been thoroughly overprinted by recrystallisation and all bioclastic fragments (which are up to 8 mm across) are now composed of an interlocking, fine grained aggregate of turbid carbonate with an average grainsize of 0.1 mm (Photo 15). Within these fragments, there is about 0.5 volume % of fine grained disseminated pyrite, occurring in anhedra and subhedra up to 0.25 mm across. There are also a few small patches up to 0.15 mm long of soft, grey, low-reflectance, slightly anisotropic material considered to be pyrobitumen, plus one grain of galena 0.1 mm across.

The turbid carbonate fragments are surrounded by, and cut by veins of coarser, clearer carbonate (Photo 15). This type, comprising about 25 volume % of the sample, has a typical grainsize range of 0.2-1 mm. It does not contain disseminated sulphides, but tiny 2-phase liquid + vapour fluid inclusions are locally scattered.

Electron microprobe analyses indicate that the white sparry carbonate occupying the veins and occurring as interclast infilling is a slightly ferroan dolomite (Fig. 5; Appendix). It contrasts with the turbid carbonate in the fragments, which is less ferroan. The latter contains a significant excess of $CaCO_3$ component over normal dolomite (Fig. 5; Appendix). It is possible that some of this excess $CaCO_3$ could be held in solid solution, but it is more likely that it is held as tiny calcite inclusions, irresolvable under the microprobe.

It is interpreted that the original rock was a bioclastic limestone, possibly a packestone. Pervasive alteration occurred to produce turbid dolomite, with recrystallisation of minor ?biogenic/diagnetic pyrite and causing maturation of former organic material to pyrobitumen. The rock was strongly fractured, with ensuing veining and infilling by sparry white, slightly ferroan dolomite.

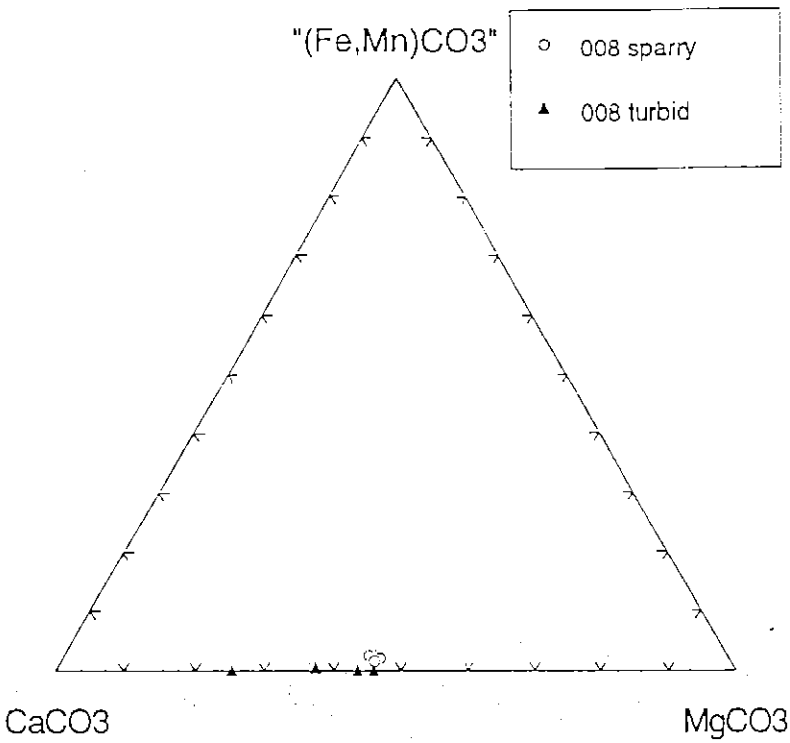


Figure 5a. Electron microprobe analytical data of carbonate minerals for sample 3970008, showing results in terms of the system $(Fe,Mn)CO_3$-$CaCO_3$-$MgCO_3$.

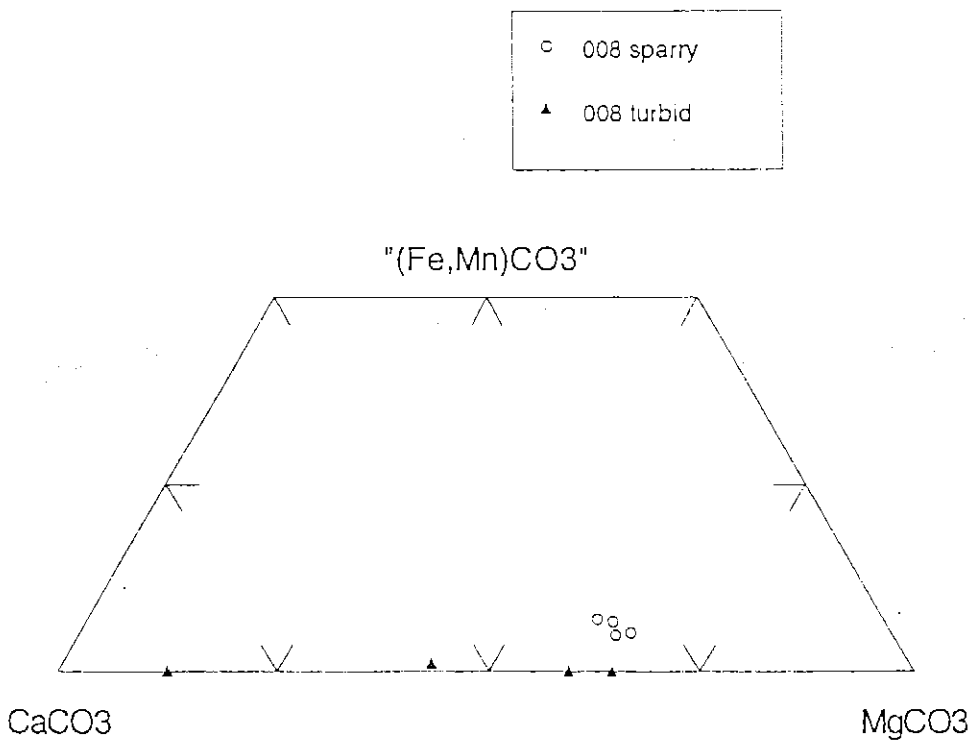


Figure 5b. Detail from Fig. 5a, showing results in the system bounded by 20% $(Fe,Mn)CO_3$ - 80% $CaCO_3$ - 60% $MgCO_3$.

3970010. Oncolitic grainstone which underwent alteration to dolomite-ferroan dolomite and development of sparry cement of ferroan dolomite-ankerite with minor quartz and pyrite. Traces of galena and sphalerite have slightly replaced pyrite.

Handspecimen is a spectacular mottled dark grey and white oncolitic grainstone with ovoid to spheroidal oncolites up to 15 mm across cemented by medium grained white sparry carbonate (Photo 19). A few oncolites show vague concentric structure and others are fractured with infilling by thin veins of sparry carbonate (Photo 19). About 2 volume % of fine to medium grained pyrite occurs in the sample, mainly as trains of pyrite grains outlining oncolites and as sparse disseminations in the sparry carbonate cement. Staining of the section offcut with Alizarin Red S indicated that both the oncolites and sparry cement may now be ferroan dolomite or ankerite.

In the section, outlines of oncolites are relatively sharp, but internal structure has been obliterated by total recrystallisation. Oncolites are now composed of an aggregate of rather turbid interlocking carbonate grains with an average size of 0.1 mm (Photo 20). Margins of oncolites are locally stylolitic and are characterised by accumulations of fine to medium grained anhedral to subhedral pyrite (Photo 20). Within the oncolites, sparsely disseminated pyrite grains <0.05 mm across occur, however, the scattered pyrite grains at oncolite margins are up to 0.7 mm across and display internal zonal texture. It is possible that there has been partial dissolution of oncolites and that biogenic/diagenetic pyrite has been accumulated by dissolution and reprecipitation at oncolite margins. Traces of galena and sphalerite accompany the medium grained pyrite and display replacement textures towards the latter.

Sparry cement constitutes about 40 volume % of the rock. It is dominated by medium grained interlocking carbonate grains with a typical size of 1 mm (Photo 20). Grains are locally zoned with more turbid interiors and clearer margins. Also present are uncommon isolated grains and aggregates (up to 2 mm across) of quartz, generally adjacent to the oncolite margins. It is possible that some of the quartz grains represent original clastic grains, but other material appears to have crystallised contemporaneously with the carbonate cement. Sparsely disseminated pyrite grains up to 0.6 mm across occur in the sparry carbonate. Both quartz and sparry carbonate contain tiny fluid inclusions; these are rarely > 1 μm across and appear to be liquid + vapour types with L >> V.

Electron microprobe analyses were performed on representative grains of carbonate from the oncolites and the sparry cement. It was found that the oncolites are composed of dolomite, grading to ferroan dolomite, whereas the sparry cement tends to be slightly more Fe-rich, with a gradation from ferroan dolomite to ankerite (Fig. 6; Appendix). In both types of carbonate, it is notable that Ca is in excess of the normal 50 mol. % $CaCO_3$ for dolomite-ankerite. This could be due to minor substitution of Ca for Fe or Mg, or because of the presence of very fine calcite inclusions, irresolvable by the microprobe.

It is likely that the original oncolitic limestone containing minor disseminated biogenic/diagenetic pyrite underwent alteration to dolomite-ferroan dolomite

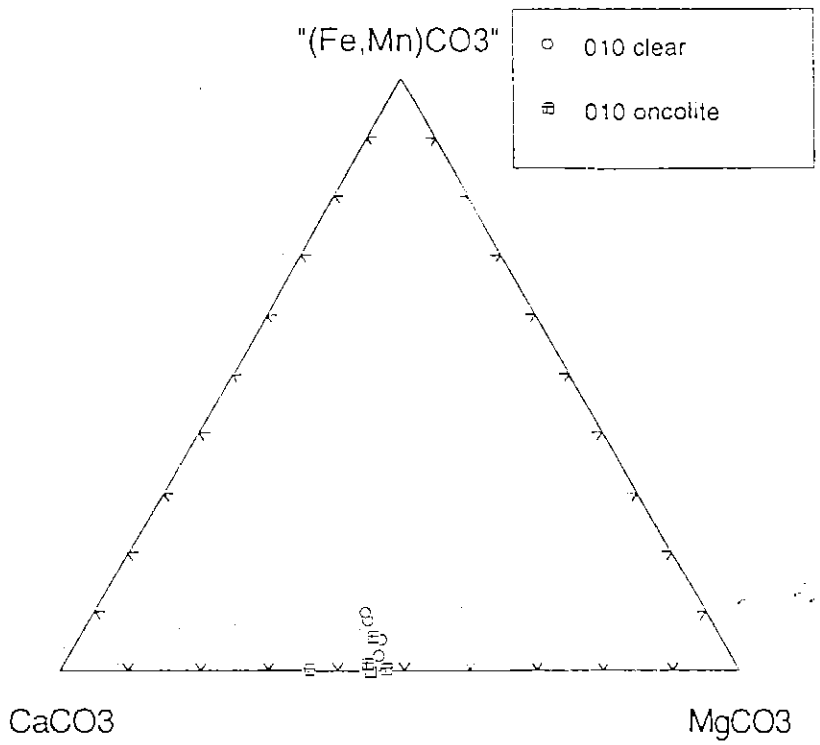


Figure 6a. Electron microprobe analytical data of carbonate minerals for sample 3970010, showing results in terms of the system $(Fe,Mn)CO_3$-$CaCO_3$-$MgCO_3$.

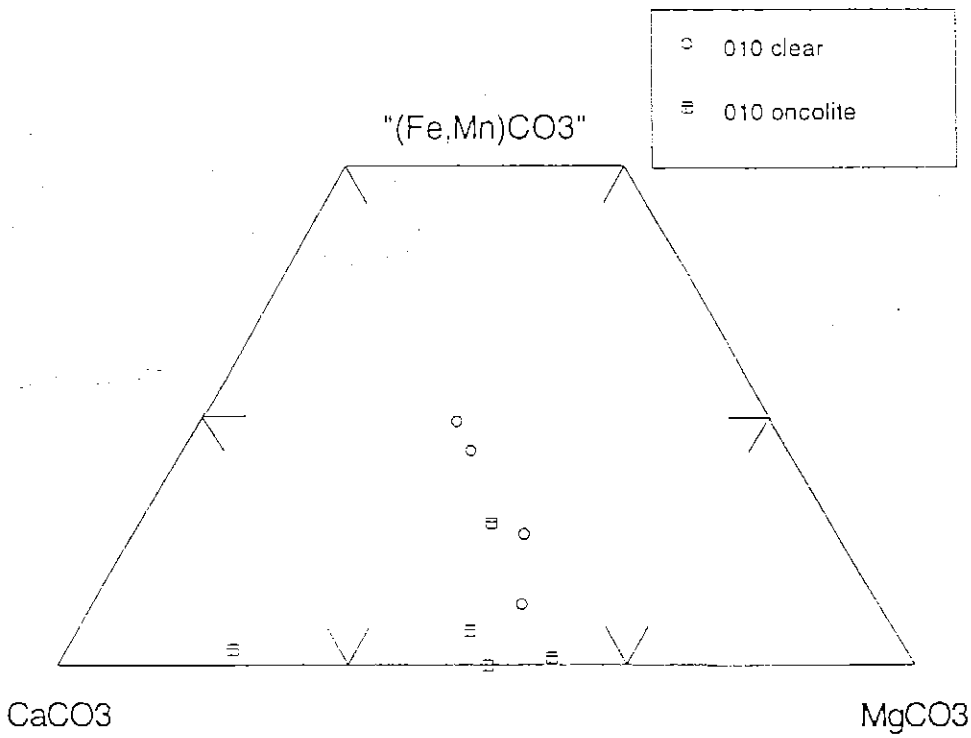


Figure 6b. Detail from Fig. 6a, showing results in the system bounded by 20% $(Fe,Mn)CO_3$ - 70% $CaCO_3$ - 60% $MgCO_3$.

and development of open space cavities. Partial solution occurred with accumulation of reprecipitated pyrite at oncolite margins. Subsequently, a cement of sparry ferroan dolomite-ankerite was formed, accompanied by a little quartz and pyrite. Traces of galena and sphalerite were deposited during this event and are associated with pyrite.

3970011. Massive limestone which has been recrystallised and altered to ferroan dolomite/ankerite. Strong fracturing has resulted in the formation of numerous veins and dilational infillings of white sparry ferroan dolomite/ankerite. Minor pyrite is concentrated along stylolites and traces of low-Fe sphalerite and galena have been introduced with the ferroan dolomite/ankerite alteration and veining.

Handspecimen is a fractured massive grey limestone with abundant dilational fractures filled with white sparry carbonate (Photo 21). A few thin stylolites are evident with traces of disseminated pyrite. Staining of the section offcut with Alizarin Red S indicated that both the limestone and the sparry veins were composed of ferroan dolomite/ankerite. From this it is clear that the original limestone must have been altered.

In the section, there are two distinct domains present: recrystallised original limestone and sparry veins. The original limestone is now composed of an interlocking aggregate of somewhat turbid carbonate rhombs with a typical grainsize of 0.05 - 0.2 mm. There are a few small grains of ?detrital quartz, plus rare disseminated fine grained pyrite and traces of sphalerite and galena. Sphalerite forms uncommon grains up to 0.5 mm across; it is pale brown-orange in colour and is likely to be a low-Fe variety. A few thin anastomosing stylolites also occur in the recrystallised limestone. These are generally defined by accumulations of fine grained pyrite, with traces of rutile and pyrobitumen, however, there are a few coarser grains of pyrite, with subhedra up to 0.7 mm across (Photo 22).

Following fracturing, the altered limestone was veined by medium grained carbonate with a typical grainsize of 1-2 mm. The veins and dilational void infillings are up to several millimetres wide. The sparry carbonate in the veins tends to be relatively clear and contains uncommon tiny 2-phase liquid + vapour fluid inclusions. There are also very sparse disseminations of fine grained pyrite and galena. Altered limestone is also cut by uncommon thin veins of clear carbonate and quartz. This type does not cut the sparry carbonate veins and thus may be earlier.

The sample is interpreted to have originally been a massive limestone, although the depositional type is not obvious due to complete recrystallisation attending alteration to ferroan dolomite/ankerite. The rock was strongly fractured with dilation occurring. Infilling was by medium grained sparry white ferroan dolomite/ankerite, with traces of pyrite, galena and sphalerite. It is likely that the original limestone contained minor biogenic/diagenetic pyrite and traces of organic matter. This material has been concentrated at stylolites.

3970013. Semi-massive medium to coarse grained sulphide-rich rock, dominated by galena, with subordinate low-Fe sphalerite and minor to trace amounts of tetrahedrite, marcasite, pyrite and chalcopyrite. Sulphides (especially galena) have partly replaced illite/sericite-altered mudstone-siltstone and minor sideritic carbonate.

Handspecimen is composed of semi-massive (about 80 volume % of rock) sulphides which are medium to coarse grained (1-8 mm). Galena is slightly more dominant than sphalerite and the latter typically occurs in spheroidal to irregular masses up to 20 mm across. Sphalerite has a yellow-brown colour and is probably Fe-poor. The rock is rather vughy and possibly slightly oxidised. It contains wispy, irregular masses of dark mudstone up to 20 mm long interspersed with the sulphides.

In the section, the sample is dominated by medium to coarse grained galena and sphalerite with irregular masses of included gangue material up to 10 mm across. The gangue component is mostly fine grained altered mudstone-siltstone which contains scattered relict detrital grains of quartz up to 0.2 mm across. However, the rock is strongly altered to fine grained illite/sericite and has been variably invaded and replaced by sulphides (Photo 25). It is possible that the original sedimentary rock was brecciated prior to being altered and mineralised. Sulphides are also intergrown with (and appear to replace) uncommon aggregates of fine grained sideritic carbonate up to 1 mm across. A few veins and irregular cavity infills up to 0.2 mm wide containing a fine grained low-birefringent, crystalline clay occur throughout the rock. The clay may be kaolinite and could represent a low-temperature, post-sulphide hydrothermal alteration phase, or be a result of subsequent supergene processes.

Galena is semi-massive to massive and shows textural evidence of having partly replaced altered mudstone-siltstone (Photo 25), carbonate, and sphalerite. The latter forms masses up to 20 mm across and is locally fractured. Colour zoning is characteristic in sphalerite, with pale brown zones intergrown with orange zones (Photo 26). Locally there is development of chalcopyrite disease, with tiny crystallographically-oriented and randomly distributed grains of chalcopyrite dispersed in sphalerite (Photo 27). A few irregular aggregates of fine grained marcasite up to 0.6 mm across occur in galena (Photo 28) and rare pyrite grains are disseminated in galena and the gangue material. Anhedral masses of tetrahedrite up to 1.2 mm across are sparsely distributed in galena and sphalerite (Photos 25 and 29) and these are locally associated with intergrown chalcopyrite. Tiny veinlets of chalcopyrite, and of pyrite, are observed cutting the dominant galena-sphalerite (-tetrahedrite) assemblage.

The sample may have developed as a result of strong alteration and mineralisation of a mudstone-siltstone, plus carbonate precursor. The original rock could have been brecciated. Mudstone-siltstone was strongly altered to illite/sericite and carbonate to sideritic material, with subsequent replacement by semi-massive to massive sulphides. The latter are dominated by galena and low-Fe sphalerite, accompanied by minor tetrahedrite (probably argentian), marcasite, pyrite and chalcopyrite. Sphalerite shows minor development of

chalcopyrite disease (indicating possible rising fluid temperature and a_{Cu}). The occurrence of chalcopyrite disease in sphalerite and accessory tetrahedrite (and chalcopyrite) are more akin to mineralisation being of SEDEX affinity, rather than MVT.

APPENDIX

Tables of electron microprobe analyses for eight carbonate samples

Analyses are expressed in molecular percent of carbonate end-members $FeCO_3$, $MnCO_3$, $CaCO_3$, $MgCO_3$ and $ZnCO_3$.

3970010

	type	mol% FeCO3	mol% MnCO3	mol% CaCO3	mol% MgCO3	mol% ZnCO3
a	clear, sparry	5.3		51.0	43.7	
b	clear, sparry	8.4	0.3	51.2	40.1	
c	clear, sparry	2.5		52.5	45.0	
d	clear, sparry	9.4	0.4	51.2	39.0	
e	oncolite			55.0	45.0	
f	oncolite	5.7		52.0	42.3	
g	oncolite	0.6		63.8	35.6	
h	oncolite	0.3		52.6	47.1	
i	oncolite	1.4		55.0	43.6	

3970002

	type	mol% FeCO3	mol% MnCO3	mol% CaCO3	mol% MgCO3	mol% ZnCO3
a	turbid	66.7	2.1	1.2	9.1	20.9
b	turbid	67.7	2.2	2.0	10.7	17.4
c	sparry	1.6		98.1	0.3	
d	sparry	0.8		99.2		
e	sparry	0.9		99.1		
f	sparry	0.8		99.2		
g	turbid	72.1	1.9	2.5	12.1	11.4
h	turbid	66.0	1.9	1.0	10.1	21.0
i	turbid	63.0	1.8	1.4	12.2	21.6
j	turbid	68.0	2.0	1.5	10.0	18.5

805126

3970004

	type	mol% FeCO3	mol% MnCO3	mol% CaCO3	mol% MgCO3	mol% ZnCO3
a	clear	10.3	0.4	48.8	34.8	5.7
b	turbid	24.2	2.1	50.0	10.5	13.2
c	clear	16.8	0.7	52.7	25.0	4.8
d	clear	5.4		58.0	36.1	0.5
e	clear	23.1	1.7	49.5	13.3	12.4
f	turbid	17.8	1.0	51.2	17.0	13.0
g	turbid	20.2	1.6	48.6	13.1	16.5
h	turbid	20.6	1.3	48.7	20.5	8.9
i	clear	1.3		62.2	36.0	0.5
j	turbid	21.6	1.8	50.2	11.4	15.0

3970008

	type	mol% FeCO3	mol% MnCO3	mol% CaCO3	mol% MgCO3	mol% ZnCO3
a	sparry	2.8		52.7	44.5	
b	sparry	2.1		52.2	45.7	
c	turbid	0.5		62.5	37.0	
d	turbid			54.1	45.9	
e	turbid			75.0	25.0	
f	sparry	2.9		53.4	43.7	
g	sparry	2.0		53.0	45.0	
h	turbid			56.3	43.7	

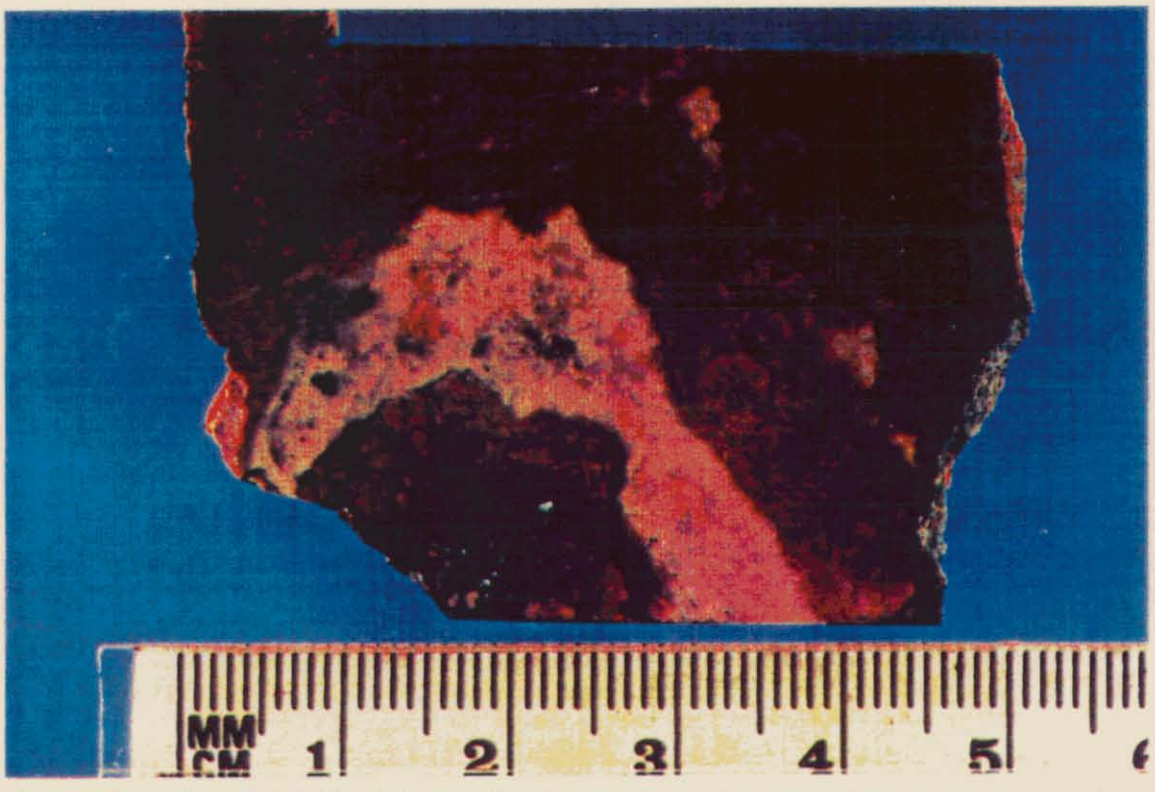
3970006

	type	mol% FeCO3	mol% MnCO3	mol% CaCO3	mol% MgCO3	mol% ZnCO3
a	turbid	1.4		52.7	45.9	
b	turbid	1.3		52.0	46.7	
c	turbid	1.0		55.2	43.8	
d	turbid	1.8		51.5	46.7	
e	clear	80.7	3.8	1.2	2.0	12.3
f	clear	78.8	4.0	1.5	2.4	13.3
g	clear	84.6	4.0	6.4	2.1	2.9
h	turbid	0.9		52.1	47.0	
i	clear	76.1	4.3	1.3	2.1	16.2
j	clear	1.2		51.5	47.3	
k	clear	0.4		53.0	46.6	
l	clear	79.8	3.8	1.3	2.1	13.0

3970005

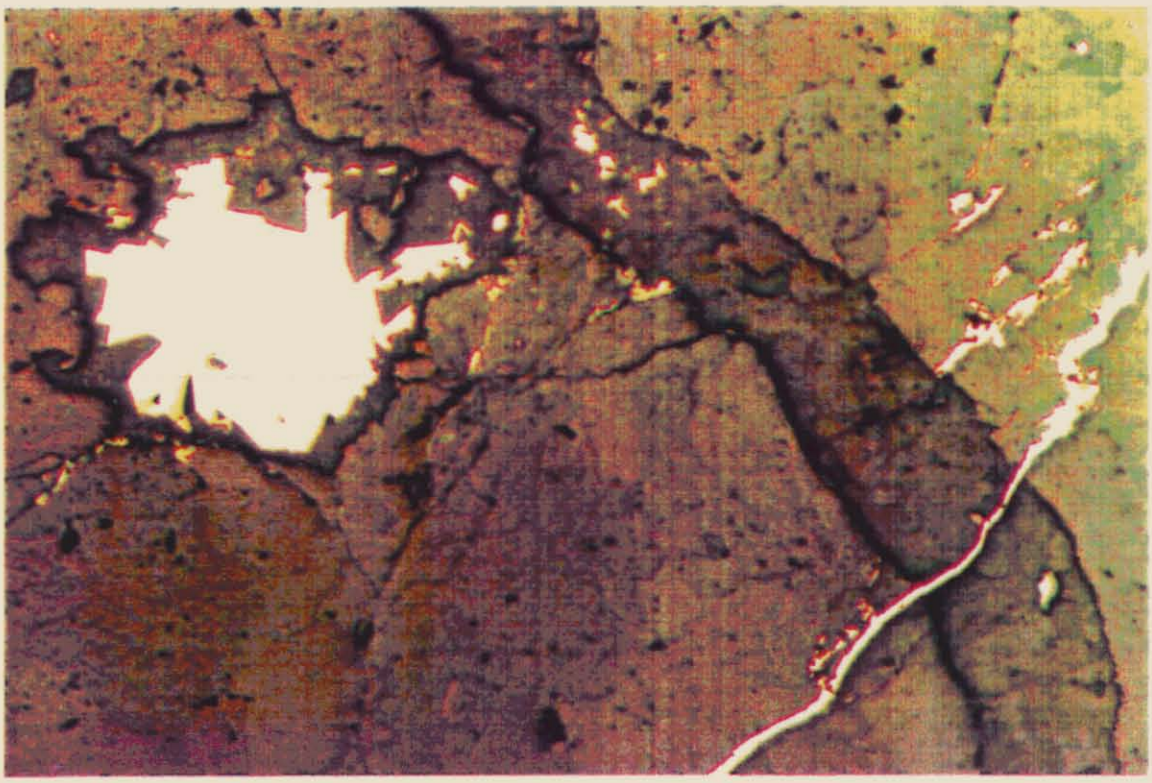
	type	mol% FeCO3	mol% MnCO3	mol% CaCO3	mol% MgCO3	mol% ZnCO3
a	clear	2.3	1.3	95.5	0.9	
b	turbid	67.0	21.0	2.7	9.3	
c	turbid	66.2	20.4	3.7	9.7	
d	turbid	68.6	23.3	1.0	7.1	
e	turbid	65.2	22.5	3.6	8.7	
f	clear, zoned	15.7	12.0	57.1	15.2	
g	clear, zoned	8.2	5.0	61.5	25.3	
h	turbid	67.4	19.1	2.0	11.5	
i	clear, zoned	13.3	9.2	57.7	19.8	
j	clear, zoned	0.5	2.6	96.4	0.5	
k	clear, zoned	11.7	9.9	59.2	19.2	

light photomicrograph, field of view 2 mm across.



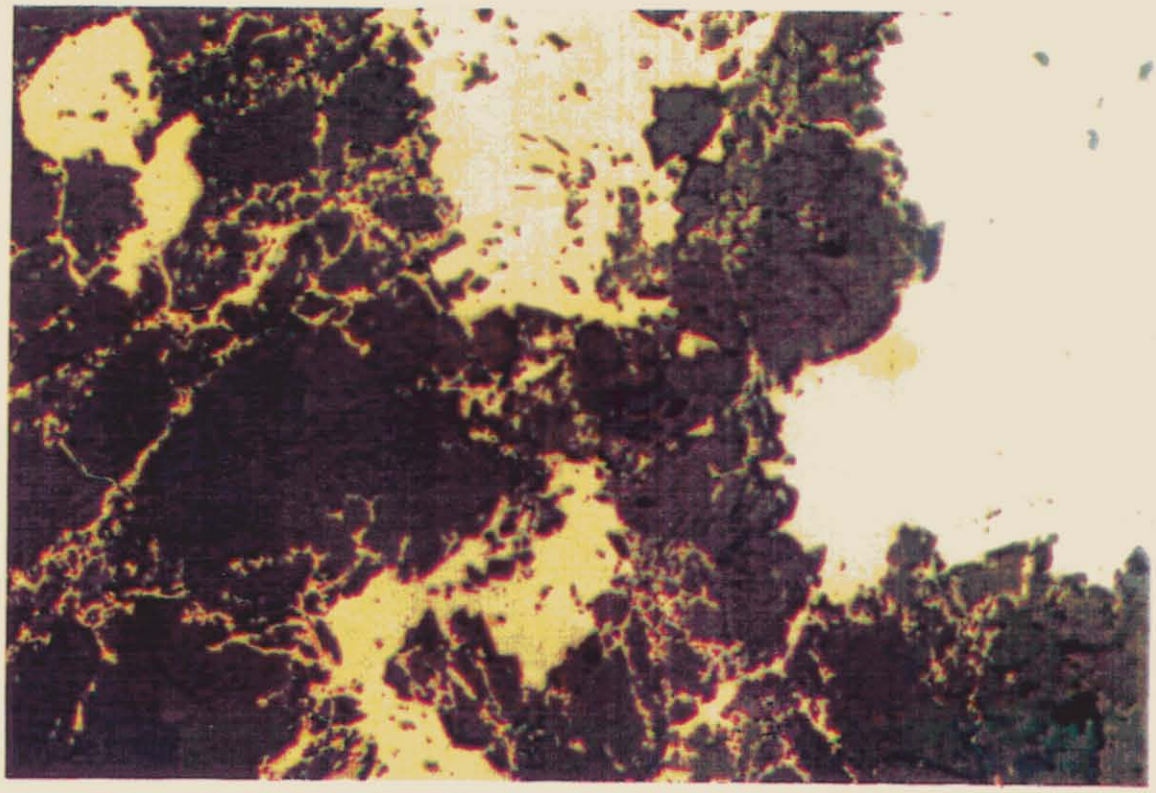
DTM 2

Photo 6: Sample 3970005. Cut drill core slab showing intensely altered limestone (mostly brown manganoan magnesian siderite), containing a few patches and veins of galena (dark, sparkling) and veinlike vughy patches of calcite (white) infilled by manganoan ankerite (creamy).



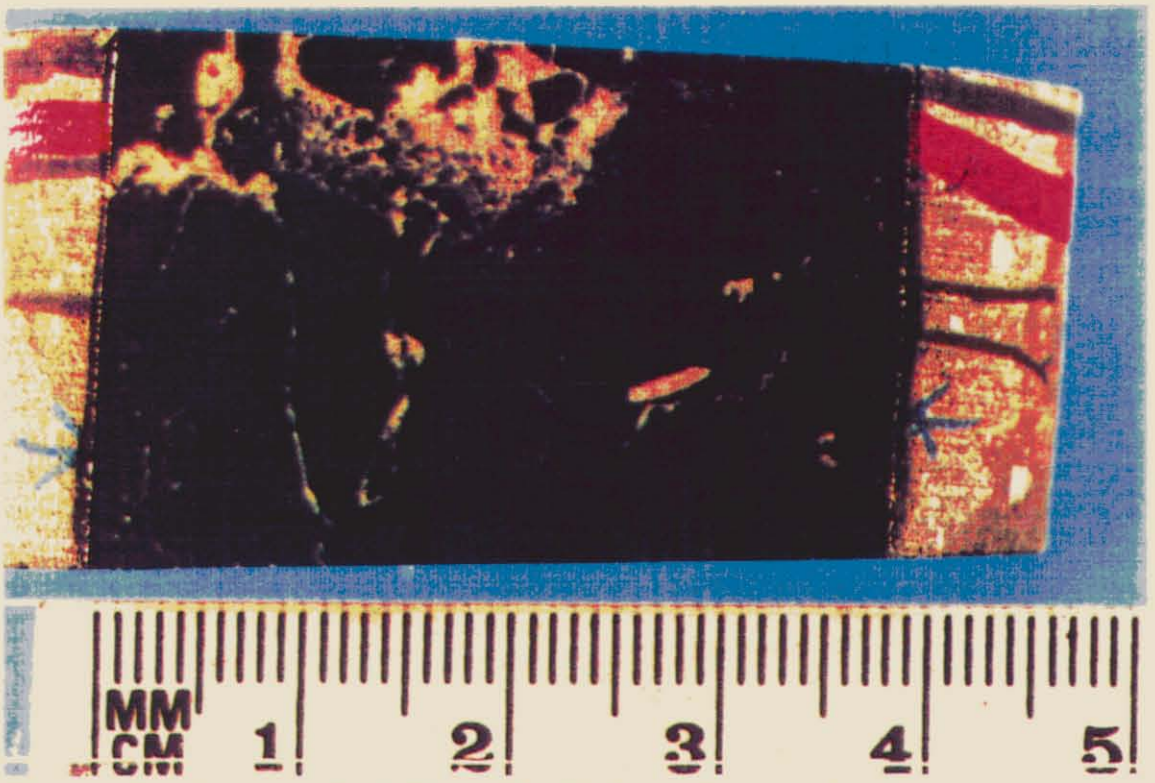
DTM2

Photo 7: Sample 3970005. Aggregate of manganoan magnesian siderite (medium grey, high relief), containing a vein and a patch of calcite (slightly darker grey, lower relief). Galena (white) is intergrown with calcite and a thin vein of pyrite (creamy) cuts both carbonate types. Reflected light photomicrograph, field of view 2 mm across.



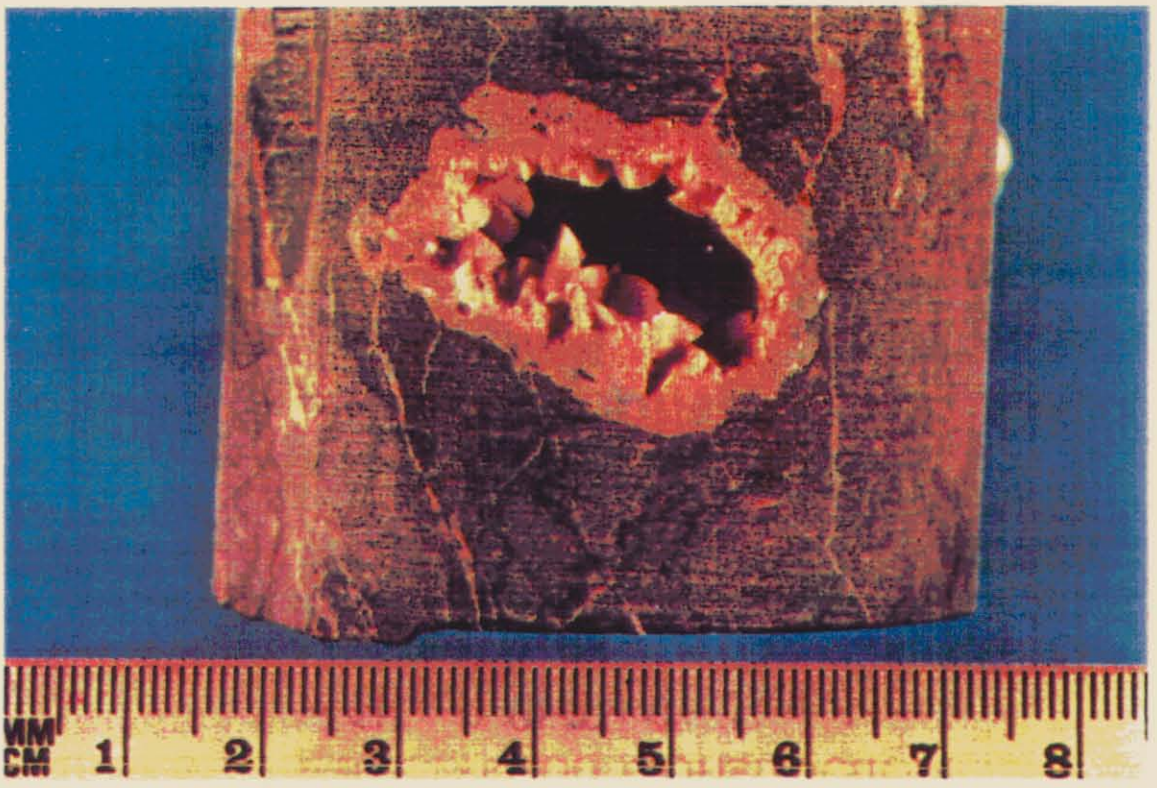
DTM2

Photo 8: Sample 3970005. Widespread replacement and veining of manganoan magnesian siderite (mid-grey) by galena (white). Reflected light photomicrograph, field of view 2 mm across.



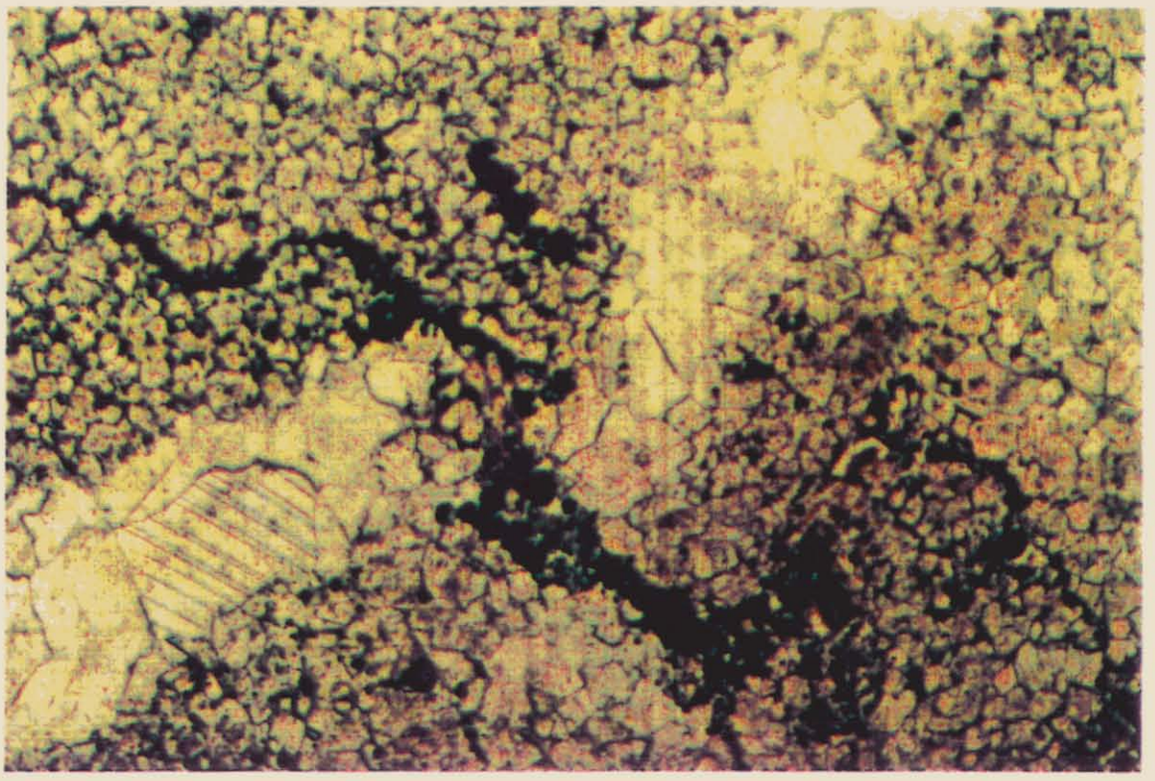
DTM2

Photo 11: Sample 3970007. Cut drill core slab of dark grey limestone altered to ferroan dolomite/ankerite and cut by a network of small veins (grading to breccia), filled with white sparry ferroan dolomite.



DTM2

Photo 12: Sample 3970007. Slightly fractured, dolomitised limestone containing a vugh with partial infilling by "saddle" dolomite.

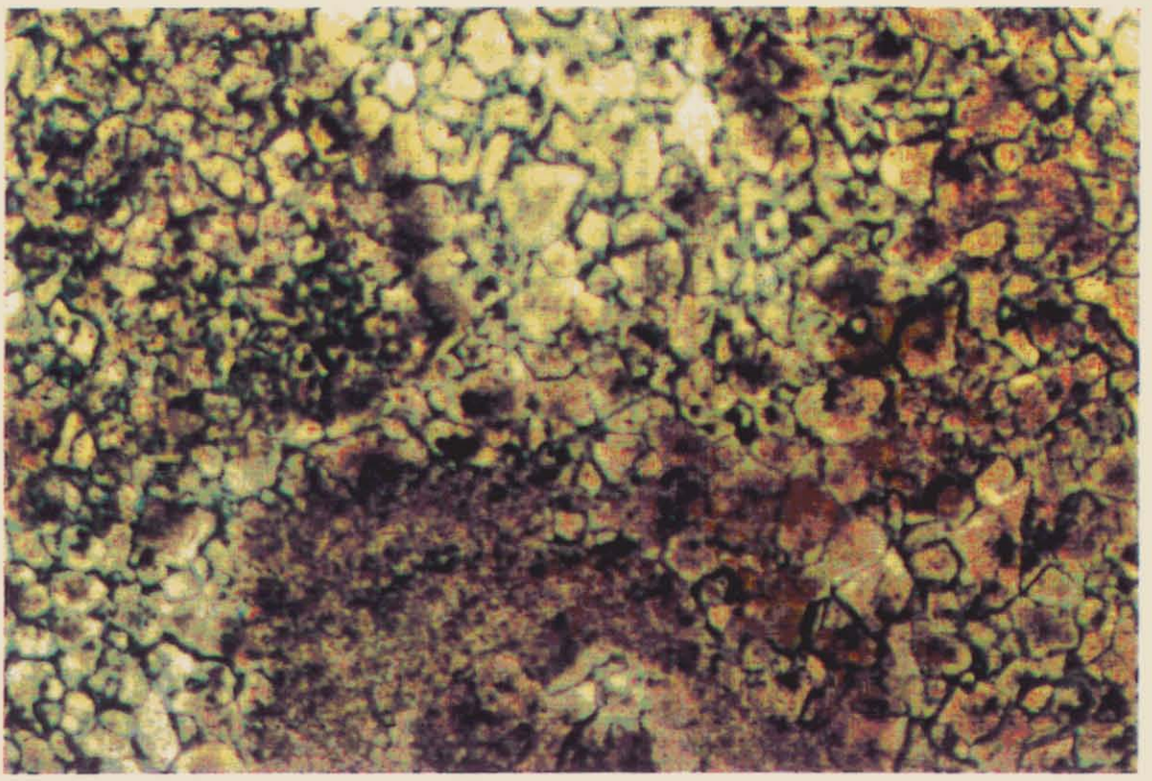


DTm 2

Photo 13: Sample 3970007. Recrystallised dolomitised limestone (massive fine grained aggregate of turbid ferroan dolomite/ankerite) containing a stylolitic concentration of fine grained pyrite and cut by a later vein of medium grained clear, sparry ferroan dolomite. Transmitted light photomicrograph, field of view 2 mm across.

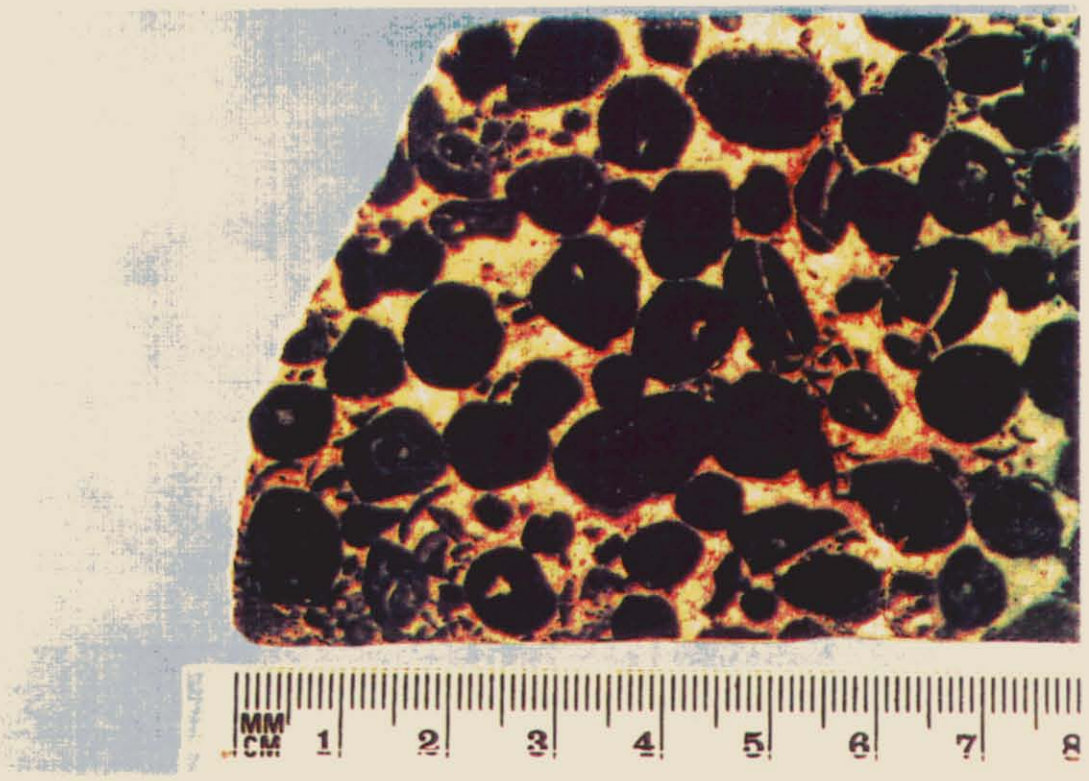
DTm 2

Photo 14: Sample 3970008. Cut drill core slab showing dolomitised fossiliferous limestone with outlines of oncolites. Rock is cut by a network of white sparry dolomite veins, locally grading into dilational breccia zones.



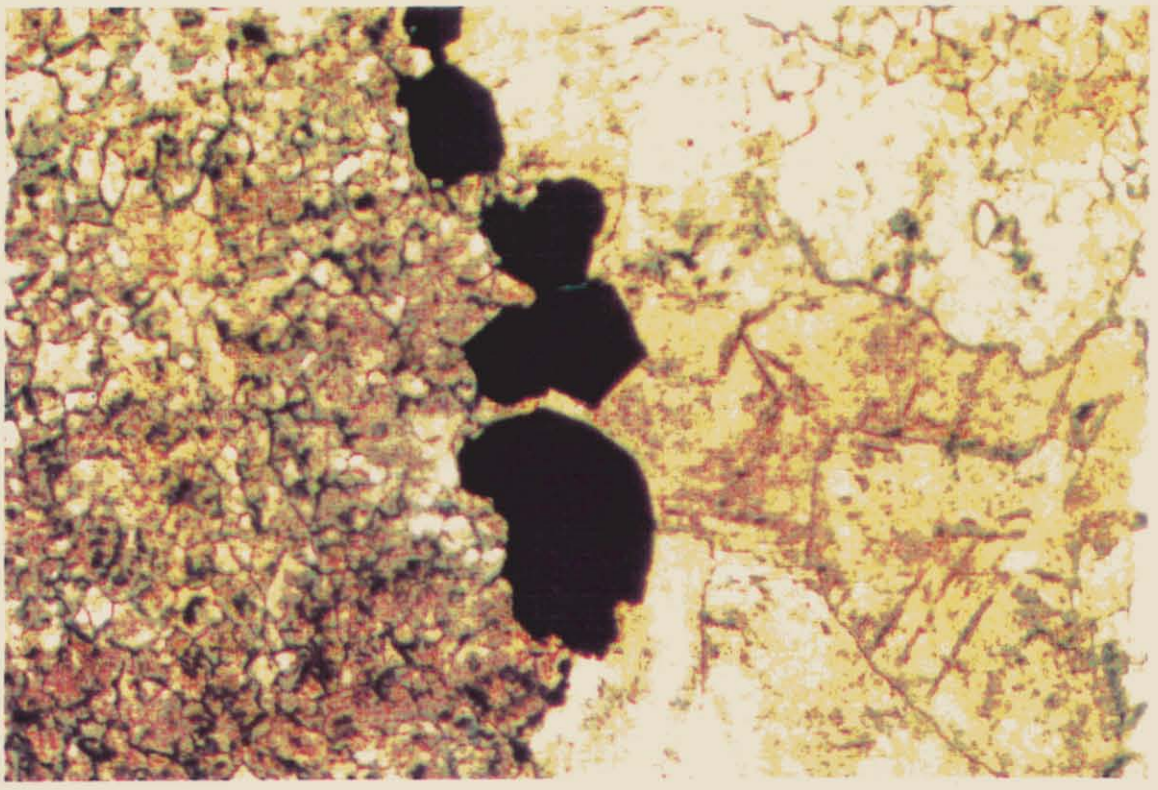
Dtm2

Photo 15: Sample 3970008. Diffuse outlines of former oncolites, completely recrystallised to turbid dolomite and containing sparsely disseminated fine grained pyrite (black specks). Recrystallised oncolites are surrounded by somewhat coarser, sparry dolomite. Transmitted light photomicrograph, field of view 2 mm across.



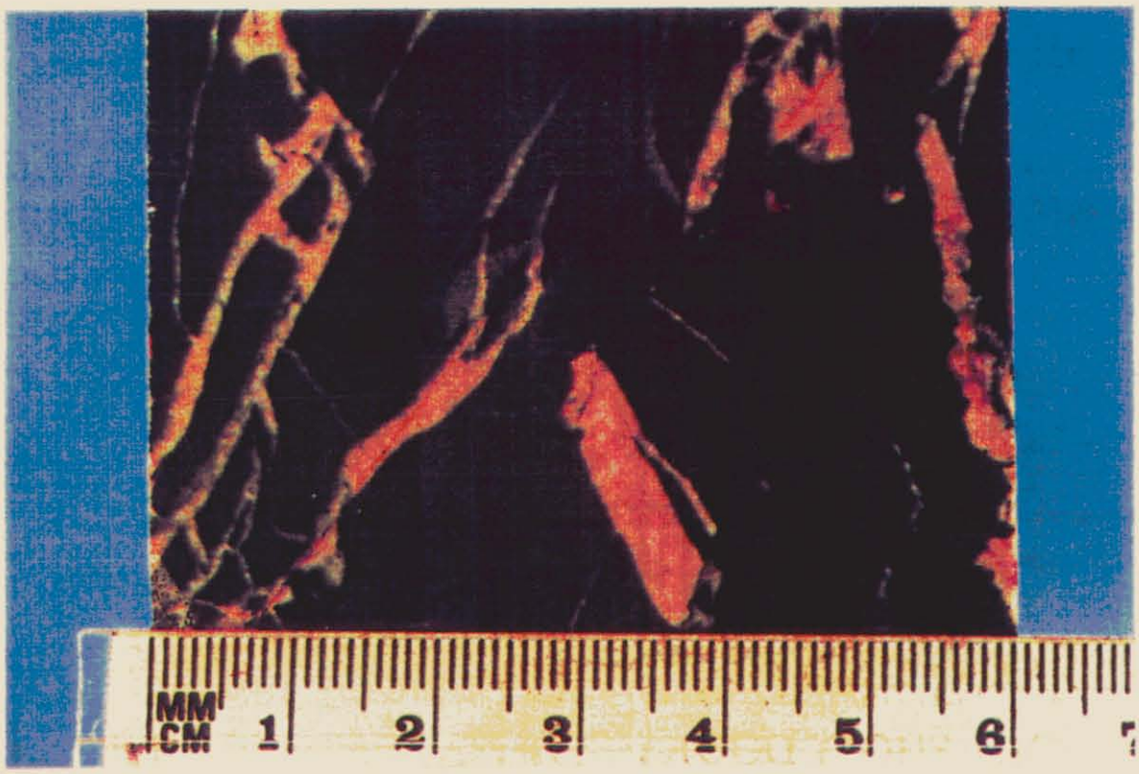
DTM84-

Photo 19: Sample 3970010. Cut drill core slab with abundant dolomitised oncolite clasts (locally with concentric growth structures and a few fractures), cemented by white sparry ferroan dolomite/ankerite.



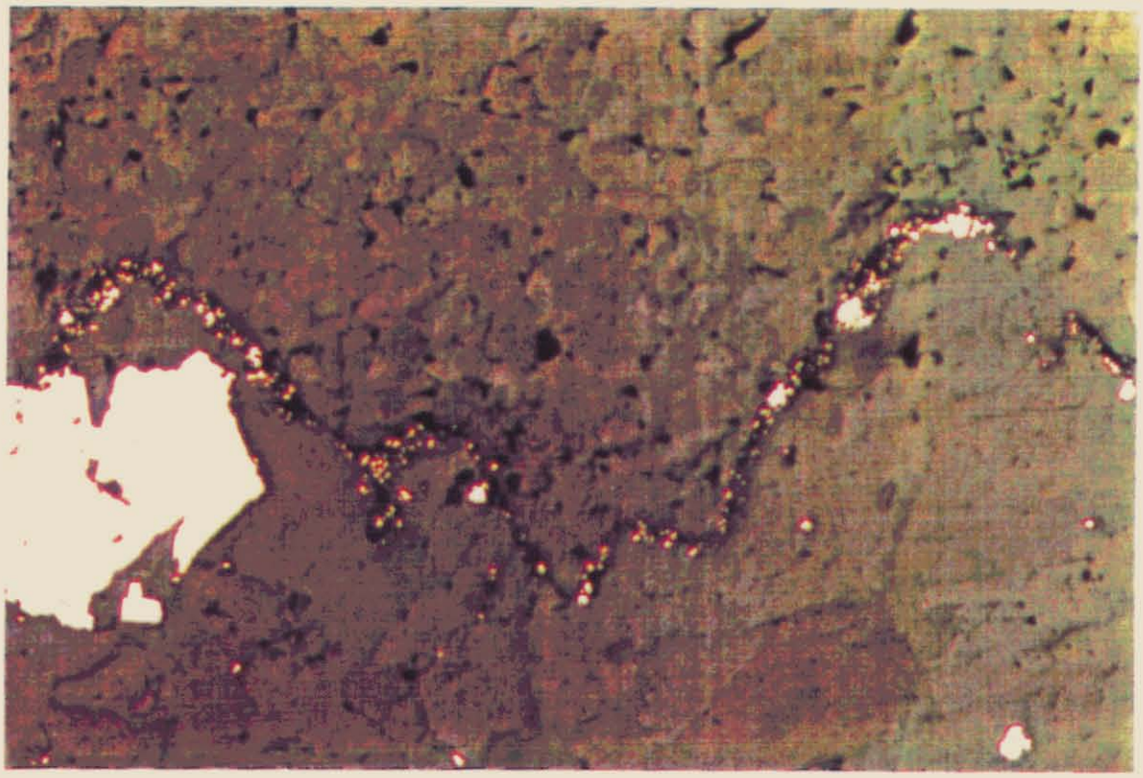
DTM2

Photo 20: Sample 3970010. Margin of dolomitised oncolite fragment showing concentration of pyrite grains (black) Oncolite has been recrystallised to a turbid fine grained dolomite aggregate and is surrounded by clearer, medium grained ferroan dolomite/ankerite. Transmitted light photomicrograph, field of view 2 mm across.



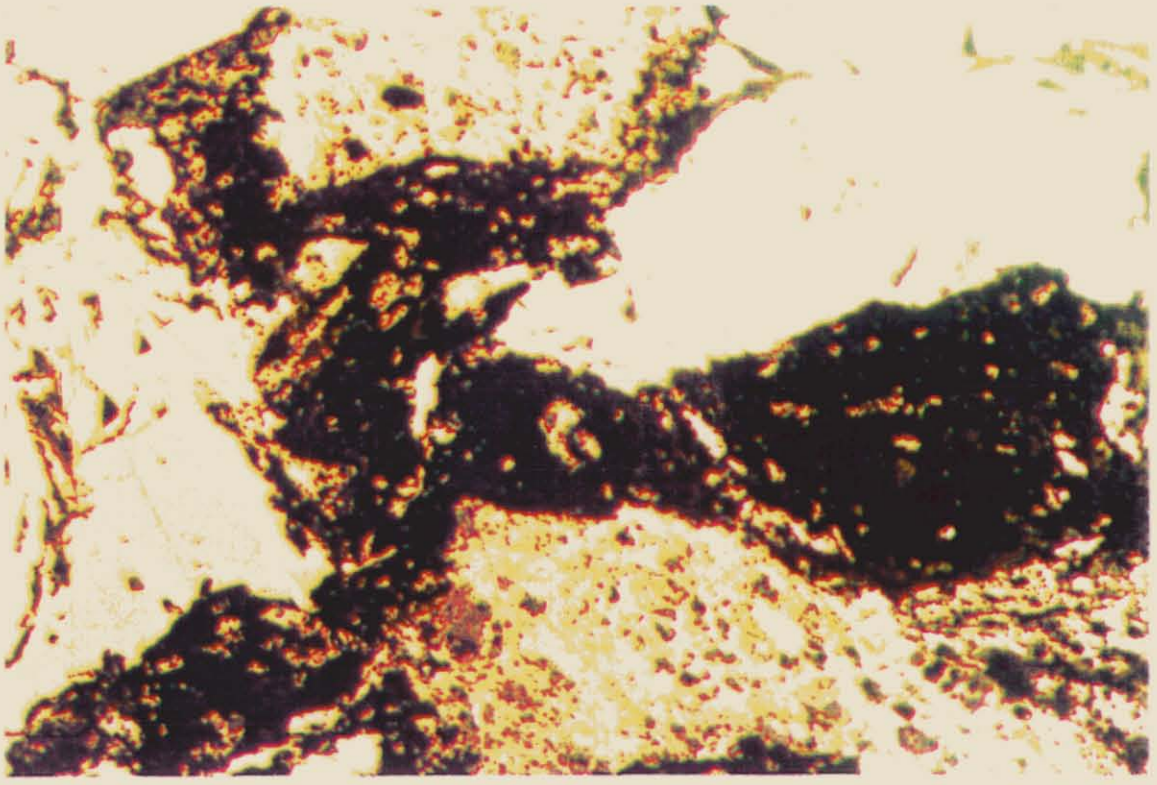
DTm2

Photo 21: Sample 3970011. Cut drill core slab showing fractured limestone which has been altered to ferroan dolomite/ankerite. Fractures grade into small dilational jog zones and are filled with white sparry ferroan dolomite/ankerite.



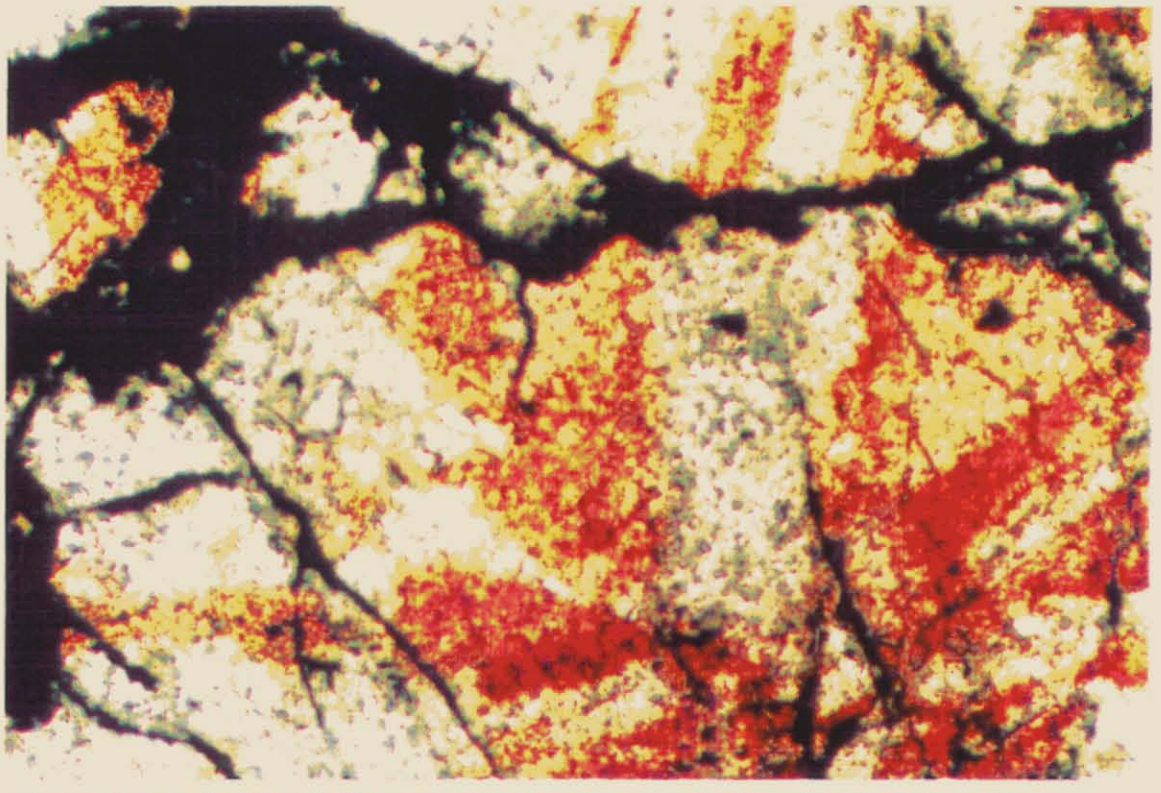
DTm2

Photo 22: Sample 3970011. Aggregate of ferroan dolomite/ankerite showing an anastomosing stylolite defined by accumulation of tiny pyrite grains. Elsewhere, subhedral pyrite is sparsely disseminated. Reflected light photomicrograph, field of view 2 mm across.



BANNOCKBURN o/c?

Photo 25: Sample 3970013. Interpreted relicts of brecciated fine grained siltstone, variably replaced by galena (white). Note a few pale greenish-grey grains of tetrahedrite enclosed in galena. Reflected light photomicrograph, field of view 2 mm across.



BANNOCKBURN

Photo 26: Sample 3970013. Colour zoning in medium grained low-Fe sphalerite, with crosscutting veins of galena (black). Transmitted light photomicrograph, field of view 1 mm across.

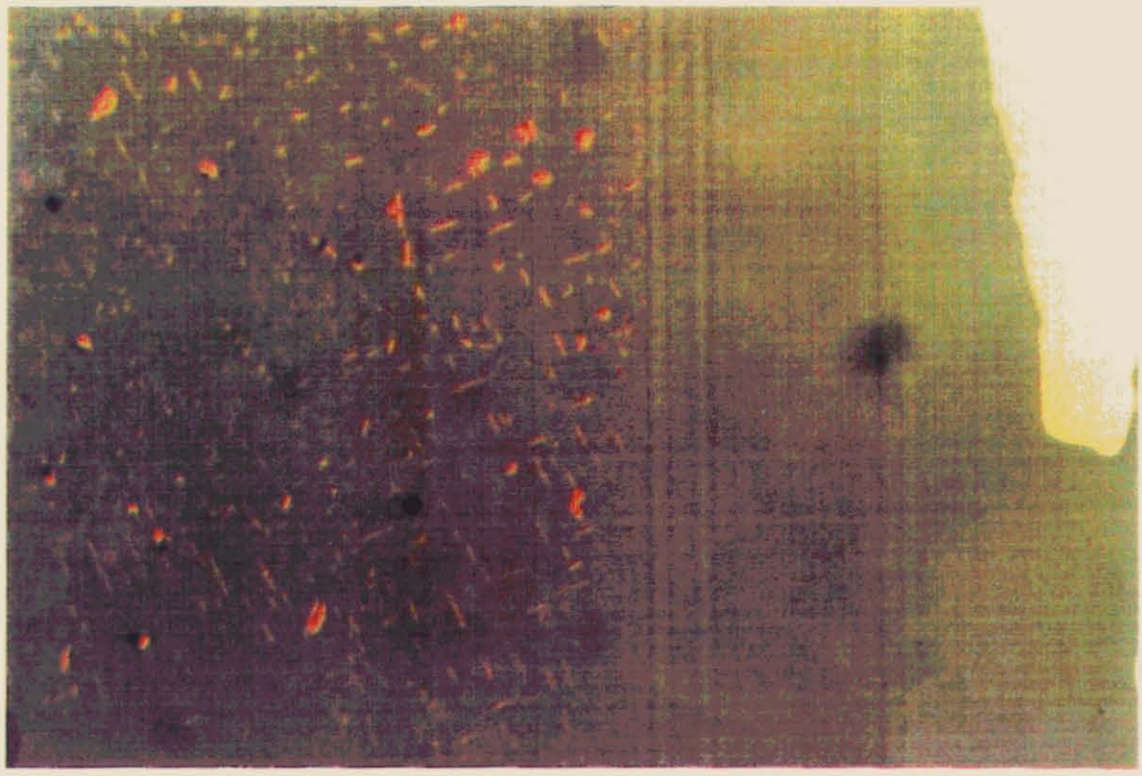


Photo 27: Sample 3970013. Domain of low-Fe sphalerite with "chalcopyrite disease" (grey with yellow flecks) adjacent to undiseased sphalerite. In turn, the latter abuts a grain of galena (white). Reflected light photomicrograph, field of view 0.2 mm across.

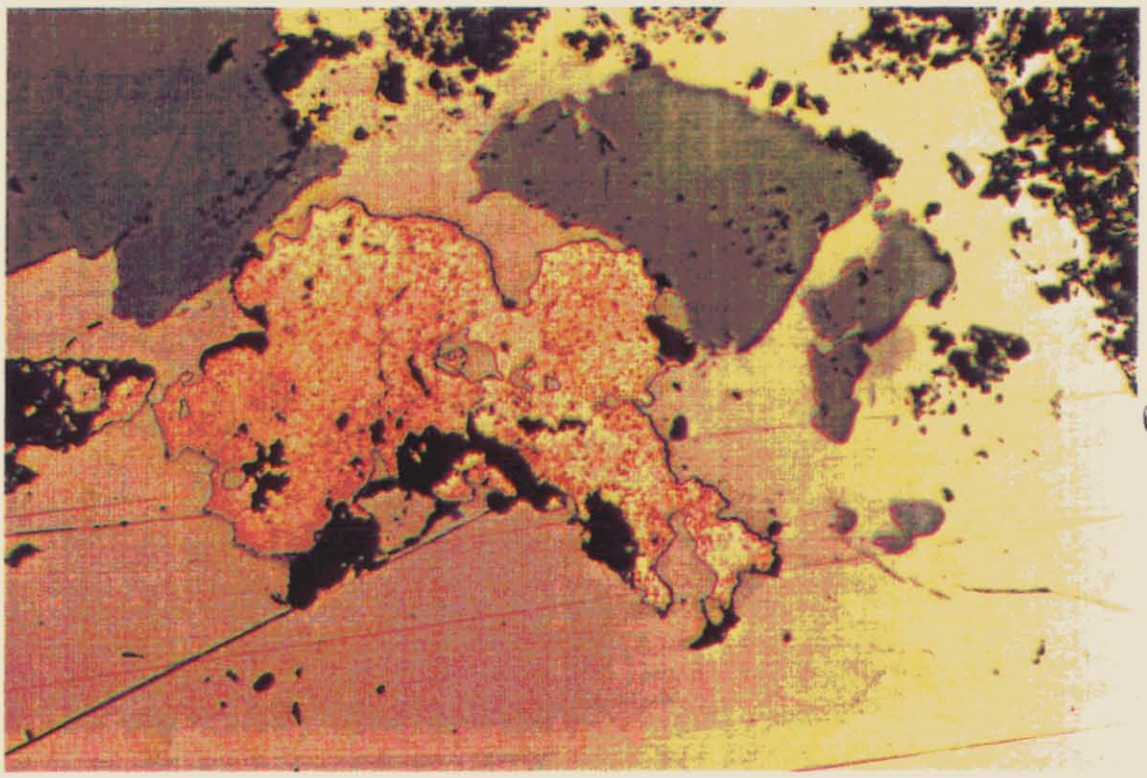


Photo 28: Sample 3970013. Aggregates of marcasite (creamy) and low-Fe sphalerite (mid-grey) enclosed in galena (pale grey). Reflected light photomicrograph, field of view 1 mm across.

Photo 29: Sample 3970013. Grain of tetrahedrite (pale greenish-grey) enclosed in sphalerite (mid-grey). Note possible veining and replacement of sphalerite by galena (pale grey). Reflected light photomicrograph, field of view 2 mm across.

APPENDIX 6

SUNNY CORNER AIR-CORE DRILLING LEDGERS AND GEOCHEMISTRY

805138

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28th September 1994

MEMO TO: R.G. PARKINSON

FROM: L. VESKA

SUNNY CORNER-BANNOCKBURN PROSPECT - AIR-CORE DRILLING 1993/94

A total of 96 aircore holes were drilled at the Sunny Corner/Bannockburn prospect during the 1993/1994 field season.

The Gordon Limestone forms a tight anticlinal dome structure in the extreme northwest of the Sunny Corner area, hence, drilling along the pre-existing costeans at this locality focusses on the top contact of the limestone.

Siderite-ankerite alteration within the tested area was very weak to absent. Elevated Fe assay values generally correspond to hematitic and limonitic ironstone, particularly in drillholes DS21-DS24, where cellular goethite is visible at surface on the drilled costean.

Visible sulphides were rare to absent, no sphalerite was observed in drillholes. At Sunny Corner prospect, trace amounts of very fine-grained disseminated galena was noted, generally in dark grey to black plastic clays (DS19, DS30).

Drillholes at Bannockburn workings commonly intersected silvery to black clays containing up to several percent finely disseminated galena, with associated fine-grained pyrite. The presence of narrow clay bands (<1m thickness) containing a few percent coarse-grained (5-6mm) subhedral galena was noted, occurring randomly within the disseminated galena-bearing zones.

APPENDIX 6: Sunny Corner - Bannockburn air-core drilling ledgers and geochemistry.

Results in ppm (Fe in %)

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS1		0.0	2.0		Og	Cg											
DS1	3916541	2.0	4.0	77143	Og	SlsCcy			DGLG		-1	15	2.73	1071	125		594
DS1	3916542	4.0	6.0	77143	Og	SlsCcy			DG		-1	15	1.20	36	66		1145
DS1	3916543	6.0	8.0	77143	Og	CcySls			DG		1	14	3.72	1260	949		1255
DS1	3916544	8.0	10.0	77143	Og	SlsOvc	Ma		DG		3	19	3.56	784	1953		1362
DS1	3916545	10.0	11.5	77143	Og	Sls			DG		3	18	2.22	527	437		508
DS2	3916546	0.0	2.0	77143	Og	CcySls	We		DG		1	49	0.82	55	2635		2003
DS2	3916547	2.0	4.0	77143	Og	CcySls			DG		-1	15	1.91	249	5100		8400
DS2	3916548	4.0	6.0	77143	Og	Ccysls			DG		1	13	2.25	42	364		7300
DS2	3916549	6.0	8.0	77143	Og	SlsCcy			DG		1	15	1.50	30	294		3873
DS2	3916550	8.0	10.0	77143	Og	CcySls			DG		-1	17	1.41	21	101		3580
DS2	3916551	10.0	12.0	77143	Og	Ccy			DG		-1	17	1.39	18	31		2804
DS2	3916552	12.0	14.0	77143	Og	Ccy			DG		-1	18	1.91	32	61		3896
DS2	3916553	14.0	16.0	77143	Og	CcySls			DG		-1	17	2.30	35	58		1409
DS2	3916554	16.0	18.0	77143	Og	CcySls	Fi		DGLG		-1	19	2.22	48	93		1676
DS2	3916555	18.0	20.0	77143	Og	SlsCcy	Fi	Py	GDG		-1	19	1.47	31	66		1391
DS2	3916556	20.0	22.0	77143	Og	SlsCcy			G		-1	14	1.34	29	26		1157
DS2	3916557	22.0	24.0	77143	Og	CcySls	Fi		DG		-1	16	1.27	26	20		1353
DS2	3916558	24.0	26.0	77143	Og	CcySls			DG		-1	18	1.62	36	23		887
DS2	3916559	26.0	28.0	77143	Og	SlsCcy	Fi		DG		-1	18	1.68	37	40		899
DS2	3916560	28.0	30.0	77143	Og	CcySls			DG		-1	17	1.75	31	45		834
DS2	3916561	30.0	32.0	77143	Og	CcySls			DG		1	16	1.81	36	27		1159
DS2	3916562	32.0	34.0	77143	Og	SlsCcy		Py	DG		-1	17	1.82	36	32		696
DS2	3916563	34.0	36.0	77143	Og	CcySls			DG		-1	19	1.64	27	28		789
DS2	3916564	36.0	38.0	77143	Og	SlsCcy	We	Py	DG		-1	15	1.82	31	24		491
DS2	3916565	38.0	40.0	77143	Og	Ccy			DG		-1	19	2.15	22	17		524
DS2	3916566	40.0	42.0	77143	Og	SlsCcy			DG		-1	19	2.12	31	15		1046
DS2	3916567	42.0	44.0	77143	Og	Ccy			DG		-1	16	1.86	38	29		473
DS2	3916568	44.0	46.0	77143	Og	CcySls			DG		-1	20	1.96	42	22		498
DS2	3916569	46.0	48.0	77143	Og	SlsCcy		Py	DG		-1	17	1.39	29	18		450
DS2	3916570	48.0	50.0	77143	Og	SlsCcy		Py	DG		1	15	1.16	33	16		265
DS2	3916571	50.0	52.0	77143	Og	CcySls	Lm		DG		-1	16	1.12	36	14		140
DS2	3916572	52.0	54.0	77143	Og	SlsCcy			DG		-1	14	1.74	45	19		264
DS2	3916573	54.0	56.0	77143	Og	SlsCcy		Py	DG		-1	14	7.03	54	14	7.7	13100
DS2	3916574	56.0	57.0	77143	Og	SlsCcy			DG		-1	17	2.24	74	20		1001
DS3	3916575	0.0	2.0	77143	Og	CcyCg			M		26	71	1.01	20	9800		971
DS3	3916576	2.0	4.0	77143	Og	Ccy			M		2	32	2.50	42	15800		7400
DS3	3916577	4.0	6.0	77143	Og	Ccy			M		1	22	4.17	858	1021		332
DS3	3916578	6.0	8.0	77143	Og	Sls			LGDG		1	26	3.55	855	1202		2741
DS3	3916579	8.0	10.0	77143	Og	Sls			DG		-1	8	14.80	4304	901		6800
DS3	3916580	10.0	11.5	77143	Og	SlsCcy		Py	DG	minor pyrite + dark grey clay.	-1	10	5.85	1121	644		2670
DS4		0.0	2.0		Og	CgCbs			DG								
DS4	3916581	2.0	4.0	77143	Og	Ccy			M		1	28	1.78	327	1058		349
DS4	3916582	4.0	6.0	77143	Og	Ccy			LYGM		-1	24	6.10	1353	124		309
DS4	3916583	6.0	8.0	77143	Og	CcySls			DM		1	20	3.22	508	1319		5600

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS4	3916584	8.0	10.0	77143	Og	CcySls			DG		1	26	3.63	703	987		4225
DS4	3916585	10.0	12.0	77143	Og	Sls			DG		-1	30	4.91	1280	462		2475
DS4	3916586	12.0	14.0	77143	Og	Sls			DG		-1	12	2.25	221	276		1777
DS4	3916587	14.0	16.0	77143	Og	SlsOvc			DG		-1	5	1.93	432	111		811
DS4	3916588	16.0	17.8	77143	Og	SlsOvc		Py	LGDG		-1	3	1.03	327	293		1583
DS5	3916589	0.0	2.0	77143	Og	CbsCcy			W		1	17	0.53	24	1486		557
DS5	3916590	2.0	4.0	77143	Og	CcySls			DG		-1	16	2.32	58	317		2973
DS5	3916591	4.0	6.0	77143	Og	CcySls			DG		-1	17	2.39	42	61		2732
DS5	3916592	6.0	8.0	77143	Og	SlsCcy			DG		-1	13	2.23	370	421		2644
DS5	3916593	8.0	10.0	77143	Og	Sls			DG		-1	6	1.56	507	473		2773
DS5	3916594	10.0	12.0	77143	Og	SlsCcy			DG		-1	5	0.89	210	166		1130
DS5	3916595	12.0	14.0	77143	Og	Sls			DG		-1	4	0.94	135	29		359
DS5	3916596	14.0	16.0	77143	Og	SlsCcy			DG		-1	7	2.17	105	350		4824
DS5	3916597	16.0	18.0	77143	Og	SlsCcy		Py	DG		-1	5	1.25	122	131		1685
DS5	3916598	18.0	20.0	77143	Og	Sls			DG		-1	5	1.53	142	75		868
DS5	3916599	20.0	22.0	77143	Og	Sls			DG		-1	5	1.84	169	47		567
DS5	3916600	22.0	24.0	77143	Og	Sls			DG		-1	5	1.30	162	42		376
DS5	3916601	24.0	26.0	77143	Og	Sls		Py	DG		-1	3	1.46	153	46		583
DS5	3916602	26.0	28.0	77143	Og	Sls		Py	DG		-1	7	2.00	-3	34		675
DS5	3916603	28.0	30.0	77143	Og	SlsOvc		Py	DG		-1	5	1.58	190	27		399
DS5	3916604	30.0	32.0	77143	Og	Sls		Py	DG		-1	6	2.96	190	27		334
DS5	3916605	32.0	34.0	77143	Og	Sls			DG		-1	10	1.97	234	32		200
DS5	3916606	34.0	36.5	77143	Og	Sls			DG		-1	12	2.00	215	14		53
DS6	3916607	0.0	2.0	77143	Og	Ccy			LBGM		-1	4	0.70	29	159		172
DS6	3916608	2.0	4.0	77143	Og	Ccy			LGDG		-1	25	0.96	39	721		749
DS6	3916609	4.0	6.0	77143	Cg	CcySls	We		DG		2	16	1.64	36	464		2651
DS6	3916610	6.0	8.0	77143	Og	CcySls			DG		5	20	2.68	124	806		3902
DS6	3916611	8.0	10.0	77143	Og	Sls			DG		-1	7	1.70	181	27		658
DS6	3916612	10.0	12.0	77143	Og	CcySls		Py	DG		-1	4	1.03	174	13		331
DS6	3916613	12.0	14.0	77143	Og	SlsCcy			LGW		-1	3	0.81	139	8		163
DS6	3916614	14.0	16.0	77143	Og	SlsCcy		Py	DG		-1	3	0.90	137	10		147
DS6	3916615	16.0	18.0	77143	Og	Sls		Py	DG	highly pyritic	-1	4	2.59	252	11		276
DS6	3916616	18.0	20.0	77143	Og	Sls		Py	DG	weakly pyritic	-1	4	1.56	199	9		166
DS6	3916617	20.0	22.0	77143	Og	Sls		Py	DG		-1	4	1.52	192	8		258
DS6	3916618	22.0	24.0	77143	Og	Sls		Py	DG	moderately pyritic	-1	5	5.76	196	51		607
DS6	3916619	24.0	26.0	77143	Og	Sls		Py	DG	moderately pyritic	-1	6	2.86	186	33		299
DS6	3916620	26.0	28.0	77143	Og	Sls			DG		-1	12	2.17	274	12		89
DS6	3916621	28.0	30.0	77143	Og	Sls		Py	DG	weakly pyritic	-1	9	2.25	307	7		195
DS6	3916622	30.0	32.0	77143	Og	Sls		Py	DG	moderately pyritic	-1	8	2.11	300	17		123
DS6	3916623	32.0	34.0	77143	Og	Sls			DG		-1	4	1.61	327	105		521
DS6	3916624	34.0	36.0	77143	Og	SlsOvc			DG		1	3	1.24	403	264		1009
DS6	3916625	36.0	38.0	77143	Og	SlsOvc			DG		-1	5	1.53	388	109		351
DS6	3916626	38.0	40.0	77143	Og	Sls			DG		-1	5	2.00	569	90		379
DS6	3916627	40.0	42.0	77143	Og	Sls			DG		-1	3	5.58	1859	196		1449
DS6	3916628	42.0	44.0	77143	Og	Sls		Py	DG	mod. pyritic	-1	4	2.38	495	61		2344
DS6	3916629	44.0	46.0	77143	Og	Sls		Py	DG	minor pyr.	-1	4	1.49	334	51		676
DS6	3916630	46.0	48.0	77143	Og	Sls			DG		-1	6	1.30	253	16		323
DS6	3916631	48.0	50.0	77143	Og	Sls		Py	DG	weakly pyr.	-1	3	1.35	117	48		393

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS6	3916632	50.0	52.0	77143	Og	SlsOvc		Py	DG	minor pyr.	-1	5	1.75	360	130		797
DS6	3916633	52.0	54.0	77143	Og	SlsOvc		Py	DG	mod. pyr.	-1	5	3.52	531	15		646
DS6	3916634	54.0	56.0	77143	Og	Sls		Py	DG	abundant vein pyrite	-1	9	5.86	833	16		560
DS6	3916635	56.0	57.0	77143	Og	Sls		Py	DG	mod. pyr.	-1	9	4.71	1121	12		335
DS7		0.0	2.0		Og	Cbs											
DS7	3916636	2.0	4.0	77143	Og	Ccy			M		1	15	1.85	72	690		947
DS7	3916637	4.0	6.0	77143	Og	SlsCcy			DG		-1	9	2.54	330	241		685
DS7	3916638	6.0	8.0	77143	Og	Sls			DG		-1	6	2.13	421	7		103
DS7	3916639	8.0	10.0	77143	Og	Sls			DG		-1	5	1.69	323	11		103
DS7	3916640	10.0	12.0	77143	Og	Sls			DG		1	4	1.18	331	152		847
DS7	3916641	12.0	14.0	77143	Og	Sls			DG		-1	6	1.63	337	52		241
DS7	3916642	14.0	16.0	77143	Og	Sls			DG		-1	5	1.60	413	114		543
DS7	3916643	16.0	18.0	77143	Og	Sls			DG		-1	6	1.48	278	101		366
DS7	3916644	18.0	20.0	77143	Og	Sls			DG		-1	7	1.89	294	15		78
DS7	3916645	20.0	22.0	77143	Og	SlsCcy			DG		-1	10	2.45	404	18		99
DS7	3916646	22.0	24.0	77143	Og	SlsCcy			DG		1	8	2.65	506	91		358
DS7	3916647	24.0	25.5	77143	Og	Sls	Ma		DG		1	7	2.35	638	161		582
DS8		0.0	2.0		Og	CbsCg											
DS8	3916648	2.0	4.0	77143	Og	SlsCgCcy			DG		1	6	2.81	361	315		746
DS8	3916649	4.0	6.0	77143	Og	CcySls			DG		1	7	2.35	406	52		910
DS8	3916650	6.0	8.0	77143	Og	SlsCcy			DG		1	6	3.70	770	13		355
DS8	3916651	8.0	10.0	77143	Og	SlsCcy			DG		-1	8	3.14	613	12		180
DS8	3916652	10.0	12.0	77143	Og	SlsCcy		Py	DG	weakly pyr.	-1	8	2.04	347	8		130
DS8	3916653	12.0	14.1	77143	Og	Sls	Ma		DG		-1	8	2.31	430	6		85
DS9	3916654	0.0	2.0	77143	Og	CbsCcy			DG		1	16	4.19	397	261		5500
DS9	3916655	2.0	4.0	77143	Og	Sls		Py	DG		1	14	4.57	592	106		2580
DS9	3916656	4.0	6.0	77143	Og	CcySls			DG		1	26	3.90	501	254		1390
DS9	3916657	6.0	8.0	77143	Og	SlsCcy			DG		-1	12	13.60	2964	96		527
DS9	3916658	8.0	10.0	77143	Og	CcySls			DG		-1	13	8.16	1493	64		229
DS9	3916659	10.0	12.0	77143	Og	CcySls			DG		-1	16	6.16	1055	27		105
DS9	3916660	12.0	14.0	77143	Og	SlsCcy			DG		-1	32	6.46	1210	106		86
DS9	3916661	14.0	16.0	77143	Og	SlsCcy			DG		1	21	2.91	434	34		93
DS9	3916662	16.0	18.0	77143	Og	Sls			DG		-1	27	1.33	55	30		49
DS9	3916663	18.0	20.0	77143	Og	SlsCcy		Py	DG	weakly pyritic	-1	16	1.70	44	23		67
DS9	3916664	20.0	22.0	77143	Og	Ccy			LM		-1	90	0.51	21	13		156
DS9	3916665	22.0	24.0	77143	Og	Ccy			YGW		-1	75	0.95	28	14		312
DS9	3916666	24.0	26.0	77143	Og	Sls		Py	DG	weakly pyr.	-1	16	2.18	38	20		182
DS9	3916667	26.0	28.0	77143	Og	Sls			DG		-1	16	1.86	42	21		151
DS9	3916668	28.0	30.0	77143	Og	Sls			DG		-1	12	1.53	34	21		175
DS9	3916669	30.0	32.0	77143	Og	Sls			DG	weakly pyritic	-1	13	1.55	45	16		436
DS9	3916670	32.0	34.0	77143	Og	Sls		Py	DG	mod. pyr.	-1	16	2.27	48	21		770
DS9	3916671	34.0	36.0	77143	Og	Sls			DG		-1	16	2.06	38	28		950
DS9	3916672	36.0	38.0	77143	Og	CcySls			DG	mod. pyr. CO3 mudstone	2	12	1.93	32	458		1400
DS9	3916673	38.0	40.0	77143	Og	CcySls		Py	DG	mod. pyr.	2	15	1.43	36	1616		1035
DS9	3916674	40.0	42.0	77143	Og	SlsCcy			DGLG		1	13	1.67	174	391		1014
DS9	3916675	42.0	44.0	77143	Og	Sls		Py	DG	weakly pyritic	-1	10	1.55	225	134		515
DS9	3916676	44.0	45.5	77143	Og	Sls			DG		1	8	2.17	457	193		626

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS10	3916677	0.0	2.0	77143	Og	Ccy			LG		1	5	0.93	30	173		1031
DS10	3916678	2.0	4.0	77143	Og	Ccy			G		1	15	1.20	24	355		1517
DS10	3916679	4.0	6.0	77143	Og	Ccy			DG		1	14	1.59	28	246		1296
DS10	3916680	6.0	8.0	77143	Og	Ccy			DG		1	12	2.07	24	135		923
DS10	3916681	8.0	10.0	77143	Og	Ccy			DG		-1	12	1.45	29	27		330
DS10	3916682	10.0	12.0	77143	Og	Ccy			DG		-1	12	1.53	26	29		350
DS10	3916683	12.0	14.0	77143	Og	CcySls			DG		-1	12	1.40	30	24		264
DS10	3916684	14.0	16.0	77143	Og	SlsCcy			DG		-1	14	1.09	24	21		308
DS10	3916685	16.0	18.0	77143	Og	Sls			DG		-1	13	1.59	30	30		199
DS10	3916686	18.0	20.0	77143	Og	SlsCcy			DG	white kaolin present in small amounts.	1	24	1.37	32	450		705
DS10	3916687	20.0	22.0	77143	Og	Ccy			LGW		1	32	6.93	1555	195		715
DS10	3916688	22.0	24.0	77143	Og	Sls			DG		-1	5	6.47	1486	57		170
DS10	3916689	24.0	26.0	77143	Og	SlsOvc		Py	DG	minor pyr.	-1	7	3.76	711	40		156
DS10	3916690	26.0	27.0	77143	Og	SlsOvc		Py	DG	minor pyr.	-1	10	3.40	563	44		190
DS11		0.0	2.0		Og	CbsCcy											
DS11	3916691	2.0	4.0	77143	Og	Ccy			DG		4	49	2.08	45	1048		2899
DS11	3916692	4.0	6.0	77143	Og	Ccy			DGW	mixed clays	20	359	1.72	58	23700		6200
DS11	3916693	6.0	8.0	77143	Og	Ccy			DG		-1	13	8.19	2898	592		1938
DS11	3916694	8.0	10.0	77143	Og	SlsCcy			DG		-1	9	9.24	3153	351		1261
DS11	3916695	10.0	12.0	77143	Og	Sls			DG		-1	6	7.62	2547	76		132
DS11	3916696	12.0	14.0	77143	Og	Sls	Ma		DG		-1	5	4.62	1571	29		79
DS11	3916697	14.0	16.0	77143	Og	Sls			DG		-1	5	2.87	940	30		89
DS11	3916698	16.0	18.0	77143	Og	Sls		Py	DG	trace pyr.	-1	5	5.49	1716	108		284
DS11	3916699	18.0	20.0	77143	Og	SlsOvc		Py	DG	trace pyr.	-1	5	4.21	1455	19		38
DS11	3916700	20.0	22.0	77143	Og	Sls			DG		-1	5	3.11	995	28		91
DS11	3916701	22.0	24.0	77143	Og	Sls	Ma		DG		-1	5	2.90	646	29		113
DS11	3916702	24.0	26.0	77143	Og	Sls		Py	DG	moderately pyr.	-1	5	6.20	1353	14		120
DS11	3916703	26.0	28.0	77143	Og	SlsOvc		Py	DG	*mod. pyr.*	-1	4	4.71	965	20		58
DS11	3916704	28.0	28.8	77143	Og	SlsOvc			DG		-1	10	4.05	736	20		199
DS12		0.0	2.0		Og	CgCcy			LB	lesser LB clay.							
DS12	3916705	2.0	4.0	77143	Og	Ccy			DGW	mixed clays	15	61	4.60	55	12700	7.7	25200
DS12	3916706	4.0	6.0	77143	Og	Ccy			LM		1	104	1.20	58	699		2912
DS12	3916707	6.0	8.0	77143	Og	SlsOvc			LG		1	21	1.86	763	581		1605
DS12	3916708	8.0	9.0	77143	Og	SlsOvc			LG		1	6	2.07	1262	345		1065
DS13	3916709	0.0	2.0	77143	Og	CgCcy			LB		-1	5	0.34	30	146		43
DS13	3916710	2.0	4.0	77143	Og	Ccy			DBNM		5	34	0.33	14	1717		818
DS13	3916711	4.0	6.0	77143	Og	Ccy			DG		17	54	2.38	31	37100		8200
DS13	3916712	6.0	8.0	77143	Og	Ccy			DG		10	35	3.87	20	27000	7.75	12300
DS13	3916713	8.0	10.0	77143	Og	CcySls			DG		16	51	4.20	128	28000	5.9	15400
DS13	3916714	10.0	12.0	77143	Og	SlsOvc			LG		2	17	1.69	618	2439		2746
DS13	3916715	12.0	14.0	77143	Og	SlsOvc			LG		8	63	8.59	922	16800	7.6	16300
DS13	3916716	14.0	16.0	77143	Og	SlsOvc			LG		1	8	1.99	1048	2371		1979
DS14		0.0	2.0		Og	CgCcy			DG								
DS14	3916717	2.0	4.0	77143	Og	Ccy			LBG		2	13	1.17	25	990		1522
DS14	3916718	4.0	6.0	77143	Og	Ccy			DG		1	18	2.08	31	924		2642
DS14	3916719	6.0	8.0	77143	Og	Ccy			DG		6	29	4.55	35	4282		5900
DS14	3916720	8.0	10.0	77143	Og	Ccy			DG		7	30	3.71	160	1968		4302
DS14	3916721	10.0	12.0	77143	Og	Ccy			DG		11	41	6.07	53	9300	7.2	10300

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS14	3916722	12.0	13.8	77143	Og	CcySlsOvc			LG		8	44	5.52	142	5200		8200
DS15		0.0	2.0		Og	CgCbs											
DS15	3916723	2.0	4.0	77143	Om	Sss			LBW		2	16	0.25	15	189		42
DS15	3916724	4.0	6.0	77143	Om	SssSls			WDG		8	198	0.59	31	1668		755
DS15	3916725	6.0	8.0	77143	Og	Ccy			LGDG		1	51	2.43	17	1946		2262
DS15	3916726	8.0	10.0	77143	Og	Ccy			DG		2	84	2.69	26	1449		2810
DS15	3916727	10.0	12.0	77143	Og	Ccy			DG		1	20	3.21	28	196		1411
DS15	3916728	12.0	14.0	77143	Og	Ccy			DG		-1	17	2.94	33	75		848
DS15	3916729	14.0	16.0	77143	Og	Ccy			DG		-1	19	3.92	35	46		284
DS15	3916730	16.0	18.0	77143	Og	Ccy			DG		-1	18	2.51	42	62		258
DS15	3916731	18.0	20.0	77143	Og	Ccy		Py	DG	mod. pyr. clay	3	21	3.89	40	1263		2065
DS15	3916732	20.0	22.0	77143	Og	SlsCcy			DG		3	40	5.55	59	2048		2540
DS15	3916733	22.0	24.0	77143	Og	Sls			DG		7	55	8.40	40	8500	9.95	10000
DS15	3916734	24.0	26.0	77143	Og	SlsOvc			DG		1	8	21.60	9000	867		1910
DS15	3916735	26.0	28.0	77143	Og	SlsOvc			DG		1	7	10.40	3592	253		1275
DS15	3916736	28.0	30.0	77143	Og	SlsOvc			DG	minor vein calcite	1	6	3.48	1427	478		1048
DS16		0.0	2.0		Og	Cg			LBO								
DS16	3916737	2.0	4.0	77143	Og	Ccy			LGDG		1	32	2.59	27	2900		615
DS16	3916738	4.0	6.0	77143	Og	CcySls			DG		8	73	3.01	40	14600		3774
DS16	3916739	6.0	8.0	77143	Og	Sls			DG		1	11	0.87	15	7200		3189
DS17		0.0	2.0		Og	CgCbs											
DS17	3916740	2.0	4.0	77143	Om	SssSls	We		WDG		1	8	0.78	28	1028		651
DS17	3916741	4.0	6.0	77143	Og	Ccy			OGV		4	35	2.79	20	2590		2369
DS17	3916742	6.0	8.0	77143	Og	SlsCcy	We		DGLG		-1	27	1.67	19	102		314
DS17	3916743	8.0	10.0	77143	Og	Ccy			LG		1	32	1.96	17	379		545
DS17	3916744	10.0	12.0	77143	Og	Ccy			LG		5	41	3.81	27	2166		4794
DS17	3916745	12.0	14.0	77143	Og	SlsOvc		Py	DG	mod. pyr.	4	19	3.73	24	2797		2058
DS17	3916746	14.0	16.0	77143	Og	SlsCcy		Py	DG	mod. pyr.	2	16	2.17	37	622		649
DS17	3916747	16.0	17.3	77143	Og	Sls			LG		2	11	1.96	25	478		686
DS18		0.0	2.0		Og	CgCbs			DG								
DS18	3916748	2.0	4.0	77143	Og	Ccy			LBG		1	103	0.51	22	665		375
DS18	3916749	4.0	6.0	77143	Og	Ccy			LBG		-1	87	2.91	21	687		3054
DS18	3916750	6.0	8.0	77143	Og	SlsCcy			LGDG		-1	27	3.06	32	300		2030
DS18	3916751	8.0	10.0	77143	Og	CcySls	We		DG		1	20	2.15	22	355		2406
DS18	3916752	10.0	12.0	77143	Og	Ccy			DG		4	33	2.39	28	2500		2164
DS18	3916753	12.0	14.0	77143	Og	CcySls			DG		2	34	1.97	20	565		1066
DS18	3916754	14.0	16.0	77143	Og	CcySls			LG		1	30	1.34	23	307		585
DS18	3916755	16.0	18.0	77143	Og	Ccy			LG		2	29	1.79	14	334		681
DS18	3916756	18.0	20.0	77143	Og	Ccy			LG		7	41	3.28	37	4300		6700
DS18	3916757	20.0	22.0	77143	Og	SlsCcy			LG		3	15	1.47	23	459		918
DS18	3916758	22.0	24.0	77143	Og	SlsCcy			LG		4	22	2.40	45	618		1153
DS18	3916759	24.0	26.0	77143	Og	SlsOvc			LG		1	12	1.44	23	474		757
DS18	3916760	26.0	28.0	77143	Og	Sls		Py	LG	mod. pyritic.	1	9	1.15	30	292		689
DS18	3916761	28.0	29.2	77143	Og	SlsOvc			LG		1	9	1.02	17	218		362
DS19		0.0	2.0		Og	CbsCg											
DS19	3916762	2.0	4.0	77143	Og	SlsCcy			LG		3	24	1.51	40	1552		1456
DS19	3916763	4.0	6.0	77143	Om	SssSls			LGW		1	9	0.53	14	374		181
DS19	3916764	6.0	8.0	77143	Og	SlsOvg		Ga	DG	very fine-grained disseminated galena (trace).	1	17	0.65	30	3714		950

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS19	3916765	8.0	9.4	77143	Og	Sls			DGW	interbedded lime siltstone + sandstone.	1	13	0.69	20	2415		1773
DS20	3916766	0.0	2.0	77143	Og	Ccy			DG		1	19	1.69	29	6800		989
DS20	3916767	2.0	4.0	77143	Og	Ccy			DG		1	19	2.48	28	7000		988
DS20	3916768	4.0	6.0	77143	Og	Ccy			DG		2	21	2.48	32	6900		661
DS20	3916769	6.0	8.0	77143	Og	Ccy			DGN		1	16	2.76	29	13300		1975
DS20	3916770	8.0	10.0	77143	Og	Ccy			N		1	20	3.26	36	12400		5800
DS20	3916771	10.0	12.0	77143	Og	Ccy			N		2	21	3.69	123	6300		5200
DS20	3916772	12.0	14.0	77143	Og	Ccy			WM		3	35	4.02	561	9300	3.3	11300
DS20	3916773	14.0	16.0	77143	Og	Ccy			LYB		-1	100	6.17	2121	1424		595
DS20	3916774	16.0	17.4	77143	Og	Sls	Ma		DG		3	39	9.78	2809	2493		7500
DS21	3916775	0.0	2.0	77143	Og	CcyCg			M		-1	49	6.28	390	315		647
DS21	3916776	2.0	4.0	77143	Og	Ccy	Fe		YB	limonitic clay	-1	48	10.80	90	915		196
DS21	3916777	4.0	6.0	77143	Og	SlsCsg	Fe		YB	cellular limonitic limestone.	-1	41	14.60	55	735		284
DS21	3916778	6.0	8.0	77143	Og	SlsCcy	Fe	He	OY	limonitic + hematitic Sls.	1	52	33.50	194	1577		934
DS21	3916779	8.0	10.0	77143	Og	CcySls	Fe		OY		1	24	28.60	162	1861		777
DS21	3916780	10.0	12.0	77143	Og	SlsCcy	Fe	He	OR	hematite-limonite altered Sls/lesser black clay.	5	26	12.40	86	8000		828
DS21	3916781	12.0	14.0	77143	Og	Ccy			DG		2	18	1.75	32	2321		348
DS21	3916782	14.0	16.0	77143	Og	Ccy			N		2	16	2.17	174	928		1314
DS21	3916783	16.0	18.0	77143	Og	Ccy			DGN		2	20	5.27	1334	1548		968
DS21	3916784	18.0	20.0	77143	Og	CcySls	We		DG		2	19	12.20	4447	1523		2086
DS21	3916785	20.0	22.0	77143	Og	CcySls		Py	DG	weakly pyritic	3	21	7.83	3902	2963		2465
DS21	3916786	22.0	24.0	77143	Og	Ccy			DGW	mixed clays	3	25	12.90	6800	12400		2802
DS21	3916787	24.0	26.0	77143	Og	SlsCcy			DG		-1	9	26.50	10900	390		1299
DS21	3916788	26.0	28.0	77143	Og	Ccy			DG		-1	12	13.50	5700	592		1849
DS21	3916789	28.0	30.0	77143	Og	Ccy			DG	some contamination; rig out of water.	-1	9	16.40	7200	306		1339
DS21	3916790	30.0	32.0	77143	Og	Ccy			DG	contaminated sample.	-1	9	10.60	3846	249		1081
DS21		32.0	33.0		Og	Ccy			DG	no return, end of hole (still within clay).							
DS22	3916791	0.0	2.0	77143	Og	Ccy	Fe		DGM		-1	26	24.70	1154	1368		902
DS22	3916792	2.0	4.0	77143	Og	CcySls	FeWe		DG		-1	22	26.20	632	1328		846
DS22	3916793	4.0	6.0	77143	Og	Ccy	Fe		YB	limonitic clay + cellular limonite	1	24	32.80	486	1918		1422
DS22	3916794	6.0	8.0	77143	Og	Ccy			DG		-1	15	9.20	1601	1398		615
DS22	3916795	8.0	10.0	77143	Og	Ccy			DG		-1	12	15.00	3403	714		1050
DS22	3916796	10.0	12.0	77143	Og	CcySls	Fe		YG		-1	14	20.20	3265	925		1337
DS22	3916797	12.0	14.0	77143	Og	CcySls	Fe		DG		-1	10	17.00	4970	145		985
DS22	3916798	14.0	16.0	77143	Og	SlsCcy	Fe		DG		-1	7	9.14	2569	63		306
DS23		0.0	3.0		Og	Ccy	Fe		DG	(3m runs). Limonitic mottled Ccy, gossanous frags.							
DS23	3916799	3.0	6.0	77143	Og	Ccy	Fe		YB		-1	11	8.61	104	636		295
DS23	3916800	6.0	9.0	77143	Og	Ccy	Fe		YB	gossanous/cellular limonite frags present.	-1	14	23.30	248	817		1145
DS23	3916801	9.0	12.0	77143	Og	Ccy			DG	limonitic frags present	-1	16	14.90	596	1136		1052
DS23	3916802	12.0	15.0	77143	Og	Ccy			DG		3	25	10.10	535	2855		1367
DS23	3916803	15.0	18.0	77143	Og	CcySls	Fe		DG	limonitic, cellular Sls present.	-1	9	7.63	1224	393		860
DS23	3916804	18.0	21.0	77143	Og	Sls	Fe		DG		-1	10	3.16	650	319		151
DS23	3916805	21.0	24.0	77143	Og	SlsCcy			DGW	bivalve fossils present.	-1	10	3.38	766	76		210
DS23	3916806	24.0	24.5	77143	Og	SlsOvc			DG		-1	7	2.77	643	59		189
DS24	3916807	0.0	3.0	77143	Og	Ccy			YB		-1	9	9.63	300	331		279
DS24	3916808	3.0	6.0	77143	Og	Ccy	Fe		YBM	cellular limonite/mottled clays	-1	11	15.80	372	928		355
DS24	3916809	6.0	9.0	77143	Og	Ccy	Fe		DG		1	11	30.80	1879	562		1392
DS24	3916810	9.0	12.0	77143	Og	CcySls			DG		1	10	22.20	3428	655		1369

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS24	3916811	12.0	15.0	77143	Og	Sls	Ma		DG		-1	8	12.70	2863	34		897
DS24	3916812	15.0	18.0	77143	Og	Sls			DG		-1	10	6.08	1536	26		200
DS24	3916813	18.0	21.0	77143	Og	SlsCcy			DG		-1	8	7.82	1826	19		192
DS24	3916814	21.0	24.0	77143	Og	Sls			DG		-1	8	2.68	689	413		3700
DS24	3916815	24.0	27.0	77143	Og	Sls	Ma		DG		1	5	5.54	1467	346		832
DS24	3916816	27.0	30.0	77143	Og	SlsCcy			DG		-1	9	3.00	517	262		703
DS24	3916817	30.0	33.0	77143	Og	Sls		Py	DG	weakly pyritic.	1	9	2.65	657	815		1513
DS25	3916818	0.0	3.0	77143	Og	Ccy			LB	pale brown sandy clay/lesser dk gy clay.	1	16	0.75	56	433		379
DS25	3916819	3.0	6.0	77143	Og	Ccy			DG		2	16	4.70	818	962		6700
DS25	3916820	6.0	9.0	77143	Og	CcySls			DG		1	16	9.50	2575	1706		3033
DS25	3916821	9.0	12.0	77143	Og	SlsCcy			DG		2	9	2.71	938	1476		1912
DS25	3916822	12.0	15.0	77143	Og	CcySls			DG		-1	10	2.96	635	211		366
DS25	3916823	15.0	18.0	77143	Og	SlsCcy			DG		-1	9	2.87	526	202		772
DS25	3916824	18.0	21.0	77143	Og	Sls		Py	DG	moderately pyritic.	-1	7	3.17	483	179		542
DS25	3916825	21.0	24.0	77143	Og	SlsOvc		Py	DG	weakly pyritic.	-1	9	2.10	290	94		200
DS25	3916826	24.0	27.0	77143	Og	Sls		Py	DG	trace of pyrite.	1	7	1.91	464	610		636
DS25	3916827	27.0	30.0	77143	Og	SlsCcy		Py	DG	mod. pyr.	1	6	9.93	427	186		689
DS25	3916828	30.0	33.0	77143	Og	Sls		Py	DG	minor pyrite	1	6	4.78	657	1265		1370
DS26	3916829	0.0	3.0	77143	Og	CcyCcy			LB		2	22	1.47	39	2182		1045
DS26	3916830	3.0	6.0	77143	Og	Ccy			DG		1	20	2.22	49	4814		4216
DS26	3916831	6.0	9.0	77143	Og	CcySls			DG		1	11	3.68	869	188		894
DS26	3916832	9.0	10.6	77143	Og	Sls	Ma		DG		1	8	2.34	737	187		916
DS27		0.0	3.0		Og	CgCbs											
DS27	3916833	3.0	6.0	77143	Og	CgCcy			M		3	16	3.96	78	16100		944
DS27	3916834	6.0	9.0	77143	Og	Sls			LGN	"wispy" lime mudstone unit.	1	6	1.17	166	519		356
DS27	3916835	9.0	12.0	77143	Og	CcySls	We		DG		-1	5	0.96	292	63		212
DS27	3916836	12.0	15.0	77143	Og	SlsCcy			DG		1	7	1.89	837	118		399
DS27	3916837	15.0	18.0	77143	Og	SlsCcy			DG		1	8	1.70	821	650		364
DS27	3916838	18.0	21.0	77143	Og	SlsCcy			DG	gastropod fossil present	1	5	1.83	690	1240		222
DS27	3916839	21.0	23.5	77143	Og	SlsOvc		Py	DG	weakly pyr.	-1	5	1.09	287	261		157
DS28	3916840	0.0	3.0	77143	Og	Ccy			LBDG		1	14	6.94	1362	8500		5000
DS28	3916841	3.0	6.0	77143	Og	Ccy			YB	limonitic clay + granules.	-1	16	18.20	348	5500		4012
DS28	3916842	6.0	9.0	77143	Og	CcySls			BG		5	17	5.36	152	4479		1566
DS28	3916843	9.0	9.9	77143	Og	Sls			DG	"wispy" lime mudstone unit.	-1	9	3.89	352	1431		1346
DS29	3916844	0.0	3.0	77143	Og	CcyCg			DG		3	43	3.70	44	6300		7500
DS29	3916845	3.0	6.0	77143	Og	Ccy			N		2	44	2.88	29	2177		1295
DS29	3916846	6.0	9.0	77143	Og	CcySls			DG		10	76	7.62	943	8900		7600
DS29	3916847	9.0	12.0	77143	Og	SlsCcy			DG		-1	10	19.20	3236	919		1715
DS29	3916848	12.0	15.4	77143	Og	SlsOvc	Fe		DG		-1	5	2.68	536	124		214
DS30	3916849	0.0	3.0	77143	Og	Ccy			NB		1	22	1.90	44	471		1999
DS30	3916850	3.0	6.0	77143	Og	Ccy			N		2	21	4.44	149	987		3077
DS30	3916851	6.0	9.0	77143	Og	Ccy			N		1	19	4.97	316	390		2153
DS30	3916852	9.0	12.1	77143	Og	CcySls		Ga	DG	very fine-grained disseminated galena (<1%) visible.	1	14	13.10	2828	378		3158
DS31	3916853	0.0	3.0	77143	Og	Ccy			LGY		1	15	0.57	35	472		142
DS31	3916854	3.0	6.0	77143	Og	Ccy			LMDG	mixed clays.	1	20	1.73	61	572		730
DS31	3916855	6.0	9.0	77143	Og	Ccy			N		1	19	1.67	43	295		573
DS31	3916856	9.0	12.2	77143	Og	Ccy			N	no EOH sample possible; straight from Ccy->Sls?	-1	22	2.01	55	94		900

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS32	3916857	0.0	3.0	77143	Og	Ccy			DGN		1	30	1.68	156	1439		1538
DS32	3916858	3.0	6.0	77143	Og	Ccy			N		1	32	4.34	371	607		1183
DS32	3916859	6.0	8.1	77143	Og	CcySls			LGDG		1	27	12.70	1520	1360	7.4	12800
DS33	3916860	0.0	3.0	77143	Og	Ccy			M		1	30	2.33	138	622		815
DS33	3916861	3.0	6.0	77143	Og	Ccy	Fe	He	DGY	mixed limonitic + hematitic clays.	5	81	8.81	184	19100	4.5	16400
DS33		6.0	6.4		Og	SlsOvc			DGLG								
DS34	3916862	0.0	3.0	77143	Og	CcyCg			DBN		2	25	5.45	120	1982		946
DS34	3916863	3.0	3.7	77143	Og	SlsOvc			LGDG		1	9	2.87	530	942		2122
DS35	3916864	0.0	3.0	77143	Og	CcyCg	Fe		Y		2	37	8.32	256	4585		1474
DS35	3916865	3.0	5.2	77143	Og	Sls			DG		1	11	21.30	9300	3500		8100
DS36	3916866	0.0	3.0	77143	Og	Ccy			DG		-1	11	9.38	2302	245		2106
DS36	3916867	3.0	3.7	77143	Og	Sls			DG		-1	9	4.74	1052	113		1709
DS37	3916868	0.0	3.0	77143	Og	Ccy			DGY		3	26	2.62	64	2030		916
DS37	3916869	3.0	6.0	77143	Og	Ccy	Fe		YW		1	13	4.36	72	1173		701
DS37	3916870	6.0	9.0	77143	Om	SssCcy			W	minor black clay.	2	18	1.95	38	1176		1547
DS37	3916871	9.0	12.0	77143	Og	Ccy			N		-1	18	2.70	53	79		1103
DS37	3916872	12.0	15.0	77143	Og	Ccy			N		3	28	2.28	49	1974		2603
DS37	3916873	15.0	18.0	77143	Og	Ccy			N		27	156	3.26	62	29300	6.25	53600
DS37	3916874	18.0	21.0	77143	Og	Ccy			N		19	62	3.41	53	7000	4.3	10200
DS37	3916875	21.0	24.0	77143	Og	Ccy			N		4	27	3.11	63	921		3996
DS37	3916876	24.0	27.0	77143	Og	Sls	We		DG		1	13	11.40	3520	167		2160
DS37	3916877	27.0	30.0	77143	Og	Ccy			N		22	114	6.46	1151	12900	5.5	25100
DS37	3916878	30.0	33.0	77143	Og	SlsCcy	VuWe		DG	porous lime mudstone	1	10	21.30	7300	200		2315
DS37	3916879	33.0	36.0	77143	Og	SlsOvc		Py	DG	minor pyr.	-1	8	11.50	3056	588		2598
DS37	3916880	36.0	39.0	77143	Og	SlsCcy	We	Py	DG	moderately pyritic.	1	12	5.35	408	2509		8000
DS37	3916881	39.0	42.0	77143	Og	SlsCcy			DG		-1	7	5.57	1410	161		842
DS38	3916882	0.0	3.0	77143	Og	CcyCg			YB		-1	4	1.48	26	17		29
DS38	3916883	3.0	6.0	77143	Og	SssCcy	We		YW	*decomposed sandstone*	-1	12	2.30	38	24		25
DS38	3916884	6.0	9.0	77143	Og	Ccy			M		2	22	1.18	19	81		76
DS38	3916885	9.0	12.0	77143	Og	Ccy			DGN		2	25	2.26	32	2261		4575
DS38	3916886	12.0	15.0	77143	Og	Ccy		Py	N	weakly pyritic	5	29	2.03	34	3900		6200
DS38	3916887	15.0	18.0	77143	Og	CcySls			DG		5	28	1.71	29	2424		4801
DS38	3916888	18.0	21.0	77143	Og	CcySls			DGN		6	29	1.91	29	7400		9000
DS38	3916889	21.0	24.0	77143	Og	SlsCcy	We		DG		16	90	2.05	41	35300	4.85	42200
DS38	3916890	24.0	27.0	77143	Og	CcySls			DGN		15	114	1.91	40	15900	4.45	46800
DS38	3916891	27.0	30.0	77143	Og	Ccy			DG		21	117	4.24	36	27400	7.4	46000
DS38	3916892	30.0	33.0	77143	Og	Ccy			DG		12	72	3.16	48	13600	5.15	26600
DS38	3916893	33.0	36.0	77143	Og	Ccy			N		24	124	3.48	54	17200	5.35	20600
DS38	3916894	36.0	39.0	77143	Og	Sls	Ma		DG		1	10	2.07	646	385		1181
DS38	3916895	39.0	42.0	77143	Og	Sls			DG		8	41	1.91	863	7600		4200
DS39	3916896	0.0	3.0	77143	Og	Ccy			NW		2	39	0.72	22	687		203
DS39	3916897	3.0	6.0	77143	Og	Ccy			N		1	25	1.99	44	1507		1213
DS39	3916898	6.0	9.0	77143	Og	Ccy			N		1	23	2.08	31	124		990
DS39	3916899	9.0	12.0	77143	Og	Ccy			N		-1	22	2.34	47	59		845
DS39	3916900	12.0	15.0	77143	Og	Ccy			DGN		1	23	2.27	42	127		509
DS39	3917001	15.0	18.0	77143	Og	Ccy			DGN		7	32	4.13	40	1556		3524
DS39	3917002	18.0	21.0	77143	Og	Ccy			N		7	59	3.85	56	4100		8900
DS39	3917003	21.0	24.0	77143	Og	Ccy			N		2	21	13.70	4193	888		1824

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS39	3917004	24.0	26.5	77143	Og	Sls	Vu		LG		1	15	8.85	2897	701		2423
DS40	3917005	0.0	3.0	77143	Og	CgCcy			LB		1	6	0.26	26	22		21
DS40	3917006	3.0	6.0	77143	Og	Ccy			DBG		1	29	2.17	42	1374		1402
DS40	3917007	6.0	9.0	77143	Og	Ccy			NDB		-1	23	2.42	36	246		766
DS40	3917008	9.0	12.0	77143	Og	Ccy			N		-1	21	3.22	49	156		719
DS40	3917009	12.0	15.0	77143	Og	Ccy			N		4	34	3.80	49	3700		8200
DS40	3917010	15.0	18.0	77143	Og	Ccy			NM		-1	21	4.44	1200	224		735
DS40	3917011	18.0	21.0	77143	Og	Ccy			M		-1	20	4.65	1060	175		378
DS40	3917012	21.0	22.0	77143	Og	Sls			DG		-1	23	4.89	1177	114		171
DS41	3917013	0.0	3.0	77143	Og	Ccy			N		-1	25	1.55	53	430		1021
DS41	3917014	3.0	6.0	77143	Og	Ccy			N		3	25	3.33	57	1153		3788
DS41	3917015	6.0	9.0	77143	Og	Ccy		Py	N	minor pyr.	4	35	4.26	46	3700	5.35	10200
DS41	3917016	9.0	12.0	77143	Og	Ccy			M	mixed + mottled clays.	1	22	2.68	118	426		2888
DS41	3917017	12.0	15.0	77143	Og	Ccy			MN		-1	22	4.24	344	175		841
DS41	3917018	15.0	16.6	77143	Og	Sls			DGLG		-1	20	5.36	1061	110		288
DS42	3917019	0.0	3.0	77143	Og	CcyCg			N		1	24	3.89	63	537		2327
DS42	3917020	3.0	6.0	77143	Og	Ccy			NM		5	56	4.67	654	8500		7500
DS42	3917021	6.0	9.0	77143	Og	Ccy			YBWM		1	20	4.43	953	327		1255
DS42	3917022	9.0	12.0	77143	Og	Ccy	Fe	He	M	weakly limonitic + hematitic mottled clays.	-1	22	4.30	1638	113		442
DS42	3917023	12.0	15.0	77143	Og	Ccy	Fe	He	M	mod. lim./hem. mottled clays.	-1	23	4.68	1333	102		374
DS42	3917024	15.0	18.0	77143	Og	Ccy	Fe	He	M	As above, mottled to granular texture.	-1	23	4.52	837	126		221
DS42	3917025	18.0	19.1	77143	Og	Sls			DGLG		1	16	1.70	555	683		179
DS43		0.0	3.0		Og	Ccy			BY	cyclone blocked, sample not taken.							
DS43	3917026	3.0	6.0	77143	Og	CcySls	We		CG		10	72	3.23	52	9400	4.8	13500
DS43	3917027	6.0	9.0	77143	Og	Ccy			M	mixed + mottled clays.	3	39	2.64	169	1867		4780
DS43	3917028	9.0	12.0	77143	Og	SlsCcy		He	LGDG	CO3 sandstone (oolitic?), minor hematite alteration	1	25	4.37	755	716		1050
DS43	3917029	12.0	15.0	77143	Og	Ccy			M		1	28	3.94	361	639		1120
DS43	3916901	15.0	17.8	77143	Og	Ccy			M		1	27	3.14	368	352		473
DS43		17.8	17.9		Og	Sls			DG	not enough sample for end of hole specimen.							
DS44	3916902	0.0	3.0	77143	Og	SlsCg			DG		6	57	3.12	111	6900	3.25	13100
DS44	3916903	3.0	6.0	77143	Og	CcySls	We		MDG		3	39	7.62	1588	2747		7200
DS44	3916904	6.0	9.0	77143	Og	Ccy	Fe	He	M	mixed + mottled clays	1	29	3.42	398	395		2243
DS44	3916905	9.0	12.0	77143	Og	Ccy			M	as above	1	27	3.50	437	530		773
DS44	3916906	12.0	15.0	77143	Og	CcySls			CG		1	27	4.10	848	482		872
DS44	3916907	15.0	15.4	77143	Og	Ccy			LB		-1	26	4.08	878	198		332
DS44		15.4	15.5		Og	Sls			LG	highly indurated Sls, black graphitic lam. visible.							
DS45	3916908	0.0	3.0	77143	Og	Ccy			LBOG		-1	25	4.14	849			925
DS45	3916909	3.0	6.0	77143	Og	Ccy			LGW		-1	23	2.78	565	685		1305
DS45	3916910	6.0	9.0	77143	Og	Ccy	Fe	He	M	weakly hematitic/limonitic mixed + mottled clays.	-1	23	7.11	1471	228		1135
DS45	3916911	9.0	12.0	77143	Og	SlsCcy			DG		-1	11	11.10	2594	558		8900
DS45	3916912	12.0	14.6	77143	Og	Sls		Py	DG	weakly pyritic	-1	11	3.98	900	460		1602
DS46	3916913	0.0	3.0	77143	Og	CcySls	We		DGN		1	17	3.99	39	10400	5.65	14700
DS46	3916914	3.0	6.0	77143	Og	Ccy			NW		2	24	4.91	872	3900		9000
DS46	3916915	6.0	9.0	77143	Og	SlsCcy			DG		-1	9	12.50	2894	314		2392
DS46	3916916	9.0	12.0	77143	Og	Sls			DG		-1	8	1.92	322	119		375
DS46	3916917	12.0	15.1	77143	Og	SlsOvc			DG	graphitic laminations	-1	7	1.60	270	141		317

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS47	3916918	0.0	3.0	77143	Og	Ccy			DG		-1	20	9.63	1693	1103		1862
DS47	3916919	3.0	4.5	77143	Og	Ccy			DG		-1	11	10.40	2331	120		1809
DS47		4.5	4.6		Og	Sls			DG								
DS48	3916920	0.0	3.0	77143	Og	Ccy			WG		1	29	0.56	39	150		97
DS48	3916921	3.0	6.0	77143	Og	Ccy			DGN		1	18	1.26	27	785		1018
DS48	3916922	6.0	9.0	77143	Og	CcySls			DG	vein calcite.	1	11	7.85	1147	1202		7000
DS48	3916923	9.0	12.0	77143	Og	Sls	We		DG		4	15	4.48	526	300		1817
DS48	3916924	12.0	15.0	77143	Og	SlsCcy			DG		-1	14	2.07	141	78		539
DS48	3916925	15.0	18.0	77143	Og	Sls			DG		-1	15	1.87	108	131		734
DS48	3916926	18.0	21.0	77143	Og	Sls		Py	DG	moderately pyritic (2-5%)	-1	11	1.76	58	46		535
DS48	3916927	21.0	24.0	77143	Og	Sls		Py	DG	weakly pyr.	-1	11	1.88	56	101		654
DS48	3916928	24.0	27.0	77143	Og	Sls		Py	DG	minor pyr.	-1	10	1.97	29	122		805
DS48	3916929	27.0	30.0	77143	Og	Sls		Py	DG	trace pyr.	-1	12	2.46	46	78		540
DS49	3916930	0.0	3.0	77143	Og	Ccy			BN		2	38	2.42	25	16400		5700
DS49	3916931	3.0	6.0	77143	Og	SlsCcy			LG		3	29	3.24	79	6500		6500
DS49	3916932	6.0	8.8	77143	Og	SlsOvc			DG		2	18	3.90	127	2380		7000
DS50	3916933	0.0	3.0	77143	Og	SlsCcy			LGDG	notable 1mm calcite veining.	3	24	3.85	97	4000		6100
DS50	3916934	3.0	6.0	77143	Og	SlsOvc			LG		-1	3	1.28	771	554		588
DS50	3916935	6.0	9.0	77143	Og	SlsCcy		Py	LG	weakly pyritic	2	32	2.17	984	951		895
DS50	3916936	9.0	12.0	77143	Og	SlsCcy			DG		-1	10	4.13	1214	75		173
DS50	3916937	12.0	15.0	77143	Og	SlsCcy			DG		-1	12	5.38	1562	21		72
DS50	3916938	15.0	18.0	77143	Og	SlsCcy			DG		-1	11	4.15	1205	78		213
DS50	3916939	18.0	21.0	77143	Og	SlsCcy	Ma		DG		-1	10	4.27	1352	131		290
DS50	3916940	21.0	24.0	77143	Og	CcySls			DG		-1	8	4.50	1563	60		136
DS50	3916941	24.0	27.0	77143	Og	Sls		Py	DG	minor pyrite.	-1	8	4.41	1474	44		298
DS50	3916942	27.0	30.0	77143	Og	Sls			DG		-1	8	3.81	1152	100		345
DS51	3916943	0.0	3.0	77143	Og	SlsCcy			LG		-1	10	5.80	1807	170		186
DS51	3916944	3.0	6.0	77143	Og	Sls			LG		-1	7	1.96	606	50		169
DS51	3916945	6.0	6.8	77143	Og	Sls			G		-1	7	1.74	523	54		188
DS52		0.0	3.0		Og	CgCbs											
DS52	3916946	3.0	6.0	77143	Og	SlsCcy			LGDG		1	16	1.56	24	408		2064
DS52	3916947	6.0	9.0	77143	Og	SlsCcy			DG		-1	15	0.98	21	155		834
DS52	3916948	9.0	12.0	77143	Og	SlsCcy		Py	DG	weakly pyr. clay.	-1	16	1.57	42	252		1946
DS52	3916949	12.0	15.0	77143	Og	SlsCcy			DG		-1	15	2.40	349	37		223
DS52	3916950	15.0	18.0	77143	Og	SlsCcy			LGDG		1	12	6.10	1345	256		389
DS52	3916951	18.0	21.0	77143	Og	Sls			G		-1	14	3.26	631	72		162
DS52	3916952	21.0	24.0	77143	Og	CcySls			LGG		1	12	2.27	538	390		1445
DS52	3916953	24.0	27.0	77143	Og	SlsCcy		Py	G	mod. pyr.	5	22	2.87	896	3008		2277
DS52	3916954	27.0	30.0	77143	Og	Sls	Ma		G		1	11	2.24	882	589		1458
DS53	3916955	0.0	3.0	77143	Og	CbsCcy			M		23	156	3.62	64	47800	7.25	54200
DS53	3916956	3.0	6.0	77143	Og	SlsOvc			LG		3	25	1.76	741	6800		6000
DS53	3916957	6.0	7.1	77143	Og	SlsOvc			DG	1mm calcite veining.	4	43	3.09	584	7400		7600
DS54	3916958	0.0	2.5	77143	Og	SlsOvc			DG		2	40	1.54	141	1573		2807
DS55	3916959	0.0	3.0	77143	Og	CbsCcySls			GB		2	26	1.20	110	1573		1878
DS55	3916960	3.0	6.1	77143	Og	SlsOvcCcy		Ga	LG	trace of galena particles.	3	68	1.97	713	2580		3104
DS56	3916961	0.0	3.0	77143	Og	Ccy			DB	peaty clay	1	21	0.85	123	1386		851
DS56	3916962	3.0	6.0	77143	Og	SlsOvc			LG		4	56	3.15	1105	4620		3740
DS56	3916963	6.0	8.0	77143	Og	Sls	Bx		DG	angular Sls clasts, c.gr. calcite cement.	4	48	2.89	801	5600		5200

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS57	3916964	0.0	3.0	77143	Og	CgCcy			DG		1	17	1.07	151	574		980
DS57	3916965	3.0	6.0	77143	Og	SlsOvcCcy			DG		1	14	1.48	263	1246		1893
DS57	3916966	6.0	7.9	77143	Og	Sls		Py	G	trace pyr., brachiopod casts.	1	10	1.17	219	414		670
DS58	3916967	0.0	3.0	77143	Og	CbsCcy			B		1	13	1.38	52	382		846
DS58	3916968	3.0	6.0	77143	Og	CcySls			BLG	gastropod bearing Sls.	1	14	1.08	53	507		508
DS58	3916969	6.0	9.0	77143	Og	SlsCcy	We		DG		10	110	3.88	60	5800		5500
DS58	3916970	9.0	11.2	77143	Og	SlsOvc	Bx		DG	hint of brecciation of Sls/calcite veining.	1	14	2.67	1931	1022		1209
DS59	3916971	0.0	3.0	77143	Og	CcyCg			LG		4	49	1.57	565	5500		2639
DS59	3916972	3.0	5.3	77143	Og	SlsOvc			DG	abundant calcite veining.	1	17	1.63	1211	1334		1025
DS60	3916973	0.0	3.0	77143	Og	CcySlsOvc			LG		1	37	2.09	252	1170		2137
DS60	3916974	3.0	6.0	77143	Og	SlsOvc			DG	abundant calcite veining	-1	12	3.72	2780	225		628
DS60	3916975	6.0	9.0	77143	Og	SlsOvc			DG	as above	1	10	2.37	1332	296		716
DS60	3916976	9.0	11.4	77143	Og	OvcSls			DG	final Sunny Corner hole in current program.	-1	4	3.88	2534	137		796
DS61	3916977	0.0	3.0	77143	Og	Ccy			GB		13	141	5.76	42	5600		1663
DS61	3916978	3.0	6.0	77143	Og	CcySls			DGN		3	62	3.51	51	19600		7200
DS61	3916979	6.0	9.0	77143	Og	Ccy			DG		1	36	3.22	57	7600		6500
DS61	3916980	9.0	12.0	77143	Og	SlsCcy			DG		-1	11	3.31	435	582		4990
DS61	3916981	12.0	15.0	77143	Og	Sls		Py	DG	weakly pyritic	-1	7	2.79	671	181		1900
DS61	3916982	15.0	18.0	77143	Og	Sls	Ma		DG		-1	6	1.62	360	102		802
DS61	3916983	18.0	21.0	77143	Og	SlsOvc		Py	DG	trace pyr.	-1	8	1.57	265	54		212
DS61	3916984	21.0	24.0	77143	Og	Sls			DG		1	11	1.64	326	424		425
DS61	3916985	24.0	27.0	77143	Og	SlsCcy			DG		-1	11	2.18	462	212		533
DS61	3916986	27.0	30.0	77143	Og	Sls		Py	DG	mod. pyr. (disseminated).	-1	12	1.74	74	58		262
DS61	3916987	30.0	33.0	77143	Og	Sls		Ga	DG	very f.g. galena disseminations.	-1	11	1.06	53	152		503
DS61	3916988	33.0	36.0	77143	Og	Sls		PyGa	DG	very f.g. dissem.	-1	9	1.48	42	30		598
DS61	3916989	36.0	39.0	77143	Og	Sls		Py	DG	mod. pyr.	-1	14	2.00	31	62		327
DS61	3916990	39.0	42.0	77143	Og	Sls		PyGa	DG	very f.g. dissem.	-1	14	1.57	235	66		331
DS61	3916991	42.0	44.0	77143	Og	Sls			DG		-1	10	1.70	270	30		203
DS62	3916992	0.0	3.0	77143	Og	CcyCg			LY		2	61	0.34	17	250		152
DS62	3916993	3.0	6.0	77143	Og	CcySls			N		5	125	0.88	171	13500		2179
DS62	3916994	6.0	7.3	77143	Og	SlsOvc			DG	gastropod fossils present.	1	26	3.11	814	2702		3238
DS63	3916995	0.0	3.0	77143	Og	SlsOvc			LG		1	14	4.46	1348	1743		2381
DS63	3916996	3.0	6.0	77143	Og	SlsOvc			G		1	12	2.02	815	2406		2700
DS63	3916997	6.0	9.0	77143	Og	Sls			G		-1	7	0.91	200	360		1140
DS63	3916998	9.0	12.0	77143	Og	Sls			DG		-1	5	1.94	677	78		687
DS63	3916999	12.0	15.0	77143	Og	Sls		Py	DG	trace diss. pyr.	-1	5	1.37	328	30		376
DS63	3917000	15.0	17.0	77143	Og	Sls			LGDG	"wispy" graphitic Sls.	-1	9	2.79	971	43		593
DS64	3917030	0.0	3.0	77143	Og	SlsOvc			LG		2	21	2.27	1640	4561		2102
DS64	3917031	3.0	3.8	77143	Og	SlsOvc			LG		2	9	1.80	1404	4089		742
DS65		0.0	1.5		Og	Cg				hole abandoned; could not penetrate gravels.							
DS65	3917032	0.0	3.1	77143	Og	CgSlsOvc			G		4	43	1.11	233	2601		838
DS66	3917033	0.0	3.0	77143	Og	SlsOvcCcy		Ga	G	1-2mm gal. frags.	5	35	2.77	526	12900		6300
DS66	3917034	3.0	4.0	77143	Og	Sls			G		1	8	1.53	455	1426		2595
DS67	3917035	0.0	3.0	77143	Og	Ccy			DG		2	28	3.11	31	7800		3245
DS67	3917036	3.0	6.0	77143	Og	Ccy			G		4	44	2.78	49	8600		8000
DS67	3917037	6.0	9.0	77143	Og	Ccy			G		1	23	2.62	29	1467		2220
DS67	3917038	9.0	12.0	77143	Og	SlsCcy	Ma		DG		1	19	2.36	86	247		1587
DS67	3917039	12.0	15.0	77143	Og	SlsOvc			DGG	very fine calcite veining (<1mm).	-1	8	1.43	338	67		432

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS68	3917040	0.0	3.0	77143	Og	Ccy			G		-1	16	2.21	33	1962		480
DS68	3917041	3.0	6.0	77143	Og	Ccy			DG		-1	19	2.91	48	4647		1976
DS68	3917042	6.0	9.0	77143	Og	Ccy			N		9	99	3.55	43	26500		6000
DS68	3917043	9.0	12.0	77143	Og	CcySlsOvc		Ga	N	abundant calcite veining, minor galena crystals.	54	225	1.69	23	139000	5.2	18200
DS68	3917044	12.0	15.0	77143	Og	Ccy			G		41	232	2.68	29	91800	6.1	23800
DS68	3917045	15.0	18.0	77143	Og	CcySls			DG		6	72	2.97	34	12100		5000
DS68	3917046	18.0	21.0	77143	Og	SlsCcyOvc			DG	abundant vein calcite	6	84	2.13	45	9700		3828
DS68	3917047	21.0	24.0	77143	Og	SlsCcy	We		DG		1	28	2.70	280	1367		3137
DS68	3917048	24.0	27.0	77143	Og	Sls		Py	DG	trace pyr.	-1	6	1.11	180	64		314
DS68	3917049	27.0	30.0	77143	Og	Sls			DG		-1	8	1.34	208	56		316
DS69	3917050	0.0	3.0	77143	Og	Ccy			GB	mullock heap underlying drill site.	-1	29	2.99	31	239		361
DS69	3917051	3.0	6.0	77143	Og	Ccy			DGN		-1	18	3.04	35	140		562
DS69	3917052	6.0	9.0	77143	Og	Ccy			DG		1	21	4.14	49	154		2046
DS69	3917053	9.0	12.0	77143	Og	Ccy		PyGa	DG	dark grey clay containing v.f. gr. pyr. + gal.	3	77	6.81	33	10300		7500
DS69		12.0	12.4		Og	SlsOvc		Ga	DG	coarse gr. gal. crystals present.							
DS70	3917054	0.0	3.0	77143	Og	SlsCcy			DG		-1	10	1.86	194	190		663
DS70	3917055	3.0	6.0	77143	Og	Sls			DG		1	9	1.52	421	641		2075
DS70	3917056	6.0	9.0	77143	Og	Sls			G		-1	5	1.55	520	96		676
DS70	3917057	9.0	12.0	77143	Og	Sls		Py	DG	moderately pyritic.	-1	4	1.74	648	38		299
DS70	3917058	12.0	15.0	77143	Og	SlsCcy			DG		-1	5	0.98	221	54		361
DS70	3917059	15.0	18.0	77143	Og	SlsOvc			DG	gastropod fossil present	-1	4	1.42	384	16		138
DS70	3917060	18.0	20.7	77143	Og	SlsOvc			GDG		-1	6	1.96	487	15		104
DS71	3917061	0.0	2.5	77143	Og	SlsOvc			G		-1	8	0.93	432	114		573
DS72	3917062	0.0	3.0	77143	Og	SlsCg			DG		-1	17	2.16	99	259		4579
DS72	3917063	3.0	4.9	77143	Og	SlsOvc			LGG	abundant vein calcite.	-1	9	1.26	301	985		1245
DS73	3917064	0.0	3.0	77143	Og	CgCcy	Fe		Y	limonitic sandy clay present in small proportion.	-1	14	0.65	17	52		129
DS73	3917065	3.0	6.0	77143		CcySss			YW	sandy clay, lesser quartzarenite frags.	-1	23	0.82	23	42		20
DS73	3917066	6.0	9.0	77143		SssCcy			WDG		-1	14	0.53	13	44		40
DS73	3917067	9.0	11.7	77143	Og	Ccy			G		1	33	2.07	65	850		2072
DS73		11.7	11.8		Og	SlsOvc			G								
DS74	3917068	0.0	3.0	77143		SssCcy	Fe		YW	lesser grey/green clay.	6	26	3.22	16	4990		214
DS74	3917069	3.0	6.0	77143		SssCcySls	Fe		YW	cellular limonite present.	5	51	1.71	18	2067		137
DS74	3917070	6.0	9.0	77143	Og	Ccy	Fe		DGY		5	62	5.57	20	2020		228
DS74	3917071	9.0	12.0	77143	Og	Ccy	Fe		YG	mixed yellow limonitic + grey clays.	3	40	3.67	23	1360		114
DS74	3917072	12.0	15.0	77143	Og	CcySlsSss	Fe	He	PY	limonitic + hematitic clay, limonitic gossanous frags.	-1	39	1.88	14	115		23
DS74		15.0	15.3			Sss			LG								
DS75	3917073	0.0	3.0	77143	Og	Ccy			LM		-1	33	1.15	43	500		553
DS75	3917074	3.0	6.0	77143	Og	SlsCcy			DG		-1	21	2.35	40	377		897
DS75	3917075	6.0	9.0	77143	Og	CcySls	We		DG		1	19	4.41	32	456		1503
DS75	3917076	9.0	12.0	77143	Og	CcySls	We		DG		1	19	4.18	38	233		1046
DS75	3917077	12.0	15.0	77143	Og	CcySls	FeWe		DBN	ferruginous clays	1	23	3.15	36	1028		530
DS75	3917078	15.0	18.0	77143	Og	CcySls	We		DGB		1	19	7.50	35	456		755
DS75	3917079	18.0	21.0	77143	Og	SlsCcy	We		DG		-1	15	6.04	45	48		193
DS75	3917080	21.0	22.0	77143	Og	Sls			DG	hole abandoned: 2 drill-rods left down hole.	-1	9	2.23	94	48		734
DS76	3917081	0.0	3.0	77143	Og	CcyCg			DBG		-1	23	0.99	32	360		117
DS76	3917082	3.0	6.0	77143	Og	Ccy			DBN		-1	19	2.15	50	45		174
DS76	3917083	6.0	9.0	77143	Og	Ccy			DGN		-1	18	2.07	45	26		221
DS76	3917084	9.0	12.0	77143	Og	Ccy			DGN		-1	20	2.05	59	27		129

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS76	3917085	12.0	15.0	77143	Og	Ccy		Ga	G	trace of very fine gr. galena.	-1	18	3.61	40	33		131
DS76	3917086	15.0	16.0	77143	Og	SlsOvc			DG		-1	16	4.32	59	57		255
DS77	3917087	0.0	3.0	77143	Og	CcyCg			LBW		1	4	0.32	17	27		19
DS77	3917088	3.0	6.0	77143	Og	CcySls			WG		2	38	0.72	30	526		35
DS77	3917089	6.0	9.0	77143	Og	Ccy			DGLG		1	31	1.30	27	1805		363
DS77	3917090	9.0	12.0	77143	Og	CcySls	We		GW		-1	18	1.46	34	1163		328
DS77	3917091	12.0	15.0	77143	Og	Ccy			DGLG		-1	22	1.75	38	658		117
DS77	3917092	15.0	18.0	77143	Og	Ccy			DG		-1	24	2.22	46	686		161
DS77	3917093	18.0	21.0	77143	Og	SlsCcy	We		DG		-1	27	1.91	46	472		154
DS77	3917094	21.0	23.2	77143	Og	Sls	Fi		DG		-1	21	1.96	53	1501		1100
DS78	3917095	0.0	3.0	77143	Og	Ccy	Fe		YG		3	49	1.39	28	4980		342
DS78	3917096	3.0	6.0	77143	Og	CcyCg			LGW		1	24	0.63	29	607		93
DS78	3917097	6.0	9.0	77143	Og	CcySls	We		LGW		10	20	0.58	17	122		63
DS78	3917098	9.0	12.0	77143	Og	SlsCcy	We		DG		1	66	2.84	48	1735		405
DS78	3917099	12.0	15.0	77143	Og	Sls		Ga	DG	very finely diss. galena.	1	57	1.49	27	3210		779
DS78	3917100	15.0	18.0	77143	Og	SlsOvc			DG		-1	19	1.66	41	2110		677
DS78	3917101	18.0	21.0	77143	Og	Ccy		Ga	GY	very finely diss. gal.	-1	21	2.11	26	1362		501
DS78	3917102	21.0	24.0	77143	Og	Ccy		Ga	LGW	trace of gal.	-1	18	1.75	34	972		641
DS78	3917103	24.0	27.0	77143	Og	Ccy		PyGa	GDG	trace of pyr., gal.	-1	19	11.20	34	940		2517
DS78	3917104	27.0	30.0	77143	Og	Sls		Py	DG	mod. pyr.	-1	22	2.99	50	4168		1548
DS78	3917105	30.0	33.0	77143	Og	Sls	WeFe	Ak	DG	minor ankerite & limonite within We Sls.	-1	19	1.66	119	877		1004
DS78	3917106	33.0	33.7	77143	Og	Sls		Py	LGDG	weakly pyritic	-1	11	2.05	303	241		307
DS79	3917107	0.0	3.0	77143	Og	Sls			DG		2	29	1.47	76	6900		7000
DS79	3917108	3.0	6.0	77143	Og	Sls			DG		1	16	2.19	420	1530		6100
DS79	3917109	6.0	9.0	77143	Og	Sls	Ma		DG		1	12	2.37	500	305		3350
DS79	3917110	9.0	12.0	77143	Og	SlsCcy			DG		6	37	3.18	96	11000	4.5	12100
DS79	3917111	12.0	15.0	77143	Og	Ccy		GaPy	N	trace of very fine gr. dissem. sulphides.	3	24	2.88	43	2467		4537
DS79	3917112	15.0	18.0	77143	Og	CcySls			LGW		2	34	0.80	32	1584		832
DS79	3917113	18.0	21.0	77143	Og	SlsCcy			LGW		3	63	1.16	26	1619		233
DS79	3917114	21.0	24.0	77143	Og	Sls		Ga	DG	minor v.f. gr. galena dissem.	1	14	1.39	39	2718		882
DS79	3917115	24.0	27.0	77143	Og	Sls		GaPy	DG	coarse gr. gal. pyr. (<1%).	11	85	1.35	32	18800	2.6	12400
DS79	3917116	27.0	30.0	77143	Og	Ccy		Ga	G	very f.g. galena dissem.	14	40	2.36	39	22100		6600
DS79	3917117	30.0	33.0	77143	Og	SlsCcy	We	GaPy	G	trace pyr., gal.	4	17	1.42	27	4511		3092
DS79	3917118	33.0	36.0	77143	Og	SlsCcy		Ga	GDG	very f.gr. galena dissem.	2	18	1.47	46	1844		1540
DS79	3917119	36.0	39.0	77143	Og	SlsCcy			DG	as above	1	14	6.31	32	1283		983
DS79	3917120	39.0	42.0	77143	Og	Sls		PyGa	G	very fine gr. pyr., gal. dissem.	-1	13	2.11	40	327		614
DS79	3917121	42.0	45.0	77143	Og	Ccy		Ga	G	trace of gal. dissem.	5	40	1.31	28	6400		3134
DS79	3917122	45.0	47.3	77143	Og	Sls		Ga	DG	as above	2	11	1.75	752	2104		2250
DS80	3917123	0.0	3.0	77143	Og	CbsCcy			B		-1	25	3.30	37	147		767
DS80	3917124	3.0	6.0	77143	Og	CcySls	We		N		-1	25	2.41	39	913		390
DS80	3917125	6.0	9.0	77143	Og	Ccy			N		-1	19	4.48	33	190		429
DS80	3917126	9.0	12.0	77143	Og	SlsCcy	We		DG		-1	14	1.82	40	341		507
DS80	3917127	12.0	15.0	77143	Og	Sls	Fi		LGDG		-1	16	1.77	37	371		288
DS80	3917128	15.0	15.5	77143	Og	Sls			DGLG		-1	14	1.58	112	197		160
DS81	3917129	0.0	2.5	77143	Og	SlsOvcCg			G		1	12	1.95	58	44		43

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS82		0.0	3.0		Og	CbsCg			DG								
DS82	3917130	3.0	6.0	77143	Og	SlsOvc			DG		-1	5	0.84	106	27		75
DS82	3917131	6.0	9.0	77143	Og	CcySls			GDG		-1	6	0.86	100	22		77
DS82	3917132	9.0	12.0	77143	Og	Sls			DG		-1	7	1.22	119	22		58
DS82	3917133	12.0	15.0	77143	Oc	SlsOvc			DG		-1	6	0.78	92	16		43
DS82	3917134	15.0	18.0	77143	Og	SlsOvc			GDG		-1	6	0.75	90	90		45
DS82	3917135	18.0	20.9	77143	Og	Sls			DG	"wispy" textured graphitic bands. Brachiopod casts.	1	6	1.22	98	49		208
DS83	3917136	0.0	2.7	77143	Og	Sls			LGDG		-1	8	1.32	91	57		90
DS84	3917137	0.0	3.0	77143	Og	Ccy			GB		-1	16	2.82	34	16		251
DS84	3917138	3.0	6.0	77143	Og	CcySls	We		N		-1	16	1.83	48	19		92
DS84	3917139	6.0	9.0	77143	Og	Ccy			G		-1	17	3.31	46	23		145
DS84	3917140	9.0	12.0	77143	Og	CcySls			DG		-1	15	2.31	53	17		77
DS84	3917141	12.0	15.0	77143	Og	SlsCcy			DG		-1	14	4.12	40	15		43
DS84	3917142	15.0	18.0	77143	Og	CcySls	We		DG		-1	17	3.14	52	27		63
DS84	3917143	18.0	21.0	77143	Og	SlsOvc		Py	DG	minor pyr. frags	-1	7	1.47	194	22		106
DS84		21.0	21.7		Og	Sls			DGLG	"wispy" textured Sls.							
DS85	3917144	0.0	3.0	77143	Og	CcyCg			LG		-1	16	1.53	46	23		56
DS85	3917145	3.0	6.0	77143	Og	Ccy			G		-1	14	3.18	30	60		202
DS85	3917146	6.0	9.0	77143	Og	Ccy			G		-1	14	1.49	35	42		280
DS85	3917147	9.0	12.0	77143	Og	Ccy			G		-1	18	2.32	37	24		124
DS85	3917148	12.0	15.0	77143	Og	Sls	We	Py	DG	trace pyr. + brachiopod fossils.	-1	17	1.99	53	27		219
DS85	3917149	15.0	18.0	77143	Og	Sls		Py	DG	weakly pyritic	-1	13	2.36	44	63		144
DS85	3917150	18.0	21.0	77143	Og	Sls	We		DG		-1	17	2.36	46	22		156
DS85	3917151	21.0	24.0	77143	Og	SlsCcy		Py	DG	weakly pyritic.	-1	15	2.85	39	18		301
DS85	3917152	24.0	27.0	77143	Og	Sls		Py	DG	moderately pyr.	-1	16	2.00	51	17		116
DS85	3917153	27.0	30.0	77143	Og	Sls			DG		-1	13	2.34	62	19		48
DS85	3917154	30.0	31.0	77143	Og	Sls	Ma		DG		1	20	1.78	61	23		75
DS86	3917155	0.0	3.0	77143	Og	CgCcy			DG		-1	15	2.40	58	35		728
DS86	3917156	3.0	6.0	77143	Og	Ccy			N		-1	15	2.79	50	22		1401
DS86	3917157	6.0	9.0	77143	Og	Ccy			DGN		-1	15	2.07	44	22		404
DS86	3917158	9.0	12.0	77143	Og	Ccy			DGN		-1	17	3.07	51	86		890
DS86	3917159	12.0	15.0	77143	Og	Ccy			DG		1	16	2.68	43	350		1066
DS86	3917160	15.0	18.0	77143	Og	Ccy		Py	N	weakly pyr.	1	16	3.94	50	203		1199
DS86	3917161	18.0	21.0	77143	Og	CcySls		Py	GLG	pyritic, medium-grey clay.	-1	17	2.96	49	37		860
DS86	3917162	21.0	24.0	77143	Og	CcySls		Py	G	mod. pyr. clay.	-1	13	3.16	49	19		2782
DS86	3917163	24.0	27.0	77143	Og	Sls	We		DG		-1	9	1.11	27	20		986
DS86	3917164	27.0	30.0	77143	Og	SlsCcy	We	Py	DG	*trace dissem. pyr.*	-1	14	2.31	41	14		3379
DS86	3917165	30.0	33.0	77143	Og	SlsCcy			GLG		-1	17	1.56	33	22		881
DS86	3917166	33.0	36.0	77143	Og	Sls		Py	DG	trace of pyr.	-1	6	0.94	138	11		382
DS87	3917167	0.0	3.0	77143	Og	CgSlsCbs					1	12	2.69	683	1207		683
DS87	3917168	3.0	6.0	77143	Og	SlsCcy			G		-1	7	1.27	439	250		904
DS87	3917169	6.0	8.3	77143	Og	Sls		Py	DG	weakly pyritic, bivalve fossil present.	-1	5	0.88	168	31		210
DS88	3917170	0.0	3.0	77143	Og	CcyCbsCg			LB		1	21	2.07	104	1325		1040
DS88	3917171	3.0	6.0	77143	Og	SlsOvc			G		1	5	1.94	1679	1385		1371
DS88	3917172	6.0	7.1	77143	Og	SlsOvc	Bx		G	calcite cemented Sls breccia.	1	4	3.45	3224	3670		1924

HOLE	SAMPNO	DFROM	DTO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Cu	Fe%	Mn	Pb	S%	Zn
DS89	3917173	0.0	3.0	77143	Og	CcyCbsCg			LB		1	22	1.38	81	1208		928
DS89	3917174	3.0	6.0	77143	Og	Ccy			M		5	47	3.02	75	8300		4900
DS89	3917175	6.0	9.0	77143	Og	Ccy			N		1	21	2.18	122	1686		1474
DS89	3917176	9.0	12.0	77143	Og	CcySls			NDG		-1	13	3.91	1197	214		715
DS89	3917177	12.0	13.1	77143	Og	SlsOvc		Py	G	minor vein pyrite.	1	9	4.58	2481	837		2540
DS90	3917178	0.0	3.0	77143	Og	CcyCg			LBG		-1	17	0.90	58	2212		3748
DS90	3917179	3.0	6.0	77143	Og	Ccy			WG		1	32	0.68	33	1733		830
DS90	3917180	6.0	9.0	77143	Og	CcySls			G		1	31	1.60	24	1481		794
DS90	3917181	9.0	12.0	77143	Og	CcySls		Ga	G	disseminated, very f.g. galena.	18	75	1.78	31	43000		278
DS90		12.0	12.5		Og	Ccy	Fe	He	M	weakly hematitic + limonitic clay.							
DS90		12.5	12.7		Og	Sls		Ga	LG	(<1mm) f. gr. dissem. galena.							
DS91	3917182	0.0	3.0	77143	Og	CcyCg			YG		3	34	2.19	42	11900		251
DS91	3917183	3.0	6.0	77143	Og	Ccy			NOB		2	26	4.22	49	6800		656
DS91	3917184	6.0	9.0	77143	Og	Ccy			N		12	122	5.46	42	15900		6400
DS91	3917185	9.0	12.0	77143	Og	Ccy	Fe		YB	highly limonitic plastic clay.	9	80	15.40	296	10800		4600
DS91	3917186	12.0	14.2	77143	Og	SlsOvc			G		-1	6	0.82	204	260		157
DS92	3917187	0.0	3.0	77143	Og	Ccy			DGLGY		-1	24	3.33	22	1913		2657
DS92	3917188	3.0	6.0	77143	Og	Ccy			N		-1	20	2.70	36	809		1171
DS92	3917189	6.0	9.0	77143	Og	Ccy			NW	minor white kaolin intercalations.	1	22	2.71	52	488		854
DS92	3917190	9.0	12.0	77143	Og	CcySls			N		4	70	3.25	48	5000		6000
DS92	3917191	12.0	12.8	77143	Og	Sls		Ak	DG	ankeritic frags (<2%) present.	15	444	2.73	55	5100		7700
DS93	3917192	0.0	3.2	77143	Og	CcySls			OYM		1	66	0.73	50	289		227
DS94	3917193	0.0	3.0	77143	Og	Ccy			LYBM		-1	31	1.64	14	51		22
DS94	3917194	3.0	6.0	77143	Og	Ccy			LYB		1	40	1.83	25	222		128
DS94	3917195	6.0	9.0	77143	Og	SlsCcy			DG		-1	21	1.82	52	2229		501
DS94	3917196	9.0	12.0	77143	Og	Sls		Ga	DG	minor f.gr. disseminated galena.	-1	20	1.69	52	5800		998
DS94	3917197	12.0	15.0	77143	Og	CcySls	We		G		-1	18	1.86	42	2393		402
DS94	3917198	15.0	18.0	77143	Og	Ccy			G		2	27	2.88	47	2554		1198
DS94	3917199	18.0	21.0	77143	Og	Ccy		PyGa	G	dissem. f.gr. galena + pyrite bearing clay.	6	29	5.58	39	13300		2345
DS94	3917200	21.0	24.0	77143	Og	Sls			DG		2	32	4.36	338	2661		876
DS94	3917201	24.0	25.1	77143	Og	SlsOvc			DG		1	22	2.19	915	1790		136
DS95	3917202	0.0	3.0	77143	Og	CgCcy			LGB		-1	10	0.45	32	1638		17
DS95	3917203	3.0	6.0	77143	Og	CcySls			MDG		3	51	3.25	32	3998		1723
DS95	3917204	6.0	9.0	77143	Og	Ccy			N		-1	17	4.48	33	103		541
DS95	3917205	9.0	12.0	77143	Og	Ccy			N		-1	18	6.54	26	84		308
DS95	3917206	12.0	15.0	77143	Og	CcySls	We		N		-1	19	3.88	42	90		215
DS95	3917207	15.0	18.0	77143	Og	Sls	Fi	Py	DG	weakly pyritic.	-1	18	4.01	33	61		105
DS95	3917208	18.0	21.0	77143	Og	SlsCcy	We		G		-1	16	3.45	42	40		122
DS95	3917209	21.0	24.0	77143	Og	SlsCcy			LGG		-1	17	1.86	25	146		183
DS95	3917210	24.0	27.0	77143	Og	SlsCcy			DG		-1	20	2.92	53	164		246
DS95	3917211	27.0	30.0	77143	Og	Sls			DG		-1	12	3.08	161	42		571
DS96	3917212	0.0	3.0	77143	Og	CcyCg			LBN		-1	14	0.51	25	52		26
DS96	3917213	3.0	6.0	77143	Og	Ccy			G		-1	49	2.04	18	204		359
DS96	3917214	6.0	9.0	77143	Og	SlsCcy	We		DG		-1	16	3.54	94	53		224
DS96	3917215	9.0	12.0	77143	Og	CcySls			DG		-1	9	2.41	344	48		78
DS96	3917216	12.0	15.0	77143	Og	CcySls			GDG		-1	17	7.14	1091	56		190
DS96	3917217	15.0	15.8	77143	Og	Sls			DG		-1	15	3.67	199	84		89

APPENDIX 7

BLACKJACKS CORNER AIR-CORE DRILLING LEDGERS AND GEOCHEMISTRY

805155

C R A EXPLORATION PTY. LIMITED
ACN 000 057 125

UNIT 1, 23 BELL STREET, PRESTON, VICTORIA 3072, AUSTRALIA

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28th September 1994

MEMO TO: R.G. PARKINSON

FROM: L. VESKA

BLACKJACKS PROSPECT - AIR-CORE DRILLING 1993/94

A total of 96 aircore holes were drilled at the Blackjacks prospect during the 1993/1994 summer field season.

An overall southerly increase in the average aircore-penetration depth was noted, particularly south of line 60900N, controlled by the frequent presence of thick clay sequences and partially decomposed limestone interbeds. On lines north of 61800N, fresh, indurated limestone was commonly encountered less than 1metre depth below surface, immediately beneath the black, peaty soil horizon. Consequently, drillhole data from the northern half of the grid is limited at depth.

Drillholes attempted along the eastern extremities of lines 61300N and 61500N were hampered, and often abandoned, due to thick colluvial accumulations of pebbly sandstone and conglomerate talus, producing a natural barrier to aircore drilling methods.

Drillholes on lines 61100N and 61500N, bordering the zone of thickest talus development, intersected moderate to strong, patchy siderite alteration, including narrow bands of intense, pervasively-altered limestone. The prospective lower contact of the Gordon Limestone with the topographically high, steeply-dipping conglomerate bed forming the western flank of Misery Hill (in the vicinity of line 61300N), would conceivably have the thickest blanketting colluvial cover. Given the presence of favourable Fe-alteration (line 61500N at 366500E), further testing of the base of the limestone, particularly along lines 61100N, 61300N and 61500N, by alternative drilling methods is suggested.

Aircore drillhole DB109 (total depth: 1.5 m) contained the highest single zinc assay value (2.2%Zn) of all samples generated from the 1993/1994 program at the Blackjacks prospect. DB109, the very last hole, and in fact the very last sample (3987319) before the aircore rig was demobilised, was drilled as a fill-in hole on line 61500N at the western margin of a dense, isolated stand of trees and scrub. The sample (0-1.5 m interval) consisted of an uninspiring, dark-grey calcilutite

with lesser dark-brown peaty soil, a sudden increase in limestone-hardness preventing further drilling penetration. Drillholes on line 61500N immediately east of the vegetated area intersected massive calcite veining to 2 metre apparent thickness (DB108), with (spatially) associated calcite-cemented breccias containing trace amounts of sphalerite and galena. Drill penetration of the unweathered breccias was generally shallow, so the extent of brecciation and/or mineralisation is not fully tested.

Appendix 7: Blackjacks air-core ledgers and geochemistry

Results in ppm (Fe, S in %)

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB1	0.0	2.0	3527878	71533	Qha	CsCv			B		47	52	83	-1	0.38	20	
DB1	2.0	4.0	3527879	71533	Og	Ccy			DG		63	509	1209	1	1.45	32	
DB1	4.0	6.0	3527880	71533	Og	Ccy			DGN		20	131	388	-1	1.17	41	
DB1	6.0	8.0	3527881	71533	Og	Ccy		Gf	DG	Silvery	20	120	301	-1	1.92	52	
DB1	8.0	10.0	3527882	71533	Og	Ccy		Gf	DG	Silvery	19	259	2535	-1	2.03	44	
DB1	10.0	12.0	3527883	71533	Og	Ccy		Gf	DG	Silvery	19	227	1306	-1	2.41	46	
DB1	12.0	14.0	3527884	71533	Og	Ccy		Gf	DG	Silvery	29	269	1057	1	2.58	46	
DB1	14.0	16.0	3527885	71533	Og	Ccy		Gf	DG	Silvery	19	177	401	-1	2.5	57	
DB1	16.0	18.0	3527886	71533	Og	Ccy		Gf	DG	Silvery	18	75	130	-1	2.47	59	
DB1	18.0	20.0	3527887	71533	Og	Ccy		Gf	DG	Silvery	19	115	223	-1	2.51	63	
DB1	20.0	22.0	3527888	71533	Og	CcySls			DG		12	335	1603	1	1.91	311	
DB1	22.0	24.0	3527889	71533	Og	Sls	Ma		DG		4	133	544	-1	1.28	263	
DB1	24.0	26.0	3527890	71533	Og	Sls	Ma		G		4	48	309	-1	1.24	270	
DB2	0.0	2.0	3527891	71533	QhaOg	CcyCv			DGN		18	730	734	1	2.52	61	
DB2	2.0	4.0	3527892	71533	Og	Ccy			DGN		18	228	902	-1	2.43	39	
DB2	4.0	6.0	3527893	71533	Og	Ccy			DGN		18	42	505	-1	1.96	43	
DB2	6.0	8.0	3527894	71533	Og	Ccy		Gf	DG	Silvery	16	74	510	-1	2.3	47	
DB2	8.0	10.0	3527895	71533	Og	Ccy			DG		22	239	2379	-1	2.63	51	
DB2	10.0	12.0	3527896	71533	Og	Ccy			DG		17	88	368	-1	3.12	57	
DB2	12.0	14.0	3527897	71533	Og	Sls	Ma		DG		7	28	70	-1	1.45	242	
DB2	14.0	16.0	3527898	71533	Og	Sls	Ma		DG		5	21	60	-1	1.05	193	
DB2	16.0	18.0	3527899	71533	Og	CcySls			LGDG		7	19	83	-1	0.95	168	
DB2	18.0	19.7	3527900	71533	Og	CcySls			LGDG		4	23	77	-1	0.83	193	
DB3	0.0	2.0	3527901	71533	QhaOg	CcyCv			DG		24	639	1492	1	2.24	48	
DB3	2.0	4.0	3527902	71533	Og	CcySls	Vn	Cc	DG		18	590	2359	1	2.74	1443	
DB3	4.0	6.0	3527903	71533	Og	Sls	Vn	Cc	DG		4	254	1713	-1	2.02	4180	
DB3	6.0	8.0	3527904	71533	Og	CcySls	Vn	Cc	DG		6	681	2178	1	2.32	1517	
DB3	8.0	10.0	3527905	71533	Og	SlsCcy			LGDG		10	372	1638	-1	1.84	505	
DB3	10.0	12.0	3527906	71533	Og	Sls	Ma		DG		8	214	383	-1	1.26	329	
DB3	12.0	14.0	3527907	71533	Og	Sls	Ma		DG		7	96	405	-1	1.17	227	
DB3	14.0	16.0	3527908	71533	Og	Ccy			G		8	151	617	-1	1.04	232	
DB3	16.0	17.3	3527909	71533	Og	CcySls			DG		5	177	683	-1	0.6	202	
DB4	0.0	2.0	3527910	71533	Og	Ccy			DG		15	208	1057	-1	1.49	34	
DB4	2.0	4.0	3527911	71533	Og	Ccy			DGN		20	706	4097	1	2.12	49	
DB4	4.0	6.0	3527912	71533	Og	Ccy		Gf	DG	Silvery	20	101	920	-1	1.86	53	
DB4	6.0	8.0	3527913	71533	Og	CcySls			LG		10	106	510	-1	1.76	272	
DB4	8.0	9.8	3527914	71533	Og	SlsCcy	Ma		DG		7	48	245	-1	1.74	276	
DB5	0.0	2.0	3527915	71533	QhaOg	CcyCv			G		17	33	184	-1	1.38	52	
DB5	2.0	4.0	3527916	71533	Og	Ccy			G		16	50	206	-1	1.49	52	
DB5	4.0	6.0	3527917	71533	Og	Ccy		Gf	G	Silvery	20	504	662	1	2.2	50	
DB5	6.0	8.0	3527918	71533	Og	SlsCcy			LBG		13	280	952	-1	4.15	45	
DB5	8.0	10.0	3527919	71533	Og	Ccy			DG		13	317	5200	1	3.55	53	
DB5	10.0	12.0	3527920	71533	Og	Ccy			DG		15	343	1600	1	1.58	88	
DB5	12.0	14.0	3527921	71533	Og	Ccy			DG		14	70	444	-1	1.9	43	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB5	14.0	16.0	3527922	71533	Og	Ccy			DG		12	26	402	-1	3.03	42	
DB5	16.0	18.0	3527923	71533	Og	CcySls	Ma		DG		12	44	268	-1	1.94	110	
DB5	18.0	20.0	3527924	71533	Og	Sls	Lm		ALG		5	10	40	-1	0.83	172	
DB6	0.0	2.0	3527925	71533	Og	Ccy			G		25	2584	3621	2	1.04	43	
DB6	2.0	4.0	3527926	71533	Og	CcySls	Al	Sd	DG		18	2400	7700	2	1.32	46	
DB6	4.0	6.0	3527927	71533	Og	Ccy			G		16	1100	8000	2	2.91	46	
DB6	6.0	8.0	3527928	71533	Og	Sls	Ma		DG		22	600	9900	2	1.45	49	
DB6	8.0	10.5	3527929	71533	Og	Sls	Ds	Py	DG		9	70	4040	-1	1.79	39	
DB7	0.0	2.0	3527930	71533	QhaOg	CcyCv			B		4	13	122	-1	0.42	24	
DB7	2.0	4.0	3527931	71533	Og	Ccy			YB		25	487	726	2	0.74	22	
DB7	4.0	6.0	3527932	71533	Og	CcySls			G		27	1348	3317	2	1.4	27	
DB7	6.0	8.0	3527933	71533	Og	CcySls			G		16	234	2640	-1	1.66	32	
DB7	8.0	10.0	3527934	71533	Og	Sls	Ma		DG		14	193	1835	-1	1.69	32	
DB7	10.0	12.0	3527935	71533	Og	Sls	Ma		DG		16	226	1872	-1	1.58	36	
DB7	12.0	14.0	3527936	71533	Og	Sls	Ma		DG		13	173	2155	1	1.62	38	
DB7	14.0	16.0	3527937	71533	Og	CcySls			YGDG		11	155	2046	1	1.71	33	
DB7	16.0	18.0	3527938	71533	Og	Ccy			DG		13	318	1851	1	1.7	38	
DB7	18.0	20.0	3527939	71533	Og	CcySls			DG		13	191	2594	-1	2.43	44	
DB7	20.0	22.0	3527940	71533	Og	Sls			DG		15	161	1302	-1	1.75	45	
DB7	22.0	24.0	3527941	71533	Og	CcySls			DG	Silvery	11	117	666	1	1.86	50	
DB7	24.0	26.0	3527942	71533	Og	CcySls			DG	Silvery	13	78	306	-1	1.63	53	
DB7	26.0	28.0	3527943	71533	Og	CcySls			DG	Silvery	13	144	245	-1	1.49	46	
DB7	28.0	30.0	3527944	71533	Og	Sls	Ma		DG		16	39	163	-1	1.56	43	
DB7	30.0	32.0	3527945	71533	Og	Sls	Ma		DG		18	62	620	-1	1.59	44	
DB8	0.0	2.0	3527946	71533	Qha	CgCsCcy			LB		27	27	20	-1	0.49	81	
DB8	2.0	4.0	3527947	71533	Og?	Ccy			LB		11	14	21	-1	0.45	19	
DB8	4.0	6.0	3527948	71533	Og?	CcySsl			LB		24	21	29	-1	0.43	19	
DB8	6.0	8.0	3527949	71533	Og?	CcySsl			LGBDG		25	397	608	1	1.09	30	
DB8	8.0	10.0	3527950	71533	Og	Sls	Vu		DG		17	138	267	-1	1.55	40	
DB8	10.0	12.0	3527951	71533	Og	Ccy			G		17	115	939	-1	1.87	38	
DB8	12.0	14.0	3527952	71533	Og	Ccy			GLB		13	272	1680	-1	1.51	31	
DB8	14.0	16.0	3527953	71533	Og	Sls			DG		15	78	329	-1	1.71	41	
DB8	16.0	18.0	3527954	71533	Og	SlsCcy			DGLB		13	158	644	-1	1.64	37	
DB9	0.0	2.0	3527955	71533	Qha	CcyCsCv			LY		7	8	26	-1	0.46	22	
DB9	2.0	4.0	3527956	71533	Og	Ccy			G	Silvery	27	389	1291	1	1.94	41	
DB9	4.0	6.0	3527957	71533	Og	Ccy			G	Silvery	42	871	1296	1	1.72	35	
DB9	6.0	8.0	3527958	71533	Og	Ccy			G		24	430	1043	1	2.11	326	
DB10	0.0	2.0	3527959	71533	QhaOg	CcyCv			DG		26	930	686	1	1.89	38	
DB10	2.0	4.0	3527960	71533	Og	Ccy			DG		70	1492	713	1	2.38	33	
DB10	4.0	6.0	3527961	71533	Og	SlsCcy			DGB		170	5700	1466	1	1.79	49	
DB10	6.0	8.0	3527962	71533	Og	SlsCcy			DGB		37	4000	6200	1	2.51	52	
DB10	8.0	10.0	3527963	71533	Og	CcySls			DG		25	2300	8200	2	0.82	37	
DB10	10.0	12.0	3527964	71533	Og	SlsCcy			DG		25	1340	3569	1	6.91	1116	
DB10	12.0	14.0	3527965	71533	Og	CcySls			DG		12	316	1026	1	3.42	761	
DB10	14.0	14.2	3527966	71533	Og	Sls	Ds	Py	DG		10	349	1158	1	16.1	4860	
DB11	0.0	2.0	3527967	71533	QhaOg	CcyCv			LBLG		93	2476	565	4	0.57	96	
DB11	2.0	4.0	3527968	71533	Og	SlsCcy			DG		123	31900	19100	3	0.71	61	
DB11	4.0	6.0	3527969	71533	Og	Sls			DG		44	22500	15900	1	3.44	37	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB11	6.0	8.0	3527970	71533	Og	Ccy			DG		38	3400	9800	2	2.4	52	
DB11	8.0	10.0	3527971	71533	Og	SlsCcy			DG		41	5700	15700	2	2.51	97	
DB11	10.0	12.0	3527972	71533	Og	SlsCcy			DG		32	4500	12600	2	2.83	99	
DB11	12.0	14.0	3527973	71533	Og	SlsCcy			DG		40	3000	8900	1	0.84	86	
DB11	14.0	16.0	3527974	71533	Og	CcySls			DG		36	3600	16400	4	2.21	36	
DB11	16.0	18.0	3527975	71533	Og	Ccy			DG		26	384	2775	1	3.52	537	
DB11	18.0	20.0	3527976	71533	Og	CcySls			DG		10	122	737	-1	4.38	950	
DB11	20.0	22.0	3527977	71533	Og	CcySls			DG		9	79	415	1	4.55	1007	
DB11	22.0	22.6	3527978	71533	Og	Sls			DG		13	49	411	-1	8.69	2036	
DB12	0.0	2.0	3527979	71533	Qha	CcyCv			LG		8	14	33	1	0.4	39	
DB12	2.0	4.0	3527980	71533	QhaOg	Ccy			LGDG		33	144	55	2	0.69	30	
DB12	4.0	6.0	3527981	71533	Og	Ccy			N		21	323	275	-1	1.92	25	
DB12	6.0	8.0	3527982	71533	Og	Ccy			N		22	48	723	-1	1.96	29	
DB12	8.0	10.0	3527983	71533	Og	Sls			DG		20	94	2369	-1	1.78	39	
DB12	10.0	12.0	3527984	71533	Og	SlsCcy			DG		21	220	3170	1	1.89	37	
DB12	12.0	14.0	3527985	71533	Og	Ccy			DG	Silvery	19	168	1378	1	1.81	44	
DB12	14.0	16.0	3527986	71533	Og	Ccy			DG	Silvery	20	127	1336	-1	2.39	40	
DB12	16.0	18.0	3527987	71533	Og	Ccy			DGN		22	62	2667	-1	1.8	38	
DB12	18.0	20.0	3527988	71533	Og	Sls	Os	Sp	DG		12	156	6500	1	4.95	21	
DB12	20.0	22.0	3527989	71533	Og	Ccy			DG		20	257	3409	1	2.63	39	
DB12	22.0	24.0	3527990	71533	Og	CcySls	Ds	Py	DG		20	706	2807	1	2.38	43	
DB12	24.0	26.0	3527991	71533	Og	Sls	Ds	Py	DG		17	900	8100	1	3.77	106	
DB12	26.0	26.7	3527992	71533	Og	Sls	Ds	Py	LG		7	87	555	-1	2.8	512	
DB14	0.0	3.0	3985481	77656	Og	Ccy			DG		16	385	755	-1	1.91	30	
DB14	3.0	6.0	3985482	77656	Og	Ccy			DG		12	181	829	-1	9.7	29	
DB14	6.0	9.0	3985483	77656	Og	Ccy			N		20	97	587	-1	5.67	36	
DB14	9.0	12.0	3985484	77656	Og	CcySls	We	FeSp	DG		13	111	2651	-1	6.23	30	
DB14	12.0	15.0	3985485	77656	Og	Sls	Al	PySpSd	DG+YG	sphaleritic ank. altered Sls, minor pyr.	9	26	1897	-1	8.01	24	
DB14	15.0	18.0	3985486	77656	Og	Ccy		PySp	DG	moderately sphaleritic.	13	22	386	-1	4.36	31	
DB14	18.0	21.0	3985487	77656	Og	SlsCcy	Al	SdPy	DG	mod. pyr., minor patchy ank. altn.	10	28	521	-1	6.39	39	
DB14	21.0	24.0	3985488	77656	Og	CcySls		Py	G+DG	mod. pyr.	12	106	461	-1	5.02	64	
DB14	24.0	27.0	3985489	77656	Og	Sls		Sp	DG	minor sphalerite granules, no obvious altn.	3	20	71	-1	1.37	245	
DB14	27.0	29.0	3985490	77656	Og	SlsOvc			G		2	23	138	-1	1.24	261	
DB15	0.0	3.0	3985491	77656	Og	Ccy			N		15	243	1202	1	3.55	39	
DB15	3.0	6.0	3985492	77656	Og	Ccy			N		24	2109	9000	9	4.66	36	
DB15	6.0	9.0	3985493	77656	Og	Sls		Py	DG	highly pyritic (1-2cm frags).	8	144	294	-1	3.21	176	
DB15	9.0	12.0	3985494	77656	Og	CcySls	We		G		5	24	77	-1	2.28	454	
DB15	12.0	15.0	3985495	77656	Og	Sls	We		DGLG		2	6	38	-1	1.84	466	
DB15	15.0	18.0	3985496	77656	Og	Sls			DG		3	6	36	-1	1.38	315	
DB15	18.0	21.0	3985497	77656	Og	Sls		Py		weakly pyr.	3	6	79	-1	2.06	472	
DB15	21.0	24.0	3985498	77656	Og	Sls			DG	CO3 mudstone.	3	8	143	-1	1.97	357	
DB15	24.0	25.5	3985499	77656	Og	SlsOvc	Lm		DG+G	graphitic.	2	7	73	-1	2.21	589	
DB16	0.0	3.0	3985500	77656	Og	SlsCcy			DG		52	5400	6500	-1	4.49	32	
DB16	3.0	6.0	3985501	77656	Og	CcySls	Al	SpSd	G+DG	weak, patchy ank. altn.	13	4203	4439	-1	4.92	35	
DB16	6.0	9.0	3985502	77656	Og	Ccy			G+DG		13	85	1661	-1	2.43	39	
DB16	9.0	12.0	3985503	77656	Og	Ccy			DG		13	29	1763	-1	4.29	51	
DB16	12.0	15.0	3985504	77656	Og	Sls		Py	DG	mod. pyr.	8	63	344	-1	2.5	120	
DB16	15.0	18.0	3985505	77656	Og	Sls			DG+G		10	63	388	-1	2.68	138	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB16	18.0	21.0	3985506	77656	Og	SlsOvc			G+DG		2	9	138	-1	1.28	229	
DB16	21.0	23.7	3985507	77656	Og	Sls			DG+LG	lesser Lt Gy intercalations.	3	48	142	-1	1.3	257	
DB17	0.0	3.0	3985508	77656	Og	Ccy			N		18	409	2528	1	7.23	43	
DB17	3.0	6.0	3985509	77656	Og	SlsCcy			DG		17	616	2117	1	5.04	817	
DB17	6.0	9.0	3985510	77656	Og	Sls		Py	DG	weakly pyr.	4	550	1692	1	4.66	1701	
DB17	9.0	12.0	3985511	77656	Og	Sls			DG		4	62	295	-1	1.64	281	
DB17	12.0	15.0	3985512	77656	Og	Sls	Ma		DG		3	439	534	-1	2.06	503	
DB17	15.0	18.0	3985513	77656	Og	Sls	Lm		G+DG	crude graphite banding/lam.	6	402	526	-1	1.77	462	
DB18	0.0	3.0	3985514	77656	Og	Ccy			N		20	1451	5200	1	3.19	33	
DB18	3.0	6.0	3985515	77656	Og	Ccy			G		11	168	833	-1	1.8	34	
DB18	6.0	9.0	3985516	77656	Og	Ccy			G		14	286	1682	-1	12.3	26	
DB18	9.0	12.0	3985517	77656	Og	CcySls	We		G		12	102	1167	-1	4.13	34	
DB18	12.0	15.0	3985518	77656	Og	CcySls			G+DG		14	529	3552	-1	3.99	36	
DB18	15.0	18.0	3985519	77656	Og	CcySls			G		13	187	1565	-1	2.51	26	
DB18	18.0	21.0	3985520	77656	Og	SlsCcy	We		G		14	72	387	-1	2.36	37	
DB18	21.0	24.0	3985521	77656	Og	CcySls	We		G		23	316	1659	-1	5	55	
DB18	24.0	27.0	3985522	77656	Og	SlsOvc			G		3	105	235	-1	1.73	474	
DB18	27.0	30.0	3985523	77656	Og	SlsOvc			G	1cm carbonaceous bands.	6	109	186	-1	1.39	418	
DB19	0.0	3.0	3985524	77656	Og	Ccy			G+V		95	1731	462	1	1.99	36	
DB19	3.0	6.0	3985525	77656	Og	Ccy			DG		16	395	3387	-1	4.89	35	
DB19	6.0	9.0	3985526	77656	Og	Ccy			DG		14	344	884	1	3.69	37	
DB19	9.0	12.0	3985527	77656	Og	Ccy			DG		46	9600	14600	23	5.03	502	4.5
DB19	12.0	15.0	3985528	77656	Og	Ccy		Py	DG+V	mod. pyr.	19	626	3227	2	4.62	396	
DB19	15.0	18.0	3985529	77656	Og	Ccy			N		17	125	3900	-1	4.86	440	
DB19	18.0	21.0	3985530	77656	Og	Sls			DG		2	29	104	-1	2.9	938	
DB19	21.0	24.0	3985531	77656	Og	Sls			DG		3	21	90	-1	2.69	901	
DB19	24.0	25.1	3985532	77656	Og	Sls			G+DG	graphite banded.	4	166	978	-1	1.1	270	
DB20	0.0	3.0	3985533	77656	Og	CcySls	We		N		15	1680	6500	1	6.16	32	
DB20	3.0	6.0	3985534	77656	Og	CcySls			N		13	706	3286	1	4.95	36	
DB20	6.0	9.0	3985535	77656	Og	CcySls			N		13	83	667	-1	4.07	33	
DB20	9.0	12.0	3985536	77656	Og	Ccy			G		12	62	2116	-1	3.73	37	
DB20	12.0	15.0	3985537	77656	Og	CcySls			DGV		7	78	1802	-1	3.48	196	
DB20	15.0	18.0	3985538	77656	Og	SlsCcy			DG+G		2	25	171	-1	1.96	539	
DB20	18.0	21.0	3985539	77656	Og	SlsOvc			DG		2	71	220	-1	1.61	925	
DB20	21.0	23.2	3985540	77656	Og	SlsOvc			G+LG	minor graphitic bands, granular Sls.	2	165	541	-1	1.03	249	
DB21	0.0	3.0	3985541	77656	Og	Ccy			N		15	140	358	-1	3.44	35	
DB21	3.0	6.0	3985542	77656	Og	Ccy			N		21	370	1225	-1	6.25	35	
DB21	6.0	9.0	3985543	77656	Og	CcySls			DG		12	183	470	-1	4.49	215	
DB21	9.0	12.0	3985544	77656	Og	SlsCcy			DG		5	103	421	-1	2.72	566	
DB21	12.0	15.0	3985545	77656	Og	Sls	Al	Sd	DG+G	weak patchy ankerite altn.	3	573	2403	1	2.34	3131	
DB21	15.0	18.0	3985546	77656	Og	SlsCcy			DG		2	51	623	-1	2.63	690	
DB21	18.0	21.0	3985547	77656	Og	CcySls			DG		2	37	224	-1	2.83	632	
DB21	21.0	24.0	3985548	77656	Og	Sls	WeFi		DG		10	21	571	-1	4.24	570	
DB21	24.0	27.0	3985549	77656	Og	Sls	We		DG		11	19	451	-1	5.57	636	
DB21	27.0	30.0	3985550	77656	Og	Sls	Fi		DG		16	24	625	-1	2.43	57	
DB21	30.0	33.0	3985551	77656	Og	Sls			DG+G		5	17	178	-1	2.22	508	
DB22	0.0	3.0	3985552	77656	Og	Ccy			N		26	358	440	-1	2.23	27	
DB22	3.0	6.0	3985553	77656	OgQha	CcyCg			DG+W	minor white clay.	40	5200	11700	11	2.24	22	2.7

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB22	6.0	9.0	3985554	77656	Og	Ccy			DG+N		98	2167	9000	6	5.2	41	
DB22	9.0	12.0	3985555	77656	Og	Ccy			N		44	865	3196	2	5.87	52	
DB22	12.0	15.0	3985556	77656	Og	Ccy			M	Dk Gy/Lt Gy mottled clay.	25	372	3716	1	5.47	24	
DB22	15.0	18.0	3985557	77656	Og	Ccy			DG+M	white kaolin-rich spots present.	22	1725	6700	2	5	34	
DB22	18.0	21.0	3985558	77656	Og	CcySls			DG+G		16	288	1954	1	3.55	169	
DB22	21.0	24.0	3985559	77656	Og	Sls		Py	G	weakly pyritic.	5	44	364	-1	2.68	518	
DB22	24.0	27.0	3985560	77656	Og	Sls	Ma		G		4	146	777	-1	2.33	390	
DB22	27.0	30.0	3985561	77656	Og	Sls	Vu		G		5	50	663	-1	6.11	1561	
DB22	30.0	33.0	3985562	77656	Og	Sls	Ma		DG		6	132	878	-1	3.11	813	
DB22	33.0	36.0	3985563	77656	Og	SlsOvc	Bx		DG	calcite cemented Sls breccia.	4	66	509	-1	4.07	922	
DB22	36.0	39.0	3985564	77656	Og	Sls			DG		6	39	261	-1	4.25	1033	
DB22	39.0	42.0	3985565	77656	Og	SlsOvc	Al	Sd	DG	weak patchy ank. altn.	6	307	1192	-1	9.91	2490	
DB22	42.0	45.0	3985566	77656	Og	Sls	Al	Sd	DG	as above	5	119	674	-1	6.33	1374	
DB22	45.0	48.0	3985567	77656	Og	Sls	Al	Sd	DG+YG	as above	4	993	2816	1	14.8	5700	
DB22	48.0	49.0	3985568	77656	Og	SlsOvc	Vu			some unconsolidated sands present.	5	664	2488	1	6.31	2212	
DB23	0.0	3.0	3985569	77656	OgCha	CcyCbs			LB+W		24	361	175	5	0.54	50	
DB23	3.0	6.0	3985570	77656	Og	CcySls	We		V+G		114	6500	12900	5	6.33	31	6.7
DB23	6.0	9.0	3985571	77656	Og	Ccy			LM		152	3100	11200	10	4.66	24	4.25
DB23	9.0	12.0	3985572	77656	Og	CcySls			LM		33	3010	15900	1	4.69	29	6
DB23	12.0	15.0	3985573	77656	Og	Ccy			DM		25	1557	8800	1	3.28	40	
DB23	15.0	18.0	3985574	77656	Og	CcySls	We		DG		23	848	8800	1	4.5	40	
DB23	18.0	21.0	3985575	77656	Og	Ccy			DG		21	274	2933	-1	4.31	49	
DB23	21.0	24.0	3985576	77656	Og	Ccy			N		20	262	3487	-1	4.78	54	
DB23	24.0	27.0	3985577	77656	Og	CcySls			DG+G		16	322	3167	-1	5.35	921	
DB23	27.0	30.0	3985578	77656	Og	Ccy			G		5	54	642	-1	1.54	332	
DB23	30.0	32.5	3985579	77656	Og	SlsOvc			DG		5	91	460	-1	2.07	567	
DB24	0.0	3.0	3985580	77656	Og	Ccy			LGDG		33	104	32	-1	0.59	23	
DB24	3.0	6.0	3985581	77656	Og	Ccy			G		66	1975	388	-1	1.4	26	
DB24	6.0	9.0	3985582	77656	Og	SlsCcy	Al	Sd	DG	minor ank. altn.	33	2325	1871	-1	1.94	32	
DB24	9.0	12.0	3985583	77656	Og	SlsCcy	We		DG		20	1839	3818	-1	2.95	30	
DB24	12.0	15.0	3985584	77656	Og	Sls	Al	Sd	DG	moderate, pervasive ank. altn.	14	301	8200	-1	3.43	32	
DB24	15.0	18.0	3985585	77656	Og	Sls	Al	SdSp	GV	moderate, pervasive ank. altn sphaleritic Sls.	15	401	8500	-1	7.74	27	
DB24	18.0	21.0	3985586	77656	Og	CcySls		Sd	G	trace ank. Sls frags present.	31	194	4179	-1	4.3	37	
DB24	21.0	24.0	3985587	77656	Og	CcySls		Sd	G	as above	16	121	4807	-1	2.19	38	
DB24	24.0	27.0	3985588	77656	Og	SlsCcy			DG		18	52	4846	-1	1.88	42	
DB24	27.0	30.0	3985589	77656	Og	Sls	Al	SdSp	DG	weak patchy ank. altn, trace sphalerite.	25	215	4970	-1	5.59	41	
DB24	30.0	33.0	3985590	77656	Og	SlsOvc		Sp	DG+G	trace sphalerite.	8	155	959	-1	1.62	342	
DB24	33.0	34.0	3985591	77656	Og	SlsOvc	Bx		DG+MG	graphitic "wispy" Sls, minor brecciation evident.	5	76	822	-1	1.01	208	
DB25	0.0	3.0	3985592	77656	Og	Ccy			M		75	146	49	2	1.65	16	
DB25	3.0	6.0	3985593	77656	Og	Ccy			N		34	3247	2027	1	3.97	33	
DB25	6.0	9.0	3985594	77656	Og	Ccy			N		26	1528	1113	-1	2.27	29	
DB25	9.0	12.0	3985595	77656	Og	Ccy			N		21	873	1867	-1	2.24	35	
DB25	12.0	15.0	3985596	77656	Og	Ccy			DG		16	334	1185	-1	2.04	28	
DB25	15.0	18.0	3985597	77656	Og	CcySls			DG		18	311	2155	-1	2.15	28	
DB25	18.0	21.0	3985598	77656	Og	Sls		Py	DG	minor pyr. vein frags.	28	187	1436	-1	4.52	42	
DB25	21.0	24.0	3985599	77656	Og	Sls	We	Sp	DG	sphalerite 1-2%	20	99	964	-1	3.61	103	
DB25	24.0	26.3	3985600	77656	Og	SlsOvc		Sd	DG+G	minor ankerite veining	7	35	175	-1	1.81	555	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB26	0.0	3.0	3985601	77656	Og	Ccy			DG+LB		24	2310	1067	1	4.36	38	
DB26	3.0	6.0	3985602	77656	Og	Ccy			G		31	1751	1647	1	4.81	31	
DB26	6.0	9.0	3985603	77656	Og	Ccy			G		26	1398	8000	1	6.95	33	
DB26	9.0	12.0	3985604	77656	Og	CcySls			G+DG	fossil (bivalve) casts present	13	357	2617	-1	7.35	1239	
DB26	12.0	15.0	3985605	77656	Og	Ccy			DG	muddy clay	8	133	633	-1	8.14	1768	
DB26	15.0	18.0	3985606	77656	Og	CcySls	We		DG		8	102	383	-1	7.3	1606	
DB26	18.0	20.2	3985607	77656	Og	SlsOvc			G		7	107	324	-1	4.84	1072	
DB27	0.0	3.0	3985608	77656	Og	Ccy			G+Y	minor Yw clay	39	407	502	2	3.37	34	
DB27	3.0	6.0	3985609	77656	OgCha	CcyCg			LM		41	93	97	-1	1.71	20	
DB27	6.0	9.0	3985610	77656	Og	Ccy			LM		156	725	120	3	0.76	24	
DB27	9.0	12.0	3985611	77656	Og	Ccy			DG+LB	mixed clays	128	921	412	3	1.46	36	
DB27	12.0	15.0	3985612	77656	Og	Ccy			G		25	866	2895	1	3.15	38	
DB27	15.0	18.0	3985613	77656	Og	Ccy			DG		26	486	1888	1	4.14	41	
DB27	18.0	21.0	3985614	77656	Og	Ccy			N		25	759	1463	1	5.11	40	
DB27	21.0	24.0	3985615	77656	Og	SlsOvc			G		8	230	1016	-1	4.13	1256	
DB27	24.0	27.0	3985616	77656	Og	SlsCcy	We		LG+G		19	984	6100	4	6.83	2080	
DB27	27.0	30.0	3985617	77656	Og	SlsOvc	Bx		G	trace breccia texture	9	355	1588	1	4.21	1420	
DB27	30.0	32.5	3985618	77656	Og	SlsOvc	BxAl	Sd	G	trace ank. altered (vein) Sls frags.	6	474	2498	1	5.04	2526	
DB28	0.0	3.0	3985619	77656	Og	Ccy			DG+N		27	444	970	-1	2.08	28	
DB28	3.0	6.0	3985620	77656	Og	CcySls	We		N		17	197	3092	-1	5.2	24	
DB28	6.0	9.0	3985621	77656	Og	Ccy		Py	DG	mod. pyr.	12	27	3033	-1	15.2	22	
DB28	9.0	12.0	3985622	77656	Og	Sls		Py	DG	mod. pyr. coraline calcilutite.	17	40	1394	-1	8.12	32	
DB28	12.0	15.0	3985623	77656	Og	CcySls			DG		17	36	2039	-1	6.03	31	
DB28	15.0	18.0	3985624	77656	Og	Sls	Al	Sd	DG	weak, patchy ankerite altered.	15	34	1631	-1	4.88	38	
DB28	18.0	21.0	3985625	77656	Og	Sls	We		G		13	23	449	-1	1.32	28	
DB28	21.0	24.0	3985626	77656	Og	Sls	Al	SdSp	DG	weak, patchy ank. altered limestone, sphalerite 2%.	18	52	322	-1	1.42	31	
DB28	24.0	27.0	3985627	77656	Og	Sls	Al	SdSp	DG	strong, pervasive ank. altd, sph 3-5%, granular Sls.	12	40	1155	-1	1.96	45	
DB28	27.0	28.0	3985628	77656	Og	Sls			LG+G	graphite laminated Sls, could not drill further.	11	78	823	-1	1.46	61	
DB29	0.0	3.0	3985629	77656	Og	Ccy			DG		20	442	2933	-1	3.56	32	
DB29	3.0	6.0	3985630	77656	Og	Ccy			G		15	674	4467	-1	5.16	30	
DB29	6.0	9.0	3985631	77656	Og	Sls	Al	SdSp	DG	weak, pervasive ank. alt. sphaleritic (1%) Sls.	16	517	6500	-1	4.22	25	
DB29	9.0	12.0	3985632	77656	Og	SlsCcy		Sp	DG	trace sphalerite.	13	193	1916	-1	1.61	24	
DB29	12.0	14.3	3985633	77656	Og	Sls			G+DG	weakly graphitic.	11	127	1007	-1	1.38	90	
DB30	0.0	3.0	3985634	77656	Og	Ccy			DG		19	29	170	-1	2.06	53	
DB30	3.0	6.0	3985635	77656	Og	Ccy			DG		19	105	283	-1	3.66	41	
DB30	6.0	7.7	3985636	77656	Og	Sls			DG+G	calcite 'flecked' sandy calcilutite.	14	159	500	-1	3.69	115	
DB31	0.0	3.0	3985637	77656	Og	Ccy			DB+N		16	100	276	-1	3.97	50	
DB31	3.0	6.0	3985638	77656	Og	SlsCcy	We		G		15	40	209	-1	2.21	33	
DB31	6.0	9.0	3985639	77656	Og	SlsCcy	We		DG		17	37	128	-1	1.61	33	
DB31	9.0	12.0	3985640	77656	Og	SlsCcy	We		DG		19	39	140	-1	1.8	34	
DB31	12.0	15.0	3985641	77656	Og	SlsCcy	We		DG		14	27	392	-1	1.59	31	
DB31	15.0	18.0	3985642	77656	Og	Sls	We		DG		12	16	514	-1	1.72	28	
DB31	18.0	21.0	3985643	77656	Og	Sls		Py	DG	weakly pyr.	13	19	243	-1	1.67	32	
DB31	21.0	24.0	3985644	77656	Og	SlsCcy			DG+G		15	19	191	-1	1.65	40	
DB31	24.0	27.0	3985645	77656	Og	Sls	We		DG		14	24	140	-1	1.7	32	
DB31	27.0	30.0	3985646	77656	Og	Sls	We	Py	DG	weakly pyritic.	11	28	149	-1	1.7	37	
DB31	30.0	33.0	3985647	77656	Og	Sls	Fl	Py	DG	weakly pyritic.	18	399	1101	-1	2.35	37	
DB31	33.0	36.0	3985648	77656	Og	Sls	We		DG	porous, partially weathered.	29	33	544	-1	1.88	50	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB31	36.0	39.0	3985649	77656	Og	SlsCcy			DG		15	26	51	-1	2.14	56	
DB31	39.0	42.0	3985650	77656	Og	Ccy		Py	G	mod. pyr.	12	25	744	-1	1.69	43	
DB31	42.0	45.0	3985651	77656	Og	Sls			G	coraline calcilutite.	17	19	148	-1	1.6	34	
DB31	45.0	48.0	3985652	77656	Og	Sls		Py	G	weakly pyritic.	17	28	144	-1	2.04	43	
DB31	48.0	51.0	3985653	77656	Og	Sls		Py	G	highly pyritic, 2cm py. aggregates.	17	54	168	-1	3.79	34	
DB32	0.0	3.0	3985654	77656	Og	Ccy			VG		23	150	861	-1	1.94	30	
DB32	3.0	6.0	3985655	77656	Og	Ccy			DV+G		16	106	3802	-1	3.11	47	
DB32	6.0	9.0	3985656	77656	Og	Sls	Al	Sd	DG+YG	weak, patchy ank. alt.	11	38	1939	-1	2.38	58	
DB32	9.0	12.0	3985657	77656	Og	SlsCcy	We		G		16	29	484	-1	1.78	49	
DB32	12.0	15.0	3985658	77656	Og	Ccy			DG+V		12	72	282	-1	4.59	31	
DB32	15.0	18.0	3985659	77656	Og	CcySls		Py	DG+V	weakly pyr.	11	134	1121	-1	7.27	35	
DB32	18.0	21.0	3985660	77656	Og	Sls		Py	DG	weakly pyr.	18	80	301	-1	4.25	40	
DB32	21.0	24.0	3985661	77656	Og	Sls		Py	DG	highly pyr	15	115	285	-1	4.47	40	
DB32	24.0	27.0	3985662	77656	Og	Sls	We	Sp	DG	sphalerite 2-3%, 8mm Sp crystals visible.	19	179	4136	-1	4.45	38	
DB32	27.0	30.0	3985663	77656	Og	SlsOvq	Fi	SpPy	DG	mod. pyr., sp (1-2%) Sls, 1cm Sp frag. visible.	16	136	10600	-1	3.49	34	4.06
DB32	30.0	33.0	3985664	77656	Og	Sls	Vu		DG	coraline Sls. Hole abd: broken drill string, cavity?.	10	26	67	-1	2.01	164	
DB33	0.0	3.0	3985665	77656	Og	Ccy			DG		28	74	55	-1	0.56	28	
DB33	3.0	5.8	3985666	77656	Og	CcySls	We		N		26	83	247	-1	0.77	39	
DB33	5.8	5.9			Og	Sls			DG								
DB34	0.0	3.0	3985667	77656	Og	Ccy			DG		17	166	34	-1	0.41	19	
DB34	3.0	6.0	3985668	77656	Og	Ccy			DG		18	122	1377	-1	2.11	29	
DB34	6.0	9.0	3985669	77656	Og	Ccy			DG+V		17	221	2207	-1	5.09	40	
DB34	9.0	12.0	3985670	77656	Og	Ccy			DG		19	143	1257	-1	5.2	44	
DB34	12.0	15.0	3985671	77656	Og	Sls	VuWe	Py	DG	weakly pyr.	18	115	691	-1	3.66	50	
DB34	15.0	18.0	3985672	77656	Og	Sls		PySp	DG	fossiliferous (bivalve) calcilutite, trace Py +Sp.	14	78	129	-1	2.23	65	
DB35	0.0	3.0	3985673	77656	Og	SssCcy	We		B+LB		6	41	23	-1	0.31	12	
DB35	3.0	6.0	3985674	77656	Og	CcyOvq			LB+M		14	32	45	-1	0.36	16	
DB35	6.0	9.0	3985675	77656	Og	Ccy			M		29	1194	2684	-1	1.27	18	
DB35	9.0	12.0	3985676	77656	Og	CcySls	We		DG+N		18	545	2653	-1	4.6	42	
DB35	12.0	15.0	3985677	77656	Og	SlsCcy	We		DG		18	241	1381	-1	5.07	47	
DB35	15.0	18.0	3985678	77656	Og	CcySls	We		DG+B		17	842	3808	1	4	51	
DB35	18.0	21.0	3985679	77656	Og	Ccy			DG+B		21	1698	16400	1	5.13	58	5.85
DB35	21.0	24.2	3985680	77656	Og	SlsOvc	Bn		G	graphite banded.	6	110	636	-1	1.46	113	
DB36	0.0	3.0	3985681	77656	Og	Ccy			LG+W		18	17	20	-1	0.52	19	
DB36	3.0	6.0	3985682	77656	Og	Ccy			M		67	43	26	-1	0.59	16	
DB36	6.0	9.0	3985683	77656	Og	Sls	Al	SdPy	BG	moderate patchy ankerite+siderite altered Sls, mod py	42	205	793	-1	2	30	
DB36	9.0	12.0	3985684	77656	Og	Sls	Al	SdSpPy	BG	weak patchy ank/sid. alt. sphaleritic (1%) Sls, mod py	14	46	2029	-1	2.49	37	
DB36	12.0	15.0	3985685	77656	Og	CcySls	Al	Sd	GV	sphaleritic (2-3%) clay, ank. alt. weathered Sls.	17	29	760	-1	4.87	45	
DB36	15.0	18.0	3985686	77656	Og	CcySls	We		DG+V		15	42	440	-1	5.98	45	
DB36	18.0	19.6	3985687	77656	Og	SlsOvc		Sp	G	trace Sp + ank. frags (higher in hole?).	15	184	1529	-1	5.98	83	
DB37	0.0	3.0	3985688	77656	Og	Sls	We		DG		50	41	29	-1	0.76	21	
DB37	3.0	6.0	3985689	77656	Og	Sls			DG		17	29	138	-1	2.19	71	
DB37	6.0	9.0	3985690	77655	Og	CcySls	We		G		13	32	393	-1	3.41	54	
DB37	9.0	12.0	3985691	77656	Og	Ccy		Py	G	minor pyr. frags.	12	29	160	-1	7.03	39	
DB37	12.0	15.0	3985692	77656	Og	CcySls	We		G		13	53	121	-1	3.31	62	
DB37	15.0	18.0	3985693	77656	Og	CcySls			DG	gastropod-bearing calcilutite.	18	38	86	-1	3.62	45	
DB37	18.0	21.0	3985694	77656	Og	Sls			DG	coraline calcilutite.	6	13	24	-1	1.66	144	
DB37	21.0	24.0	3985695	77656	Og	Sls			DG		6	12	32	-1	1.49	120	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB37	24.0	25.0	3985696	77656	Og	Sls			DG+W	coraline calcilutite, minor graphitic 'wisps'.	9	79	285	-1	1.57	119	
DB38	0.0	3.0	3985697	77656	Og	Ccy			N		12	46	593	-1	3.52	27	
DB38	3.0	6.0	3985698	77656	Og	CcySls			DG		13	74	345	-1	2.13	27	
DB38	6.0	9.0	3985699	77656	Og	Sls			DG+G		16	134	497	-1	1.71	31	
DB38	9.0	12.0	3985700	77656	Og	Sls	We		G		16	23	68	-1	1.44	28	
DB38	12.0	15.0	3985701	77656	Og	Sls	We		DG		16	21	957	-1	1.73	29	
DB38	15.0	18.0	3985702	77656	Og	SlsCcy	We		G		16	19	77	-1	1.54	30	
DB38	18.0	21.0	3985703	77656	Og	Sls	We		G		14	22	68	-1	1.73	34	
DB38	21.0	24.0	3985704	77656	Og	SlsSch			G	minor black chert frags.	15	77	220	-1	2.63	36	
DB38	24.0	27.0	3985705	77656	Og	SlsSch	We	Py	DG	weakly pyritic.	16	28	552	-1	2.28	59	
DB38	27.0	30.0	3985706	77656	Og	Sls		Py	DG	mod. pyr.	18	24	220	-1	3.17	67	
DB38	30.0	33.0	3985707	77656	Og	Sls	We	Py	G	mod. pyr.	15	18	114	-1	3.26	69	
DB38	33.0	36.0	3985708	77656	Og	CcySls		Py	G	highly pyr. clay	15	23	170	-1	5.02	68	
DB38	36.0	39.0	3985709	77656	Og	CcySls	We		G		24	59	159	-1	2.29	70	
DB38	39.0	42.0	3985710	77656	Og	Sls		Py	DG	weakly pyritic.	16	29	90	1	2.02	50	
DB38	42.0	45.0	3985711	77656	Og	SlsCcy	lb	Py	G	mod. pyr.	21	1845	5800	8	4.13	147	
DB38	45.0	45.7	3985712	77656	Og	Sls	Sh	Py	DG	mod. pyr., graphitic shears	15	166	1008	-1	2.48	128	
DB39	0.0	3.0	3985713	77656	Og	CcySls			G+DG		24	33	84	-1	1.55	49	
DB39	3.0	6.0	3985714	77656	Og	CcySls			G		17	23	102	-1	1.53	52	
DB39	6.0	9.0	3985715	77656	Og	Sls	We		G		14	45	151	-1	1.75	46	
DB39	9.0	12.0	3985716	77656	Og	SlsCcy		Py	G	weakly pyr.	17	191	870	-1	3.22	46	
DB39	12.0	15.0	3985717	77656	Og	CcySls			DG+G		13	274	1158	-1	1.96	53	
DB39	15.0	16.1	3985718	77656	Og	Sls			G+DG	weakly graphitic.	9	148	594	-1	1.66	188	
DB40	0.0	1.6	3985719	77656	OgQha	CcyCbs			G		17	201	633	-1	0.44	32	
DB40	1.6	1.7			Og	SlsOvc			DG								
DB41	0.0	3.0	3985720	77656	OgQha	CcyCbsCg			DB+N		13	68	213	-1	0.88	30	
DB41	3.0	3.9	3985721	77656	Og	Ccy			G		8	165	583	-1	2.66	320	
DB41	3.9	4.0			Og	SlsOvc			G+DG								
DB42	0.0	3.0	3985722	77656	Og	CcySlsCbs			LM+DG		6	37	29	-1	0.58	26	
DB42	3.0	6.0	3985723	77656	Og	Sls	We		DG		16	51	193	-1	1.98	55	
DB42	6.0	6.6	3985724	77656	Og	Sls	Ma		DG	trace of coral frags.	19	38	134	-1	2.55	125	
DB43	0.0	3.0	3985725	77656	Og	Sls	Al	Sd	DG	weak, patchy ank. altn.	18	21	42	-1	1.03	42	
DB43	3.0	6.0	3985726	77656	Og	Sls			DG		22	61	219	-1	2.1	59	
DB43	6.0	9.0	3985727	77656	Og	Sls	Al	Sd	DG	weak, patcky ank. alt.	11	22	428	-1	1.9	56	
DB43	9.0	12.0	3985728	77656	Og	SlsCcy			DG		12	26	529	-1	3.6	52	
DB43	12.0	15.0	3985729	77656	Og	Sls	Al	SdPy	DG	minor ank/sid fractures, weakly pyr.	11	19	132	-1	3.45	68	
DB43	15.0	18.0	3985730	77656	Og	Sls	ShWe	Sp	LG+G	trace of sphalerite.	19	37	75	-1	2.58	80	
DB43	18.0	19.1	3985731	77656	Og	SlsOvq	Sh	Sp	DG	sphalerite 3-4%: associated with Ovq, brachiopod fossil	12	24	723	-1	2.12	49	
DB44	0.0	3.0	3985732	77656	Og	Ccy			G		28	606	857	-1	1.81	28	
DB44	3.0	6.0	3985733	77656	Og	Ccy	lb		G+LB		17	188	1011	-1	2.97	42	
DB44	6.0	9.0	3985734	77656	Og	Ccy			G+M		34	253	938	-1	2.4	27	
DB44	9.0	12.0	3985735	77656	Og	CcyOvq			YG		23	74	416	-1	1.79	23	
DB44	12.0	15.0	3985736	77656	Og	CcyOvq			DG		26	182	431	-1	2.73	31	
DB44	15.0	18.0	3985737	77656	Og	Ccy			GV		27	78	337	-1	2.33	23	
DB44	18.0	21.0	3985738	77656	Og	CcyOvq		Py	G	highly pyritic.	30	102	263	-1	2.45	26	
DB44	21.0	24.0	3985739	77656	Og	CcySls			G		23	100	281	-1	2.25	29	
DB44	24.0	27.0	3985740	77656	Og	CcySls			G+DG		21	112	164	-1	1.14	21	
DB44	27.0	28.2	3985741	77656	Og	CcySls	We		G		20	254	640	-1	1.98	32	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB44	28.2	28.3			Og	Ovq		Py	G	massive quartz-pyrite vein.							
DB45	0.0	3.0	3985742	77656	Og	Ccy			LGB		155	204	43	-1	0.48	13	
DB45	3.0	6.0	3985743	77656	Og	Ccy			GB		53	766	1030	-1	1.97	21	
DB45	6.0	9.0	3985744	77656	Og	CcySls	We		G		31	244	639	-1	2.55	27	
DB45	9.0	12.0	3985745	77656	Og	CcySls	We		G		30	54	363	-1	1.48	28	
DB45	12.0	12.6	3985746	77656	Og	Sls		Py	G+DG	weakly pyritic fracture planes	28	67	322	-1	0.85	18	
DB46	0.0	3.0	3985747	77656	Qha	CgCbs			G		4	10	54	-1	0.5	59	
DB46	3.0	6.0	3985748	77656	OgQha	CcyCgCbs			DB		6	11	55	-1	0.57	63	
DB46	6.0	9.0	3985749	77656	Og	Ccy			LGB		15	31	37	-1	0.4	18	
DB46	9.0	12.0	3985750	77656	Og	Ccy			DG+B		30	773	2191	-1	1.84	33	
DB46	12.0	15.0	3985751	77656	Og	Ccy			DG+N		23	183	6500	-1	3.04	35	
DB46	15.0	18.0	3985752	77656	Og	SlsOvq	WeFi		DG		24	89	5500	-1	3.64	34	
DB46	18.0	21.0	3985753	77656	Og	SlsCcy	Al	Sd	DG	trace patchy ank. altn.	22	107	5400	-1	3.89	30	
DB46	21.0	24.0	3985754	77656	Og	SlsCcy	WeFi		DG		44	160	3082	-1	4.36	37	
DB46	24.0	27.0	3985755	77656	Og	Sls	AlWe	SdGaSp	YG	mod-strong pervasive ank altd Sls. Ga+Sp:2%. Py:2%.	20	405	4213	-1	5.74	28	
DB46	27.0	30.0	3985756	77656	Og	Sls	Al	SdSp	V+Y	mod-strong patchy ank. altered calcilutite, trace Sp.	14	290	6900	-1	8.34	24	
DB46	30.0	33.0	3985757	77656	Og	Sls	Al	Sd	DG	weak patchy ank. alt., trace Sp.	16	401	3540	-1	3.18	26	
DB46	33.0	36.0	3985758	77656	Og	SlsOvqCcy	Al	Sd	YG	mod. patchy ank. altered, trace Sp.	15	136	1824	-1	6.71	24	
DB46	36.0	39.0	3985759	77656	Og	SlsCcy	Al	SdPy	DG	weak patchy ank. alt. Sls, mod. pyritic.	15	93	732	-1	3.82	45	
DB46	39.0	42.0	3985760	77656	Og	SlsOvq		Py	DG	trace pyr.	17	94	792	-1	2.29	43	
DB46	42.0	43.3	3985761	77656	Og	Sls	Al	SdPySp	DG	highly pyritic, weak patchy ank. alt. Sls, trace Sp.	17	60	528	-1	4.23	32	
DB47	0.0	3.0	3985762	77656	Og	Ccy			LB+G		5	7	19	-1	0.24	11	
DB47	3.0	6.0	3985763	77656	Og	Ccy			G+LB		23	1628	1429	-1	0.77	25	
DB47	6.0	9.0	3985764	77656	Og	Ccy			G+B		25	1532	3248	2	3.46	38	
DB47	9.0	12.0	3985765	77656	Og	Ccy			DG		18	367	2505	1	4.11	39	
DB47	12.0	15.0	3985766	77656	Og	Ccy			DG+B		18	1309	7700	1	4.59	32	
DB47	15.0	18.0	3985767	77656	Og	Ccy			DG+V		14	688	4801	1	3.72	34	
DB47	18.0	21.0	3985768	77656	Og	Sls	Al	SdSp	YG	patchy, weak ank. alt., trace siderite +Sp	15	300	2310	-1	1.63	30	
DB47	21.0	24.0	3985769	77656	Og	Ccy			G		15	537	2330	-1	2.33	30	
DB47	24.0	27.0	3985770	77656	Og	SlsOvq			G		10	77	510	-1	1.4	67	
DB47	27.0	30.0	3985771	77656	Og	SlsOvqOvc	Fi		G		10	88	767	-1	2	282	
DB47	30.0	31.5	3985772	77656	Og	SlsOvc	AlFi	Sd	G	trace of patchy ank. altn.	6	68	323	-1	2.11	387	
DB48	0.0	3.0	3985773	77656	Og	Ccy			LGB+M		40	804	79	-1	0.69	24	
DB48	3.0	6.0	3985774	77656	Og	Ccy			LG+Y		29	2058	2017	-1	2.64	28	
DB48	6.0	9.0	3985775	77656	Og	CcySls	Fo		G+B		20	426	6600	-1	4.07	33	
DB48	9.0	12.0	3985776	77656	Og	Sls	Fo		DG+V	limonitic+sideritic fractures.	28	480	9200	-1	4.39	26	
DB48	12.0	15.0	3985777	77656	Og	Sls	Fi	Sp	DG	no altn apparent, trace Sp?. Minor jasper.	13	126	6200	-1	6.47	33	
DB48	15.0	18.0	3985778	77656	Og	Sls	Al	SdSp	DG+YB	trace Sp?, minor limonitic/sideritic frag. present.	13	127	10600	-1	5.3	35	6.4
DB48	18.0	21.0	3985779	77656	Og	CcySls	Fe	Sp	DG	trace Sp?.	14	192	4682	-1	2.18	34	
DB48	21.0	24.0	3985780	77656	Og	SlsCcy	We	Py	DG	mod. pyr.	19	139	2363	-1	2.28	41	
DB48	24.0	27.0	3985781	77656	Og	SlsOvq	Al	SdSp	YV+G	moderate, patchy ank. alt., coarse gr. vein calcite, Sp: 1%	18	243	7200	-1	4.3	34	
DB48	27.0	30.0	3985782	77656	Og	Sls	Al	Sd	DG+V	weak patchy ank. alt.	16	119	6600	-1	6.81	33	
DB48	30.0	33.0	3985783	77656	Og	CcySls	WeFe	Py	G	mod. pyr.	25	319	2981	-1	4.78	33	
DB48	33.0	36.0	3985784	77656	Og	Sls	Fi		DG		10	111	255	-1	1.61	236	
DB48	36.0	37.1	3985785	77656	Og	SlsOvc			LG+G		7	154	142	-1	1.97	598	
DB49	0.0	3.0	3985786	77656	Og	Ccy			G+V		21	326	707	-1	1.25	34	
DB49	3.0	6.0	3985787	77656	Og	Ccy			G		23	112	1132	-1	2.33	34	
DB49	6.0	9.0	3985788	77656	Og	Ccy			N		26	43	1099	-1	3.09	31	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB49	9.0	12.0	3985789	77656	Og	Ccy			G		23	30	1084	-1	3.37	30	
DB49	12.0	15.0	3985790	77656	Og	Ccy			LG+B		23	36	404	-1	1.8	23	
DB49	15.0	18.0	3985791	77656	Og	Ccy			DG		25	119	527	-1	4.55	40	
DB49	18.0	21.0	3985792	77656	Og	Ccy			G		22	292	1381	-1	4.34	37	
DB49	21.0	24.0	3985793	77656	Og	Sls			G		11	30	68	-1	3.32	522	
DB49	24.0	26.5	3985794	77656	Og	Sls			G+DG	coraline calcilutite.	7	16	32	-1	1.72	369	
DB50	0.0	3.0	3985795	77656	QhaOg	CgCcy			N		15	99	354	-1	1.61	62	
DB50	3.0	6.0	3985796	77656	Og	Ccy			G		11	244	1554	-1	17.2	2866	
DB50	6.0	9.0	3985797	77656	Og	Ccy			G+B		13	831	3501	-1	17.6	2826	
DB50	9.0	12.0	3985798	77656	Og	Sls	We		G		19	137	483	-1	3.28	156	
DB50	12.0	15.0	3985799	77656	Og	Ccy			DG		21	684	5300	-1	4.54	43	
DB50	15.0	18.0	3985800	77656	Og	Ccy			G+DG		13	123	1188	-1	10.3	1734	
DB50	18.0	21.0	3985801	77656	Og	Sls		Py	DG	weakly pyr.	12	88	562	-1	2.67	44	
DB50	21.0	22.0	3985802	77656	Og	Sls		Py	DG	weakly pyr.	11	239	1625	-1	4.84	556	
DB51	0.0	3.0	3985803	77656	OgQha	CcyCg			DG+N		25	124	316	-1	2	30	
DB51	3.0	6.0	3985804	77656	Og	Ccy			N		48	231	1297	-1	9.98	1524	
DB51	6.0	7.3	3985805	77656	Og	Sls	Al	Sd	G+YG	mod-strong pervasive ank. alt., could not penetrate	10	320	1368	-1	21.2	4564	
DB52	0.0	3.0	3985806	77656	Og	Ccy	Fe		YB+OB		20	37	65	-1	8.58	34	
DB52	3.0	4.1	3985807	77656	Og	Sls	Al	Sd	GY	trace of patchy ank. alt.	18	32	100	-1	15.9	2793	
DB53	0.0	3.0	3985808	77656	Og	Ccy			DG+N		23	125	117	-1	1.76	53	
DB53	3.0	6.0	3985809	77656	Og	Ccy			G+DG		25	56	161	-1	2.19	26	
DB53	6.0	9.0	3985810	77656	Og	Ccy			N		36	70	144	-1	2.62	25	
DB53	9.0	12.0	3985811	77656	Og	Ccy			G		37	180	57	-1	3.53	25	
DB53	12.0	15.0	3985812	77656	Og	Ccy			G		28	51	83	-1	1.76	29	
DB53	15.0	18.0	3985813	77656	Og	Ccy			G		26	52	63	-1	5.41	32	
DB53	18.0	21.0	3985814	77656	Og	Ccy			G		23	138	368	-1	2.64	31	
DB53	21.0	24.0	3985815	77656	Og	Ccy			G		22	1621	6800	1	4.86	29	
DB53	24.0	27.0	3985816	77656	Og	CcySls	WeVu		G		15	51	374	-1	8.35	959	
DB53	27.0	29.0	3985817	77656	Og	Sls	Al	Sd	G	weak pervasive ank. alt.	9	66	176	-1	24.3	3840	
DB54	0.0	3.0	3985818	77656	Og	Ccy			G		22	174	483	-1	1.87	45	
DB54	3.0	6.0	3985819	77656	Og	Ccy			G		23	121	339	-1	1.82	25	
DB54	6.0	9.0	3985820	77656	Og	Ccy			G		25	142	350	-1	1.86	31	
DB54	9.0	12.0	3985821	77656	Og	Ccy			G		18	60	117	-1	1.68	27	
DB54	12.0	15.0	3985822	77656	Og	Ccy			DG+W		33	86	86	-1	1.71	23	
DB54	15.0	18.0	3985823	77656	Og	Ccy			DG		19	694	2063	-1	2.46	34	
DB54	18.0	21.0	3985824	77656	Og	Ccy			DG+G		20	906	3664	1	3.89	35	
DB54	21.0	24.0	3985825	77656	Og	Ccy			G		20	666	2030	1	3.37	34	
DB54	24.0	27.0	3985826	77656	Og	Ccy			G		23	67	489	-1	2.33	34	
DB54	27.0	30.0	3985827	77656	Og	Ccy			G		18	180	1168	-1	3.24	27	
DB54	30.0	33.0	3985828	77656	Og	Ccy			G		19	34	126	-1	3.74	28	
DB54	33.0	36.0	3985829	77656	Og	Ccy			G+DG		22	58	240	-1	2.4	39	
DB54	36.0	39.0	3985830	77656	Og	Sls	Al	Sd	YG	weak-mod., pervasive ank. alt.	15	46	1314	-1	12.1	2577	
DB54	39.0	42.0	3985831	77656	Og	CcySls	Al	Sd	G	lesser weakly ank. frag. present (E.O.H. sample).hole abd.	23	171	515	-1	15.6	3298	
DB55	0.0	3.0	3985832	77656	Og	Ccy			DG		29	966	572	-1	3.76	36	
DB55	3.0	6.0	3985833	77656	Og	Ccy			DG		22	144	1016	-1	4.3	28	
DB55	6.0	9.0	3985834	77656	Og	Ccy			DG		27	84	484	-1	5.18	36	
DB55	9.0	12.0	3985835	77656	Og	Ccy			DG		23	46	99	-1	2.43	37	
DB55	12.0	15.0	3985836	77656	Og	Ccy			DG		19	46	196	-1	2.06	30	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB55	15.0	18.0	3985837	77656	Og	Ccy			G		21	39	166	-1	2.69	32	
DB55	18.0	21.0	3985838	77656	Og	Ccy			DG		24	45	1204	-1	3.47	29	
DB55	21.0	24.0	3985839	77656	Og	Ccy			DG		28	422	3142	-1	2.45	25	
DB55	24.0	27.0	3985840	77656	Og	Ccy			DG		19	40	822	-1	2.66	27	
DB55	27.0	30.0	3985841	77656	Og	Ccy		Py	DG	weakly pyr.	25	23	226	-1	9.69	28	
DB55	30.0	33.0	3985842	77656	Og	Sls	Al	Sd	YG	weak pervasive ank. alt. sandy calcilutite.	16	97	469	-1	16.4	2471	
DB56	0.0	3.0	3985843	77656	Og	Ccy			M		15	176	295	-1	1.35	40	
DB56	3.0	6.0	3985844	77656	Og	Ccy			G		23	730	4103	1	4.45	21	
DB56	6.0	9.0	3985845	77656	Og	Ccy			G		48	367	1933	1	4.76	48	
DB56	9.0	12.0	3985846	77656	Og	Ccy			DG+G		20	190	1215	-1	4.99	25	
DB56	12.0	15.0	3985847	77656	Og	Ccy			DG		20	293	1168	-1	4.98	24	
DB56	15.0	18.0	3985848	77656	Og	Ccy			DG		19	50	577	-1	4.37	21	
DB56	18.0	21.0	3985849	77656	Og	Ccy			DG		21	116	641	-1	3.56	30	
DB56	21.0	24.0	3985850	77656	Og	SlsOvc	Al	Sd	G	trace of weak pervasive ank. alt.	17	151	745	-1	9.28	1243	
DB57	0.0	1.0			Qha	Cco				hole abandoned -could not penetrate colluvial debris							
DB58	0.0	3.8			Qha	Cco				hole abandoned -could not penetrate colluvial debris							
DB59	0.0	3.0			Qha	Cco			K+W	conglomerate colluvium							
DB59	3.0	9.0	3985851	77656	Qha	Cco	Al	He	K+W	as above, could not penetrate further.	6	15	26	-1	0.45	14	
DB60	0.0	6.0			Qha	Cco	Al	He	K+W								
DB60	6.0	8.5	3985852	77656	Qha	Cco	Al	He	K+W	conglomerate colluvium, could not penetrate further.	5	16	18	-1	0.39	15	
DB61	0.0	3.0			OgQha	CcoCcy			DB								
DB61	3.0	8.0			Qha	Cco			K+W								
DB61	8.0	9.0	3985853	77656	Og	Ccy			G+B		29	198	1144	-1	0.99	12	
DB61	9.0	12.0	3985854	77656	Og	CcySls	We		G+V		18	251	1353	-1	2.33	21	
DB61	12.0	15.0	3985855	77656	Og	Ccy			G		17	465	4082	-1	3.84	18	
DB61	15.0	18.0	3985856	77656	Og	Ccy			G+V		21	313	1712	-1	3.97	19	
DB61	18.0	21.0	3985857	77656	Og	Ccy			DG		16	129	728	-1	3.47	24	
DB61	21.0	24.0	3985858	77656	Og	SlsCcy	FiWe		DG		20	89	1519	-1	4.66	21	
DB61	24.0	27.0	3985859	77656	Og	CcySls	We		DG		18	77	639	-1	3.84	24	
DB61	27.0	30.0	3985860	77656	Og	Ccy			DG		21	242	1161	-1	4.03	27	
DB61	30.0	33.0	3985861	77656	Og	Ccy			LG+G		22	136	713	-1	3.25	51	
DB61	33.0	36.0	3985862	77656	Og	SlsOvc	Lm		LG+G	minor graphite lams.	9	17	85	-1	1.59	208	
DB61	36.0	39.0	3985863	77656	Og	Sls	WeFi		DG		7	11	27	-1	1.76	248	
DB61	39.0	42.0	3985864	77656	Og	Sls	Fi		LG+G	strongly cleaved.	8	10	20	-1	1.64	238	
DB61	42.0	45.0	3985865	77656	Og	Sls	WeVu		DG	coraline calcarenite.	9	9	12	-1	2.2	279	
DB61	45.0	45.6	3985866	77656	Og	Sls			LG+G	coraline calcarenite, trace of oolites?.	8	5	11	-1	1.61	246	
DB62	0.0	3.0			Qha	CgCbs			LG+G								
DB62	3.0	6.0	3985867	77656	Og	SlsCcy	We		G+V	lesser grey clay.	22	18	1922	-1	2.99	27	
DB62	6.0	9.0	3985868	77656	Og	Ccy			DG		27	308	1727	-1	3.84	28	
DB62	9.0	12.0	3985869	77656	Og	Ccy			DG+N		29	68	437	-1	3.18	25	
DB62	12.0	15.0	3985870	77656	Og	Sls	FiVu		DG		20	24	143	-1	2.35	17	
DB62	15.0	18.0	3985871	77656	Og	Sls			DG		26	26	1242	-1	5.15	15	
DB62	18.0	21.0	3985872	77656	Og	Sls	Al	Sd	V+G	mod-strong pervasive ank. alt., minor rounded gravels.	17	55	567	-1	2.19	14	
DB62	21.0	24.0	3985873	77656	Og	Sls	AlFr	Sd	V+G	weak, patchy ank. alt., highly fractured.	24	13	799	-1	5.34	16	
DB62	24.0	27.1	3985874	77656	OgQha	SlsCg	AlVuFe	PySd	DV+G	patchy, weak ank alt., abundant py, rdd Sss gravels	15	35	1316	-1	5.16	16	
DB63	0.0	3.0	3985875	77656	Og	Ccy			DG		27	1176	1010	-1	3.18	29	
DB63	3.0	6.0	3985876	77656	Og	Ccy			G		18	226	1360	-1	3.5	30	
DB63	6.0	9.0	3985877	77656	Og	SlsCcy	We		G	decomposed calcarenite.	18	294	1413	-1	1.9	25	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB63	9.0	12.0	3985878	77656	Og	Ccy			G		22	1613	1516	1	3.57	33	
DB63	12.0	14.8	3985879	77656	Og	Sls	LmFo		G+LG		5	-3	37	-1	19.1	4123	
DB64	0.0	3.0	3985880	77656	Og	Ccy			DG+V		18	172	189	-1	1.93	45	
DB64	3.0	6.0	3985881	77656	Og	Ccy			N		35	3705	10200	4	5.09	604	3.75
DB64	6.0	8.0	3985882	77656	Og	Ccy			DG		21	8800	17900	7	17.2	4099	3.2
DB64	8.0	8.8			Og	Sls	Vu	Sd	G	trace of ankeritic frags.							
DB65	0.0	3.0	3985883	77656	Og	Ccy			DG		18	106	894	-1	5.04	34	
DB65	3.0	6.0	3985884	77656	Og	Sls		Py	DG	weakly pyr.	7	137	140	-1	12.3	2033	
DB65	6.0	9.0	3985885	77656	Og	Sls			DG+G		7	60	224	-1	6.42	954	
DB65	9.0	12.0	3985886	77656	Og	Sls	Al	Sd	DG	*minor ank. alt. horizon @ 10m depth (mod., pervasive).*	5	64	171	-1	4.76	929	
DB65	12.0	12.5	3985887	77656	Og	Sls			DG		5	92	81	-1	2.06	434	
DB66	0.0	3.0	3985888	77656	OgQha	CcyCbs			G		20	43	443	-1	2.09	40	
DB66	3.0	6.0	3985889	77656	Og	CcySls	We		DG		24	51	151	-1	3.33	25	
DB66	6.0	9.0	3985890	77656	Og	Ccy			DG		27	80	299	-1	6.93	33	
DB66	9.0	12.0	3985891	77656	Og	Ccy			G+V		21	312	729	-1	5.4	35	
DB66	12.0	15.0	3985892	77656	Og	Ccy			DG+V		28	120	486	-1	3.26	28	
DB66	15.0	16.3	3985893	77656	Og	Sls	Fo		DG		8	55	236	-1	2.52	519	
DB67	0.0	2.5	3985894	77656	Og	Ccy			N		15	70	60	-1	0.41	25	
DB67	2.5	2.8			Og	Sls			DG								
DB68	0.0	3.0	3985895	77656	OgQha	CbsCcy			DB+G		21	75	101	-1	0.62	46	
DB68	3.0	6.0	3985896	77656	Og	SlsOvc		Py	DG	trace disseminated f.g. py. cubes.	7	28	465	-1	1.82	430	
DB68	6.0	7.0	3985897	77656	Og	SlsOvc	Bx	Sd	DG	calcite-cemented calcarenite breccia, trace of ankerite.	4	20	338	-1	2.52	601	
DB69	0.0	2.0	3985898	77656	Og	Ccy			DG+B		11	106	194	-1	0.43	29	
DB69	2.0	2.2			Og	Sls			DG								
DB70	0.0	2.8	3985899	77656	Og	Ccy			DG		10	129	1412	-1	1.97	49	
DB70	2.8	2.9			Og	SlsOvc			G	gastropod-bearing calcilutite.							
DB71	0.0	3.0	3985900	77656	OgQha	CcyCbs			DG		11	95	76	-1	1.06	66	
DB71	3.0	6.0	3987201	77657	Og	SlsOvc	Bx		G+LG	sparry cc-vn (+ minor cc-cemented breccia) calcilutite	7	16	56	-1	1.26	188	
DB72	0.0	3.0	3987202	77657	Og	CcySls			G		18	104	477	-1	2.46	332	
DB72	3.0	5.0	3987203	77657	Og	SlsOvc	BxLm		DG+G	minor graphitic lam, trace of breccia texture.	7	72	156	-1	1.98	498	
DB73	0.0	3.0	3987204	77657	OgQha	CcyCbs			DG		28	374	1451	1	1.79	46	
DB73	3.0	6.0	3987205	77657	Og	SlsOvc			DG	coraline calcarenite.	4	87	321	-1	1.34	754	
DB73	6.0	9.0	3987206	77657	Og	SlsOvc			DG+G	*coraline calcilutite*	4	58	250	-1	1.19	415	
DB73	9.0	10.3	3987207	77657	Og	Sls	BxAl	SpPyGa	G+W	sp (4%)-py-ga in cc cemented breccia. Patchy ank. alt.	3	405	2020	1	2.25	1757	
DB74	0.0	3.0	3987208	77657	Og	Ccy			DG+B		46	4600	13600	21	1.2	158	1.7
DB74	3.0	6.0	3987209	77657	Og	SlsOvc	BxAl	PySd	DG+YG	cc cemented, weak-mod. patchy ank. Sls breccia. Mod. py	7	437	2612	2	5.75	6000	
DB74	6.0	7.3	3987210	77657	Og	SlsOvc	BxAl	PySpSd	G+W	calcite-cemented, patchy weak ank. alt. breccia. Tr Sp.	3	168	1956	-1	4.96	7300	
DB75	0.0	3.0	3987211	77657	OgQha	CbsCcy			G		16	897	2703	1	4.06	113	
DB75	3.0	6.0	3987212	77657	Og	Ccy			DG		34	534	1504	1	14.6	3181	
DB75	6.0	9.0	3987213	77657	Og	Sls		Sd	LG+G	weakly ankeritic.	4	380	1030	1	37.2	9200	
DB75	9.0	12.0	3987214	77657	Og	Sls	Al	Sd	G	moderate, patchy ank. alt.	16	165	285	-1	17.8	4221	
DB75	12.0	13.1	3987215	77657	Og	Sls	Al	Sd	YG	*mod-strongly ank. f.g. calcarenite, fine graphitic lams.*	5	104	257	-1	35.6	9100	
DB76	0.0	3.0	3987216	77657	Og	Ccy			G		27	3001	5400	2	7.24	1563	
DB76	3.0	6.0	3987217	77657	Og	Ccy			G+B		9	462	748	-1	14.2	3550	
DB76	6.0	9.0	3987218	77657	Og	CcySls	WeVu	Sd?	YG	ankeritic? We Sls.	7	129	219	-1	24.7	7000	
DB76	9.0	12.0	3987219	77657	Og	Ccy			G+Y		10	90	280	-1	18.7	4822	
DB76	12.0	15.0	3987220	77657	Og	Ccy			YG		13	182	361	-1	17.8	4344	
DB76	15.0	17.2	3987221	77657	Og	Sls			Y+W+DG	calcarenite (trace of oolite(s)),lesser calcilutite.	8	239	349	-1	21	5700	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB77	0.0	3.0	3987222	77657	Og	CcySls	We	Sd	G+B	partially weathered mod. ank. Sls frags.	14	271	954	-1	11.4	2138	
DB77	3.0	6.0	3987223	77657	Og	SlsCcy	Al	Sd	YG	mod. patchy ank. alt. calcilutite.	8	336	694	-1	24.2	7100	
DB77	6.0	9.0	3987224	77657	Og	SlsCcy	Al	Sd	Y+G	as above	6	150	444	-1	36.9	10600	
DB77	9.0	12.0	3987225	77657	Og	CcySls	Al	Sd	Y+G	trace ank. alt.	13	338	456	-1	15.6	4434	
DB77	12.0	14.9	3987226	77657	Og	Sls	Al	Sd	DG	mod. patchy ank. alt., lesser highly altered bands.	8	63	107	-1	20	6300	
DB78	0.0	3.0	3987227	77657	Og	Ccy			G		16	54	175	-1	1.94	58	
DB78	3.0	6.0	3987228	77657	Og	Ccy			DG+Y		12	43	389	-1	4.01	47	
DB78	6.0	9.0	3987229	77657	Og	Ccy			N		23	130	610	-1	3.16	49	
DB78	9.0	12.0	3987230	77657	Og	Ccy			DG		15	218	775	-1	4.38	40	
DB78	12.0	15.0	3987231	77657	Og	Ccy			DG+V		26	315	1337	2	4.99	46	
DB78	15.0	18.0	3987232	77657	Og	Ccy			DG+V		21	302	1378	2	8.64	39	
DB78	18.0	21.0	3987233	77657	Og	Ccy			DG		38	5200	16500	3	4.92	51	6.05
DB78	21.0	24.0	3987234	77657	Og	CcySls			DG		12	156	585	-1	9.96	2451	
DB78	24.0	24.1			Og	Sls		Sd	DG+G	trace siderite vein frags.							
DB79	0.0	1.5			Qha	Cco				Scg colluvium, not sampled, could not penetrate.							
DB80	0.0	3.0	3987235	77657	OgQha	CcyCbs			N		8	104	98	-1	0.44	34	
DB80	3.0	4.0	3987236	77657	Og	Sls	Lm		DG	minor graphite lams.	6	94	336	-1	1.34	162	
DB81	0.0	3.0	3987237	77657	Og	Ccy			DG+Y		9	205	1332	-1	1.29	26	
DB81	3.0	6.0	3987238	77657	Og	Sls	AlFi	Sd	G	weak patchy ank. alt.	15	42	292	-1	1.54	34	
DB81	6.0	9.0	3987239	77657	Og	Sls	We		DG		11	60	541	-1	1.76	27	
DB81	9.0	12.0	3987240	77657	Og	Sls			DG		8	60	325	-1	1.82	24	
DB81	12.0	15.0	3987241	77657	Og	Sls		Py	DG	weakly pyr.	15	46	286	-1	1.9	28	
DB81	15.0	18.0	3987242	77657	Og	SlsCcy			DG		13	62	610	-1	4.39	35	
DB81	18.0	21.0	3987243	77657	Og	Sls	Fi	Py	DG	weakly pyr.	14	67	216	-1	2.56	115	
DB81	21.0	23.1	3987244	77657	Og	Sls	Fi		DG	coraline fragments.	12	37	130	-1	3.12	242	
DB82	0.0	3.0	3987245	77657	OgQha	CcyCbs			M		18	46	206	-1	1.03	36	
DB82	3.0	6.0	3987246	77657	Og	SlsCcy	We		G		17	23	383	-1	2.27	68	
DB82	6.0	9.0	3987247	77657	Og	SlsCcy	We		G		17	32	323	-1	2.4	65	
DB82	9.0	12.0	3987248	77657	Og	Sls	We		DG		15	16	320	-1	4.11	73	
DB82	12.0	15.0	3987249	77657	Og	Sls	Fi		DG		13	14	209	-1	4.96	67	
DB82	15.0	18.0	3987250	77657	Og	Sls	Vu		DG		16	22	205	-1	2.42	56	
DB82	18.0	19.0	3987251	77657	Og	SlsOvc			DG+G	thin <1mm vein calcite.	8	16	101	-1	1.89	139	
DB83	0.0	3.0	3987252	77657	Og	Ccy			DG+V		25	26	349	-1	1.98	56	
DB83	3.0	6.0	3987253	77657	Og	Ccy			DG+B		18	46	277	-1	3.46	55	
DB83	6.0	8.5	3987254	77657	Og	Sls	Vu		DG		11	91	548	-1	2.9	156	
DB84	0.0	2.9	3987255	77657	OgQha	CcyCbs			DB+N		16	17	55	-1	0.71	37	
DB84	2.9	3.0			Og	Sls	Vu		DG								
DB85	0.0	1.9	3987256	77657	Og	Ccy			G	grey peaty clay.	24	130	248	-1	1.33	66	
DB85	1.9	2.0			Og	Sls			G								
DB86	0.0	3.0	3987257	77657	Og	Sls	We		DG		14	47	67	-1	1.08	32	
DB86	3.0	6.0	3987258	77657	Og	SlsCcy	We		DG		14	22	250	-1	3.94	31	
DB86	6.0	7.5	3987259	77657	Og	Sls			G	trilobitic sandy-calcilutite.	8	7	57	-1	1.84	100	
DB87	0.0	2.3	3987260	77657	OgQha	CbsCcy			G		14	112	202	-1	1.23	38	
DB87	2.3	2.4			Og	Sls			DG+G								
DB88	0.0	1.4	3987261	77657	Og	Ccy			G		15	217	145	-1	0.75	26	
DB88	1.4	1.5			Og	Sls			DG	indurated Sls.							
DB89	0.0	3.0	3987262	77657	OgQha	CcyCbs			G		12	29	73	-1	0.9	54	
DB89	3.0	3.5	3987263	77657	Og	Sls	Al	Cc	G+LG	calcite-flecked sandy-calcilutite.	6	11	50	-1	0.8	157	

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB90	0.0	3.0	3987264	77657	Og	CcySls			G+DG		27	34	106	-1	0.66	18	
DB90	3.0	4.9	3987265	77657	Og	SlsOvc			G	graphitic sandy-calcilutite.	7	10	25	-1	1.36	197	
DB91	0.0	1.0			OgQha	CbsSls			G								
DB91	1.0	1.3			Og	Sls			G								
DB92	0.0	0.9			OgQha	Cbs											
DB92	0.9	1.0			OgQha	SlsCg			G								
DB93	0.0	1.0	3987266	77657	OgQha	CbsSls			DG+B		10	37	73	-1	1.29	102	
DB94	0.0	0.8			OgQha	Cbs			N	straight into hard basement, no samples possible.							
DB95	0.0	1.0			Og	Sls			DG	hard basement. only ref. sample possible.							
DB96	0.0	0.8			OgQha	Cbs											
DB96	0.8	0.9			Og	Sls			DG+G	only E.O.H. samples taken.							
DB97	0.0	3.0	3987267	77657	Og	CcySls	We		DB+G		33	343	1797	4	0.81	23	
DB97	3.0	5.5	3987268	77657	Og	Sls	Bn		G+DG	graphite-banded	25	159	4516	1	2.39	106	
DB98	0.0	3.0	3987269	77657	OgQha	CcyCg			DB		8	17	63	-1	0.41	17	
DB98	3.0	6.0	3987270	77657	Og	Ccy			DG+B		29	198	1722	-1	4.99	28	
DB98	6.0	9.0	3987271	77657	Og	Ccy			DG		21	104	1464	-1	4.3	35	
DB98	9.0	12.0	3987272	77657	Og	SlsCcy	We		DG+G		16	135	914	-1	4	157	
DB98	12.0	15.0	3987273	77657	Og	Sls		Py	G	weakly pyr.	9	20	62	-1	2.56	304	
DB98	15.0	18.0	3987274	77657	Og	Sls	WeFi		G		13	17	153	-1	2.09	147	
DB98	18.0	19.5	3987275	77657	Og	SlsOvc			DG		12	15	95	-1	2	154	
DB99	0.0	3.0	3987276	77657	OgQha	CcyCg			DM		17	30	121	-1	0.99	25	
DB99	3.0	6.0	3987277	77657	Og	Ccy			N		21	58	415	-1	4.03	40	
DB99	6.0	9.0	3987278	77657	Og	Ccy			DG+Y		19	46	192	-1	8.96	38	
DB99	9.0	12.0	3987279	77657	Og	CcySls	We		DG		21	74	397	-1	9.66	46	
DB99	12.0	15.0	3987280	77657	Og	SlsCcy	WeVuAl	Sd	DG+Y	weak. patchy ank. alt.	14	80	538	-1	7.85	42	
DB99	15.0	18.0	3987281	77657	Og	Sls	WeAl	Sd	G+V	weak. patchy ank. alt.	13	48	1479	-1	9.16	23	
DB99	18.0	21.0	3987282	77657	Og	Sls		Py	DG	mod. pyr.	7	36	1197	-1	4.92	242	
DB99	21.0	24.0	3987283	77657	Og	Sls		Py	DG	mod. pyr.	14	35	18800	-1	4.19	373	4
DB99	24.0	25.7	3987284	77657	Og	Sls			G+DG		3	19	286	-1	1.92	490	
DB100	0.0	3.0	3987285	77657	Og	Ccy			LG+B		10	25	207	-1	0.82	20	
DB100	3.0	6.0	3987286	77657	Og	Ccy			DG		19	81	592	-1	6.63	31	
DB100	6.0	9.0	3987287	77657	Og	CcySls	We		DY+G		15	59	520	-1	7.6	24	
DB100	9.0	12.0	3987288	77657	Og	Ccy			G		33	247	583	1	6.23	31	
DB100	12.0	15.0	3987289	77657	Og	Ccy			G		20	82	685	-1	4.98	39	
DB100	15.0	18.0	3987290	77657	Og	CcySls			DG		15	55	299	-1	4.93	157	
DB100	18.0	21.0	3987291	77657	Og	Sls			DG		4	21	483	-1	3.94	670	
DB100	21.0	24.0	3987292	77657	Og	SlsOvc			G		4	18	111	-1	4.5	1567	
DB100	24.0	25.3	3987293	77657	Og	Sls	Vu		DG		5	19	128	-1	1.98	544	
DB101	0.0	1.0			Og	Sls			DG+G	ref. sample only, basement too hard.							
DB102	0.0	1.0			OgQha	Cbs			N								
DB102	1.0	1.1			Og	Sls			DG+G								
DB103	0.0	1.0	3987294	77657	OgQha	CbsCg			N		11	45	191	-1	0.4	34	
DB103	1.0	1.1			Og	SlsOvc			DG+G								
DB104	0.0	3.0	3987295	77657	OgQha	CbsCcy			DB		9	17	53	-1	0.48	26	
DB104	3.0	6.0	3987296	77657	Og	Ccy			M		38	655	1567	1	4.88	16	
DB104	6.0	9.0	3987297	77657	Og	Ccy		Py	G	mod. pyr.	37	666	1113	2	8.36	74	
DB104	9.0	12.0	3987298	77657	Og	SlsOvc			G		8	47	219	-1	2.74	845	
DB104	12.0	12.2			Og	SlsOvcOvq			DG+G								

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Cu	Pb	Zn	Ag	Fe%	Mn	S%
DB105	*0.0*	3.0			*Qha*	*CgCbs*											
DB105	3.0	6.0	3987299	77657	Og	Ccy			LB+DG		28	78	275	-1	1.74	27	
DB105	6.0	9.0	3987300	77657	Og	Ccy			M		36	262	2145	1	9.47	22	
DB105	9.0	12.0	3987301	77657	Og	Ccy			G		24	159	1494	1	4.98	574	
DB105	12.0	15.0	3987302	77657	Og	Ccy			M		36	369	2683	-1	6.82	154	
DB105	15.0	18.0	3987303	77657	Og	Ccy			G+LG		10	104	683	1	3.38	14	
DB105	18.0	21.0	3987304	77657	Og	Ccy			LG		18	87	777	1	1.52	56	
DB105	21.0	24.0	3987305	77657	Og	Sls			G+DG		8	26	164	-1	0.98	203	
DB105	24.0	27.0	3987306	77657	Og	Sls	Al	Sd	YG	mod. patchy ank. alt.	11	39	146	1	1.87	264	
DB105	27.0	30.0	3987307	77657	Og	SlsOvc			DG		11	60	316	-1	3.4	914	
DB105	30.0	33.0	3987308	77657	Og	Sls		Sd	DG	trace ank. frags.	10	28	441	-1	4.3	969	
DB105	33.0	35.2	3987309	77657	Og	Sls	AlFo	Sd	G+DG	weak, patchy ank. alt., bivalve fossils present.	9	44	185	-1	3.44	1280	
DB106	0.0	2.5	3987310	77657	OgQha	CbsCcy			DG+B		28	144	965	1	2.33	542	
DB106	2.5	2.6			Og	Sls	Al	Sd	G	trace patchy ank. alt.							
DB107	0.0	3.0	3987311	77657		Ccy			W+LY		11	137	81	-1	0.25	14	
DB107	3.0	6.0	3987312	77657		OvqCcy			W	trace of limonite.	8	52	60	-1	0.42	39	
DB107	6.0	9.0	3987313	77657		Sss	Al	SdHePy	YW	poor sorted sst, ank. matrix + patchy weak he alt. tr py	85	19	230	-1	0.65	30	
DB107	9.0	11.0	3987314	77657		Sss		He	K+W	poorly sorted Sss- Scg, interbedded cream-pink clays.	21	15	411	-1	1.59	48	
DB107	11.0	11.1				Ssh	We		RB+W								
DB108	0.0	3.0	3987315	77657	OgQha	CbsCcy			DB		24	866	2015	3	2.48	26	
DB108	3.0	6.0	3987316	77657		SlsOvc			DG	Ab. coarse gr. calcite.	13	224	705	-1	2.24	763	
DB108	6.0	9.0	3987317	77657		OvcSls		Py	Y+W	6-8m: massive calcite vein, trace pyr.	7	55	306	-1	1.18	541	
DB108	9.0	10.6	3987318	77657		SlsOvc	Bx		DG+G	minor brecciation texture present.	8	101	166	-1	3.7	778	
DB109	0.0	1.5	3987319	77657	OgQha	CbsSls			DG	*end of Blackjacks holes for current program.*	21	10600	22000	9	2.49	2137	2.9

APPENDIX 8

OPEN-FILE AND CRAE REGIONAL WACKER GEOCHEMISTRY

Appendix 8: Open-file and CRAE Wacker and rockchip geochemistry within EL45/92.

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
AMBER CREEK	CYP113980	CYPRUS	EL15/76	368127	5352009	67150	52200	WACKER	1.2							
AMBER CREEK	CYP113981	CYPRUS	EL15/76	368085	5352037	67100	52200	WACKER	2							
AMBER CREEK	CYP113982	CYPRUS	EL15/76	368043	5352064	67050	52200	WACKER	2.5							
AMBER CREEK	CYP113983	CYPRUS	EL15/76	368002	5352091	67000	52200	WACKER	10.3							
AMBER CREEK	CYP113984	CYPRUS	EL15/76	367960	5352118	66950	52200	WACKER	2.1							
AMBER CREEK	CYP113985	CYPRUS	EL15/76	367918	5352146	66900	52200	WACKER	1.5							
AMBER CREEK	CYP113986	CYPRUS	EL15/76	367876	5352173	66850	52200	WACKER	18.3							
AMBER CREEK	CYP113987	CYPRUS	EL15/76	367834	5352200	66800	52200	WACKER	3.8							
AMBER CREEK	CYP113988	CYPRUS	EL15/76	367792	5352227	66750	52200	WACKER	1							
AMBER CREEK	CYP113989	CYPRUS	EL15/76	368743	5352682	67300	53100	WACKER	0							
AMBER CREEK	CYP113990	CYPRUS	EL15/76	368701	5352710	67250	53100	WACKER	5.4							
AMBER CREEK	CYP113991	CYPRUS	EL15/76	368659	5352737	67200	53100	WACKER	6.2							
AMBER CREEK	CYP113992	CYPRUS	EL15/76	368617	5352764	67150	53100	WACKER	2.6							
AMBER CREEK	CYP113993	CYPRUS	EL15/76	368576	5352791	67100	53100	WACKER	2.1							
AMBER CREEK	CYP113994	CYPRUS	EL15/76	368534	5352819	67050	53100	WACKER	0							
AMBER CREEK	CYP113995	CYPRUS	EL15/76	368492	5352846	67000	53100	WACKER	14.8							
AMBER CREEK	CYP113996	CYPRUS	EL15/76	368450	5352873	66950	53100	WACKER	2.5							
AMBER CREEK	CYP113997	CYPRUS	EL15/76	368408	5352900	66900	53100	WACKER	6.4							
AMBER CREEK	CYP113998	CYPRUS	EL15/76	368366	5352928	66850	53100	WACKER	2.1							
AMBER CREEK	CYP113999	CYPRUS	EL15/76	368324	5352955	66800	53100	WACKER	1.6							
AMBER CREEK	CYP114000	CYPRUS	EL15/76	368771	5352724	67300	53150	WACKER								
AMBER CREEK	CYP161201	CYPRUS	EL15/76	368798	5352766	67300	53200	WACKER								
AMBER CREEK	CYP161202	CYPRUS	EL15/76	368825	5352808	67300	53250	WACKER								
AMBER CREEK	CYP161203	CYPRUS	EL15/76	368852	5352850	67300	53300	WACKER								
AMBER CREEK	CYP161204	CYPRUS	EL15/76	368783	5352836	67250	53250	WACKER	8							
AMBER CREEK	CYP161205	CYPRUS	EL15/76	368741	5352863	67200	53250	WACKER	3.6							
AMBER CREEK	CYP161206	CYPRUS	EL15/76	368699	5352890	67150	53250	WACKER	18.2							
AMBER CREEK	CYP161207	CYPRUS	EL15/76	368657	5352917	67100	53250	WACKER	24							
AMBER CREEK	CYP161208	CYPRUS	EL15/76	368615	5352944	67050	53250	WACKER	8.5							
AMBER CREEK	CYP161209	CYPRUS	EL15/76	368573	5352972	67000	53250	WACKER	22.8							
AMBER CREEK	CYP161210	CYPRUS	EL15/76	368531	5352999	66950	53250	WACKER	5.2							
AMBER CREEK	CYP161211	CYPRUS	EL15/76	368490	5353026	66900	53250	WACKER	18							
AMBER CREEK	CYP161212	CYPRUS	EL15/76	368448	5353053	66850	53250	WACKER	18							
AMBER CREEK	CYP161213	CYPRUS	EL15/76	368406	5353081	66800	53250	WACKER	1.6							
AMBER CREEK	CYP161214	CYPRUS	EL15/76	368364	5353108	66750	53250	WACKER	1.6							
AMBER CREEK	CYP161215	CYPRUS	EL15/76	368322	5353135	66700	53250	WACKER	1.6							
AMBER CREEK	CYP161216	CYPRUS	EL15/76	368280	5353162	66650	53250	WACKER	1.4							
AMBER CREEK	CYP161217	CYPRUS	EL15/76	368238	5353190	66600	53250	WACKER	1.2							
AMBER CREEK	CYP161218	CYPRUS	EL15/76	368716	5352641	67300	53050	WACKER								
AMBER CREEK	CYP161219	CYPRUS	EL15/76	368689	5352599	67300	53000	WACKER								
AMBER CREEK	4138274	77680	EL45/92	368037	5352008	67075	52150	WACKER	6.8	Y	Ogul	Sls			G	
AMBER CREEK	4138275	77680	EL45/92	368016	5352022	67050	52150	WACKER	2	N?	Ogul				GB	Clayey sand; no reaction to HCl
AMBER CREEK	4138276	77680	EL45/92	367995	5352035	67025	52150	WACKER	20	Y	Ogdl	Sdl			DG	Sandy clay; no reaction to HCl
AMBER CREEK	4138277	77680	EL45/92	367974	5352049	67000	52150	WACKER	19.5	N?	Ogul				DG	Clayey sand; no reaction to HCl
AMBER CREEK	4138278	77680	EL45/92	367953	5352063	66975	52150	WACKER	12	Y	Ogul	Sls	Vc		G	
AMBER CREEK	4138279	77680	EL45/92	367932	5352076	66950	52150	WACKER	11.8	Y	Ogul	Sls	Vc		G	
AMBER CREEK	4138280	77680	EL45/92	367911	5352090	66925	52150	WACKER	9	Y	Ogul	Sls			G	Micritic
AMBER CREEK	4138281	77680	EL45/92	367890	5352104	66900	52150	WACKER	5.8	Y	Ogul	Sls			G	
AMBER CREEK	4138282	77680	EL45/92	367869	5352117	66875	52150	WACKER	2	Y	Ogul	Sls			G	Dark grey calcsiltite

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
AMBER CREEK	CYP113980	368127	5352009	67150	52200	-1										10	8
AMBER CREEK	CYP113981	368085	5352037	67100	52200	-1										-5	2
AMBER CREEK	CYP113982	368043	5352064	67050	52200	-1										-5	3
AMBER CREEK	CYP113983	368002	5352091	67000	52200	-1										10	5
AMBER CREEK	CYP113984	367960	5352118	66950	52200	-1										8	5
AMBER CREEK	CYP113985	367918	5352146	66900	52200	-1										10	20
AMBER CREEK	CYP113986	367876	5352173	66850	52200	-1										30	13
AMBER CREEK	CYP113987	367834	5352200	66800	52200	-1										18	11
AMBER CREEK	CYP113988	367792	5352227	66750	52200	-1										-5	3
AMBER CREEK	CYP113989	368743	5352682	67300	53100	-1										10	11
AMBER CREEK	CYP113990	368701	5352710	67250	53100	-1										14	21
AMBER CREEK	CYP113991	368659	5352737	67200	53100	-1										8	6
AMBER CREEK	CYP113992	368617	5352764	67150	53100	-1										10	7
AMBER CREEK	CYP113993	368576	5352791	67100	53100	-1										8	9
AMBER CREEK	CYP113994	368534	5352819	67050	53100	-1										14	3
AMBER CREEK	CYP113995	368492	5352846	67000	53100	-1										10	5
AMBER CREEK	CYP113996	368450	5352873	66950	53100	1										100	730
AMBER CREEK	CYP113997	368408	5352900	66900	53100	1										510	365
AMBER CREEK	CYP113998	368366	5352928	66850	53100	1										2120	185
AMBER CREEK	CYP113999	368324	5352955	66800	53100	-1										24	5
AMBER CREEK	CYP114000	368771	5352724	67300	53150	-1										140	18
AMBER CREEK	CYP161201	368798	5352766	67300	53200	-1										22	27
AMBER CREEK	CYP161202	368825	5352808	67300	53250	-1										16	21
AMBER CREEK	CYP161203	368852	5352850	67300	53300	-1										12	8
AMBER CREEK	CYP161204	368783	5352836	67250	53250	-1										34	40
AMBER CREEK	CYP161205	368741	5352863	67200	53250	-1										10	6
AMBER CREEK	CYP161206	368699	5352890	67150	53250	-1										12	26
AMBER CREEK	CYP161207	368657	5352917	67100	53250	-1										18	17
AMBER CREEK	CYP161208	368615	5352944	67050	53250	-1										22	56
AMBER CREEK	CYP161209	368573	5352972	67000	53250	-1										24	72
AMBER CREEK	CYP161210	368531	5352999	66950	53250	-1										22	7
AMBER CREEK	CYP161211	368490	5353026	66900	53250	-1										42	185
AMBER CREEK	CYP161212	368448	5353053	66850	53250	-1										16	27
AMBER CREEK	CYP161213	368406	5353081	66800	53250	-1										-5	2
AMBER CREEK	CYP161214	368364	5353108	66750	53250	-1										18	2
AMBER CREEK	CYP161215	368322	5353135	66700	53250	-1										78	3
AMBER CREEK	CYP161216	368280	5353162	66650	53250	-1										6	3
AMBER CREEK	CYP161217	368238	5353190	66600	53250	-1										18	4
AMBER CREEK	CYP161218	368716	5352641	67300	53050	-1										18	22
AMBER CREEK	CYP161219	368689	5352599	67300	53000	-1										12	7
AMBER CREEK	4138274	368037	5352008	67075	52150	-0.5	1.66	-5	73	30.44	-5	0.94	0.91	1.46	217	22	27
AMBER CREEK	4138275	368016	5352022	67050	52150	-0.5	6.92	41	504	0.06	26	1.26	4	0.61	16	36	114
AMBER CREEK	4138276	367995	5352036	67025	52150	-0.5	5.14	58	328	0.2	13	2.03	2.56	0.45	26	23	287
AMBER CREEK	4138277	367974	5352049	67000	52150	-0.5	6.49	34	448	0.08	12	1.88	3.44	0.55	30	27	69
AMBER CREEK	4138278	367953	5352063	66975	52150	-0.5	1.63	-5	84	25.34	-5	0.64	0.92	4.21	89	10	15
AMBER CREEK	4138279	367932	5352076	66950	52150	-0.5	2.97	-5	159	24.7	-5	1.07	1.53	1.51	173	15	35
AMBER CREEK	4138280	367911	5352090	66925	52150	-0.5	1.8	-5	69	27	-5	0.76	0.84	3.5	113	19	54
AMBER CREEK	4138281	367890	5352104	66900	52150	-0.5	4.44	11	254	15.51	6	1.39	2.42	4.12	119	20	13
AMBER CREEK	4138282	367869	5352117	66875	52150	-0.5	1.53	-5	67	20.3	-5	0.78	0.82	7.38	87	-10	10

Prospect	Sampno	OPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
BANNOCKBURN	AM113773	AMOCO	EL15/76	366285	5356745	65850	56800	WACKER	2.9							
BANNOCKBURN	AM113774	AMOCO	EL15/76	366310	5356745	65875	56800	WACKER	12.2							
BANNOCKBURN	AM113775	AMOCO	EL15/76	366335	5356745	65900	56800	WACKER	13.6							
BANNOCKBURN	AM113776	AMOCO	EL15/76	366360	5356745	65925	56800	WACKER	15							
BANNOCKBURN	AM113777	AMOCO	EL15/76	366385	5356745	65950	56800	WACKER	17.1							
BANNOCKBURN	AM113778	AMOCO	EL15/76	366410	5356745	65975	56800	WACKER	9.4							
BANNOCKBURN	AM113779	AMOCO	EL15/76	366435	5356745	66000	56800	WACKER	8.2							
BANNOCKBURN	AM113780	AMOCO	EL15/76	366485	5356845	66050	56900	WACKER	13.6							
BANNOCKBURN	AM113781	AMOCO	EL15/76	366460	5356845	66025	56900	WACKER	10.6							
BANNOCKBURN	AM113782	AMOCO	EL15/76	366435	5356845	66000	56900	WACKER	33.8							
BANNOCKBURN	AM113783	AMOCO	EL15/76	366410	5356845	65975	56900	WACKER	8.2							
BANNOCKBURN	AM113784	AMOCO	EL15/76	366385	5356845	65950	56900	WACKER	11							
BANNOCKBURN	AM113785	AMOCO	EL15/76	366360	5356845	65925	56900	WACKER	18.2							
BANNOCKBURN	AM113786	AMOCO	EL15/76	366335	5356845	65900	56900	WACKER	10							
BANNOCKBURN	AM113787	AMOCO	EL15/76	366310	5356845	65875	56900	WACKER	13.1							
BANNOCKBURN	AM113788	AMOCO	EL15/76	366285	5356845	65850	56900	WACKER	10.5							
BANNOCKBURN	AM113789	AMOCO	EL15/76	366260	5356845	65825	56900	WACKER	26.2							
BANNOCKBURN	AM113790	AMOCO	EL15/76	366235	5356845	65800	56900	WACKER	3							
BANNOCKBURN	AM113791	AMOCO	EL15/76	366210	5356845	65775	56900	WACKER	18.2							
BANNOCKBURN	AM113792	AMOCO	EL15/76	366285	5356945	65850	57000	WACKER	10.6							
BANNOCKBURN	AM113793	AMOCO	EL15/76	366310	5356945	65875	57000	WACKER	10.6							
BANNOCKBURN	AM113794	AMOCO	EL15/76	366335	5356945	65900	57000	WACKER	26							
BANNOCKBURN	AM113795	AMOCO	EL15/76	366360	5356945	65925	57000	WACKER	16.2							
BANNOCKBURN	AM113796	AMOCO	EL15/76	366385	5356945	65950	57000	WACKER	12.4							
BANNOCKBURN	AM113797	AMOCO	EL15/76	366410	5356945	65975	57000	WACKER	8.8							
BANNOCKBURN	AM113798	AMOCO	EL15/76	366435	5356945	66000	57000	WACKER	24.3							
BANNOCKBURN	AM113799	AMOCO	EL15/76	366535	5357045	66100	57100	WACKER	9							
BANNOCKBURN	AM113800	AMOCO	EL15/76	366510	5357045	66075	57100	WACKER	5.7							
BANNOCKBURN	AM113901	AMOCO	EL15/76	366485	5357045	66050	57100	WACKER	12							
BANNOCKBURN	AM113902	AMOCO	EL15/76	366460	5357045	66025	57100	WACKER	3.8							
BANNOCKBURN	AM113903	AMOCO	EL15/76	366435	5357045	66000	57100	WACKER	15.5							
BANNOCKBURN	AM113904	AMOCO	EL15/76	366410	5357045	65975	57100	WACKER	14.9							
BANNOCKBURN	AM113905	AMOCO	EL15/76	366385	5357045	65950	57100	WACKER	17.8							
BANNOCKBURN	AM113906	AMOCO	EL15/76	366360	5357045	65925	57100	WACKER	9.2							
BANNOCKBURN	AM113907	AMOCO	EL15/76	366310	5357045	65875	57100	WACKER	4.3							
BANNOCKBURN	AM113908	AMOCO	EL15/76	366285	5357045	65850	57100	WACKER	10.2							
BANNOCKBURN	AM113909	AMOCO	EL15/76	366260	5357045	65825	57100	WACKER	12.7							
BANNOCKBURN	AM113910	AMOCO	EL15/76	366235	5357045	65800	57100	WACKER	7.8							
BANNOCKBURN	AM113911	AMOCO	EL15/76	366210	5357045	65775	57100	WACKER	14.6							
BANNOCKBURN	AM113912	AMOCO	EL15/76	366335	5357045	65900	57100	WACKER	17.8							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
BANNOCKBURN	AM113773	366285	5356745	65850	56800	-0.5					10				10	15	10
BANNOCKBURN	AM113774	366310	5356745	65875	56800	2.5					30				40	130	195
BANNOCKBURN	AM113775	366335	5356745	65900	56800	1					35				30	3100	1200
BANNOCKBURN	AM113776	366360	5356745	65925	56800	3					40				5300	7850	875
BANNOCKBURN	AM113777	366385	5356745	65950	56800	-0.5					20				20	260	295
BANNOCKBURN	AM113778	366410	5356745	65975	56800	-0.5					25				30	170	7300
BANNOCKBURN	AM113779	366435	5356745	66000	56800	0.5					15				7150	10	280
BANNOCKBURN	AM113780	366485	5356845	66050	56900	2.5					90				10	55	25
BANNOCKBURN	AM113781	366460	5356845	66025	56900	-0.5					70				35	270	210
BANNOCKBURN	AM113782	366435	5356845	66000	56900	-0.5					10				400	20	20
BANNOCKBURN	AM113783	366410	5356845	65975	56900	-0.5					5				5	5	5
BANNOCKBURN	AM113784	366385	5356845	65950	56900	-0.5					5				110	20	55
BANNOCKBURN	AM113785	366360	5356845	65925	56900	-0.5					10				350	45	130
BANNOCKBURN	AM113786	366335	5356845	65900	56900	-0.5					30				30	925	2750
BANNOCKBURN	AM113787	366310	5356845	65875	56900	-0.5					20				10	20	5
BANNOCKBURN	AM113788	366285	5356845	65850	56900	-0.5					20				40	55	70
BANNOCKBURN	AM113789	366260	5356845	65825	56900	-0.5					5				140	25	175
BANNOCKBURN	AM113790	366235	5356845	65800	56900	1					30				450	5600	255
BANNOCKBURN	AM113791	366210	5356845	65775	56900	6.5					95				1400	7250	8400
BANNOCKBURN	AM113792	366285	5356945	65850	57000	0.5					25				25	260	70
BANNOCKBURN	AM113793	366310	5356945	65875	57000	-0.5					10				115	15	10
BANNOCKBURN	AM113794	366335	5356945	65900	57000	-0.5					15				405	175	360
BANNOCKBURN	AM113795	366360	5356945	65925	57000	-0.5					10				145	20	35
BANNOCKBURN	AM113796	366385	5356945	65950	57000	-0.5					10				280	230	20
BANNOCKBURN	AM113797	366410	5356945	65975	57000	-0.5					45				15	155	75
BANNOCKBURN	AM113798	366435	5356945	66000	57000	-0.5					10				140	45	75
BANNOCKBURN	AM113799	366535	5357045	66100	57100	0.5					25				30	70	270
BANNOCKBURN	AM113800	366510	5357045	66075	57100	-0.5					10				10	65	45
BANNOCKBURN	AM113901	366485	5357045	66050	57100	1					25				20	355	760
BANNOCKBURN	AM113902	366460	5357045	66025	57100	0.5					25				5	15	555
BANNOCKBURN	AM113903	366435	5357045	66000	57100	-0.5					10				225	20	30
BANNOCKBURN	AM113904	366410	5357045	65975	57100	-0.5					15				10	10	270
BANNOCKBURN	AM113905	366385	5357045	65950	57100	-0.5					10				140	35	30
BANNOCKBURN	AM113906	366360	5357045	65925	57100	-0.5					15				150	25	15
BANNOCKBURN	AM113907	366310	5357045	65875	57100	-0.5					5				135	25	10
BANNOCKBURN	AM113908	366285	5357045	65850	57100	-0.5					25				20	105	190
BANNOCKBURN	AM113909	366260	5357045	65825	57100	-0.5					25				40	190	460
BANNOCKBURN	AM113910	366235	5357045	65800	57100	1					10				1650	240	785
BANNOCKBURN	AM113911	366210	5357045	65775	57100	1					10				10	70	30
BANNOCKBURN	AM113912	366335	5357045	65900	57100	-0.5					10				145	20	20

Prospect	Sampno	DPC	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
BERRY CREEK	CYP161251	CYPRUS	EL15/76	370350	5356500	71750	56350	WACKER	3.5							
BERRY CREEK	CYP161252	CYPRUS	EL15/76	370397	5356517	71800	56350	WACKER	7.7							
BERRY CREEK	CYP161253	CYPRUS	EL15/76	370444	5356534	71850	56350	WACKER	7.7							
BERRY CREEK	CYP161254	CYPRUS	EL15/76	370491	5356551	71900	56350	WACKER	11.6							
BERRY CREEK	CYP161255	CYPRUS	EL15/76	370538	5356568	71950	56350	WACKER	10.7							
BERRY CREEK	CYP161256	CYPRUS	EL15/76	370585	5356586	72000	56350	WACKER	8.4							
BERRY CREEK	CYP161257	CYPRUS	EL15/76	370632	5356603	72050	56350	WACKER	4.3							
BERRY CREEK	CYP161258	CYPRUS	EL15/76	370679	5356620	72100	56350	WACKER	16.8							
BERRY CREEK	CYP161259	CYPRUS	EL15/76	370350	5356500	71700	56350	WACKER	8.4							
BERRY CREEK	CYP161260	CYPRUS	EL15/76	370303	5356483	71650	56350	WACKER	4.8							
BERRY CREEK	CYP161261	CYPRUS	EL15/76	370256	5356466	71600	56350	WACKER	13.7							
BERRY CREEK	CYP161262	CYPRUS	EL15/76	370209	5356449	71550	56350	WACKER	4.8							
BERRY CREEK	CYP161263	CYPRUS	EL15/76	370162	5356432	71500	56350	WACKER	7.5							
BERRY CREEK	CYP161264	CYPRUS	EL15/76	370115	5356414	71450	56350	WACKER	12.2							
BERRY CREEK	CYP161265	CYPRUS	EL15/76	370068	5356397	71400	56350	WACKER	15.3							
BERRY CREEK	CYP161266	CYPRUS	EL15/76	370021	5356380	71350	56350	WACKER	10							
BERRY CREEK	CYP161267	CYPRUS	EL15/76	369974	5356363	71300	56350	WACKER	8.1							
BERRY CREEK	CYP161268	CYPRUS	EL15/76	369927	5356346	71250	56350	WACKER	4.5							
BERRY CREEK	CYP161269	CYPRUS	EL15/76	369880	5356329	71200	56350	WACKER	6.5							
BERRY CREEK	CYP161270	CYPRUS	EL15/76	369833	5356312	71150	56350	WACKER	3.8							
BERRY CREEK	CYP161271	CYPRUS	EL15/76	369786	5356295	71100	56350	WACKER	5.4							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
BERRY CREEK	CYP161251	370350	5356500	71750	56350	-1										28	48
BERRY CREEK	CYP161252	370397	5356517	71800	56350	-1										20	38
BERRY CREEK	CYP161253	370444	5356534	71850	56350	-1										120	530
BERRY CREEK	CYP161254	370491	5356551	71900	56350	-1										135	110
BERRY CREEK	CYP161255	370538	5356568	71950	56350	-1										24	88
BERRY CREEK	CYP161256	370585	5356586	72000	56350	-1										80	365
BERRY CREEK	CYP161257	370632	5356603	72050	56350	-1										66	400
BERRY CREEK	CYP161258	370679	5356620	72100	56350	-1										500	1520
BERRY CREEK	CYP161259	370350	5356500	71700	56350	-1										130	500
BERRY CREEK	CYP161260	370303	5356483	71650	56350	-1										28	125
BERRY CREEK	CYP161261	370256	5356466	71600	56350	-1										220	2200
BERRY CREEK	CYP161262	370209	5356449	71550	56350	-1										18	82
BERRY CREEK	CYP161263	370162	5356432	71500	56350	-1										28	155
BERRY CREEK	CYP161264	370115	5356414	71450	56350	-1										18	24
BERRY CREEK	CYP161265	370068	5356397	71400	56350	-1										28	1600
BERRY CREEK	CYP161266	370021	5356380	71350	56350	-1										54	275
BERRY CREEK	CYP161267	369974	5356363	71300	56350	-1										22	78
BERRY CREEK	CYP161268	369927	5356346	71250	56350	-1										54	285
BERRY CREEK	CYP161269	369880	5356329	71200	56350	-1										88	300
BERRY CREEK	CYP161270	369833	5356312	71150	56350	-1										46	70
BERRY CREEK	CYP161271	369786	5356295	71100	56350	-1										82	540

Prospect	Sampno	OPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
BLACKJACKS	AM102901	AMOCO	EL15/76	366453	5360951	67175	61200	WACKER	4.7							
BLACKJACKS	AM102902	AMOCO	EL15/76	366477	5360958	67200	61200	WACKER	5.8							
BLACKJACKS	AM102903	AMOCO	EL15/76	366501	5360965	67225	61200	WACKER	10.7							
BLACKJACKS	AM102904	AMOCO	EL15/76	366525	5360972	67250	61200	WACKER	3.6							
BLACKJACKS	AM102905	AMOCO	EL15/76	366507	5361071	67260	61300	WACKER	10.7							
BLACKJACKS	AM102906	AMOCO	EL15/76	366468	5361060	67220	61300	WACKER	8							
BLACKJACKS	AM102907	AMOCO	EL15/76	366449	5361054	67200	61300	WACKER	6.8							
BLACKJACKS	AM102908	AMOCO	EL15/76	366425	5361048	67175	61300	WACKER	19.3							
BLACKJACKS	AM103101	AMOCO	EL15/76	366277	5361109	67050	61400	WACKER	13.1							
BLACKJACKS	AM103102	AMOCO	EL15/76	366253	5361102	67025	61400	WACKER	14.5							
BLACKJACKS	AM103103	AMOCO	EL15/76	366229	5361095	67000	61400	WACKER	15.2							
BLACKJACKS	AM103104	AMOCO	EL15/76	366205	5361089	66975	61400	WACKER	9							
BLACKJACKS	AM103105	AMOCO	EL15/76	366398	5361144	67175	61400	WACKER	19.6							
BLACKJACKS	AM103106	AMOCO	EL15/76	366422	5361151	67200	61400	WACKER	26							
BLACKJACKS	AM103107	AMOCO	EL15/76	366446	5361157	67225	61400	WACKER	18.1							
BLACKJACKS	AM103108	AMOCO	EL15/76	366470	5361164	67250	61400	WACKER	13.5							
BLACKJACKS	AM103109	AMOCO	EL15/76	366716	5360631	67330	60800	WACKER								
BLACKJACKS	AM103110	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	2							
BLACKJACKS	AM103111	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	4							
BLACKJACKS	AM103112	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	6							
BLACKJACKS	AM103113	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	8							
BLACKJACKS	AM103114	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	10							
BLACKJACKS	AM103115	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	13							
BLACKJACKS	AM103116	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	16							
BLACKJACKS	AM103117	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	19							
BLACKJACKS	AM103118	AMOCO	EL15/76	366700	5360618	67310	60800	WACKER	20.5							
BLACKJACKS	AM103180	AMOCO	EL15/76	366429	5360945	67150	61200	WACKER	17.4							
BLACKJACKS	AM103181	AMOCO	EL15/76	366405	5360938	67125	61200	WACKER	13.6							
BLACKJACKS	AM103182	AMOCO	EL15/76	366381	5360931	67100	61200	WACKER	9							
BLACKJACKS	AM103183	AMOCO	EL15/76	366357	5360924	67075	61200	WACKER	8							
BLACKJACKS	AM103184	AMOCO	EL15/76	366416	5361045	67165	61300	WACKER	16							
BLACKJACKS	AM103185	AMOCO	EL15/76	366392	5361038	67140	61300	WACKER	20							
BLACKJACKS	AM103186	AMOCO	EL15/76	366333	5360917	67050	61200	WACKER	9.4							
BLACKJACKS	AM103187	AMOCO	EL15/76	366309	5360910	67025	61200	WACKER	9.5							
BLACKJACKS	AM103188	AMOCO	EL15/76	366285	5360903	67000	61200	WACKER	12.5							
BLACKJACKS	AM103189	AMOCO	EL15/76	366209	5360986	66950	61300	WACKER	4.5							
BLACKJACKS	AM103190	AMOCO	EL15/76	366233	5360992	66975	61300	WACKER	10.5							
BLACKJACKS	AM103191	AMOCO	EL15/76	366257	5360999	67000	61300	WACKER	8.6							
BLACKJACKS	AM103192	AMOCO	EL15/76	366281	5361006	67025	61300	WACKER	10.6							
BLACKJACKS	AM103193	AMOCO	EL15/76	366305	5361013	67050	61300	WACKER	10.1							
BLACKJACKS	AM103194	AMOCO	EL15/76	366329	5361020	67075	61300	WACKER	10.3							
BLACKJACKS	AM103195	AMOCO	EL15/76	366353	5361027	67100	61300	WACKER	12							
BLACKJACKS	AM103196	AMOCO	EL15/76	366377	5361034	67125	61300	WACKER	8.6							
BLACKJACKS	AM103197	AMOCO	EL15/76	366374	5361137	67150	61400	WACKER	13.6							
BLACKJACKS	AM103198	AMOCO	EL15/76	366350	5361130	67125	61400	WACKER	8.5							
BLACKJACKS	AM103199	AMOCO	EL15/76	366326	5361123	67100	61400	WACKER	2.5							
BLACKJACKS	AM103200	AMOCO	EL15/76	366302	5361116	67075	61400	WACKER	15							
BLACKJACKS	AM113054	AMOCO	EL15/76	366298	5361219	67100	61500	WACKER	2.7							
BLACKJACKS	AM113055	AMOCO	EL15/76	366274	5361212	67075	61500	WACKER	30							
BLACKJACKS	AM113056	AMOCO	EL15/76	366250	5361205	67050	61500	WACKER	23							
BLACKJACKS	AM113057	AMOCO	EL15/76	366226	5361198	67025	61500	WACKER	19.7							
BLACKJACKS	AM113058	AMOCO	EL15/76	366202	5361192	67000	61500	WACKER	24.2							
BLACKJACKS	AM113059	AMOCO	EL15/76	366178	5361185	66975	61500	WACKER	6							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
BLACKJACKS	AM102901	366453	5360951	67175	61200	-1					36					36	130
BLACKJACKS	AM102902	366477	5360958	67200	61200	-1					22					115	440
BLACKJACKS	AM102903	366501	5360965	67225	61200	-1					20					70	260
BLACKJACKS	AM102904	366525	5360972	67250	61200	-1					20					4100	2400
BLACKJACKS	AM102905	366507	5361071	67260	61300	-1					38					90	120
BLACKJACKS	AM102906	366468	5361060	67220	61300	-1					24					60	70
BLACKJACKS	AM102907	366449	5361054	67200	61300	-1					12					26	165
BLACKJACKS	AM102908	366425	5361048	67175	61300	-1					12					44	650
BLACKJACKS	AM103101	366277	5361109	67050	61400	1					18					75	155
BLACKJACKS	AM103102	366253	5361102	67025	61400	1					20					20	145
BLACKJACKS	AM103103	366229	5361095	67000	61400	2					20					940	3600
BLACKJACKS	AM103104	366205	5361089	66975	61400	1					24					930	7700
BLACKJACKS	AM103105	366399	5361144	67175	61400	2					8					42	115
BLACKJACKS	AM103106	366422	5361151	67200	61400	2					18					48	155
BLACKJACKS	AM103107	366446	5361157	67225	61400	2					14					32	110
BLACKJACKS	AM103108	366470	5361164	67250	61400	1					20					34	100
BLACKJACKS	AM103109	366716	5360631	67330	60800	1					14					540	7000
BLACKJACKS	AM103110	366700	5360618	67310	60800	1					26					195	3150
BLACKJACKS	AM103111	366700	5360618	67310	60800	1					16					110	300
BLACKJACKS	AM103112	366700	5360618	67310	60800	2					20					580	2100
BLACKJACKS	AM103113	366700	5360618	67310	60800	1					20					160	590
BLACKJACKS	AM103114	366700	5360618	67310	60800	1					18					145	730
BLACKJACKS	AM103115	366700	5360618	67310	60800	1					20					95	350
BLACKJACKS	AM103116	366700	5360618	67310	60800	1					22					200	670
BLACKJACKS	AM103117	366700	5360618	67310	60800	4					28					1500	16000
BLACKJACKS	AM103118	366700	5360618	67310	60800	2					18					155	730
BLACKJACKS	AM103180	366429	5360945	67150	61200	6					60					810	910
BLACKJACKS	AM103181	366405	5360938	67125	61200	-1					22					60	280
BLACKJACKS	AM103182	366381	5360931	67100	61200	-1					20					520	30
BLACKJACKS	AM103183	366357	5360924	67075	61200	-1					22					300	38
BLACKJACKS	AM103184	366416	5361045	67165	61300	1					30					155	730
BLACKJACKS	AM103185	366392	5361038	67140	61300	2					20					65	26
BLACKJACKS	AM103186	366333	5360917	67050	61200	1					20					26	42
BLACKJACKS	AM103187	366309	5360910	67025	61200	-1					8					16	18
BLACKJACKS	AM103188	366285	5360903	67000	61200	-1					6					10	8
BLACKJACKS	AM103189	366209	5360986	66950	61300	-1					7					6	6
BLACKJACKS	AM103190	366233	5360992	66975	61300	1					4					30	55
BLACKJACKS	AM103191	366257	5360999	67000	61300	2					7					32	20
BLACKJACKS	AM103192	366281	5361006	67025	61300	1					14					26	3750
BLACKJACKS	AM103193	366305	5361013	67050	61300	-1					16					30	105
BLACKJACKS	AM103194	366329	5361020	67075	61300	2					9					26	48
BLACKJACKS	AM103195	366353	5361027	67100	61300	2					5					34	38
BLACKJACKS	AM103196	366377	5361034	67125	61300	1					10					40	210
BLACKJACKS	AM103197	366374	5361137	67150	61400	2					10					600	2350
BLACKJACKS	AM103198	366350	5361130	67125	61400	2					18					550	1100
BLACKJACKS	AM103199	366326	5361123	67100	61400	1					14					135	380
BLACKJACKS	AM103200	366302	5361116	67075	61400	1					20					140	870
BLACKJACKS	AM113054	366298	5361219	67100	61500						-10					-50	20
BLACKJACKS	AM113055	366274	5361212	67075	61500						-10					80	180
BLACKJACKS	AM113056	366250	5361205	67050	61500						-10					-50	40
BLACKJACKS	AM113057	366226	5361198	67025	61500						-10					-50	60
BLACKJACKS	AM113058	366202	5361192	67000	61500						-10					-50	60
BLACKJACKS	AM113059	366178	5361185	66975	61500						-10					-50	-10

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
BLACKJACKS	AM113060	AMOCO	EL15/76	366174	5361288	67000	61600	WACKER	13.5							
BLACKJACKS	AM113061	AMOCO	EL15/76	366150	5361281	66975	61600	WACKER	2.9							
BLACKJACKS	AM113062	AMOCO	EL15/76	366198	5361295	67025	61600	WACKER	15.8							
BLACKJACKS	AM113063	AMOCO	EL15/76	366222	5361301	67050	61600	WACKER	17.5							
BLACKJACKS	AM113064	AMOCO	EL15/76	366246	5361308	67075	61600	WACKER	21.5							
BLACKJACKS	AM113065	AMOCO	EL15/76	366270	5361315	67100	61600	WACKER	4.5							
BLACKJACKS	AM113066	AMOCO	EL15/76	366219	5361405	67075	61700	WACKER	3.2							
BLACKJACKS	AM113067	AMOCO	EL15/76	366195	5361398	67050	61700	WACKER	7.8							
BLACKJACKS	AM113068	AMOCO	EL15/76	366171	5361391	67025	61700	WACKER	8.3							
BLACKJACKS	AM113069	AMOCO	EL15/76	366147	5361384	67000	61700	WACKER	7.8							
BLACKJACKS	AM113070	AMOCO	EL15/76	366143	5361487	67025	61800	WACKER	26.6							
BLACKJACKS	AM113071	AMOCO	EL15/76	366119	5361480	67000	61800	WACKER	17.4							
BLACKJACKS	AM113072	AMOCO	EL15/76	366167	5361494	67050	61800	WACKER	19.6							
BLACKJACKS	AM113073	AMOCO	EL15/76	366191	5361501	67075	61800	WACKER	3.2							
BLACKJACKS	AM113074	AMOCO	EL15/76	366215	5361508	67100	61800	WACKER	17.7							
BLACKJACKS	AM113075	AMOCO	EL15/76	366239	5361514	67125	61800	WACKER	27.6							
BLACKJACKS	AM113076	AMOCO	EL15/76	366263	5361521	67150	61800	WACKER	19.3							
BLACKJACKS	AM113077	AMOCO	EL15/76	366287	5361528	67175	61800	WACKER	15.4							
BLACKJACKS	AM113078	AMOCO	EL15/76	366311	5361535	67200	61800	WACKER	5.2							
BLACKJACKS	AM113079	AMOCO	EL15/76	366335	5361542	67225	61800	WACKER	2							
BLACKJACKS	AM113080	AMOCO	EL15/76	366359	5361549	67250	61800	WACKER	2.6							
BLACKJACKS	AM113081	AMOCO	EL15/76	366363	5361446	67225	61700	WACKER	3							
BLACKJACKS	AM113082	AMOCO	EL15/76	366387	5361453	67250	61700	WACKER	11.7							
BLACKJACKS	AM113083	AMOCO	EL15/76	366339	5361439	67200	61700	WACKER	2.4							
BLACKJACKS	AM113084	AMOCO	EL15/76	366315	5361432	67175	61700	WACKER	4							
BLACKJACKS	AM113085	AMOCO	EL15/76	366291	5361425	67150	61700	WACKER	1.8							
BLACKJACKS	AM113086	AMOCO	EL15/76	366267	5361418	67125	61700	WACKER	2.2							
BLACKJACKS	AM113087	AMOCO	EL15/76	366243	5361411	67100	61700	WACKER	3.2							
BLACKJACKS	AM113088	AMOCO	EL15/76	366294	5361322	67125	61600	WACKER	3.8							
BLACKJACKS	AM113089	AMOCO	EL15/76	366318	5361329	67150	61600	WACKER	8.3							
BLACKJACKS	AM113090	AMOCO	EL15/76	366343	5361336	67175	61600	WACKER	4.3							
BLACKJACKS	AM113091	AMOCO	EL15/76	366367	5361343	67200	61600	WACKER	5.2							
BLACKJACKS	AM113092	AMOCO	EL15/76	366391	5361350	67225	61600	WACKER	3.5							
BLACKJACKS	AM113093	AMOCO	EL15/76	366415	5361357	67250	61600	WACKER	20.2							
BLACKJACKS	AM113094	AMOCO	EL15/76	366442	5361260	67250	61500	WACKER	25							
BLACKJACKS	AM113095	AMOCO	EL15/76	366418	5361254	67225	61500	WACKER	21.8							
BLACKJACKS	AM113096	AMOCO	EL15/76	366394	5361247	67200	61500	WACKER	9.8							
BLACKJACKS	AM113097	AMOCO	EL15/76	366370	5361240	67175	61500	WACKER	12.1							
BLACKJACKS	AM113098	AMOCO	EL15/76	366346	5361233	67150	61500	WACKER	22.2							
BLACKJACKS	AM113099	AMOCO	EL15/76	366322	5361226	67125	61500	WACKER	6.5							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
BLACKJACKS	AM113060	366174	5361288	67000	61600						-10					800	2190
BLACKJACKS	AM113061	366150	5361281	66975	61600						-10					50	-10
BLACKJACKS	AM113062	366198	5361295	67025	61600						-10					50	50
BLACKJACKS	AM113063	366222	5361301	67050	61600						-10					50	50
BLACKJACKS	AM113064	366246	5361308	67075	61600						-10					-50	5500
BLACKJACKS	AM113065	366270	5361315	67100	61600						-10					-50	120
BLACKJACKS	AM113066	366219	5361405	67075	61700						-10					-50	50
BLACKJACKS	AM113067	366195	5361398	67050	61700						-10					-50	20
BLACKJACKS	AM113068	366171	5361391	67025	61700						240					-50	20
BLACKJACKS	AM113069	366147	5361384	67000	61700						-10					-50	10
BLACKJACKS	AM113070	366143	5361487	67025	61800						-10					-50	30
BLACKJACKS	AM113071	366119	5361480	67000	61800						-10					1650	730
BLACKJACKS	AM113072	366167	5361494	67050	61800						-10					-50	40
BLACKJACKS	AM113073	366191	5361501	67075	61800						-10					-50	230
BLACKJACKS	AM113074	366215	5361508	67100	61800						-10					-50	40
BLACKJACKS	AM113075	366239	5361514	67125	61800						-10					-50	100
BLACKJACKS	AM113076	366263	5361521	67150	61800						-10					-50	70
BLACKJACKS	AM113077	366287	5361528	67175	61800						-10					-50	1470
BLACKJACKS	AM113078	366311	5361535	67200	61800						-10					-50	10
BLACKJACKS	AM113079	366335	5361542	67225	61800						-10					-50	300
BLACKJACKS	AM113080	366359	5361549	67250	61800						-10					-50	20
BLACKJACKS	AM113081	366363	5361446	67225	61700						-10					-50	70
BLACKJACKS	AM113082	366387	5361453	67250	61700						-10					540	2100
BLACKJACKS	AM113083	366339	5361439	67200	61700						-10					-50	3000
BLACKJACKS	AM113084	366315	5361432	67175	61700						80					-50	70
BLACKJACKS	AM113085	366291	5361425	67150	61700						-10					-50	60
BLACKJACKS	AM113086	366267	5361418	67125	61700						-10					-50	150
BLACKJACKS	AM113087	366243	5361411	67100	61700						-10					-50	90
BLACKJACKS	AM113088	366294	5361322	67125	61600						-10					-50	60
BLACKJACKS	AM113089	366318	5361329	67150	61600						-10					-50	40
BLACKJACKS	AM113090	366343	5361336	67175	61600						-10					-50	630
BLACKJACKS	AM113091	366367	5361343	67200	61600						-10					-50	500
BLACKJACKS	AM113092	366391	5361350	67225	61600						-10					-50	40
BLACKJACKS	AM113093	366415	5361357	67250	61600						-10					-50	210
BLACKJACKS	AM113094	366442	5361260	67250	61500						-10					-50	160
BLACKJACKS	AM113095	366418	5361254	67225	61500						-10					-50	-10
BLACKJACKS	AM113096	366394	5361247	67200	61500						-10					-50	-10
BLACKJACKS	AM113097	366370	5361240	67175	61500						30					-50	10
BLACKJACKS	AM113098	366346	5361233	67150	61500						-10					-50	160
BLACKJACKS	AM113099	366322	5361226	67125	61500						-10					-50	-10

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
EWART CREEK	CSR161851	CSR	EL15/76	371895	5354161	1850	LINE 4	WACKER	24.3							
EWART CREEK	CSR161852	CSR	EL15/76	371920	5354170	1875	LINE 4	WACKER	11.4							
EWART CREEK	CSR161853	CSR	EL15/76	371944	5354178	1900	LINE 4	WACKER	7.1							
EWART CREEK	CSR161854	CSR	EL15/76	371967	5354186	1925	LINE 4	WACKER	10.1							
EWART CREEK	CSR161855	CSR	EL15/76	371991	5354194	1950	LINE 4	WACKER	11							
EWART CREEK	CSR161856	CSR	EL15/76	371393	5354339	1550	LINE 3	WACKER	11							
EWART CREEK	CSR161857	CSR	EL15/76	371780	5353800	1550	LINE 5	WACKER	7.8							
EWART CREEK	CSR161858	CSR	EL15/76	371803	5353809	1575	LINE 5	WACKER	9							
EWART CREEK	CSR161859	CSR	EL15/76	371827	5353818	1600	LINE 5	WACKER	14.3							
EWART CREEK	CSR161860	CSR	EL15/76	371850	5353827	1625	LINE 5	WACKER	17.1							
EWART CREEK	CSR161861	CSR	EL15/76	371873	5353836	1650	LINE 5	WACKER	19.5							
EWART CREEK	CSR161862	CSR	EL15/76	371897	5353845	1675	LINE 5	WACKER	16.8							
EWART CREEK	CSR161863	CSR	EL15/76	371920	5353854	1700	LINE 5	WACKER	18.7							
EWART CREEK	CSR161864	CSR	EL15/76	372020	5353550	1625	LINE 6	WACKER	14.3							
EWART CREEK	CSR161865	CSR	EL15/76	372042	5353561	1650	LINE 6	WACKER	14.3							
EWART CREEK	CSR161866	CSR	EL15/76	372065	5353573	1675	LINE 6	WACKER	18.4							
EWART CREEK	CSR161867	CSR	EL15/76	372087	5353584	1700	LINE 6	WACKER	22.5							
EWART CREEK	CSR161868	CSR	EL15/76	372100	5353200	1500	LINE 7	WACKER	12.8							
EWART CREEK	CSR161870	CSR	EL15/76	372123	5353209	1525	LINE 7	WACKER	15.5							
EWART CREEK	CSR161871	CSR	EL15/76	372147	5353217	1550	LINE 7	WACKER	24							
EWART CREEK	CSR161872	CSR	EL15/76	372250	5352870	1450	LINE 8	WACKER	15.7							
EWART CREEK	CSR161873	CSR	EL15/76	372273	5352879	1475	LINE 8	WACKER	11							
EWART CREEK	CSR161874	CSR	EL15/76	372297	5352887	1500	LINE 8	WACKER	12.2							
EWART CREEK	CSR161875	CSR	EL15/76	372320	5352896	1525	LINE 8	WACKER	12.1							
EWART CREEK	CSR161876	CSR	EL15/76	372390	5352570	1425	LINE 9	WACKER	11.2							
EWART CREEK	CSR161877	CSR	EL15/76	372412	5352581	1450	LINE 9	WACKER	2.2							
EWART CREEK	CSR161878	CSR	EL15/76	372412	5352581	1450	LINE 9	WACKER	14.8							
EWART CREEK	CSR161879	CSR	EL15/76	372435	5352593	1475	LINE 9	WACKER	13.2							
EWART CREEK	CSR161880	CSR	EL15/76	372457	5352604	1500	LINE 9	WACKER	9.4							
EWART CREEK	CSR161881	CSR	EL15/76	372479	5352615	1525	LINE 9	WACKER	8.2							
EWART CREEK	CSR161882	CSR	EL15/76	372501	5352627	1550	LINE 9	WACKER	11.3							
EWART CREEK	CSR161883	CSR	EL15/76	372470	5352300	1325	LINE 10	WACKER	14.3							
EWART CREEK	CSR161884	CSR	EL15/76	372494	5352305	1350	LINE 10	WACKER	8.9							
EWART CREEK	CSR161885	CSR	EL15/76	372519	5352310	1375	LINE 10	WACKER	10.7							
EWART CREEK	CSR161886	CSR	EL15/76	372543	5352316	1400	LINE 10	WACKER	14.5							
EWART CREEK	CSR161887	CSR	EL15/76	372568	5352321	1425	LINE 10	WACKER	9.7							
EWART CREEK	CSR161888	CSR	EL15/76	372500	5352030	1175	LINE 11	WACKER	3.2							
EWART CREEK	CSR161902	CSR	EL15/76	372170	5353226	1575	LINE 7	WACKER	18.2							
EWART CREEK	CSR161903	CSR	EL15/76	372194	5353234	1600	LINE 7	WACKER	17.4							
EWART CREEK	CSR161904	CSR	EL15/76	372217	5353243	1625	LINE 7	WACKER	23.7							
EWART CREEK	CSR161905	CSR	EL15/76	372241	5353251	1650	LINE 7	WACKER	22.2							
EWART CREEK	CSR161906	CSR	EL15/76	372264	5353260	1675	LINE 7	WACKER	22.5							
EWART CREEK	CSR161907	CSR	EL15/76	372288	5353268	1700	LINE 7	WACKER	23							
EWART CREEK	CSR161908	CSR	EL15/76	372311	5353277	1725	LINE 7	WACKER	21.6							
EWART CREEK	CSR161909	CSR	EL15/76	372335	5353286	1750	LINE 7	WACKER	21.5							
EWART CREEK	CSR161910	CSR	EL15/76	372358	5353294	1775	LINE 7	WACKER	18.9							
EWART CREEK	CSR161911	CSR	EL15/76	372382	5353303	1800	LINE 7	WACKER	21							
EWART CREEK	CSR161912	CSR	EL15/76	372405	5353311	1825	LINE 7	WACKER	19							
EWART CREEK	CSR161913	CSR	EL15/76	372429	5353320	1850	LINE 7	WACKER	18.6							
EWART CREEK	CSR161914	CSR	EL15/76	372452	5353328	1875	LINE 7	WACKER	20							
EWART CREEK	CSR161915	CSR	EL15/76	372476	5353337	1900	LINE 7	WACKER	31							
EWART CREEK	CSR161916	CSR	EL15/76	372499	5353345	1925	LINE 7	WACKER	18.8							
EWART CREEK	CSR161917	CSR	EL15/76	372523	5353354	1950	LINE 7	WACKER	19							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
EWART CREEK	CSR161851	371896	5354161	1850	LINE 4	-1		9			60					32	44
EWART CREEK	CSR161852	371920	5354170	1875	LINE 4	-1		4			28					12	80
EWART CREEK	CSR161853	371944	5354178	1900	LINE 4	-1		6			85					24	85
EWART CREEK	CSR161854	371967	5354186	1925	LINE 4	-1		12			22					14	44
EWART CREEK	CSR161855	371991	5354194	1950	LINE 4	-1		7			60					28	110
EWART CREEK	CSR161856	371393	5354339	1550	LINE 3	-1		9			10					22	135
EWART CREEK	CSR161857	371780	5353800	1550	LINE 5	-1		5			6					8	38
EWART CREEK	CSR161858	371803	5353809	1575	LINE 5	-1		6			7					10	20
EWART CREEK	CSR161859	371827	5353818	1600	LINE 5	-1		20			22					60	70
EWART CREEK	CSR161860	371850	5353827	1625	LINE 5	-1		4			4					6	40
EWART CREEK	CSR161861	371873	5353836	1650	LINE 5	-1		8			18					14	28
EWART CREEK	CSR161862	371897	5353845	1675	LINE 5	-1		10			55					36	110
EWART CREEK	CSR161863	371920	5353854	1700	LINE 5	-1		14			55					40	100
EWART CREEK	CSR161864	372020	5353550	1625	LINE 6	-1		10			26					60	175
EWART CREEK	CSR161865	372042	5353561	1650	LINE 6	-1		9			9					90	20
EWART CREEK	CSR161866	372065	5353573	1675	LINE 6	-1		30			24					36	75
EWART CREEK	CSR161867	372087	5353584	1700	LINE 6	-1		8			26					30	44
EWART CREEK	CSR161868	372100	5353200	1500	LINE 7	-1		4			18					18	50
EWART CREEK	CSR161870	372123	5353209	1525	LINE 7	-1		30			14					30	170
EWART CREEK	CSR161871	372147	5353217	1550	LINE 7	-1		22			20					70	440
EWART CREEK	CSR161872	372250	5352870	1450	LINE 8	-1		7			20					16	115
EWART CREEK	CSR161873	372273	5352879	1475	LINE 8	-1		7			18					14	150
EWART CREEK	CSR161874	372297	5352887	1500	LINE 8	-1		30			40					38	170
EWART CREEK	CSR161875	372320	5352896	1525	LINE 8	-1		26			40					38	155
EWART CREEK	CSR161876	372390	5352570	1425	LINE 9	-1		10			16					22	300
EWART CREEK	CSR161877	372412	5352581	1450	LINE 9	-1		6			32					6	26
EWART CREEK	CSR161878	372412	5352581	1450	LINE 9	-1		3			10					18	85
EWART CREEK	CSR161879	372435	5352593	1475	LINE 9	-1		9			6					12	5
EWART CREEK	CSR161880	372457	5352604	1500	LINE 9	-1		60			12					16	24
EWART CREEK	CSR161881	372479	5352615	1525	LINE 9	-1		65			16					22	34
EWART CREEK	CSR161882	372501	5352627	1550	LINE 9	-1		30			40					46	175
EWART CREEK	CSR161883	372470	5352300	1325	LINE 10	-1		14			16					36	200
EWART CREEK	CSR161884	372494	5352305	1350	LINE 10	-1		10			6					16	7
EWART CREEK	CSR161885	372519	5352310	1375	LINE 10	-1		7			6					18	6
EWART CREEK	CSR161886	372543	5352316	1400	LINE 10	-1		6			30					18	32
EWART CREEK	CSR161887	372568	5352321	1425	LINE 10	-1		8			55					28	60
EWART CREEK	CSR161888	372500	5352030	1175	LINE 11	-1		7			60					18	46
EWART CREEK	CSR161902	372170	5353226	1575	LINE 7	-1		24			32					50	175
EWART CREEK	CSR161903	372194	5353234	1600	LINE 7	-1		9			16					16	22
EWART CREEK	CSR161904	372217	5353243	1625	LINE 7	-1		5			70					38	100
EWART CREEK	CSR161905	372241	5353251	1650	LINE 7	-1		10			55					36	105
EWART CREEK	CSR161906	372264	5353260	1675	LINE 7	-1		8			65					30	90
EWART CREEK	CSR161907	372288	5353268	1700	LINE 7	-1		9			65					28	100
EWART CREEK	CSR161908	372311	5353277	1725	LINE 7	-1		12			70					42	115
EWART CREEK	CSR161909	372335	5353286	1750	LINE 7	-1		3			36					18	55
EWART CREEK	CSR161910	372358	5353294	1775	LINE 7	-1		22			55					50	195
EWART CREEK	CSR161911	372382	5353303	1800	LINE 7	-1		12			70					25	80
EWART CREEK	CSR161912	372405	5353311	1825	LINE 7	-1		12			80					60	170
EWART CREEK	CSR161913	372429	5353320	1850	LINE 7	-1		5			70					60	165
EWART CREEK	CSR161914	372452	5353328	1875	LINE 7	-1		12			70					50	160
EWART CREEK	CSR161915	372476	5353337	1900	LINE 7	-1		10			70					44	145
EWART CREEK	CSR161916	372499	5353345	1925	LINE 7	-1		6			70					40	145
EWART CREEK	CSR161917	372523	5353354	1950	LINE 7	-1		10			65					32	115

Prospect	Sampno	DPC	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
EWART CREEK	CSR161918	CSR	EL15/76	372546	5353362	1975	LINE 7	WACKER	18.6							
EWART CREEK	CSR161919	CSR	EL15/76	372570	5353371	2000	LINE 7	WACKER	15.7							
EWART CREEK	CSR213269	CSR	EL15/76	371180	5354590	1475	LINE 2	WACKER	10							
EWART CREEK	CSR213270	CSR	EL15/76	371202	5354602	1500	LINE 2	WACKER	2.4							
EWART CREEK	CSR213271	CSR	EL15/76	371224	5354613	1525	LINE 2	WACKER	1.8							
EWART CREEK	CSR213272	CSR	EL15/76	371246	5354625	1550	LINE 2	WACKER	0.1							
EWART CREEK	CSR213273	CSR	EL15/76	371268	5354637	1575	LINE 2	WACKER	0.3							
EWART CREEK	CSR213274	CSR	EL15/76	371290	5354649	1600	LINE 2	WACKER	12.5							
EWART CREEK	CSR213275	CSR	EL15/76	371312	5354660	1625	LINE 2	WACKER	9.6							
EWART CREEK	CSR213276	CSR	EL15/76	371335	5354672	1650	LINE 2	WACKER	0							
EWART CREEK	CSR213277	CSR	EL15/76	371417	5354348	1575	LINE 3	WACKER	9.7							
EWART CREEK	CSR213278	CSR	EL15/76	371440	5354357	1600	LINE 3	WACKER	11.2							
EWART CREEK	CSR213279	CSR	EL15/76	371463	5354366	1625	LINE 3	WACKER	13.1							
EWART CREEK	CSR213280	CSR	EL15/76	371487	5354375	1650	LINE 3	WACKER	16.5							
EWART CREEK	CSR213281	CSR	EL15/76	371510	5354384	1675	LINE 3	WACKER	24							
EWART CREEK	CSR213282	CSR	EL15/76	371533	5354393	1700	LINE 3	WACKER	15.5							
EWART CREEK	CSR213283	CSR	EL15/76	371557	5354402	1725	LINE 3	WACKER	6.6							
EWART CREEK	CSR213286	CSR	EL15/76	371580	5354411	1750	LINE 3	WACKER	10.4							
EWART CREEK	CSR213287	CSR	EL15/76	371370	5354330	1550	LINE 3	WACKER	8.6							
EWART CREEK	CSR213288	CSR	EL15/76	371660	5354080	1600	LINE 4	WACKER	20.3							
EWART CREEK	CSR213289	CSR	EL15/76	371684	5354088	1625	LINE 4	WACKER	10.3							
EWART CREEK	CSR213290	CSR	EL15/76	371707	5354096	1650	LINE 4	WACKER	6.7							
EWART CREEK	CSR213291	CSR	EL15/76	371731	5354104	1675	LINE 4	WACKER	23.2							
EWART CREEK	CSR213292	CSR	EL15/76	371755	5354113	1700	LINE 4	WACKER	13.6							
EWART CREEK	CSR213293	CSR	EL15/76	371778	5354121	1725	LINE 4	WACKER	15							
EWART CREEK	CSR213294	CSR	EL15/76	371778	5354121	1725	LINE 4	WACKER	16							
EWART CREEK	CSR213295	CSR	EL15/76	371802	5354129	1750	LINE 4	WACKER	25.8							
EWART CREEK	CSR213296	CSR	EL15/76	371825	5354137	1775	LINE 4	WACKER	25.4							
EWART CREEK	CSR213297	CSR	EL15/76	371849	5354145	1800	LINE 4	WACKER	27.4							
EWART CREEK	CSR213298	CSR	EL15/76	371873	5354153	1825	LINE 4	WACKER	21.7							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
EWART CREEK	CSR161918	372546	5353362	1975	LINE 7	-1		14			65					48	140
EWART CREEK	CSR161919	372570	5353371	2000	LINE 7	-1		32			30					105	190
EWART CREEK	CSR213269	371160	5354590	1475	LINE 2	-1		9			2					12	74
EWART CREEK	CSR213270	371202	5354602	1500	LINE 2	-1		5			7					14	95
EWART CREEK	CSR213271	371224	5354613	1525	LINE 2	-1		14			4					8	60
EWART CREEK	CSR213272	371246	5354625	1550	LINE 2	-1		6			9					14	12
EWART CREEK	CSR213273	371268	5354637	1575	LINE 2	-1		7			5					4	12
EWART CREEK	CSR213274	371290	5354649	1600	LINE 2	-1		12			8					12	48
EWART CREEK	CSR213275	371312	5354660	1625	LINE 2	1		26			46					290	115
EWART CREEK	CSR213276	371335	5354672	1650	LINE 2	-1		8			60					75	18
EWART CREEK	CSR213277	371417	5354348	1575	LINE 3	-1		16			10					24	44
EWART CREEK	CSR213278	371440	5354357	1600	LINE 3	-1		2			5					22	55
EWART CREEK	CSR213279	371463	5354366	1625	LINE 3	-1		5			6					16	16
EWART CREEK	CSR213280	371487	5354375	1650	LINE 3	-1		14			34					24	75
EWART CREEK	CSR213281	371510	5354384	1675	LINE 3	-1		14			8					32	140
EWART CREEK	CSR213282	371533	5354393	1700	LINE 3	-1		6			6					-4	10
EWART CREEK	CSR213283	371557	5354402	1725	LINE 3	-1		20			9					55	140
EWART CREEK	CSR213286	371530	5354411	1750	LINE 3	-1		22			32					16	26
EWART CREEK	CSR213287	371370	5354330	1550	LINE 3	-1		10			10					14	60
EWART CREEK	CSR213288	371660	5354080	1600	LINE 4	-1		16			24					350	600
EWART CREEK	CSR213289	371684	5354088	1625	LINE 4	-1		20			12					32	40
EWART CREEK	CSR213290	371707	5354096	1650	LINE 4	-1		10			10					22	48
EWART CREEK	CSR213291	371731	5354104	1675	LINE 4	-1		5			6					14	18
EWART CREEK	CSR213292	371755	5354113	1700	LINE 4	-1		9			10					28	95
EWART CREEK	CSR213293	371778	5354121	1725	LINE 4	-1		4			5					4	7
EWART CREEK	CSR213294	371778	5354121	1725	LINE 4	-1		2			2					4	2
EWART CREEK	CSR213295	371802	5354129	1750	LINE 4	-1		6			34					55	85
EWART CREEK	CSR213296	371825	5354137	1775	LINE 4	-1		5			50					50	95
EWART CREEK	CSR213297	371849	5354145	1800	LINE 4	-1		14			50					220	350
EWART CREEK	CSR213298	371873	5354153	1825	LINE 4	-1		14			48					50	85

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	Brock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
FARRELL	CYP150124	CYPRUS	EL15/76	365000	5355300	65000	55300	WACKER	3.7							
FARRELL	CYP150125	CYPRUS	EL15/76	365050	5355300	65050	55300	WACKER	5.3							
FARRELL	CYP150126	CYPRUS	EL15/76	365100	5355300	65100	55300	WACKER	4							
FARRELL	CYP150127	CYPRUS	EL15/76	365150	5355300	65150	55300	WACKER	18.5							
FARRELL	CYP150128	CYPRUS	EL15/76	365200	5355300	65200	55300	WACKER	9.6							
FARRELL	CYP150129	CYPRUS	EL15/76	365250	5355300	65250	55300	WACKER	10							
FARRELL	CYP150130	CYPRUS	EL15/76	365300	5355300	65300	55300	WACKER	6.4							
FARRELL	CYP150131	CYPRUS	EL15/76	365350	5355300	65350	55300	WACKER	3.6							
FARRELL	CYP150133	CYPRUS	EL15/76	365000	5355900	65000	55900	WACKER	17.2							
FARRELL	CYP150134	CYPRUS	EL15/76	365050	5355900	65050	55900	WACKER	5							
FARRELL	CYP150135	CYPRUS	EL15/76	365100	5355900	65100	55900	WACKER	3.5							
FARRELL	CYP150136	CYPRUS	EL15/76	365150	5355900	65150	55900	WACKER	3.8							
FARRELL	CYP150137	CYPRUS	EL15/76	365200	5355900	65200	55900	WACKER	1							
FARRELL	CYP150138	CYPRUS	EL15/76	365250	5355900	65250	55900	WACKER	6							
FARRELL	CYP150139	CYPRUS	EL15/76	365300	5355900	65300	55900	WACKER	6.8							
FARRELL	CYP150140	CYPRUS	EL15/76	365350	5355900	65350	55900	WACKER	22.4							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Cs%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
FARRELL	CYP150124	365000	5355300	65000	55300	-1										16	17
FARRELL	CYP150125	365050	5355300	65050	55300	-1										16	11
FARRELL	CYP150126	365100	5355300	65100	55300	-1										16	16
FARRELL	CYP150127	365150	5355300	65150	55300	-1										30	170
FARRELL	CYP150128	365200	5355300	65200	55300	-1										32	195
FARRELL	CYP150129	365250	5355300	65250	55300	-1										115	465
FARRELL	CYP150130	365300	5355300	65300	55300	-1										1140	1040
FARRELL	CYP150131	365350	5355300	65350	55300	-1										24	62
FARRELL	CYP150133	365000	5355900	65000	55900	-1										155	230
FARRELL	CYP150134	365050	5355900	65050	55900	-1										170	445
FARRELL	CYP150135	365100	5355900	65100	55900	-1										360	260
FARRELL	CYP150136	365150	5355900	65150	55900	-1										465	435
FARRELL	CYP150137	365200	5355900	65200	55900	-1										20	60
FARRELL	CYP150138	365250	5355900	65250	55900	1										630	1140
FARRELL	CYP150139	365300	5355900	65300	55900	-1										160	30
FARRELL	CYP150140	365350	5355900	65350	55900	-1										86	90

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
KING BILLY	4138168	77679	EL45/92	370400	5352275	70400	2275	WACKER	12.5	N	Og	Ccy			LG	
KING BILLY	4138169	77679	EL45/92	370400	5352300	70400	2300	WACKER	18	N	Og	Ccy			LG	
KING BILLY	4138170	77679	EL45/92	370400	5352325	70400	2325	WACKER	14.5	N	Og	Ccy			G	
KING BILLY	4138171	77679	EL45/92	370400	5352350	70400	2350	WACKER	9	N	Og	Ccy			G	
KING BILLY	4138172	77679	EL45/92	370400	5352375	70400	2375	WACKER	20.2	N	Og	Ccy			G	
KING BILLY	4138173	77679	EL45/92	370400	5352400	70400	2400	WACKER	29.8	N	Og	Ccy				NO SAMPLE
KING BILLY	4138174	77679	EL45/92	370400	5352425	70400	2425	WACKER	26.5	N	Og	Ccy				NO SAMPLE
KING BILLY	4138175	77679	EL45/92	370400	5352250	70400	2250	WACKER	22	N	Og	Ccy			G	
KING BILLY	4138176	77679	EL45/92	370400	5352200	70400	2200	WACKER	11.5	N	Og	Ccy			G	
KING BILLY	4138177	77679	EL45/92	370400	5352150	70400	2150	WACKER	11	N	Og	Ccy	Ds	Py	DG	Py 10%
KING BILLY	4138178	77679	EL45/92	370400	5352175	70400	2175	WACKER	12.8	N	Og	Ccy			G	
KING BILLY	4138199	77679	EL45/92	369200	5352200	69200	2200	WACKER	1.5	Y	Ogul	Sls			DG	
KING BILLY	4138200	77679	EL45/92	369200	5352175	69200	2175	WACKER	6	Y	Ogul	Sls			DG	
KING BILLY	4138201	77679	EL45/92	369200	5352150	69200	2150	WACKER	13.2	Y	Ogul	Sls	Vc		G	
KING BILLY	4138202	77679	EL45/92	369165	5352150	69165	2150	WACKER	12.4	?	Ogfc?	Ccy			AGYB	Stratabound clay?
KING BILLY	4138203	77679	EL45/92	369165	5352125	69165	2125	WACKER	3.6	Y	Om	Sss			LBK	Micaceous sst
KING BILLY	4138204	77679	EL45/92	369165	5352100	69165	2100	WACKER	5.7	N?	Og	Ccy			B+G	
KING BILLY	4138205	77679	EL45/92	369200	5352225	69200	2225	WACKER	2.8	Y	Ogul	Sls			G	
KING BILLY	4138206	77679	EL45/92	369200	5352250	69200	2250	WACKER	2	Y	Ogul	Sls			LG	Reacts with HCl
KING BILLY	4138207	77679	EL45/92	369200	5352275	69200	2275	WACKER	6.8	?	Ogul	CcySls			DG	Reacts with HCl
KING BILLY	4138208	77679	EL45/92	369200	5352300	69200	2300	WACKER	5	Y	Ogul	Sls	We		G	Reacts with HCl
KING BILLY	4138209	77679	EL45/92	369200	5352325	69200	2325	WACKER	2	Y	Ogul	Sls	We		G	Reacts with HCl
KING BILLY	4138210	77679	EL45/92	369200	5352350	69200	2350	WACKER	2.5	N	Ogdc	Ccy			DG	Reacts with HCl
KING BILLY	4138211	77679	EL45/92	369200	5352375	69200	2375	WACKER	1.8	Y	Ogul	Sls	We		G	Reacts with HCl
KING BILLY	4138212	77679	EL45/92	369200	5352400	69200	2400	WACKER	1.5	Y	Ogul	Sls	We		DG	Reacts with HCl
KING BILLY	4138213	77679	EL45/92	369200	5352425	69200	2425	WACKER	1.5	Y	Ogul	Sls	We		G	Reacts with HCl
KING BILLY	4138214	77679	EL45/92	369200	5352450	69200	2450	WACKER	2.8	Y	Ogul	Sls	We		G	Reacts with HCl
KING BILLY	4138215	77679	EL45/92	369200	5352475	69200	2475	WACKER	14.8	N	Ogdc	Ccy			DG	Reacts with HCl
KING BILLY	4138216	77679	EL45/92	369200	5352500	69200	2500	WACKER	6.5	N	Og	Ccy			G	Reacts with HCl
KING BILLY	4138217	77679	EL45/92	369200	5352525	69200	2525	WACKER	2.5	?	Ogul	CcySls	We		G	Reacts with HCl
KING BILLY	4138221	77679	EL45/92	369575	5352000	69575	2000	WACKER	35	N	Og	Ccy			G	
KING BILLY	4138222	77679	EL45/92	369540	5352025	69540	2025	WACKER	21.6	Y	Ogul	Sls			G	
KING BILLY	4138223	77679	EL45/92	369500	5352025	69500	2025	WACKER	18.5	Y	Ogul	Sls			G	Calcarenite
KING BILLY	4138224	77679	EL45/92	369500	5352050	69500	2050	WACKER	35	?	Ogdc	Ccy			DG	Carbonaceous clay. No reaction with HCl.
KING BILLY	4138225	77679	EL45/92	369500	5352300	69500	2300	WACKER	1.5	Y	Ogul	Sls			G	Lime mudstone
KING BILLY	4138226	77679	EL45/92	369500	5352325	69500	2325	WACKER	2.5	Y	Ogul	Sls			G	
KING BILLY	4138227	77679	EL45/92	369500	5352350	69500	2350	WACKER	6.5	Y	Ogul	Sls			LG	
KING BILLY	4138228	77679	EL45/92	369500	5352375	69500	2375	WACKER	3	N	Ogdc	Ccy			DG	Clay
KING BILLY	4138229	77679	EL45/92	369500	5352400	69500	2400	WACKER	3	Y	Ogul	Sls			LG	
KING BILLY	4138230	77679	EL45/92	369500	5352425	69500	2425	WACKER	3	Y	Ogul	Sls			LG	
KING BILLY	4138231	77679	EL45/92	369500	5352450	69500	2450	WACKER	2.5	Y	Ogul	Sls			G	
KING BILLY	4138232	77679	EL45/92	369500	5352475	69500	2475	WACKER	2.5	Y	Ogul	Sls			LG	
KING BILLY	4138233	77679	EL45/92	369500	5352500	69500	2500	WACKER	15	N	Ogdc	Ccy			DG	Clay. No reaction with HCl.
KING BILLY	4138234	77679	EL45/92	369500	5352275	69500	2275	WACKER	1.5	Y	Ogul	Sls			G	
KING BILLY	4138235	77679	EL45/92	369500	5352250	69500	2250	WACKER	7	Y	Ogul	Sls			DG	Carbonaceous lime mud
KING BILLY	4138236	77679	EL45/92	369500	5352225	69500	2225	WACKER	2.5	Y	Ogul	Sls	Vc	Cc	LG	
KING BILLY	4138237	77680	EL45/92	369500	5352200	69500	2200	WACKER	2	Y	Ogul	Sls			G	
KING BILLY	4138238	77680	EL45/92	369500	5352175	69500	2175	WACKER	4	Y	Ogul	Sls			G	Med grained calcarenite; weakly calcareous
KING BILLY	4138239	77680	EL45/92	369500	5352150	69500	2150	WACKER	9	Y	Ogul	Sls			G	Med/fine grained calcarenite
KING BILLY	4138240	77680	EL45/92	369500	5352125	69500	2125	WACKER	3.5	Y	Ogul	Sls			G	
KING BILLY	4138241	77680	EL45/92	369500	5352100	69500	2100	WACKER	6	Y	Ogul	Sls			DG	
KING BILLY	4138242	77680	EL45/92	369500	5352075	69500	2075	WACKER	13	Y	Ogul	Sls			G	
KING BILLY	4138243	77680	EL45/92	368750	5352075	68750	2075	WACKER	1.5	Y	Ogul	Sls			LBW	V.weakly calcareous; shaley

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
KING BILLY	4138168	370400	5352275	70400	2275	-0.5	6.82	13	241	0.08	18	0.6	3.5	0.73	14	33	249
KING BILLY	4138169	370400	5352300	70400	2300	-0.5	5.2	8	231	13.42	23	1.18	3.17	2.26	89	24	39
KING BILLY	4138170	370400	5352325	70400	2325	-0.5	3.08	-5	85	20.57	13	1.12	1.48	1.9	82	22	27
KING BILLY	4138171	370400	5352350	70400	2350	-0.5	9.14	45	215	0.11	27	2.64	3.29	0.69	51	32	192
KING BILLY	4138172	370400	5352375	70400	2375	-0.5	6.43	30	217	0.13	25	1.72	3.31	0.87	35	35	113
KING BILLY	4138173	370400	5352400	70400	2400												
KING BILLY	4138174	370400	5352425	70400	2425												
KING BILLY	4138175	370400	5352250	70400	2250	-0.5	6.6	18	263	3.67	13	1.2	3.89	0.98	33	24	160
KING BILLY	4138176	370400	5352200	70400	2200	-0.5	8.65	23	374	-0.05	18	2.39	4.51	1.16	24	27	81
KING BILLY	4138177	370400	5352150	70400	2150	-0.5	7.15	58	232	-0.05	20	4.94	2.93	0.72	32	59	294
KING BILLY	4138178	370400	5352175	70400	2175	-0.5	7.52	34	317	-0.05	21	3.8	3.89	0.89	31	40	658
KING BILLY	4138199	369200	5352200	69200	2200	-0.5	1.36	10	70	19.48	30	4.52	0.73	5.24	339	66	77
KING BILLY	4138200	369200	5352175	69200	2175	-0.5	1.79	11	62	26.02	6	1.01	0.99	2.6	161	27	23
KING BILLY	4138201	369200	5352150	69200	2150	-0.5	0.71	-5	32	28.91	-5	0.94	0.37	2.12	201	32	58
KING BILLY	4138202	369165	5352150	69165	2150	-0.5	4.18	20	194	2.24	17	1.27	1.56	0.38	53	262	837
KING BILLY	4138203	369165	5352125	69165	2125	-0.5	4.63	20	152	-0.05	21	0.62	2.16	0.2	11	23	18
KING BILLY	4138204	369165	5352100	69165	2100	-0.5	5.08	168	223	-0.05	71	1.49	2.21	0.3	20	444	633
KING BILLY	4138205	369200	5352225	69200	2225	-0.5	1.87	-5	82	25.39	8	0.93	1.07	1.76	141	16	14
KING BILLY	4138206	369200	5352250	69200	2250	-0.5	2.34	-5	107	25.54	9	0.91	1.32	1.23	128	14	13
KING BILLY	4138207	369200	5352275	69200	2275	-0.5	2.82	-5	128	22.6	17	1.29	1.48	1.09	106	19	67
KING BILLY	4138208	369200	5352300	69200	2300	-0.5	2.45	-5	112	21.41	-5	1.94	1.31	2.7	302	12	11
KING BILLY	4138209	369200	5352325	69200	2325	-0.5	2.55	18	90	19.31	7	1.64	1.37	4.52	265	29	29
KING BILLY	4138210	369200	5352350	69200	2350	-0.5	1.92	14	80	21.54	5	1.13	0.99	2.02	148	26	63
KING BILLY	4138211	369200	5352375	69200	2375	-0.5	0.99	-5	44	17.09	6	1.08	0.45	1.12	108	21	23
KING BILLY	4138212	369200	5352400	69200	2400	-0.5	1.82	-5	56	30.39	7	0.59	0.99	0.31	131	27	77
KING BILLY	4138213	369200	5352425	69200	2425	-0.5	2.21	-5	101	22.67	-5	1.9	1.22	1.75	231	20	20
KING BILLY	4138214	369200	5352450	69200	2450	-0.5	0.88	9	29	20.59	-5	1.38	0.4	3.15	705	19	52
KING BILLY	4138215	369200	5352475	69200	2475	-0.5	1.25	-5	57	31.56	-5	0.61	0.68	0.95	101	20	29
KING BILLY	4138216	369200	5352500	69200	2500	-0.5	0.78	-5	31	29.18	-5	0.86	0.43	2.96	182	25	94
KING BILLY	4138217	369200	5352525	69200	2525	-0.5	4.11	10	215	15.36	-5	1.48	2.15	1.28	194	22	74
KING BILLY	4138221	369575	5352000	69575	2000	-0.5	9.04	38	322	0.06	21	2.01	4.31	0.98	19	57	215
KING BILLY	4138222	369540	5352025	69540	2025	-0.5	0.47	-5	25	31.36	-5	0.8	0.26	1.92	247	41	168
KING BILLY	4138223	369500	5352025	69500	2025	-0.5	0.85	-5	26	33.97	-5	0.81	0.37	0.45	292	62	255
KING BILLY	4138224	369500	5352050	69500	2050	-0.5	8.2	59	316	0.1	32	2.44	4	0.86	26	54	247
KING BILLY	4138225	369500	5352300	69500	2300	-0.5	1.95	-5	67	13.17	-5	1.61	0.92	5.36	196	27	26
KING BILLY	4138226	369500	5352325	69500	2325	-0.5	3.5	-5	150	20.44	9	1.06	1.88	1.08	132	38	99
KING BILLY	4138227	369500	5352350	69500	2350	-0.5	1.49	-5	67	28.41	-5	0.89	0.86	0.76	204	16	19
KING BILLY	4138228	369500	5352375	69500	2375	-0.5	3.13	-5	121	18.21	5	2.1	1.73	3.08	311	16	22
KING BILLY	4138229	369500	5352400	69500	2400	-0.5	1.4	-5	53	27.89	-5	0.53	0.77	0.5	116	16	18
KING BILLY	4138230	369500	5352425	69500	2425	-0.5	2.73	9	93	23.56	8	1.06	1.52	1.48	158	22	53
KING BILLY	4138231	369500	5352450	69500	2450	-0.5	1.07	-5	44	26.52	-5	0.7	0.54	3.92	147	18	21
KING BILLY	4138232	369500	5352475	69500	2475	-0.5	0.62	-5	23	32.98	-5	0.34	0.26	0.4	68	15	25
KING BILLY	4138233	369500	5352500	69500	2500	-0.5	5.05	39	245	0.12	20	2.12	2.23	0.44	50	50	80
KING BILLY	4138234	369500	5352275	69500	2275	-0.5	2.53	-5	103	20.75	16	1.6	1.36	2.73	172	17	31
KING BILLY	4138235	369500	5352250	69500	2250	-0.5	4.2	9	199	14.94	-5	1.93	2.45	4.4	194	16	19
KING BILLY	4138236	369500	5352225	69500	2225	-0.5	3.05	-5	138	18.14	10	1.28	1.71	0.9	190	10	15
KING BILLY	4138237	369500	5352200	69500	2200	-0.5	1.62	-5	70	23.14	-5	0.85	0.94	0.89	96	-10	21
KING BILLY	4138238	369500	5352175	69500	2175	-0.5	1.01	-5	40	29.45	-5	0.7	0.51	1.71	123	21	20
KING BILLY	4138239	369500	5352150	69500	2150	-0.5	2.46	-5	66	23.05	8	1.63	0.79	2.05	252	56	269
KING BILLY	4138240	369500	5352125	69500	2125	-0.5	0.75	-5	31	31.94	-5	0.8	0.41	2.81	186	12	126
KING BILLY	4138241	369500	5352100	69500	2100	-0.5	0.76	18	27	34.62	-5	1	0.42	0.29	72	40	200
KING BILLY	4138242	369500	5352075	69500	2075	-0.5	1.78	-5	70	29.57	-5	1.25	1.05	1.29	325	13	22
KING BILLY	4138243	368750	5352075	68750	2075	-0.5	9.03	22	239	0.09	-5	1	3.19	0.35	19	16	22

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
KING BILLY	4138244	77680	EL45/92	368750	5352100	68750	2100	WACKER	2.5	Y	Sc	Sss			LGW	Shaley sand
KING BILLY	4138245	77680	EL45/92	368750	5352125	68750	2125	WACKER	2	Y	Sc	Sss			LGW	Shaley sand
KING BILLY	4138246	77680	EL45/92	368750	5352150	68750	2150	WACKER	1.5	Y	Sc	Scg			GLGW	Probable quartz clasts
KING BILLY	4138247	77680	EL45/92	368850	5352150	68850	2150	WACKER	6	Y	Sc	Sss			LGVW	Chloritic sandstone
KING BILLY	4138248	77680	EL45/92	368850	5352175	68850	2175	WACKER	6	Y	Ogul	Sls			LG	Weakly calcareous
KING BILLY	4138249	77680	EL45/92	368850	5352200	68850	2200	WACKER	20.2	Y	Ogul	Sls			G	
KING BILLY	4138250	77680	EL45/92	368850	5352225	68850	2225	WACKER	15.8	Y	Ogul	Sls	Vc		G	
KING BILLY	4138251	77680	EL45/92	368850	5352250	68850	2250	WACKER	20.5	Y	Ogdl	Sdl			DGN	Graphitic; no reaction to HCl
KING BILLY	4138252	77680	EL45/92	368850	5352275	68850	2275	WACKER	15	N?	Ogdl	Sdl			B	No reaction to HCl
KING BILLY	4138253	77680	EL45/92	368850	5352300	68850	2300	WACKER	22	Y	Ogul	Sls			G	
KING BILLY	4138254	77680	EL45/92	368850	5352325	68850	2325	WACKER	16.3	Y	Ogul	Sls			G	Poss. micrite with argillite
KING BILLY	4138255	77680	EL45/92	368850	5352350	68850	2350	WACKER	13	Y	Ogul	Sls			G	Poss. micrite with dark calcarenite
KING BILLY	4138256	77680	EL45/92	368850	5352375	68850	2375	WACKER	1.5	Y	Ogul	Sls			G	Dark grey fine grained calcarenite (calcsiltite) fragments
KING BILLY	4138257	77680	EL45/92	368850	5352400	68850	2400	WACKER	1.5	Y	Ogul	Sls			G	Dark grey fine grained calcarenite (calcsiltite) fragments
KING BILLY	4138258	77680	EL45/92	368850	5352425	68850	2425	WACKER	5.8	Y	Ogul	Sls	Vc		G	
KING BILLY	4138259	77680	EL45/92	368850	5352450	68850	2450	WACKER	7	Y	Ogul	Sls			G	
KING BILLY	4138260	77680	EL45/92	368850	5352475	68850	2475	WACKER	1.5	Y	Ogul	Sls	Vc		G	
KING BILLY	4138261	77680	EL45/92	368850	5352500	68850	2500	WACKER	16.4	Y	Ogul	Sls			G	Dark grey calcsiltite frags.
KING BILLY	4138262	77680	EL45/92	368560	5352040			WACKER	11.8	N	Ogul				DG	Clay; no reaction to HCl
KING BILLY	4138263	77680	EL45/92	368583	5352030			WACKER	6	N?	Ogul				BDG	Sandy clay with no reaction to HCl
KING BILLY	4138264	77680	EL45/92	368606	5352020			WACKER	2	N	Ogul				B	Gravel; no reaction to HCl

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
KING BILLY	4138244	368750	5352100	68750	2100	-0.5	9.69	13	462	0.07	9	1.47	4.11	0.56	28	20	30
KING BILLY	4138245	368750	5352125	68750	2125	-0.5	9.68	-5	329	-0.05	-5	1.12	4.77	0.53	22	15	30
KING BILLY	4138246	368750	5352150	68750	2150	-0.5	0.7	-5	13	-0.05	-5	1.08	0.19	0.2	117	-10	713
KING BILLY	4138247	368850	5352150	68850	2150	-0.5	7.59	-5	268	-0.05	7	4.29	3.21	1.26	150	12	85
KING BILLY	4138248	368850	5352175	68850	2175	-0.5	3.34	-5	117	-0.05	6	0.37	1.56	0.25	14	18	47
KING BILLY	4138249	368850	5352200	68850	2200	-0.5	2.52	13	78	18.97	8	1.9	1.4	5.12	555	54	180
KING BILLY	4138250	368850	5352225	68850	2225	-0.5	2.22	-5	77	22.32	5	1.2	1.22	2.19	233	16	28
KING BILLY	4138251	368850	5352250	68850	2250	0.6	7.33	149	245	0.07	34	4.9	3.56	0.65	31	1590	3050
KING BILLY	4138252	368850	5352275	68850	2275	1.1	3.84	21	146	5.08	14	1.4	1.63	1.3	68	155	278
KING BILLY	4138253	368850	5352300	68850	2300	-0.5	1.71	-5	71	23.48	-5	1.63	0.93	2.71	376	13	23
KING BILLY	4138254	368850	5352325	68850	2325	-0.5	1.84	-5	72	22.48	-5	1.23	0.93	2.26	234	-10	37
KING BILLY	4138255	368850	5352350	68850	2350	-0.5	3.06	-5	95	22.11	9	3.09	1.37	2.26	791	30	37
KING BILLY	4138256	368850	5352375	68850	2375	-0.5	3.3	-5	148	13.38	-5	2.32	1.81	3.09	268	13	12
KING BILLY	4138257	368850	5352400	68850	2400	-0.5	1.84	-5	80	23.58	7	1.89	0.97	1.46	259	14	108
KING BILLY	4138258	368850	5352425	68850	2425	-0.5	3.72	-5	160	23.77	12	1.79	1.42	1.59	385	18	213
KING BILLY	4138259	368850	5352450	68850	2450	-0.5	1.15	-5	61	27.56	-5	0.8	0.53	0.44	99	18	15
KING BILLY	4138260	368850	5352475	68850	2475	-0.5	2.49	-5	106	21.01	-5	1.86	1.08	1.71	251	13	21
KING BILLY	4138261	368850	5352500	68850	2500	-0.5	3.1	22	102	18.93	10	1.67	1.42	2.12	202	30	189
KING BILLY	4138262	368560	5352040			-0.5	6.36	79	166	0.11	26	4.64	2.2	0.41	19	83	739
KING BILLY	4138263	368583	5352030			-0.5	5.9	207	181	0.12	25	4.77	2.24	0.47	39	52	497
KING BILLY	4138264	368606	5352020			1	1.02	13	75	-0.05	-5	0.21	0.39	0.06	12	18	13

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
LEATHERWOOD	CYP113648	CYPRUS	EL15/76	370974	5353319	71000	53200	WACKER	11.6							
LEATHERWOOD	CYP113649	CYPRUS	EL15/76	370928	5353299	70950	53200	WACKER	12.7							
LEATHERWOOD	CYP113650	CYPRUS	EL15/76	370882	5353279	70900	53200	WACKER	2.8							
LEATHERWOOD	CYP113675	CYPRUS	EL15/76	370836	5353260	70850	53200	WACKER	1.2							
LEATHERWOOD	CYP113676	CYPRUS	EL15/76	370790	5353240	70800	53200	WACKER	20.4							
LEATHERWOOD	CYP113677	CYPRUS	EL15/76	370744	5353221	70750	53200	WACKER	39.6							
LEATHERWOOD	CYP113678	CYPRUS	EL15/76	370698	5353201	70700	53200	WACKER	1.5							
LEATHERWOOD	CYP113679	CYPRUS	EL15/76	370652	5353182	70650	53200	WACKER	1.4							
LEATHERWOOD	CYP113680	CYPRUS	EL15/76	370606	5353162	70600	53200	WACKER	2							
LEATHERWOOD	CYP113681	CYPRUS	EL15/76	370560	5353143	70550	53200	WACKER	22.1							
LEATHERWOOD	CYP113682	CYPRUS	EL15/76	370514	5353123	70500	53200	WACKER	10.6							
LEATHERWOOD	CYP113683	CYPRUS	EL15/76	370468	5353104	70450	53200	WACKER	1.6							
LEATHERWOOD	CYP113684	CYPRUS	EL15/76	370422	5353084	70400	53200	WACKER	8.2							
LEATHERWOOD	CYP113685	CYPRUS	EL15/76	370376	5353065	70350	53200	WACKER	4.7							
LEATHERWOOD	CYP113686	CYPRUS	EL15/76	370330	5353045	70300	53200	WACKER	1							
LEATHERWOOD	CYP113687	CYPRUS	EL15/76	370284	5353025	70250	53200	WACKER	12.6							
LEATHERWOOD	CYP113688	CYPRUS	EL15/76	370238	5353006	70200	53200	WACKER	5.7							
LEATHERWOOD	CYP113689	CYPRUS	EL15/76	370192	5352986	70150	53200	WACKER	1.2							
LEATHERWOOD	CYP113690	CYPRUS	EL15/76	370146	5352967	70100	53200	WACKER	6.7							
LEATHERWOOD	CYP113691	CYPRUS	EL15/76	370100	5352947	70050	53200	WACKER	9.2							
LEATHERWOOD	CYP113692	CYPRUS	EL15/76	370054	5352928	70000	53200	WACKER	1.4							
LEATHERWOOD	CYP113693	CYPRUS	EL15/76	370266	5353452	70400	53600	WACKER	0.8							
LEATHERWOOD	CYP113694	CYPRUS	EL15/76	370312	5353472	70450	53600	WACKER	1							
LEATHERWOOD	CYP113695	CYPRUS	EL15/76	370358	5353491	70500	53600	WACKER	3.4							
LEATHERWOOD	CYP113696	CYPRUS	EL15/76	370220	5353433	70350	53600	WACKER	1							
LEATHERWOOD	CYP113697	CYPRUS	EL15/76	370174	5353413	70300	53600	WACKER	2.1							
LEATHERWOOD	CYP113698	CYPRUS	EL15/76	370127	5353394	70250	53600	WACKER	1.4							
LEATHERWOOD	CYP113699	CYPRUS	EL15/76	370081	5353374	70200	53600	WACKER	2							
LEATHERWOOD	CYP113700	CYPRUS	EL15/76	370035	5353355	70150	53600	WACKER	10.3							
LEATHERWOOD	CYP113913	CYPRUS	EL15/76	369989	5353335	70100	53600	WACKER	22.4							
LEATHERWOOD	CYP113914	CYPRUS	EL15/76	369943	5353316	70050	53600	WACKER	7.4							
LEATHERWOOD	CYP113915	CYPRUS	EL15/76	369897	5353296	70000	53600	WACKER	4.6							
LEATHERWOOD	CYP113916	CYPRUS	EL15/76	370109	5353821	70400	54000	WACKER	7.2							
LEATHERWOOD	CYP113917	CYPRUS	EL15/76	370063	5353801	70350	54000	WACKER	13							
LEATHERWOOD	CYP113918	CYPRUS	EL15/76	370017	5353781	70300	54000	WACKER	11.5							
LEATHERWOOD	CYP113919	CYPRUS	EL15/76	369971	5353762	70250	54000	WACKER	1.3							
LEATHERWOOD	CYP113920	CYPRUS	EL15/76	369925	5353742	70200	54000	WACKER	1.5							
LEATHERWOOD	CYP113921	CYPRUS	EL15/76	369879	5353723	70150	54000	WACKER	4.1							
LEATHERWOOD	CYP113922	CYPRUS	EL15/76	369833	5353703	70100	54000	WACKER	1							
LEATHERWOOD	CYP113923	CYPRUS	EL15/76	369787	5353684	70050	54000	WACKER	8.8							
LEATHERWOOD	CYP113924	CYPRUS	EL15/76	369741	5353664	70000	54000	WACKER	23.4							
LEATHERWOOD	CYP113925	CYPRUS	EL15/76	369695	5353645	69950	54000	WACKER	2.2							
LEATHERWOOD	CYP113926	CYPRUS	EL15/76	369649	5353625	69900	54000	WACKER	10.4							
LEATHERWOOD	CYP113927	CYPRUS	EL15/76	370155	5353840	70450	54000	WACKER	1.1							
LEATHERWOOD	CYP113928	CYPRUS	EL15/76	370201	5353860	70500	54000	WACKER	1							
LEATHERWOOD	CYP113929	CYPRUS	EL15/76	370247	5353879	70550	54000	WACKER	1.3							
LEATHERWOOD	CYP113930	CYPRUS	EL15/76	370293	5353899	70600	54000	WACKER	15.4							
LEATHERWOOD	CYP113931	CYPRUS	EL15/76	370339	5353918	70650	54000	WACKER	18.5							
LEATHERWOOD	CYP113932	CYPRUS	EL15/76	370385	5353938	70700	54000	WACKER	34.2							
LEATHERWOOD	CYP113933	CYPRUS	EL15/76	370431	5353957	70750	54000	WACKER	1.8							
LEATHERWOOD	CYP113934	CYPRUS	EL15/76	370477	5353977	70800	54000	WACKER	3.4							
LEATHERWOOD	CYP113935	CYPRUS	EL15/76	370229	5354306	70700	54400	WACKER	35.4							
LEATHERWOOD	CYP113936	CYPRUS	EL15/76	370275	5354325	70750	54400	WACKER	11.8							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
LEATHERWOOD	CYP113648	370974	5353319	71000	53200	-1										370	1380
LEATHERWOOD	CYP113649	370928	5353299	70950	53200	-1										12	8
LEATHERWOOD	CYP113650	370882	5353279	70900	53200	-1										14	23
LEATHERWOOD	CYP113675	370836	5353260	70850	53200	-1										16	26
LEATHERWOOD	CYP113676	370790	5353240	70800	53200	-1										16	115
LEATHERWOOD	CYP113677	370744	5353221	70750	53200	-1										215	540
LEATHERWOOD	CYP113678	370698	5353201	70700	53200	-1										14	11
LEATHERWOOD	CYP113679	370652	5353182	70650	53200	-1										16	32
LEATHERWOOD	CYP113680	370606	5353162	70600	53200	-1										12	12
LEATHERWOOD	CYP113681	370560	5353143	70550	53200	-1										16	23
LEATHERWOOD	CYP113682	370514	5353123	70500	53200	-1										10	5
LEATHERWOOD	CYP113683	370468	5353104	70450	53200	-1										14	13
LEATHERWOOD	CYP113684	370422	5353084	70400	53200	-1										20	28
LEATHERWOOD	CYP113685	370376	5353065	70350	53200	-1										12	7
LEATHERWOOD	CYP113686	370330	5353045	70300	53200	-1										82	62
LEATHERWOOD	CYP113687	370284	5353025	70250	53200	-1										14	21
LEATHERWOOD	CYP113688	370238	5353006	70200	53200	-1										12	8
LEATHERWOOD	CYP113689	370192	5352986	70150	53200	-1										26	40
LEATHERWOOD	CYP113690	370146	5352967	70100	53200	-1										62	58
LEATHERWOOD	CYP113691	370100	5352947	70050	53200	-1										26	16
LEATHERWOOD	CYP113692	370054	5352928	70000	53200	-1										18	10
LEATHERWOOD	CYP113693	370266	5353452	70400	53600	-1										12	8
LEATHERWOOD	CYP113694	370312	5353472	70450	53600	-1										18	10
LEATHERWOOD	CYP113695	370356	5353491	70500	53600	-1										42	215
LEATHERWOOD	CYP113696	370220	5353433	70350	53600	-1										12	14
LEATHERWOOD	CYP113697	370174	5353413	70300	53600	-1										12	16
LEATHERWOOD	CYP113698	370127	5353394	70250	53600	-1										12	13
LEATHERWOOD	CYP113699	370081	5353374	70200	53600	-1										10	10
LEATHERWOOD	CYP113700	370035	5353355	70150	53600	-1										10	5
LEATHERWOOD	CYP113913	369989	5353335	70100	53600	-1										22	26
LEATHERWOOD	CYP113914	369943	5353316	70050	53600	-1										16	86
LEATHERWOOD	CYP113915	369897	5353296	70000	53600	-1										60	2240
LEATHERWOOD	CYP113916	370109	5353821	70400	54000	-1										115	415
LEATHERWOOD	CYP113917	370063	5353801	70350	54000	-1										24	52
LEATHERWOOD	CYP113918	370017	5353781	70300	54000	-1										10	9
LEATHERWOOD	CYP113919	369971	5353762	70250	54000	-1										16	21
LEATHERWOOD	CYP113920	369925	5353742	70200	54000	-1										22	6
LEATHERWOOD	CYP113921	369879	5353723	70150	54000	-1										14	18
LEATHERWOOD	CYP113922	369833	5353703	70100	54000	-1										12	5
LEATHERWOOD	CYP113923	369787	5353684	70050	54000	-1										24	50
LEATHERWOOD	CYP113924	369741	5353664	70000	54000	-1										12	16
LEATHERWOOD	CYP113925	369695	5353645	69950	54000	-1										12	8
LEATHERWOOD	CYP113926	369649	5353625	69900	54000	-1										8	7
LEATHERWOOD	CYP113927	370155	5353840	70450	54000	-1										10	8
LEATHERWOOD	CYP113928	370201	5353860	70500	54000	-1										20	230
LEATHERWOOD	CYP113929	370247	5353879	70550	54000	-1										8	6
LEATHERWOOD	CYP113930	370293	5353899	70600	54000	-1										30	30
LEATHERWOOD	CYP113931	370339	5353918	70650	54000	-1										16	205
LEATHERWOOD	CYP113932	370385	5353938	70700	54000	-1										18	35
LEATHERWOOD	CYP113933	370431	5353957	70750	54000	-1										12	9
LEATHERWOOD	CYP113934	370477	5353977	70800	54000	-1										20	39
LEATHERWOOD	CYP113935	370229	5354306	70700	54400	1										1540	1760
LEATHERWOOD	CYP113936	370275	5354325	70750	54400	-1										44	135

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
LEATHERWOOD	CYP113937	CYPRUS	EL15/76	370183	5354286	70650	54400	WACKER	7.3							
LEATHERWOOD	CYP113938	CYPRUS	EL15/76	370137	5354267	70600	54400	WACKER	3.5							
LEATHERWOOD	CYP113939	CYPRUS	EL15/76	370091	5354247	70550	54400	WACKER	11							
LEATHERWOOD	CYP113940	CYPRUS	EL15/76	370045	5354228	70500	54400	WACKER	14							
LEATHERWOOD	CYP113941	CYPRUS	EL15/76	369999	5354208	70450	54400	WACKER	14							
LEATHERWOOD	CYP113942	CYPRUS	EL15/76	369953	5354189	70400	54400	WACKER	12.6							
LEATHERWOOD	CYP113943	CYPRUS	EL15/76	369907	5354169	70350	54400	WACKER	24.5							
LEATHERWOOD	CYP113944	CYPRUS	EL15/76	369861	5354150	70300	54400	WACKER	7.6							
LEATHERWOOD	CYP113945	CYPRUS	EL15/76	369815	5354130	70250	54400	WACKER	6							
LEATHERWOOD	CYP113946	CYPRUS	EL15/76	369769	5354111	70200	54400	WACKER	6.3							
LEATHERWOOD	CYP113947	CYPRUS	EL15/76	369723	5354091	70150	54400	WACKER	12.6							
LEATHERWOOD	CYP113948	CYPRUS	EL15/76	369677	5354071	70100	54400	WACKER	18.5							
LEATHERWOOD	CYP113949	CYPRUS	EL15/76	369631	5354052	70050	54400	WACKER	6.8							
LEATHERWOOD	CYP113950	CYPRUS	EL15/76	369585	5354032	70000	54400	WACKER	18.5							
LEATHERWOOD	CYP113965	CYPRUS	EL15/76	369539	5354013	69950	54400	WACKER	16.4							
LEATHERWOOD	CYP113966	CYPRUS	EL15/76	369493	5353993	69900	54400	WACKER	5.7							
LEATHERWOOD	CYP113967	CYPRUS	EL15/76	370634	5353609	70800	53600	WACKER	22.3							
LEATHERWOOD	CYP113968	CYPRUS	EL15/76	370680	5353628	70850	53600	WACKER	2.7							
LEATHERWOOD	CYP113969	CYPRUS	EL15/76	370726	5353648	70900	53600	WACKER	2.1							
LEATHERWOOD	CYP113970	CYPRUS	EL15/76	370588	5353589	70750	53600	WACKER	20							
LEATHERWOOD	CYP113971	CYPRUS	EL15/76	370542	5353570	70700	53600	WACKER	10.8							
LEATHERWOOD	CYP113972	CYPRUS	EL15/76	370496	5353550	70650	53600	WACKER	7.8							
LEATHERWOOD	CYP113973	CYPRUS	EL15/76	370450	5353530	70600	53600	WACKER	9							
LEATHERWOOD	CYP113974	CYPRUS	EL15/76	370404	5353511	70550	53600	WACKER	22.6							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
LEATHERWOOD	CYP113937	370183	5354286	70650	54400	-1										56	1800
LEATHERWOOD	CYP113938	370137	5354267	70600	54400	-1										38	8
LEATHERWOOD	CYP113939	370091	5354247	70550	54400	-1										26	49
LEATHERWOOD	CYP113940	370045	5354228	70500	54400	-1										10	13
LEATHERWOOD	CYP113941	369999	5354208	70450	54400	-1										10	10
LEATHERWOOD	CYP113942	369953	5354189	70400	54400	-1										42	22
LEATHERWOOD	CYP113943	369907	5354169	70350	54400	-1										215	1440
LEATHERWOOD	CYP113944	369861	5354150	70300	54400	-1										195	660
LEATHERWOOD	CYP113945	369815	5354130	70250	54400	-1										205	310
LEATHERWOOD	CYP113946	369769	5354111	70200	54400	-1										30	4
LEATHERWOOD	CYP113947	369723	5354091	70150	54400	-1										20	130
LEATHERWOOD	CYP113948	369677	5354071	70100	54400	-1										14	38
LEATHERWOOD	CYP113949	369631	5354052	70050	54400	-1										20	6
LEATHERWOOD	CYP113950	369585	5354032	70000	54400	-1										14	34
LEATHERWOOD	CYP113965	369539	5354013	69950	54400	-1										14	9
LEATHERWOOD	CYP113966	369493	5353993	69900	54400	1										305	3820
LEATHERWOOD	CYP113967	370634	5353609	70800	53600	-1										24	47
LEATHERWOOD	CYP113968	370680	5353628	70850	53600	-1										16	12
LEATHERWOOD	CYP113969	370726	5353648	70900	53600	-1										14	20
LEATHERWOOD	CYP113970	370588	5353589	70750	53600	-1										50	120
LEATHERWOOD	CYP113971	370542	5353570	70700	53600	-1										18	80
LEATHERWOOD	CYP113972	370496	5353550	70650	53600	-1										24	6
LEATHERWOOD	CYP113973	370450	5353530	70600	53600	-1										54	23
LEATHERWOOD	CYP113974	370404	5353511	70550	53600	-1										12	19

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
MARIPOSA	AM102909	AMOCO	EL15/76	367520	5358880	67200	58800	WACKER	1.2							
MARIPOSA	AM102910	AMOCO	EL15/76	367544	5358868	67225	58800	WACKER	12.2							
MARIPOSA	AM102911	AMOCO	EL15/76	367567	5358896	67250	58800	WACKER	1							
MARIPOSA	AM102912	AMOCO	EL15/76	367591	5358904	67275	58800	WACKER	1.5							
MARIPOSA	AM102913	AMOCO	EL15/76	367615	5358912	67300	58800	WACKER	8							
MARIPOSA	AM102914	AMOCO	EL15/76	367638	5358920	67325	58800	WACKER	13.3							
MARIPOSA	AM102915	AMOCO	EL15/76	367662	5358928	67350	58800	WACKER	8.6							
MARIPOSA	AM102916	AMOCO	EL15/76	367497	5358871	67175	58800	WACKER	10.3							
MARIPOSA	AM102917	AMOCO	EL15/76	367473	5358863	67150	58800	WACKER	1.6							
MARIPOSA	AM102918	AMOCO	EL15/76	367449	5358855	67125	58800	WACKER	5.3							
MARIPOSA	AM102919	AMOCO	EL15/76	367426	5358847	67100	58800	WACKER	6.7							
MARIPOSA	AM102920	AMOCO	EL15/76	367402	5358839	67075	58800	WACKER	4.6							
MARIPOSA	AM102921	AMOCO	EL15/76	367378	5358831	67050	58800	WACKER	4.3							
MARIPOSA	AM102922	AMOCO	EL15/76	367355	5358823	67025	58800	WACKER	7.3							
MARIPOSA	AM102923	AMOCO	EL15/76	367331	5358814	67000	58800	WACKER	7.8							
MARIPOSA	AM102924	AMOCO	EL15/76	367340	5359558	67250	59500	WACKER	7							
MARIPOSA	AM102925	AMOCO	EL15/76	367316	5359550	67225	59500	WACKER	22							
MARIPOSA	AM102926	AMOCO	EL15/76	367292	5359541	67200	59500	WACKER	9.3							
MARIPOSA	AM102927	AMOCO	EL15/76	367269	5359533	67175	59500	WACKER	2.8							
MARIPOSA	AM102928	AMOCO	EL15/76	367245	5359525	67150	59500	WACKER	4.6							
MARIPOSA	AM102929	AMOCO	EL15/76	367221	5359517	67125	59500	WACKER	3.2							
MARIPOSA	AM102930	AMOCO	EL15/76	367198	5359509	67100	59500	WACKER	3.8							
MARIPOSA	AM102931	AMOCO	EL15/76	367363	5359566	67275	59500	WACKER	21.6							
MARIPOSA	AM102932	AMOCO	EL15/76	367387	5359574	67300	59500	WACKER	25							
MARIPOSA	AM102933	AMOCO	EL15/76	367410	5359582	67325	59500	WACKER	15							
MARIPOSA	AM102934	AMOCO	EL15/76	367434	5359590	67350	59500	WACKER	2							
MARIPOSA	AM102935	AMOCO	EL15/76	367402	5359685	67350	59600	WACKER	22.4							
MARIPOSA	AM102936	AMOCO	EL15/76	367378	5359677	67325	59600	WACKER	11.8							
MARIPOSA	AM102937	AMOCO	EL15/76	367354	5359669	67300	59600	WACKER	12.3							
MARIPOSA	AM102938	AMOCO	EL15/76	367331	5359660	67275	59600	WACKER	11.8							
MARIPOSA	AM102939	AMOCO	EL15/76	367425	5359693	67375	59600	WACKER	3.4							
MARIPOSA	AM102940	AMOCO	EL15/76	367449	5359701	67400	59600	WACKER	2.8							
MARIPOSA	AM102941	AMOCO	EL15/76	367307	5359652	67250	59600	WACKER	25							
MARIPOSA	AM102942	AMOCO	EL15/76	367283	5359644	67225	59600	WACKER	20.6							
MARIPOSA	AM102943	AMOCO	EL15/76	367260	5359636	67200	59600	WACKER	13.8							
MARIPOSA	AM102944	AMOCO	EL15/76	367236	5359628	67175	59600	WACKER	0							
MARIPOSA	AM102945	AMOCO	EL15/76	367212	5359620	67150	59600	WACKER	4.8							
MARIPOSA	AM102946	AMOCO	EL15/76	367189	5359612	67125	59600	WACKER	2.4							
MARIPOSA	AM102947	AMOCO	EL15/76	367165	5359603	67100	59600	WACKER	3.6							
MARIPOSA	AM102948	AMOCO	EL15/76	367085	5359682	67050	59700	WACKER	7							
MARIPOSA	AM102949	AMOCO	EL15/76	367109	5359690	67075	59700	WACKER	7.8							
MARIPOSA	AM102950	AMOCO	EL15/76	367133	5359698	67100	59700	WACKER	7.6							
MARIPOSA	AM102988	AMOCO	EL15/76	367156	5359706	67125	59700	WACKER	10							
MARIPOSA	AM102989	AMOCO	EL15/76	367180	5359714	67150	59700	WACKER	3							
MARIPOSA	AM102990	AMOCO	EL15/76	367204	5359722	67175	59700	WACKER	4.8							
MARIPOSA	AM102991	AMOCO	EL15/76	367227	5359731	67200	59700	WACKER	1.8							
MARIPOSA	AM102992	AMOCO	EL15/76	367251	5359739	67225	59700	WACKER	2.8							
MARIPOSA	AM102993	AMOCO	EL15/76	367274	5359747	67250	59700	WACKER	2.8							
MARIPOSA	AM102994	AMOCO	EL15/76	367298	5359755	67275	59700	WACKER	2.3							
MARIPOSA	AM102995	AMOCO	EL15/76	367322	5359763	67300	59700	WACKER	8.8							
MARIPOSA	AM102996	AMOCO	EL15/76	367345	5359771	67325	59700	WACKER	5.6							
MARIPOSA	AM102997	AMOCO	EL15/76	367369	5359779	67350	59700	WACKER	9.8							
MARIPOSA	AM102998	AMOCO	EL15/76	367393	5359787	67375	59700	WACKER	16.6							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
MARIPOSA	AM102909	367520	5358880	67200	58800	-1					10					24	20
MARIPOSA	AM102910	367544	5358888	67225	58800	-1					10					12	18
MARIPOSA	AM102911	367567	5358896	67250	58800	-1					26					20	32
MARIPOSA	AM102912	367591	5358904	67275	58800	-1					12					38	70
MARIPOSA	AM102913	367615	5358912	67300	58800	-1					12					30	1800
MARIPOSA	AM102914	367638	5358920	67325	58800	-1					8					70	1200
MARIPOSA	AM102915	367662	5358928	67350	58800	-1					80					60	30
MARIPOSA	AM102916	367497	5358871	67175	58800	-1					16					20	22
MARIPOSA	AM102917	367473	5358863	67150	58800	-1					10					135	50
MARIPOSA	AM102918	367449	5358855	67125	58800	-1					16					65	90
MARIPOSA	AM102919	367426	5358847	67100	58800	-1					16					-4	10
MARIPOSA	AM102920	367402	5358839	67075	58800	-1					14					-4	10
MARIPOSA	AM102921	367378	5358831	67050	58800	-1					8					-4	6
MARIPOSA	AM102922	367355	5358823	67025	58800	-1					10					24	8
MARIPOSA	AM102923	367331	5358814	67000	58800	-1					8					32	6
MARIPOSA	AM102924	367340	5359558	67250	59500	-1					10					32	970
MARIPOSA	AM102925	367316	5359550	67225	59500	-1					10					70	940
MARIPOSA	AM102926	367292	5359541	67200	59500	-1					28					550	1400
MARIPOSA	AM102927	367269	5359533	67175	59500	-1					10					14	10
MARIPOSA	AM102928	367245	5359525	67150	59500	-1					6					20	6
MARIPOSA	AM102929	367221	5359517	67125	59500	-1					8					10	6
MARIPOSA	AM102930	367198	5359509	67100	59500	-1					6					14	2
MARIPOSA	AM102931	367363	5359566	67275	59500	-1					14					70	260
MARIPOSA	AM102932	367387	5359574	67300	59500	-1					14					44	65
MARIPOSA	AM102933	367410	5359582	67325	59500	-1					14					90	80
MARIPOSA	AM102934	367434	5359590	67350	59500	-1					16					36	95
MARIPOSA	AM102935	367402	5359685	67350	59600	-1					24					320	1500
MARIPOSA	AM102936	367378	5359677	67325	59600	-1					12					95	510
MARIPOSA	AM102937	367354	5359669	67300	59600	3					36					180	150
MARIPOSA	AM102938	367331	5359660	67275	59600	-1					20					130	380
MARIPOSA	AM102939	367425	5359693	67375	59600	-1					26					60	50
MARIPOSA	AM102940	367449	5359701	67400	59600	-1					130					26	65
MARIPOSA	AM102941	367307	5359652	67250	59600	-1					14					55	105
MARIPOSA	AM102942	367283	5359644	67225	59600	-1					28					290	660
MARIPOSA	AM102943	367260	5359636	67200	59600	5					24					6600	7500
MARIPOSA	AM102944	367236	5359628	67175	59600	5					12					11300	3400
MARIPOSA	AM102945	367212	5359620	67150	59600	-1					10					490	50
MARIPOSA	AM102946	367189	5359612	67125	59600	-1					6					20	2
MARIPOSA	AM102947	367165	5359603	67100	59600	-1					6					14	-2
MARIPOSA	AM102948	367085	5359682	67050	59700	-1					6					30	4
MARIPOSA	AM102949	367109	5359690	67075	59700	-1					12					6	6
MARIPOSA	AM102950	367133	5359698	67100	59700	5					155					1200	850
MARIPOSA	AM102988	367156	5359706	67125	59700	-1					6					550	60
MARIPOSA	AM102989	367180	5359714	67150	59700	-1					32					300	170
MARIPOSA	AM102990	367204	5359722	67175	59700	-1					10					24	22
MARIPOSA	AM102991	367227	5359731	67200	59700	-1					6					130	160
MARIPOSA	AM102992	367251	5359739	67225	59700	-1					12					26	390
MARIPOSA	AM102993	367274	5359747	67250	59700	-1					10					14	30
MARIPOSA	AM102994	367298	5359755	67275	59700	-1					8					70	250
MARIPOSA	AM102995	367322	5359763	67300	59700	-1					24					650	3600
MARIPOSA	AM102996	367345	5359771	67325	59700	-1					10					42	220
MARIPOSA	AM102997	367369	5359779	67350	59700	-1					14					60	480
MARIPOSA	AM102998	367393	5359787	67375	59700	-1					8					80	210

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
MARIPOSA	AM102999	AMOCO	EL15/76	367416	5359796	67400	59700	WACKER	3.4							
MARIPOSA	AM103000	AMOCO	EL15/76	367600	5358801	67250	58700	WACKER	8							
MARIPOSA	AM103172	AMOCO	EL15/76	367576	5358793	67225	58700	WACKER	1.2							
MARIPOSA	AM103173	AMOCO	EL15/76	367553	5358785	67200	58700	WACKER	15							
MARIPOSA	AM103174	AMOCO	EL15/76	367529	5358777	67175	58700	WACKER	9.6							
MARIPOSA	AM103175	AMOCO	EL15/76	367505	5358769	67150	58700	WACKER	2.2							
MARIPOSA	AM103176	AMOCO	EL15/76	367482	5358761	67125	58700	WACKER	5							
MARIPOSA	AM103177	AMOCO	EL15/76	367458	5358752	67100	58700	WACKER	13.2							
MARIPOSA	AM103178	AMOCO	EL15/76	367435	5358744	67075	58700	WACKER	4.2							
MARIPOSA	AM103179	AMOCO	EL15/76	367411	5358736	67050	58700	WACKER	5.3							
MYRTLE	EZ62431	EZ	EL4/78	365010	5352213	61100	50400	WACKER	5.3	N					LG	
PINE PLANTATION	CSR184381	CSR	EL15/76	366950	5364080	100	64080	WACKER	0.5						PP	
PINE PLANTATION	CSR184382	CSR	EL15/76	366962.5	5364080	112.5	64080	WACKER	0.4						V	
PINE PLANTATION	CSR184383	CSR	EL15/76	366975	5364080	125	64080	WACKER	1.2						W	
PINE PLANTATION	CSR184384	CSR	EL15/76	366987.5	5364080	137.5	64080	WACKER	0.4						LP	
PINE PLANTATION	CSR184385	CSR	EL15/76	367000	5364080	150	64080	WACKER	0.6							
PINE PLANTATION	CSR184386	CSR	EL15/76	367012.5	5364080	162.5	64080	WACKER	1.5						LP	
PINE PLANTATION	CSR184387	CSR	EL15/76	367025	5364080	175	64080	WACKER	1.6						LP	
PINE PLANTATION	CSR184389	CSR	EL15/76	367037.5	5364080	187.5	64080	WACKER	6.3						G	
PINE PLANTATION	CSR184390	CSR	EL15/76	367050	5364080	200	64080	WACKER	8.2						V	
PINE PLANTATION	CSR184391	CSR	EL15/76	367062.5	5364080	212.5	64080	WACKER	1.2						LP	
PINE PLANTATION	CSR184392	CSR	EL15/76	367075	5364080	225	64080	WACKER	3						LP	
PINE PLANTATION	CSR184393	CSR	EL15/76	367087.5	5364080	237.5	64080	WACKER	2.7						B	
PINE PLANTATION	CSR184394	CSR	EL15/76	367100	5364080	250	64080	WACKER	1.4							
PINE PLANTATION	CSR184395	CSR	EL15/76	367112.5	5364080	262.5	64080	WACKER	2.9							
PINE PLANTATION	CSR184396	CSR	EL15/76	367125	5364080	275	64080	WACKER	1							
PINE PLANTATION	CSR184397	CSR	EL15/76	367137.5	5364080	287.5	64080	WACKER	6.2						B	
PINE PLANTATION	CSR184398	CSR	EL15/76	367150	5364080	300	64080	WACKER	8.4						V	
PINE PLANTATION	CSR184399	CSR	EL15/76	367162.5	5364080	312.5	64080	WACKER	8.5						B	
PINE PLANTATION	CSR184614	CSR	EL15/76	367175	5364080	325	64080	WACKER	2.9						VWB	
PINE PLANTATION	CSR184615	CSR	EL15/76	367187.5	5364080	337.5	64080	WACKER	2.8						VWB	
PINE PLANTATION	CSR184616	CSR	EL15/76	367200	5364080	350	64080	WACKER	1.6						V	

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
MARIPOSA	AM102999	367416	5359796	67400	59700	-1					20					110	370
MARIPOSA	AM103000	367600	5358801	67250	58700	-1					16					160	840
MARIPOSA	AM103172	367576	5358793	67225	58700	-1					10					85	720
MARIPOSA	AM103173	367553	5358785	67200	58700	-1					32					60	60
MARIPOSA	AM103174	367529	5358777	67175	58700	-1					16					400	1500
MARIPOSA	AM103175	367505	5358769	67150	58700	-1					20					110	500
MARIPOSA	AM103176	367482	5358761	67125	58700	-1					14					70	8
MARIPOSA	AM103177	367458	5358752	67100	58700	-1					60					550	1050
MARIPOSA	AM103178	367435	5358744	67075	58700	-1					12					-4	6
MARIPOSA	AM103179	367411	5358736	67050	58700	-1					10					14	16
MYRTLE	EZ62431	365010	5352213	61100	50400				295		5	0.36			10	-5	40
PINE PLANTATION	CSR184381	366950	5364080	100	64080			2			10					5	190
PINE PLANTATION	CSR184382	366962.5	5364080	112.5	64080			16			40					20	175
PINE PLANTATION	CSR184383	366975	5364080	125	64080			-2			25					10	120
PINE PLANTATION	CSR184384	366987.5	5364080	137.5	64080			6			40					5	100
PINE PLANTATION	CSR184385	367000	5364080	150	64080			3			60					5	140
PINE PLANTATION	CSR184386	367012.5	5364080	162.5	64080			-2			20					10	130
PINE PLANTATION	CSR184387	367025	5364080	175	64080			-2			30					5	105
PINE PLANTATION	CSR184389	367037.5	5364080	187.5	64080			2			30					5	190
PINE PLANTATION	CSR184390	367050	5364080	200	64080			2			15					10	145
PINE PLANTATION	CSR184391	367062.5	5364080	212.5	64080			-2			65					30	130
PINE PLANTATION	CSR184392	367075	5364080	225	64080			-2			75					10	145
PINE PLANTATION	CSR184393	367087.5	5364080	237.5	64080			-2			75					-5	55
PINE PLANTATION	CSR184394	367100	5364080	250	64080			7			65					-5	25
PINE PLANTATION	CSR184395	367112.5	5364080	262.5	64080			4			45					5	40
PINE PLANTATION	CSR184396	367125	5364080	275	64080			7			70					35	35
PINE PLANTATION	CSR184397	367137.5	5364080	287.5	64080			5			80					10	35
PINE PLANTATION	CSR184398	367150	5364080	300	64080			2			55					40	105
PINE PLANTATION	CSR184399	367162.5	5364080	312.5	64080			3			25					-5	20
PINE PLANTATION	CSR184614	367175	5364080	325	64080			3			40					10	115
PINE PLANTATION	CSR184615	367187.5	5364080	337.5	64080			4			55					-5	120
PINE PLANTATION	CSR184616	367200	5364080	350	64080			14			15					-5	760

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
RAZORBACK WEST	CSR162180	CSR	EL15/76	366850	5364400	6850	64400	WACKER								
RAZORBACK WEST	CSR162181	CSR	EL15/76	366827	5364409	6825	64400	WACKER								
RAZORBACK WEST	CSR162182	CSR	EL15/76	366803	5364417	6800	64400	WACKER								
RAZORBACK WEST	CSR162183	CSR	EL15/76	366780	5364426	6775	64400	WACKER								
RAZORBACK WEST	CSR162184	CSR	EL15/76	366756	5364434	6750	64400	WACKER								
RAZORBACK WEST	CSR162185	CSR	EL15/76	366733	5364443	6725	64400	WACKER								
RAZORBACK WEST	CSR162186	CSR	EL15/76	366709	5364451	6700	64400	WACKER								
RAZORBACK WEST	CSR162187	CSR	EL15/76	366686	5364460	6675	64400	WACKER								
RAZORBACK WEST	CSR162188	CSR	EL15/76	366662	5364468	6650	64400	WACKER								
RAZORBACK WEST	CSR162189	CSR	EL15/76	366639	5364477	6625	64400	WACKER								
RAZORBACK WEST	CSR162190	CSR	EL15/76	366615	5364486	6600	64400	WACKER								
RAZORBACK WEST	CSR162191	CSR	EL15/76	366592	5364494	6575	64400	WACKER								
RAZORBACK WEST	CSR162192	CSR	EL15/76	366568	5364503	6550	64400	WACKER								
RAZORBACK WEST	CSR162193	CSR	EL15/76	366545	5364511	6525	64400	WACKER								
RAZORBACK WEST	CSR162194	CSR	EL15/76	366521	5364520	6500	64400	WACKER								
RAZORBACK WEST	CSR162195	CSR	EL15/76	366498	5364528	6475	64400	WACKER								
RAZORBACK WEST	CSR162196	CSR	EL15/76	366474	5364537	6450	64400	WACKER								
RAZORBACK WEST	CSR162197	CSR	EL15/76	366637	5364068	6625	64000	WACKER								
RAZORBACK WEST	CSR162198	CSR	EL15/76	366614	5364077	6600	64000	WACKER								
RAZORBACK WEST	CSR162199	CSR	EL15/76	366590	5364086	6575	64000	WACKER								
RAZORBACK WEST	CSR162251	CSR	EL15/76	366567	5364094	6550	64000	WACKER								
RAZORBACK WEST	CSR162252	CSR	EL15/76	366543	5364103	6525	64000	WACKER								
RAZORBACK WEST	CSR162253	CSR	EL15/76	366520	5364111	6500	64000	WACKER								
RAZORBACK WEST	CSR162254	CSR	EL15/76	366496	5364120	6475	64000	WACKER								
RAZORBACK WEST	CSR162255	CSR	EL15/76	366473	5364128	6450	64000	WACKER								
RAZORBACK WEST	CSR162256	CSR	EL15/76	366449	5364137	6425	64000	WACKER								
RAZORBACK WEST	CSR162257	CSR	EL15/76	366661	5364060	6650	64000	WACKER								
RAZORBACK WEST	CSR162258	CSR	EL15/76	366684	5364051	6675	64000	WACKER								
RAZORBACK WEST	CSR162259	CSR	EL15/76	366708	5364043	6700	64000	WACKER								
RAZORBACK WEST	CSR162260	CSR	EL15/76	366731	5364034	6725	64000	WACKER								
RAZORBACK WEST	CSR162261	CSR	EL15/76	366755	5364026	6750	64000	WACKER								
RAZORBACK WEST	CSR162262	CSR	EL15/76	366778	5364017	6775	64000	WACKER								
RAZORBACK WEST	CSR162263	CSR	EL15/76	366802	5364009	6800	64000	WACKER								
RAZORBACK WEST	CSR162264	CSR	EL15/76	366825	5364000	6825	64000	WACKER								
RAZORBACK WEST	CSR162295	CSR	EL15/76	366875	5364800	6875	64800	WACKER								
RAZORBACK WEST	CSR162296	CSR	EL15/76	366852	5364809	6850	64800	WACKER								
RAZORBACK WEST	CSR162297	CSR	EL15/76	366828	5364817	6825	64800	WACKER								
RAZORBACK WEST	CSR162298	CSR	EL15/76	366805	5364826	6800	64800	WACKER								
RAZORBACK WEST	CSR162299	CSR	EL15/76	366781	5364834	6775	64800	WACKER								
RAZORBACK WEST	CSR162300	CSR	EL15/76	366758	5364843	6750	64800	WACKER								
RAZORBACK WEST	CSR184230	CSR	EL15/76	366734	5364851	6725	64800	WACKER								
RAZORBACK WEST	CSR184231	CSR	EL15/76	366711	5364860	6700	64800	WACKER								
RAZORBACK WEST	CSR184232	CSR	EL15/76	366687	5364868	6675	64800	WACKER								
RAZORBACK WEST	CSR184233	CSR	EL15/76	366664	5364877	6650	64800	WACKER								
RAZORBACK WEST	CSR184234	CSR	EL15/76	366640	5364886	6625	64800	WACKER								
RAZORBACK WEST	CSR184235	CSR	EL15/76	366617	5364894	6600	64800	WACKER								
RAZORBACK WEST	CSR184236	CSR	EL15/76	366593	5364903	6575	64800	WACKER								
RAZORBACK WEST	CSR184237	CSR	EL15/76	366570	5364911	6550	64800	WACKER								
RAZORBACK WEST	CSR184238	CSR	EL15/76	366546	5364920	6525	64800	WACKER								
RAZORBACK WEST	CSR184239	CSR	EL15/76	366523	5364928	6500	64800	WACKER								
RAZORBACK WEST	CSR184240	CSR	EL15/76	366499	5364937	6475	64800	WACKER								
RAZORBACK WEST	CSR184241	CSR	EL15/76	366476	5364945	6450	64800	WACKER								
RAZORBACK WEST	CSR184242	CSR	EL15/76	366452	5364954	6425	64800	WACKER								

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
RAZORBACK WEST	CSR162180	366850	5364400	6850	64400	-1		7			34					26	95
RAZORBACK WEST	CSR162181	366827	5364409	6825	64400	-1		5			46					24	125
RAZORBACK WEST	CSR162182	366803	5364417	6800	64400	-1		2			26					18	70
RAZORBACK WEST	CSR162183	366780	5364426	6775	64400	-1		28			40					10	650
RAZORBACK WEST	CSR162184	366756	5364434	6750	64400	-1		3			38					360	1950
RAZORBACK WEST	CSR162185	366733	5364443	6725	64400	-1		42			12					220	910
RAZORBACK WEST	CSR162186	366709	5364451	6700	64400	-1		5			7					75	280
RAZORBACK WEST	CSR162187	366686	5364460	6675	64400	-1		8			7					44	90
RAZORBACK WEST	CSR162188	366662	5364468	6650	64400	-1		5			8					30	24
RAZORBACK WEST	CSR162189	366639	5364477	6625	64400	-1		18			10					145	520
RAZORBACK WEST	CSR162190	366615	5364486	6600	64400	-1		4			9					28	70
RAZORBACK WEST	CSR162191	366592	5364494	6575	64400	-1		4			7					44	130
RAZORBACK WEST	CSR162192	366568	5364503	6550	64400	-1		8			7					50	34
RAZORBACK WEST	CSR162193	366545	5364511	6525	64400	-1		2			7					24	14
RAZORBACK WEST	CSR162194	366521	5364520	6500	64400	-1		6			6					26	32
RAZORBACK WEST	CSR162195	366498	5364528	6475	64400	-1		30			30					65	150
RAZORBACK WEST	CSR162196	366474	5364537	6450	64400	-1		6			5					10	14
RAZORBACK WEST	CSR162197	366637	5364068	6625	64000	-1		20			18					65	185
RAZORBACK WEST	CSR162198	366614	5364077	6600	64000	-1		10			24					140	600
RAZORBACK WEST	CSR162199	366590	5364086	6575	64000	-1		8			6					85	195
RAZORBACK WEST	CSR162251	366567	5364094	6550	64000	-1		8			9					26	5
RAZORBACK WEST	CSR162252	366543	5364103	6525	64000	-1		-2			4					24	4
RAZORBACK WEST	CSR162253	366520	5364111	6500	64000	-1		18			12					36	80
RAZORBACK WEST	CSR162254	366496	5364120	6475	64000	-1		16			8					36	60
RAZORBACK WEST	CSR162255	366473	5364128	6450	64000	-1		20			10					190	2050
RAZORBACK WEST	CSR162256	366449	5364137	6425	64000	-1		-2			5					155	980
RAZORBACK WEST	CSR162257	366661	5364060	6650	64000	-1		32			20					100	610
RAZORBACK WEST	CSR162258	366684	5364051	6675	64000	-1		12			5					38	55
RAZORBACK WEST	CSR162259	366708	5364043	6700	64000	2		-2			14					470	3150
RAZORBACK WEST	CSR162260	366731	5364034	6725	64000	1		26			18					210	950
RAZORBACK WEST	CSR162261	366755	5364026	6750	64000	-1		40			28					540	5350
RAZORBACK WEST	CSR162262	366778	5364017	6775	64000	-1		16			75					22	330
RAZORBACK WEST	CSR162263	366802	5364009	6800	64000	-1		12			44					12	140
RAZORBACK WEST	CSR162264	366825	5364000	6825	64000	-1		9			46					36	150
RAZORBACK WEST	CSR162295	366875	5364800	6875	64800	-1		4			65					48	115
RAZORBACK WEST	CSR162296	366852	5364809	6850	64800	-1		7			48					20	175
RAZORBACK WEST	CSR162297	366828	5364817	6825	64800	-1		7			40					16	150
RAZORBACK WEST	CSR162298	366805	5364826	6800	64800	-1		8			26					20	170
RAZORBACK WEST	CSR162299	366781	5364834	6775	64800	-1		10			65					14	75
RAZORBACK WEST	CSR162300	366758	5364843	6750	64800	4		10			22					18	175
RAZORBACK WEST	CSR184230	366734	5364851	6725	64800	-1		7			80					24	140
RAZORBACK WEST	CSR184231	366711	5364860	6700	64800	-1		4			38					22	135
RAZORBACK WEST	CSR184232	366687	5364868	6675	64800	-1		7			150					20	165
RAZORBACK WEST	CSR184233	366664	5364877	6650	64800	-1		4			65					16	200
RAZORBACK WEST	CSR184234	366640	5364886	6625	64800	-1		8			34					18	135
RAZORBACK WEST	CSR184235	366617	5364894	6600	64800	-1		6			48					14	85
RAZORBACK WEST	CSR184236	366593	5364903	6575	64800	-1		3			170					14	105
RAZORBACK WEST	CSR184237	366570	5364911	6550	64800	-1		2			26					18	200
RAZORBACK WEST	CSR184238	366546	5364920	6525	64800	-1		4			65					20	145
RAZORBACK WEST	CSR184239	366523	5364928	6500	64800	-1		10			24					135	430
RAZORBACK WEST	CSR184240	366499	5364937	6475	64800	3		18			8					260	1900
RAZORBACK WEST	CSR184241	366476	5364945	6450	64800	2		16			14					150	820
RAZORBACK WEST	CSR184242	366452	5364954	6425	64800	1		4			7					42	210

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
RAZORBACK WEST	CSR184243	CSR	EL15/76	366429	5364962	6400	64800	WACKER								
RAZORBACK WEST	CSR184244	CSR	EL15/76	366405	5364971	6375	64800	WACKER								
RAZORBACK WEST	CSR184245	CSR	EL15/76	366382	5364980	6350	64800	WACKER								
RAZORBACK WEST	CSR184246	CSR	EL15/76	366358	5364988	6325	64800	WACKER								
RAZORBACK WEST	CSR184247	CSR	EL15/76	366335	5364997	6300	64800	WACKER								
SUNNY CORNER	AM113143	AMOCO	EL15/76	365935	5357895	65500	57950	WACKER	7.6							
SUNNY CORNER	AM113144	AMOCO	EL15/76	365935	5357870	65500	57925	WACKER	9.8							
SUNNY CORNER	AM113145	AMOCO	EL15/76	365935	5357845	65500	57900	WACKER	9							
SUNNY CORNER	AM113146	AMOCO	EL15/76	365935	5357820	65500	57875	WACKER	17.4							
SUNNY CORNER	AM113147	AMOCO	EL15/76	365935	5357795	65500	57850	WACKER	8.8							
SUNNY CORNER	AM113148	AMOCO	EL15/76	365935	5357770	65500	57825	WACKER	7.8							
SUNNY CORNER	AM113149	AMOCO	EL15/76	365935	5357745	65500	57800	WACKER	8							
SUNNY CORNER	AM113150	AMOCO	EL15/76	365935	5357720	65500	57775	WACKER	9.6							
SUNNY CORNER	AM113346	AMOCO	EL15/76	365935	5357920	65500	57975	WACKER	7.4							
SUNNY CORNER	AM113347	AMOCO	EL15/76	365935	5357945	65500	58000	WACKER	6.8							
SUNNY CORNER	AM113348	AMOCO	EL15/76	365885	5357845	65450	57900	WACKER	9.6							
SUNNY CORNER	AM113349	AMOCO	EL15/76	365860	5357845	65425	57900	WACKER	9							
SUNNY CORNER	AM113350	AMOCO	EL15/76	365835	5357845	65400	57900	WACKER	6.5							
SUNNY CORNER	AM113601	AMOCO	EL15/76	365810	5357845	65375	57900	WACKER	7.8							
SUNNY CORNER	AM113602	AMOCO	EL15/76	365785	5357845	65350	57900	WACKER	9.4							
SUNNY CORNER	AM113603	AMOCO	EL15/76	365760	5357845	65325	57900	WACKER	15.2							
SUNNY CORNER	AM113604	AMOCO	EL15/76	365910	5357845	65475	57900	WACKER	4.3							
SUNNY CORNER	AM113605	AMOCO	EL15/76	365960	5357845	65525	57900	WACKER	14.2							
SUNNY CORNER	AM113606	AMOCO	EL15/76	365985	5357845	65550	57900	WACKER	13							
SUNNY CORNER	AM113607	AMOCO	EL15/76	366035	5357720	65600	57775	WACKER	7.5							
SUNNY CORNER	AM113608	AMOCO	EL15/76	366035	5357745	65600	57800	WACKER	2.6							
SUNNY CORNER	AM113609	AMOCO	EL15/76	366035	5357770	65600	57825	WACKER	10.4							
SUNNY CORNER	AM113610	AMOCO	EL15/76	366035	5357795	65600	57850	WACKER	19.4							
SUNNY CORNER	AM113611	AMOCO	EL15/76	365835	5357995	65400	58050	WACKER	7.5							
SUNNY CORNER	AM113612	AMOCO	EL15/76	365835	5357970	65400	58025	WACKER	9							
SUNNY CORNER	AM113613	AMOCO	EL15/76	365835	5357945	65400	58000	WACKER	11.7							
SUNNY CORNER	AM113614	AMOCO	EL15/76	365835	5357920	65400	57975	WACKER	15.3							
SUNNY CORNER	AM113615	AMOCO	EL15/76	365835	5357895	65400	57950	WACKER	15.8							
SUNNY CORNER	AM113616	AMOCO	EL15/76	365835	5357870	65400	57925	WACKER	8.6							
SUNNY CORNER	AM113617	AMOCO	EL15/76	365835	5357820	65400	57875	WACKER	19.5							
SUNNY CORNER	AM113618	AMOCO	EL15/76	365835	5357795	65400	57850	WACKER	8.2							
SUNNY CORNER	AM113619	AMOCO	EL15/76	365835	5357770	65400	57825	WACKER	20							
SUNNY CORNER	AM113620	AMOCO	EL15/76	365835	5357745	65400	57800	WACKER	8.6							
SUNNY CORNER	AM113621	AMOCO	EL15/76	365835	5357720	65400	57775	WACKER	6.5							
SUNNY CORNER	AM113622	AMOCO	EL15/76	365835	5357695	65400	57750	WACKER	2.7							
SUNNY CORNER	AM113623	AMOCO	EL15/76	365935	5357695	65500	57750	WACKER	9.6							
SUNNY CORNER	AM113624	AMOCO	EL15/76	366035	5357645	65600	57700	WACKER	11.6							
SUNNY CORNER	AM113625	AMOCO	EL15/76	366035	5357670	65600	57725	WACKER	12.4							
SUNNY CORNER	AM113626	AMOCO	EL15/76	366035	5357695	65600	57750	WACKER	6.6							
SUNNY CORNER	AM113627	AMOCO	EL15/76	365735	5357695	65300	57750	WACKER	0.6							
SUNNY CORNER	AM113628	AMOCO	EL15/76	365735	5357720	65300	57775	WACKER	1.4							
SUNNY CORNER	AM113629	AMOCO	EL15/76	365735	5357745	65300	57800	WACKER	1.4							
SUNNY CORNER	AM113630	AMOCO	EL15/76	365735	5357770	65300	57825	WACKER	0.9							
SUNNY CORNER	AM113631	AMOCO	EL15/76	365735	5357795	65300	57850	WACKER	2.7							
SUNNY CORNER	AM113632	AMOCO	EL15/76	365735	5357820	65300	57875	WACKER	1.2							
SUNNY CORNER	AM113633	AMOCO	EL15/76	365735	5357845	65300	57900	WACKER								
SUNNY CORNER	AM113634	AMOCO	EL15/76	365710	5357845	65275	57900	WACKER	1.6							

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
RAZORBACK WEST	CSR184243	366429	5364962	6400	64800	-1		3			7					44	200
RAZORBACK WEST	CSR184244	366405	5364971	6375	64800	-1		2			5					36	160
RAZORBACK WEST	CSR184245	366382	5364980	6350	64800	4		48			16					370	1850
RAZORBACK WEST	CSR184246	366358	5364988	6325	64800	-1		-2			7					48	260
RAZORBACK WEST	CSR184247	366335	5364997	6300	64800	-1		20			90					390	810
SUNNY CORNER	AM113143	365935	5357895	65500	57950											300	1650
SUNNY CORNER	AM113144	365935	5357870	65500	57925											1000	3300
SUNNY CORNER	AM113145	365935	5357845	65500	57900											850	4600
SUNNY CORNER	AM113146	365935	5357820	65500	57875											50	90
SUNNY CORNER	AM113147	365935	5357795	65500	57850											300	70
SUNNY CORNER	AM113148	365935	5357770	65500	57825											50	550
SUNNY CORNER	AM113149	365935	5357745	65500	57800											4200	6900
SUNNY CORNER	AM113150	365935	5357720	65500	57775											19000	7900
SUNNY CORNER	AM113346	365935	5357920	65500	57975											150	1050
SUNNY CORNER	AM113347	365935	5357945	65500	58000											9000	25200
SUNNY CORNER	AM113348	365885	5357845	65450	57900											470	570
SUNNY CORNER	AM113349	365860	5357845	65425	57900											70	700
SUNNY CORNER	AM113350	365835	5357845	65400	57900											800	1950
SUNNY CORNER	AM113601	365810	5357845	65375	57900											480	1950
SUNNY CORNER	AM113602	365785	5357845	65350	57900											850	750
SUNNY CORNER	AM113603	365760	5357845	65325	57900											1400	2000
SUNNY CORNER	AM113604	365910	5357845	65475	57900											400	1650
SUNNY CORNER	AM113605	365960	5357845	65525	57900											580	600
SUNNY CORNER	AM113606	365985	5357845	65550	57900											32300	1050
SUNNY CORNER	AM113607	366035	5357720	65600	57775											160	230
SUNNY CORNER	AM113608	366035	5357745	65600	57800											170	250
SUNNY CORNER	AM113609	366035	5357770	65600	57825											3150	1570
SUNNY CORNER	AM113610	366035	5357795	65600	57850											230	760
SUNNY CORNER	AM113611	365835	5357995	65400	58050											220	20
SUNNY CORNER	AM113612	365835	5357970	65400	58025											4100	2050
SUNNY CORNER	AM113613	365835	5357945	65400	58000											80	2200
SUNNY CORNER	AM113614	365835	5357920	65400	57975											60	190
SUNNY CORNER	AM113615	365835	5357895	65400	57950											230	910
SUNNY CORNER	AM113616	365835	5357870	65400	57925											60	510
SUNNY CORNER	AM113617	365835	5357820	65400	57875											50	60
SUNNY CORNER	AM113618	365835	5357795	65400	57850											70	280
SUNNY CORNER	AM113619	365835	5357770	65400	57825											50	140
SUNNY CORNER	AM113620	365835	5357745	65400	57800											50	230
SUNNY CORNER	AM113621	365835	5357720	65400	57775											50	10
SUNNY CORNER	AM113622	365835	5357695	65400	57750											130	20
SUNNY CORNER	AM113623	365935	5357695	65500	57750											460	890
SUNNY CORNER	AM113624	366035	5357645	65600	57700											50	-10
SUNNY CORNER	AM113625	366035	5357670	65600	57725												
SUNNY CORNER	AM113626	366035	5357695	65600	57750											250	-10
SUNNY CORNER	AM113627	365735	5357695	65300	57750												
SUNNY CORNER	AM113628	365735	5357720	65300	57775												
SUNNY CORNER	AM113629	365735	5357745	65300	57800												
SUNNY CORNER	AM113630	365735	5357770	65300	57825												
SUNNY CORNER	AM113631	365735	5357795	65300	57850											-50	-10
SUNNY CORNER	AM113632	365735	5357820	65300	57875												
SUNNY CORNER	AM113633	365735	5357845	65300	57900												
SUNNY CORNER	AM113634	365710	5357845	65275	57900												

Prospect	Sampno	DPO	EL	AMGE	AMGN	LocalE	LocalN	Type	Depth	B/rock?	MRTLith	FieldID	Texture	Alt/Min	Colour	Comments
SUNNY CORNER	AM113635	AMOCO	EL15/76	365685	5357845	65250	57900	WACKER	3							
SUNNY CORNER	AM113636	AMOCO	EL15/76	365735	5357870	65300	57925	WACKER	10.3							
SUNNY CORNER	AM113637	AMOCO	EL15/76	365735	5357895	65300	57950	WACKER	12.2							
SUNNY CORNER	AM113638	AMOCO	EL15/76	365735	5357920	65300	57975	WACKER	10.4							
SUNNY CORNER	AM113639	AMOCO	EL15/76	365735	5357945	65300	58000	WACKER	13.1							
SUNNY CORNER	AM113640	AMOCO	EL15/76	365710	5357945	65275	58000	WACKER	5.2							
SUNNY CORNER	AM113641	AMOCO	EL15/76	365735	5357970	65300	58025	WACKER	4.3							
SUNNY CORNER	AM113642	AMOCO	EL15/76	365735	5357995	65300	58050	WACKER	8.4							
SUNNY CORNER	AM113643	AMOCO	EL15/76	365735	5358020	65300	58075	WACKER	4.8							
SUNNY CORNER	AM113644	AMOCO	EL15/76	365735	5358045	65300	58100	WACKER	2.6							
SUNNY CORNER	AM113645	AMOCO	EL15/76	366010	5357845	65575	57900	WACKER	8.3							
SUNNY CORNER	AM113646	AMOCO	EL15/76	366035	5357845	65600	57900	WACKER	4.6							
SUNNY CORNER	AM113647	AMOCO	EL15/76	366035	5357820	65600	57875	WACKER	1.2							
SUNNY CORNER	4137939	77678	EL45/92	366390	5357740			RKGRAB			Og	Ccy			N	Plastic clay.

Prospect	Sampno	AMGE	AMGN	LocalE	LocalN	Ag ppm	Al%	As ppm	Ba ppm	Ca%	Cu ppm	Fe%	K%	Mg%	Mn ppm	Pb ppm	Zn ppm
SUNNY CORNER	AM113635	365685	5357845	65250	57900											620	20
SUNNY CORNER	AM113636	365735	5357870	65300	57925												
SUNNY CORNER	AM113637	365735	5357895	65300	57950											2600	30
SUNNY CORNER	AM113638	365735	5357920	65300	57975											-50	820
SUNNY CORNER	AM113639	365735	5357945	65300	58000											120	1800
SUNNY CORNER	AM113640	365710	5357945	65275	58000												
SUNNY CORNER	AM113641	365735	5357970	65300	58025											60	30
SUNNY CORNER	AM113642	365735	5357995	65300	58050											2750	190
SUNNY CORNER	AM113643	365735	5358020	65300	58075											3250	2850
SUNNY CORNER	AM113644	365735	5358045	65300	58100											710	30
SUNNY CORNER	AM113645	366010	5357845	65575	57900												
SUNNY CORNER	AM113646	366035	5357845	65600	57900												
SUNNY CORNER	AM113647	366035	5357820	65600	57875												
SUNNY CORNER	4137939	366390	5357740			23		98			20	1.23			38	25800	26

APPENDIX 9

HOWARD'S ROAD DIAMOND DRILL LOG AND GEOCHEMISTRY

805203

CRA EXPLORATION PTY. LIMITED

DRILL-HOLE SUMMARY LOG

EL NAME: _____ HOLE NAME: HOWARD'S ROAD 1
EL NUMBER: _____ PROSPECT: _____
DATE DRILLED: 1984
LOGGED BY: RGP

AMG EAST: 371549.0 GRID EAST: _____
AMG NORTH: 5354897.6 GRID NORTH: _____
RL: 232.3 TOTAL DEPTH: 303.7

DEPTH	AZIM. (~~MAG~~)		INCLIN.
0	251	AMG	-45
79	250		-45
237	263		-46

OBJECTIVES OF HOLE:
Dom ~~start~~ hole to test Ed - Og contact.

LITHOLOGICAL SUMMARY:

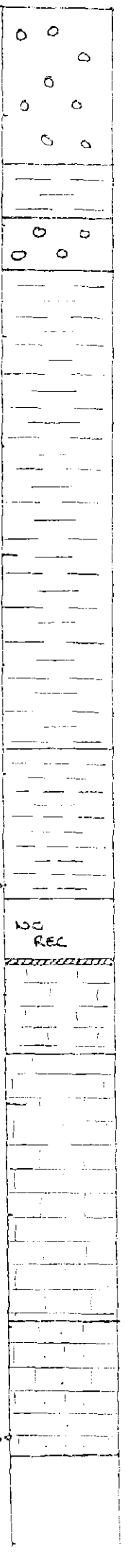
DFROM	DTO	COMMENTS	
0	15.9	SANDSTONE + SILTSTONE	DUNDAS GP ?
	68.8	CONGLOMERATE	
	79.3	SILTSTONE	
	87.95	CONGLOMERATE	
	176.1	SILTSTONE	
	202.9	SHALE	
	214.0	NO RECOVERY	
	214.7	SIDERITE ALTERED CO_3	GORDON LIMESTONE
	231.45	LEACHED LIMESTONE	
	279.0	PARTLY LEACHED LIMESTONE	
	303.7	CALCARENITE	

MINERALISATION SUMMARY:

DFROM	DTO	COMMENTS
		NO MINERALISATION IN RECOVERED CORE (NB CONTACT ZONE 202.9 - 214.0 NOT RECOVERED)

CONCLUSIONS:
Critical zone at contact between Ed . Og was not recovered.
No minerals detected in recovered siderite CO_3.
Zone not effectively tested however.

If cong.lom + siltst + shale are Ed then Co - Om absent in this section.



805209 HOWARD'S ROAD.

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1 of 3

371549·0

CO ORDINATES 5854897·6 AZIMUTH 251 Amg DRILLERS Dom COMMENCED 19/3/84

RL COLLAR 232·3 INCLINATION -45° DRILL TYPE COMPLETED 8/6/84

TENEMENT NAME No.

PLAN – MAP REFERENCE

DEPTH 303·7m HOLE No. HOWARD'S RD

CASING LEFT DPO No(s). 77675

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)
0	15·9		HQ		INTERBEDDED SANDSTONE & SILTSTONE Dark grey laminated siltstone interbedded with grey-green coarse (1-2mm g/s) sandstone. Beds 1-3m thick. Dundas Gp? S_0 = C.A ∡ 75°						
15·9	68·8		HQ NQ		CONGLOMERATE Polymict pebble conglom. Clasts mostly 10mm but range from 1-3mm grit beds to 30mm cobbles. Clean, well sorted & well rounded. Bedding ∡ 51m Facings down the hole. 69m S_0 = C.A ∡ 52°						
68·8	87·95				SILTSTONE Grey to brown-grey siltstone and fine sandstone. Well laminated 0.7-10mm lams. Silty units are strongly fissile.						
87·95	176·1				CONGLOMERATE Polymict pebble conglom similar to 15.9-68.8m. Last 2m are 0.5-1mm g/s set showing down-hole facings						
87·95	176·1				SILTSTONE Brownish green well laminated siltstone. Lams 1-10mm thick. Minor beds of brown sandstone up to 300mm thick between 87.95-112.8, ~10% of interval. Abundant sedimentary textures incl cross bedding, soft sed deforms & graded beds. All show down hole facings.		4138118	112·9	115·9		
							119	172·9	176·1		

805210

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2 of 3

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. HR1

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH (From)	DEPTH (To) (M)	Core Rec (M)	Core Size	Geology Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by.....)
95	176·1				88·0 S_0 & C.A ∠ 67°						
	CTD				126·0 66°						
					140·0 68°						
					160·0 70°						
					170·0 68°						
6·1	202·9	~60%		SB	SHALE		4128150	176·1	181·9		
					Dark grey strongly fissile shale.		151	181·9	187·9		
					Lot of core loss.		152	187·9	193·9		
					From 199·8 - 202·9 shale is very strongly		153	193·9	199·9		
					sheared.		154	199·9	202·9		
					Reduce to BQ 202·9m						
					190·0 S_0 - C.A ∠ 70°						
					199·0 70°						
					202·0 sheer? ∠ 40°						
29	214·0?			-	NO RECOVERY ?						
					fractured						
4·0	214·7	?	BQ	Sx	SIDERITE ALTERED CARBONATE		155	214·0	214·7 ?		
?					Brown-grey massive siderite carbonate, and						
					dark grey spongey altered CO_3. Carbonaceous						
					in part.						
					Uncertainty as to whether the core recovered		[illegible]	[illegible]	[illegible]		
					is from 214·0 - 214·7 or 202·9 - 214·7 as				[illegible]		
					there are no core blocks between 202·9-214·7m.				[illegible]		

805211

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 3 of 3

TENEMENT NAME ..... No. .....

PLAN – MAP REFERENCE .....

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. HR1

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

DEPTH From (m)	DEPTH To (M)	Core Rec (M)	Core Size	Graphic Log RQD	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analyses by .....)
[illegible]	226.45	~60%	BQ	4F	STRONGLY LEACHED LIMESTONE Dark grey limestone. Core is strongly leached, vuggy - porous. Core friable, substantial core loss.		4138156	214.7	217.7		
							157	217.7	220.7		
							158	220.7	223.7		
							159	223.7	226.7		
							160	226.7	231.45		
215	279.0	~50%		3F/4F	PARTLY LEACHED LIMESTONE Grey limestone, probably a bioclastic calcarenite. Sedimentary features mostly obliterated by secondary porosity. Core is locally to moderately leached, vuggy - porous. Patchy, narrow zones of intense leaching. Core friable, with significant core loss. No recovery 262.7 - 271.7 m.						
19.0	303.7 EOH	100%		2F	BIOCLASTIC CALCARENITE Grey 0.2-2mm gds clean calcarenite made up of bioclastic debris. Core is competent with mostly full recovery.						

[redacted] 005212

HOWARDS ROAD | DIAMOND DRILLHOLE

Appendix 9: [redacted] ledgers and geochemistry

Results in ppm unless shown otherwise.

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn
HR1	0.00	15.90		DOM	Ed?	SooSsi	Lmfb		DG+GV													
HR1	15.90	68.80		DOM	Ed?	Scg			MWPV													
HR1	68.80	79.30		DOM	Ed?	Ssi	LmFi		GBG													
HR1	79.30	87.95		DOM	Ed?	Scg			MWPV													
HR1	87.95	112.90		DOM	Ed?	Ssi	Lm		BV													
HR1	112.90	115.90	4138148	77675	Ed?	Ssi	Lm		BV		-0.5	8.74	19	721	0.23	25	4.6	3.99	1.15	1348	69	140
HR1	115.90	172.90		DOM	Ed?	Ssi	Lm		BV													
HR1	172.90	176.10	4138149	77675	Ed?	Ssi	Lm		BV		-0.5	8.01	12	1169	0.09	34	3.24	4.02	0.73	2392	43	100
HR1	176.10	181.90	4138150	77675	Ed?	Ssi	LmFi		DG		-0.5	8.99	11	1255	-0.05	36	1.29	4.19	0.54	53	54	112
HR1	181.90	187.90	4138151	77675	Ed?	Ssi	LmFi		DG		-0.5	9.69	24	1325	-0.05	31	1.82	4.44	0.57	51	43	80
HR1	187.90	193.90	4138152	77675	Ed?	Ssi	LmFi		DG		-0.5	8.73	15	972	-0.05	24	1.23	3.96	0.53	46	39	66
HR1	193.90	199.80	4138153	77675	Ed?	Ssi	LmFi		DG		-0.5	9.97	16	990	-0.05	27	1.55	4.33	0.61	48	31	48
HR1	199.80	202.90	4138154	77675	Ed?	Ssi	Sh		DG		-0.5	10.47	8	2256	0.06	22	1.45	4.52	0.61	49	32	118
HR1	202.90	214.00		DOM						NO RECOVERY?												
HR1	214.00	214.70	4138155	77675	Cg	Sdi	Al	Sd	BG	Very poor rec. Siderite alld CO3	-0.5	0.61	21	241	2.23	13	22.09	2.1	1.1	12100	43	60
HR1	214.70	217.70	4138156	77675	Cg	Ss	LeVu		DG	Leached, vuggy lst. Poor rec.	-0.5	1.47	5	87	28.75	5	4.58	0.71	3.21	2517	21	39
HR1	217.70	220.70	4138157	77675	Cg	Sls	LeVu		DG	Leached, vuggy lst. Poor rec.	-0.5	0.71	-5	39	31.99	-5	1.47	0.37	1.92	988	18	155
HR1	220.70	223.70	4138158	77675	Cg	Sls	LeVu		DG	Leached, vuggy lst. Poor rec.	-0.5	1.07	-5	57	37.56	-5	2.94	0.43	3.01	1798	20	34
HR1	223.70	226.70	4138159	77675	Cg	Sls	LeVu		DG	Leached, vuggy lst. Poor rec.	-0.5	1.08	-5	55	31.87	-5	1.31	0.56	1.27	869	42	129
HR1	226.70	231.45	4138160	77675	Cg	Sls	LeVu		DG	Leached, vuggy lst. Poor rec.	-0.5	0.67	-5	34	31.12	-5	1.19	0.31	1.78	853	17	22
HR1	231.45	232.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	232.60	232.70	A161805	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		16	45							14	20
HR1	232.70	235.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	235.60	235.70	A161806	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		65	55							16	18
HR1	235.70	238.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	238.60	238.70	A161807	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		16	30							28	640
HR1	238.70	241.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	241.60	241.70	A161808	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		24	165							18	24
HR1	241.70	244.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	244.60	244.70	A161809	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		24	50							22	48
HR1	244.70	247.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	247.60	247.70	A161810	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		20	90							20	36
HR1	247.70	250.50		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	250.50	250.60	A161811	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		16	20							22	34
HR1	250.60	253.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	253.60	253.70	A161812	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		22	30							16	50
HR1	253.70	256.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	256.60	256.70	A161813	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		14	20							14	20
HR1	256.70	259.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	259.60	259.70	A161814	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		28	50							18	46
HR1	259.70	262.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	262.60	262.70	A161815	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		16	110							16	55
HR1	262.70	274.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	274.60	274.70	A161816	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		28	35							26	120
HR1	274.70	277.60		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												
HR1	277.60	277.70	A161817	CSR	Cg	Sls	Le		G	Partly leached lst. Poor rec	-1		26	35							12	22
HR1	277.70	279.00		DOM	Cg	Sls	Le		G	Partly leached lst. Poor rec												

605213

HOLE	DFROM	DTO	SAMPNO	DPO	BMRLITH	FIELDID	TEXTURE	ALT/MIN	COLOUR	COMMENTS	Ag	Al%	As	Ba	Ca%	Cu	Fe%	K%	Mg%	Mn	Pb	Zn
HR1	279.00	280.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	280.60	280.70	A161818	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		10	-10							8	7
HR1	280.70	283.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	283.60	283.70	A161819	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		9	20							12	12
HR1	283.70	286.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	286.60	286.70	A161820	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		12	15							22	9
HR1	286.70	289.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	289.60	289.70	A161821	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		12	25							10	9
HR1	289.70	292.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	292.60	292.70	A161822	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		12	10							12	9
HR1	292.70	295.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	295.60	295.70	A161826	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		20	10							180	12
HR1	295.70	298.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	298.60	298.70	A161827	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		16	20							16	10
HR1	298.70	301.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	301.60	301.70	A161828	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		20	45							16	12
HR1	301.70	303.60		DOM	Og	Sls			G	Fresh bioclastic calcarenite.												
HR1	303.60	303.70	A161829	CSR	Og	Sls			G	Fresh bioclastic calcarenite.	-1		20	45							16	14

805214

CRA EXPLORATION PTY. LIMITED
ACN 000 057 125

MOUNT DUNDAS EL 45/92, TASMANIA
REPORT ON EXPLORATION FOR THE SECOND YEAR OF TENURE, 16/4/94 TO 15/3/95

Author: R.G. Parkinson

Date: March, 1995

Licence Holder: CRA Exploration Pty. Limited

Submitted to: Chief Geologist

Copies to: Tas-Industry Safety & Mines Division
CRAE ETIG Box Hill
CRAE Preston
CRAE Zeehan

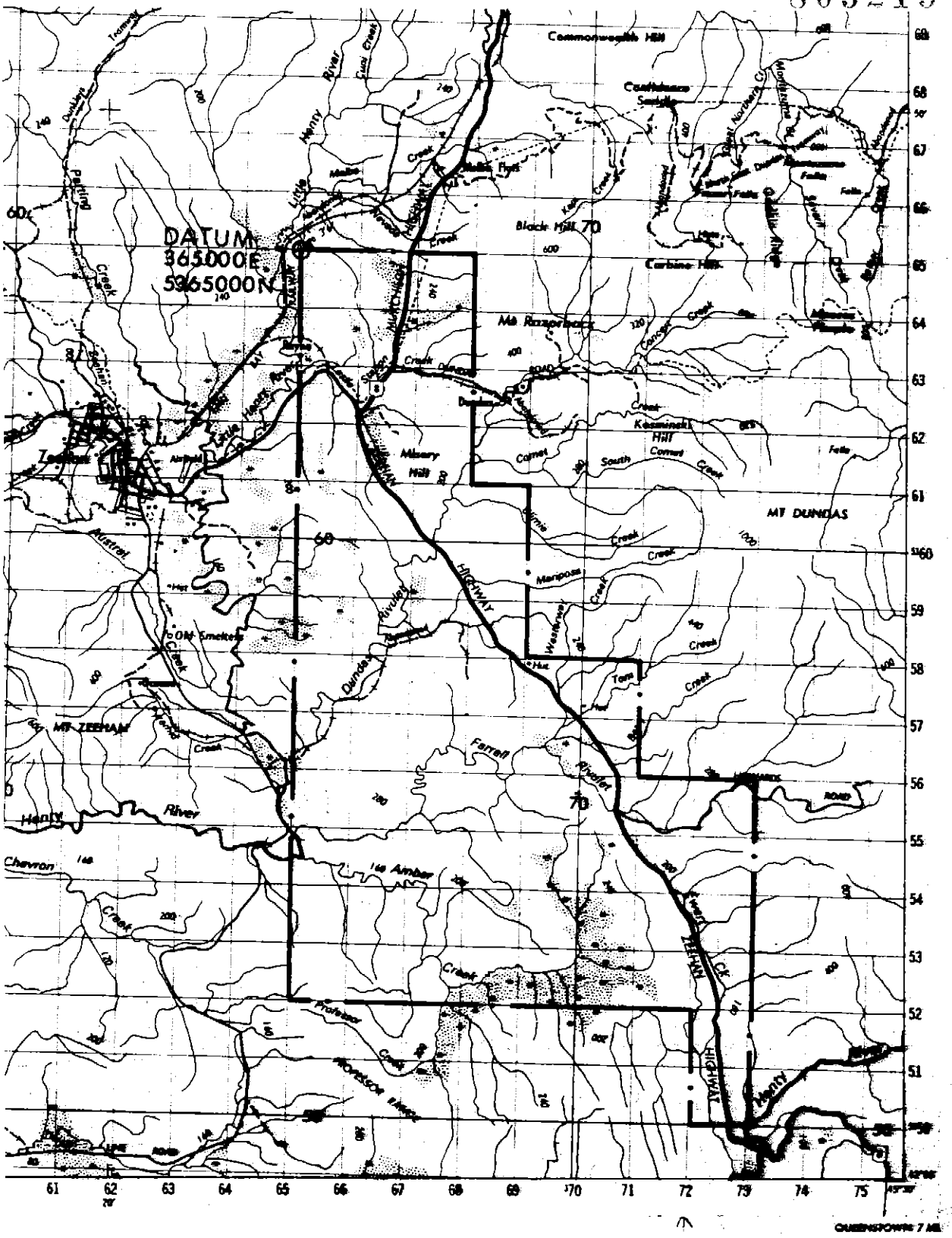
Submitted by:

Accepted by:

CRAE Report No. 20789

VOLUME 2 OF 2

805215



5 cm

0 1 2 3 4 5km

CRA EXPLORATION PTY. LIMITED

APPLICATION FOR EXPLORATION LICENCE

"ZEEHAN 5"

70 km²

Ref.: SK 55-5	Scale: 1:100 000
Author: R. Parkinson	Report No.: 20789
Drawn: S. Brook	Plan No.: Tv 498

95-3722

360 000mE
5 370 000mN
370 000mE
380 000mE
5 370 000mN
340 000mE
5 360 000mN
350 000mE
5 360 000mN
5 350 000mN
340 000mE
5 350 000mN
5 340 000mN
350 000mE
360 000mE
370 000mE
380 000mE
5 340 000mN

EL 43/92
EL 28/88
Sassafrass
ZEEHAN
Black Jacks
EL 45/92
TENTH LEGION FAULT
Mariposa
Austral
Sunny Corner–Bonnockburn
Oceana
EL 28/88
Remine
McLean Creek
Pyramid
Fen Creek
FAULT
LITTLE HENTY
FIREWOOD
EL 28/88
SIDING
Myrtle
Professor Range
Amber Creek
King Billy
EL 28/88
EL 38/89
FAULT
EL 28/88
EL 34/88
Firewood Siding
Grieves
Rose Valley
Bovra
EL 34/88
EL 34/88
SOUTHERN OCEAN
Queenstown Aerodrome

95-3722

5 cm

805218

Ordovician Gordon Limestone (usually covered by peat and gravels)
Major Faults
DrillHole Collar Location
Wacker Collar Location
CRAE Tenement Boundaries

North

0 1 2 3 4kilometres

CRA EXPLORATION PTY. LIMITED

ZEEHAN PROJECT
Gordon Limestone Prospect and Drillhole Location Plan

Ref.: SK55 – 5	File: ZEEHAN\761
Scale: 1 : 50000	Date: July 1994
Author: Rob Parkinson	Report No.: 20789
Drawn: R. Trovierso	Plan No.: Tv 761

95-3722

Mapping by: Amoco (TCR 85-2457)
Tas. Mines Dept. Zeehan 1:50,000 sheet
CRAE air-core drilling & geological traverses
CRAE photo interpretation

5360000 mN

367000 mE

368000 mE

5359000 mN

5358000 mN

DUNDAS RIVER

MARIPOSA CREEK

MARIPOSA TRAMWAY

KRUMMELS TRACK

Zeehan Highway

Mariposa Main Shaft

Nevada

Sc Og Cd Sa Df Sac Db Om Oo

5 cm

50 0 50 100 150m

AMG North
Mag North
12°

DEVONIAN
ELDON GROUP
Db Bell shale
Df Florence quartzite
SILURIAN
EILDON GROUP
Sac Austral Creek siltstone
Sa Amber slate
Sc Crotty quartzite
ORDOVICIAN
JUNEE GROUP
Og Gordon limestone
Om Moina sandstone
Oo Owen conglomerate
CAMBRIAN
Cd DUNDAS GROUP
Dundas Group Unnasigned

84 Dip & Strike of cleavage
84 Dip & Strike of beds
Geological Boundary (approximate)
Bedrock sample
56+ Air-core Drillhole - Prefeixed DM_
DM208+ Diamond drillhole - DM_ = CRA
DTH_ = Amoco
NBH_ = North Broken Hill
MM_ = McIntyre Mines
Highway
Track
F Fault (inferred, approximate)
Swamp

CRA EXPLORATION PTY LIMITED

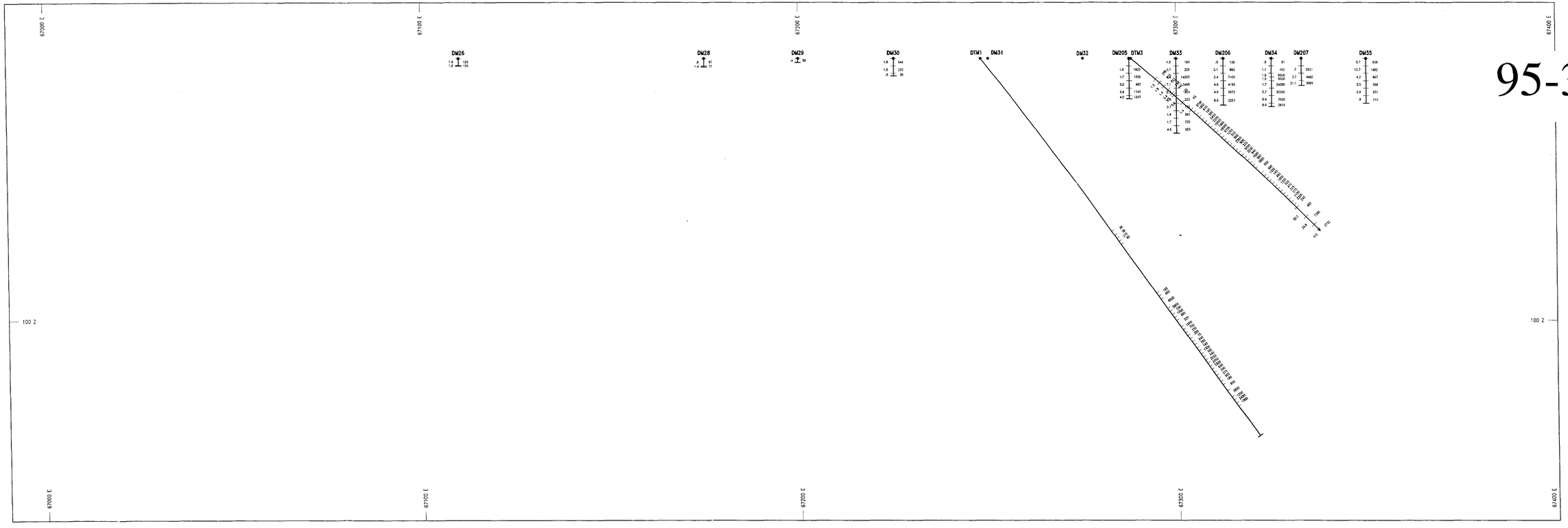
MOUNT DUNDAS 45/92

MARIPOSA PROSPECT
GEOLOGY
AND DRILLHOLE LOCATION PLAN

AUTHOR	DRAWN	DATE	SCALE	REPORT
RGP	D. Splatt	23-3-95	1:2500	20789
REF. Queenstown, SK55-05		SUB-DIR. VIC TAS	Plan (File) No.	Tv717

805217

95-3722



5 cm

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

0 10 20 30 40

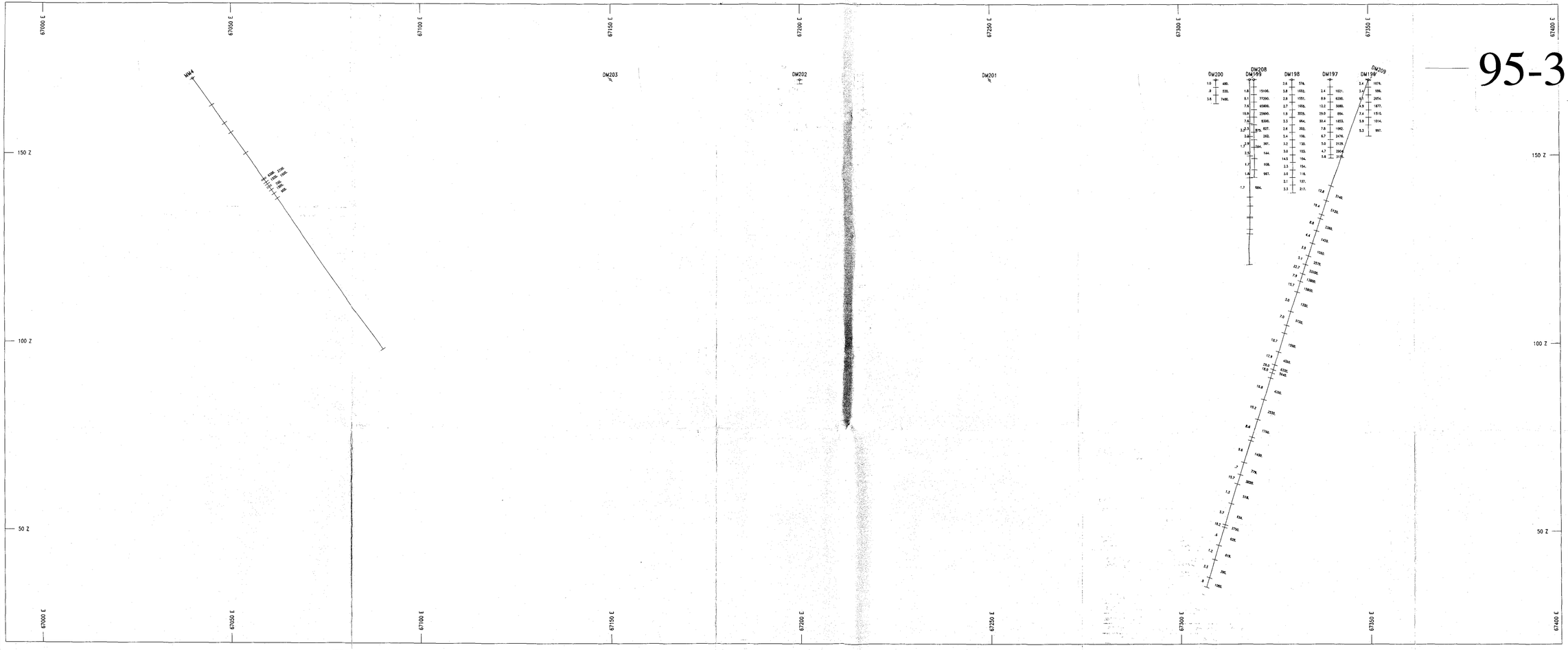
metres

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Mariposa Prospect
Section 58,800 North
Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\723
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Travierso	Plan No.:	Tv 723

95-3722

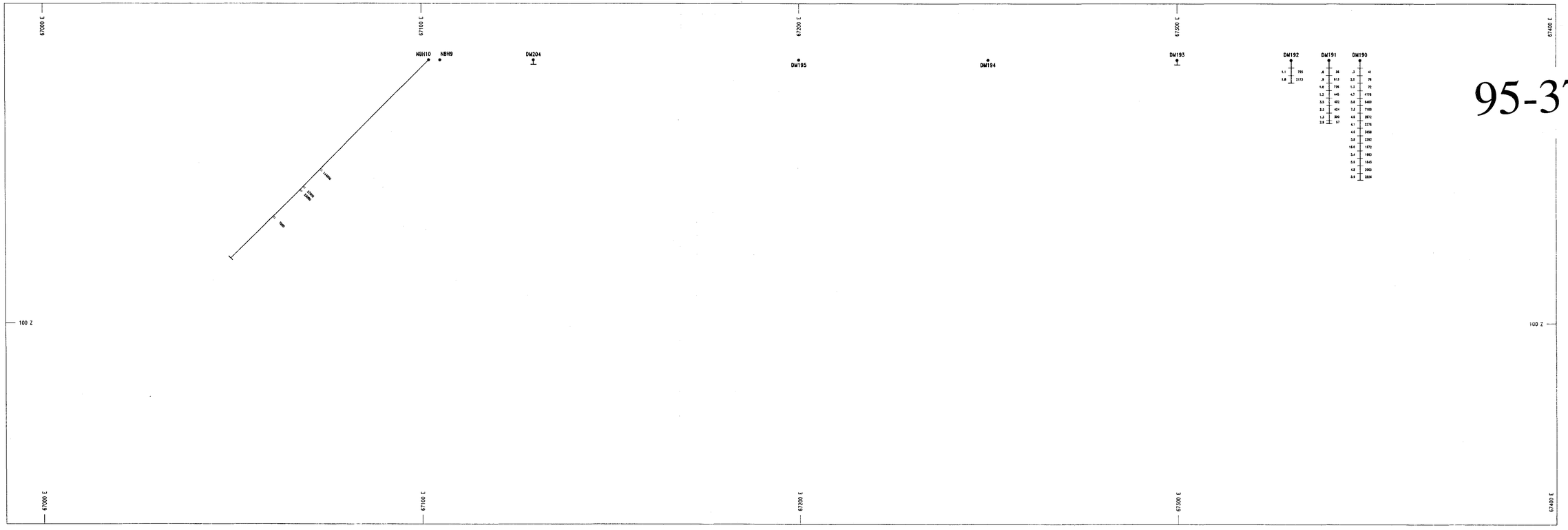


805219

CRA EXPLORATION PTY. LIMITED

MT. DUNDAS EL 45/92
Mariposa Prospect
Section 58,850 North
Iron and Zinc Geochemistry

Ref.: Queenstown sk 55-05	File: Dundas\Tv724
Scale: 1 : 500	Date: APR 95 (amended)
Author: R.G. Parkinson	Report No.: 20789
Drawn: T. Sargeant	Plan No.: Tv 724



95-3722

805216

5 cm

Drillhole Collar Location

DM10

Iron Geochemistry results in %

1.8 500

Zinc Geochemistry results in ppm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

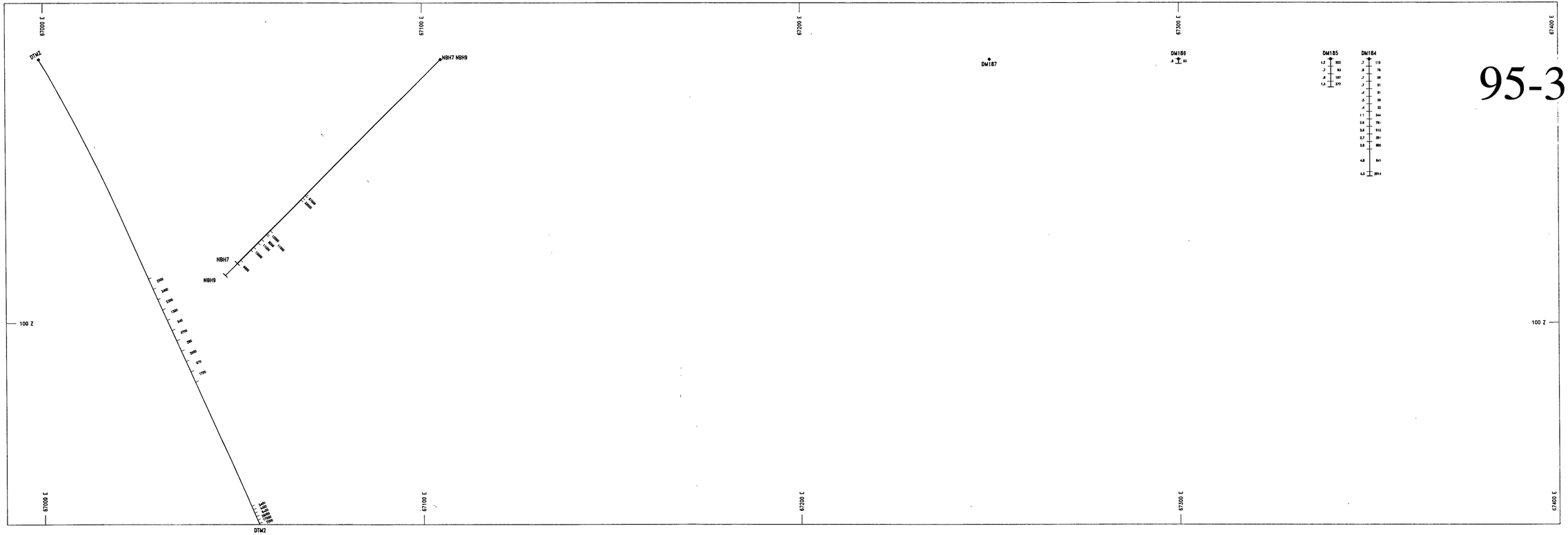
MT FRANKLAND EL 45/92

Mariposa Prospect

Section 58,900 North

Iron and Zinc Geochemistry

Ref.: Queenstown Sk 55-05	File: MtFronk\725
Scale: 1 : 500	Date: June 1994
Author: R.G. Parkinsun	Report No.: 20789
Drawn: R. Traviersa	Plan No.: Tv 725



95-3722

805221

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

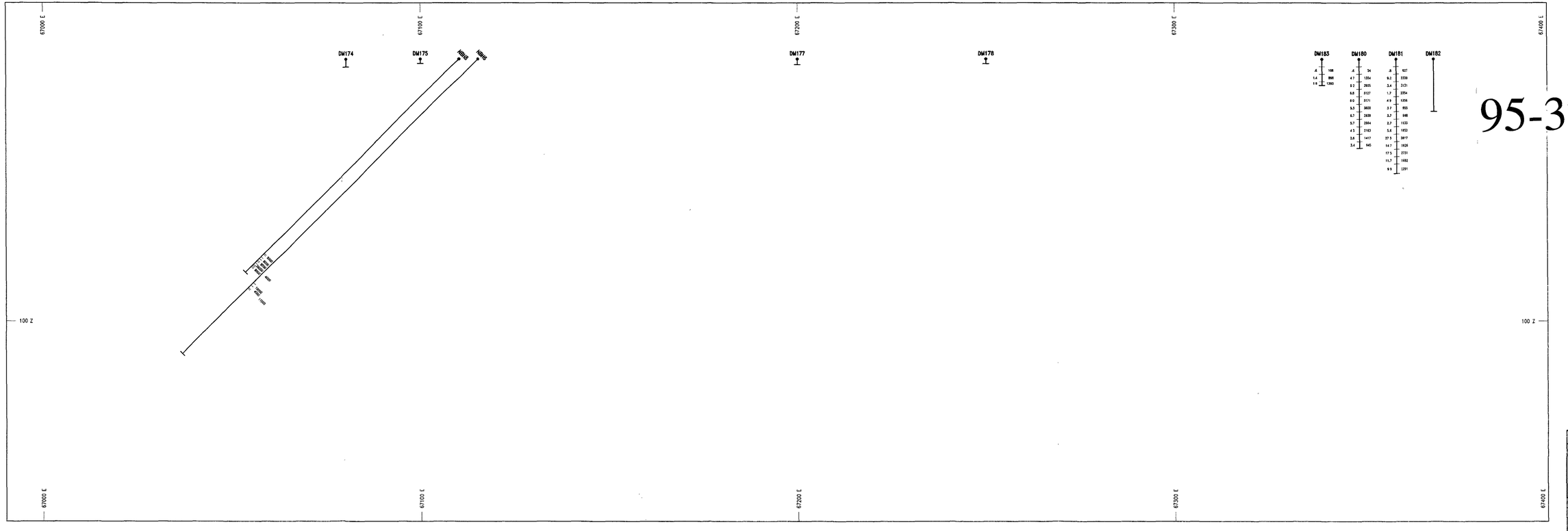
MT FRANKLAND EL 45/92

Mariposa Prospect

Section 58,950 North

Iron and Zinc Geochemistry

Ref.: Queenstown Sk 55-05	File: MtFrank\726
Scale: 1 : 500	Date: June 1994
Author: R.G. Parkinson	Report No.: **20789**
Drawn: R. Traviersa	Plan No.: Tv 726

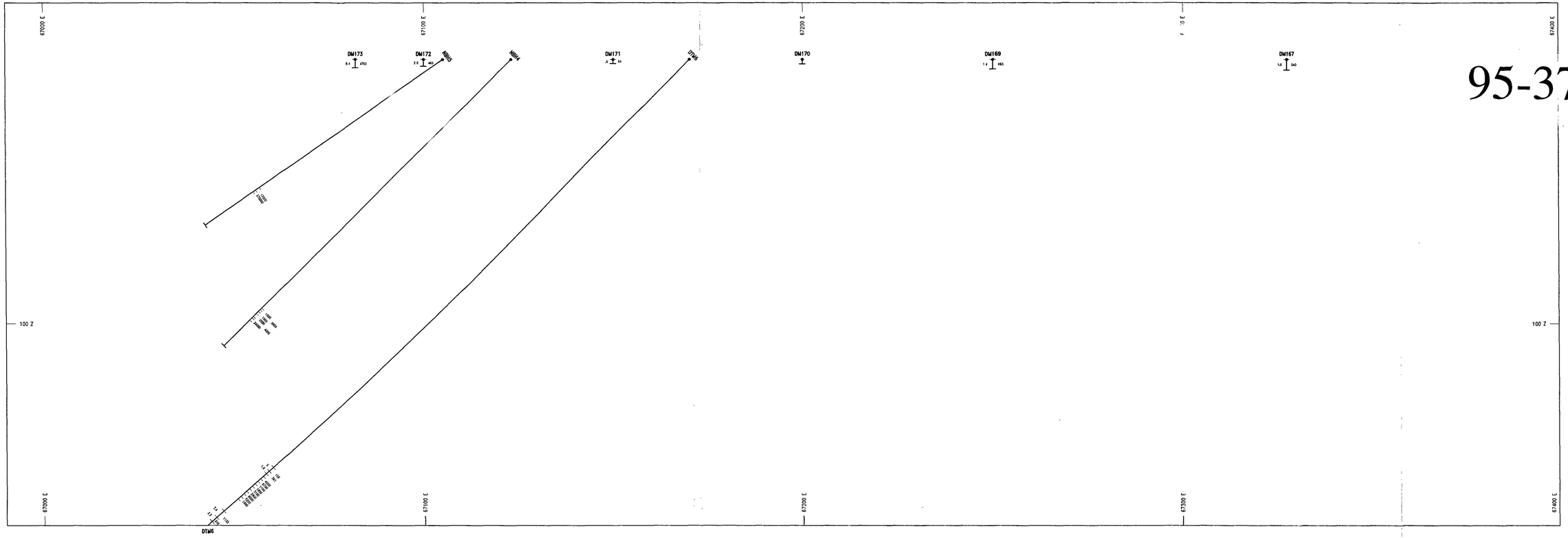


95-3722

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Mariposa Prospect
Section 59,000 North
Iron and Zinc Geochemistry

Ref.: Queenstown Sk 55-05	File: Dundas\727
Scale: 1 : 500	Date: June 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Travierso	Plan No.: Tv 727



95-3722

805223

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

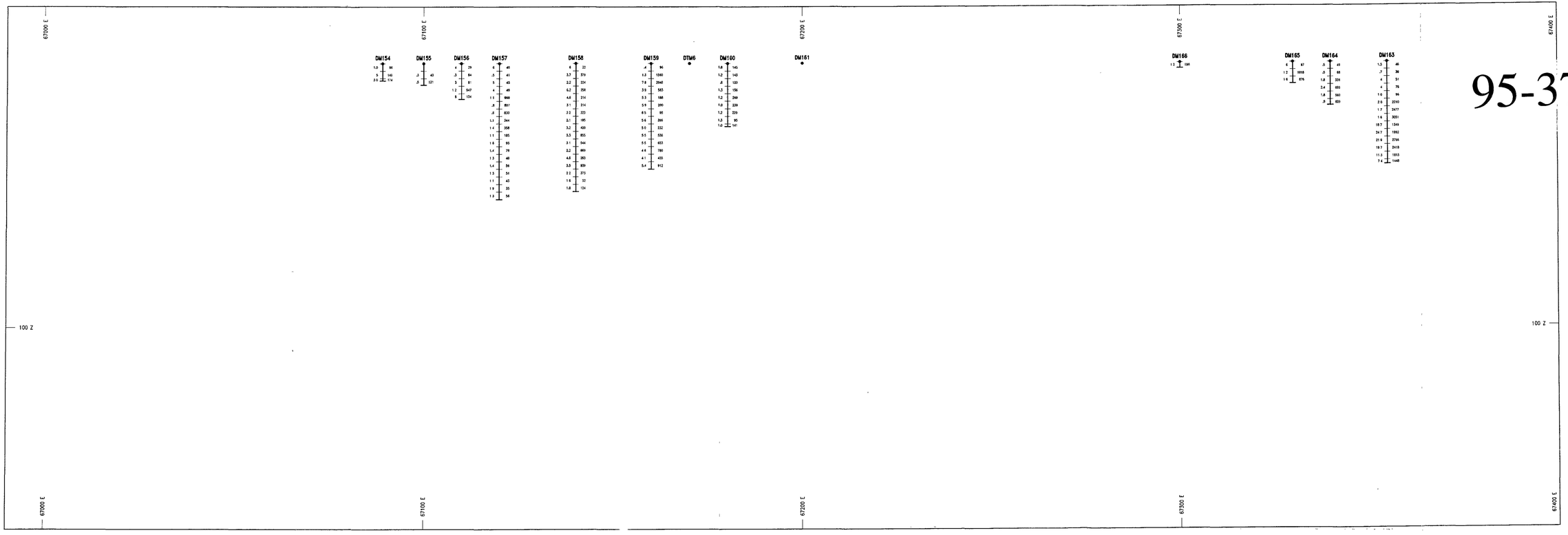
metres

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Mariposa Prospect
Section 59,050 North
Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\728
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Traviersa	Plan No.:	Tv 728

95-3722



805224

Drillhole Collar Location

DM10
1.8 100

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

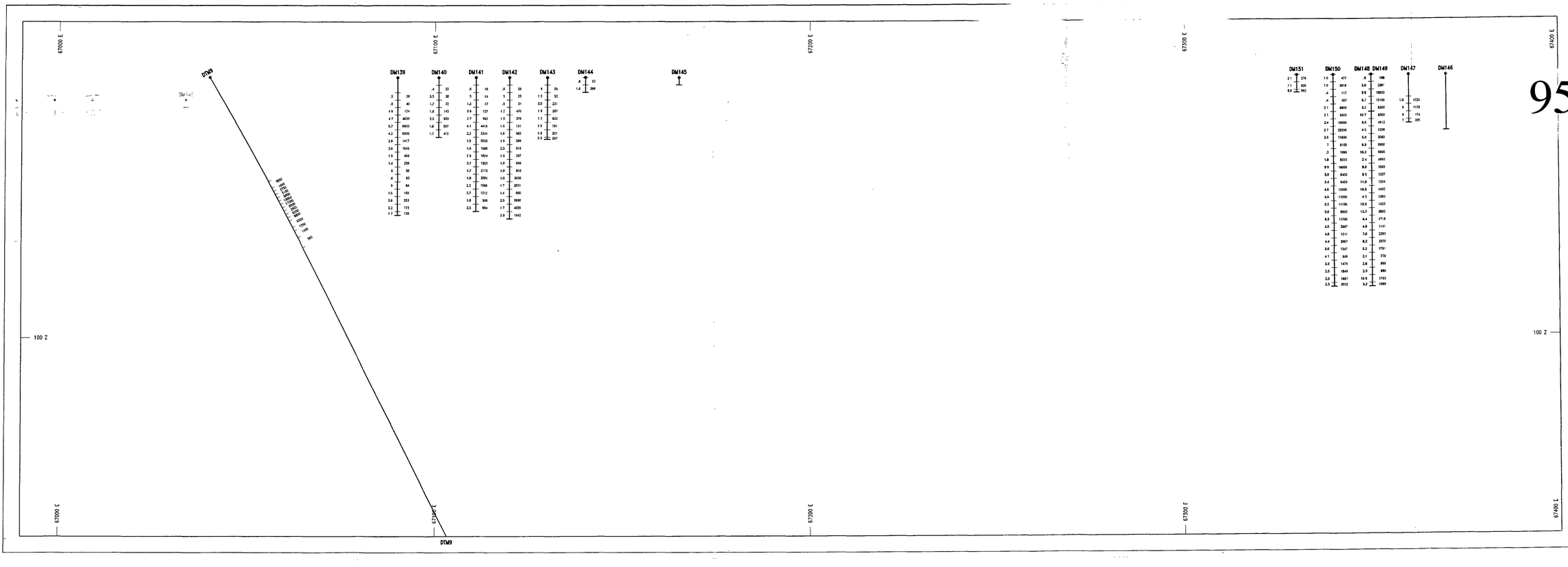
0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Mariposa Prospect
Section 59,100 North
Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\729
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Traviersa	Plan No.:	Tv 729



95-3722

805225

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

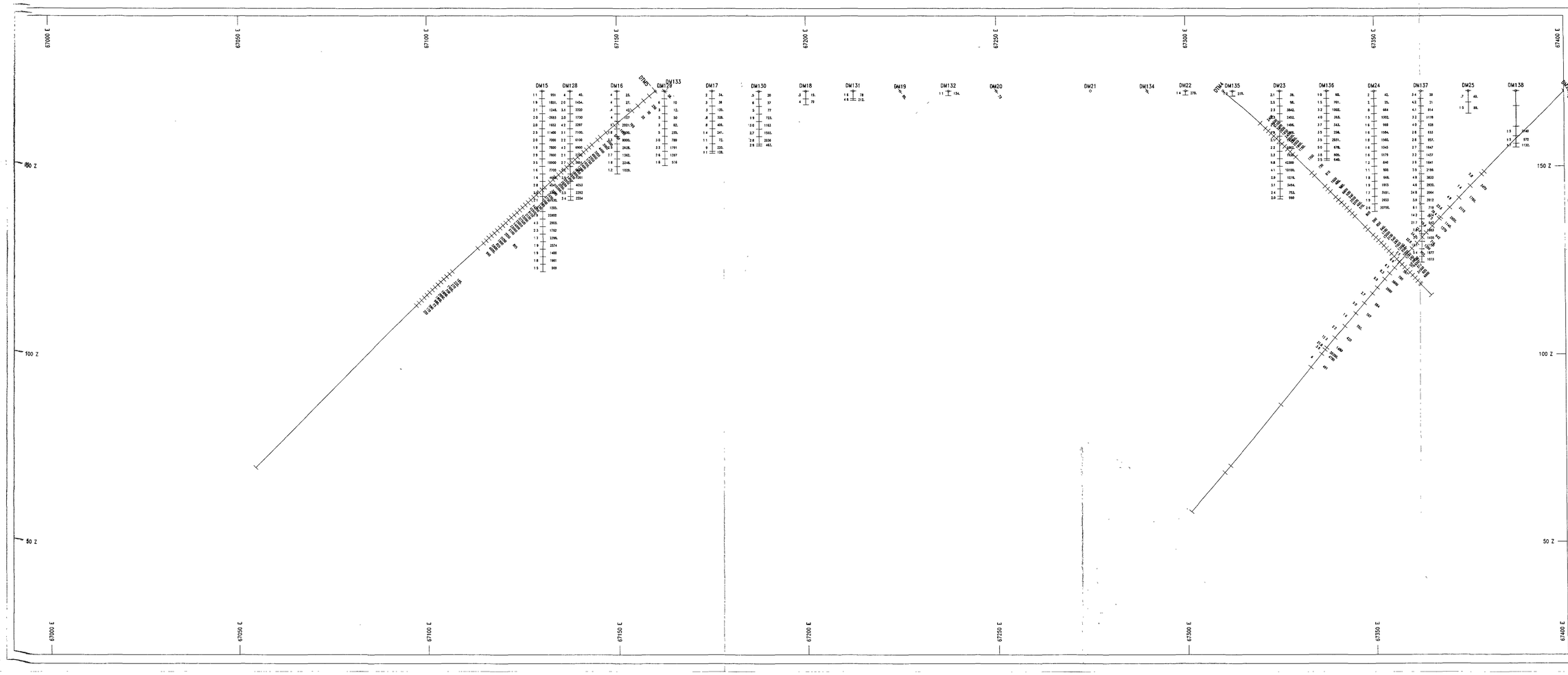
MT DUNDAS EL 45/92

Mariposa Prospect

Section 59,150 North

Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\730
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Travierso	Plan No.:	Tv 730



95-3722

Drillhole Collar Location

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

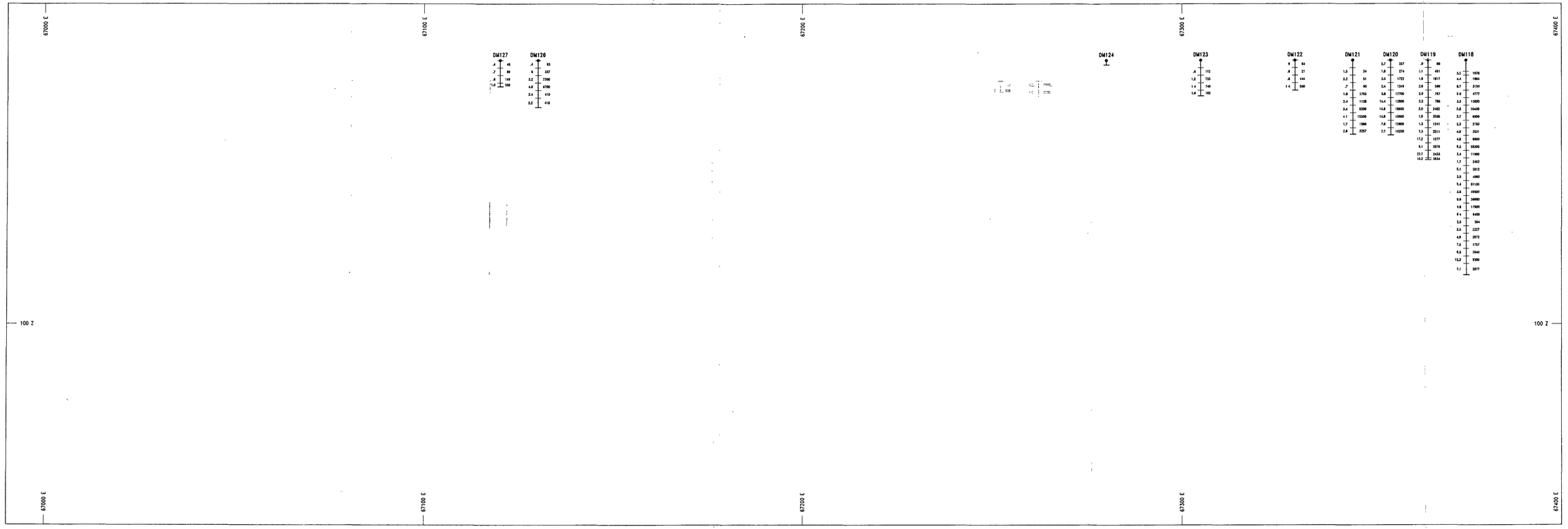
metres

805226

CRA EXPLORATION PTY. LIMITED

MT. DUNDAS EL 45/92
Mariposa Prospect
Section 59,200 North
Iron and Zinc Geochemistry

Ref.:	Queenstown sk 55-05	File:	Dundas\Tv731
Scale:	1 : 500	Date:	APR 95 (amended)
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	T. Sargeant	Plan No.:	Tv 731



95-3722

805227

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

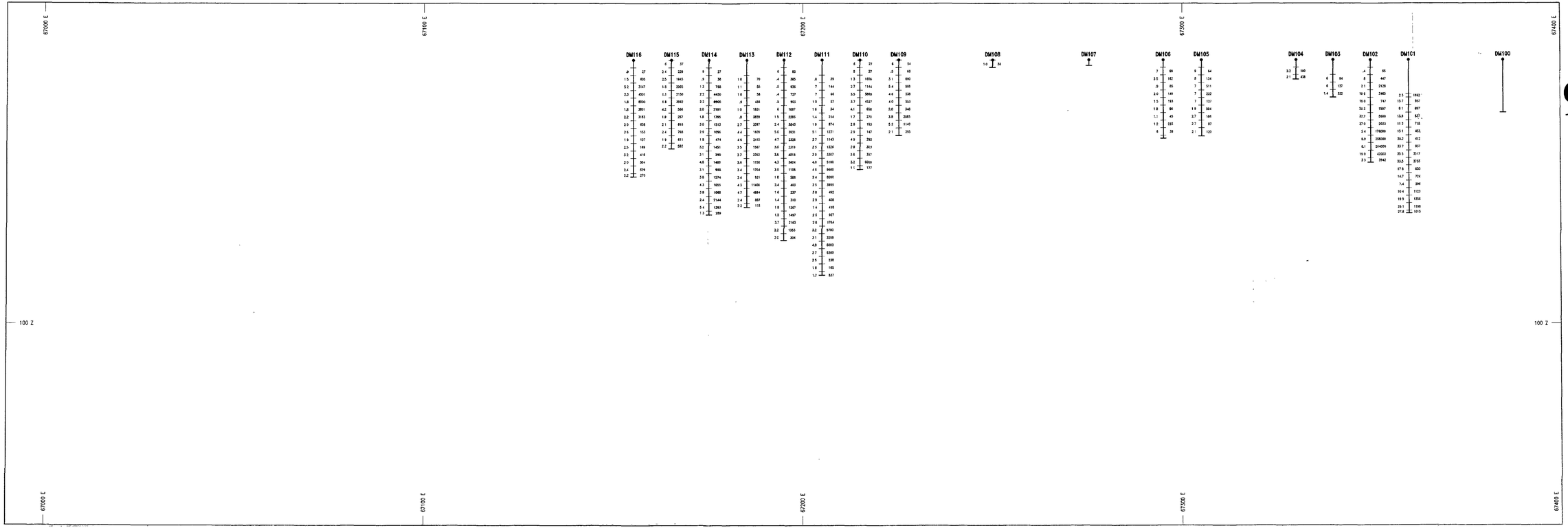
MT FRANKLAND EL 45/92

Mariposa Prospect

Section 59,250 North

Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	MtFrank\732
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Troviverso	Plan No.:	Tv 732



95-3722

805228

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

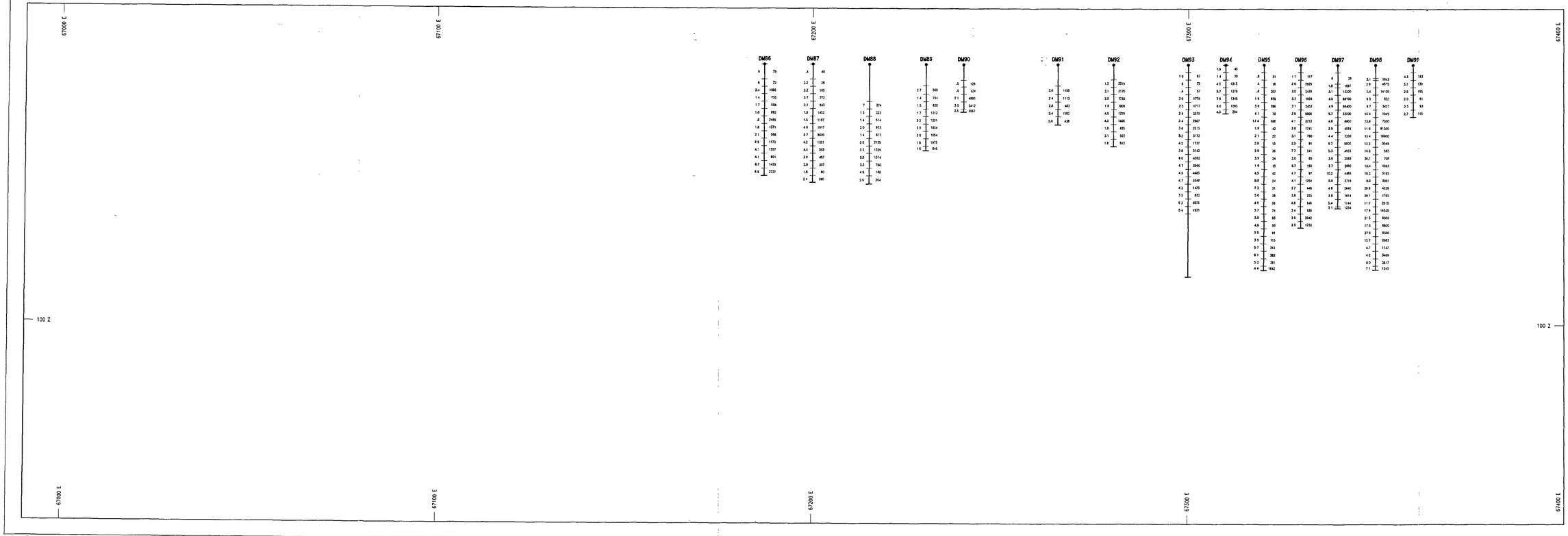
MT DUNDAS EL 45/92

Mariposa Prospect

Section 59,300 North

Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\733
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Travierso	Plan No.:	Tv 733



95-3722

805229

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

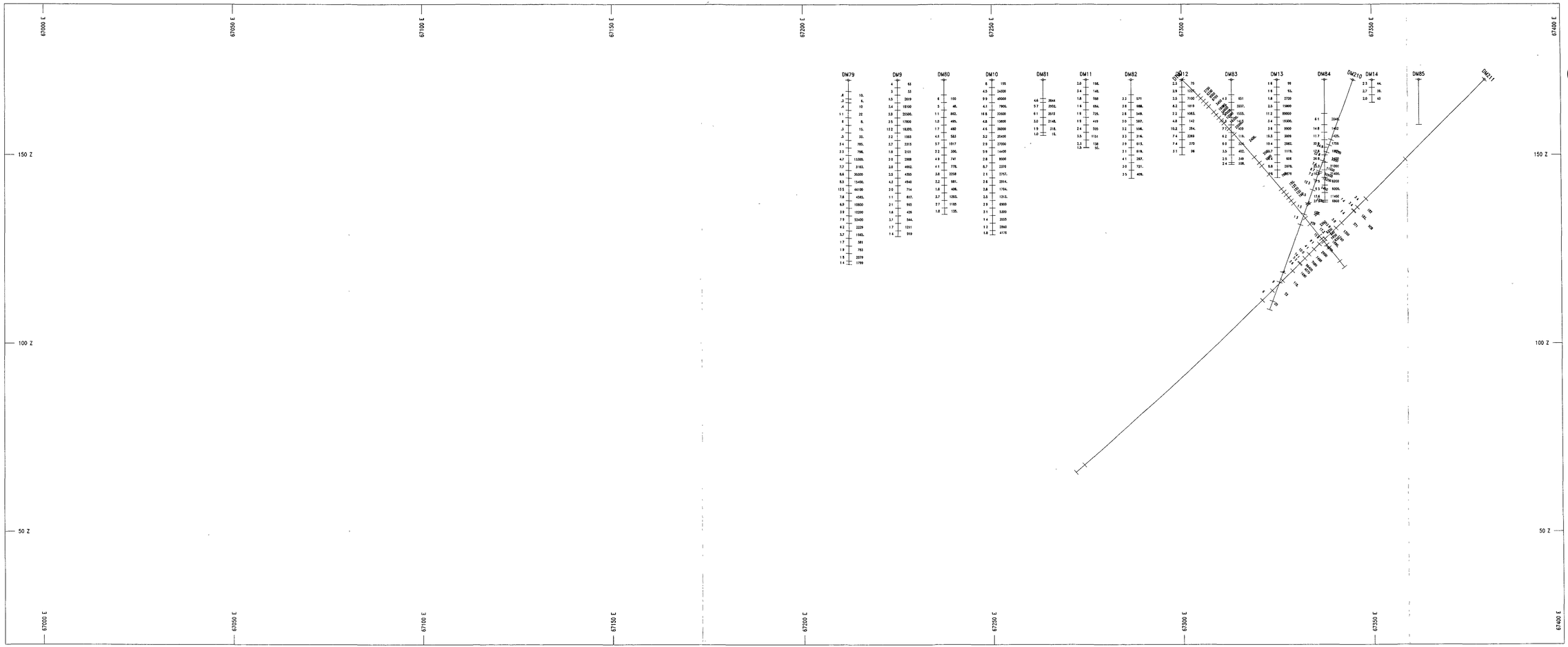
0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Mariposa Prospect
Section 59,350 North
Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\734
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Traviersо	Plan No.:	Tv 734



95-3722

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

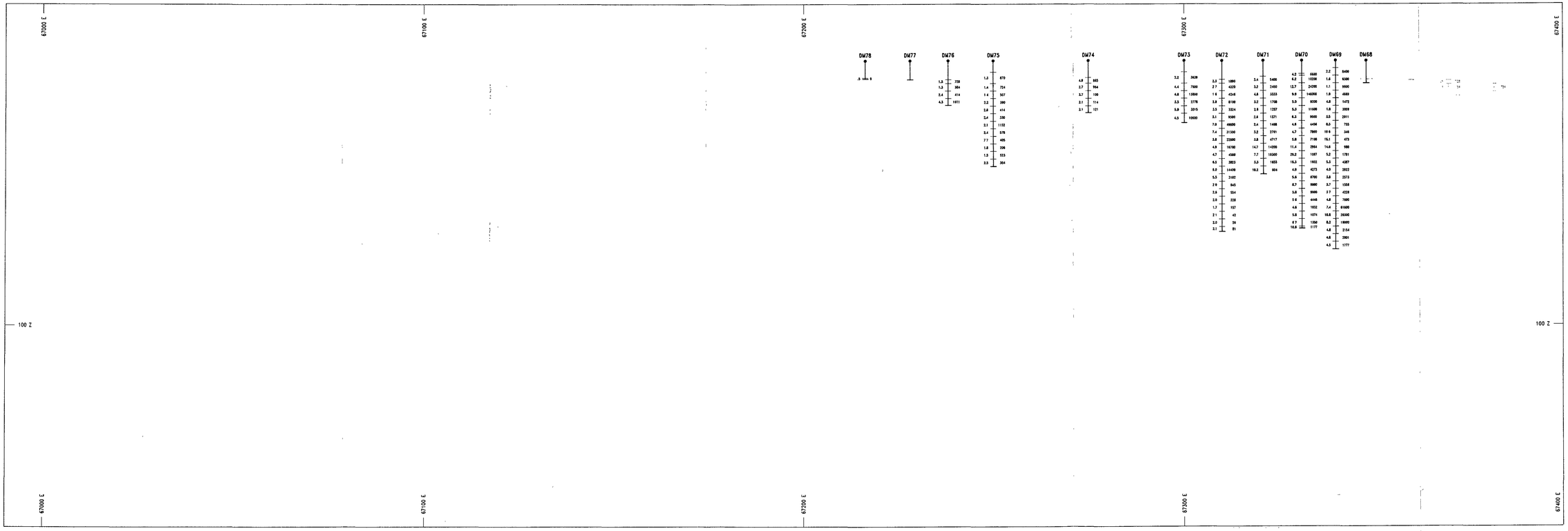
metres

805230

CRA EXPLORATION PTY. LIMITED

MT. DUNDAS EL 45/92
Mariposa Prospect
Section 59,400 North
Iron and Zinc Geochemistry

Ref.:	Queenstown sk 55-05	File:	Dundas\Tv735.dwg
Scale:	1 : 500	Date:	APR 95 (amended)
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	T. Sargeant	Plan No.:	Tv 735



95-3722

805231

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

MT FRANKLAND EL 45/92

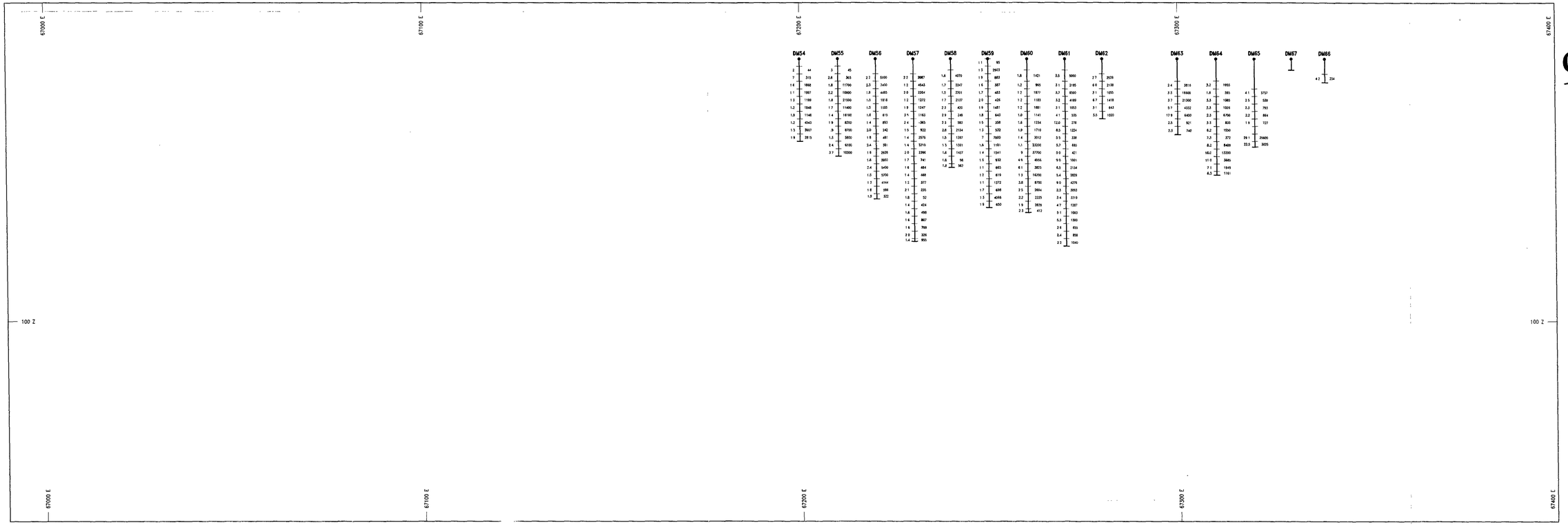
Mariposa Prospect

Section 59,450 North

Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	MtFrank\736
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Traviersa	Plan No.:	Tv 736

95-3722



805232

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

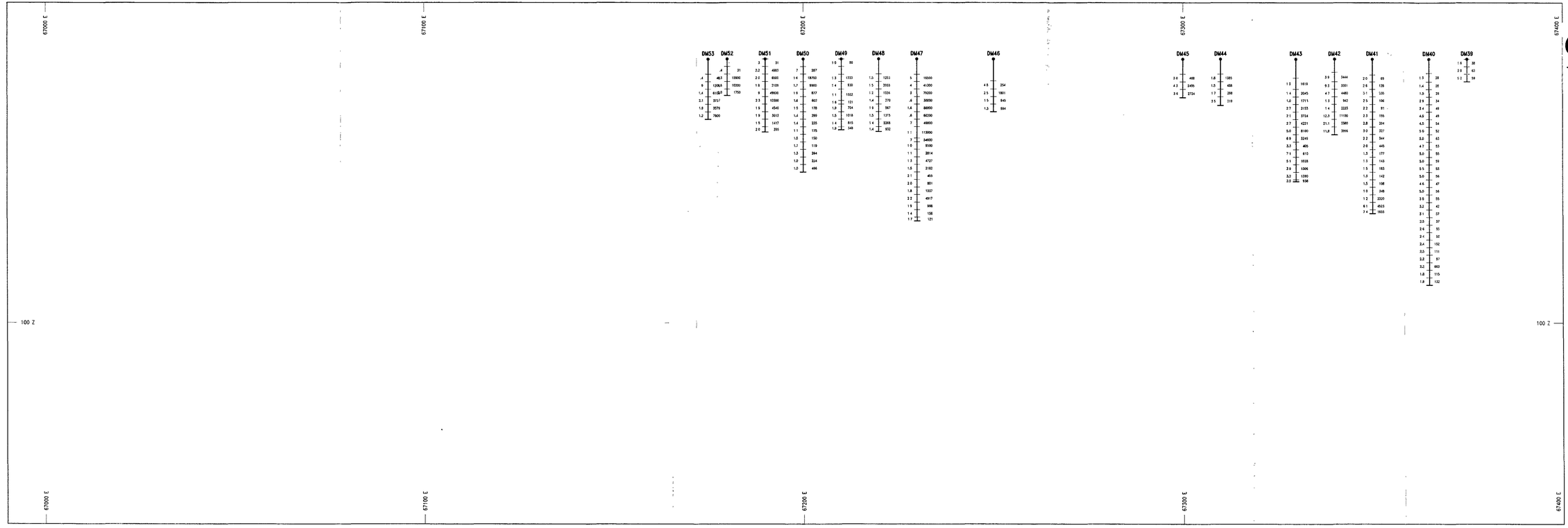
MT DUNDAS EL 45/92

Mariposa Prospect

Section 59,500 North

Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\737
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Travierso	Plan No.:	Tv 737



95-3722

805233

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

8 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92

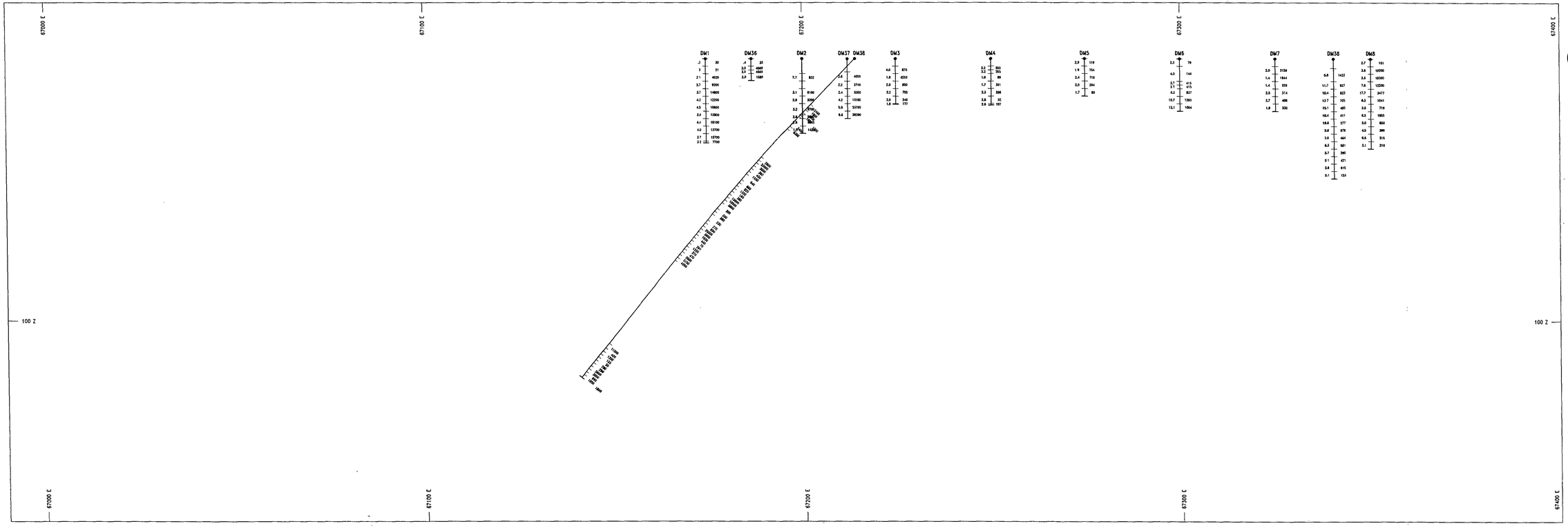
Mariposa Prospect

Section 59,550 North

Iron and Zinc Geochemistry

Ref.:	Queenstown Sk 55-05	File:	Dundas\738
Scale:	1 : 500	Date:	June 1994
Author:	R.G. Parkinson	Report No.:	20789
Drawn:	R. Travierso	Plan No.:	Tv 738

95-3722



805234

Drillhole Collar Location

DM10

Iron Geochemistry results in %

Zinc Geochemistry results in ppm

5 cm

0 10 20 30 40

metres

CRA EXPLORATION PTY. LIMITED

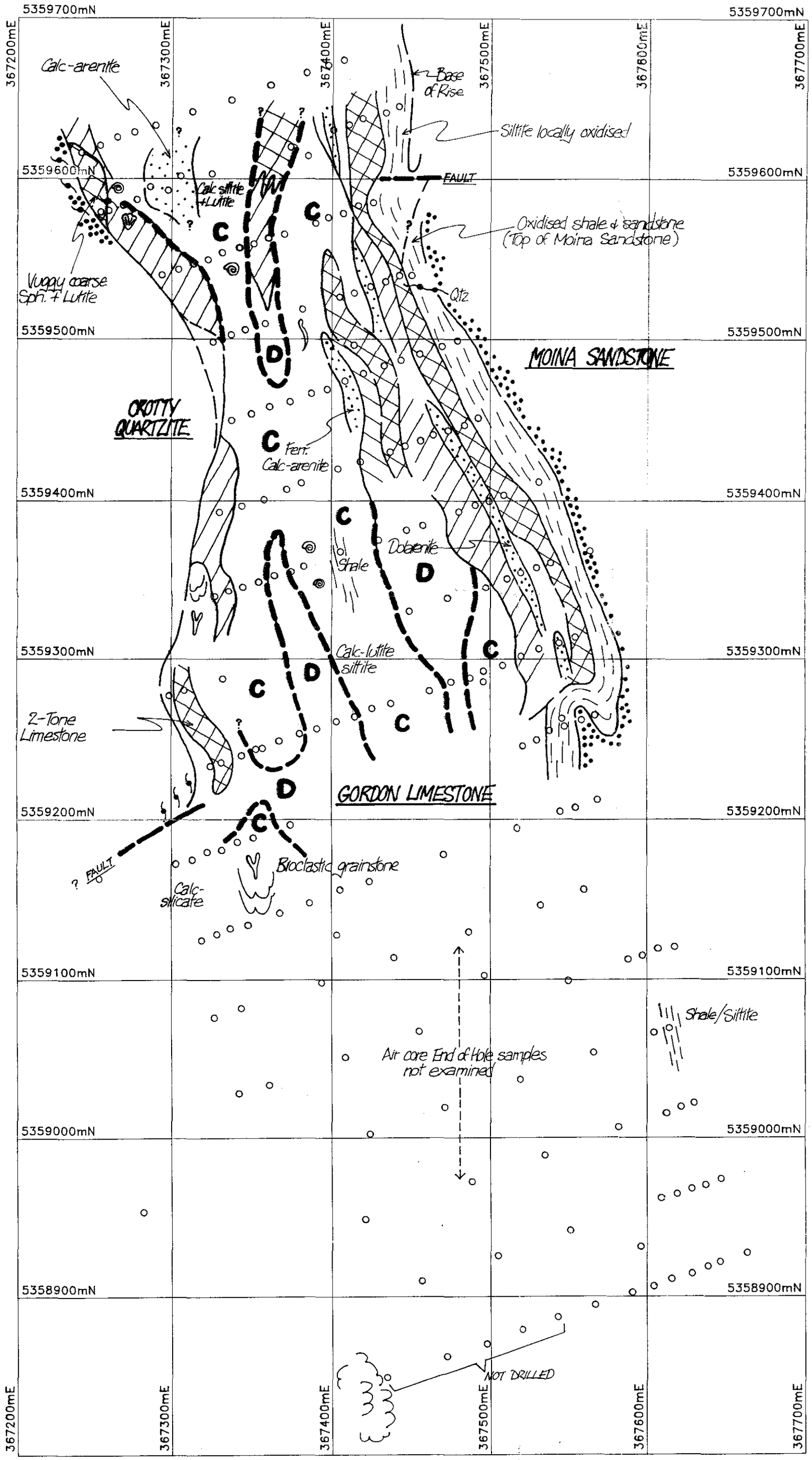
MT FRANKLAND EL 45/92

Mariposa Prospect

Section 59,600 North

Iron and Zinc Geochemistry

Ref.: Queenstown Sk 55-05	File: MtFrank\739
Scale: 1 : 500	Date: June 1994
Author: R.G. Parkinson	Report No.: **20789**
Drawn: R. Traviorso	Plan No.: Tv 739



LEGEND

- Aircore drillhole
- Calcareous Limestone
- Dolomitic / Non-calcareous Limestone
- Fossil
- Bioturbation
- Vein (Quartz / Carbonate)
- Weak - moderate alteration (Ankerite)
- Moderate - strong alteration (Ank + Siderite)

805237

95-3722

AMG NORTH

5 cm

50 0 50 100 150m

CRA EXPLORATION PTY LIMITED

MARIPOSA PROSPECT

GEOLOGY

INTERPRETED FROM END OF HOLE AIR CORE SAMPLES

AUTHOR	DRAWN	DATE	SCALE	REPORT
T.Moody	C.Scullard	5/10/94	1:2500	**20789**
REF. Queenstown SK55–05		SUB–DIR	PLAN No. (file)	Tv866

95-3722

5 358 400mN
5 358 200mN
5 358 000mN
5 357 800mN
5 357 600mN
5 357 400mN
5 357 200mN
5 357 000mN
5 356 800mN
5 356 600mN
5 356 400mN
5 356 200mN
5 356 000mN

365 600mE
365 800mE
366 000mE
366 200mE
366 400mE
366 600mE
366 800mE

F
POSSIBLE THRUST ?
F?
POSSIBLE THRUST ?
Dundas River

Db
Db?
Sc
Sc?
Og
Om
Oo
Ed
Sk
Sa

DTSC1
DTSC2
DTSC3
DTSC4
DTB1,1A

15 (Sc?)

Sunny Corner Bannockburn Grid
66000E = 366435E
57300N = 5357245N
Grid=AMGN

beds overturned in this area
overturned beds

AMG North
Mag. North

NOTE :
Mapping by Amoco (TCR 85-2457)
MRT (Zeehan 1 : 50,000 sheet)
CRAE (photointerpretation & air-core drilling)

Db	Devonian Bell Shale
Sk	Silurian Keel Quartzite
Sa	Amber Slate
Sc	Crotty Quartzite
Og	Ordovician Gordon Limestone
Om	Maina Sandstone
Oo	Owen Conglomerate
€d	Cambrian Dundas Group

F Thrust fault
Dip of bedding / foliation
Lithological boundary (approx.)
Creeks
Tracks
Tramway
+DTSC1 Aircore and Diamond Drillhole
Rockchip or Wacker Bedrock Sample <0.1% Zn
Rockchip or Wacker Bedrock Sample >0.1% Zn

5 cm

0 50 100 150 200
metres

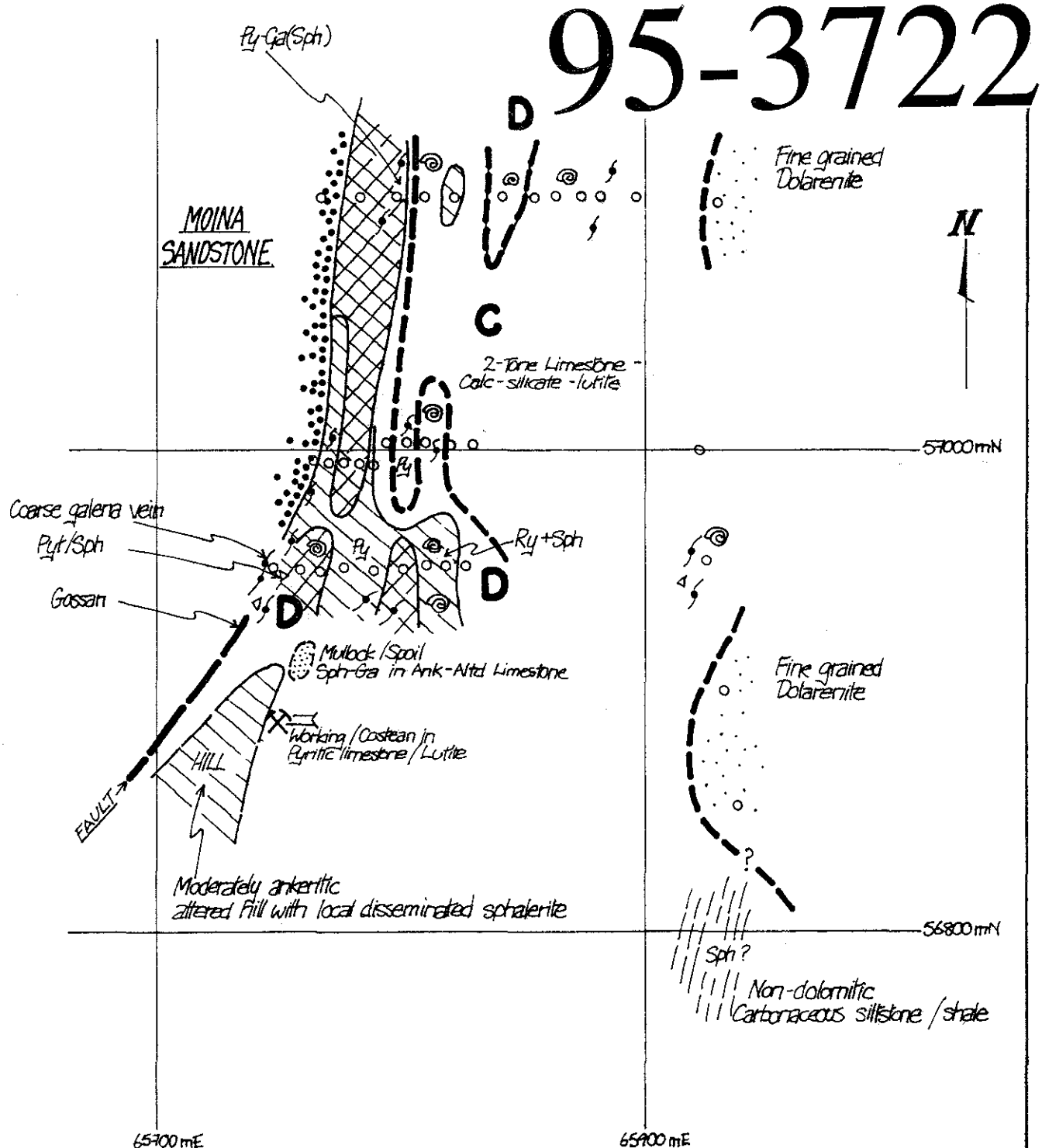
CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/82
Sunny Corner - Bannockburn Prospect
Drillhole Location Plan

Ref.: SK 55-05	File: Tv716r
Scale: 1 : 2,500	Date: February 1995
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Traviersa	Plan No.: Tv 716

8052235

95-3722



LEGEND

- Drillhole
- Working
- C Calcareous
- D Dolomitic / Non-Calcareous
- Py,Ga,Sp Pyrite, Galena, Sphalerite
- Fossil (Mollusc/Gastropod)
- Breccia, veining
- Weak-mod. altered (Ankerite)
- Mod-strongly altered (Ank.+Siderite)

805230

5 cm

CRA EXPLORATION PTY LIMITED

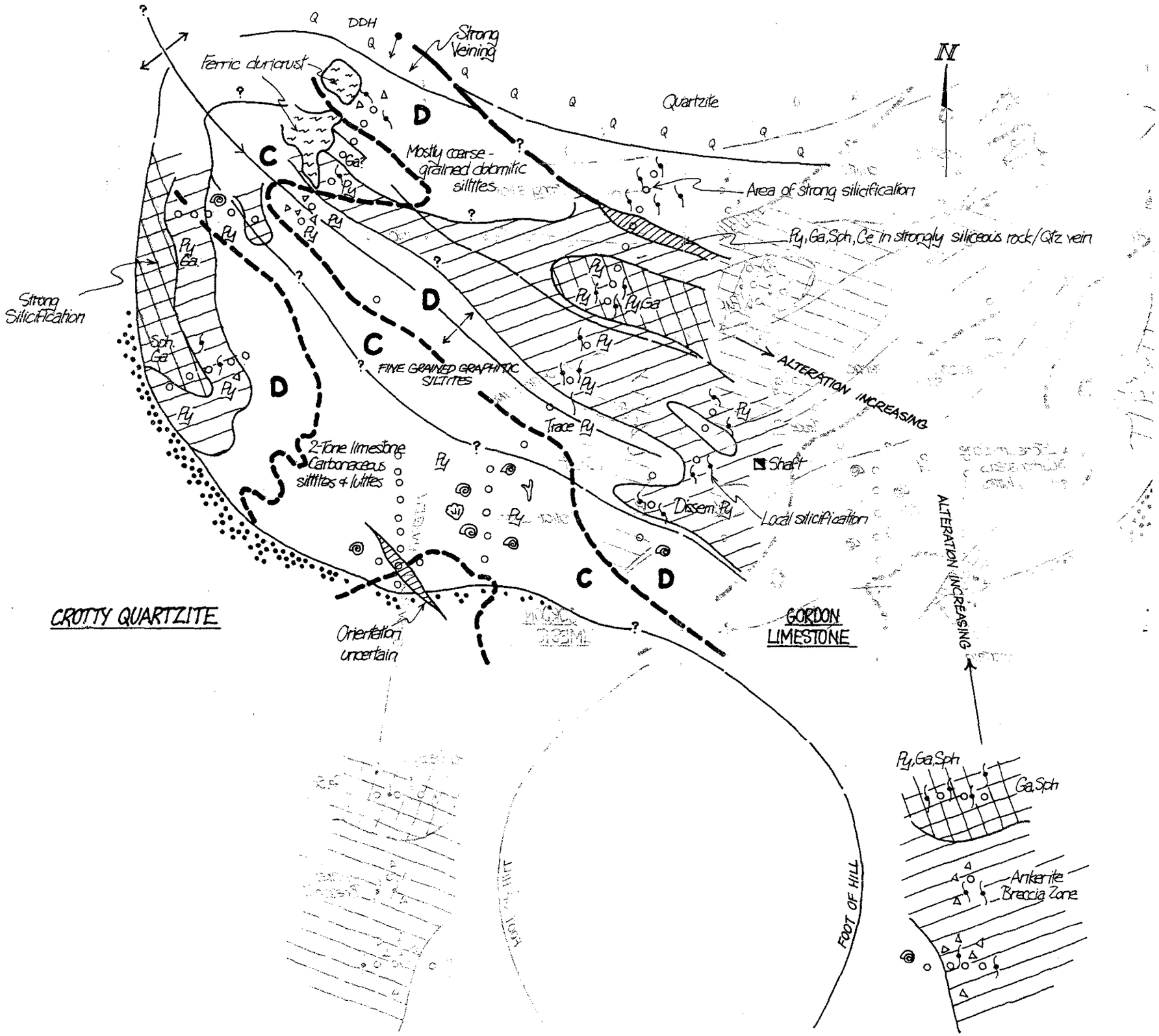
ZEEHAN-TASMANIA

BANNOCKBURN PROSPECT

GEOLOGY
INTERPRETED FROM END OF HOLE
AIR CORE SAMPLES

AUTHOR	DRAWN	DATE	SCALE	REPORT
T.Moody	C.Scullard	4/10/94	1:2500	20789
REF: Queenstown SK55-05			PLAN No:	Tv865

95-3722



LEGEND

- Aircore drillhole
- Calcareous Limestone
- Dolomitic / Non-calcareous Limestone
- Fossil
- Breccia, Vein (Qtz/Carbonate)
- Fault / Massive vein
- Weak - moderate alteration - fine-grained pervasive ankerite / ankerite veining. Minor Py, saddle dolomite veins / voids. Minor Sph. & galena
- Moderate - intense alteration - fine - coarse. Pervasive Ankerite - siderite alteration & veining. Where most intense: complete limestone replacement by Ankerite, Siderite, Ga, Sph, + local limestone decomposition

805238

5 cm

CRA EXPLORATION PTY LIMITED

ZEEHAN-TASMANIA

SUNNY CORNER PROSPECT

GEOLOGY
INTERPRETED FROM END OF HOLE
AIR CORE SAMPLES

AUTHOR	DRAWN	DATE	SCALE	REPORT
T.Moody	C.Scullard	4/10/94	1:2500.	20789

REF: Queenstown SK55-05 | PLAN No: Tv867

LEGEND

- Watercourse
- Track
- Main Road
- F------ Faults (approximate, inferred)
- Lithological boundaries (approximate)
- Dip/Strata of bedding
- Dip/Strata of cleavage
- Sa Silurian Amber Slate
- Sc Crotty Quartzite
- Og Ordovician Gordon Limestone
- Om Moina Sandstone
- Oo Owen Conglomerate
- Ed Cambrian Dundas Group
- Wacker Bedrock Sample Locations
- Drillhole Locations

AMG North
Mag North
12°

0 50 100 150 200
metres

5 cm

5362000 mN
5361000 mN
5360000 mN
366000 mE
367000 mE

67250 E
62000 N

67250 E
60800 N

67250 E
60000 N

BLACKJACKS GRID
= AMG 366635 E
5360588 N
N END GRID N = 344° AMG
S END GRID N = 319° AMG

ZEEHAN HIGHWAY
FIREBREAK
Sandy Corner Trail Access Trail
To Sandy Corner
Drainage Channel
DUNDAS RIVER

805239
95-3722

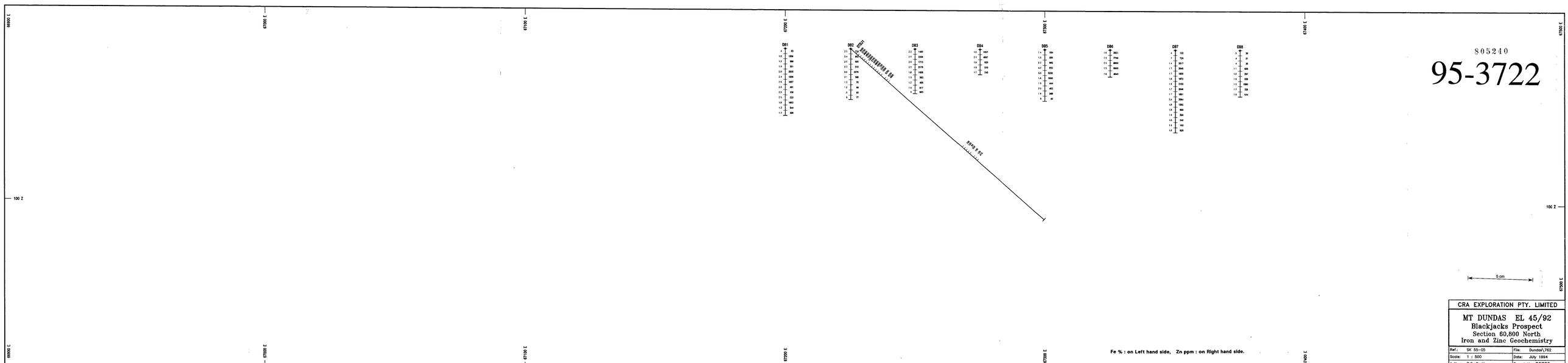
CRA EXPLORATION PTY. LIMITED

EL 45/92
MOUNT DUNDAS PROSPECT
Geology and Drill Hole Location Plan

Ref.: – SK55-5	File: DUNDAS\Tv936.dwg
Scale: 1:2500	Date: APR '95
Author: R. G. Parkinson	Report No.: 20789
Drawn: T. Sargeant	Plan No.: Tv 936

805240

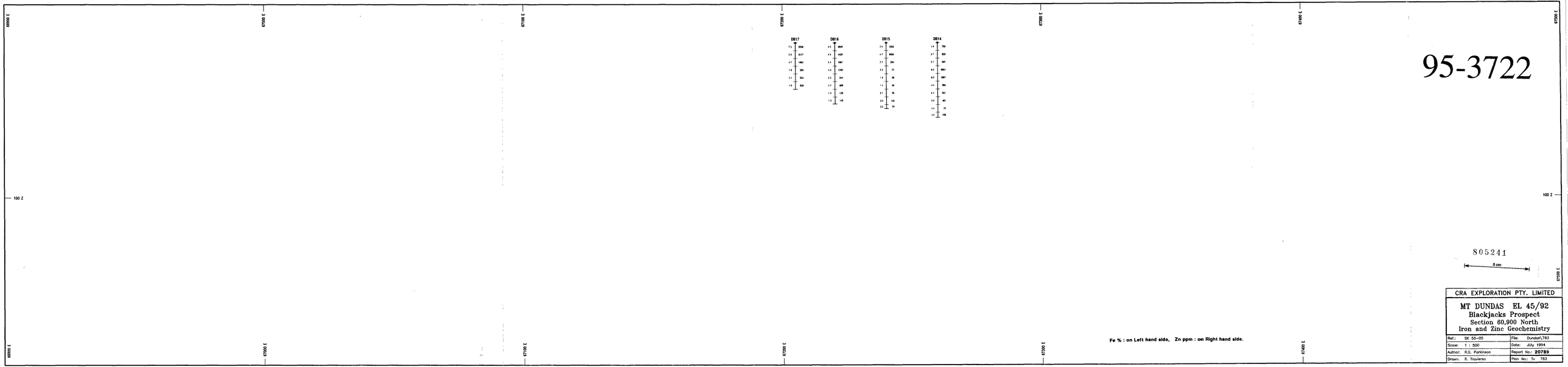
95-3722



Fe % : on Left hand side, Zn ppm : on Right hand side.

CRA EXPLORATION PTY. LIMITED	
MT DUNDAS EL 45/92 Blackjacks Prospect Section 60,800 North Iron and Zinc Geochemistry	
Ref.: SK 55-05	File: Dundas\762
Scale: 1 : 500	Date: July 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Traverso	Plan No.: Tv 762

95-3722



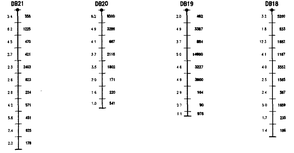
Fe % : on Left hand side, Zn ppm : on Right hand side.

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 60,900 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Dundas\763
Scale: 1 : 500	Date: July 1994
Author: R.G. Perkinson	Report No.: **20789**
Drawn: R. Trovierso	Plan No.: Tv 763

95-3722



805242

5 cm

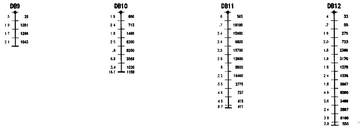
Fe % : on Left hand side, Zn ppm : on Right hand side.

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 60,950 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeehan\764
Scale: 1 : 500	Date: July 1994
Author: R.G. Perkinson	Report No.: 20789
Drawn: R. Traviersa	Plan No.: Tv 764

95-3722



805243

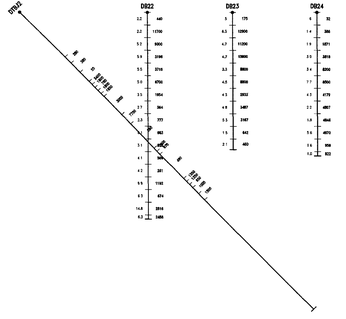
5 cm

Fe % : on Left hand side, Zn ppm : on Right hand side.

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 61,000 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeehan\765
Scale: 1 : 500	Date: July 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Trovierso	Plan No.: Tv 765



Fe % : on Left hand side, Zn ppm : on Right hand side.

805244

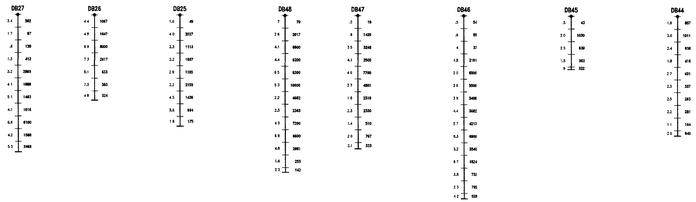
5 cm

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 61,050 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeehon\766
Scale: 1 : 500	Date: July 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Trovierso	Plan No.: Tv 766

95-3722



Fe % : on Left hand side, Zn ppm : on Right hand side.

5 cm

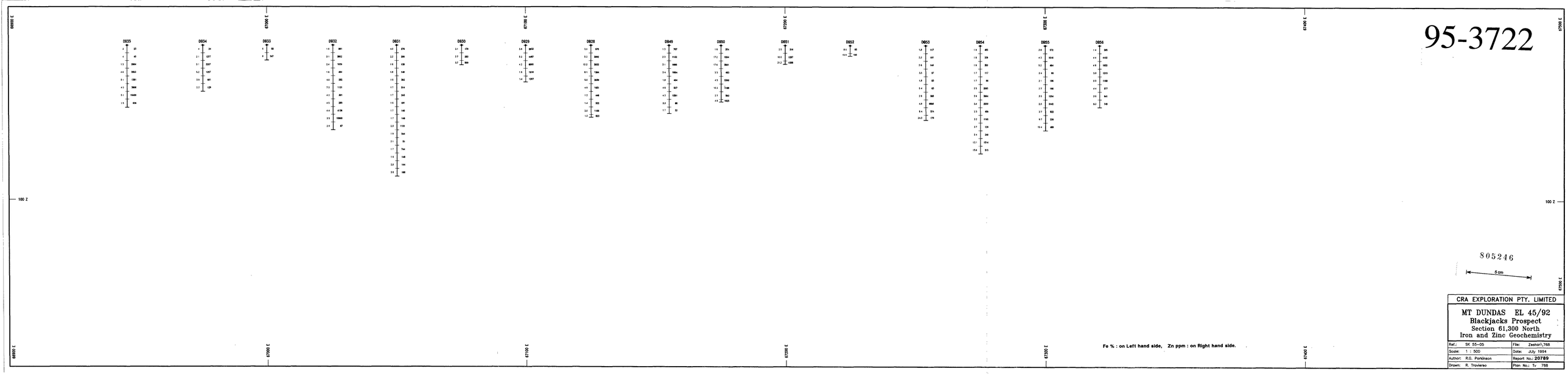
805245

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 61,100 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeetron\767
Scale: 1 : 500	Date: July 1994
Author: R.G. Perkinson	Report No.: 20789
Drawn: R. Trovierso	Plan No.: Tv 767

95-3722



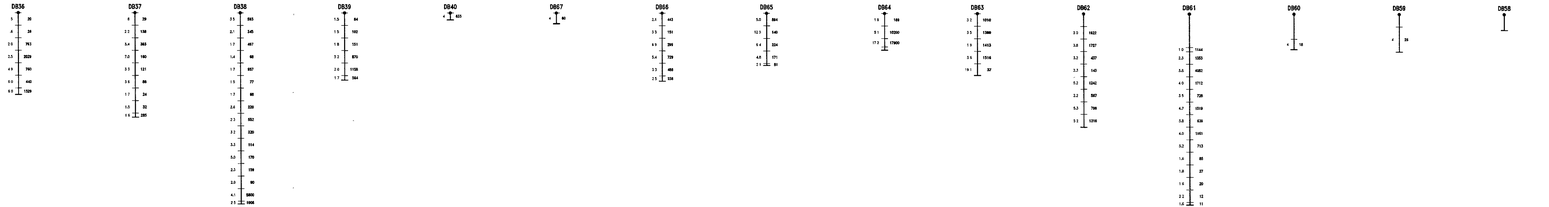
Fe % : on Left hand side, Zn ppm : on Right hand side.

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 61,300 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeshan\768
Scale: 1 : 500	Date: July 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Traversso	Plan No.: Tv 768

95-3722



Fe % : on Left hand side, Zn ppm : on Right hand side.

S05247

5 cm

CRA EXPLORATION PTY. LIMITED	
MT DUNDAS EL 45/92 Blackjacks Prospect Section 61,500 North Iron and Zinc Geochemistry	
Ref.: SK 55-05	File: Zeehan\769
Scale: 1 : 500	Date: July 1994
Author: R.G. Perkinson	Report No.: 20789
Drawn: R. Trovierso	Plan No.: Tv 769

95-3722

Fe % : on Left hand side, Zn ppm : on Right hand side.

805248

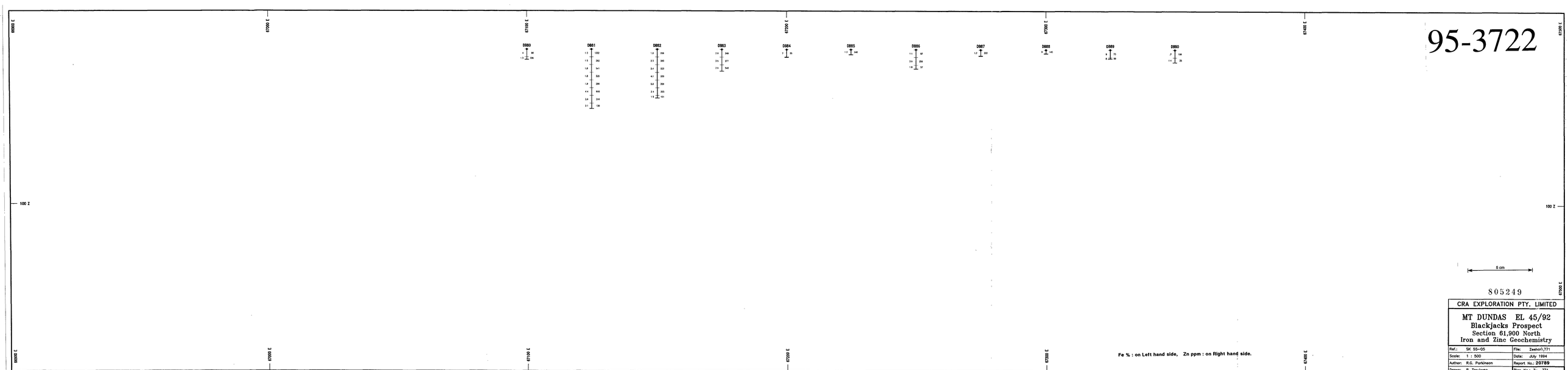
5 cm

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 61,700 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeehan\770
Scale: 1 : 500	Date: July 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Travieraa	Plan No.: Tv 770

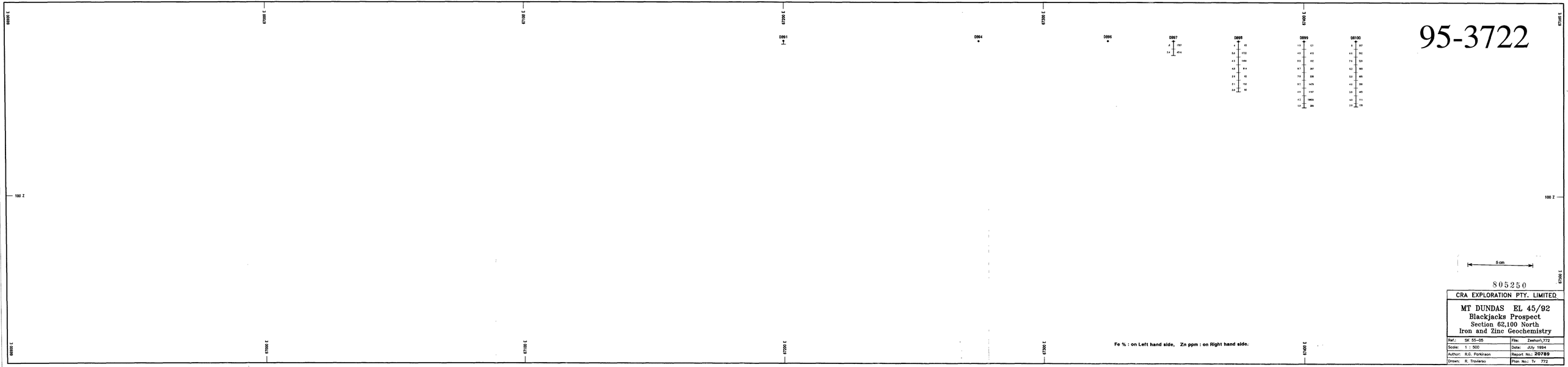
95-3722



5 cm

805249

CRA EXPLORATION PTY. LIMITED	
MT DUNDAS EL 45/92 Blackjacks Prospect Section 61,900 North Iron and Zinc Geochemistry	
Ref.: SK 55-05	File: Zeehan\771
Scale: 1 : 500	Date: July 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Traviersa	Plan No.: Tv 771



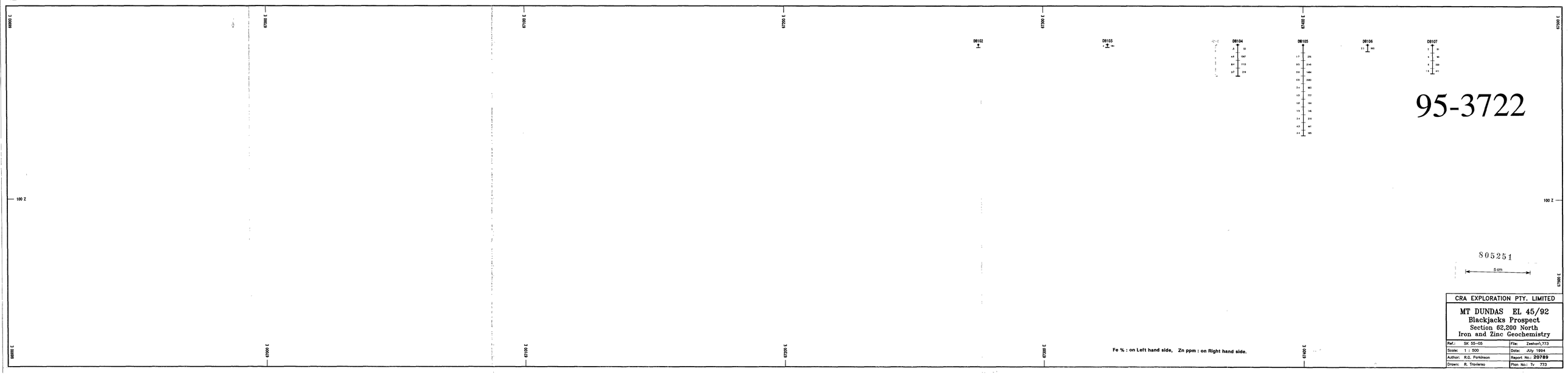
95-3722

805250

CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 62,100 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeehan\772
Scale: 1 : 500	Date: July 1994
Author: R.G. Parkinson	Report No.: 20789
Drawn: R. Trovierso	Plan No.: Tv 772

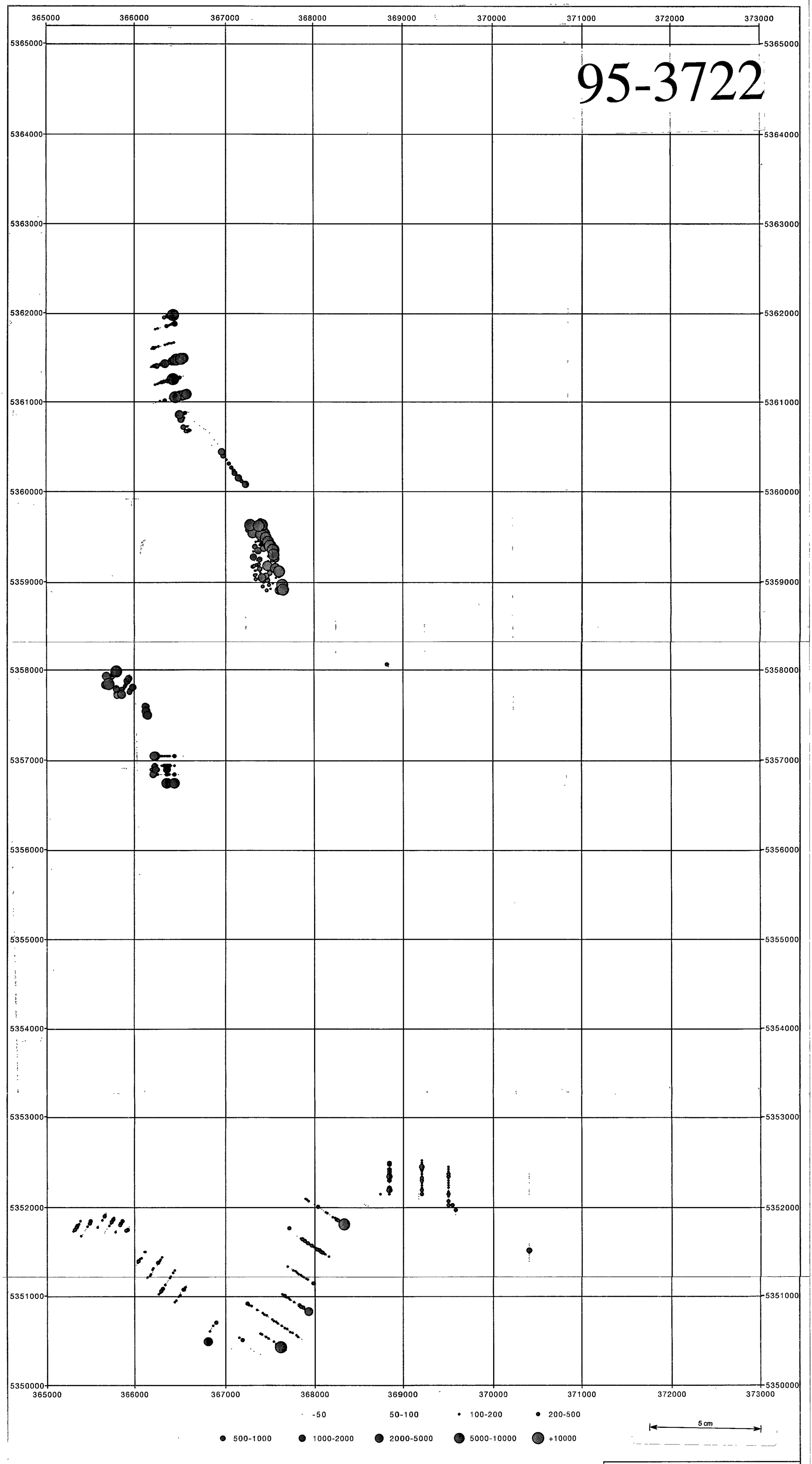


CRA EXPLORATION PTY. LIMITED

MT DUNDAS EL 45/92
Blackjacks Prospect
Section 62,200 North
Iron and Zinc Geochemistry

Ref.: SK 55-05	File: Zeehan\773
Scale: 1 : 500	Date: July 1994
Author: R.G. Perkinson	Report No.: 20789
Drawn: R. Travieraso	Plan No.: Tv 773

95-3722



805253

CRAE and competitor data

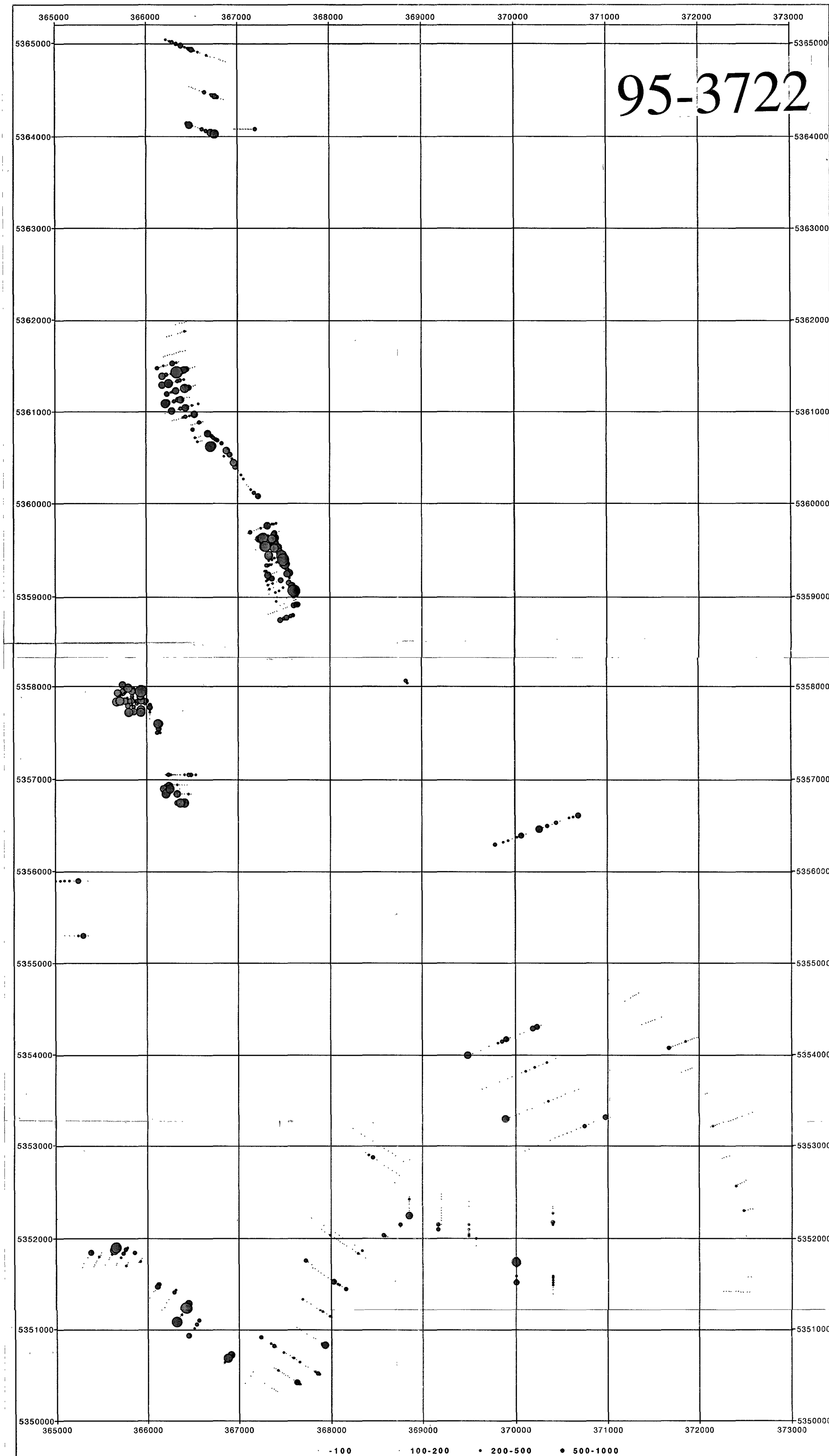
jmap 100m

CRA Exploration Pty Limited

MOUNT DUNDAS EL45/92

BEDROCK GEOCHEMISTRY - Mn ppm

Geol: RGP	Scale: 1:25000	Report: 20789
Drawn: RGP	Date: 4/4/1995	Plan: Tv 932



CRAE and competitor data

jmap 100m

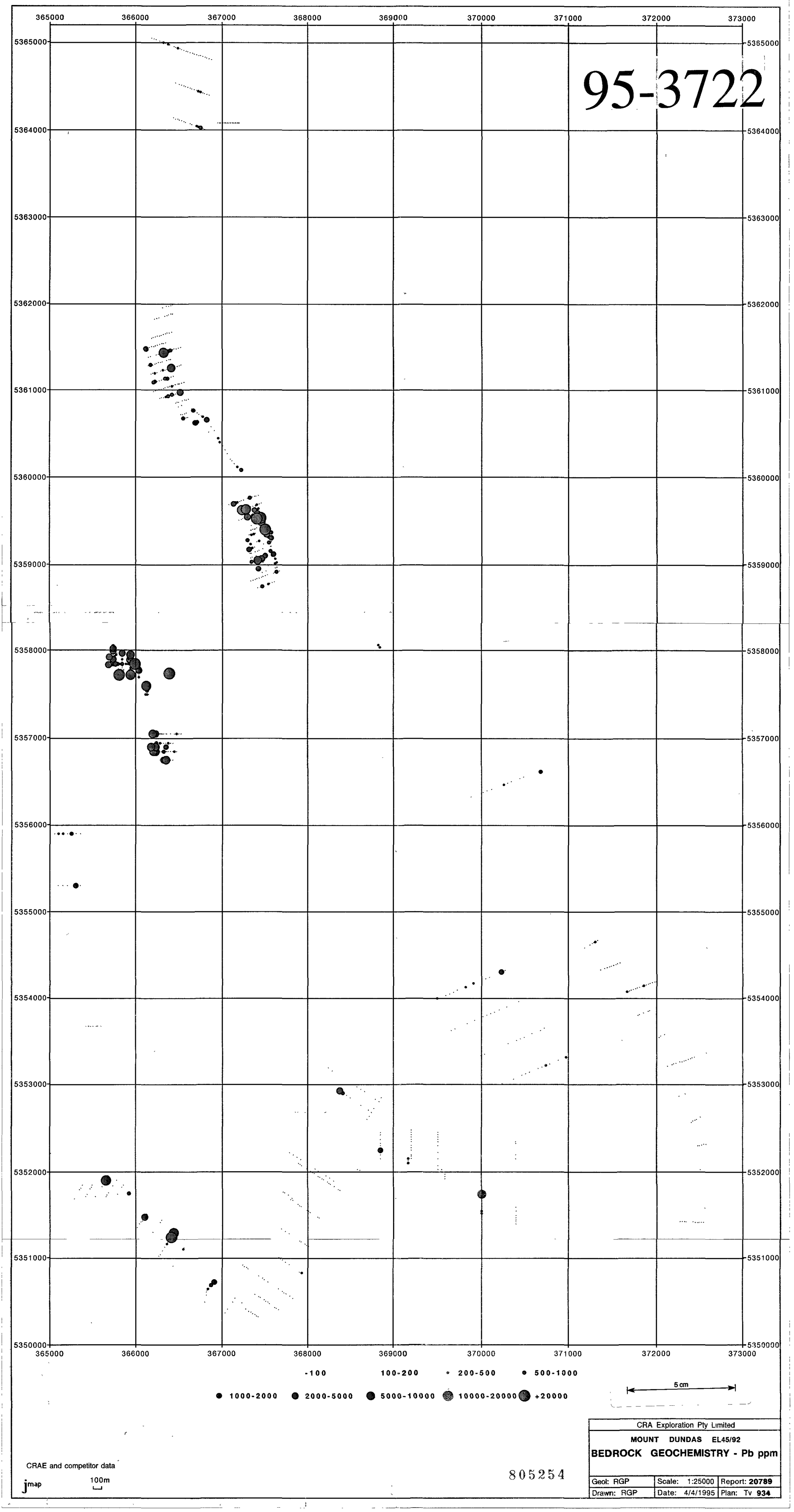
805252

CRA Exploration Pty Limited

MOUNT DUNDAS EL45/92

BEDROCK GEOCHEMISTRY - Zn ppm

Geol: RGP	Scale: 1:25000	Report: **20789**
Drawn: RGP	Date: 4/4/1995	Plan: Tv **933**


95-3722
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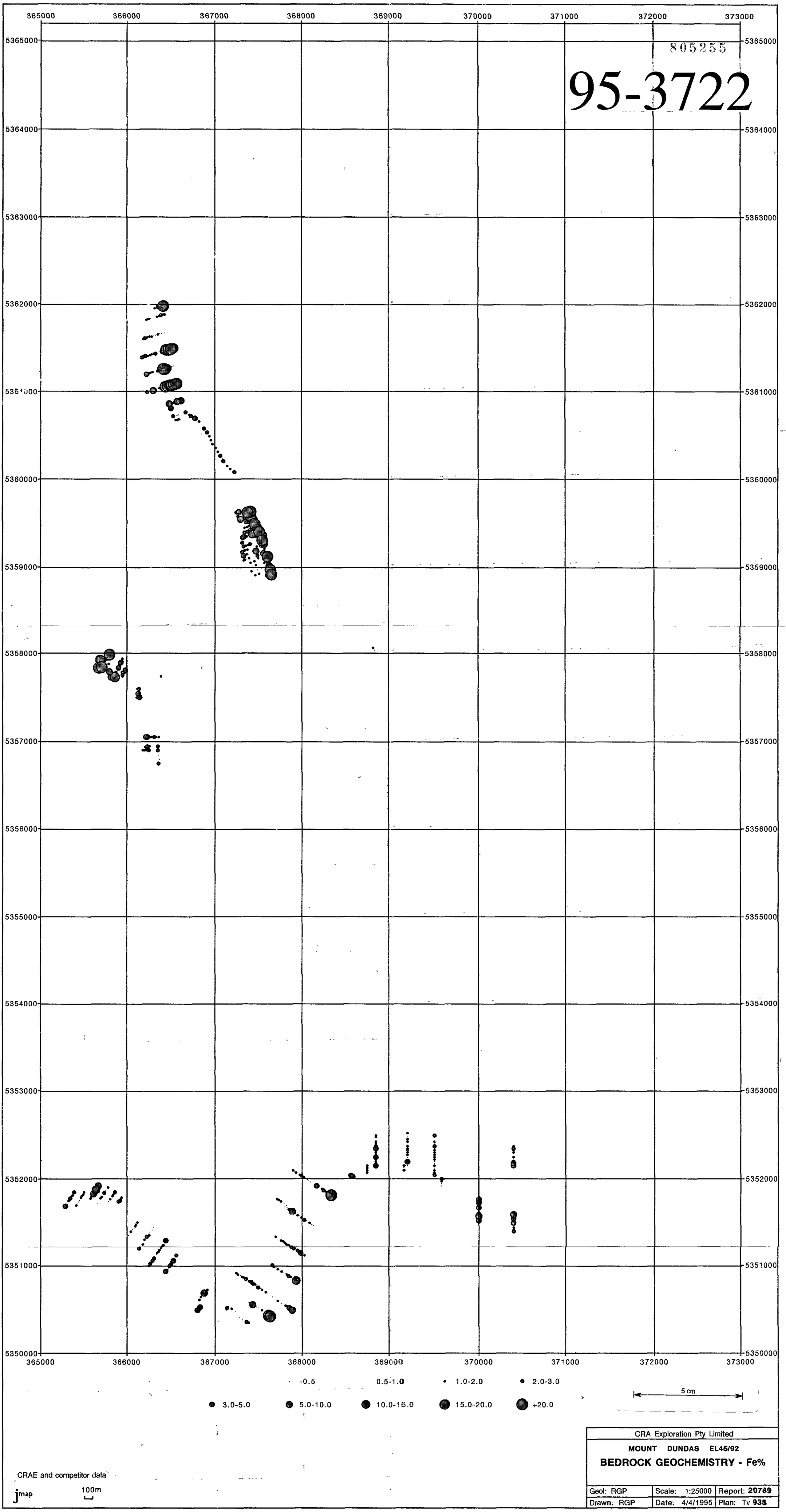
5360000
5359000
5358000
5357000
5356000
5355000
5354000
5353000
5352000
5351000
5350000
-100
100-200
200-500
500-1000
1000-2000
2000-5000
5000-10000
10000-20000
+20000
5 cm
CRAE and competitor data
jmap
100m
805254
CRA Exploration Pty Limited
MOUNT DUNDAS EL45/92
BEDROCK GEOCHEMISTRY - Pb ppm
Geol: RGP
Scale: 1:25000
Report: 20789
Drawn: RGP
Date: 4/4/1995
Plan: Tv 934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5361000
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5359000
5358000
5357000
5356000
5355000
5354000
5353000
5352000
5351000
5350000
805255
95-3722
-0.5
0.5-1.0
1.0-2.0
2.0-3.0
3.0-5.0
5.0-10.0
10.0-15.0
15.0-20.0
+20.0
5 cm
CRAE and competitor data
jmap
100m
CRA Exploration Pty Limited
MOUNT DUNDAS EL45/92
BEDROCK GEOCHEMISTRY - Fe%
Geol: RGP
Scale: 1:25000
Report: 20789
Drawn: RGP
Date: 4/4/1995
Plan: Tv 935