CRA Exploration Pty Ltd

SEL 8035 Mt Drummond

Second Annual Report for the Period of Tenure
1 April 1994 to 31 March 1995

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Submitted to : Chief Geologist

Date : April, 1995

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Map Sheet : Mount Drummond SE53-12

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CRAE Report Number: 20588

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1. Abstract

On 1 April 1993 CRA Exploration was granted a Substitution Exploration Licence, SEL Mt Drummond 8035 comprising 227 blocks, that substituted for EL's 6571, 6577 and 7714. At the end of the second year of tenure of SEL 8035, a partial relinquishment of 57 blocks was effected, after a reduction of 113 blocks after the first year of tenure. This report documents exploration undertaken within SEL 8035 during its second year of tenure to 31 March 1995.

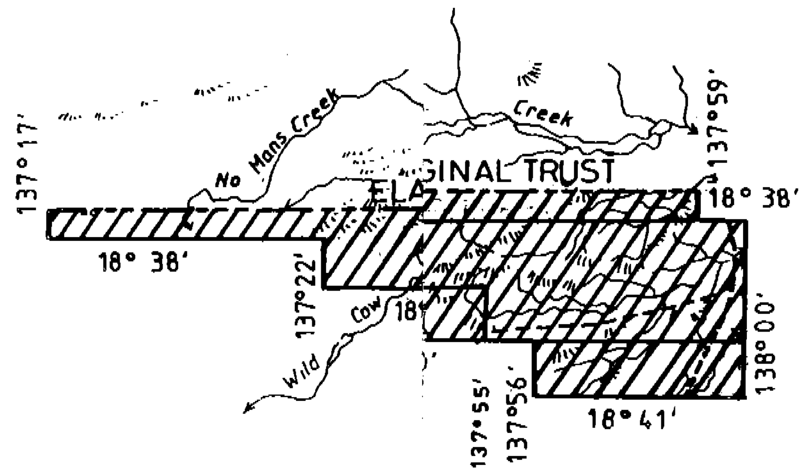
Work on the tenement initially examined the potential of the area for diamond mineralisation by gravel and loam sampling, with poor results. Later in the tenement life, the programme progressed to base metal exploration by detailed stream sediment sampling and a GEOTEM survey. This work defined six anomaly areas: Top Rocky, Rockhole, Fishhole, Don's Creek, No man's and Lancewood.

Broad-spaced reconnaissance follow up soil sampling at the Fishhole, Don's Creek, No Man's and Lancewood anomalies did not reveal any large areas of anomalous base metals, and no further work was done in these areas. Substantial lead soil anomalies were indicated in the Top Rocky and Rockhole areas, and these were recommended for follow up in 1995.

RAB traversing (54 holes totalling 344m) in the Rockhole anomaly tested bedrock chemistry in areas of shallow cover. Three reverse circulation drill holes totalling 288m did not intersect significant base metal values. This area has been downgraded.

The Top Rocky anomaly was tested by 5 reverse circulation drill holes totalling 378m. Interesting lead values were obtained from oxidised sandstone lithologies at the contact to an underlying shale unit, with a best intersection of 24 m at 0.47% Pb in hole CAR01 from 26-50m depth.

This mineralisation has not been intersected in fresh rock. The soil anomaly is terminated by shallow surficial lag and laterite cover to the east. A programme of detailed geochemistry and deeper drilling to more fully investigate the mineralisation is recommended. Some additional work on ground recovery of GEOTEM features and magnetic features is also required.



ORIGINAL AREA : 2

Area relinquished

Area retained - 57
approx. 185 sq. km

0 5 10 15 20 KM

CRA EXPLORATION PTY. LIMITED	
SEL 8035 MOUNT DRUMMOND (Second Partial Relinquishment) LOCATION PLAN	
Ref. SE 53-12 MOUNT DRUMMOND	
Scale 1:250,000	Drawn SRJ
Author C.STEGMAN	Report No. 20588
Date APR. 1995	Plan No. NTd 6164

2. Introduction

SEL 8035 Mt Drummond, which substituted for EL 6571 Wild Cow Creek, EL 6577 Horse Creek and EL 7714 Tin Creek, constitutes the Carrara Range Project Area.

EL 6571 Wild Cow Creek, comprising 484 blocks, was granted to CRA Exploration Pty Limited (CRAE) on 31 January 1990 for a period of six years. A voluntary surrender of the southern 242 blocks was made near the end of the first year of tenure. A further 168 blocks were surrendered on the second anniversary of tenure of this tenement. On the third anniversary of tenure an additional 37 blocks were surrendered.

EL 6577 Horse Creek, comprising 482 blocks, was granted to CRAE on 31 January 1990 for a period of six years. A total of 409 blocks were surrendered on the second anniversary of tenure with 73 blocks being retained. On the third anniversary of tenure an additional 37 blocks were surrendered.

EL 7714 comprising 154 blocks was granted to CRAE on 18 May 1992 for a period of six years.

SEL 8035 Mt Drummond, comprising 227 blocks, was granted to CRAE on 1 April 1993 for a period of four years, consolidating the remnants of the previous titles. A total of 113 blocks were relinquished from SEL8035 at the end of year one of tenure, and a further 57 blocks after the second year of tenure.

The Carrara Range Project Area is located 350km east-northeast of Tennant Creek and 300km northwest of Mt Isa on the Mitchiebo and Carrara 1:100,000 sheets (Mount Drummond 1:250,000 sheet). Vehicular access to the project area is via the Camooweal-Gallipoli-Highland Plains road and thence via station tracks west to the Carrara Ranges. Tenement location is shown on Plan NTd 6164.

This report documents exploration undertaken within SEL 8035 during its second year of tenure to 31 March 1995.

3. Geology

The Carrara Range Project is centred on the southern portion of the Proterozoic Carrara Range Inlier. To the south and west the Carrara Range Inlier is concealed by extensive relatively thick sandy soils derived from the Inlier. Further to the south, these sands pass into extensive black soil plains of the Barkly Tableland which are underlain by carbonate facies of the northern portion of the Cambrian Georgina Basin. The Carrara Range Inlier is separated from the Georgina Basin by the east-northeast trending Little Range Fault system. The trace of this fault array is exposed in the eastern and central parts of the project area.

The oldest rocks in the Carrara Range Inlier comprise schists, quartzites and sandstones of early Proterozoic age Murphy Metamorphics. These rocks are exposed in small fault-bound wedges adjacent to the Little Range Fault in the central portion of the project area.

A structurally dismembered, generally north-facing sequence of early to mid Proterozoic age rock-types is developed immediately to the north of the Little Range Fault. This sequence consists of an older group of rocks belonging to the Carrara Range Group, which is unconformably overlain by sediments equivalent to the McNamara Group of the Mt Isa Inlier.

The Carrara Range Group comprises basal sandstones of the Don Creek Sandstone, a middle unit of basaltic and trachytic volcanics, sandstones and shales of the Mitchiebo Volcanics, and an upper unit of rhyolitic volcanics, the Top Rocky Rhyolite. Strata of the Carrara Range Group crop out immediately to the north of the Little Range Fault in the central part of the project area and are also exposed about a major east-west trending fault system sub-parallel to, and probably related to, the Little Range Fault near the northern boundary of the project area.

The McNamara Group consists of basal Musselbrook Formation sandstones, siltstones, and lesser conglomerates and dolomitic siltstones; a middle unit of sandstones, quartzites and siltstones of the Plain Creek Formation; and an upper unit of sandstones, siltstones, shales and dolomites which are correlated with the Lawn Hill Formation. These units are mostly exposed in the northern part of the project area. To the north of the project area the older Proterozoic strata are unconformably overlain by relatively flat-lying sheets of quartz sandstones and lesser conglomerates, siltstones and shales of the late Proterozoic age South Nicholson Group.

The Proterozoic section within the Carrara Range Inlier has been dismembered by a series of east-west and northeast oriented faults. The Little Range Fault is shown on published 1:100,000 geology maps as bounding the Inlier to the south of the SEL area. However, an east-west trending fault zone has been interpreted from false colour TM imagery in the north of the tenement. This structure may be an extension or splay of the Little Range Fault. The Little Range Fault appears to be a regional, relatively deep-seated structure. It is hoped that it may have focussed base metal ore fluids in an analogous manner to the Termite Range Fault at the Century deposit or the Emu Fault at the HYC deposit.

In the eastern corner of the project area, McNamara Group strata are unconformably overlain by carbonate facies of the Cambrian Georgina Basin. These Cambrian strata consist of basal cherty breccia, conglomerate and phosphorite of the Border Waterhole Formation, a middle relatively thin sequence of laminated to thin-bedded limestone (?Currant Bush Limestone) and an upper unit of relatively thick thin-medium bedded dolomite of the Camooweal Dolomite. The Cambrian strata is restricted in outcrop to south of the Little Range Fault.

The Proterozoic strata within the Carrara Range Project area are often obscured by a variety of cover including sandstones and conglomerates of the Early Cretaceous Mullaman Beds, Tertiary ferruginous lateritic duricrust and Quaternary alluvium and colluvium. An area previously shown as Mesozoic age duricrust adjacent to the Rockhole prospect area (plan Ntm 137) was reinterpreted as basal Cambrian facies during the 1994 field season. This surface is anomalous in base metals, but such anomalism is relatively common throughout the basal Cambrian sequence regionally from CRAE's experience elsewhere.

No base metal mineralisation has been recorded within the project area although minor uranium occurrences have been noted in the slivers of Murphy Metamorphics present along the Little Range Fault. The correlates of the Lawn Hill Formation within the tenement area are of obvious conceptual interest because this unit hosts the Century mineralisation in the Lawn Hill area. Units below the Lawn Hill Formation however are also known to have anomalous base metals regionally, and it is felt that the stratigraphy in the Carrara Range Inlier is not sufficiently well understood to disqualify any unit from being a potential host for base metal mineralisation.

4. Previous Work

The Carrara Range Inlier was mapped by BMR geologists during 1959-60 as part of their Mt Drummond 1:250,000 Sheet mapping program. The Inlier was subsequently re-mapped by the BMR/GSQ in 1978-79 as part of their geological mapping program of the Carrara Ranges 1:100,000 sheet.

The Carrara Ranges have been sporadically explored for base metals, uranium, phosphate and diamonds since 1958.

Previous exploration work by companies is summarised in Stegman, 1994.

5. Results of Exploration 1/4/94 to 31/3/95

5.1. RAB geochemistry and drilling.

Previously reported infill soil sampling and geological traverses in the Top Rocky and Rockhole areas gave an effective continuous grid of north-south oriented soil traverses at 250-500 metre intervals joining the two prospect areas. This defined an approximate 2.5km long Pb in soil anomaly with values up to 600ppm Pb in the Rockhole(western) anomaly, and an approx 2.5km long Pb in soil anomaly with values from 100 to 1540ppm Pb at the Top Rocky (eastern) anomaly.

The previous report by Stegman (1994) recommended a work programme to follow up GEOTEM anomalies and soil geochemical anomalies at the Top Rocky and Rockhole prospects. Work on the SEL in 1994-5 has concentrated performing this follow up by RAB bedrock geochemistry and reverse circulation drilling. A total of 344m of RAB was completed in 54 holes, and 804m of RC drilling in 10 holes. The results of this work are discussed below. A summary overlay plan of all drill hole locations is reproduced as plan NTm167.

RAB drilling logs are reproduced in Appendix 1, with analytical results and locations in Appendix 3. Reverse circulation drill logs are in Appendix 2, with analytical results in Appendix 4.

5.1.1. Top Rocky Anomaly.

Five reverse circulation drillholes were completed at the Top Rocky anomaly, RC94CAR001-004 and 065. Drill hole locations are shown on plan NTm167, and sections on plans Ntm160-163. The holes were targeted at the contact between overlying quartz sandstone and underlying siltstones, which is coincident with the high lead soil values. Samples were collected at 2m intervals downhole, and analysed by Australian Laboratory Services in Brisbane by ICP-OES for Ag, As, Cu, Co, Fe, Mn, Pb and Zn. Full analytical results are reproduced in Appendix 4, with logs in Appendix 3.

Significant results from each hole are as follows:

RC94CAR001	24m @ 0.47% Pb from 26-50m	Plan NTm160
including	2m @ 1.6% Pb from 40-42m	
RC94CAR002	38m @ 0.11% Pb from 20-58m	Plan NTm161
RC94CAR003	12m @ 0.23% Pb from 44-56m	Plan NTm162
including	2m @ 1.14% Pb from 48-50m	
RC94CAR065	Max 750ppm Pb	Plan NTm162
RC94CAR004	36m @ 0.23% Pb from 12-48m	Plan NTm163

All of these intersections are in oxidised material, occurring in the overlying sandstone sequence at the contact to the underlying siltstones. The underlying siltstones are weakly anomalous in Zn (max 1330ppm). Further drilling including diamond drilling will be required to adequately test the prospect. RAB drilling is required to the east along strike to see whether the anomaly continues or improves.

Two water bores, RC94CAR063 and 064, were completed to a depth of 78m and 60m respectively, to the south east of the Top Rocky prospect (plan NTm167). An adequate water supply (approx 1000 lph) was intersected in hole 064, in fractured black shales and siltstones. Although no significant base metal results were obtained from these holes, the presence of black shale lithologies in the unit underlying the anomalous lead geochemistry at Top Rocky prospect is of interest, and indicates that some further geochemical sampling of this package may be justified.

5.1.2. Rockhole Anomaly.

At the Rockhole anomaly, 54 RAB holes totalling 344 m were completed on four traverses 600-800m apart. Spacing between holes was 100m along lines. Hole locations are shown on plan Ntm158. Samples were collected at 2m intervals downhole, but only the bottom hole samples were analysed

RAB results for lead and zinc are shown on plan Ntm159. Peak values of only 22ppm lead and 202ppm Zn were obtained. These are considerably lower than the soil values obtained from the surface sampling to the west. It is now considered that this surface anomalism relates to remnants of basal Cambrian sediments, which are known to have anomalous base metals throughout the province. This interpretation, plus the poor RAB results, downgrades the Rockhole prospect.

Two reverse circulation drillholes, RC94CAR006 and 007, were completed to obtain subsurface material from the interpreted position of GEOTEM anomalies. These reached depths of 102 and 96m respectively, with a base of oxidation of approx 75m. Samples were at 2m intervals, and were analysed by the same methods as the RAB samples. Sections are shown on plans NTm165 and 166. Both holes intersected mixed siltstones and sandstones, and did not intersect significant base metal values. This result further downgrades the Rockhole prospect. The only residual work that could remain is to ground recover the GEOTEM features by CSAMT or a similar method for a concealed target, but this would be viewed as low priority work.

Soil sampling in the area between the Top Rocky and Rockhole prospects outlined a 1.5 kilometre long east-northeast trending zinc in soil anomaly (max. 160 ppm) in the eastern part of the Rockhole prospect area immediately to the west of the Top Rocky area. This anomaly occurs over a thin sequence of interbedded manganiferous ironstone and sandstone of the upper Plain Creek Formation. These sediments resemble unit Pmh_2 of the Lawn Hill Formation at Century. A single drill hole, RC94 CAR005, 90m deep, was completed to gain subsurface geochemical information on this unit (Plan NTm164). No significant base metal results were obtained.

6. Rehabilitation

The RAB drillholes were backfilled at the time of drilling. Tracks used for access to these traverses were originally only graded to surface level to remove sticks and have been allowed to regenerate. They will be inspected when the 1995 programme recommences and if necessary any areas without good regrowth will be ripped. The percussion drillholes were capped and cuttings bagged for disposal at the time of completion of drilling. Drill sites were cleared of all rubbish and the sites allowed to regenerate. They will similarly be inspected and if necessary ripped during the 1995 field season. Once access is no longer required to drillholes after the 1995 programme(eg for downhole logging) permanent below ground level concrete plugs will be installed.

The main access track to the area will be re-used for the 1995 programme. Run-offs were emplaced on areas of steep gradients to minimise erosion and it is anticipated that minimal rehabilitation will be required on this track. The area is currently inaccessible due to wet seasonal conditions and will be inspected by helicopter in late April 1995 prior to the commencement of the field season.

7. Conclusions and Recommendations

The RAB drilling in the covered area to the east of the Rockhole soil anomaly has effectively downgraded the potential of this area for a significant body of mineralisation. This downgrading is emphasised by the low results in the drillholes directed at the GEOTEM features, and the reinterpretation of the "Cretaceous" siliceous breccias which underlie much of the lead anomalism as basal Cambrian sediments. Little further work is justified in this area.

The mineralisation intersected by shallow drilling at the Top Rocky prospect is possibly significant in view of the fact that no intersection of unweathered material has been made. Several kilometres of strike are potentially available within the tenement area to the east where the soil anomaly disappears beneath shallow regolith cover. This area to the south east is quite substantial and has weakly elevated base metal values from the original stream sediment sampling programme in places.

It is recommended that a deeper drill hole be sited downdip from the anomalous intersections to attempt to establish whether they have a primary sulphide source. It is also recommended that either further RAB or high iron lag sampling (after appropriate orientation sampling) be carried out over the eastern extension of the soil anomaly. This latter programme should be extended in a reconnaissance fashion over the large area of poor outcrop which lies to the southeast of the Top Rocky anomaly area.

8. References

Stegman C.L., 1994. SEL 8035 Mt Drummond. First annual report for the period of tenure1 April 1993 to 31 March 1994. CRAE unpublished report No 19621.

Sweet I.P., 1984. 1:100,000 Geological Map Commentary, Carrara Range Region, N.T. BMR Publication.

Location

Mt Drummond	1:250,000 Sheet	SE53-12
Carrara	1:100,000 Sheet	6460
Mitchiebo	1:100,000 Sheet	6360

Keywords
Cambrian, Proterozoic, lead, zinc, Carrara Range Inlier, Georgina Basin, Little Range Fault, Carrara Range Group, McNamara Group, RAB drilling, reverse circulation drilling.

List of DPO's
76996

List of Prospects

Top Rocky, Rockhole

List of Appendices

Appendix 1	RAB drill log sheets
Appendix 2	Reverse Circulation drill log sheets.
Appendix 3	RAB drilling locations and results.
Appendix 4	Reverse Circulation drilling results.

List of Plans

NTd 6164	SEL 8035 Mount Drummond (Second Partial Relinquishment) Location Plan	1:250 000
NTm 137	Mt Drummond SEL 8035 Geology	1:25 000
NTm158	Zinc Belt Project Mt Drummond SEL 8035 RAB sample locations	1:10,000
NTm159	Zinc Belt Project Mt Drummond SEL 8035 RAB sample Pb/Zn assays	1:10,000
NTm160	Zinc Belt Project Mt Drummond SEL 8035 Top Rocky Drill Section RC94CAR1	1:1,000

NTm161	Zinc Belt Project Mt Drummond SEL 8035 Top Rocky Drill Section RC94CAR2	1:1,000
NTm162	Zinc Belt Project Mt Drummond SEL 8035 Top Rocky Drill Section RC94CAR3, 65	1:1,000
NTm163	Zinc Belt Project Mt Drummond SEL 8035 Top Rocky Drill Section RC94CAR4	1:1,000
NTm164	Zinc Belt Project Mt Drummond SEL 8035 Top Rocky Drill Section RC94CAR5	1:1,000
NTm165	Zinc Belt Project Mt Drummond SEL 8035 GEOTEM Target 1 Drill Section RC94CAR6	1:1,000
NTm166	Zinc Belt Project Mt Drummond SEL 8035 GEOTEM Target 2 Drill Section RC94CAR7	1:1,000
NTm 167	Mt Drummond SEL 8035 Mt Drummond RAB & RC Drilling Program 1994 Hole Locations	1:25,000

Appendix 1

SEL 8035 Mt Drummond
RAB Drill Log Sheets

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM Mt Drummond

Prospect

Date 5/10/94

Drilling Co. Rockdrill

Drill Type Versatile 1000

Logged by A Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbs) FROM	DEPTH (mbs) TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
RAB94CAR 8	769565	7936490	0	2	Mostly reddish siliceous siltstone. Minor green gritty sandstone	5192567
			2	4	Ditto	
			4	6	Ditto	568
			6	8	Reddish argillaceous massive siltstone/mudstone	569
			8	10	Ditto	570
			10	12	Ditto	571
RAB94CAR9		7936590	0	2	Mostly reddish siltstone/mudstone + sst scree	572
			2	4	Brown to reddish brown fg sandstone/siltstone	573
			4	6	Ditto, sericitic	574
RAB94CAR10		7936690	0	2	Brown to pinkish siltstone	575
			2	4	Ditto	576
			4	6	Brown to greenish mudstone	577
RAB94CAR 11		7936790	0	2	Sandstone cobbles	578
			2	4	whitish to brown sericitic argillaceous sandstone	579
			4	6	Red-brown sericitic mudstone	580
RAB94CAR12		7936890	0	2	Sandstone cobbles	581
			2	4	Bleached to red-brown mudstone	582
			4	6	Ditto, some downhole contamination	583
RAB94CAR13		7936990	0	2	Qh - sandstone scree + sand	584
			2	4	Red mudstone	585
			4	6	Pinkish-red, mudstone to siliceous siltstone	586
RAB94CAR14		7937090	0	2	Qtzite cobbles + sand	587
						588

CRA EXPLORATION PTY LIMITED

EPM Mt Drummond

Prospect

RAB DRILL LOG

Date 5/10/94

Drilling Co. Rockdrill

Drill Type Versatile 1000

Logged by A Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbc) FROM	TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
			2	4	Pink to bleached mudstone	5192589
			4	6	Pink mudstone. Clayey	590
RAB94CAR15	769600	737190	0	2	Qtzite cobbles + sand	591
			2	4	Pink to bleached mudstone	592
			4	6	Pinkish red mudstone. Clayey	593
RAB94CAR16		737290	0	2	Qtzite cobbles + sand	594
			2	4	Ditto	595
			4	6	Bleached to pinkish red mudstone	596
RAB94CAR17		737390	0	2	Qtzite cobbles + sand	597
			2	4	Ditto with 3-4m pinkish mudstone	598
			4	6	Mainly pinkish mudstone, some bleached fragments	599
RAB94CAR18		737490	0	2	Qtzite/chert cobbles + sand	600
			2	4	Mainly bleached mudstone, some pinkish fragments. Some chert/qtzite cobbles	601
			4	6	Pinkish to occasionally bleached, clayey sandstone/mudstone	602
RAB94CAR19		737690	0	2	Sandstone/qtzite cobbles	603
			2	4	Bleached to pinkish-red mudstone	604
			4	6	Pinkish-red sericitic mudstone	605
RAB94CAR20		737690	0	2	chert/quartzite pebbles + sand	606
			2	4	Ditto	607
			4	6	Pink to brown to white mudstone. Clayey	608

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM ______ Prospect ______ Date ______

Drilling Co Rockdrill
Drill Type Versatile 1000
Logged by A. Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbs) FROM	TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
RAB94CAR21	770368	7936000	0	2	Red-brown siliceous fine grained sandstone	SM26609
			2	4	Whitish-brown to red-brown fine grained siliceous sandstone. Hard. Dolomite*	610
RAB94CAR22		7936100	0	2	Quartz / Qtz sandstone cobbles	611
			2	4	2-3 Ditto, 3-4 Brown clayey mudstone	612
			4	6	Pink to pale brown mudstone. Some bleached clayey fragments	613
RAB94CAR23		7936200	0	2	Qtz sandstone cobbles + sand	614
			2	4	Pinkish red mudstone	615
			4	6	Ditto, with pale whitish clay fragments	616
RAB94CAR24		7936300	0	2	0-1m - Qtz sandstone cobbles 1-2m - Brownish weathered sandstone	617
			2	4	Pinkish red mudstone and greenish clay	618
			4	6	Reddish-brown to pale greenish, soapy textured, mudstone	619
RAB94CAR25		7936400	0	2	0-1m - Qtz sandstone + soil 1-2m Brownish soft sandstone	620
			2	4	Reddish-brown mudstone with pale greenish clay fragments	621
			4	6	Reddish-brown mudstone	622
RAB94CAR26		7936500	0	2	0-1m Qtz sandstone cobbles 1-2m Brown sandstone	623
			2	4	Red-brown to whitish clayey mudstone	624
			4	6	Reddish brown to pale greenish white mudstone	625
RAB94CAR27		7936600	0	2	0-1m Qtz sandstone cobbles 1-2m Brownish soily sandstone	626
			2	4	Reddish-brown to pale greenish mudstone	627
			4	6	Ditto	628
RAB94CAR28		7936700	0	2	0-0.5m ~~Qtz~~ sandstone cobbles 0.5-2m Brownish mudstone / sandstone	629
			2	4	Reddish-brown to green-grey mudstone	630

* Dolomite o/c between Holes 21/22

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM ______ Prospect ______ Date 5/10/94

Drilling Co [illegible]
Drill Type V[illegible]tile 1000
Logged by A Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbs) FROM	TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
			4	6	Ditto	
RAB94CAR29	710368		0	2	Red-brown to pale greenish white mudstone	942631
⁞			2	4	Ditto	632
			4	6	Ditto	633
			6	8	Reddish-brown mudstone	634
			8	10	Ditto	635
			10	12	Reddish-brown to brown mudstone/minor sandstone	636
RAB94CAR30			0	2	Minor qtz cobbles in brownish mudstone	637
			2	4	Pinkish-red mudstone	638
			4	6	Pink to greenish-white mudstone	639
RAB94CAR31			0	2	Quartz + Qtz sandstone cobbles	640
			2	4	2-3m - Ditto 3-4m Pinkish-brown mudstone	641
			4	6	Pinkish-red mudstone	692
RAB94CAR32			0	2	Minor quartz cobbles + brownish mudstone	643
			2	4	Reddish-brown mudstone	644
			4	6	Ditto	645
RAB94CAR33			0	2	Red-brown mudstone with rare ferruginous siliceous sandstone fragments	646
			2	4	Pinkish-brown to occasionally whitish mudstone	647
			4	6	Pinkish brown to yellow-brown mudstone	648
RAB94CAR34			0	2	Quartz and quartz-sandstone scree	649
			2	4	Pinkish-brown mudstone	650
			4	6	Pinkish-brown to pale green mudstone	651
						652

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM

Prospect

Date 5/10/94

Drilling Co. Rockdrill[illegible]

Drill Type Versatile 1000

Logged by A. Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbc) FROM	TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
RAB94 CAR 35	770366		0	2	Qtz sandstone scree + sand	5192653
			2	4	Ditto	654
			4	6	Red-brown mudstone. Minor quartz scree	655

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM ______ Prospect ______ Date 6/10/94

Drilling Co. Rock[illegible]
Drill Type Versatile 1000
Logged by A Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbc) FROM	TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
RAB94CAR36			0	2	Minor qtzite cobbles. Minor red-brown to grey, banded, siliceous siltstone/chert	5192656
			2	4	Ditto. No cobbles	657
			4	6	Ditto Ditto. Siltstone sericitic	658
RAB94CAR37			0	2	Brown to pinkish brown siltstone	659
			2	4	Brown to white fissile siltstone	660
			4	6	Ditto	661
RAB94CAR38			0	2	Whitish to red-brown sandy hard siliceous rock	662
			2	4	Ditto. Cherty?	663
RAB94CAR39*			0	2	Quartz sandstone cobbles	664
			2	4	Ditto	665
			4	6	Ditto with minor pinkish to white argillaceous sandstone	666
			6	8	Red-brown to whitish argillaceous sandstone. Some cobbles	667
			8	10	Ditto	668
			10	12	Ditto	669
RAB94CAR40			0	2	Red-brown sand + minor sandstone cobbles	670
			2	4	Pinkish-red to whitish-brown mudstone	671
			4	6	Ditto	672
RAB94CAR41			0	2	Qtz sandstone cobbles in sand	673
			2	4	Whitish-brown mudstone	674
			4	6	Pinkish-red mudstone	675
RAB94CAR42			0	2	Qtz sandstone cobbles, some manganiferous, in red-brown sand	676
			2	4	Pinkish-brown, weakly MnO stained, clayey sediment	677

* Rare dolomite ok between ~~R~~AB 38/39

CRA **CRA EXPLORATION PTY LIMITED**

RAB DRILL LOG

EPM ______ Prospect ______ Date 6/10/94

Drilling Co. [illegible]
Drill Type VerSatile 760a
Logged by A Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbo) FROM	DEPTH (mbo) TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
			4	6	Pinkish-white, sericitic, siliceous siltstone. Harder	5192578
RAB94CAR 43			0	2	Qtz sandstone with quartz cobbles in brown sand	679
			2	4	Brown clayey, foliated siltstone	680
			4	6	Pale green-grey clays with red-brown, harder, sericitic?-siliceous siltstone. Rare MnO/FeO stains	681
RAB94CAR 44			0	2	Quartz and qtz-sandstone cobbles in brown sand	682
			2	4	Pale greenish white to pinkish clayey sediment	683
			4	6	Pinkish clayey mudstone. Some downhole contamination (qtz sandstone cobbles	684
RAB94CAR 45			0	2	Qtz sandstone in brown sand	685
			2	4	Pinkish-red to "cream" clay fragments (mudstone)	686
			4	6	Ditto	687
RAB94CAR 46			0	2	Brown sand with qtz sandstone cobbles and whitish mudstone	688
			2	4	White, with pink staining, mudstone	689
			4	6	Pinkish clayey mudstone	690
RAB94CAR 47			0	2	Sandstone and quartz cobbles with brown sand	691
			2	4	White to pinkish layered clayey mudstone. Chalky textured	692
			4	6	Ditto	693
RAB94CAR 48			0	2	Qtz sandstone in coarse brown sand	694
			2	4	Mottled whitish to red clayey mudstone	695
			4	6	Pinkish to white mudstone. Clayey	696
RAB94CAR 49*			0	2	Brown sand with some quartz sandstone fragments	697
			2	4	Pink to bleached mudstone	698
			4	6	Pink to bleached mudstone/siltstone. Some darker red siliceous siltstone layers (harder)	699

* 200m gap between RAB holes 48/49

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM

Prospect

Date 6/10/94

Drilling Co. Rockdrill

Drill Type Versatile 1000

Logged by A Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbc) FROM	DEPTH (mbc) TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
RAB94CAR50			0	2	Qh sandstone and quartz scree in sand	5192 700
			2	4	Pinkish to white clayey mudstone	701
			4	6	Ditto	702

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM

Prospect

Date 6/10/94

Drilling Co. Rockdrill

Drill Type Versatile 1000

Logged by A. Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbs) FROM	TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
RAB94CARS1	772000		0	2	Olive-brown mudstone, some hard siliceous fragments - scree?	5192705
			2	4	Olive-brown mudstone	706
			4	6	Mainly pinkish-red sericitic? mudstone	707
RAB94CARS2			0	2	Minor red-brown sandstone scree. Mainly pale-brown clayey fragments	708
			2	4	Pinkish to brown mudstone	709
			4	6	Pinkish-brown mottled clays. Mudstone?	710
RAB94CARS3			0	2	Qh scree + pale greenish clay	711
			2	4	Red-brown to greenish-white clayey mudstone	712
			4	6	Ditto	713
			6	8	Red-brown to green-grey mudstone	714
			8	10	Ditto	715
			10	12	Red-brown to green-grey mudstone. Possibly sericitic	716
RAB94CARS4			0	2	Red to brown mudstone. Minor sst cobbles	717
			2	4	Red to brown mudstone	718
			4	6	Ditto	719
RAB94CARS5			0	2	Brown to greenish fissile mudstone. Minor sandstone scree	720
			2	4	Red-brown to grey fissile siliceous siltstone	721
			4	6	Ditto, platy fragments	722
RAB94CARS6			0	2	Brown to red-brown siliceous platy siltstone	723
			2	4	Ditto	724
			4	6	Mainly red-brown platy siliceous siltstone. Sericitic	725
RAB94CARS7			0	2	Olive-brown clayey mudstone	726

Note: 5192703, 704 } soil samples 50-100m south of CARS1

CRA EXPLORATION PTY LIMITED

RAB DRILL LOG

EPM

Prospect

Date 6/10/94

Drilling Co. Rockdrill

Drill Type Versatile 1000

Logged by A. Clarke

HOLE No.	EASTING	NORTHING	DEPTH (mbs) FROM	TO	LITHOLOGIC DESCRIPTION	SAMPLE NUMBER
			2	4	Ditto	S192727
			4	6	Olive-grey mudstone. Occasional siliceous harder fragment	728
RAB94CAR58			0	2	Brown soily claystone	729
			2	4	Clayey, brown claystone	730
			4	6	Ditto	731
			6	8	Pale siliceous siltstone	732
			8	10	Ditto	733
			10	12	Pale siliceous fine grained siltstone. Some fine MnO staining	734
RAB94CAR59			0	2	Brown ferruginous sandstone	735
			2	4	Pinkish to greenish white clayey mudstone	736
			4	6	Pinkish clayey mudstone	737
RAB94CAR60			0	2	Quartzose sst/qtzite scree	738
			2	4	Brown clayey limonitic sediments	739
			4	6	Ditto	740
RAB94CAR61			0	2	Ferruginous sandstone scree	741
			2	4	Brown limonitic clay	742
			4	6	Brown clayey mudstone with whitish clay fragments	743
RAB94CAR62			0	2	Qtzose sandstone scree	744
			2	4	Brown limonitic and black clay. Some bleached clay fragments	745
			4	6	Mostly bleached clay fragments	S192746

Appendix 2

SEL 8035 Mt Drummond
Reverse Circulation Drill Log Sheets

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94CAR001
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. ______

RC DRILL LOG

AZIMUTH 175
DIP 60
TOTAL DEPTH 84m
CASING DEPTH/TYPE ______

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
0	2		Qtzose	Red-brown, weathered medium grained, quartzose sandstone			
2	4			Whitish to red-brown, partially Feox stained, medium grained sandstone. Some sericite flakes	519280		10
4	6		sst	Ditto	281		40
6	8			Ditto	282		30
8	10			Ditto	283		45
10	12		Argillaceous sst	Deeper red-brown to pale whitish-brown, medium grained, quartzose to occasionally clayey sandstone. Coarse sericite flakes (detrital origin?). Sandstone dirtier, clayey matrix	284		25
					285		20
12	14			As above, but Feox staining less intense			
14	16			Pinkish to brown to white, variably Feox stained medium grained quartz-sericite sandstone. Clayey matrix	286		30
16	18			Ditto, but fragments predominantly brown limonitic	287		25
18	20			Generally pale brown, medium grained, clayey-quartz-minor sericite sandstone. Some bleached clay/mudstone zones	288		20
20	22			Ditto, some ferruginous fractures	289		30
22	24			Pink to brown, medium grained, quartz-clay-minor sericite sandstone. Immature texture. Some ferruginous fractures	290		15
24	26			Ditto	291		20
26	28		Increasingly quartzose sst	Pink to brown, medium grained quartzose to argillaceous sandstone. Minor ferruginized fragments	292		25
28	30			Ditto	293		20
30	32			Pale brown gritty quartzose sandstone to whitish brown clayey argillaceous sandstone. Some ferruginized fragments	294		15
32	34			Ditto, but slightly increased argillaceous component	295		30
34	36			Partially fresh, grey to brown quartz sandstone and quartzite	296		20
36	38			Weathered whitish to brown argillaceous to quartz sandstone	297		30
					298		35

SUMMARY/COMMENTS ______

LOGGED BY A. Clarke **DATE** 1/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT: Mt Drummond / Top Rocky Pb
HOLE NAME: RC94 CAR001
CO-ORDINATES: ______ mE ______ mN
COLLAR R.L.: 330m
AZIMUTH: 175°
DIP: 60°
TOTAL DEPTH: 84m
CASING DEPTH/TYPE:
DRILLER: Rockdrill
DRILL TYPE: Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		May Susc
38	40			50% medium grained quartz sandstone 50% brownish chalcedonic fragments. Some goethitic fragments			
40	42			40% medium grained argillaceous sandstone. Minor goethitic filled cavities 30% red-brown quartz sandstone	5192299		40
				20% green, pale chert 10% orange-brown chalcedony	300		65
42	44			40% pale green mudstone 20% brown siltstone. 40% red-brown haematitic quartz sandstone, occasionally			
				jasperoidal	301		60
44	46			Pale green-grey to pale brown to red-brown mudstone/siltstone. Finely bedded. Some pyrolusite			
				stains. Soft	302		20
46	48			Ditto			
48	50			Green-grey to pale brown to dark grey, finely bedded mudstone/siltstone. Weakly sericitic. Soft	303		20
50	52			Grey-green, soft, weakly sericitic mudstone, red-brown along more oxidised planes. Fissile	304		15
52	54			Grey to red-brown to black, partially fresh, finely bedded mudstone/siltstone	305		15
54	56		Fresh	Black, fine grained, weakly sericitic, siltstone. Bedding undefined in chips. Trace pyrite	306		20
56	58			Ditto Weakly carbonaceous	307	Tr py	35
58	60			Ditto Ditto	308	1% py	30
60	62			Ditto Ditto	309	1% py	30
62	64			Grey to black, occasionally well bedded siltstone and mudstone	310	Minor py	50
64	66			Ditto	311		20
66	68			Dark green-grey, unbedded, siltstone/minor mudstone	312		35
68	70			Ditto	313		40
70	72			Ditto	314		35
					315		25

SUMMARY/COMMENTS:

LOGGED BY: A. Clarke
DATE: 1/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94 CAL 001
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. 330

RC DRILL LOG

AZIMUTH 175
DIP 60
TOTAL DEPTH 84m
CASING DEPTH/TYPE

CRA EXPLORATION PTY LIMITED
DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
72	74			Dark green-grey to paler green-grey, siltstone/mudstone. Paler fragments have a fine dark speckled texture	5197316		35
74	76			Ditto, increasing paler component			3
76	78			Black to grey to green-grey, finely bedded siltstone/mudstone	317		35
78	80			Ditto	318	Tr Py	60
80	82			Ditto	319	Tr Py	70
82	84			Ditto	320		70
				EOH	321		65

SUMMARY/COMMENTS Note: Hole sited 90m at 175° from anomalous o/c – assuming 30° dip N, intersected target horizon at 38-44m, still in weathered zone

LOGGED BY A. Clarke
DATE 1/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Ib
HOLE NAME RC94CAL 002
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. 330m

AZIMUTH 175
DIP 60

RC DRILL LOG

TOTAL DEPTH 72M
CASING DEPTH/TYPE

CRA EXPLORATION PTY LIMITED

DRILLER Rodcdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
0	2		Qtz sst	Red-brown weathered, medium grained Feox stained quartz sandstone			
2	4			Ditto	5192322		30
4	6			Pinkish-brown to white, medium grained, variably Feox stained quartz sandstone. Fine sericite	323		35
6	8			Ditto	324		20
8	10			Ditto	325		20
10	12			Ditto	326		20
12	14			Mainly pale brown, medium grained, weakly sericitic (primary constituent) quartzite. Weak Feox fracturing	327		10
14	16			Pinkish quartz-sericite sandstone with 20% grey quartzite fragments	328		15
16	18		Argillaceous sst	Pinkish-brown clayey sericitic argillaceous sandstone. Some bleached clay fragments	329		20
18	20			Pink to pinkish-brown sericite-quartz sandstone. Some clayey fragments. Mainly argillaceous	330		20
20	22			Ditto	331		10
22	24			Ditto	332		20
24	26			Pinkish to limonitic yellow-brown sericite-quartz sandstone and minor quartzite	333		15
26	28			Pinkish sericite-quartz sandstone with some whitish clay fragments. Weak ferruginous fractures	334		15
28	30			Ditto	335		20
30	32			Pinkish to white sericite-minor quartz argillaceous sandstone. Finer grained. Predominant fines	336		10
32	34	Colour	change	Whitish grey to pale pinkish quartzite and quartz sandstone	337		10
34	36			Pale pinkish quartzite with interbedded white clay mudstone bands	338		15
36	38			Whitish to pale pinkish grey medium grained quartzite with interbedded pale mudstone	339		20
38	40			Pale whitish grey quartzite with some ferruginous fragments	340		25
					341		20

SUMMARY/COMMENTS

LOGGED BY A Clarke DATE 1/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94CAR002
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. 330m

RC DRILL LOG

AZIMUTH 175°
DIP 60°
TOTAL DEPTH 72m
CASING DEPTH/TYPE ______

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill
DRILL TYPE Versatile 1000

FROM(m)	TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Sus
40	42			60% Pale whitish grey, variably voidose quartzite with 20% common goethitic clay fragments. Also minor chert fragments and unusual bright pinkish-mauve clay (ethyrite??) as a minor constituent	5192342		30
42	44			Greenish grey quartzite (50%) with chert (10%). Also orange-brown sticky clays (30%) and dark grey-black goethitic?? quartzite fragments (also present within voids in quartzite	343		20
44	46			10% Grey cherty to fine grained quartzite 10% limonitic stained quartzite fragments with goethitic surfaces 30% bright green, reasonably hard, amorphous fragments 50% Olive-green claystone fragments	344		30
46	48			Green to olive-green to brown claystone fragments. Minor black metallic mineral as fine fragments (black to silver streak - manganese??)	345		15
48	50			Bright green to brown, occasionally goethite stained, to pale grey, sericitic claystone	346		15
50	52			Brown, occasionally goethite stained, to black, partially fresh siltstone	347		10
52	54			Ditto	348		20
54	56			Mainly black, weakly carbonaceous, claystone/siltstone	349		10
56	58		fresh	Black, weakly carbonaceous siltstone/claystone	350		15
58	60			Ditto	351		20
60	62			Ditto	352		35
62	64			Ditto	353		35
64	66			Black to grey siltstone. Grey fragments have black speckled texture	354		35
66	68			Ditto	355		35
68	70			Ditto	356		40

SUMMARY/COMMENTS ______

LOGGED BY A Clarke DATE 1/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Pl

HOLE NAME RC94 CAR002

CO-ORDINATES ______ mE ______ mN

COLLAR R.L. 330m

RC DRILL LOG

AZIMUTH 175°

DIP 60°

TOTAL DEPTH 72m

CASING DEPTH/TYPE

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill

DRILL TYPE Versatile 1000-D

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
70	72			Black to grey, fissile, siltstone Grey fragments often with fine 'speckled' texture	5192357		30
				EOH			

SUMMARY/COMMENTS

LOGGED BY A. Clarke DATE 1/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94CAR003
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. 330m

RC DRILL LOG

AZIMUTH V
DIP
TOTAL DEPTH 78m
CASING DEPTH/TYPE

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
0	2		Qtz	Red-brown to yellow-brown quartz sandstone			
2	4		sst	Ditto, with some sericite flakes	5192360		20
4	6			Brown to red-brown sericite-quartz sandstone. Medium grained	361		25
6	8			Ditto	362		25
8	10			Pinkish to purple, finer grained sericite-quartz sandstone	363		25
10	12			Ditto	364		20
12	14		Mainly Argillaceous	Ditto More clayey	365		20
14	16			Ditto. Some white, bleached clayey fragments	366		25
16	18			Ditto with more common white claystone fragments	367		20
18	20		sst	Pinkish to brown, finer grained, quartzose sandstone	368		20
20	22			Ditto, with minor Feox stained surfaces/fractures	369		25
22	24			Mainly brown argillaceous to quartzose to pinkish argillaceous fine grained sandstone. Minor Feox stained surfaces/fractures	370		25
					371		20
24	26			Brown to pinkish brown mainly argillaceous, weakly sericitic sandstone. Trace Feox stains			2
26	28			Ditto with distinctive whitish-grey quartzite fragments	372		20
28	30			Mainly pinkish quartz-sericite sandstone	373		20
30	32		Argillaceous	Pink to brown, sericitic argillaceous sandstone. Clayey	374		30
32	34		sst	Ditto	375		20
34	36			Ditto becoming more quartzose. Common whitish argillaceous clayey fragments	376		20
[illegible]	[illegible]			Ditto Ditto. Predominant fines	377		20
					378		35

SUMMARY/COMMENTS

LOGGED BY A. Clarke
DATE 2/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94 CAR003
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. 330m

RC DRILL LOG

AZIMUTH V
DIP ______
TOTAL DEPTH 78m
CASING DEPTH/TYPE ______

CRA EXPLORATION PTY LIMITED
DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
38	40			Pale whitish brown clayey mudstone / sandstone. Predominant fines			
40	42			Ditto	SM2379		30
42	44			Bleached whitish clayey mudstone. Predominant fines	380		20
44	46			Ditto, with some pale pink fine grained argillaceous sandstone fragments	381		45
46	48			Mainly pale to pinkish-brown clayey sandstone to siltstone. Also 5% brown limonitic fine grained	382		25
				quartzite fragments	383	—	25
48	50		Colour	Purplish fine grained argillaceous sandstone with common pale whitish clay fragments			
50	52		change	Variable 5% Grey cherty quartz fragments 20% Brown limonitic sandstone 10% dark purplish	384		30
				gritty to argillaceous sandstone 60% white to pallid whitish green claystone	385		50
52	54			50% green-grey gritty quartz sandstone 50% finely banded chert			
54	56			50% purplish to brown gritty, FeOx stained (limonitic); medium to coarse grained quartz sandstone	386		25
				5% greenish to olive brown chalcedony/chert. Some vughular fragments	~~387~~		30
56	58			40% red haematitic siliceous siltstone 60% bright green to olive green			
				mudstone fragments	388		20
58	60			Bright green to brown (FeOx stained) to pale grey siltstone/mudstone			
60	62			Brown to black partially fresh, weakly carbonaceous, siltstone	389		20
62	64		fresh	Black, fissile, weakly carbonaceous siltstone	390		25
64	66			Ditto	391		30
66	68			Ditto	392		45
68	[illegible]			Ditto	393		45
					394		55

SUMMARY/COMMENTS ______

LOGGED BY A. Clarke DATE 2/6/94

RC DRILL LOG

GRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94CAR 003
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. 330 m
AZIMUTH V
DIP
TOTAL DEPTH 78 m
CASING DEPTH/TYPE
DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
70	72			Black weakly carbonaceous siltstone			
72	74			Ditto. Traces of orange-brown mineral in siltstone	5192395	Tr Py	55
74	76			Ditto	396		35
76	78			Ditto	397		55
				EOH	398		55

SUMMARY/COMMENTS

LOGGED BY A. Clarke DATE 2/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT: Mt DRUMMOND / Top Rocky Pk
HOLE NAME: RC94CAR004
CO-ORDINATES: ____ mE ____ mN
COLLAR R.L.: 320m
AZIMUTH: V
DIP:
TOTAL DEPTH: 48m
CASING DEPTH/TYPE:
DRILLER: Rockdrill
DRILL TYPE: Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
0	2			Deep red-brown, strong FeOx stained, fine grained, gritty sandstone			
2	4			50% pale brown to red-brown, fine grained, quartz sandstone 50% white bleached clayey sandstone	5792399		60
4	6			White to pale whitish brown medium grained, gritty quartz sandstone	400		30
6	8			White argillaceous to red-brown, qtzose sandstone	401		20
8	10			Brown fine grained quartzite	402		20
10	12			Brown to red-brown fine-grained quartzite / chert	403		40
12	14			Red-brown to brown fine-grained quartz-minor sericite sandstone	404		55
14	16			Red-brown quartz-minor sericite sandstone and brown quartz sandstone to quartzite	405		40
16	18			Brown to red-brown quartzite / chert	406		50
18	20			White to pinkish, fissile, argillaceous siltstone with minor cherty fragments	407		60
20	22			Pale greenish grey chert with 80% pallid to red, occasionally speckled, argillaceous siltstone	408		20
22	24			Pinkish to pale green-grey fissile argillaceous siltstone	409		20
24	26			Ditto	410		15
26	28			Red to whitish grey clayey argillaceous siltstone	411		10
28	30			Ditto	412		10
30	32			Mainly whitish grey clayey argillaceous siltstone	413		5
32	34			Ditto	414		5
34	36			Ditto	415		5
36	38			Pale grey brown argillaceous, finely bedded siltstone	416		0
38	40			Grey-brown to grey argillaceous siltstone	417		0
					418		0

SUMMARY/COMMENTS

LOGGED BY: A Clarke
DATE: 2/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb

HOLE NAME RC94CAL004

CO-ORDINATES _____ mE _____ mN

COLLAR R.L. 320m

RC DRILL LOG

CRA [redacted] PTY LIMITED

AZIMUTH V

DIP

TOTAL DEPTH 48m

CASING DEPTH/TYPE

DRILLER Rockdrill

DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
40	42			Partially Fresh, black, weakly carbonaceous, massive siltstone with oxidised surfaces	5192419		10
42	44		Fresh	Black, weakly carbonaceous, massive siltstone	420		10
44	46			Ditto	421		10
46	48			Ditto	422		10
				EOH			

SUMMARY/COMMENTS

LOGGED BY A Clarke

DATE 2/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT: MT Drummond / Top Rocky Zn
HOLE NAME: RC94CAL005
CO-ORDINATES: ______ mE ______ mN
COLLAR R.L.: ______
AZIMUTH: 155°
DIP: 60°
TOTAL DEPTH: 90
CASING DEPTH/TYPE: ______
DRILLER: Rockdrill
DRILL TYPE: Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
0	2			Red-brown fine grained quartzite/quartz sandstone. Variable MnO replacement, both pervasive and along surfaces	5192423		5
2	4			Red-brown to whitish bleached, fine to medium grained quartzite/quartz sandstone. Decreased MnO staining	424		50
4	6			Variable red-brown to brown to whitish quartzite to medium grained quartz sandstone. Minor siltstone. Some MnO chips	425		30
6	8		Green Sst	Black to brown, strongly manganiferous sediments (Manganese as replacement due to weathering. Also greenish medium grained gritty quartz sandstone	426		15
8	10			Pale green, gritty, m.g. quartz-sericite sandstone. Clayey matrix. Weak FeOx staining	427		10
10	12			Ditto. Increased MnO staining	428		10
12	14		slt	Pink to brownish siltstone, variable strong MnO replacement with minor green sericite-qtz sandstone	429		15
14	16		Sst	Green to brown to black (MnO stained) gritty quartz-sericite sandstone	430		15
16	18		Green to MnO	Brown to black, more pervasively MnO stained gritty quartz-sericite sandstone	431		15
18	20		stained	Brown to green to black MnO stained fine quartz-sericite sandstone siltstone	432		10
20	22		slt	Red to green to grey foliated sericitic siltstone. Lesser limonitic/MnO stained gritty sandstone chips	433		20
22	24			Ditto	434		20
24	26		Sandst/	Pale brown to dark grey, variably MnO stained, finer grained, gritty quartz sandstone	435		20
26	28		silt interbedded	Variable grey to brown to red fine grained, MnO stained sandstone and interbedded siltstone	436		25
28	30			Ditto, with increased siltstone	437		30
30	32			Ditto. Ditto. Common bright green sericitic fragments	438		30
32	34			Pale brown to green to grey (variably MnO stained) fine grained, quartz-sericite sandstone	439		25

SUMMARY/COMMENTS: ______

LOGGED BY: A. Clarke
DATE: 3/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Zn

HOLE NAME RC94CAR005

CO-ORDINATES ____ mE ____ mN

COLLAR R.L. ____

AZIMUTH 155°

DIP 60°

RC DRILL LOG

TOTAL DEPTH ____

CASING DEPTH/TYPE ____

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill

DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
34	36		Damp	Ditto Damp. Thin minor brown sericitic siltstone interbeds			
36	38			Ditto Ditto	5192440		30
38	40			Pale green to grey (MnO stained) fine grained sericite-quartz sandstone with increased limonitic siltstone	441		25
40	42		Sst	Brown to pale green to grey (MnO stained) coarser grained sericite-quartz sandstone (micaceous). Sericite relatively	442		30
				coarser (2-3mm)	443		20
42	44			Pale green, medium grained, quartz-feldspar? (white rounded) sandstone. Very fine black peppery textured mineral also	444		20
				present. Variably oxidised, MnO stained			
44	46			Variably weathered, green-grey to brown to grey (MnO stained) coarsely sericitic sandstone			
46	48			Finer grained, fresher, pale grey to brown, sericitic-minor quartz sandstone. Some limonitic-manganiferous	445		30
				siltstone fragments	446		25
48	50			Blue-grey to brown, partially fresh, fine grained, gritty but soft, sericite-quartz argillaceous sandstone	447		30
				Very fine peppery texture - trace magnetite			
50	52		Slt	Grey to brown, weakly sericitic, partially fresh, weakly siliceous siltstone			
52	54		Fresh	Grey moderately sericitic, siliceous (weak) siltstone	448		60
54	56			Ditto. Very weakly carbonaceous	449		80
56	58			Ditto very slightly coarser grained	450		60
58	60			Ditto, Ditto	451		70
60	62		Wet	Grey to pale grey, occasionally finely banded siliceous to argillaceous siltstone. Fine black	452		40
				peppery texture - very fine magnetite?	453		40
62	64			Dark grey, fissile, weakly carbonaceous siltstone	454		60

SUMMARY/COMMENTS ____

LOGGED BY A. Clarke DATE 2/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Zn

HOLE NAME RC94CAR005

CO-ORDINATES ______ mE ______ mN

COLLAR R.L. ______

AZIMUTH 155°

DIP 60°

RC DRILL LOG

TOTAL DEPTH ______

CASING DEPTH/TYPE ______

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill

DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
64	66			Pale to dark grey siliceous siltstone. Finer fragments obviously peppery textured - magnetite?	5142455		60
66	68			Black, finely sericitic, siliceous siltstone	456		60
68	70			Ditto	457		50
70	72			Ditto	458		30
72	74			Ditto	459		30
74	76			Ditto	460		25
76	78			Ditto	461		45
78	80			Ditto	462		40
80	82			Ditto	463		45
82	84			Ditto	464		30
84	86			Ditto	465		~~35~~
86	88			Ditto	466		70
88	90			Ditto	467		45
				EOH			

SUMMARY/COMMENTS ______

LOGGED BY A. Clarke DATE 3/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT: Mt Drummond /
HOLE NAME: RC94CAR006
CO-ORDINATES: ______ mE ______ mN
COLLAR R.L. ______
AZIMUTH: V
DIP: ______
TOTAL DEPTH: 102m
CASING DEPTH/TYPE: ______
DRILLER: Rockdrill
DRILL TYPE: Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Sus
0	2			Whitish to pink weathered claystone			
2	4			Ditto (more pinkish)	5192468		60
4	6			Ditto Ditto	469		15
6	8			Ditto Ditto	470		15
8	10			Pale yellow-brown weathered claystone	471		10
10	12			Ditto	472		10
12	14			Ditto	473		15
14	16			Mostly white to pinkish weathered claystone	474		10
16	18			Ditto	475		15
18	20			Yellow-brown to white weathered claystone	476		10
20	22			Ditto	477		15
22	24			Pale pink weathered claystone	478		10
24	26			Ditto	479		15
26	28			Ditto	480		15
28	30			Ditto	481		15
30	32			Ditto	482		10
32	34			Pinkish, less clayey, fissile claystone with ~10% fine goethitic-micaceous? fragments	483		20
34	36			Whitish-grey to pink claystone	484		20
36	38			Greenish-grey, fissile claystone	485		15
38	40			Pinkish to green-grey claystone	486		10
					487		5

SUMMARY/COMMENTS: GEOTEM Anomaly

LOGGED BY: A. Clarke
DATE: 3/10/94

PROJECT/PROSPECT Mt Drummond / GEOTEM Anomaly
HOLE NAME RC94 CAR 006
CO-ORDINATES ______ mE ______ mN AZIMUTH V
COLLAR R.L. ______ DIP ______

RC DRILL LOG

TOTAL DEPTH ______
CASING DEPTH/TYPE ______

CRA EXPLORATION PTY LIMITED
DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
40	42			Ditto			
42	44			Pinkish mudstone with minor white gritty sandstone interbeds	5192539		
44	46			Ditto	540		
46	48			Ditto, increased f.g gritty white sandstone	541		
48	50			Ditto, Ditto	542		
50	52		Fresh	Green-grey, fissile, mudstone. Sericitic?	543		
52	54			Brighter green-grey to pinkish partially fresh, sericite mudstone	544		
54	56		Fresh	Dark, green-grey sericitic mudstone	545		
56	58			Ditto	546		
58	60			Dark green-grey to pale green-grey sericitic mudstone	547		
60	62			Ditto	548		
62	64			Ditto	549		
64	66			Ditto, some fragments are finely bedded	550		
66	68			Pale green-grey to occasionally black, finely sericitic, argillaceous mudstone / siltstone	551		
68	70			Dull green-grey argillaceous, sericitic siltstone	552		
70	72			Ditto	553		
72	74			Ditto	554		
74	76			Ditto	555		
76	78			Pale green-grey, fine grained argillaceous sericitic sandstone	556		
78	80			Pale grey, quartzose peppery textured fine grained sandstone. Rare pyrite fracturing	557		
					558	Ti Py	

SUMMARY/COMMENTS ______

LOGGED BY A. Clarke DATE 4/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT Mt Drummond / GEOTEM anomaly
HOLE NAME RC94CAR006
CO-ORDINATES ____ mE ____ mN
COLLAR R.L. ____
AZIMUTH V
DIP ____
TOTAL DEPTH 102m
CASING DEPTH/TYPE ____
DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		
80	82			Ditto			
82	84			Grey to green-grey, sericitic? mudstone	5192508		15
84	86			Ditto	509		15
86	88			Green-grey to reddish sericitic? mudstone	510		10
88	90			Ditto	511		10
90	92			Green-grey mudstone to fine-grained argillaceous sandstone.	512		10
92	94			Mainly fine-grained gritty argillaceous sandstone. Dirty textured	513		10
94	96			Ditto	514		15
96	98			Ditto	515		25
98	100			Ditto with minor foliated grey siltstone fragments	516		15
100	102			Pale grey to grey-brown, fine grained, gritty, dirty textured sandstone	517		10
				EOH	518		15

SUMMARY/COMMENTS ____

LOGGED BY ____ DATE ____

PROJECT/PROSPECT Mt Drummond / GEOTEM Anomaly
HOLE NAME RC94CAR007
CO-ORDINATES ______ mE ______ mN
COLLAR R.L. ______

AZIMUTH V
DIP ______

RC DRILL LOG

TOTAL DEPTH 96m
CASING DEPTH/TYPE ______

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
0	2			Quwhill sandstone scree in sand	5192519		
2	4			Mainly pinkish mudstone. Weathered. Clayey	520		
4	6			Ditto	521		
6	8			Ditto	522		
8	10			Ditto	523		
10	12			Ditto	524		
12	14			Ditto	525		
14	16			Ditto	526		
16	18			Ditto	527		
18	20			Ditto	528		
20	22			Ditto. Some olive-brown fragments	529		
22	24			Pinkish mudstone. Finely sericitic	530		
24	26			Ditto	531		
26	28			Pale whitish-brown to red-brown, fine grained gritty quartz-minor sericite sandstone. Poorly consolidated	532		
28	30			Yellow-brown to pinkish argillaceous siltstone / f.g. sandstone	533		
30	32			Pinkish finely sericitic mudstone	534		
32	34			Pinkish mudstone with minor yellow-brown fg argillaceous sandstone fragments	535		
34	36			Ditto	536		
36	38			Pinkish finely sericitic mudstone	537		
38	40			Ditto	538		

SUMMARY/COMMENTS

LOGGED BY A. Clarke

DATE 4/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT: Mt Drummond / GEOTEM anomaly
HOLE NAME: RC99CAR007
CO-ORDINATES: ______ mE ______ mN
COLLAR R.L.: ______
AZIMUTH: V
DIP: ______
TOTAL DEPTH: 102m
CASING DEPTH/TYPE: ______
DRILLER: Rockdrill
DRILL TYPE: Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		Mag Susc
40	42			Brown to pinkish, weathered claystone			
42	44			Mainly brown, weathered claystone	S192488		15
44	46			Pale brown to minor reddish claystone. Reddish fragments are weakly sericitic	489		20
46	48			Ditto	490		15
48	50			Ditto	491		15
50	52			Grey-green to reddish fissile claystone	492		15
52	54			Ditto	493		15
54	56			Grey-brown to reddish claystone. Reddish fragments are sericitic	494		15
56	58			Dark grey-green to brown, finely fissile, mudstone. Partly fresh	495		10
58	60			Dark grey-green to grey-brown, fissile mudstone	496		15
60	62		Fresh	Dull green-grey to green-grey, soft, poorly bedded mudstone. Reasonably fissile. Finely sericitic	497		15
62	64			Ditto	498		15
64	66		Partially	Pale green-grey to red-brown, partially fresh, clayey mudstone	499		10
66	68	Damp	Fresh	Brown to red, fine soft, gritty sandstone to siltstone. Predominant finer. Weathered	500		15
68	70			Fine grained, red-brown, gritty, sericite sandstone with grey sericitic mudstone	501		10
70	72			Pale grey to grey, sericitic mudstone	502		10
72	74		Fresh	Ditto	503		10
74	76			Pale green-grey mudstone (40%) and red-brown gritty quartz-sericite sandstone (60%)	504		10
76	78			Ditto	505		15
78	80			Dark green-grey sericitic? mudstone. Minor red-brown mudstone chips also present	506		15
					507		15

SUMMARY/COMMENTS: ______

LOGGED BY: A. Clarke
DATE: 4/10/99

PROJECT/PROSPECT SEL 8035 / GEOTEM anomaly

HOLE NAME RC94CAL007

CO-ORDINATES ______ mE ______ mN

COLLAR R.L. ______

RC DRILL LOG

AZIMUTH V

DIP ______

TOTAL DEPTH 96m

CASING DEPTH/TYPE ______

CRA EXPLORATION PTY LIMITED

DRILLER Rockdril

DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		
80	82			Pale grey, f.g., quartzose-sericitic peppery textured sandstone			
82	84			Ditto, with common green-grey siltstone fragments	5192559		
84	86			Pale grey, f.g., quartz-mica sandstone	560		
86	88			Ditto, with dark bands (magnetite??)	561		
88	90			Pale grey, f.g., quartz-mica sandstone with green-grey siltstone fragments	562		
90	92			Ditto	563		
92	94			Ditto			
94	96			Green-grey argillaceous siltstone			

SUMMARY/COMMENTS ______

LOGGED BY A. Clarke

DATE 4/10/94

SHEET ______ OF ______

PROJECT/PROSPECT Mt Drummond / Water Bore
HOLE NAME RC94CAR63
CO-ORDINATES 7837770 mE 7937360 mN
COLLAR R.L.

RC DRILL LOG

AZIMUTH V
DIP

TOTAL DEPTH 78m
CASING DEPTH/TYPE 150mm

CRA EXPLORATION PTY LIMITED

DRILLER Lockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		
0	2			Fine brown sand Ferruginous pisolites			
2	4			Bleached to brown clayey weathered sediments			517224[1]
4	6			Ditto			242
6	8			Ditto, fine black spots on some surfaces (MnO?)			243
8	10			Ditto, but with black, hard, siliceous? fragments			244
10	12			Ditto, Ditto brown 'loamy'			245
12	14			Ditto Ditto fines predominant			246
14	16			Ditto, Ditto			247
16	18			Ditto Ditto			248
18	20			90% brown weathered clayey sediments with minor black siliceous? fragments 10% fine grained quartzose sandstone			249
							250
20	22			Brown weathered clayey sediment Brown 'loamy' fines predominant			
22	24			Ditto with 10% pinkish, gritty to silty, weakly MnO stained siltstone			251
24	26			Brown to pinkish, argillaceous, gritty, fine grained siltstone/sandstone. Brown loamy fines predominant			252
26	28			Ditto			253
28	30			Brown to pinkish argillaceous fine grained sandstone			254
30	32		Partially	Brown to dark grey, fine grained siliceous sandstone			255
32	34		Fresh	Ditto			256
34	36			Black to olive-grey fine grained sericitic? siltstone. Calcareous			257
36	38		Fresh	Dull grey, partly calcareous siltstone			258
							259

SUMMARY/COMMENTS

LOGGED BY A.Clarke DATE 6/10/94

PROJECT/PROSPECT Mt Drummond / Water Bore 2

HOLE NAME RC94CAR63

CO-ORDINATES 783 770 mE 7737360 mN

COLLAR R.L.

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

AZIMUTH V

DIP

TOTAL DEPTH 78m

CASING DEPTH/TYPE 150mm PVC

DRILLER Rockdrill

DRILL TYPE Versatile 1000

DEPTH FROM(m)	TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		
38	40			Dull grey, massive, partly calcareous siltstone. Rare Feox stained surfaces			
40	42			Ditto. Minor calcite veins			5192260
42	44			Ditto Ditto			261
44	46			Ditto Ditto			262
46	48			Dull grey, massive, partly calcareous siltstone. Rare Feox stained surfaces. Some calcite veins. Some white clayey fragments			263
							264
48	50			Pale grey, calcilutite/limestone. Some calcite veins			265
							2
50	52			Ditto			
52	54			Ditto			266
54	56			Ditto			267
56	58			Ditto			268
58	60			Ditto. More abundant calcite veining			269
60	62		Wet	Black, carbonaceous, strongly calcite veined, pa. calcisiltite/lutite			270
62	64			Ditto			271
64	66			Ditto. Intense calcite veining			272
66	68			Black, carbonaceous, calcisiltite. Moderate calcite veining			273
68	70			Ditto	T.	Tr Py	274
70	72			Ditto, but with intensive calcite veining			275
72	74			Black carbonaceous calcisiltite/limestone. Intense calcite veining			276
74	76			Ditto			277
							278

SUMMARY/COMMENTS

LOGGED BY A. Clarke DATE 6/10/94

PROJECT/PROSPECT Mt Drummond / Water Bore 2
HOLE NAME RC94CAR63
CO-ORDINATES 780160 mE 7937060 mN
COLLAR R.L.

RC DRILL LOG

AZIMUTH V
DIP

TOTAL DEPTH 78m
CASING DEPTH/TYPE 150mm PVC

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		
76	78			Pale whitish-grey, fine grained limestone. Rare interlayered black calcisiltite			992279
				EOH			

SUMMARY/COMMENTS

LOGGED BY A.Clarke DATE 6/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT: Mt Drummond / Top Rockyfls
HOLE NAME: RC94CAR65
CO-ORDINATES: 779000 mE 7938150 mN
COLLAR R.L.: 320m
AZIMUTH: Vert
DIP:
TOTAL DEPTH: 96m
CASING DEPTH/TYPE:
DRILLER: Rockdrill
DRILL TYPE: Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		
0	2		↓	Brown to pinkish fine grained quartz sandstone.			
2	4		Qtzite	Ditto	5792747		
4	6		↓	Ditto medium grained, less quartzose. Sericitic	748		
6	8			Pink to whitish-brown, finer grained, quartzite	749		
8	10		Sericitic	Pink to brown quartz sericite medium grained sandstone	750		
10	12		SST	Pink quartz-sericite sandstone	751		
12	14		Qtzite	Pink to brown quartzite	752		
14	16			Ditto	753		
16	18			Ditto	754		
18	20		↓	Ditto	755		
20	22			Pinkish quartz to argillaceous sandstone. Minor Feox stains	756		
22	24		Qtzite	Pink to pale brown quartz sandstone. Rare Feox stained fractures	757		
24	26			Ditto	758		
26	28			Ditto - quartzite	759		
28	30			Ditto	760		
30	32			Ditto	761		
32	34		↓	Whitish to pale brown quartzite. Common Feox fractured fragments	762		
34	36		Argill	Pink to brownish, argillaceous, fine grained sandstone	763		
36	38		SST	Ditto	764		
38	40		Qtzite	Gritty quartz-sericite sandstone. Some clayey fragments + Brownish limonitic qtz sandstone fragments	765		
					766		

SUMMARY/COMMENTS:

LOGGED BY: A. Clarke
DATE: 7/10/94

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94CAL65
CO-ORDINATES 779000 mE 7938150 mN
COLLAR R.L. 320

RC DRILL LOG

AZIMUTH ✓
DIP
TOTAL DEPTH
CASING DEPTH/TYPE

CRA EXPLORATION PTY LIMITED

DRILLER Rockdrill
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.
40	42			Pale pink to whitish, mg, quartzite. Some limonitic sandstone fragments	S142767
42	44		Seric.	Pink to white to pale brown, mg quartz-sericite sandstone. Some ferruginous fragments	768
44	46			Mostly brown to pale brown mg quartz-sericite argillaceous sandstone. Some ferruginous fractures	769
46	48		Qtzite	Mostly pale whitish green to occasionally pinkish, f.g., quartzite	770
48	50			Brown, gritty quartz sandstone to pale whitish green clayey siltstone	771
50	52		Qtzite	Pale whitish-brown mg quartzite	772
52	54		Arg	White to pale brown quartz sandstone (50%) with bleached white clayey siltstone fragments (50%)	773
54	56		Damp	60% whitish clayey mudstone 30% brown to pinkish argillaceous sandstone 10% ferruginous stained	774
			Sst	sandstone. Fines show colour change to olive-brown	
56	58		to	40% Pale clayey mudstone? fragments 50% quartz-sericite sandstone 10% haematite stained qtzose	775
			Mst	sandstone	
58	60		↓	Ditto	
60	62*			Olive-brown loamy fines. Whitish to brown clayey to argillaceous sandstone. Downhole contam.	776
62	64			Predominantly olive-brown clayey fines. Some whitish-brown weathered argillaceous sandstone.	777
				Some manganiferous veins and spotting	778
64	66			Brownish clays and argillaceous sandstone	
66	68		Qh	Pale greenish white to strongly FeOx stained quartz sandstone	779
68	70		SSl	Pale brownish-green clays. Minor qtz sandstone. Some ferruginous fragments	780
70	72		↓	Ditto	781
72	74		↓	Ditto	782
					783/784

SUMMARY/COMMENTS * Sub-plugged at 60m - pull rods

LOGGED BY A. Clarke DATE 7/10/94

RC DRILL LOG

CRA EXPLORATION PTY LIMITED

PROJECT/PROSPECT Mt Drummond / Top Rocky Pb
HOLE NAME RC94 CAR 65
CO-ORDINATES 779000 mE 7938150 mN
COLLAR R.L. 320
AZIMUTH ✓
DIP
TOTAL DEPTH
CASING DEPTH/TYPE
DRILLER Rockdril
DRILL TYPE Versatile 1000

DEPTH FROM(m)	DEPTH TO(m)	REC.	GRAPH. LOG	LITHOLOGIC DESCRIPTION	SAMPLE No.		
74	76			Cherty fragments with minor pinkish mauve clay fragments. Chert banded, occasionally vughy	5192 785		
76	78			Ditto	786		
78	80			Green cherty to chalcedonic unit	787		
80	82			Bright green to black platy siltstone/mudstone. Some downhole contamination	788		
82	84			Bright green to grey-green siltstone/mudstone	789		
84	86			Black to dark grey argillaceous siltstone. Minor pyritic fragments. Fresh	790	Minor py	
86	88			Ditto	791		
88	90			Ditto	792		
90	92			Ditto	793		
92	94			Ditto	794		
94	96			Ditto	795		
				EOH			

SUMMARY/COMMENTS

LOGGED BY A. Clarke

DATE 8/10/94

SHEET ____ OF ____

Appendix 3

SEL 8035 Mt Drummond
RAB Drill Hole Locations & Analytical Results

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR063	14	16	5192248	81447	-1	22	11	24	28600	689	22	94
CAR063	16	18	5192249	81447	-1	24	11	28	28500	429	26	139
CAR063	18	20	5192250	81447	-1	25	11	23	23000	477	35	187
CAR063	20	22	5192251	81447	-1	26	13	24	25600	541	47	186
CAR063	22	24	5192252	81447	-1	30	11	22	23400	635	31	131
CAR063	24	26	5192253	81447	-1	22	10	22	24300	819	26	128
CAR063	26	28	5192254	81447	-1	27	10	24	26600	707	29	112
CAR063	28	30	5192255	81447	-1	25	11	26	24800	369	54	137
CAR063	30	32	5192256	81447	-1	20	10	37	22700	404	35	169
CAR063	32	34	5192257	81447	-1	18	10	40	23500	266	41	81
CAR063	34	36	5192258	81447	-1	14	10	30	24400	356	26	33
CAR063	36	38	5192259	81447	-1	6	10	24	26300	596	15	33
CAR063	38	40	5192260	81447	-1	6	10	18	27500	588	8	41
CAR063	40	42	5192261	81447	-1	5	12	24	30400	810	10	45
CAR063	42	44	5192262	81447	-1	6	12	26	30000	772	12	46
CAR063	44	46	5192263	81447	-1	8	10	22	24100	575	10	42
CAR063	46	48	5192264	81447	-1	9	12	18	21800	616	9	37
CAR063	48	50	5192265	81447	-1	13	8	11	11900	583	13	20
CAR063	50	52	5192266	81447	-1	13	8	13	10500	426	12	24
CAR063	52	54	5192267	81447	-1	15	7	12	8100	427	10	19
CAR063	54	56	5192268	81447	-1	15	7	13	7900	371	11	30
CAR063	56	58	5192269	81447	-1	16	9	15	9300	316	12	22
CAR063	58	60	5192270	81447	-1	16	7	11	7300	314	11	21
CAR063	60	62	5192271	81447	-1	17	7	10	6700	313	8	21
CAR063	62	64	5192272	81447	-1	17	7	12	8900	357	11	29
CAR063	64	66	5192273	81447	-1	16	7	8	6800	284	11	17
CAR063	66	68	5192274	81447	-1	16	6	9	6700	285	10	19
CAR063	68	70	5192275	81447	-1	15	7	11	6500	343	11	18
CAR063	70	72	5192276	81447	-1	18	7	9	7600	415	13	19
CAR063	72	74	5192277	81447	-1	18	7	13	7100	270	15	24
CAR063	74	76	5192278	81447	-1	18	8	16	7000	259	20	35
CAR063	76	78	5192279	81447	-1	18	7	17	4100	199	15	25
CAR064	0	2	5192796	81447	-1	29	7	11	43900	72	25	17
CAR064	2	4	5192797	81447	-1	48	8	13	58500	112	28	12
CAR064	4	6	5192798	81447	-1	20	7	11	29200	169	26	14
CAR064	6	8	5192799	81447	-1	30	9	20	82800	583	26	22
CAR064	8	10	5192215	81447	-1	8	-5	11	12600	240	17	18
CAR064	10	12	5192216	81447	-1	27	8	41	75400	409	16	40
CAR064	12	14	5192217	81447	-1	19	7	31	44200	144	25	36
CAR064	14	16	5192218	81447	-1	15	7	30	32400	172	19	31

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR007	30	32	5192534	76996	-1	4	8	3	26800	135	-5	63
CAR007	32	34	5192535	76996	-1	2	8	4	28800	154	-5	32
CAR007	34	36	5192536	76996	-1	4	7	6	25200	302	-5	25
CAR007	36	38	5192537	76996	-1	4	10	3	31500	150	-5	39
CAR007	38	40	5192538	76996	-1	2	9	2	34100	130	-5	37
CAR007	40	42	5192539	76996	-1	2	9	4	34500	216	-5	36
CAR007	42	44	5192540	76996	-1	1	8	4	27200	166	-5	33
CAR007	44	46	5192541	76996	-1	1	8	3	31100	143	-5	31
CAR007	46	48	5192542	76996	-1	3	8	3	27400	277	-5	27
CAR007	48	50	5192543	76996	-1	2	8	11	33100	191	-5	35
CAR007	50	52	5192544	76996	-1	1	8	4	26600	135	-5	34
CAR007	52	54	5192545	76996	-1	-1	8	26	31800	1120	-5	33
CAR007	54	56	5192546	76996	-1	-1	8	32	32200	232	-5	40
CAR007	56	58	5192547	76996	-1	-1	9	102	32700	210	-5	33
CAR007	58	60	5192548	76996	-1	1	8	10	32400	178	-5	33
CAR007	60	62	5192549	76996	-1	3	9	6	31800	180	-5	34
CAR007	62	64	5192550	76996	-1	-1	8	2	34000	226	-5	32
CAR007	64	66	5192551	76996	-1	-1	9	59	32400	195	-5	30
CAR007	66	68	5192552	76996	-1	8	12	14	31600	301	-5	39
CAR007	68	70	5192553	76996	-1	3	9	29	32200	192	-5	33
CAR007	70	72	5192554	76996	-1	2	8	26	32500	172	-5	34
CAR007	72	74	5192555	76996	-1	-1	8	7	36900	181	-5	37
CAR007	74	76	5192556	76996	-1	-1	9	15	41500	198	-5	41
CAR007	76	78	5192557	76996	-1	3	14	43	26500	306	-5	41
CAR007	78	80	5192558	76996	-1	3	9	7	22700	1490	-5	32
CAR007	80	82	5192559	76996	-1	1	7	3	20200	1940	-5	23
CAR007	82	84	5192560	76996	-1	1	7	3	21000	1570	-5	36
CAR007	84	86	5192561	76996	-1	-1	5	2	25300	358	-5	31
CAR007	86	88	5192562	76996	-1	3	8	-2	23700	786	-5	24
CAR007	88	90	5192563	76996	-1	-1	7	8	26900	695	-5	28
CAR007	90	92	5192564	76996	-1	-1	7	3	28400	291	-5	33
CAR007	92	94	5192565	76996	-1	1	9	29	33100	209	-5	32
CAR007	94	96	5192566	76996	-1	-1	7	15	29400	604	-5	26
CAR063	0	2	5192241	81447	-1	9	5	10	28900	135	10	21
CAR063	2	4	5192242	81447	-1	21	27	21	30000	518	16	91
CAR063	4	6	5192243	81447	-1	18	19	18	21200	234	17	87
CAR063	6	8	5192244	81447	-1	22	19	20	28200	247	14	122
CAR063	8	10	5192245	81447	-1	19	16	22	23700	520	15	69
CAR063	10	12	5192246	81447	-1	23	12	23	30000	813	16	72
CAR063	12	14	5192247	81447	-1	21	12	25	31200	846	19	78

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR064	16	18	5192219	81447	-1	20	6	31	21300	156	21	34
CAR064	18	20	5192220	81447	-1	20	7	35	21700	116	27	48
CAR064	20	22	5192221	81447	-1	19	9	32	23500	145	16	48
CAR064	22	24	5192222	81447	-1	15	10	26	20600	180	20	44
CAR064	24	26	5192223	81447	-1	18	13	26	23800	165	20	74
CAR064	26	28	5192224	81447	-1	20	11	27	22200	99	18	69
CAR064	28	30	5192225	81447	-1	15	13	25	20400	143	14	74
CAR064	30	32	5192226	81447	-1	14	13	27	21100	122	15	73
CAR064	32	34	5192227	81447	-1	21	19	28	37600	181	21	71
CAR064	34	36	5192228	81447	-1	11	15	24	22600	178	16	57
CAR064	36	38	5192229	81447	-1	10	16	22	21400	125	12	44
CAR064	38	40	5192230	81447	-1	10	11	25	19900	87	14	27
CAR064	40	42	5192231	81447	-1	25	19	24	27600	114	23	35
CAR064	42	44	5192232	81447	-1	18	17	24	24600	124	21	29
CAR064	44	46	5192233	81447	-1	11	13	27	21500	117	19	27
CAR064	46	48	5192234	81447	-1	15	13	26	23600	242	19	30
CAR064	48	50	5192235	81447	-1	9	11	26	23300	216	17	39
CAR064	50	52	5192236	81447	-1	17	10	19	26200	407	16	20
CAR064	52	54	5192237	81447	-1	12	11	29	22200	276	15	25
CAR064	54	56	5192238	81447	-1	10	10	25	21200	186	13	23
CAR064	56	58	5192239	81447	-1	22	12	23	24500	210	24	25
CAR064	58	60	5192240	81447	-1	22	12	27	23800	228	15	22
CAR065	0	2	5192747	76996	-1	9	5	10	77200	230	48	167
CAR065	2	4	5192748	76996	-1	2	-5	5	36600	156	30	32
CAR065	4	6	5192749	76996	-1	2	-5	7	30000	111	43	44
CAR065	6	8	5192750	76996	-1	4	-5	4	21300	99	38	126
CAR065	8	10	5192751	76996	-1	5	-5	5	28100	63	31	38
CAR065	10	12	5192752	76996	-1	4	-5	4	14700	49	22	40
CAR065	12	14	5192753	76996	-1	9	-5	5	17500	41	19	26
CAR065	14	16	5192754	76996	-1	2	-5	2	5900	23	21	22
CAR065	16	18	5192755	76996	-1	5	-5	4	13100	37	25	23
CAR065	18	20	5192756	76996	-1	1	-5	3	9500	28	18	21
CAR065	20	22	5192757	76996	-1	1	-5	3	9200	32	15	21
CAR065	22	24	5192758	76996	-1	4	-5	7	10600	38	10	9
CAR065	24	26	5192759	76996	-1	7	-5	6	14500	41	11	24
CAR065	26	28	5192760	76996	-1	6	-5	4	11800	109	15	15
CAR065	28	30	5192761	76996	-1	6	-5	6	13700	119	11	10
CAR065	30	32	5192762	76996	-1	5	-5	11	14400	75	6	19
CAR065	32	34	5192763	76996	-1	8	-5	20	23200	150	-5	13
CAR065	34	36	5192764	76996	-1	7	-5	14	32400	152	-5	8

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR065	36	38	5192765	76996	-1	5	-5	8	32200	141	-5	13
CAR065	38	40	5192766	76996	-1	4	-5	10	38800	389	9	11
CAR065	40	42	5192767	76996	-1	2	-5	5	19800	402	-5	7
CAR065	42	44	5192768	76996	-1	3	5	11	31700	737	-5	26
CAR065	44	46	5192769	76996	-1	4	5	8	18400	704	6	17
CAR065	46	48	5192770	76996	-1	2	8	13	32100	1400	-5	40
CAR065	48	50	5192771	76996	-1	4	8	23	62200	940	-5	149
CAR065	50	52	5192772	76996	-1	2	6	12	22500	1290	10	57
CAR065	52	54	5192773	76996	-1	2	-5	13	17900	524	-5	60
CAR065	54	56	5192774	76996	-1	2	7	19	22600	1130	6	114
CAR065	56	58	5192775	76996	-1	2	-5	12	11700	393	5	64
CAR065	58	60	5192776	76996	-1	3	14	30	17200	2120	14	91
CAR065	60	62	5192777	76996	-1	3	13	30	21800	1950	13	123
CAR065	62	64	5192778	76996	-1	6	46	50	25900	10800	25	247
CAR065	64	66	5192779	76996	-1	4	23	36	23100	6300	17	171
CAR065	66	68	5192780	76996	-1	5	12	25	20000	3360	14	227
CAR065	68	70	5192781	76996	-1	54	29	63	156000	4680	17	1010
CAR065	70	72	5192782	76996	-1	26	12	37	52200	853	25	442
CAR065	72	73	5192783	76996	-1	12	10	30	39700	813	27	324
CAR065	73	74	5192784	76996	-1	10	5	26	36000	342	161	271
CAR065	74	76	5192785	76996	-1	14	5	29	58000	414	739	369
CAR065	76	78	5192786	76996	-1	13	6	28	48400	513	554	304
CAR065	78	80	5192787	76996	-1	15	8	31	49900	739	750	330
CAR065	80	82	5192788	76996	-1	11	12	29	26500	452	135	159
CAR065	82	84	5192789	76996	-1	13	14	36	32700	1370	151	174
CAR065	84	86	5192790	76996	-1	37	9	13	67300	4580	180	779
CAR065	86	88	5192791	76996	-1	28	10	25	33700	1300	139	548
CAR065	88	90	5192792	76996	-1	47	11	27	35000	1410	78	478
CAR065	90	92	5192793	76996	-1	17	12	28	38200	1650	166	323
CAR065	92	94	5192794	76996	-1	24	12	18	38500	1830	115	656
CAR065	94	96	5192795	76996	-1	8	7	27	29900	1370	50	116

Mt Drummond SEL 8035 RAB Drill Hole Locations

Holeid	Type	East	North	Zone	RI	Depth	Dip	Azim	Geologist	Dpo
CAR008	RAB94	769565	7936363	53		12	-90	0	A.CLARKE	76996
CAR009	RAB94	769565	7936463	53		6	-90	0	A.CLARKE	76996
CAR010	RAB94	769565	7936563	53		6	-90	0	A.CLARKE	76996
CAR011	RAB94	769565	7936663	53		6	-90	0	A.CLARKE	76996
CAR012	RAB94	769565	7936763	53		6	-90	0	A.CLARKE	76996
CAR013	RAB94	769565	7936863	53		6	-90	0	A.CLARKE	76996
CAR014	RAB94	769565	7936963	53		6	-90	0	A.CLARKE	76996
CAR015	RAB94	769565	7937063	53		6	-90	0	A.CLARKE	76996
CAR016	RAB94	769565	7937163	53		6	-90	0	A.CLARKE	76996
CAR017	RAB94	769565	7937263	53		6	-90	0	A.CLARKE	76996
CAR018	RAB94	769565	7937363	53		6	-90	0	A.CLARKE	76996
CAR019	RAB94	769565	7937463	53		6	-90	0	A.CLARKE	76996
CAR020	RAB94	769565	7937563	53		6	-90	0	A.CLARKE	76996
CAR021	RAB94	770370	7936050	53		6	-90	0	A.CLARKE	76996
CAR022	RAB94	770370	7936150	53		6	-90	0	A.CLARKE	76996
CAR023	RAB94	770370	7936250	53		6	-90	0	A.CLARKE	76996
CAR024	RAB94	770370	7936350	53		6	-90	0	A.CLARKE	76996
CAR025	RAB94	770370	7936450	53		6	-90	0	A.CLARKE	76996
CAR026	RAB94	770370	7936550	53		6	-90	0	A.CLARKE	76996
CAR027	RAB94	770370	7936650	53		6	-90	0	A.CLARKE	76996
CAR028	RAB94	770370	7936750	53		6	-90	0	A.CLARKE	76996
CAR029	RAB94	770370	7936850	53		12	-90	0	A.CLARKE	76996
CAR030	RAB94	770370	7936950	53		6	-90	0	A.CLARKE	76996
CAR031	RAB94	770370	7937050	53		6	-90	0	A.CLARKE	76996
CAR032	RAB94	770370	7937150	53		6	-90	0	A.CLARKE	76996
CAR033	RAB94	770370	7937250	53		6	-90	0	A.CLARKE	76996
CAR034	RAB94	770370	7937350	53		6	-90	0	A.CLARKE	76996
CAR035	RAB94	770370	7937450	53		6	-90	0	A.CLARKE	76996
CAR036	RAB94	771254	7936200	53		6	-90	0	A.CLARKE	76996
CAR037	RAB94	771254	7936300	53		6	-90	0	A.CLARKE	76996
CAR038	RAB94	771254	7936400	53		4	-90	0	A.CLARKE	76996
CAR039	RAB94	771254	7936500	53		12	-90	0	A.CLARKE	76996
CAR040	RAB94	771254	7936600	53		6	-90	0	A.CLARKE	76996
CAR041	RAB94	771254	7936700	53		6	-90	0	A.CLARKE	76996
CAR042	RAB94	771254	7936800	53		6	-90	0	A.CLARKE	76996
CAR043	RAB94	771254	7936900	53		6	-90	0	A.CLARKE	76996
CAR044	RAB94	771254	7937000	53		6	-90	0	A.CLARKE	76996
CAR045	RAB94	771254	7937100	53		6	-90	0	A.CLARKE	76996
CAR046	RAB94	771254	7937200	53		6	-90	0	A.CLARKE	76996
CAR047	RAB94	771254	7937300	53		6	-90	0	A.CLARKE	76996
CAR048	RAB94	771254	7937400	53		6	-90	0	A.CLARKE	76996
CAR049	RAB94	771254	7937600	53		6	-90	0	A.CLARKE	76996
CAR050	RAB94	771254	7937700	53		6	-90	0	A.CLARKE	76996
CAR051	RAB94	771997	7936500	53		6	-90	0	A.CLARKE	76996
CAR052	RAB94	771997	7936600	53		6	-90	0	A.CLARKE	76996
CAR053	RAB94	771997	7936700	53		12	-90	0	A.CLARKE	76996
CAR054	RAB94	771997	7936800	53		6	-90	0	A.CLARKE	76996
CAR055	RAB94	771997	7936900	53		6	-90	0	A.CLARKE	76996
CAR056	RAB94	771997	7937000	53		6	-90	0	A.CLARKE	76996
CAR057	RAB94	771997	7937100	53		6	-90	0	A.CLARKE	76996
CAR058	RAB94	771997	7937200	53		12	-90	0	A.CLARKE	76996
CAR059	RAB94	771997	7937300	53		6	-90	0	A.CLARKE	76996
CAR060	RAB94	771997	7937400	53		6	-90	0	A.CLARKE	76996
CAR061	RAB94	771997	7937500	53		6	-90	0	A.CLARKE	76996
CAR062	RAB94	771997	7937600	53		6	-90	0	A.CLARKE	76996

Mt Drummond SEL 8035 RAB Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR008	10	12	5192572	76996	-1	3	7	4	29200	225	5	41
CAR009	4	6	5192575	76996	-1	6	22	6	38300	1420	-5	39
CAR010	4	6	5192578	76996	-1	5	12	5	40800	397	-5	34
CAR011	4	6	5192581	76996	-1	9	9	21	45600	157	17	34
CAR012	4	6	5192584	76996	-1	9	9	29	40000	140	18	28
CAR013	4	6	5192587	76996	-1	5	11	25	21500	116	5	42
CAR014	4	6	5192590	76996	-1	4	10	16	32200	84	-5	40
CAR015	4	6	5192593	76996	-1	7	6	17	33500	166	17	34
CAR016	4	6	5192596	76996	-1	6	12	19	50300	124	11	38
CAR017	4	6	5192599	76996	-1	3	10	9	34000	81	-5	36
CAR018	4	6	5192602	76996	-1	4	8	11	30300	85	-5	24
CAR019	4	6	5192605	76996	-1	6	8	5	41800	83	5	31
CAR020	4	6	5192608	76996	-1	5	15	9	34500	74	-5	39
CAR021	2	4	5192610	76996	-1	8	6	16	21500	1990	-5	202
CAR022	4	6	5192613	76996	-1	3	18	4	35400	751	7	35
CAR023	4	6	5192616	76996	-1	2	-5	-2	32000	105	-5	18
CAR024	4	6	5192619	76996	-1	3	7	4	33900	157	-5	29
CAR025	4	6	5192622	76996	-1	2	7	3	35100	161	5	28
CAR026	4	6	5192625	76996	-1	2	6	3	34100	122	-5	24
CAR027	4	6	5192628	76996	-1	2	7	7	36100	236	5	29
CAR028	4	6	5192631	76996	-1	3	8	4	32400	106	-5	40
CAR029	10	12	5192637	76996	-1	1	7	2	28000	140	5	30
CAR030	4	6	5192640	76996	-1	1	-5	2	34100	103	-5	18
CAR031	4	6	5192643	76996	-1	5	6	7	28100	624	11	22
CAR032	4	6	5192646	76996	-1	1	34	3	30800	698	-5	34
CAR033	4	6	5192649	76996	-1	9	8	5	37500	200	-5	28
CAR034	4	6	5192652	76996	-1	1	10	2	35300	289	-5	39
CAR035	4	6	5192655	76996	-1	4	12	7	33400	184	7	33
CAR036	4	6	5192658	76996	-1	1	11	25	26000	114	-5	16
CAR037	4	6	5192661	76996	-1	3	8	25	20600	292	-5	29
CAR038	2	4	5192663	76996	-1	6	-5	11	11000	571	10	20

Mt Drummond SEL 8035 RAB Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR039	10	12	5192669	76996	-1	2	7	5	26900	919	11	43
CAR040	4	6	5192672	76996	-1	2	10	3	30000	197	9	41
CAR041	4	6	5192675	76996	-1	2	8	2	28500	335	12	28
CAR042	4	6	5192678	76996	-1	4	6	10	20600	1840	6	18
CAR043	4	6	5192681	76996	-1	2	7	28	18400	909	-5	28
CAR044	4	6	5192684	76996	-1	3	11	6	28900	571	-5	32
CAR045	4	6	5192687	76996	-1	1	9	5	31200	330	-5	31
CAR046	4	6	5192690	76996	-1	-1	7	16	35300	128	-5	39
CAR047	4	6	5192693	76996	-1	3	9	35	22300	98	23	55
CAR048	4	6	5192696	76996	-1	-1	5	15	23700	140	6	26
CAR049	4	6	5192699	76996	-1	-1	-5	13	28900	117	-5	7
CAR050	4	6	5192702	76996	-1	3	9	33	36600	373	7	21
CAR051	4	6	5192707	76996	-1	3	18	11	31100	2590	-5	29
CAR052	4	6	5192710	76996	-1	2	6	10	34900	2210	6	15
CAR053	10	12	5192716	76996	-1	2	-5	10	22500	2890	-5	32
CAR054	4	6	5192719	76996	-1	1	8	19	29900	896	-5	22
CAR055	4	6	5192722	76996	-1	1	10	29	35900	2260	-5	35
CAR056	4	6	5192725	76996	-1	2	9	30	29900	2300	-5	27
CAR057	4	6	5192728	76996	-1	1	9	46	21400	1140	-5	33
CAR058	10	12	5192734	76996	-1	5	-5	9	12000	2180	-5	20
CAR059	4	6	5192737	76996	-1	1	21	23	28200	1410	-5	51
CAR060	4	6	5192740	76996	-1	8	47	41	74000	777	-5	53
CAR061	4	6	5192743	76996	-1	6	35	26	79000	826	-5	49
CAR062	4	6	5192746	76996	-1	8	28	12	59000	3100	8	41

Appendix 4

SEL 8035 Mt Drummond
RC Drill Hole Locations & Analytical Results

Mt Drummond SEL 8035 RC Drill Hole Locations

Holeid	Type	East	North	Zone	Depth	Dip	Azim	Geologist	Dpo
CAR001	RC94	780090	7937960	53	84	-60	175	A.CLARKE	76996
CAR002	RC94	779580	7937920	53	72	-60	175	A.CLARKE	76995
CAR003	RC94	779075	7938090	53	78	-90	0	A.CLARKE	76995
CAR004	RC94	780899	7938217	53	48	-90	0	A.CLARKE	76996
CAR005	RC94	773984	7938463	53	90	-60	155	A.CLARKE	76996
CAR006	RC94	771212	7937525	53	102	-90	0	A.CLARKE	76996
CAR007	RC94	769700	7937750	53	96	-90	0	A.CLARKE	76996
CAR063	RC94	783770	7937360	53	78	-90	0	A.CLARKE	76996
CAR064	RC94	780160	7937060	53	60	-90	0	A.CLARKE	76996
CAR065	RC94	779115	7938190	53	96	-90	0	A.CLARKE	76996

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR001	0	2	5192280	81447	-1	8	6	8	45400	101	47	137
CAR001	2	4	5192281	76995	-1	6	-5	11	32900	63	62	25
CAR001	4	6	5192282	76995	-1	5	-5	5	22600	37	122	8
CAR001	6	8	5192283	76995	-1	4	-5	6	25900	34	117	55
CAR001	8	10	5192284	76995	-1	5	-5	5	33900	46	99	30
CAR001	10	12	5192285	76995	-1	3	-5	4	26100	38	132	27
CAR001	12	14	5192286	76995	-1	3	-5	6	17900	38	75	57
CAR001	14	16	5192287	76995	-1	3	-5	8	13300	32	115	21
CAR001	16	18	5192288	76995	-1	4	-5	15	16500	81	138	22
CAR001	18	20	5192289	76995	-1	2	-5	21	18900	77	82	83
CAR001	20	22	5192290	76995	-1	3	-5	17	19100	63	35	52
CAR001	22	24	5192291	76995	-1	3	-5	16	25500	71	40	48
CAR001	24	26	5192292	76995	-1	3	-5	29	29300	113	499	74
CAR001	26	28	5192293	76995	-1	3	-5	30	22100	54	1240	65
CAR001	28	30	5192294	76995	-1	2	-5	38	11900	70	2370	63
CAR001	30	32	5192295	76995	-1	5	-5	73	14600	504	4330	104
CAR001	32	34	5192296	76995	-1	6	6	84	12700	739	3950	99
CAR001	34	36	5192297	76995	1	15	14	159	20900	1690	8100	204
CAR001	36	38	5192298	76995	-1	20	10	125	18200	1440	9430	257
CAR001	38	40	5192299	76995	-1	24	57	169	19400	5830	6070	182
CAR001	40	42	5192300	76995	-1	29	7	172	27100	680	16200	232
CAR001	42	44	5192301	76995	-1	33	7	30	23700	267	1030	128
CAR001	44	46	5192302	76995	-1	26	20	28	36400	1620	833	163
CAR001	46	48	5192303	76995	-1	20	10	17	39500	1610	820	134
CAR001	48	50	5192304	76995	-1	26	13	26	32700	2060	1500	256
CAR001	50	52	5192305	76995	-1	26	14	36	43000	2230	812	534
CAR001	52	54	5192306	76995	-1	26	8	29	49700	925	372	266
CAR001	54	56	5192307	76995	-1	17	11	29	26400	1070	319	635
CAR001	56	58	5192308	76995	-1	16	10	32	26000	998	206	687
CAR001	58	60	5192309	76995	-1	16	12	32	29700	1150	136	633
CAR001	60	62	5192310	76995	-1	19	12	26	30000	1070	75	482
CAR001	62	64	5192311	76995	-1	13	10	30	30700	1100	76	206
CAR001	64	66	5192312	76995	-1	8	8	29	29900	1040	64	122
CAR001	66	68	5192313	76995	-1	3	7	23	32000	991	21	43
CAR001	68	70	5192314	76995	-1	4	9	26	24700	743	17	28
CAR001	70	72	5192315	76995	-1	4	10	30	22600	984	29	27
CAR001	72	74	5192316	76995	-1	5	13	34	37500	2040	16	87
CAR001	74	76	5192317	76995	-1	6	9	33	20700	874	11	30
CAR001	76	78	5192318	76995	-1	26	12	7	29200	2080	8	45
CAR001	78	80	5192319	76995	-1	22	10	16	22700	1540	12	59

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR001	80	82	5192320	76995	-1	13	9	25	52700	5290	7	45
CAR001	82	84	5192321	76995	-1	15	11	20	42900	3810	10	48
CAR002	0	2	5192322	76995	-1	13	-5	6	43200	76	22	15
CAR002	2	4	5192323	76995	-1	10	-5	5	34900	44	40	16
CAR002	4	6	5192324	76995	-1	7	-5	4	26500	29	71	86
CAR002	6	8	5192325	76995	-1	5	-5	5	24000	56	75	67
CAR002	8	10	5192326	76995	-1	5	-5	5	28100	55	97	34
CAR002	10	12	5192327	76995	-1	4	-5	4	26500	45	127	26
CAR002	12	14	5192328	76995	-1	2	-5	4	17900	76	137	102
CAR002	14	16	5192329	76995	-1	2	-5	4	21000	81	158	62
CAR002	16	18	5192330	76995	-1	5	-5	10	24200	59	233	60
CAR002	18	20	5192331	76995	-1	5	-5	10	13200	23	363	78
CAR002	20	22	5192332	76995	-1	5	-5	13	8700	16	1420	35
CAR002	22	24	5192333	76995	-1	6	-5	17	7800	18	1500	37
CAR002	24	26	5192334	76995	-1	6	-5	22	9600	37	1180	54
CAR002	26	28	5192335	76995	-1	5	-5	7	8300	22	453	31
CAR002	28	30	5192336	76995	-1	5	-5	6	6800	30	382	22
CAR002	30	32	5192337	76995	-1	6	-5	9	9600	62	447	71
CAR002	32	34	5192338	76995	-1	6	-5	13	8600	49	910	48
CAR002	34	36	5192339	76995	-1	4	-5	8	5200	87	810	48
CAR002	36	38	5192340	76995	-1	6	-5	18	6600	85	1370	62
CAR002	38	40	5192341	76995	-1	5	-5	16	7500	137	1150	52
CAR002	40	42	5192342	76995	-1	9	-5	28	13200	136	541	46
CAR002	42	44	5192343	76995	-1	8	6	32	14400	586	702	52
CAR002	44	46	5192344	76995	-1	6	12	47	18200	702	1480	96
CAR002	46	48	5192345	76995	-1	15	24	61	19600	1470	1970	164
CAR002	48	50	5192346	76995	-1	20	19	20	27500	1450	1360	216
CAR002	50	52	5192347	76995	-1	39	7	23	33400	722	1940	200
CAR002	52	54	5192348	76995	-1	37	45	24	72700	5930	1040	362
CAR002	54	56	5192349	76995	-1	24	13	29	32400	866	1300	286
CAR002	56	58	5192350	76995	-1	22	8	28	32100	227	1160	530
CAR002	58	60	5192351	76995	-1	18	12	29	32200	1540	363	613
CAR002	60	62	5192352	76995	-1	22	14	25	32600	1830	207	964
CAR002	62	64	5192353	76995	-1	14	10	28	30100	1690	113	470
CAR002	64	66	5192354	76995	-1	11	9	24	31500	1670	118	279
CAR002	66	68	5192355	76995	-1	9	9	20	37200	2200	60	118
CAR003	0	2	5192360	76996	-1	12	-5	7	66400	84	21	29
CAR003	2	4	5192361	76996	-1	5	-5	7	34000	192	37	17
CAR003	4	6	5192362	76996	-1	4	-5	6	32400	70	31	9
CAR003	6	8	5192363	76996	-1	4	-5	12	35900	110	28	16

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR003	8	10	5192364	76996	-1	1	-5	7	19400	39	23	8
CAR003	10	12	5192365	76996	-1	4	-5	7	32900	101	40	7
CAR003	12	14	5192366	76996	-1	3	-5	8	29800	100	30	14
CAR003	14	16	5192367	76996	-1	3	-5	-2	30500	186	51	7
CAR003	16	18	5192368	76996	-1	-1	-5	-2	29400	135	47	7
CAR003	18	20	5192369	76996	-1	-1	-5	-2	21300	68	27	28
CAR003	20	22	5192370	76996	-1	2	-5	-2	25200	43	11	11
CAR003	22	24	5192371	76996	-1	2	-5	-2	30100	69	13	8
CAR003	24	26	5192372	76996	-1	1	-5	-2	22300	55	25	13
CAR003	26	28	5192373	76996	-1	-1	5	-2	33900	302	15	14
CAR003	28	30	5192374	76996	-1	-1	-5	-2	14200	60	12	11
CAR003	30	32	5192375	76996	-1	-1	-5	2	23000	173	10	32
CAR003	32	34	5192376	76996	-1	-1	-5	3	9700	116	9	16
CAR003	34	36	5192377	76996	-1	-1	-5	6	16000	324	17	19
CAR003	36	38	5192378	76996	-1	2	-5	7	16500	370	188	48
CAR003	38	40	5192379	76996	-1	3	-5	12	11600	202	497	30
CAR003	40	42	5192380	76996	-1	-1	7	10	8100	241	461	21
CAR003	42	44	5192381	76996	-1	3	8	18	15200	270	799	64
CAR003	44	46	5192382	76996	-1	6	-5	35	9400	79	1900	50
CAR003	46	48	5192383	76996	-1	18	10	44	33700	247	7030	135
CAR003	48	50	5192384	76996	1	48	6	30	77100	119	11400	91
CAR003	50	52	5192385	76996	-1	35	-5	25	42900	80	8100	142
CAR003	52	54	5192386	76996	-1	12	-5	11	13100	93	1780	37
CAR003	54	56	5192387	76996	-1	40	12	12	32400	289	1420	159
CAR003	56	58	5192388	76996	-1	19	17	37	41100	176	163	96
CAR003	58	60	5192389	76996	-1	7	8	21	18000	297	541	78
CAR003	60	62	5192390	76996	-1	24	9	21	50800	564	413	500
CAR003	62	64	5192391	76996	-1	38	12	25	34600	1770	211	1020
CAR003	64	66	5192392	76996	-1	36	12	27	37700	2000	103	612
CAR003	66	68	5192393	76996	-1	28	13	28	36800	1600	233	1330
CAR003	68	70	5192394	76996	-1	18	13	29	39000	1910	236	397
CAR003	70	72	5192395	76996	-1	13	10	21	38000	1920	158	312
CAR003	72	74	5192396	76996	-1	8	8	25	29900	1280	72	91
CAR003	74	76	5192397	76996	-1	5	8	18	36400	1920	48	71
CAR003	76	78	5192398	76996	-1	5	10	20	29300	1280	27	102
CAR004	0	2	5192399	76996	-1	11	-5	10	78900	90	38	19
CAR004	2	4	5192400	76996	-1	3	-5	16	25200	58	57	23
CAR004	4	6	5192401	76996	-1	-1	-5	14	18600	41	114	26
CAR004	6	8	5192402	76996	-1	3	-5	24	23200	29	174	47
CAR004	8	10	5192403	76996	-1	6	-5	106	51700	79	514	86

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR004	10	12	5192404	76996	-1	1	16	258	184000	902	709	396
CAR004	12	14	5192405	76996	-1	1	11	482	106000	335	1360	306
CAR004	14	16	5192406	76996	-1	-1	9	338	58000	238	2330	178
CAR004	16	18	5192407	76996	-1	-1	13	165	34700	775	1450	150
CAR004	18	20	5192408	76996	-1	16	17	485	32300	1310	7530	122
CAR004	20	22	5192409	76996	1	31	5	132	36500	438	2980	39
CAR004	22	24	5192410	76996	-1	18	-5	68	31300	156	2290	28
CAR004	24	26	5192411	76996	-1	14	5	65	26900	278	2030	32
CAR004	26	28	5192412	76996	-1	11	-5	38	21700	48	1230	37
CAR004	28	30	5192413	76996	-1	11	-5	49	22200	72	1290	51
CAR004	30	32	5192414	76996	-1	12	18	68	36300	856	1980	138
CAR004	32	34	5192415	76996	-1	16	20	49	32500	1930	2760	149
CAR004	34	36	5192416	76996	-1	15	11	38	31800	360	1430	161
CAR004	36	38	5192417	76996	-1	14	9	35	26800	430	2160	160
CAR004	38	40	5192418	76996	-1	15	18	33	33600	1220	1410	154
CAR004	40	42	5192419	76996	-1	11	9	44	25100	239	749	90
CAR004	42	44	5192420	76996	1	13	15	30	25700	2100	1940	180
CAR004	44	46	5192421	76996	2	22	18	34	19900	705	3080	161
CAR004	46	48	5192422	76996	1	19	17	30	23000	738	3040	238
CAR005	0	2	5192423	76996	-1	9	28	11	61900	6880	41	43
CAR005	2	4	5192424	76996	-1	7	29	12	64400	7310	81	61
CAR005	4	6	5192425	76996	-1	2	35	11	51700	14100	47	376
CAR005	6	8	5192426	76996	-1	1	39	8	43100	31200	27	1100
CAR005	8	10	5192427	76996	-1	1	6	5	18100	2760	7	281
CAR005	10	12	5192428	76996	-1	-1	11	6	25100	9640	22	488
CAR005	12	14	5192429	76996	-1	2	23	6	30000	15000	18	835
CAR005	14	16	5192430	76996	-1	-1	12	4	21100	10400	8	759
CAR005	16	18	5192431	76996	-1	-1	5	4	16200	10100	-5	373
CAR005	18	20	5192432	76996	-1	4	8	3	19200	10800	5	542
CAR005	20	22	5192433	76996	-1	4	16	22	24300	10500	55	510
CAR005	22	24	5192434	76996	-1	4	7	7	21800	9070	13	117
CAR005	24	26	5192435	76996	-1	1	-5	-2	14700	9620	-5	108
CAR005	26	28	5192436	76996	-1	7	17	4	19100	6620	18	225
CAR005	28	30	5192437	76996	-1	3	8	2	18700	6430	-5	116
CAR005	30	32	5192438	76996	-1	-1	5	2	28000	5740	-5	43
CAR005	32	34	5192439	76996	-1	4	18	3	38900	13500	7	23
CAR005	34	36	5192440	76996	-1	5	19	4	49400	13000	10	25
CAR005	36	38	5192441	76996	-1	8	45	10	56700	18800	32	99
CAR005	38	40	5192442	76996	-1	5	35	4	53300	17800	15	109
CAR005	40	42	5192443	76996	-1	6	29	3	54700	15800	14	27

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR005	42	44	5192444	76996	-1	3	21	2	45800	18400	7	26
CAR005	44	46	5192445	76996	-1	6	48	6	78800	28500	26	204
CAR005	46	48	5192446	76996	-1	9	35	5	55000	29400	28	38
CAR005	48	50	5192447	76996	-1	9	40	5	62000	31600	29	28
CAR005	50	52	5192448	76996	-1	10	40	6	53500	26400	30	131
CAR005	52	54	5192449	76996	-1	8	35	5	47200	24700	24	159
CAR005	54	56	5192450	76996	-1	8	31	6	39100	25100	26	208
CAR005	56	58	5192451	76996	-1	9	33	8	44000	28600	32	288
CAR005	58	60	5192452	76996	-1	7	28	7	34000	20800	29	225
CAR005	60	62	5192453	76996	-1	4	14	5	18200	9190	16	96
CAR005	62	64	5192454	81447	-1	7	17	7	23300	14300	31	88
CAR005	64	66	5192455	81447	-1	8	19	20	32700	16100	27	154
CAR005	86	88	5192466	76996	-1	10	21	14	32900	4150	24	356
CAR005	88	90	5192467	76996	-1	10	19	16	32000	3720	22	136
CAR006	0	2	5192468	76996	-1	5	7	10	32200	729	-5	118
CAR006	2	4	5192469	76996	-1	3	10	39	33700	428	-5	85
CAR006	4	6	5192470	76996	-1	1	6	25	21800	545	-5	61
CAR006	6	8	5192471	76996	-1	2	10	32	32900	242	-5	81
CAR006	8	10	5192472	76996	-1	2	35	27	31100	1610	-5	97
CAR006	10	12	5192473	76996	-1	2	45	24	37400	802	-5	135
CAR006	12	14	5192474	76996	-1	2	14	22	19100	318	6	233
CAR006	14	16	5192475	76996	-1	1	-5	12	10900	129	-5	34
CAR006	16	18	5192476	76996	-1	1	-5	9	9000	457	-5	42
CAR006	18	20	5192477	76996	-1	4	8	21	17600	627	-5	86
CAR006	20	22	5192478	76996	-1	2	9	19	17300	793	-5	51
CAR006	22	24	5192479	76996	-1	3	17	23	34100	445	-5	64
CAR006	24	26	5192480	76996	-1	6	17	19	40500	291	42	152
CAR006	26	28	5192481	76996	-1	1	12	24	40000	691	27	77
CAR006	28	30	5192482	76996	-1	1	11	24	41300	923	22	66
CAR006	30	32	5192483	76996	-1	1	12	19	54800	1580	24	84
CAR006	32	34	5192484	76996	-1	1	10	21	47300	1520	22	65
CAR006	34	36	5192485	76996	-1	1	8	18	43100	1500	22	59
CAR006	36	38	5192486	76996	-1	2	9	19	50800	1840	27	78
CAR006	38	40	5192487	76996	-1	1	10	17	33300	369	6	62
CAR006	40	42	5192488	76996	-1	2	9	18	32500	336	5	59
CAR006	42	44	5192489	76996	-1	1	8	20	34300	787	15	66
CAR006	44	46	5192490	76996	-1	2	8	21	32800	378	21	59
CAR006	46	48	5192491	76996	-1	2	8	20	32600	305	10	59
CAR006	48	50	5192492	76996	-1	3	9	18	30900	541	-5	72
CAR006	50	52	5192493	76996	-1	4	9	21	36000	826	-5	61

Mt Drummond SEL 8035 RC Drill Hole Sample Ledger

Holeid	Dfrom	Dto	Sampno	Dpo	Ag ppm	As ppm	Co ppm	Cu ppm	Fe ppm	Mn ppm	Pb ppm	Zn ppm
CAR006	52	54	5192494	76996	-1	2	9	26	35200	1120	-5	62
CAR006	54	56	5192495	76996	-1	3	9	19	30100	1230	-5	68
CAR006	56	58	5192496	76996	-1	2	8	20	33400	605	-5	65
CAR006	58	60	5192497	76996	-1	5	10	20	34600	893	-5	65
CAR006	60	62	5192498	76996	-1	5	11	23	32000	1590	5	62
CAR006	62	64	5192499	76996	-1	5	8	22	27900	617	18	53
CAR006	64	66	5192500	76996	-1	7	8	24	26500	641	67	56
CAR006	66	68	5192501	76996	-1	11	10	7	24500	401	90	54
CAR006	68	70	5192502	76996	-1	10	9	9	26800	1760	52	73
CAR006	70	72	5192503	76996	-1	6	7	21	27400	342	34	60
CAR006	72	74	5192504	76996	-1	7	9	24	29500	397	26	78
CAR006	74	76	5192505	76996	-1	5	9	25	32400	718	8	61
CAR006	76	78	5192506	76996	-1	4	10	23	31100	592	6	56
CAR006	78	80	5192507	76996	-1	3	9	27	32100	372	5	60
CAR006	80	82	5192508	76996	-1	2	7	19	32000	526	-5	56
CAR006	82	84	5192509	76996	-1	2	6	20	27300	666	-5	53
CAR006	84	86	5192510	76996	-1	3	8	20	33400	578	5	75
CAR006	86	88	5192511	76996	-1	5	8	14	26400	890	30	58
CAR006	88	90	5192512	76996	-1	1	7	16	26600	450	12	53
CAR006	90	92	5192513	76996	-1	2	6	16	25900	805	6	72
CAR006	92	94	5192514	76996	-1	1	6	12	26100	366	7	53
CAR006	94	96	5192515	76996	-1	3	7	11	21800	1450	7	45
CAR006	96	98	5192516	76996	-1	3	7	12	24500	765	26	54
CAR006	98	100	5192517	76996	-1	3	6	13	21500	787	24	72
CAR006	100	102	5192518	76996	-1	3	6	11	21600	867	25	54
CAR007	0	2	5192519	76996	-1	17	12	60	84800	364	24	30
CAR007	2	4	5192520	76996	-1	7	13	16	51900	160	8	32
CAR007	4	6	5192521	76996	-1	5	7	3	45000	90	-5	29
CAR007	6	8	5192522	76996	-1	4	7	3	42300	89	-5	141
CAR007	8	10	5192523	76996	-1	4	7	2	36200	105	9	63
CAR007	10	12	5192524	76996	-1	5	10	2	30300	77	-5	54
CAR007	12	14	5192525	76996	-1	5	13	-2	30800	97	-5	211
CAR007	14	16	5192526	81447	-1	13	19	4	30500	274	15	69
CAR007	16	18	5192527	81447	-1	12	15	4	37700	264	11	58
CAR007	18	20	5192528	81447	-1	14	15	4	35500	172	14	87
CAR007	20	22	5192529	81447	-1	14	16	5	40200	223	15	61
CAR007	22	24	5192530	81447	-1	13	17	5	38900	174	12	61
CAR007	24	26	5192531	76996	-1	8	12	-2	36300	230	-5	94
CAR007	26	28	5192532	76996	-1	4	5	5	18800	156	-5	27
CAR007	28	30	5192533	76996	-1	9	6	2	23400	146	-5	33

CR95/316

CARRARA RANGE GROUP

Pc d	**TOP ROCKY RHYOLITE** Massive reddish-brown Feldspar Porphyritic Rhyolite tuff and Lapilli tuffs, shallow intrusives
Pc c	Blocky medium-coarse grained pinkish Quartz/Feldspathic Sandstones
Pc b	**MITCHEBO VOLCANICS** Interbedded Basaltic volcanics/lavas and blocky lavas, siltstones, sandstones, ? trachytes
Pc a	**DON CREEK SANDSTONE** Massive medium-coarse grained Quartz sandstone/Quartzite Local Quartz pebble conglomerates

(CARPENTARIAN)

(EARLY PROTEROZOIC)

EARLY META-MORPHICS

Plm	Phyllite, Quartz-sericite schist, Quartzite, sandstone, siltstone, chert, ironstone

MUSSEL-BROOK FORMATION

Pmb g	Siltstone, minor sandstone
Pmb f	Massive quartzite
Pmb e	Ferruginous dolomitic siltstones - sandstone, siltstones, quartzite, stromatolitic breccias and sandstones
Pmb d	Coarse grained quartz sandstone
Pmb c	Siltstones, flaggy white/buff/grey dolomitic siltstones
Pmb b	Dolomitic siltstones, clayey sandstones
Pmb a	Flaggy massive orthoquartzite and conglomerates (Pebbles/boulders of quartzite/sandstone, felsic volcanics and quartz)

PLAIN CREEK FORMATION

Pma f	Normal-reverse graded dolomitic sandstones and siltstones
Pma e	Siltstone-shale? sandstone minor (poorly exposed)
Pma d	Orange sandstone with white quartz sandstone at base, Fe stone beds near base
Pma c	Fine grained dolomitic? sandstone -siltstone
Pma b	Siltstones (dolomitic ?) interbedded with sandstones, minor ferruginous siltstone bed
Pma a	Thin-thickly bedded brown sandstone, locally ferruginous, minor pebbles Ps_2 - Siltstone unit

Ps	Thickly bedded quartz sandstone Stratigraphic position uncertain

LAWN HILL FORMATION

Pmh	Dolomites, shales, siltstones, sandstones, (Poorly exposed)

Silicification

Strong ferruginization

Contact

Unconformity

Bedding form lines

Cliff

Quartz vein

K	Clayey sandstone, siltstone, minor chert - Commonly brecciate forms prominant caps

Fault / lineament

Mag north

Grid North

500 0 500 1000 1500 (meters)

CRA EXPLORATION PTY LIMITED

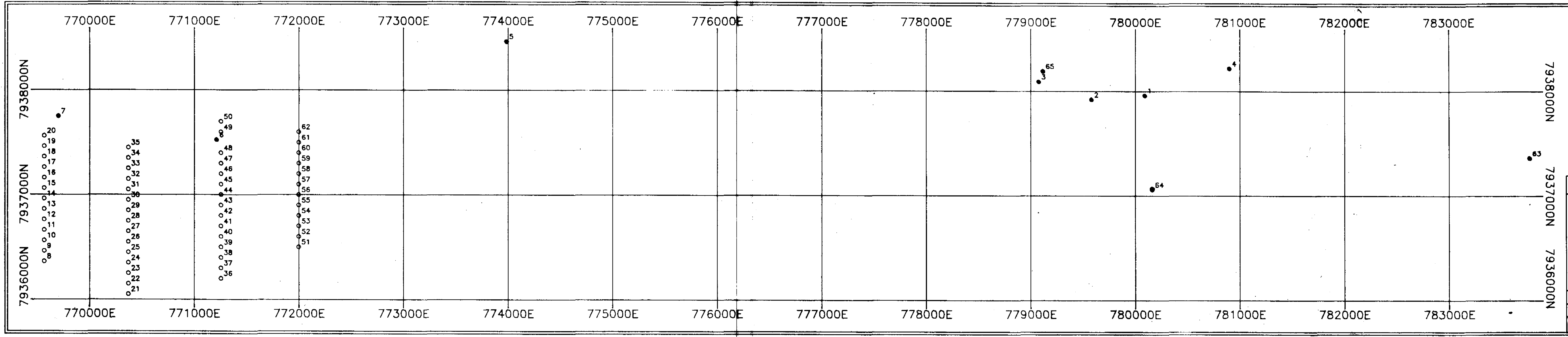
MT DRUMMOND SEL 8035

GEOLOGY

Field mapping by TC Moody & CL Stegman

AUTHOR	DRAWN	DATE	SCALE	REPORT
TC Moody	TC Moody	26/7/93	1:25000	20588
REF. Mt. Drummond SE53-12	FILE MTDRUMG.PLT	PLAN No. NTm137		

CR95/316



Magnetic North

o 20 RAB • 2 RC DRILLHOLE

500 0 500 1000 1500 (meters)

CRA EXPLORATION PTY LIMITED

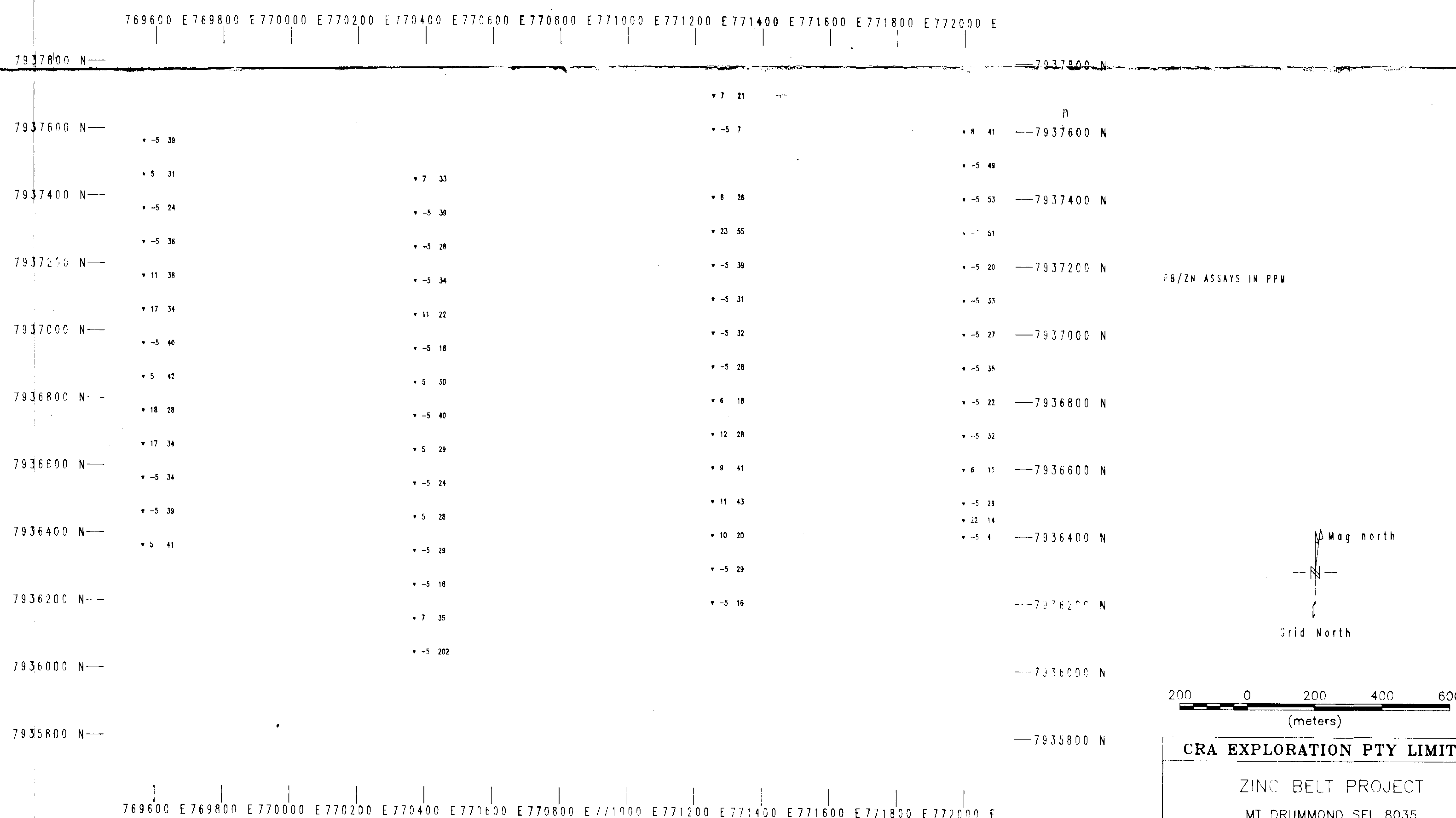
MT DRUMMOND SEL 8035

MT DRUMMOND

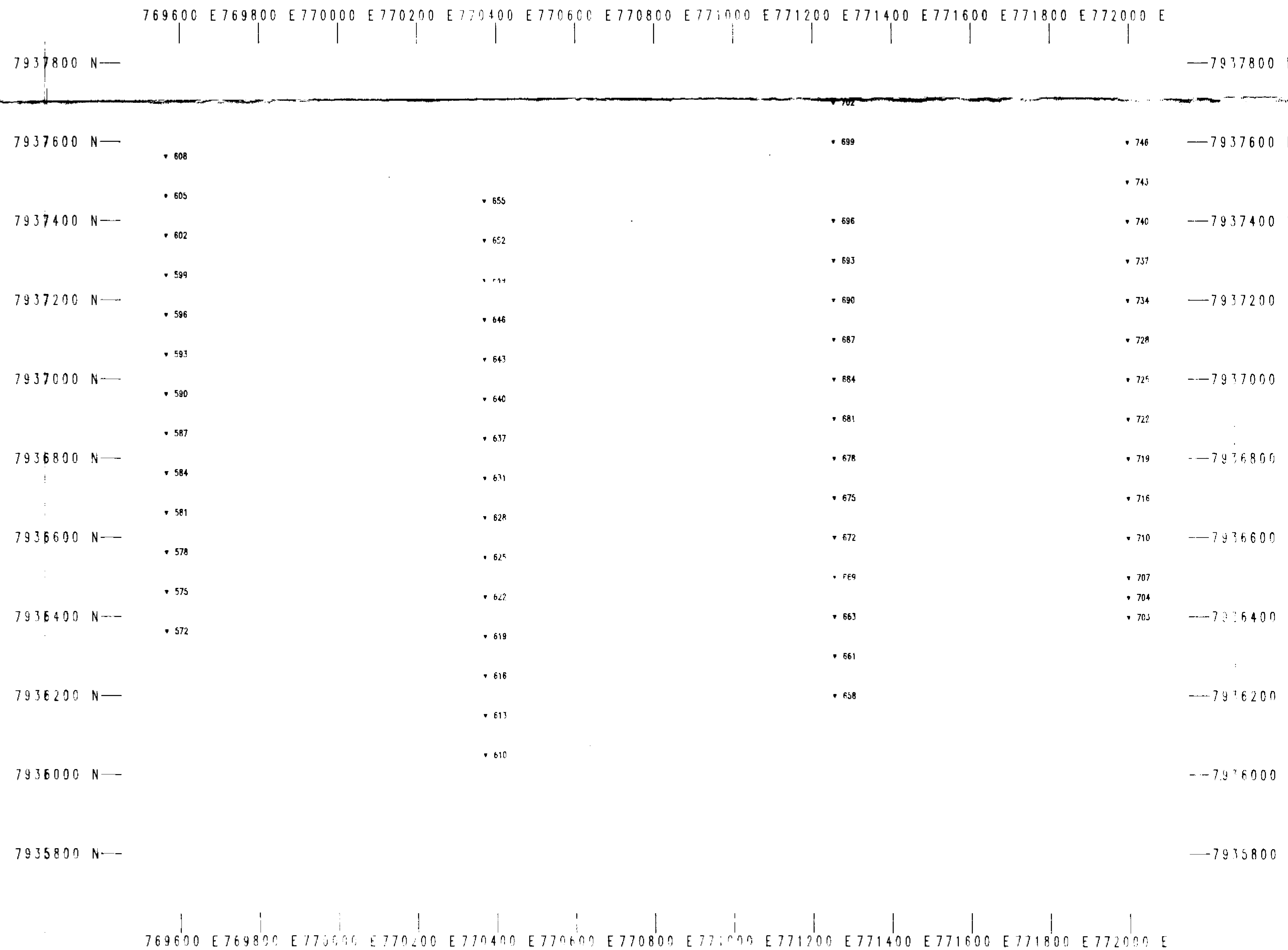
RAB & RC DRILLING PROGRAM 1994

HOLE LOCATIONS

AUTHOR	DRAWN	DATE	SCALE	REPORT
S.GROEN	S.GROEN	FEB 95	1:25000	20588
REF. SE53-12		FILE	PLAN No. NTm167	



CRA EXPLORATION PTY LIMITED				
ZINC BELT PROJECT MT DRUMMOND SEL 8035 RAB SAMPLE PB/ZN ASSAYS				
AUTHOR	DRAWN	DATE	SCALE	REPORT
A.CLARKE	A.CLARKE	NOV 1994	1:10000	20588
REF. MT DRUMMOND		FILE	PLAN No.NTm159	



ALL SAMPLE NUMBERS PREFIXED BY 5192

CR95/316

Mag north

Grid North

200 0 200 400 600

(meters)

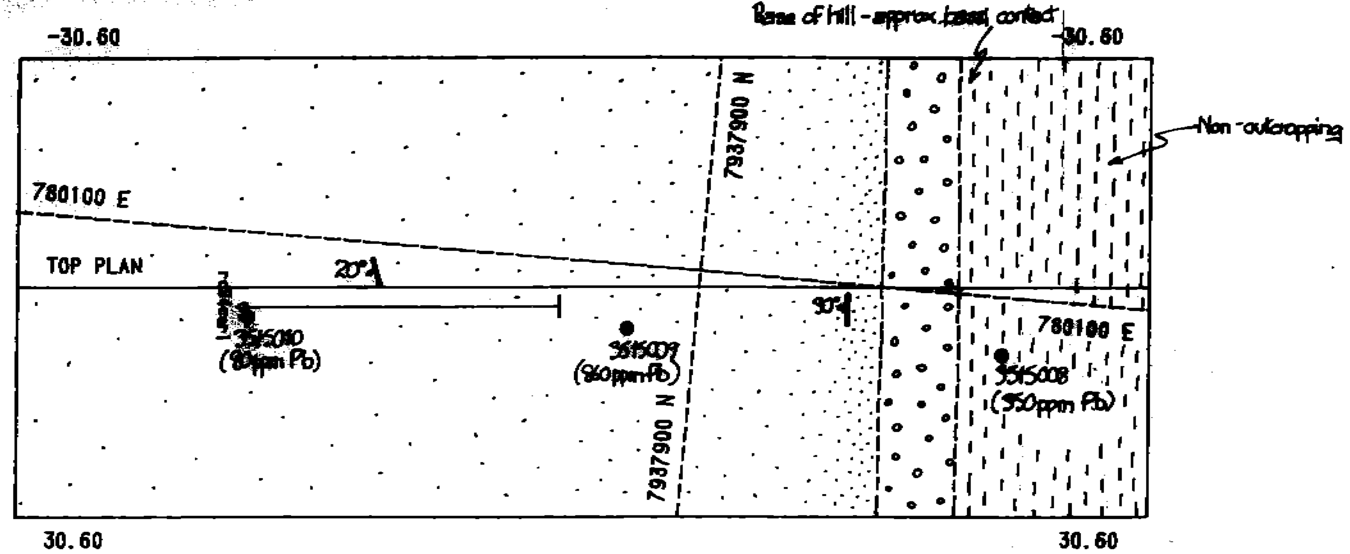
CRA EXPLORATION PTY LIMITED

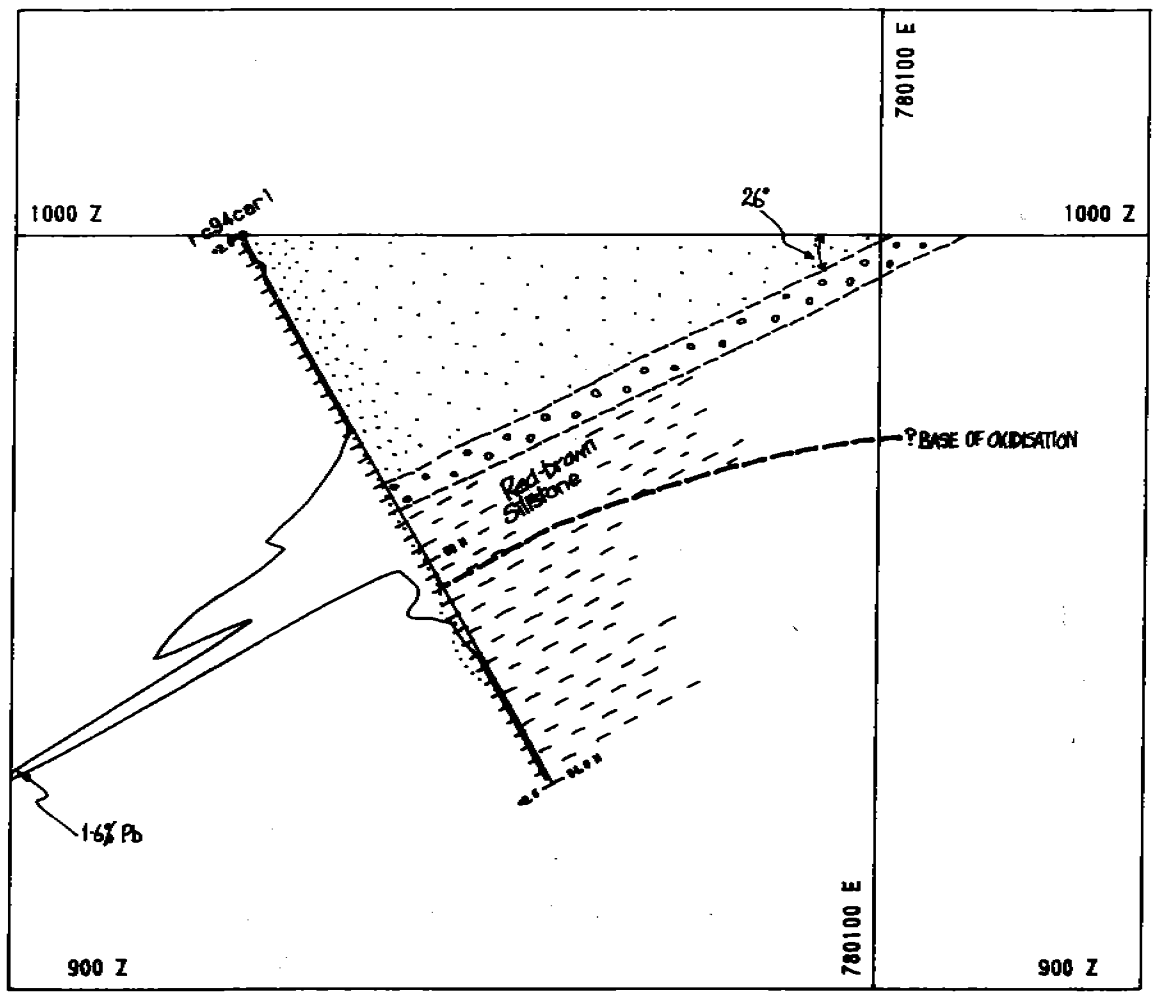
ZINC BELT PROJECT

MT DRUMMOND SEL 8035

RAB SAMPLE LOCATIONS

AUTHOR	DRAWN	DATE	SCALE	REPORT
A.CLARKE	A.CLARKE	NOV 1994	1:10000	20588
REF. MT DRUMMOND		FILE		PLAN No.NTm158





HOLES PLOTTED

TOTAL 1

rc94car1

LEGEND

PROTEROZOIC PLAIN CREEK FORMATION

- Pink to pale brown sericitic argillaceous to quartzose sandstone
- White vughy quartzite with chalcedony and Goethitic zones
- Contact disconformity ?
- Grey to black, occasionally carbonaceous siltstone (when fresh)

PROFILES	UNIT	L/R	PEN	LIN	TIC	AVDEP	
Pb	ppm	R	1	1	Y	0	lcm=2500ppm
Zn	ppm	R	1	3	Y	0	

SECTION SPECS :

REF. PT. E, N	780090	7937990
EXTENTS	150	130
SECTION TOP, BOT	1030	900
TOLERANCE +/-	100 M	

SCALE 1 : 1000

10 0 10 20 30 40 50 M

AZIMUTH (DEG) = 175

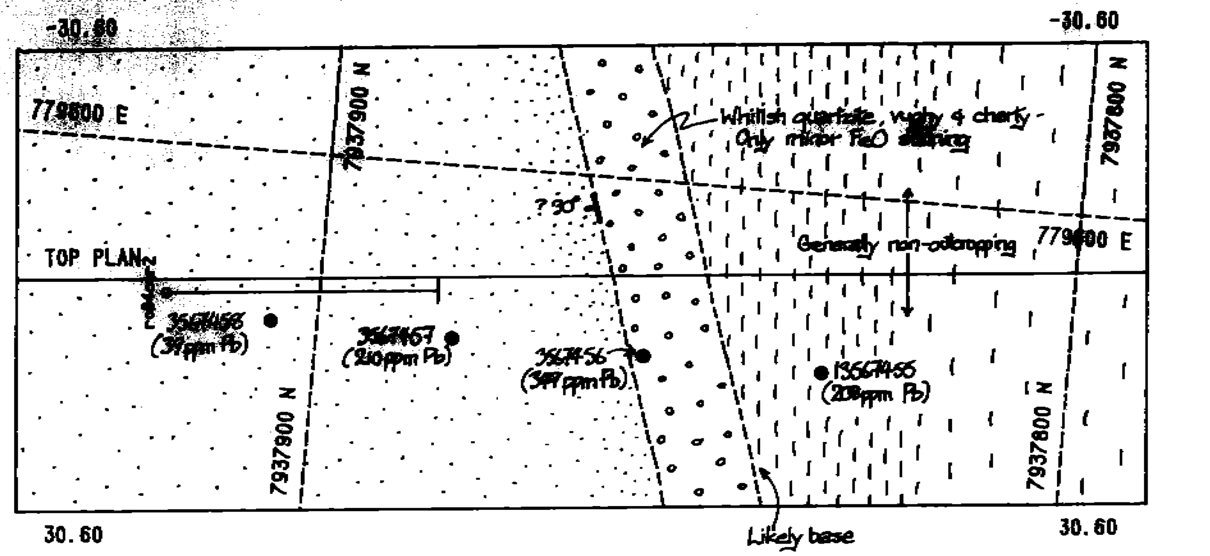
N E S W

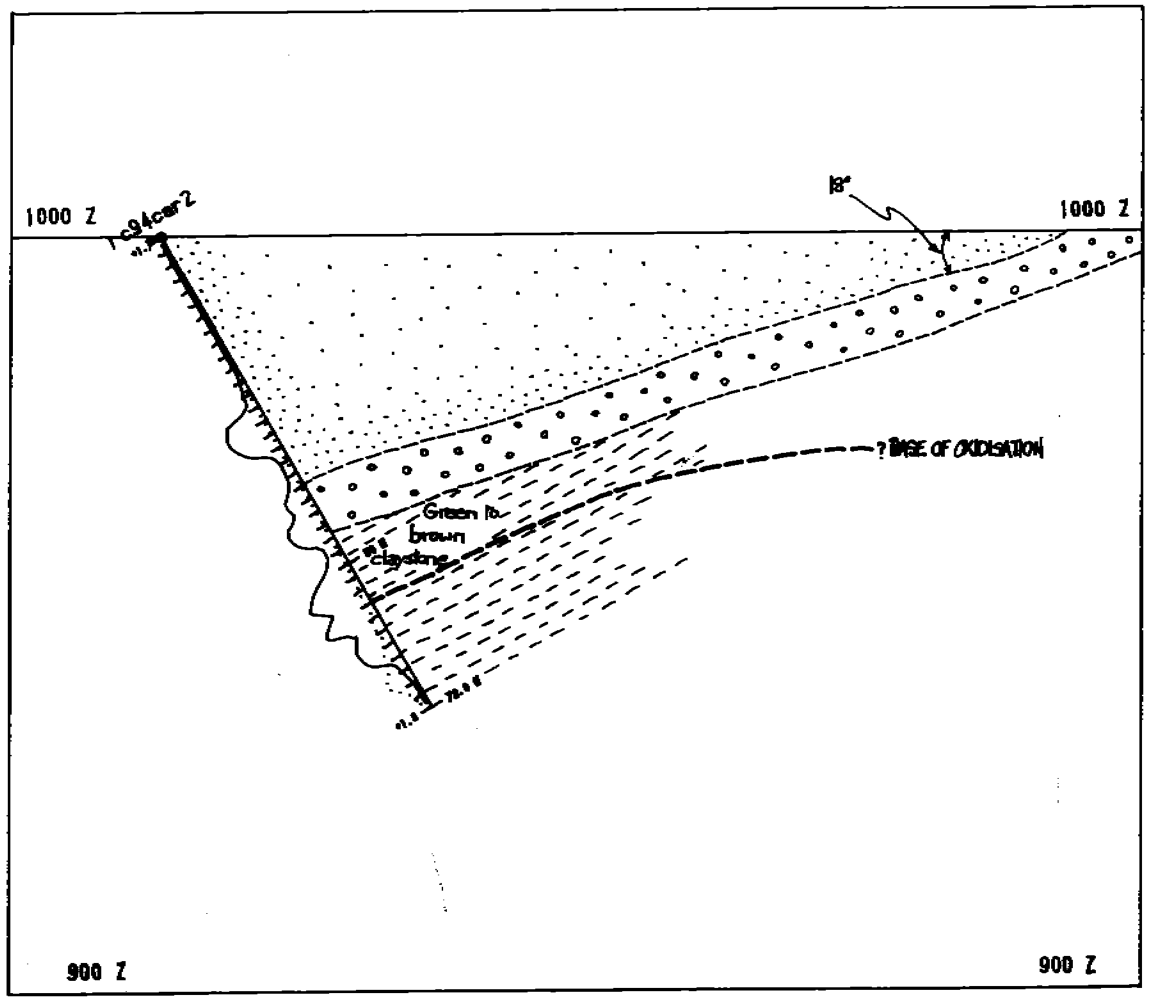
ZINC BELT PROJECT

MT DRUMMOND SEL 8035 TOP ROCKY

DRILL SECTION RC94CAR1

Holeinl 2.04.00	11-NOV-1994	17:33:40
PLOTTED BY : A.CLARKE		[redacted]
CHECKED BY :		[redacted]





HOLES PLOTTED

TOTAL 1

rc94car2

LEGEND

PROTEROZOIC PLAIN CREEK FORMATION

- Pink to pale brown sericitic argillaceous to quartzose sandstone
- White vughy quartzite with chalcedony and Goethitic zones
- Contact disconformity ?
- Grey to black, occaisonally carbonaceous siltstone (when fresh)

PROFILES	UNIT	L/R	PEN	LIN	TIC	AVDEP
Pb	ppm	R	1	1	Y	0
Zn	ppm	R	1	3	Y	0

1cm=2500ppm

SECTION SPECS :

REF. PT. E, N	779580	7937940
EXTENTS	150	130
SECTION TOP, BOT	1030	900
TOLERANCE +/-	100 M	

SCALE 1 : 1000

10 0 10 20 30 40 50 M

AZIMUTH (DEG) = 175

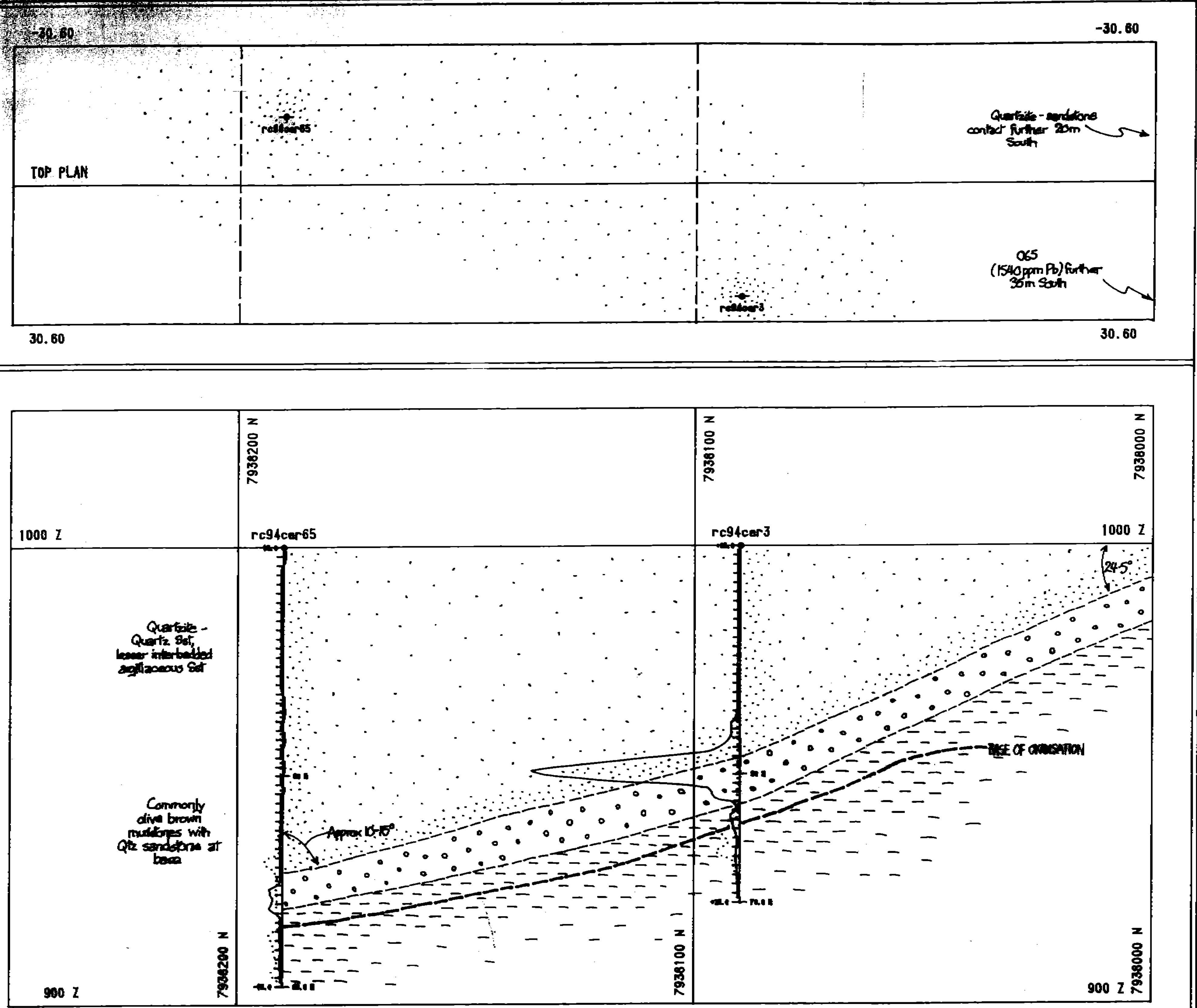
N E S W

ZINC BELT PROJECT

MT DRUMMOND SEL 8035 TOP ROCKY

DRILL SECTION RC94CAR2

Holeinl 2.04.00	11-NOV-1994	17:23:25
PLOTTED BY : A.CLARKE		REPORT NO: 20588
CHECKED BY :		PLAN NO: NTm161



HOLES PLOTTED

TOTAL 2

rc94car3 rc94car65

LEGEND

PROTEROZOIC PLAIN CREEK FORMATION

- Pink to pale brown sericitic argillaceous to quartzose sandstone
- White vughy quartzite with chalcedony and Goethitic zones
- Contact disconformity ?
- Grey to black, occasionally carbonaceous siltstone (when fresh)

PROFILES	UNIT	L/R	PEN	LIN	TIC	AVDEP
Pb	ppm	R	1	1	Y	0
Zn	ppm	R	1	3	Y	0

lcm=2500ppm

SECTION SPECS :

REF. PT. E, N	779100	7938250
EXTENTS	250	130
SECTION TOP, BOT	1030	900
TOLERANCE +/-	150 M	

SCALE 1 : 1000

10 0 10 20 30 40 50 M

AZIMUTH (DEG) = 180

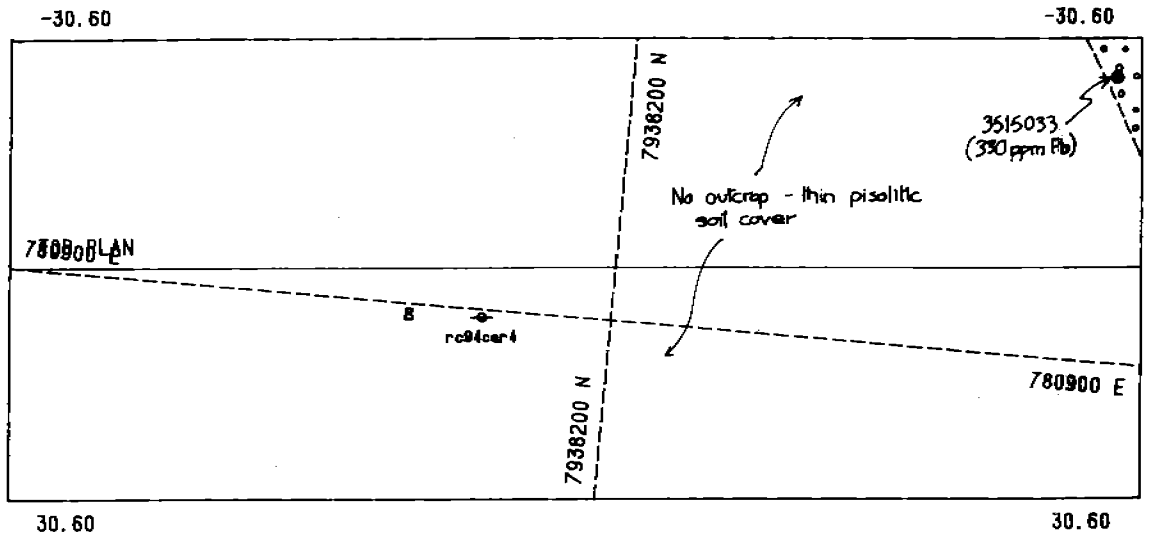
N E S W

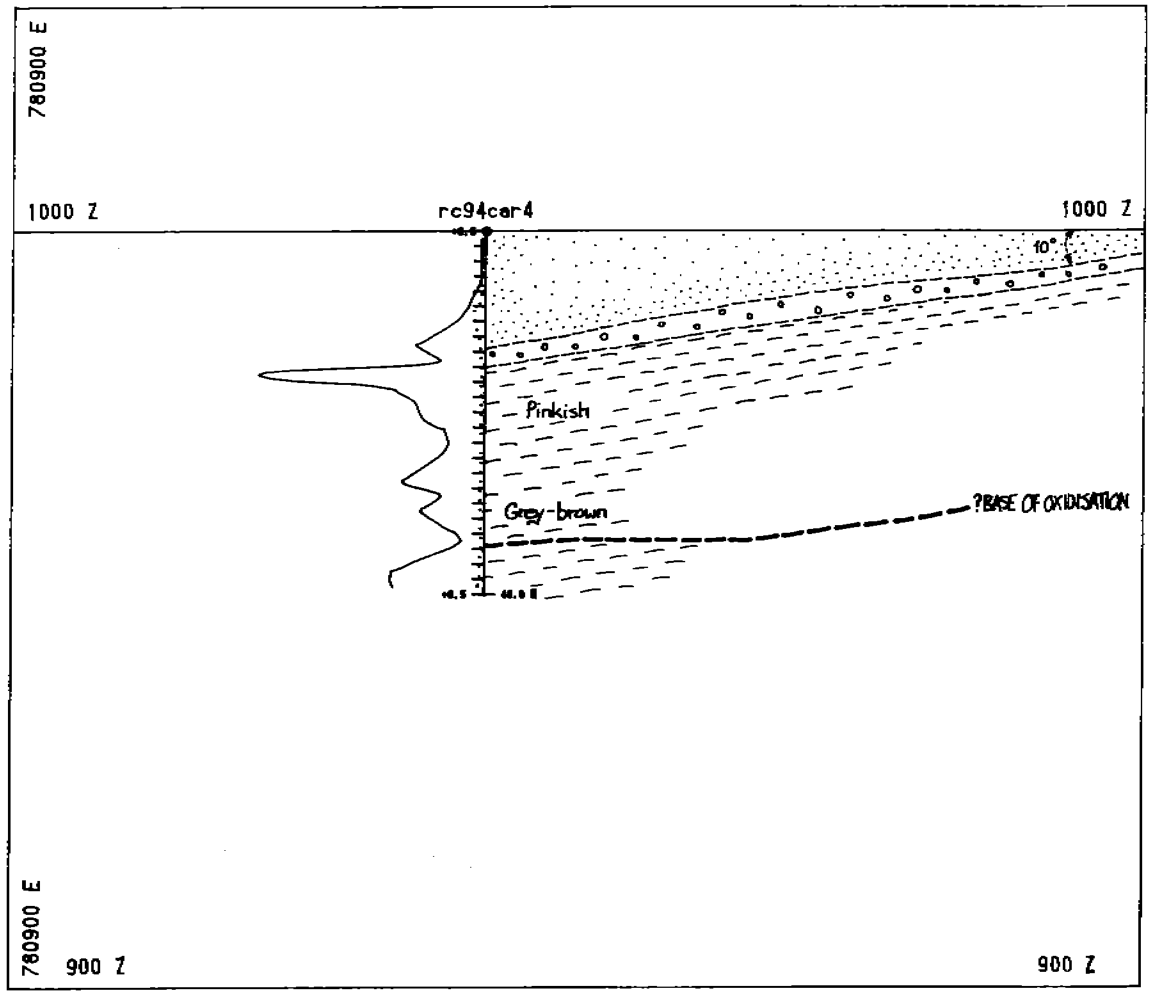
ZINC BELT PROJECT

MT DRUMMOND SEL 8035 TOP ROCKY

DRILL SECTION RC94CAR3,65

Holeinl 2.04.80	11-NOV-1994	15:56:07
PLOTTED BY : A.CLARKE		REPORT NO: 20588
CHECKED BY :		PLAN NO: NTm162





HOLES PLOTTED

TOTAL 1

rc94car4

LEGEND

PROTEROZOIC PLAIN CREEK FORMATION

Pink to pale brown sericitic argillaceous to quartzose sandstone

White vughy quartzite with chalcedony and Goethitic zones

Contact disconformity ?

Grey to black, occaisonally carbonaceous siltstone (when fresh)

PROFILES	UNIT	L/R	PEN	LIN	TIC	AVDEP
Pb	ppm	R	1	1	Y	0
Zn	ppm	R	1	3	Y	0

lcm=2500ppm

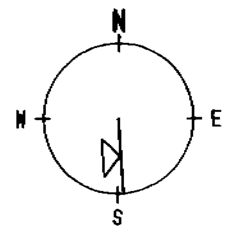
SECTION SPECS :

REF. PT. E, N	780900	7938280
EXTENTS	150	130
SECTION TOP, BOT	1030	900
TOLERANCE +/-	100 M	

SCALE 1 : 1000

10 0 10 20 30 40 50 M

AZIMUTH (DEG) - 175

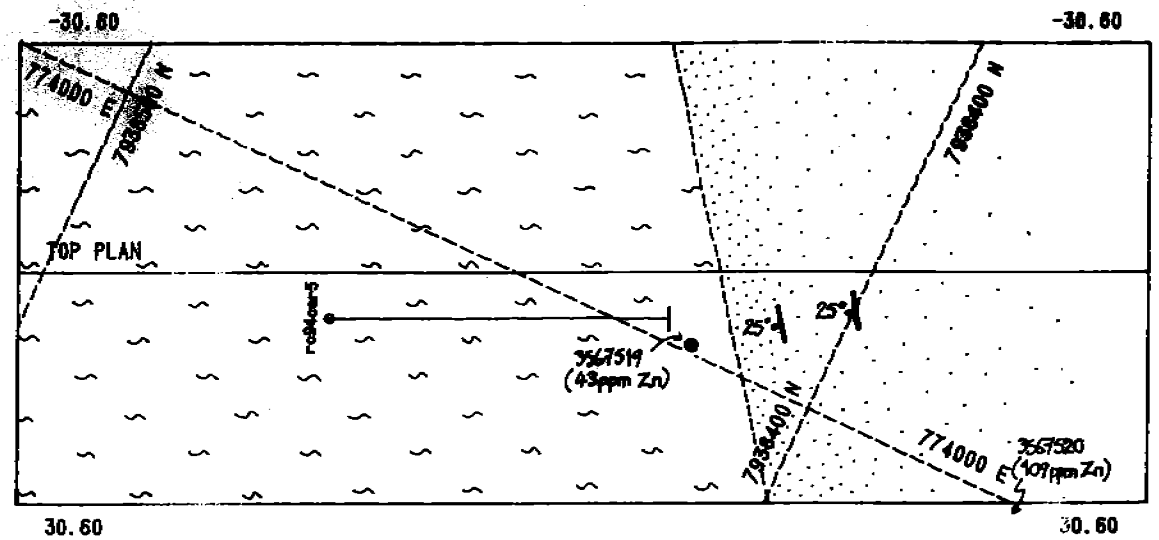


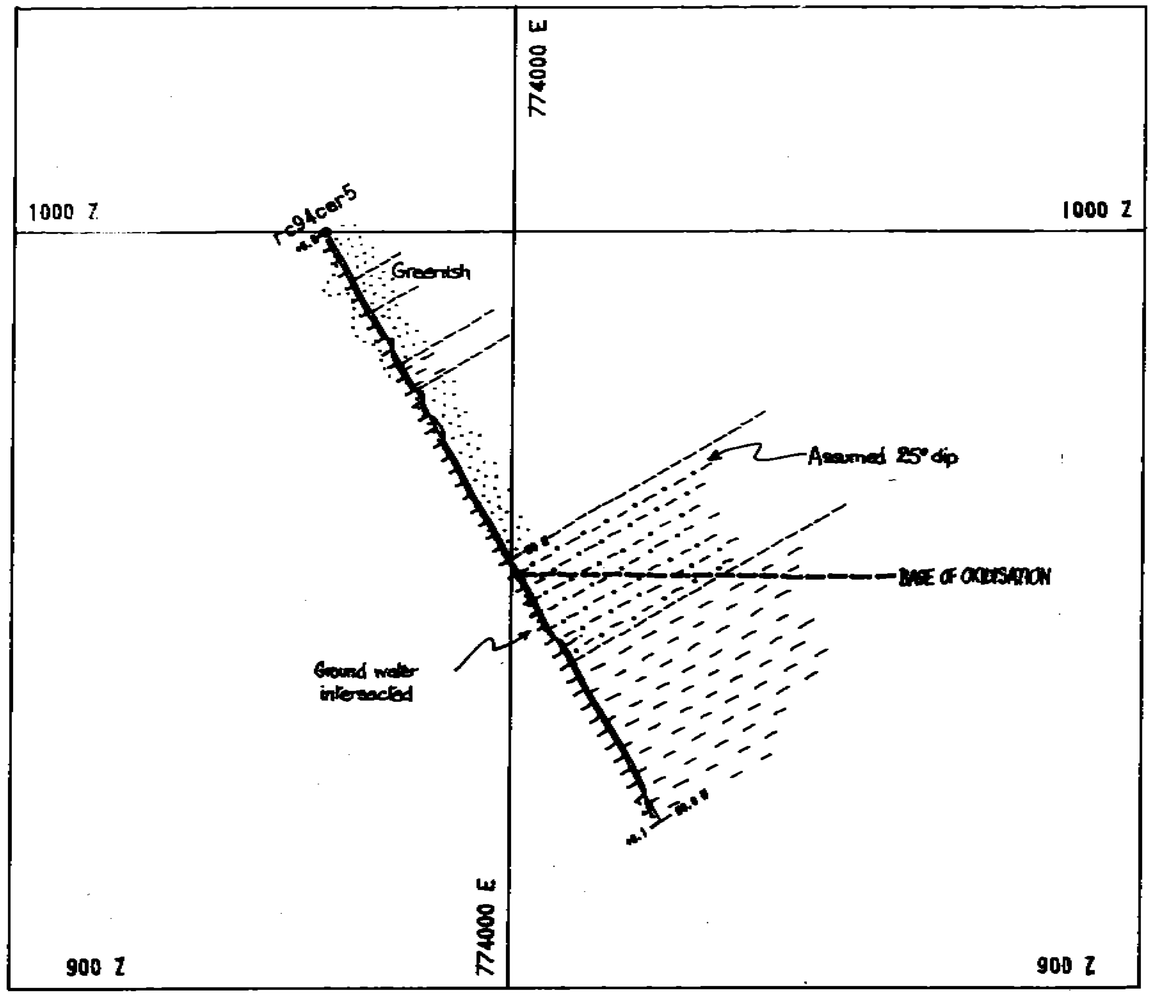
ZINC BELT PROJECT

MT DRUMMOND SEL 8035 TOP ROCKY

DRILL SECTION RC94CAR4

Holeinl 2.04.00	11-NOV-1994	17:38:12
PLOTTED BY : A.CLARKE		REPORT NO: 20588
CHECKED BY :		PLAN NO: NTm163





HOLES PLOTTED

TOTAL 1

rc94cer5

LEGEND

Soil cover

PROTEROZOIC PLAIN CREEK FORMATION

- Immature, lithic quartz-sericite sandstone
- Grey sericitic siltstone
- Black, sericitic, siliceous siltstone

PROFILES	UNIT	L/R	PEN	LIN	TIC	AVDEF
Pb	ppm	R	1	1	Y	0
Zn	ppm	R	1	3	Y	0

1cm=2500ppm

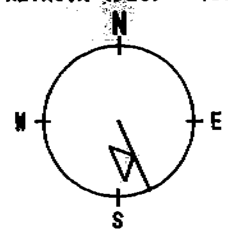
SECTION SPECS :

REF. PT. E, N	773972	7938503
EXTENTS	150	130
SECTION TOP, BOT	1030	900
TOLERANCE +/-	100 M	

SCALE 1 : 1000

10 0 10 20 30 40 50 M

AZIMUTH (DEG) = 155

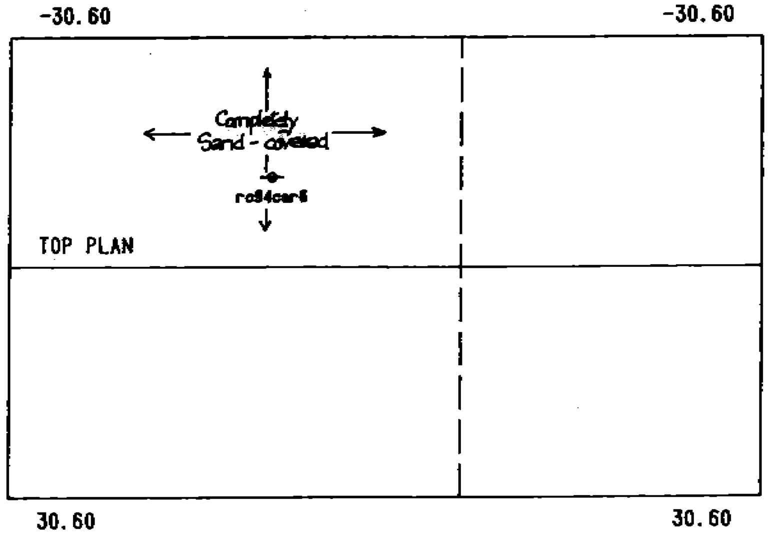


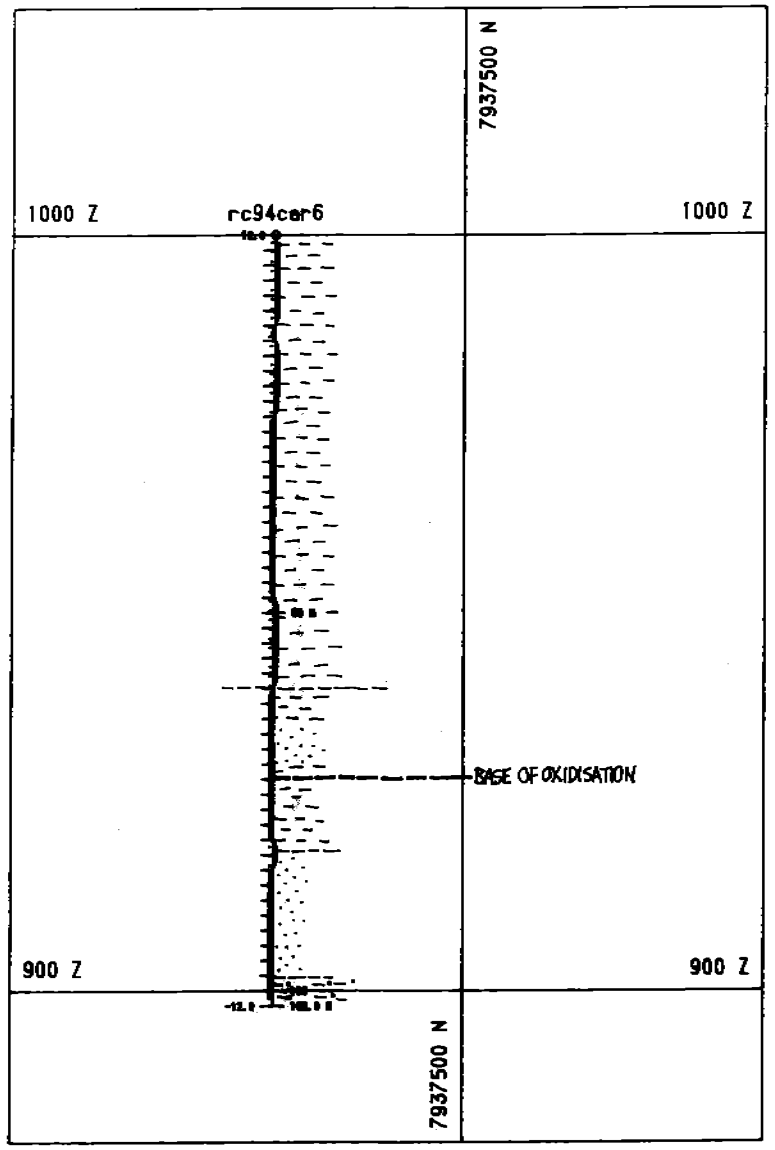
ZINC BELT PROJECT

MT DRUMMOND SEL 8035 ROCKHOLE

DRILL SECTION RC94CAR5

Holein1 2.04.00	11-NOV-1994	17:42:27
PLOTTED BY : A.CLARKE		REPORT: 20588
CHECKED BY :		PLAN NO: NTm164





HOLES PLOTTED

TOTAL 1

rc94car6

LEGEND

PROTEROZOIC LAWN HILL FORMATION ??

Pinkish to grey-green claystone

Interbedded green-grey sericitic mudstone/ sandstone

PROFILES	UNIT	L/R	PEN	LIN	TIC	AVDEP	VSCALE	RANGE
Pb	ppm	R	1	1	Y	0	2500	5 TO ?
Zn	ppm	R	1	3	Y	0	2500	5 TO ?

SECTION SPECS :

REF. PT. E, N	771200	7937560
EXTENTS	100	150
SECTION TOP, BOT	1030	880
TOLERANCE +/-	100 M	

SCALE 1 : 1000

10 0 10 20 30 40 50 M

AZIMUTH (DEG) = 180

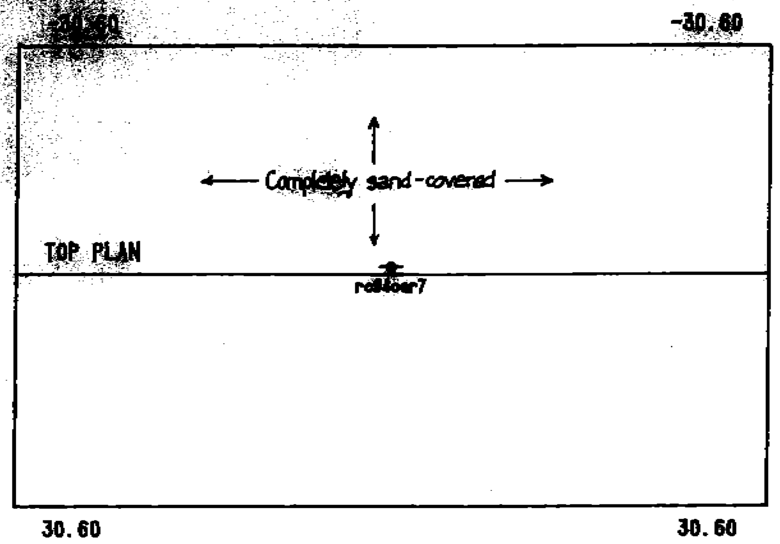
N E S W

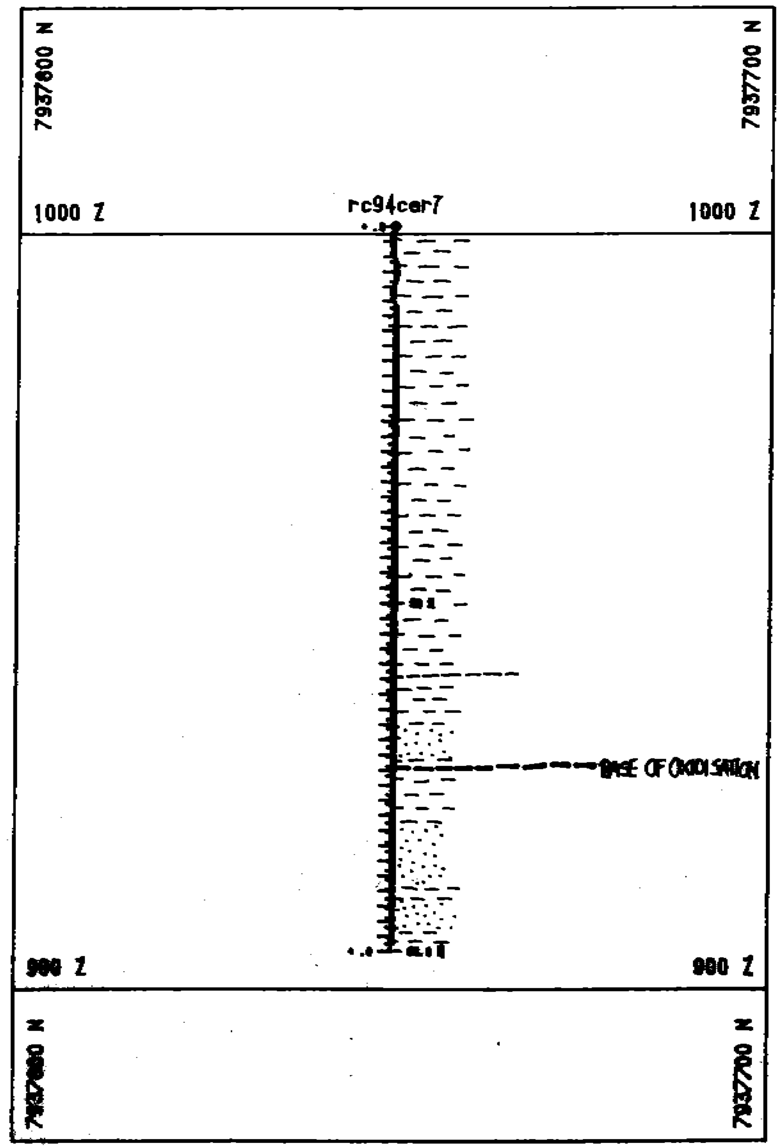
ZINC BELT PROJECT

MT DRUMMOND SEL 8035 GEOTEM TARGET 1

DRILL SECTION RC94CAR6

Holeinl 2.04.00	11-NOV-1994	17:49:23
PLOTTED BY : A.CLARKE		REPORT: 20586
CHECKED BY :		PLAN NO. NTm165



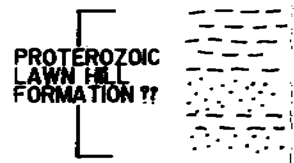


HOLES PLOTTED

TOTAL 1

rc94car7

LEGEND



Pinkish to grey-green claystone

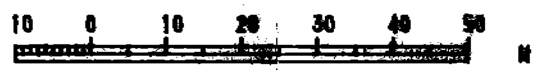
Interbedded green-grey sericitic mudstone/ sandstone

PROFILES	UNIT	L/R	PEN	LIN	TIC	AVDEP	VSCALE	RANGE
Pb	ppm	R	1	1	Y	0	2500	5 TO ?
Zn	ppm	R	1	3	Y	0	2500	5 TO ?

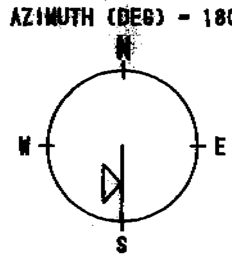
SECTION SPECS :

REF. PT. E, N	769700	7937800
EXTENTS	100	150
SECTION TOP, BOT	1030	880
TOLERANCE +/-	100 M	

SCALE 1 : 1000



AZIMUTH (DEG) - 180



ZINC BELT PROJECT

MT DRUMMOND SEL 8035 GEOTEM TARGET 2

DRILL SECTION RC94CAR7

Holeint 2.04.00	[illegible]	[illegible]
PLOTTED BY : A.CLARKE		[illegible]
CHECKED BY :		PLAN NO. [illegible]