

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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FOX GEOLOGICAL SERVICES INC.

GEOLOGICAL AND GEOCHEMICAL REPORT

on the

LUCAS WEST PROPERTY
CR 41 to 50 and 57 to 66 Mineral Claims

OMINECA MINING DIVISION
BRITISH COLUMBIA

NTS 93F/11
53° 31' 25" North Latitude
125° 18' 40" West Longitude

DEC 04 1995

Gold Commissioner's Office
~~VANCOUVER, B.C.~~

by

P. E. Fox, Ph.D., P. Eng.

FOX GEOLOGICAL SERVICES INC.
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Vancouver, BC V6C 1T8

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PHELPS DODGE CORPORATION OF CANADA, LIMITED

~~GEOLOGICAL BRANCHES~~
~~ASSESSMENT REPORT~~

December 1, 1995

24,158

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SUMMARY

A program of geological mapping, prospecting and soil sampling was conducted on the Lucas West Property in central B.C. between July 10 and 15, 1995. The property is located approximately 103 kilometres southwest of Vanderhoof and 6 kilometres southwest of Lucas Lake, on the Nechako Plateau. Access is via the Kenny Dam and the 500 forest service roads to within 1 kilometre of the claims, then by foot.

The Lucas West Property is situated within the Intermontaine Belt, in the central portion of the Stikine Terrane. The claims are underlain by Eocene Ootsa Lake Group rhyolite flows with minor associated pyroclastic rocks and pebble conglomerate. Eocene Endako Group basalt locally overlies the rhyolite. A north-northeasterly trending fault cuts Ootsa Lake Group rocks, bisecting the claim block along a linear valley. The JR Showing, discovered during the course of the field program, consists of argillic, silicified rhyolite breccia with irregularly distributed quartz and chalcedony veining and local narrow sections of "black matrix breccia".

The 1995 exploration program was designed as a follow-up to Cogema's 1994 field season when anomalous mercury was detected in float samples. Soil sampling over the area of interest detected only background levels of precious and base metals. Mercury, arsenic and antimony, however, are elevated sporadically across most of the grid area. Rock sampling confirmed the presence of float with anomalous mercury concentrations, but failed to locate its source. Bedrock samples collected contained only background concentrations of gold and other elements of interest.

INTRODUCTION

This report details an exploration program conducted on the Lucas West Property between July 10 and 15, 1995. A total of 12 man days was spent collecting soil and rock samples, prospecting and geologically mapping a portion of the property. The results of this work are also reported herein.

LOCATION, ACCESS and PHYSIOGRAPHY

The Lucas West Property is located in central British Columbia, approximately 103 kilometres southwest of Vanderhoof. The claims lie between Lucas and Natalkuz Lakes on the Nechako Plateau (see Figure 1).

The property is largely accessible by road. The Kenny Dam Forest Service Road leads southwesterly from Vanderhoof to the 500 Forest Service Road, which approaches within 1 kilometre of the southern claim boundary. Access from that point is by foot over relatively flat topography.

The eastern half of the claims cover a prominent hill which ranges in elevation from approximately 1005 metres at the base to 1128 metres at its peak near the southern boundary of the claims. The western half of the property is relatively flat and intermittently swampy. A chain of small lakes lies along the eastern claim boundary.

CLAIM INFORMATION

The Lucas West Property consists of twenty two-post claims, totalling 20 units, recorded in the Omineca Mining Division and shown on NTS map sheet 93F/11 (see Figure 1). Claim details are set out below. Expiry dates tabulated below assume that current work is accepted for assessment purposes.

The claims listed below comprise the Lucas West Claim Group under a Notice to Group recorded October 11, 1995.

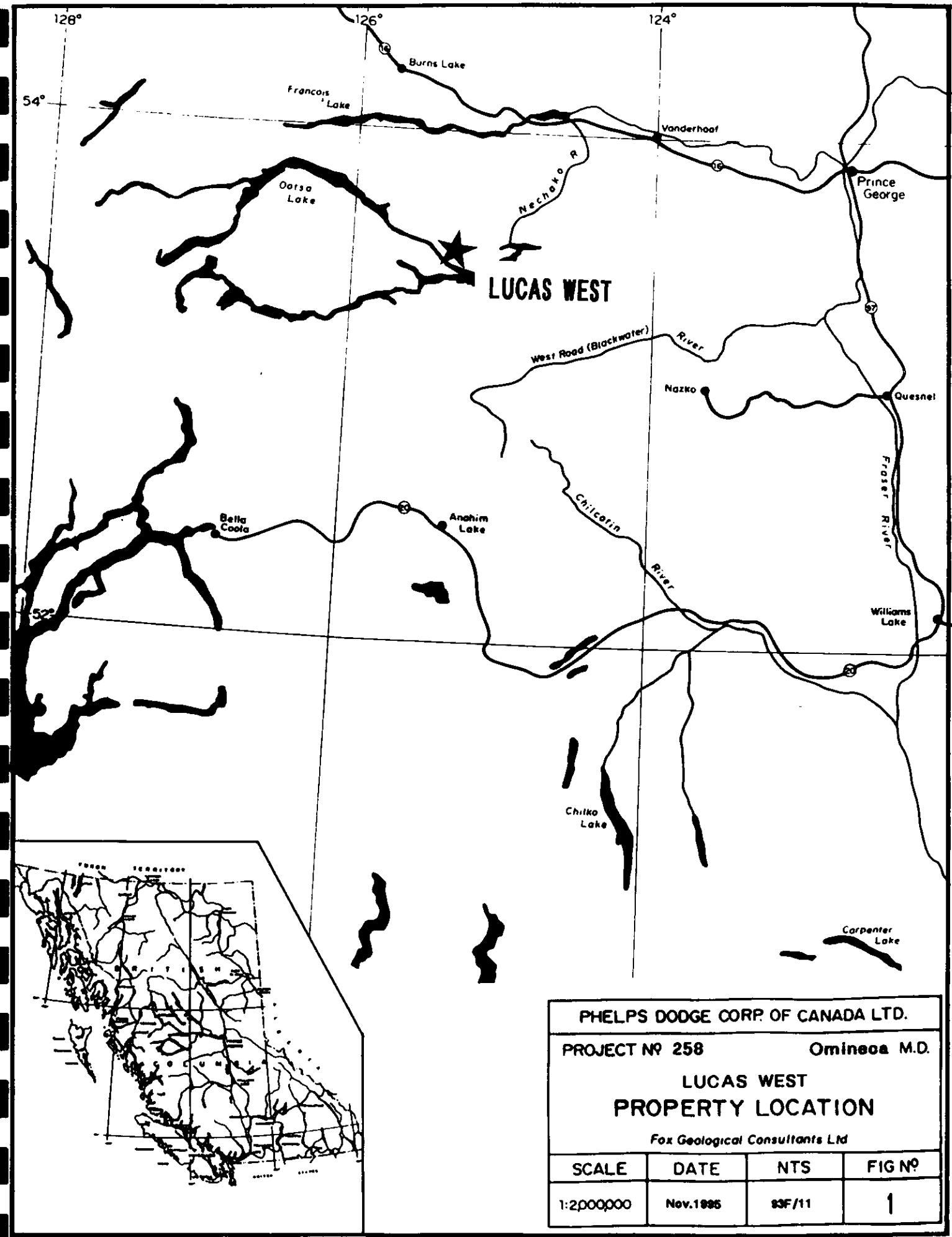
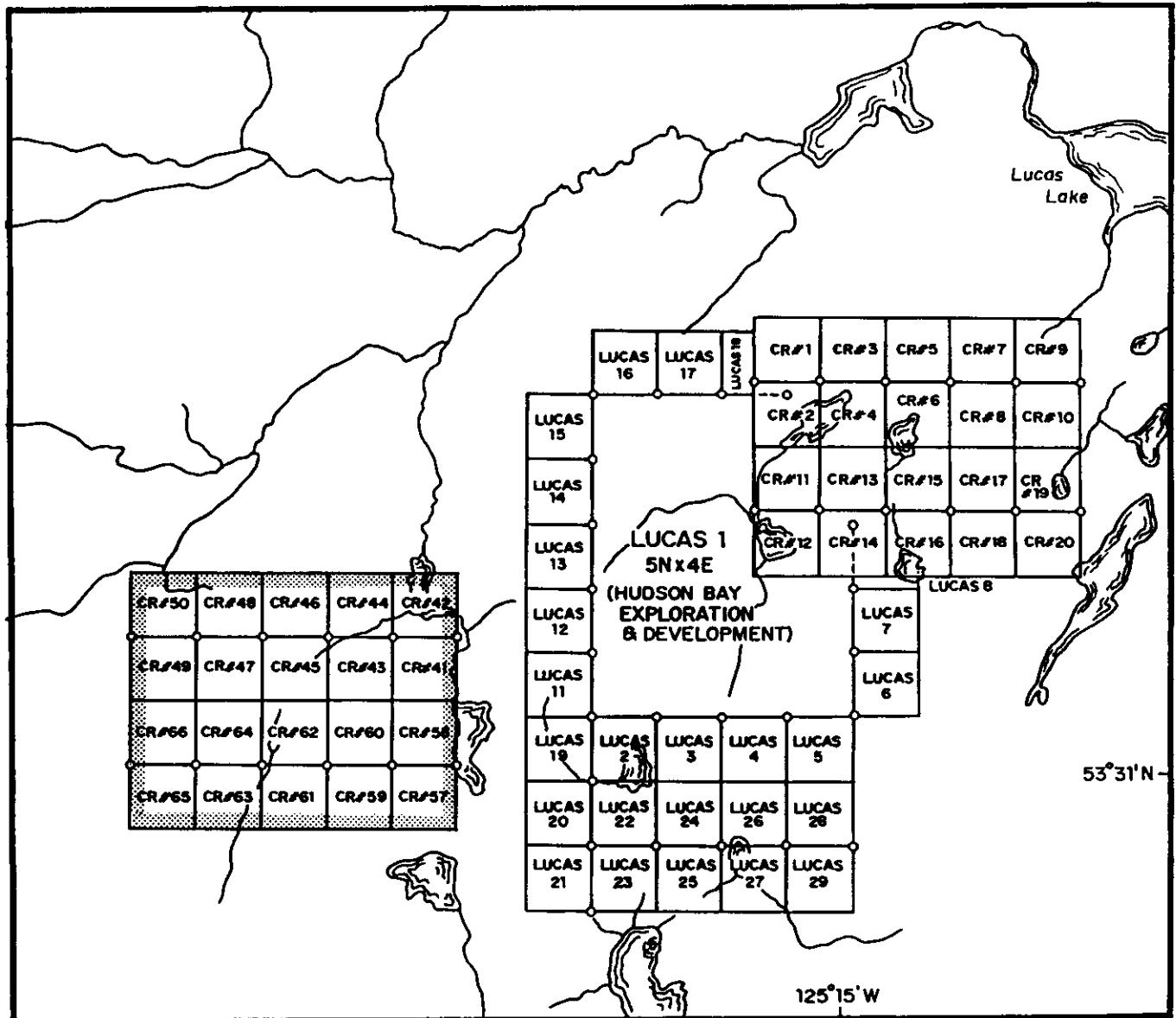


Table 1

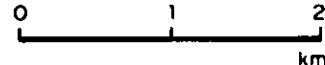
CLAIM NAME	RECORD NO.	NO. OF UNITS	EXPIRY DATE
CR 41	326642	1	June 4, 1998
CR 42	326643	1	June 4, 1998
CR 43	326644	1	June 4, 1998
CR 44	326645	1	June 4, 1998
CR 45	326646	1	June 4, 1998
CR 46	326647	1	June 4, 1998
CR 47	326648	1	June 4, 1998
CR 48	326649	1	June 4, 1998
CR 49	326650	1	June 4, 1998
CR 50	326651	1	June 4, 1998
CR 57	326654	1	June 4, 1998
CR 58	326655	1	June 4, 1998
CR 59	326656	1	June 4, 1998
CR 60	326657	1	June 4, 1998
CR 61	326670	1	June 4, 1998
CR 62	326671	1	June 4, 1998
CR 63	326672	1	June 4, 1998
CR 64	326673	1	June 4, 1998
CR 65	326674	1	June 4, 1998
CR 66	326675	1	June 4, 1998

HISTORY

The Lucas West Property was staked by Cogema Resources Inc. in 1994, in response to a Regional Geochemical Lake Sediment Survey released by the Geological Survey Branch. Cogema conducted geological mapping, prospecting and sampling during that same year. There is no record of previous exploration work within the claim area.



Scale



PHELPS DODGE CORPORATION OF CANADA LIMITED			
PROJECT N° 268 OMINECA M.D.			
LUCAS WEST CLAIM MAP			
SCALE	DATE	NTS	DWG N°
1:50,000	Nov. 1985	93F/11	2

REGIONAL GEOLOGY

The Lucas West Property is located in the Interior Plateau of British Columbia within the Intermontane Belt, which consists of late Palaeozoic to late Tertiary sedimentary and volcanic rocks belonging to the Stikinia, Cache Creek and Quesnelia Terranes. The Yalakom and Fraser Fault systems bound the plateau to the northeast and southwest. A third fault has been inferred from oil exploration data to bisect the plateau. The Anahim Volcanic Belt, which crosses the plateau in an east-west direction, is composed of a series of alkaline and peralkaline volcanoes of Miocene to Quaternary age which become younger from west to east.

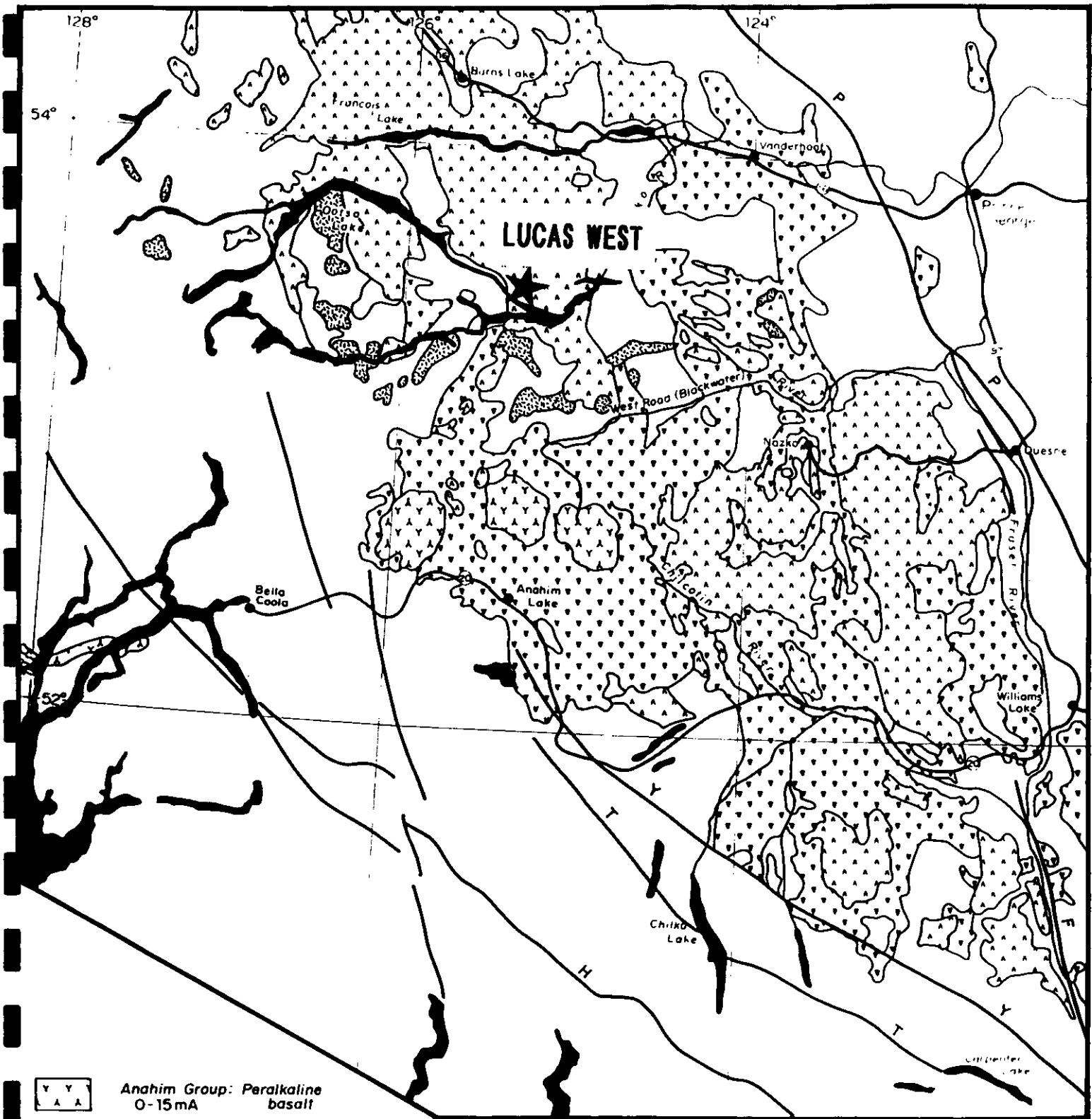
The CR claims lie within the central portion of the Stikine Terrane, which locally consists of three volcanic-stratigraphic groups ranging in age from upper Cretaceous to Miocene. An Eocene extensional tectonic event, which resulted in basin and range type topography, is associated with epithermal, volcanic-hosted gold mineralization. Regional geology is presented in Figure 3.

PROPERTY GEOLOGY

The Lucas West Property is underlain by Eocene Ootsa Lake Group rhyolite flows and minor associated tuffaceous and pyroclastic rocks. Rhyolite in outcrop is white to light grey and purplish-grey in colour and commonly pohyritic with rounded quartz-eyes and local feldspar phenocrysts. Locally, rhyolite contains irregular, wispy patches of reddish hematite, up to 1% disseminated pyrite, and may be argillic-altered. Minor Ootsa Lake sediments are also present in possible subcrop, atop the volcanic pile. Sediments consist of sandy, argillic-altered, pebble conglomerate.

Flat-lying Eocene Endako Group basalt overlies the Ootsa Lake rhyolite, capping a northeasterly trending ridge in the centre of the claim block and the large prominent hill on the eastern claims. The basalt is medium to dark grey coloured, vesicular and olivine-porphyritic. It can be moderately to highly magnetic and locally calcareous.

A north-northeasterly trending fault bisects the claim block, following a boggy drainage basin at the foot of a ridge.



PHELPS DODGE CORP. OF CANADA LTD.

PROJECT N° 268 OMINECA M.D.

**LUCAS WEST
REGIONAL GEOLOGY**

Fox Geological Consultants Ltd

SCALE	DATE	NTS	FIG N°
1:2,000,000	Nov.1985	8SF/11	3

Scale 1:2,000,000

0 50

100 km

MINERALIZATION

The JR Showing consists of a small (0.5 X 2 metre) outcrop, located near the eastern claim boundary at 98+45N, 112+00E. Vuggy, argillized and intensely silicified rhyolite breccia contains irregularly distributed quartz and/or chalcedony veins and veinlets. Local brecciated sections, measuring up to 20 centimetres thick, display a black chalcedonic matrix. Vugs in breccia zones are lined with quartz crystals. Fracture surfaces are limonitic.

1995 WORK PROGRAM

The 1995 field program, conducted between July 10 and 15, focused on exploring the eastern and central portions of the property where Cogema previously (1994) collected float samples containing anomalous amounts of mercury.

Five grid lines, totalling 5.0 kilometres, were laid out using an orientation of 340°. A total of 105 soil samples was collected at 50 metre-spaced intervals along 300-metre spaced lines. Samples were obtained from the "B" horizon, where possible, stored in Kraft paper sample bags, tagged with a unique number and submitted to Acme Analytical Laboratories Ltd. in Vancouver, B.C. for analyses. Each sample was screened and an 80 mesh fraction analyzed for 34 elements by ICP techniques and for gold by geochemical atomic absorption analysis. Field notes detail location, topography, type and colour of material were also collected. Grid and sample locations are presented in Figure 6 and analytical method is set out in Appendix 2.

Approximately 3.0 square kilometres was prospected and geologically mapped at a scale of 1:5,000. Property geology is shown in Figure 4. In addition, 32 rock samples were collected and sent to Acme Analytical Laboratories Ltd. for multi-element analysis. Rock sample locations are shown in Figure 5.

RESULTS

Soil geochemical results contain only background levels of precious and base metals. Gold indicator elements mercury, arsenic and antimony are slightly elevated with one anomalous mercury sample. Samples with elevated concentrations of indicator elements are scattered irregularly over the grid area, somewhat more densely in the vicinity of a north-northeasterly trending, faulted valley that bisects the claim block. Ootsa Lake rhyolites are believed to underly this area. Soil geochemical results for gold, silver, mercury, arsenic and antimony are outlined in Table 2 below. Results for gold are depicted in Figure 7, silver in Figure 8 and mercury in Figure 9. Analytical data are provided in Appendix 3.

Table 2

ELEMENT	RANGE	ELEVATED	ANOMALOUS
Gold	<1 to 17 ppb	n/a	n/a
Silver	<30 to 200 ppb	n/a	n/a
Mercury	51 to 832 ppb	<200 ppb	<500 ppb
Arsenic	2.2 to 48.6 ppm	<20 ppm	n/a
Antimony	0.2 to 5.5 ppm	<3.0 ppm	n/a

Geological mapping on the Lucas West Property resulted in few modifications to previous work (Cogema, 1994). Prospectors discovered significant alteration with brecciation and quartz-chalcedony veining at the JR Showing, but encountered no trace of mineralization in outcrop. Float encountered was predominantly rhyolitic, ranging from black and vitreous to grey, argillic-altered, silicified, quartz-chalcedony veined and brecciated. Rare disseminated pyrite, up to 2%, was noted. Angular pieces of tufa, minor jasper and obsidian were also found. Rock sampling confirmed the presence of float with anomalous mercury concentrations detected by Cogema in 1994, but failed to locate its source.

Bedrock and float samples were found to have different geochemical signatures. The five bedrock samples collected contained only background concentrations of gold and other elements of interest. Float samples, however, contained elevated to anomalous concentrations of arsenic, mercury and antimony (up to 441 ppm As, 3842 ppb Hg and 104.4 ppm Sb) and slightly elevated silver (up to 516 ppb). Gold, however, was present only at background levels (up to 13 ppb).

CONCLUSIONS

Significant epithermal alteration is present on the Lucas West Property, in outcrop and in float. Elevated to anomalous concentrations of mercury, arsenic and antimony have also been detected in soil and rock (float) samples. To date, however, no significant concentrations of precious or base metals or in-situ mineralization have been located.

DISBURSEMENTS

Expenditures to October 11, 1995 on the Lucas West Property are \$6,945.00, as tabulated below:

Labour

C. Payne, Geologist	1 day @ \$295/day	295.00
T. Archibald, Prospector	4 days @ \$225/day	900.00
J. Goodall, Sampler	5.2 days @ \$225/day	1,170.00
P. Murphy, Cook	3 days @ \$225.00	675.00

Accommodation & Board**Geochemical Analyses**

34 rock samples	\$19.00/sample	646.00
105 soil samples	\$15.00/sample	1,575.00

Report Writing and Drafting**TOTAL****\$6,945.00****FOX GEOLOGICAL SERVICES INC.**
P.E. Fox, Ph.D., P.Eng.**December 1, 1995****REPORT DISTRIBUTION:**

Phelps Dodge, Toronto Land File	1
Phelps Dodge, Vancouver	2
B.C. Mining Recorder	2

REFERENCES

- Cook, S.J. and Jackaman, W. (1994a)
"Regional Lake Sediment and Water Geochemistry of part of the Nechako River Map Area (93F/2,3; parts of 93F/6,11,12,13,14)"; B.C. Ministry of Energy, Mines and Petroleum Resources, Open File 1994-19.
- Schimann, K. (1995)
"Geology and Geochemistry, Lucas West Property (Nechako Project), 1994"; a report for Cogema Resources Inc., January 1995.

CERTIFICATE

I, Peter Edward Fox, certify to the following:

1. I am a consulting geologist residing at #902 - 2077 Nelson Street, Vancouver, B.C.
2. I am a Professional Engineer registered in the Association of Professional Engineers and Geoscientists of British Columbia.
3. My academic qualifications are:
B.Sc. and M.Sc., Queens University, Kingston, Ontario
Ph.D., Carleton University, Ottawa, Ontario
4. I have been engaged in geological work since graduation in 1966.


Peter E. Fox, Ph.D., P. Eng.
Vancouver, B.C.
December 1, 1995

APPENDIX I

ROCK SAMPLE DESCRIPTIONS

LUCAS WEST PROPERTY
PROJECT 258

ROCK SAMPLE DESCRIPTIONS AND GEOCHEMISTRY

SAMPLE	TYPE	MATERIAL	NOTES	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	As ppm	Sb ppm	Hg ppb	Au ppb
51594	GRAB	F	Rhyolite, vitreous, "obsidian-like" with chalcedony.	72.8	6.5	0.3	1	30	441	103	3842	3
51595	GRAB	F	Angular, vitreous rhyolite, black with fine veinlets and blebs of quartz, trace pyrite.	15.1	5.8	0.3	3.8	33	75.7	31.6	540	1
51596	GRAB	F	Abundant jasper.	44.6	5	0.3	1	30	112.3	104.4	858	9
51597	GRAB	F	Black, cherly rhyolite (weakly magnetic), quartz.	9.5	5.8	0.3	1.5	30	26.2	16	275	1
51598	GRAB	F	Black rhyolite.	5.9	5.3	0.3	1	30	33.9	39.1	614	1
51599	GRAB	B	Exposure 3m high and 25m long at 30 degrees. Fine grained, Brown Betty basalt. Shear (?) at one point, 1m wide 80/80N where there are clasts of red (?), soft, basalt.	1.2	22.2	2.6	66	36	3.8	0.7	26	1
51600	GRAB	F	Rounded, banded quartz.	3.3	6.3	0.9	1	30	7.1	0.2	221	7
52777	GRAB	F	Red, rusty quartz boulders, dense, chalcedony, non-magnetic, quartz crystals, breaks along irregular fractures.	34.1	6.1	0.6	1.6	43	66.5	33.9	567	1
52799	GRAB	F	Boulders, 1/2m in diameter, very coarse grained volcanic, dense, feldspar, pink, chlorite, pyroxene-augite (?), 1/4cm veins hematite, weakly magnetic.	1.5	22.9	11.3	57.9	101	20.7	2.6	194	1
52800	GRAB	F	1m boulder, quartz rhyolite breccia, red staining, very fine grained, non-magnetic, minor chalcedony.	3.1	3.3	10.9	2.4	422	43	18.7	821	9
52940	GRAB	F	Siliceous quartz breccia, no visible sulphides, isolated boulder. Cogema Sample #5124.	13.3	4.2	7.4	9.9	173	26.9	9.5	1421	7
52962	GRAB	F	Isolated boulder in soil hole, quartz breccia, minor hematite staining, manganese.	2.1	2.6	3.6	1	30	9.2	1.6	84	3
52963	GRAB	F	Angular, altered rhyolite, siliceous, stringers, vuggy quartz, flow banded.	1.2	2	6.3	2.3	77	10	0.6	439	2
52964	GRAB	F	Abundant angular fragments in soil hole, altered rhyolite, quartz breccia.	3.6	1.8	4.8	6.8	30	16.4	1.9	49	1
52965	GRAB	F	Large boulder, black chalcedony, altered rhyolite, dense, silicified, quartz crystals.	4.4	5.8	0.3	4	30	40.7	13.7	127	1
52966	GRAB	F	Isolated, subrounded, grey rhyolite, disseminated pyrite.	8.7	4.8	3.6	29.1	52	401.4	40.7	715	3
53043	GRAB	F	Rhyolite "talus" boulders, white, pitted, orange stain.	5	3.2	10.4	7.8	55	33.6	2.1	527	13
53044	GRAB	F	Grey-white, siliceous rhyolite, orange staining.	3.9	3.5	7.5	6.4	66	59.3	2.8	392	8
53045	GRAB	F	Subcrop (?), rhyolite, white-grey, fractured, yellow and red staining, no visible mineralization.	4.7	2.7	4.7	4.1	101	32.1	3.1	143	4
53046	GRAB	F	Abundant angular pieces, silicified tufa, regular vitreous rhyolite.	1.5	2.2	7.8	6.2	30	8.5	0.8	296	1
53101	GRAB	F	Cogema Sample #5300. Very fine grained gray quartz boulder (1/2m diameter), red staining, minor brecciation, non-magnetic, minor silica veining.	4.2	3.9	7.2	1.3	516	49	12	1857	10
53102	GRAB	F	Boulder, dark brown to black, rhyolite, looks and fractures like obsidian, dense, very weakly magnetic, some chalcedonic veining, quartz crystals in clusters.	10.5	6.3	0.7	1	30	167.3	91.9	1837	1
53103	GRAB	B	Outcrop (?), partly solid, mostly talus, light grey, very fine grained rhyolite, purple-grey, with quartz eyes, olive green patches of chlorite (?), orange-brown banding.	1.5	3.1	5.3	10.4	56	6.7	0.8	30	5
53104	GRAB	F	Subcrop (?), matrix supported, white, soft, non-calcareous, pebble conglomerate.	0.7	2.3	9.9	14.6	44	2.6	0.6	17	3
53105	GRAB	F	Cogema Sample #5301. 2-2 1/2m diameter boulder, light grey, fine grained, rhyolite, breccia, red and rusty staining.	4.2	4.6	2.7	2.6	59	12	1.7	34	3
53106	GRAB	F	Black chalcedony brecciated boulder (1m in diameter), quartz crystals in pockets, jasper/chalcedony present, non-magnetic.	9.2	7.1	0.5	1.3	41	20.7	30	159	2
53107	GRAB	B	Breccia, rusty and red staining, abundant quartz veins, pockets of quartz crystals, chalcedony veins, 1 - 1/2cm chunks of rhyolite in the breccia.	5.3	2.8	6	3.5	35	11.9	2.8	189	8
53108	GRAB	F	Boulder (3/4m diameter), not calcareous, non-magnetic, flow breccia (?), white, pink, purple chunks within chloritic, very fine grained matrix, brecciated chunks from 1mm-1cm, rusted out pyrite cubes.	1.3	2.1	8.7	20.9	30	1.8	0.3	7	1
53109	CHIP	B	Rhyolite o/c, breccia, random chip sample over length of o/c.	8	4	13.6	5.4	57	19.8	3.3	147	3
53110	GRAB	B	Outcrop, white silica rich rhyolite breccia.	4.1	3	6.5	9.2	119	14.2	2.6	179	1
53111	GRAB	F	Rhyolite breccia, boulder approx. 3/4m in diameter, red and rusty staining.	5	3.2	8	4.5	61	29.5	3.2	123	2
53112	GRAB	F	Boulder (1/3m in diameter), blue-green, very fine grained, (?) altered andesite, dense, chloritic, magnetic.	1	18	2	92.4	74	2.3	0.4	34	1

Material F=Float, B=Bedrock, T=Talus

APPENDIX 2

Analytical Method

ICP: A 30 gram sample is digested with 180 millilitres 3-1-2 HCl-HNO₃-H₂O at 95° Centigrade for one hour and is diluted to 100 millilitres with water. This leach is partial for Mn, Fe, Sr, Ca, P, La, Cr, Mg, Ba, Ti, B, W and limited for Na, K, Ga and Al. Solution is analysed directly by ICP. Mo, Cu, Pb, Zn, Ag, As, Au, Cd, Sb, Bi, Tl, Hg, Se, Te and Ga are extracted with MIBK-aliquat 336 and analysed by ICP.

Au⁺: Gold is extracted by aqua-regia/MIBK extract, GF/AA finished.

APPENDIX 3

ROCK GEOCHEMICAL ANALYSES

GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

Phelps Dodge Corp. PROJECT 258 File # 95-2421 Page 1
 1409 - 409 Granville St., Vancouver BC V6T 1T2 Submitted by: Geoff Goodall

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P ppm	La ppm	Cr ppm	Mg ppm	Ba ppm	Ti ppm	B %	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
51594	72.8	6.5	<.3	<1	<30	11	1	97	1.02	441.0	<5	2	2	.02	103.0	<.1	1	.01	.006	<1	16	<.01	12<.01	<2	.02<.01	.04	5	.7	3842	.4	1.0	<.5	3		
51595	15.1	5.8	<.3	3.8	33	13	1	99	.79	75.7	<5	1	2	<.01	31.6	<.1	2	.01	.005	<1	16	<.01	7<.01	<2	.01<.01	.01	5	.4	540	.3	.4	<.5	1		
51596	44.6	5.0	<.3	<1	<30	7	1	80	.83	112.3	<5	<1	2	.01	104.4	<.1	1	.01	.005	<1	11	<.01	7<.01	<2	.01<.01	.02	3	.7	858	.4	.8	<.5	9		
51597	9.5	5.8	.3	1.5	<30	12	<1	102	.48	26.2	<5	<1	1	<.01	16.0	<.1	1	<.01	.002	<1	17	<.01	10<.01	<2	.01<.01	.01	5	.2	275	.3	.2	<.5	<1		
51598	5.9	5.3	<.3	1.0	<30	13	1	96	.52	33.9	<5	<1	1	<.01	39.1	.2	1	<.01	.002	<1	15	<.01	4<.01	<2	.01<.01	.01	5	.2	614	.5	.2	<.5	<1		
51599	1.2	22.2	2.6	66.0	36	10	9	284	2.31	3.8	<5	10	156	.04	.7	.2	70	.71	.097	29	17	.88	226	.09	<2	1.40	.11	.25	<2	.3	26	.5	.2	4.4	1
51600	3.3	6.3	.9	<1	<30	12	<1	124	.38	7.1	<5	<1	1	<.01	.2	<.1	1	<.01	<.002	<1	14	<.01	5<.01	<2	.01<.01	<.01	3	.1	221	.3	<.1	<.5	7		
52777	34.1	6.1	.6	1.8	43	11	1	115	.71	66.5	<5	<1	2	<.01	33.9	<.1	1	<.01	.003	<1	17	<.01	14<.01	<2	.02<.01	.01	4	.4	597	.3	.4	<.5	<1		
52799	1.2	3.2	.4	21.6	<30	8	4	526	2.31	3.0	<5	6	5	.01	.4	<.1	17	.32	.034	19	7	.34	82<.01	3	.62	.03	.15	4	.1	10	<.3	.1	3.1	5	
52800	3.1	3.3	10.9	2.4	422	5	<1	54	.51	43.0	<5	6	3	<.01	18.7	.2	1	.01	.003	22	7	<.01	21<.01	<2	.17	.01	.21	2	.3	821	<.3	.6	1.1	9	
52940	13.3	4.2	7.4	9.9	173	7	<1	552	1.48	26.9	<5	10	3	.01	9.5	.2	3	.01	.008	40	10	.01	14<.01	<2	.10<.01	.12	2	.3	1421	.4	.6	<.5	7		
52962	2.1	2.6	3.6	<1	<30	5	<1	86	.20	9.2	<5	10	1	<.01	1.6	.1	<1	.01	.004	33	6	<.01	11<.01	<2	.13	.03	.14	2	.1	84	<.3	<.1	<.5	3	
RE 52962	2.1	2.4	3.5	1.2	<30	4	<1	88	.21	9.3	<5	11	1	<.01	1.7	<.1	1	.01	.004	34	7	<.01	12<.01	<2	.13	.03	.15	<2	.2	82	.3	.1	<.5	1	
RRE 52962	2.3	2.8	3.1	1.0	<30	6	<1	78	.19	8.8	<5	10	1	<.01	1.6	.2	1	.01	.004	33	7	<.01	8<.01	<2	.12	.03	.14	<2	<.1	85	<.3	.1	.6	1	
52963	1.2	2.0	6.3	2.3	77	2	<1	67	.21	10.0	<5	8	3	<.01	.6	.1	1	.03	.005	32	4	.01	6<.01	<2	.24	.03	.20	<2	.1	439	.3	.2	1.6	2	
52964	3.6	1.8	4.8	6.8	<30	4	1	256	.53	16.4	<5	8	4	.01	1.9	.2	2	.02	.011	35	4	.01	18<.01	<2	.27	.02	.20	<2	.2	49	<.3	<.1	.6	1	
52965	4.4	5.8	.3	4.0	<30	13	1	1944	8.83	40.7	<5	1	3	.03	13.7	.1	1	.10	.034	<1	13	.02	21<.01	6	.01<.01	.01	4	.1	127	<.3	<.1	<.5	<1		
52966	8.7	4.8	3.6	29.1	52	6	8	288	1.56	401.4	<5	4	25	.04	40.7	<.1	60	.48	.190	37	33	.06	52	.04	<2	.57	.04	.16	<2	.4	715	<.3	.2	4.4	3
53043	5.0	3.2	10.4	7.8	55	3	<1	39	.60	33.6	<5	7	6	.02	2.1	.1	1	.03	.008	30	7	.01	11<.01	<2	.22	.03	.23	<2	.2	527	<.3	<.1	.8	13	
53044	3.9	3.5	7.5	6.4	66	3	<1	51	.73	59.3	<5	8	3	.01	2.8	<.1	1	.01	.003	21	8	<.01	7<.01	<2	.13	.02	.17	2	.3	392	<.3	.1	.8	8	
53045	4.7	2.7	4.7	4.1	101	7	<1	46	.54	32.1	<5	7	2	.01	3.1	.1	1	.01	.007	25	7	<.01	7<.01	<2	.18	.03	.20	<2	.4	143	<.3	.4	1.4	4	
53046	1.5	2.2	7.8	6.2	<30	5	<1	36	.19	8.5	<5	13	3	<.01	.8	.3	1	.02	.004	33	5	.01	10<.01	<2	.25	.07	.24	<2	.1	296	<.3	.1	.8	1	
53101	4.2	3.9	7.2	1.3	516	8	1	105	.38	49.0	<5	8	4	<.01	12.0	.2	1	<.01	.003	20	10	<.01	10<.01	<2	.11	<.01	.14	2	.3	1857	.4	.9	1.2	10	
53102	10.5	6.3	.7	<1	<30	12	1	94	.61	167.3	<5	<1	2	<.01	91.9	.1	1	.01	.002	<1	15	<.01	9<.01	<2	.01<.01	.03	4	.4	1837	<.3	.3	<.5	1		
RE 53102	10.1	6.3	.6	<1	<30	10	<1	102	.64	153.4	<5	<1	2	<.01	95.4	.1	1	.01	.002	<1	15	<.01	9<.01	<2	.01<.01	.03	4	.4	2001	<.3	<.1	<.5	1		
RRE 53102	10.7	6.7	.5	1.1	<30	12	<1	117	.71	163.5	<5	<1	3	.01	99.6	<.1	2	.01	.003	1	18	<.01	9<.01	<2	.01<.01	.04	5	.5	2031	<.3	.3	.5	<1		
53103	1.5	3.1	5.3	10.4	56	4	<1	85	.22	6.7	<5	13	54	.02	.8	<.1	2	.43	.003	43	6	.10	61	.02	<2	.14	.02	.70	<2	.2	30	<.3	.1	2.2	5
53104	.7	2.3	9.9	14.6	44	3	<1	75	.21	2.6	<5	18	193	.02	.6	.2	5	.123	.002	45	3	.30	311	.02	<2	2.79	.01	1.30	<2	.3	17	<.3	<.1	5.0	3
53105	4.2	4.6	2.7	2.6	59	8	<1	85	.31	12.0	<5	10	3	<.01	1.7	.2	1	.02	.004	32	9	.01	16<.01	<2	.16	.01	.15	2	.2	34	<.3	.4	1.3	3	
53106	9.2	7.1	.5	1.3	41	12	<1	88	.52	20.7	<5	<1	1	.01	30.0	.2	1	.01	.002	<1	17	<.01	2<.01	<2	.01<.01	.01	5	.2	159	<.3	.2	.7	2		
53107	5.3	2.8	6.0	3.5	35	4	<1	53	.49	11.9	<5	6	4	.01	2.8	.1	<1	.02	.005	25	6	<.01	11<.01	<2	.19	.03	.20	<2	.1	189	<.3	<.1	.6	8	
53108	1.3	2.1	8.7	20.9	<30	5	2	865	.62	1.8	<5	3	14	.13	.3	.2	7	.17	.020	23	5	.04	106	.01	<2	.36	.03	.24	<2	.1	7	<.3	<.1	1.4	<1
53109	8.0	4.0	13.6	5.4	57	7	<1	78	.64	19.8	<5	6	6	.02	3.3	.3	1	.02	.008	33	8	.01	17<.01	<2	.20	.03	.22	2	.3	147	<.3	<.1	.8	3	
53110	4.1	3.0	6.5	9.2	119	6	<1	95	.54	14.2	<5	7	5	.03	2.6	.3	1	.01	.008	29	7	.01	21<.01	<2	.20	.03	.19	<2	.3	179	<.3	.3	1.8	1	
STANDARD	22.8	116.9	83.2	261.8	1928	29	15	950	4.16	78.8	24	20	57	2.30	9.3	22.6	.68	.66	.095	18	52	1.12	230	.14	24	2.14	.05	.69	19	2.6	455	1.1	2.3	6.8	461

Standard is STANDARD D/AU-R.

ICP - 30 GRAM SAMPLE IS DIGESTED WITH 180 ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 100 ML WITH WATER. THIS LEACH IS PARTIAL FOR Mn Fe Sr Ca P La Cr Mg Ba Ti B W AND LIMITED FOR Na K Ga AND Al. SOLUTION ANALYSED DIRECTLY BY ICP. MO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQUAT 336 AND ANALYSED BY ICP.

- SAMPLE TYPE: P1 TO P2 ROCK P3 TO P6 SOIL AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 20 1995 DATE REPORT MAILED:

Aug 8/95

SIGNED BY *[Signature]* D.TOE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS



Phelps Dodge Corp. PROJECT 258 FILE # 95-2421

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SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	Au+
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	% ppm	ppm	%	%	%	% ppm	ppm	ppb	ppm	ppm	ppm	ppb					
53111	5.0	3.2	8.0	4.5	61	3	<1	67	.42	29.5	<5	11	7	.01	3.2	<.1	3	.02	.013	48	7	.01	20	.01	<2	.19	.02	.24	<2	.1	123	<.3	<.1	1.2	2
53112	1.0	18.0	2.0	92.4	74	<1	11	838	4.04	2.3	<5	2	55	.11	.4	<.1	48	1.02	.147	9	3	1.13	57	.21	<2	2.12	.09	.15	<2	<.1	34	.7	<.1	7.1	<1
RE 53112	1.0	18.1	1.7	94.9	71	1	11	845	4.07	1.1	<5	1	55	.11	.3	<.1	48	1.03	.148	9	3	1.14	59	.21	<2	2.14	.08	.14	<2	<.1	28	.6	.1	6.8	<1

Sample type: ROCK. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bf ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B %	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppb	Ga ppm	Au+ ppb
52778	.3	6.2	7.9	34.3	<30	7	4	162	1.64	4.4	<5	4	81	.03	.7	.1	38	.43	.049	14	19	.33	162	.11	<2	1.45	.03	.09	<2	.1	183	<.3	<.1	2.8	3
52779	1.5	22.9	11.3	57.9	101	12	8	478	2.72	20.7	<5	2	88	.15	2.6	.1	43	.83	.083	55	25	.41	134	.04	<2	3.28	.02	.13	<2	.2	194	<.3	<.1	6.5	1
52780	.8	6.5	10.3	40.7	<30	4	5	350	1.69	9.1	<5	3	39	.05	.7	.1	39	.32	.029	15	16	.26	95	.10	3	1.46	.02	.09	<2	.1	90	<.3	<.1	3.0	2
52781	.6	5.9	8.3	32.5	<30	5	4	217	1.51	7.9	<5	2	46	.04	1.0	.1	35	.31	.019	14	16	.25	97	.12	<2	1.21	.02	.09	<2	.1	97	<.3	<.1	2.9	1
52782	2.2	33.5	11.6	82.9	112	23	11	2299	3.96	37.3	<5	4	135	.27	4.5	.1	60	3.14	.097	70	34	.78	141	.03	<2	4.26	.03	.17	<2	.3	216	.3	<.1	9.0	<1
52783	.7	4.9	7.6	29.7	<30	4	4	203	1.45	11.1	<5	2	35	.04	.9	.1	36	.27	.016	12	14	.21	70	.09	<2	1.10	.02	.09	<2	.1	97	<.3	<.1	3.0	<1
52784	1.0	7.1	9.7	43.2	<30	12	8	450	2.42	20.9	<5	3	58	.04	1.5	.1	57	.40	.047	16	23	.32	118	.12	<2	1.94	.02	.15	<2	.1	146	<.3	<.1	3.6	17
52785	.8	7.0	12.1	35.3	<30	6	6	357	1.61	11.1	<5	3	64	.04	1.1	.1	32	.34	.055	17	15	.27	97	.09	<2	1.79	.02	.18	<2	.1	162	<.3	<.1	3.6	1
52786	.7	5.4	9.4	32.1	<30	6	4	217	1.52	8.0	<5	3	37	.04	.8	.1	35	.27	.038	14	15	.21	89	.11	2	1.21	.02	.11	<2	.1	90	<.3	<.1	2.8	<1
52787	1.0	6.8	8.4	36.6	<30	7	4	314	1.96	26.0	<5	3	55	.05	2.1	.2	46	.33	.039	13	18	.30	117	.10	<2	1.46	.02	.11	<2	.1	258	<.3	<.1	3.2	3
52788	.8	5.8	7.4	27.6	<30	5	5	296	1.73	19.8	<5	3	42	.02	2.9	.1	42	.31	.033	12	17	.25	83	.10	<2	1.17	.02	.09	<2	.1	344	<.3	<.1	2.3	1
52789	.8	4.0	8.9	33.2	<30	6	5	257	1.48	5.3	<5	2	27	.05	.5	.1	38	.24	.018	11	14	.16	68	.10	6	1.22	.01	.06	<2	<.1	80	<.3	<.1	3.5	<1
RE 52789	.9	4.0	8.8	34.5	<30	6	5	269	1.55	5.6	<5	2	28	.06	.7	.1	40	.25	.018	11	15	.17	80	.11	<2	1.27	.02	.06	<2	.1	114	<.3	<.1	4.2	1
52790	.8	4.9	6.5	46.1	31	10	5	523	1.78	7.3	<5	2	39	.09	1.0	.1	42	.31	.050	15	20	.22	100	.12	<2	1.21	.02	.10	<2	.2	173	<.3	.1	2.8	<1
52791	.7	8.1	7.4	37.9	<30	21	6	323	2.14	11.7	<5	3	27	.05	2.0	.1	46	.24	.048	12	23	.35	64	.11	<2	1.60	.02	.07	<2	.1	221	<.3	<.1	3.6	<1
52792	1.4	8.4	9.9	79.2	<30	59	11	1163	3.11	11.7	<5	3	28	.08	1.4	.1	59	.17	.076	23	50	.36	156	.19	2	3.04	.02	.05	<2	.1	76	<.3	<.1	6.4	<1
52793	.8	5.7	6.9	53.4	<30	18	8	495	2.31	10.0	<5	3	24	.04	.8	.1	50	.24	.049	12	21	.23	95	.12	<2	2.57	.01	.06	<2	.1	79	<.3	<.1	4.3	<1
52794	1.2	7.0	6.9	85.4	<30	43	12	1246	3.11	12.7	<5	2	23	.07	.9	.1	55	.26	.066	10	25	.39	115	.14	<2	3.03	.02	.08	<2	.1	67	<.3	<.1	5.2	<1
52795	1.6	10.7	8.8	59.7	<30	47	9	396	3.15	18.9	5	4	14	.05	1.8	.1	60	.12	.064	15	34	.37	115	.14	<2	3.45	.01	.05	<2	.1	94	<.3	<.1	6.7	2
52796	.8	4.3	8.5	41.2	<30	6	4	210	1.65	10.5	<5	3	32	.04	.5	.1	36	.32	.072	11	15	.17	87	.10	3	1.31	.02	.08	<2	<.1	70	<.3	<.1	3.1	<1
52797	.9	11.6	9.1	37.4	54	9	3	178	1.88	6.8	<5	2	36	.08	.7	.1	41	.32	.032	20	19	.18	72	.09	<2	1.47	.02	.09	<2	.1	91	<.3	<.1	3.8	<1
52798	.8	4.0	8.2	67.6	<30	7	7	427	1.77	3.7	<5	2	21	.04	.3	.2	40	.22	.091	10	17	.17	89	.09	14	1.59	.02	.06	<2	.1	51	<.3	<.1	3.6	2
52919	1.1	7.2	7.9	70.9	<30	19	7	238	2.51	13.7	<5	2	35	.07	.6	.1	67	.28	.110	12	24	.31	150	.09	<2	3.35	.02	.11	<2	.1	94	<.3	<.1	6.1	<1
52920	1.2	7.5	8.4	40.4	40	8	5	472	1.76	10.6	<5	2	26	.07	.9	.2	39	.30	.042	13	17	.21	80	.10	2	1.31	.02	.10	<2	.1	111	<.3	<.1	3.6	<1
52921	1.6	7.1	11.0	42.7	31	9	5	554	1.76	10.9	<5	2	33	.06	1.0	.2	39	.36	.027	16	16	.30	69	.09	<2	1.51	.02	.09	<2	.1	135	<.3	<.1	2.9	<1
52922	3.1	7.8	10.0	60.1	41	10	8	1426	1.84	12.4	<5	2	32	.11	.9	.1	41	.31	.051	19	18	.18	88	.09	3	1.60	.02	.09	<2	.1	72	<.3	<.1	4.2	<1
52923	1.6	8.9	10.8	49.5	30	16	8	305	3.01	44.9	<5	3	31	.06	2.1	.1	57	.30	.201	13	22	.28	126	.08	12	2.95	.02	.11	<2	.2	227	<.3	.1	6.5	<1
52924	1.7	15.6	7.9	139.5	74	30	14	1489	3.79	17.4	<5	3	73	.14	1.5	.1	72	.61	.103	17	34	.73	227	.08	<2	4.30	.02	.11	<2	.1	79	<.3	.1	8.1	<1
52925	.6	7.8	8.9	33.6	<30	6	3	175	1.68	36.9	<5	3	39	.03	4.8	.1	36	.28	.036	16	15	.26	125	.09	<2	1.87	.02	.05	<2	.2	207	<.3	<.1	3.9	1
52926	.3	4.3	7.0	28.7	<30	7	2	131	1.22	3.8	<5	3	55	.03	.5	.1	28	.26	.014	13	12	.21	104	.10	<2	1.53	.02	.08	<2	.1	172	<.3	<.1	2.4	1
52927	.7	20.0	9.7	63.1	93	13	6	698	2.23	9.2	<5	2	60	.12	1.0	.2	48	.57	.070	34	22	.35	138	.07	2	3.10	.02	.09	<2	.1	112	<.3	<.1	6.5	<1
52928	.7	17.8	6.2	58.4	31	28	9	285	3.36	3.5	<5	3	57	.07	.6	.1	80	.51	.064	16	50	.90	125	.08	2	3.70	.02	.06	<2	<.1	92	<.3	<.1	7.1	<1
52929	.5	5.8	6.9	36.8	<30	12	7	288	2.07	2.8	<5	3	40	.04	.6	.1	49	.32	.026	12	26	.28	124	.12	<2	1.80	.02	.09	<2	.1	118	<.3	<.1	3.6	<1
52930	.4	5.2	8.7	44.3	<30	6	4	295	1.46	4.6	<5	3	40	.04	.7	.2	35	.30	.025	15	15	.23	100	.12	<2	1.44	.02	.07	<2	<.1	126	<.3	<.1	2.9	<1
STANDARD D/AU-S	22.8	116.9	84.2	249.1	1813	29	15	963	4.01	71.6	20	19	54	2.19	9.7	22.4	65	.63	.088	18	49	1.07	228	.13	27	2.53	.05	.65	18	2.2	477	.9	2.4	6.5	47

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P ppm	La ppm	Cr ppm	Mg ppm	Ba ppm	Ti %	B %	Al %	Na %	K %	H %	Tl ppm	Kg ppm	Se ppm	Te ppm	Ga ppm	Au+ ppb
52931	.5	6.3	8.1	36.4	51	8	3	143	1.18	5.1	<5	2	27	.05	1.3	.2	29	.24	.015	11	14	.20	59	.12	2	.68	.02	.06	<2	.2	106	.3	.2	3.8	1
52932	1.0	7.7	6.1	60.6	50	14	8	341	2.38	13.6	<5	2	31	.13	1.9	.1	52	.34	.084	12	23	.25	72	.11	2	1.28	.01	.10	<2	.1	171	<.3	.2	5.5	1
52933	.9	7.1	5.6	62.6	<30	56	9	241	2.51	5.7	<5	3	25	.06	1.0	.1	48	.26	.105	11	34	.33	73	.13	<2	1.60	.02	.08	<2	<.1	99	<.3	.1	5.7	<1
52934	.7	9.6	6.7	42.6	<30	37	10	337	2.27	8.6	<5	3	39	.04	1.2	.1	44	.33	.066	17	32	.49	75	.13	<2	1.50	.02	.07	<2	.1	145	<.3	.1	4.3	1
52935	.6	9.5	5.3	43.9	50	26	7	359	2.34	7.7	<5	3	38	.92	1.2	.1	49	.33	.046	14	31	.49	103	.13	2	1.62	.02	.09	<2	.1	138	<.3	.1	4.9	<1
52936	.9	6.9	5.8	52.8	<30	13	6	410	2.12	6.3	<5	2	22	.05	.9	.1	50	.17	.041	10	22	.22	90	.12	<2	2.08	.01	.07	<2	.1	114	<.3	<.1	6.2	<1
52937	1.1	10.8	6.6	85.0	99	18	7	303	2.61	8.4	<5	3	25	.08	.9	.2	55	.18	.069	12	22	.30	118	.12	<2	2.45	.02	.06	<2	.2	104	<.3	.1	7.2	<1
52938	.9	6.7	6.8	68.1	77	20	7	295	1.96	5.7	<5	2	24	.06	.7	.2	42	.21	.084	12	19	.20	90	.12	<2	1.72	.01	.07	<2	.1	105	<.3	.2	6.3	<1
52939	.7	7.4	6.9	59.2	56	13	8	327	2.16	8.1	<5	3	30	.05	.9	.1	46	.26	.103	12	21	.22	90	.10	3	1.62	.01	.07	<2	.1	79	<.3	.3	5.1	<1
52941	1.0	12.2	8.5	53.6	128	7	7	602	2.07	21.3	<5	3	53	.09	2.2	.1	44	.40	.029	19	18	.31	95	.10	3	1.49	.02	.12	<2	.2	186	<.3	.1	4.1	5
RE 52941	1.0	12.4	9.3	54.0	127	10	7	603	2.08	20.3	<5	2	54	.09	2.1	.1	45	.41	.031	20	19	.31	98	.10	2	1.54	.02	.12	<2	.1	176	<.3	.1	3.9	2
52942	1.5	8.3	9.6	75.6	72	7	8	436	2.18	9.5	<5	2	45	.14	1.4	.1	53	.36	.084	13	22	.22	126	.10	<2	1.26	.01	.12	<2	.1	96	<.3	<.1	6.2	1
52943	1.2	7.7	7.6	44.6	115	6	6	953	1.83	13.8	<5	1	41	.08	1.1	.1	42	.37	.061	14	17	.20	98	.10	3	1.33	.02	.09	<2	.1	124	<.3	<.1	4.2	<1
52944	1.1	6.2	7.2	118.5	179	8	6	392	1.96	11.2	<5	2	30	.10	.8	.2	46	.27	.071	13	19	.19	82	.08	2	1.33	.01	.08	<2	<.1	123	<.3	<.1	4.9	1
52945	1.0	6.3	7.3	60.7	53	8	6	941	1.77	8.8	<5	2	35	.12	.6	.1	43	.34	.065	14	18	.17	92	.10	4	1.02	.01	.16	<2	.1	61	<.3	<.1	3.0	<1
52946	.7	5.7	5.5	54.6	<30	9	6	345	2.09	11.3	<5	3	36	.86	1.0	.1	48	.28	.116	12	22	.21	131	.10	2	1.47	.02	.11	<2	.1	110	<.3	<.1	3.6	1
52947	.6	6.5	6.6	34.4	<30	8	5	228	1.85	30.5	<5	3	55	.04	2.9	.1	45	.37	.053	16	19	.25	100	.13	2	1.11	.02	.10	<2	.1	276	<.3	<.1	3.2	1
52948	.7	7.9	7.0	62.2	<30	5	5	276	1.90	11.1	<5	2	40	.05	1.1	.1	41	.29	.061	13	18	.23	95	.10	<2	1.57	.02	.09	<2	<.1	158	<.3	<.1	5.3	<1
52949	.6	6.1	5.8	35.4	30	9	6	262	2.14	14.2	<5	3	41	.03	1.5	.1	52	.30	.056	13	20	.23	97	.12	<2	1.48	.02	.11	<2	.1	167	<.3	.1	3.7	2
52950	.6	5.6	6.1	46.6	<30	9	6	197	2.09	8.1	<5	2	32	.04	.8	.1	48	.26	.071	12	20	.15	82	.10	5	1.49	.01	.08	<2	.1	97	<.3	<.1	4.6	1
52951	.6	5.7	7.2	27.1	<30	6	3	232	1.45	11.4	<5	2	53	.03	1.4	.2	34	.40	.028	15	16	.23	95	.12	3	1.01	.03	.08	<2	.1	182	<.3	<.1	2.6	1
52952	.9	6.7	7.9	54.5	36	14	9	281	2.50	16.8	<5	2	36	.05	1.4	.1	56	.27	.125	12	22	.25	131	.10	14	1.67	.02	.07	<2	.1	164	<.3	<.1	4.2	<1
52953	.8	5.9	6.4	65.6	42	13	6	419	1.99	9.4	<5	2	30	.07	.8	.1	48	.33	.078	11	19	.21	73	.11	3	1.33	.02	.09	<2	.1	73	<.3	.1	4.3	<1
52954	.8	8.3	6.6	60.1	32	12	4	263	1.96	6.5	<5	2	32	.12	.8	.1	49	.34	.026	15	21	.22	67	.12	<2	1.07	.02	.08	<2	.1	78	<.3	<.1	3.7	<1
52955	.7	6.2	4.4	41.2	<30	21	7	234	2.51	14.2	<5	2	28	.04	.9	.1	60	.26	.124	10	27	.23	72	.13	2	1.32	.01	.07	<2	<.1	109	<.3	<.1	4.2	<1
52956	.6	15.4	8.1	52.3	65	22	5	364	2.29	14.9	<5	3	43	.06	2.6	.2	42	.41	.026	26	25	.33	79	.13	<2	1.59	.03	.08	<2	.2	108	<.3	.2	4.1	<1
52957	1.0	5.3	7.0	105.4	132	15	7	344	2.34	7.5	<5	2	34	.07	.6	.1	52	.25	.112	15	26	.21	80	.13	13	1.30	.02	.09	<2	<.1	71	<.3	<.1	5.3	5
52958	1.9	5.3	19.4	95.7	200	8	5	386	1.82	13.9	<5	2	22	.08	.7	.2	41	.19	.047	17	19	.14	64	.09	6	1.09	.02	.08	<2	.2	83	<.3	<.1	4.3	1
52959	1.5	10.3	8.9	139.3	45	11	4	321	2.16	8.8	5	2	41	.97	.9	.2	50	.30	.067	17	24	.17	82	.14	<2	.92	.02	.11	<2	<.1	129	<.3	.1	3.7	1
52960	.5	7.7	6.8	77.1	44	8	4	293	1.79	9.6	<5	2	66	.09	1.1	.1	43	.55	.060	19	22	.27	87	.15	<2	1.01	.04	.08	<2	<.1	130	<.3	<.1	2.5	1
52961	.7	10.1	7.3	38.3	71	12	3	273	1.63	6.5	<5	2	58	.12	.9	.1	39	.64	.045	18	21	.27	77	.13	<2	1.05	.03	.09	<2	<.1	109	<.3	<.1	2.9	1
53001	.8	14.6	8.5	131.4	89	11	8	811	1.98	13.9	<5	1	52	.25	1.2	.2	45	.56	.054	18	19	.28	110	.08	<2	1.41	.02	.08	<2	<.1	73	<.3	<.1	4.0	<1
53002	.8	4.8	6.8	54.9	33	7	5	545	1.27	11.9	7	2	30	.04	.5	.1	30	.33	.054	11	14	.23	74	.09	<2	.85	.02	.06	<2	<.1	119	<.3	<.1	3.0	1
53003	.7	5.4	6.9	28.4	<30	5	3	175	1.32	14.0	<5	2	35	.02	1.0	.2	31	.21	.021	12	13	.23	105	.10	<2	.98	.01	.06	<2	<.1	124	<.3	.1	2.5	1
STANDARD D/AU-R	24.5	123.3	80.1	261.3	1939	27	15	1004	4.15	73.9	18	20	58	2.44	8.8	22.0	68	.66	.084	19	52	1.12	227	.14	22	2.16	.05	.70	20	2.0	452	1.3	2.6	6.9	52

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P ppm	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B %	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
53004	1.0	6.3	7.9	33.4	51	6	4	232	1.47	14.5	<5	3	22	.06	1.1	<.1	34	.18	.023	9	13	.20	84	.08	<2	1.10	.02	.06	<2	<.1	97	<.3	<.1	3.8	2
53005	.7	6.9	6.5	53.0	65	10	6	442	1.78	7.7	<5	3	24	.05	.7	<.1	43	.23	.030	12	19	.26	95	.09	<2	1.52	.01	.05	<2	<.1	103	<.3	<.1	4.5	3
53006	.6	8.1	6.9	40.9	30	10	5	243	2.02	13.7	<5	3	33	.05	1.3	<.1	45	.30	.062	13	19	.24	113	.08	<2	1.50	.01	.08	<2	<.1	173	<.3	<.1	4.4	1
53007	.8	8.7	6.2	109.6	49	17	7	345	2.11	9.1	<5	3	50	.07	1.0	<.1	41	.30	.121	11	21	.28	180	.08	<2	2.26	.01	.13	<2	<.1	82	<.3	<.1	6.4	1
53008	.4	6.1	5.7	31.8	80	7	3	183	1.37	10.0	<5	4	39	.03	1.3	<.1	32	.25	.034	13	14	.21	112	.09	<2	.93	.02	.09	<2	<.1	231	<.3	<.1	2.8	2
53009	.7	7.2	5.4	71.5	<30	9	5	362	2.05	12.6	<5	4	27	.05	1.4	<.1	44	.21	.094	12	17	.24	110	.09	<2	1.73	.01	.10	<2	<.1	215	<.3	.1	5.0	1
53010	1.2	7.0	7.0	74.6	<30	2	2	113	1.28	13.8	<5	1	19	.05	2.3	<.1	27	.19	.050	13	11	.12	79	.05	<2	1.14	.01	.07	<2	<.1	204	<.3	<.1	4.2	<1
53011	2.6	20.2	9.9	127.9	159	12	6	1141	2.58	48.6	<5	2	46	.30	5.5	<.1	49	.53	.070	17	22	.42	93	.08	<2	1.64	.02	.16	<2	.1	832	<.3	<.1	4.9	<1
53012	.6	7.2	6.4	59.4	<30	6	5	344	1.66	5.5	<5	2	34	.06	.7	<.1	40	.27	.031	12	16	.27	75	.10	<2	1.11	.02	.08	<2	<.1	83	<.3	<.1	3.3	2
53013	.6	7.1	7.3	32.2	<30	6	4	227	1.64	10.7	<5	4	50	.04	1.8	<.1	41	.28	.043	14	16	.27	73	.10	<2	.89	.02	.13	<2	<.1	315	<.3	<.1	2.5	8
53014	.5	7.8	7.8	33.0	<30	19	6	230	1.82	10.1	<5	3	50	.04	1.6	<.1	42	.35	.058	17	24	.30	107	.14	<2	1.05	.03	.11	<2	<.1	173	<.3	<.1	3.6	1
53015	1.6	17.3	7.6	74.3	67	46	10	1679	1.94	3.8	<5	1	44	.22	.7	<.1	31	.39	.092	17	28	.42	62	.11	14	1.53	.02	.08	<2	<.1	148	<.3	<.1	5.1	<1
53016	2.6	41.0	4.0	111.2	37	237	46	1282	7.01	2.2	<5	1	47	.13	.2	<.1	46	.52	.156	18	62	2.95	41	.19	<2	2.23	.03	.07	<2	<.1	91	<.3	<.1	7.8	<1
53017	.8	52.9	1.2	114.2	64	297	55	1416	8.32	3.1	<5	2	40	.06	.6	<.1	60	.44	.103	16	35	3.76	38	.17	<2	2.19	.02	.04	<2	<.1	59	<.3	.3	7.2	1
53018	1.4	39.2	3.7	148.6	32	211	39	1558	7.02	3.3	<5	3	48	1.12	.5	<.1	57	.47	.138	18	31	2.47	68	.20	4	2.68	.02	.11	<2	<.1	71	<.3	<.1	8.6	<1
53019	.6	7.3	6.5	43.9	<30	19	6	475	1.60	2.3	<5	3	27	.05	.6	<.1	31	.23	.036	12	17	.30	51	.11	<2	1.10	.02	.09	<2	<.1	64	<.3	<.1	3.7	1
53020	.5	9.0	7.7	34.2	40	6	5	298	1.60	6.6	<5	3	33	.05	1.4	<.1	40	.30	.028	16	17	.25	72	.11	<2	.80	.02	.11	<2	<.1	166	<.3	<.1	3.0	<1
53021	2.4	27.7	17.6	95.7	100	28	17	1600	3.97	18.6	<5	3	57	.15	2.4	.1	92	.81	.165	33	39	.90	133	.08	4	2.45	.02	.23	<2	.1	122	<.3	.1	8.2	2
53022	.6	7.4	8.0	32.4	52	7	4	275	1.37	8.5	<5	2	43	.05	.9	<.1	31	.26	.024	14	13	.23	80	.09	<2	1.01	.01	.10	<2	<.1	203	<.3	<.1	3.4	2
RE 53022	.7	7.1	7.8	30.5	38	6	4	264	1.33	9.1	<5	2	42	.04	.8	.1	30	.25	.023	14	13	.23	71	.08	<2	.97	.02	.09	2	<.1	202	<.3	<.1	3.1	5
53023	.9	6.3	7.8	41.0	55	6	4	271	1.53	10.2	<5	2	41	.07	1.1	<.1	37	.27	.033	13	14	.22	93	.09	<2	1.03	.01	.10	<2	<.1	148	<.3	.1	3.5	1
53024	1.4	7.3	6.7	49.5	51	7	6	537	1.78	12.6	<5	2	38	.11	1.3	.1	42	.34	.066	11	17	.22	103	.09	<2	1.17	.01	.11	<2	<.1	112	<.3	<.1	4.0	1
53025	.8	7.0	6.4	49.8	45	11	6	434	1.97	17.6	<5	2	43	.08	1.4	<.1	46	.37	.101	12	19	.19	83	.09	2	1.29	.01	.08	<2	<.1	103	<.3	<.1	4.4	1
53026	1.0	7.9	6.6	69.9	42	12	6	271	2.25	21.5	<5	3	31	.10	1.9	.1	47	.28	.087	12	19	.23	83	.07	2	1.54	.01	.12	<2	<.1	128	<.3	<.1	5.5	1
53027	.7	6.1	7.0	38.1	<30	6	4	182	1.36	11.0	5	2	29	.03	1.0	<.1	32	.24	.032	12	13	.18	77	.09	<2	1.03	.02	.08	<2	<.1	91	<.3	<.1	3.8	6
53028	.6	6.6	6.6	39.2	<30	7	4	193	1.74	10.6	<5	3	33	.04	1.0	<.1	41	.25	.073	13	18	.18	86	.10	<2	1.33	.02	.10	<2	<.1	100	<.3	.1	4.2	1
53029	.7	6.9	6.3	45.7	37	10	6	162	1.97	12.0	<5	3	32	.07	1.1	<.1	41	.27	.091	13	19	.21	89	.09	<2	1.75	.01	.11	<2	<.1	169	<.3	<.1	5.2	4
53030	.8	7.1	6.1	67.5	<30	13	5	256	2.06	16.9	<5	3	33	.07	1.8	<.1	44	.29	.090	12	19	.27	90	.09	<2	1.80	.01	.08	<2	<.1	242	<.3	<.1	5.5	3
53031	.6	5.7	5.9	33.3	38	10	4	169	1.56	8.0	<5	2	30	.06	1.0	.1	39	.25	.036	10	16	.21	72	.11	<2	1.01	.01	.07	<2	<.1	110	<.3	.1	3.4	6
53032	3.0	55.1	8.8	65.8	190	35	10	766	5.06	33.2	<5	5	84	.11	3.6	.2	80	.98	.047	46	47	.66	222	.05	<2	5.76	.02	.18	<2	.2	231	.3	.1	15.6	4
53033	1.2	8.7	7.4	43.4	77	9	5	435	1.96	9.6	<5	2	35	.11	1.2	.1	49	.31	.024	12	20	.24	76	.10	2	1.12	.02	.11	<2	<.1	115	<.3	.1	5.6	2
53034	.7	5.9	6.8	36.4	34	8	4	215	1.50	5.5	<5	2	29	.04	.9	.1	37	.26	.029	12	16	.24	71	.11	<2	.94	.01	.05	2	<.1	118	<.3	.2	3.6	2
53035	.8	6.2	4.8	68.9	41	15	5	192	2.03	5.0	<5	2	19	.05	.7	<.1	46	.17	.087	10	21	.22	90	.10	2	1.68	.01	.06	2	<.1	76	<.3	<.1	5.2	2
53036	.6	7.1	4.8	29.3	34	14	5	188	1.87	9.4	<5	2	35	.03	1.6	.1	45	.26	.056	12	22	.26	94	.11	<2	1.21	.02	.06	<2	<.1	252	<.3	.1	3.2	2
STANDARD D/AU-S	24.8	123.6	84.0	261.6	1938	30	16	993	4.09	69.5	19	21	58	2.09	9.0	23.2	68	.65	.093	18	52	1.11	232	.14	27	2.10	.05	.70	19	2.4	452	1.0	2.1	7.1	53

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



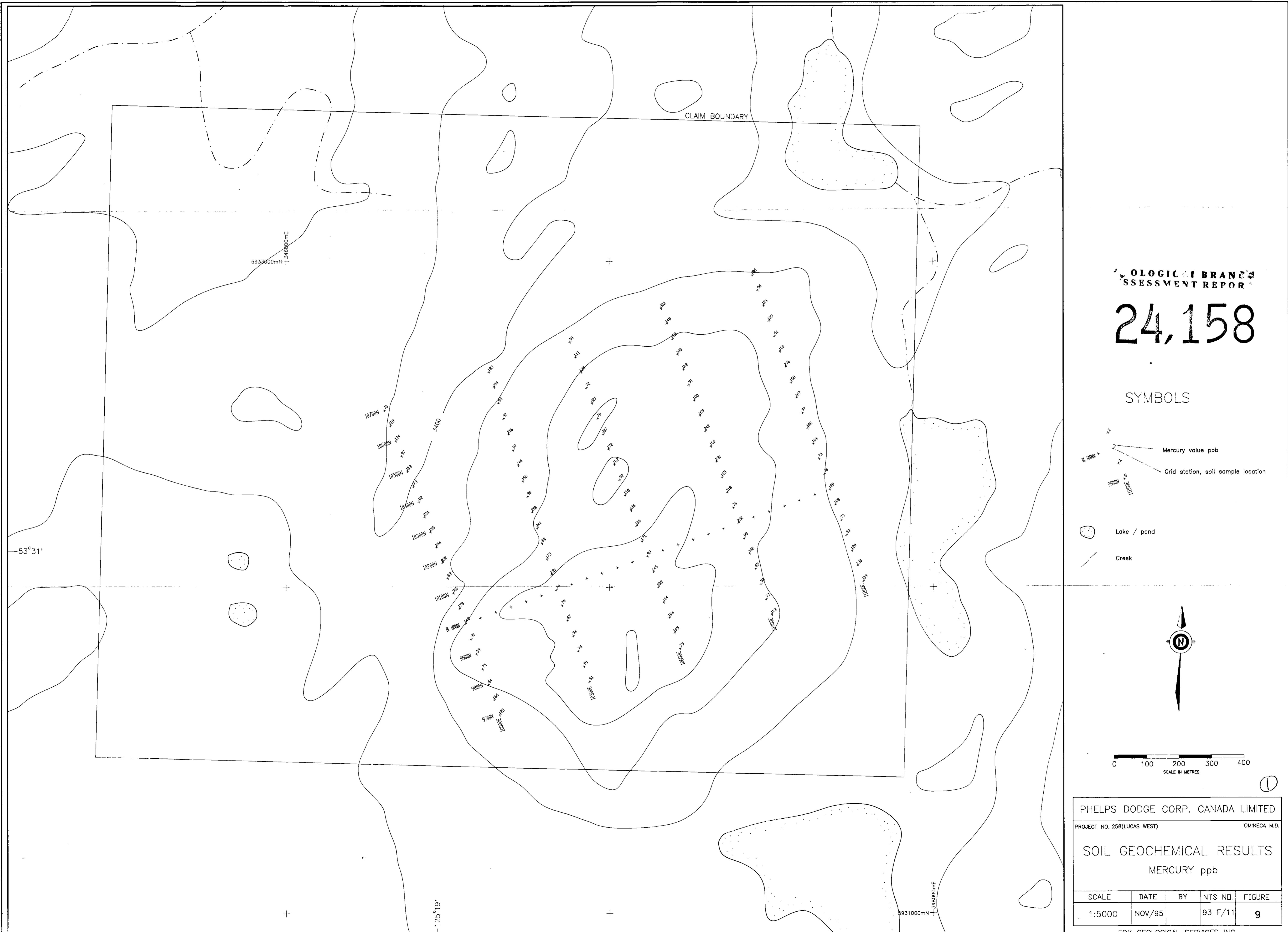
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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P ppm	La ppm	Cr ppm	Mg ppm	Ba ppm	Ti ppm	B %	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au ppb
53037	.7	7.0	7.8	40.7	<30	17	6	218	1.92	4.5	<5	2	33	.04	.7	.2	43	.28	.047	12	25	.25	78	.14	<2	1.22	.02	.07	<2	<.1	93	<.3	<.1	3.4	1
53038	.4	5.2	8.1	25.5	<30	11	4	142	1.38	3.9	<5	2	32	.03	.7	.1	31	.25	.033	11	17	.22	71	.13	<2	.92	.02	.06	<2	<.1	102	<.3	<.1	3.0	1
53039	.5	4.9	5.7	73.0	<30	18	6	259	2.10	4.9	<5	2	23	.07	.6	.1	47	.25	.111	10	22	.19	65	.11	<2	1.28	.01	.06	<2	<.1	65	<.3	<.1	3.6	2
53040	.8	5.8	7.4	58.2	<30	13	6	381	2.41	9.2	6	2	18	.06	.8	.1	55	.19	.132	10	24	.19	62	.11	<2	1.27	.01	.05	<2	<.1	93	<.3	<.1	3.8	1
53041	.7	5.5	7.2	46.1	<30	13	5	389	2.23	8.7	<5	2	31	.08	.5	.1	52	.27	.094	10	24	.19	76	.12	<2	1.12	.01	.08	<2	<.1	77	<.3	<.1	3.8	1
53042	.7	8.1	9.5	37.7	47	19	6	299	2.26	9.1	<5	2	43	.07	.9	.1	48	.38	.059	17	25	.32	90	.13	<2	1.43	.01	.11	<2	<.1	113	<.3	.1	3.6	<1
RE 53042	.8	8.9	8.7	38.0	40	20	6	294	2.27	8.7	<5	2	43	.08	1.0	.1	48	.38	.059	17	25	.33	90	.13	<2	1.43	.02	.11	<2	<.1	112	<.3	<.1	3.4	<1
STANDARD D/AU-S	24.7	123.0	96.7	262.7	1860	30	15	996	4.24	74.3	19	21	57	2.19	10.1	23.6	67	.66	.095	18	50	1.13	233	.14	28	2.25	.05	.72	20	2.6	476	.9	1.9	7.2	47

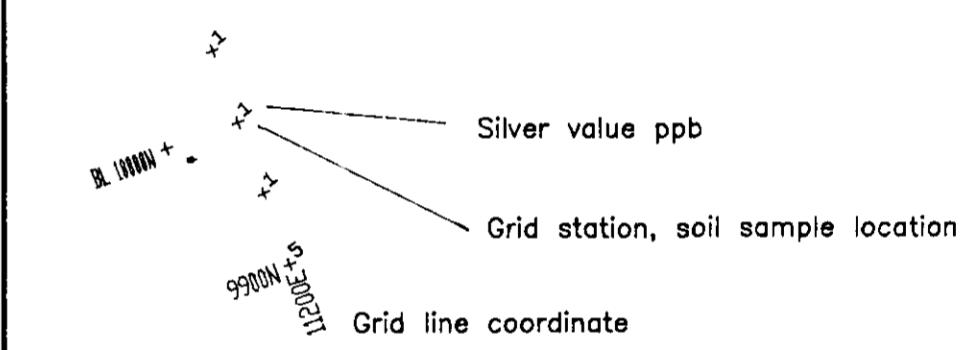
Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



EOLOGICAL BRANDS
ASSESSMENT REPORT

24,158

SYMBOLS



0 100 200 300 400
SCALE IN METRES

(2)

PHELPS DODGE CORP. CANADA LIMITED

PROJECT NO. 258(LUCAS WEST)

OMINECA M.D.

SOIL GEOCHEMICAL RESULTS

SILVER ppb

SCALE	DATE	BY	NTS NO.	FIGURE
1:5000	NOV/95	CWP	93 F/11	8

FOX GEOLOGICAL SERVICES INC.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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SYMBOLS

- Soil sample number
- Grid station location
- Lake / pond
- Creek



0 100 200 300 400
SCALE IN METRES

(3) PHELPS DODGE CORP. CANADA LIMITED

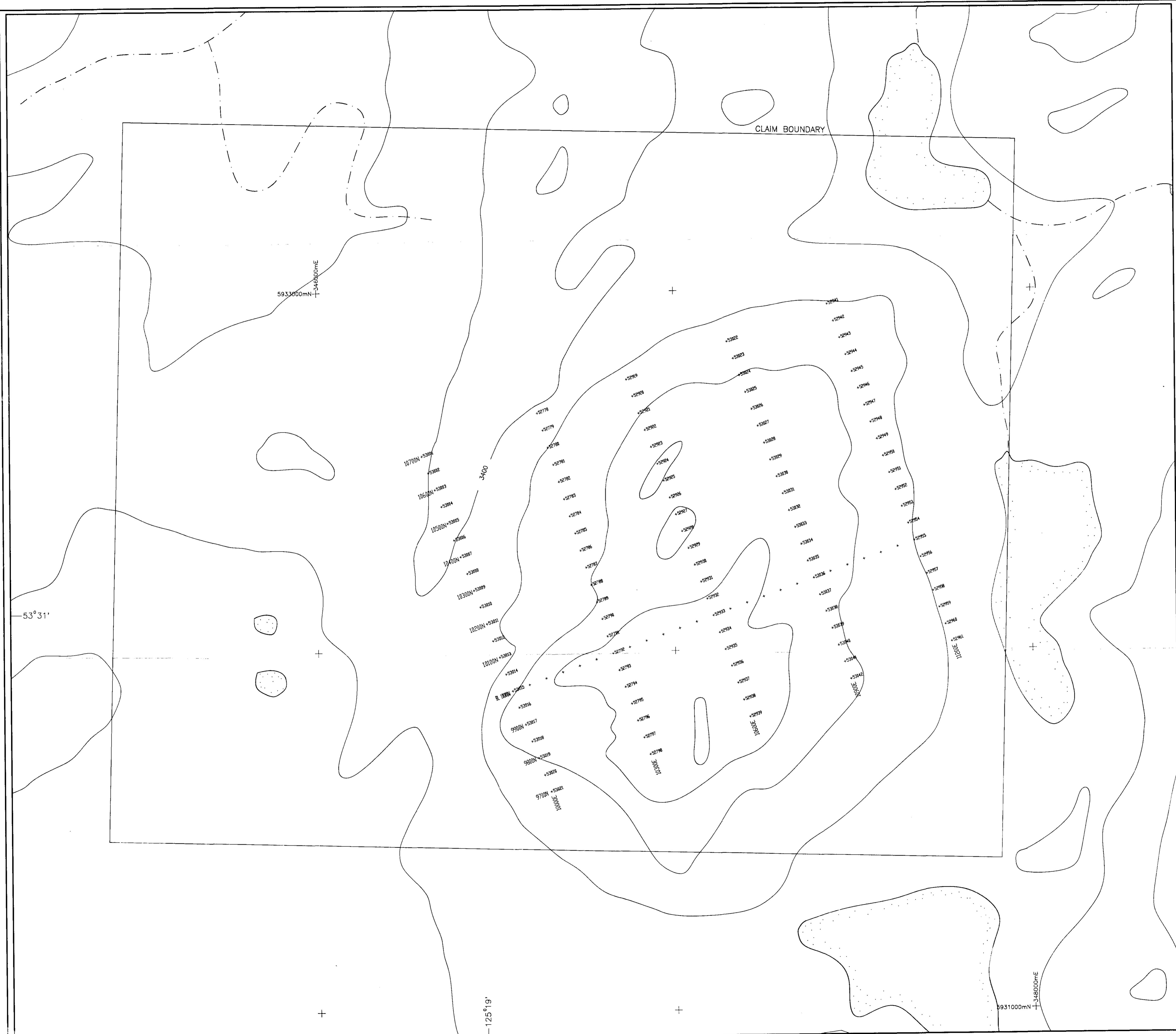
PROJECT NO. 258(LUCAS WEST) OMINECA M.D.

SOIL GEOCHEMICAL RESULTS

SOIL SAMPLE LOCATION AND NUMBER

SCALE	DATE	BY	NTS NO.	FIGURE
1:5000	NOV/95		93 F/11	6

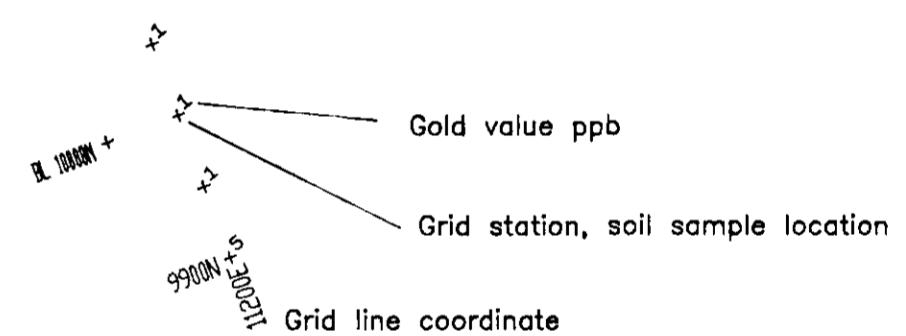
FOX GEOLOGICAL SERVICES INC.



GEOLOGICAL
ASSESSMENT REPORT

24,158

SYMBOLS



0 100 200 300 400
SCALE IN METRES

(4)

PHELPS DODGE CORP. CANADA LIMITED

PROJECT NO. 258(LUCAS WEST) OMINICA M.D.

SOIL GEOCHEMICAL RESULTS

GOLD ppb

SCALE	DATE	BY	NTS NO.	FIGURE
1:5000	NOV/95	CWP	93 F/11	7

FOX GEOLOGICAL SERVICES INC.

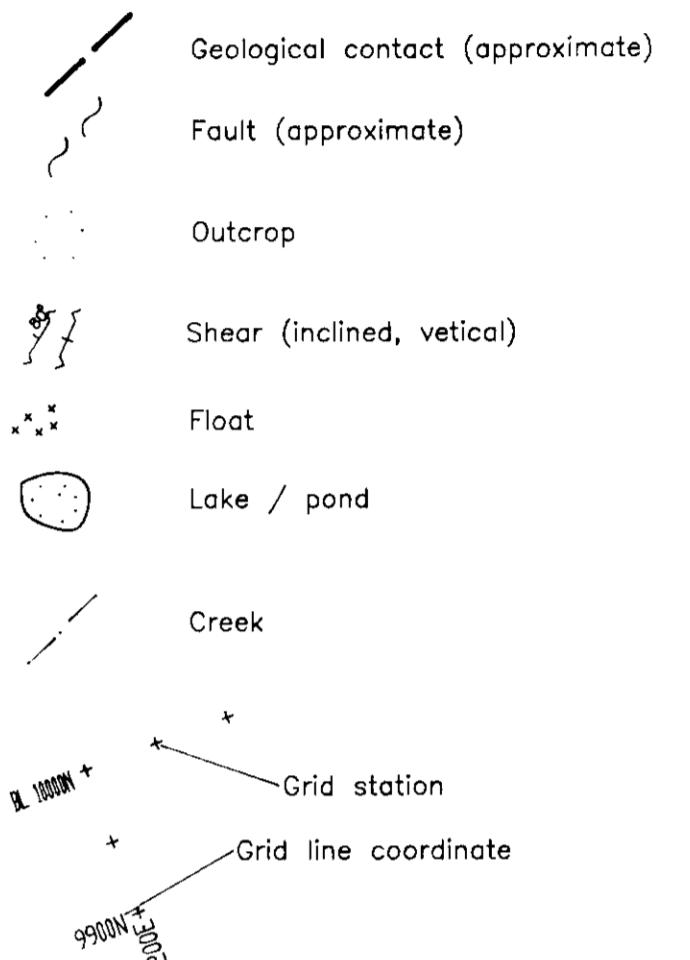
24,158



LEGEND

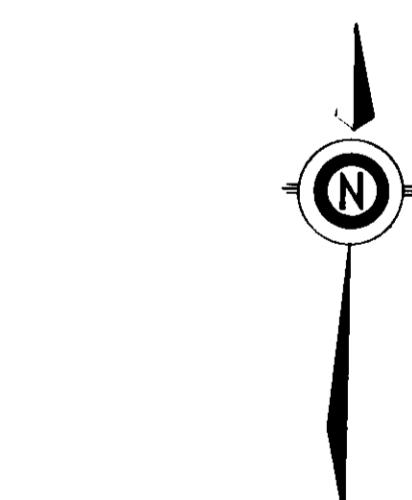
EOCENE	
ENDAKO GROUP	
Eeb	Basalt, minor andesite
Eor	Rhyolite (quartz + feldspar phryic)
Eos	Conglomerate (sandy, pebble conglomerate)

SYMBOLS



EOLOGICAL BRANCHES
ASSESSMENT REPORT

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0 100 200 300 400
SCALE IN METRES

(6)

PHELPS DODGE CORP. CANADA LIMITED

PROJECT NO. 258(LUCAS WEST)

OMINECA M.D.

PROPERTY GEOLOGY

SCALE	DATE	BY	NTS NO.	FIGURE
1:5000	NOV/95	CWP	93 F/11	4

FOX GEOLOGICAL SERVICES INC.