APPENDIX VII

VEGETATION AND WILDLIFE TRANSECTS IN THE RED CHRIS PROJECT AREA

(Hallam Knight Piésold Ltd., July 1995)

APPENDIX VII

VEGETATION AND WILDLIFE TRANSECTS

Site #2: **"Soggy Lake"; Upstream Of Kluea Lake (Northeast)**

Elevation: 1120 m
Aspect: southwest
Gradient: 2.0°

Tree layer:	lodgepole pine* (8, average height 8 m) white spruce (3, young trees, 5 to 8 m height)
Tall shrub layer:	tall blueberry willow little tree willow grey leaved willow scrub birch
Low shrub layer:	shrubby cinquefoil* willow sp.
Herb layer:	tall larkspur* tall lungwort* northern bedstraw* monkshood* yarrow* wild raspberry cow parsnip fireweed 4-petalled gentian dune goldenrod fleabane sp. cutleaf anemone pumpelly brome purple reedgrass thick headed sedge
Moss/lichen layer:	freckled lichen reindeer lichen

Comments and Observations:

Extensive grass tussocks in area
Mostly grasses cover ground
Moose scat/ungulate browse
Vole pellets and holes (especially at the base of willow bushes)
Small rodents observed
Sandpiper observed
Dark-eyed junco observed
Bonaparte gull observed (on lake)
Ruddy duck observed (on lake)
Barrow's goldeneye (female) observed (on lake)
Song sparrow observed

Site #3: Alpine/subalpine area, on plateau above water quality station W6.

Elevation: 1485 m
Aspect: southeast
Gradient: ?

Tree layer:	none
Tall shrub layer:	Barratt's willow Scrub birch
Low shrub layer:	none
Herb layer:	arctic wormwood northern bedstraw monkshood altai fescue nagoonberry bitter fleabane stiff stemmed saxifrage fireweed lupine tall lungwort arrow-leaved groundsel northern goldenrod yarrow moutain meadow cinquefoil

Comments and observations:

Area consists of a mosaic of Barratt's willow/scrub birch and grasslands

Site #4: South aspect steep slope above Thurston's Trickle

Elevation: 1440 m
Aspect: south
Gradient: 21°

Tree layer:	subalpine fir
Tall shrub layer:	subalpine fir scrub birch willow sp. (glossy leaves)
Low shrub layer:	scrub birch common juniper
Herb layer:	lupine monkshood northern wormwood northern bedstraw fireweed tall lungwort indian paintbrush kinnikinnick one-sided wintergreen northern gentian northern goldenrod dwarf blueberry mountain arnica
Moss/lichen layer:	feather moss freckled lichen reindeer lichen

Site #5: Alpine grassland north of Red Chris deposit

Elevation: 1500 m
Aspect: south southeast
Gradient: 10°

Tree layer:	none
Tall shrub layer:	none
Low shrub layer:	none
Herb layer:	northern wormwood monkshead altai fescue dunhead sedge mountain hairgrass tall Jacob's ladder inky gentian alpine harebell small-flowered woodrush
Moss/lichen layer:	reindeer lichen green kidney lichen coral lichen few fingered lichen sidewalk moss

Observations and comments:

As slope increases the vegetation transitions into an herb layer consisting almost exclusively of grasses and sedges, dominated by dense tussocks of altai fescue.

Site #6: Seepage area in alpine tundra

Elevation: 1480 m
Aspect: south southeast
Gradient: 5°

Tree layer:	none
Tall shrub layer:	none
Low shrub layer:	willow
Herb layer:	arrow leaved groundsel sweet coltsfoot monkshood cloudberry alpine speedwell inky gentian tall Jacob's ladder northern wormwood northern goldenrod
Moss/lichen layer:	sphagnum moss sidewalk moss awned haircap moss

Observations and comments:

moose pellets, browse and old rack
great gray owl observed
owl pellet (4 cm x 2 cm)
unidentified bird guano (possibly raven)
vole burrows, 2 voles observed
Brewer's sparrow observed
Song sparrow observed

Between sites 6 & 7:	moose pellets and browse ptarmigan droppings northern harrier observed

Site #7: Steep slope facing Redrock Canyon

Elevation: 1440 m
Aspect: southwest
Gradient: 39°

Tree layer:	none
Tall shrub layer:	willow sp.
Low shrub layer:	juniper wild rose
Herb layer:	fireweed yarrow kinnikinnick 3-toothed saxifrage one-flowered cinquefoil diverse leaved cinquefoil four-petalled gentian northern paintbrush alpine pussytoes silky locoweed tall lungwort northern bedstraw

Observations and comments:

Large mammal trail (possibly bear) through grasses and willows
Least chipmunk observed
Ptarmigan droppings
Cliff swallows observed

Site #8: South aspect grassy slope to northwest of Site #7

Elevation: 1400 m
Aspect: south
Gradient: 40°

Tree layer:	none
Tall shrub layer:	none
Low shrub layer:	none
Herb layer:	glaucous bluegrass altai fescue purple reedgrass prairie cinquefoil northern wormwood pasture sage cut-leaf anemone wild rose
Moss/lichen layer:	none

Comments and observations:

Soil exposed in many areas, some erosion present
Burrows (group of 5) with 8 cm diameter; rodent droppings at entrance, most likely ground squirrel
many small burrows along grassy slope with pellets at entrance

Site #9: Mid-slope of balsam poplar forest (approximately 100 m below Site #8)

Elevation: 1335 m
Aspect: south
Gradient: 32°

Tree layer:	balsam poplar (3.5 to 7 m in height)
Tall shrub layer:	as above
Low shrub layer:	wild rose
Herb layer:	fireweed* meadowrue northern bedstraw tall larkspur cow parsnip
Moss/lichen layer:	none

Comments and observations:

Extremely organic soil, thick humic layer, extensive leaf litter
rufous hummingbird observed

Site #10: Lower slope; mixed deciduous forest (approximately 100 m below Site #9)

Elevation: 1275 m
Aspect: south
Gradient: 34°

Tree layer:	trembling aspen balsam poplar little tree willow
Tall shrub layer:	willow sp.
Low shrub layer:	willow sp.
Herb layer:	fireweed cow parsnip northern bedstraw wild strawberry blue-joint grass tall larkspur meadowrue tall lungwort wild geranium

Comments and observations:

Signs of fire; thick ash layer observed below A horizon
Large mammal trail
moose pellets
rodent burrows

Below Site #10 near confluence of Red Rock Canyon creek and plateau creek:

coyote scat
moose pellets
animal trail

Site #11: Red Rock Canyon, near W5/H5, riparian zone

Elevation: 1256 ft
Aspect: north
Gradient: 5°

Tree layer	none
Tall shrub layer:	subalpine fire (2 m height) white spruce (2 m height) willow(Barratt's and red stemmed?)
Low shrub layer:	willow
Herb layer:	cow parsnip river splendour meadow horsetail sweet coltsfoot lupine elephant's head red columbine rock willow red-stemmed saxifrage orange agoseris northern wormwood alpine milk vetch tall lungwort
Moss/lichen layer:	coral lichen

Comments and observations:

Extensive moose sign; many pellet groups, browse
Bear scat
Mink or weasel scat
Rodent burrows in slope adjacent to creek

Site #12: Coniferous forest slope at H2/W2

Elevation: 930 m
Aspect: northeast
Gradient: 20°

Tree layer:	black spruce white spruce subalpine fir
Tall shrub layer:	willow sp.
Low shrub layer:	trapper's tea wild rose
Herb layer:	bunchberry twinflower crowberry lingonberry tall lungwort fireweed
Moss/lichen layer:	red-stem feathermoss freckled lichen toadpelt lichen

Comments and observations:

Squirrel sign abundant; substantial midden at base of white spruce

Site #13: West aspect slope above W5/H5

Elevation: 1300 m
Aspect: west
Gradient: 42°

Tree layer:	subalpine fir
Tall shrub layer:	willow sp.
Low shrub layer:	black gooseberry
Herb layer:	tall Jacob's ladder meadowrue cow parsnip twinflower one-sided wintergreen nagoonberry tall larkspur monkshood northern wormwood lupine northern bedstraw
Moss/lichen layer:	red-stemmed feathermoss freckled lichen

Site #14: East aspect slope above W5/H5

Elevation: 1300 m
Aspect: East
Gradient: 35°

Tree layer:	subalpine fir
Tall shrub layer:	willow spp. (3)
Low shrub layer:	willow (as above)
Herb layer:	cow parsnip fireweed altai fescue tall lungwort monshood tall larkspur lupine yarrow northern wormwood meadowrue nagoonberry
Moss/lichen layer:	feathermoss

Site #15: Mixed deciduous/coniferous forest at H3/W3

Elevation:
Aspect:
Gradient:

Tree layer:	trembling aspen lodgepole pine white spruce
Tall shrub layer:	none
Low shrub layer:	soopalallie
Herb layer:	bunchberry twinflower lingonberry lupine northern bedstraw fireweed one-sided wintergreen labrador lousewort pink wintergreen tall larkspur wild strawberry
Moss/lichen layer:	red-stemmed feathermoss toad pelt lichen

APPENDIX VIII

WILDLIFE OBSERVATIONS
REPORTED BY RACHEL BROCK

(Excerpted from the 1995 "Red Chris Road Study" document)

APPENDIX VIII

Wildlife observations reported by Rachel Brock

(Excerpted from the 1995 "Red Chris Road Study" document)

Spruce Grouse	(*Dendragapus sp.*)
Willow Ptarmigan	(*Lagopus lagopus*)
Northern Hawk-Owl	(*Surnia ulula*)
Red-Tailed Hawk	(*Buteo jamaicensis*)
Barrows Goldeneye	(*Bucephala islandica*)
Northern Pintail	(*Anas acuta*)
Red-necked Phalarope	(*Phalaropus lobatus*)
Canada Goose	(*Chen canadensis*)
Ruby-Throated Hummingbird[1]	(*Archilchus colubris*)
Mountain Chickadee	(*Parus gambeli*)
Barn Swallow	(*Hirundo rustica*)
Grey Cheeked Thrush	(*Catharus minmus*)
American Wigeon	(*Anas americana*)
Wilson's Warbler	(*Wilsonia pusilla*)
American Robin	(*Turdus maigratorius*)
Gyrfalcon	(*Falco rusticolus*)
Bald Eagle	(*Haliaeetus leucocephalus*)
Porcupine	(*Erethizon dorsatum*)
Grizzly Bear	(*Ursus arctos*)
Black Bear	(*Ursus americanus*)
Red Squirrel	(*Tamiasciurus hudsonicus*)
Caribou	(*Rangifer tarandus*)
Rainbow Trout	(*Salmo gairdneri*)
Mountain Goat	(*Oreamnos americanus*)
Moose	(*Alces alces*)
Gray Wolf	(*Canis lupus*)
Coyote	(*Canis latrans*)
Red Fox	(*Vulpes fulva*)
Beaver	(*Castor canadensis*)
Marten	(*Martes americana*)
Fisher	(*Martes pennanti*)
Mink	(*Mustela vison*)
Muskrat	(*Ondatra zibethicus*)
Lynx	(*Lynx lynx*)
Weasel	(*Martes americana*)
Wolverine	(*Gulo gulo luscus*)
Stone Sheep	(*Ovus dalli stonei*)

[1] - Not known to occur in the project area. Likely a Rufous Hummingbird (*Selasphorus rufus*).

APPENDIX IX

RED CHRIS PROPERTY
MINERAL CLAIM DATA AND MAP

TABLE IX.1

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
ABM-1	18	227107	330898	Sep 11, 1994	Sep 11, 2005
ABM-2	6	227108	330899	Sep 11, 1994	Sep 11, 2005
ABM-3	9	227109	330900	Sep 11, 1994	Sep 11, 2005
ABM-4	20	227196	330901	Sep 12, 1994	Sep 12, 2005
ABM-5	12	227197	330902	Sep 13, 1994	Sep 13, 2005
ABM-6	20	213345	330903	Sep 13, 1994	Sep 13, 2005
ABM-7	10	227214	337486	Jun 29, 1995	Jun 29, 1996
ABM-8	10	227215	337810	Jul 4, 1995	Jul 4, 1996
ABM-9	18	227216	337487	Jul 1, 1995	Jul 1, 1996
ABM-10	12	227217	337811	Jul 7, 1995	Jul 7, 1996
ABM-11	6	203587	337812	Jul 8, 1995	Jul 8, 1996
Capricorn	12	146	221682	July 7, 1976	July 7, 2004
Chris North	4	32	221642	Aug 13, 1975	Aug 13, 2004
Chris 01	1	31156	226748	Aug 24, 1968	Aug 24, 2004
Chris 02	1	31157	226749	Aug 24, 1968	Aug 24, 2004
Chris 03	1	31158	226750	Aug 24, 1968	Aug 24, 2004
Chris 04	1	31159	226751	Aug 24, 1968	Aug 24, 2004
Chris 05	1	31160	226752	Aug 24, 1968	Aug 24, 2004
Chris 06	1	31161	226753	Aug 24, 1968	Aug 24, 2004
Chris 07	1	31162	226754	Aug 24, 1968	Aug 24, 2004
Chris 08	1	31163	226755	Aug 24, 1968	Aug 24, 2004
Chris 09	1	31164	226756	Aug 24, 1968	Aug 24, 2004
Chris 10	1	31165	226757	Aug 24, 1968	Aug 24, 2004
Chris 11	1	31166	226758	Aug 24, 1968	Aug 24, 2004
Chris 12	1	31167	226759	Aug 24, 1968	Aug 24, 2004
Chris 13	1	31168	226760	Aug 24, 1968	Aug 24, 2004
Chris 14	1	31169	306684	Aug 24, 1968	Aug 24, 2004
Chris 15	1	31170	226761	Aug 24, 1968	Aug 24, 2004
Chris 16	1	31171	226762	Aug 24, 1968	Aug 24, 2004
Chris 17	1	31172	226763	Aug 24, 1968	Aug 24, 2004
Chris 18	1	31173	226764	Aug 24, 1968	Aug 24, 2004
Chris 19	1	31174	226765	Aug 24, 1968	Aug 24, 2004
Chris 20	1	31175	226766	Aug 24, 1968	Aug 24, 2004
Chris 21	1	31176	226767	Aug 24, 1968	Aug 24, 2004
Chris 22	1	31177	226768	Aug 24, 1968	Aug 24, 2004
Chris 23	1	31178	226769	Aug 24, 1968	Aug 24, 2004
Chris 24	1	31179	226770	Aug 24, 1968	Aug 24, 2004
Cougar 1	1	71985	228048	Aug 29, 1974	Aug 29, 2004
Cougar 2	1	71986	228049	Aug 29, 1974	Aug 29, 2004
Cougar 3	1	71987	228050	Aug 29, 1974	Aug 29, 2004
Cougar 4	1	71988	228051	Aug 29, 1974	Aug 29, 2004

TABLE IX.1

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
Cougar 5	1	71989	228052	Aug 29, 1974	Aug 29, 2004
Cougar 6	1	72180	228060	Aug 29, 1974	Aug 29, 2004
Cougar 7	1	71990	228053	Aug 29, 1974	Aug 29, 2004
Cougar 8	1	71991	228054	Aug 29, 1974	Aug 29, 2004
Money 01	1	34011	226792	Sep 30, 1968	Sep 30, 2004
Money 02	1	34012	226793	Sep 30, 1968	Sep 30, 2004
Money 03	1	34013	226794	Sep 30, 1968	Sep 30, 2004
Money 04	1	34014	226795	Sep 30, 1968	Sep 30, 2004
Money 05	1	34015	226796	Sep 30, 1968	Sep 30, 2004
Money 06	1	31016	226797	Sep 30, 1968	Sep 30, 2004
Money 07	1	34017	226798	Sep 30, 1968	Sep 30, 2004
Money 08	1	34018	226799	Sep 30, 1968	Sep 30, 2004
Money 09	1	34019	226800	Sep 30, 1968	Sep 30, 2004
Money 10	1	34020	226801	Sep 30, 1968	Sep 30, 2004
Money 11	1	34021	226802	Sep 30, 1968	Sep 30, 2004
Money 12	1	34022	226803	Sep 30, 1968	Sep 30, 2004
Money 13	1	34023	226804	Sep 30, 1968	Sep 30, 2004
Money 14	1	34024	226805	Sep 30, 1968	Sep 30, 2004
Money 15	1	34025	226806	Sep 30, 1968	Sep 30, 2004
Money 16	1	34026	226807	Sep 30, 1968	Sep 30, 2004
Money 17	1	34027	226808	Sep 30, 1968	Sep 30, 2004
Money 18	1	34028	226809	Sep 30, 1968	Sep 30, 2004
Money 19	1	34029	226810	Sep 30, 1968	Sep 30, 2004
Money 20	1	34030	226811	Sep 30, 1968	Sep 30, 2004
Money 21	1	34031	226812	Sep 30, 1968	Sep 30, 2004
Money 22	1	34032	226813	Sep 30, 1968	Sep 30, 2004
Money 23	1	34033	226814	Sep 30, 1968	Sep 30, 2004
Money 24	1	34034	226815	Sep 30, 1968	Sep 30, 2004
Money 25	1	34035	226816	Sep 30, 1968	Sep 30, 2004
Money 26	1	34036	226817	Sep 30, 1968	Sep 30, 2004
Money 27	1	34037	226818	Sep 30, 1968	Sep 30, 2004
Money 28	1	34038	226819	Sep 30, 1968	Sep 30, 2004
Money 29	1	34039	226820	Sep 30, 1968	Sep 30, 2004
Money 30	1	34040	226821	Sep 30, 1968	Sep 30, 2004
Money 32	1	34042	226822	Sep 30, 1968	Sep 30, 2004
Money 34	1	34044	226823	Sep 30, 1968	Sep 30, 2004
Money 36	1	34046	226824	Sep 30, 1968	Sep 30, 2004
Money 38	1	34048	226825	Sep 30, 1968	Sep 30, 2004
Money 40	1	34050	226826	Sep 30, 1968	Sep 30, 2004
Money 41	1	34051	226827	Sep 30, 1968	Sep 30, 2004
Money 42	1	34052	226828	Sep 30, 1968	Sep 30, 2004

TABLE IX.1

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
Money 43	1	34053	226829	Sep 30, 1968	Sep 30, 2004
Money 44	1	34054	226830	Sep 30, 1968	Sep 30, 2004
Money 45	1	34055	226831	Sep 30, 1968	Sep 30, 2004
Money 46	1	34056	226832	Sep 30, 1968	Sep 30, 2004
Money 47	1	34057	226833	Sep 30, 1968	Sep 30, 2004
Money 48	1	34058	226834	Sep 30, 1968	Sep 30, 2004
Money 49	1	34059	226835	Sep 30, 1968	Sep 30, 2004
Money 50	1	34060	226836	Sep 30, 1968	Sep 30, 2004
Money 51	1	34061	226837	Sep 30, 1968	Sep 30, 2004
Money 52	1	34062	226838	Sep 30, 1968	Sep 30, 2004
Money 53	1	34063	226839	Sep 30, 1968	Sep 30, 2004
Money 54	1	34064	306687	Sep 30, 1968	Sep 30, 2004
Money 55	1	34065	226840	Sep 30, 1968	Sep 30, 2004
Money 56	1	34066	226841	Sep 30, 1968	Sep 30, 2004
Money 57	1	34067	226842	Sep 30, 1968	Sep 30, 2004
Money 58	1	34068	226843	Sep 30, 1968	Sep 30, 2004
Money 59	1	34069	226844	Sep 30, 1968	Sep 30, 2004
Money 61	1	34071	226845	Sep 30, 1968	Sep 30, 2004
Money 63	1	34073	306685	Sep 30, 1968	Sep 30, 2004
Pisces	4	144	221680	July 7, 1974	July 7, 2004
Raf 1	1	71523	227970	July 31, 1974	July 31, 2004
Raf 2	1	71525	227971	July 31, 1974	July 31, 2004
Raf 3	1	71524	227972	July 31, 1974	July 31, 2004
Raf 4	1	71526	227973	July 31, 1974	July 31, 2004
Raf 5	1	71527	227974	July 31, 1974	July 31, 2004
Raf 6	1	71528	227975	July 31, 1974	July 31, 2004
RC-1	20	323337	323337	Jan 11, 1994	Jan 11, 2005
RC-2	16	323338	323338	Jan 14, 1994	Jan 14, 2005
RC-3	12	32339	323339	Jan 12, 1994	Jan 12, 2005
RC-4	20	323340	323340	Jan 17, 1994	Jan 17, 2005
RC-5	8	323341	323341	Jan 16, 1994	Jan 16, 2005
RC-6	18	323342	323342	Jan 18, 1994	Jan 18, 2005
RC-7	14	323343	323343	Jan 18, 1994	Jan 18, 2005
Red North	8	31	221641	Aug 13, 1975	Aug 13, 2004
Red South	8	28	221638	Aug 13, 1975	Aug 13, 2004
Red 04	1	45616	227043	Aug 5, 1970	Aug 5, 2004
Red 05	1	45617	227044	Aug 5, 1970	Aug 5, 2004
Red 06	1	45618	227045	Aug 5, 1970	Aug 5, 2004
Red 07	1	45619	227046	Aug 5, 1970	Aug 5, 2004
Red 08	1	45620	227047	Aug 5, 1970	Aug 5, 2004
Red 09	1	45621	227048	Aug 5, 1970	Aug 5, 2004

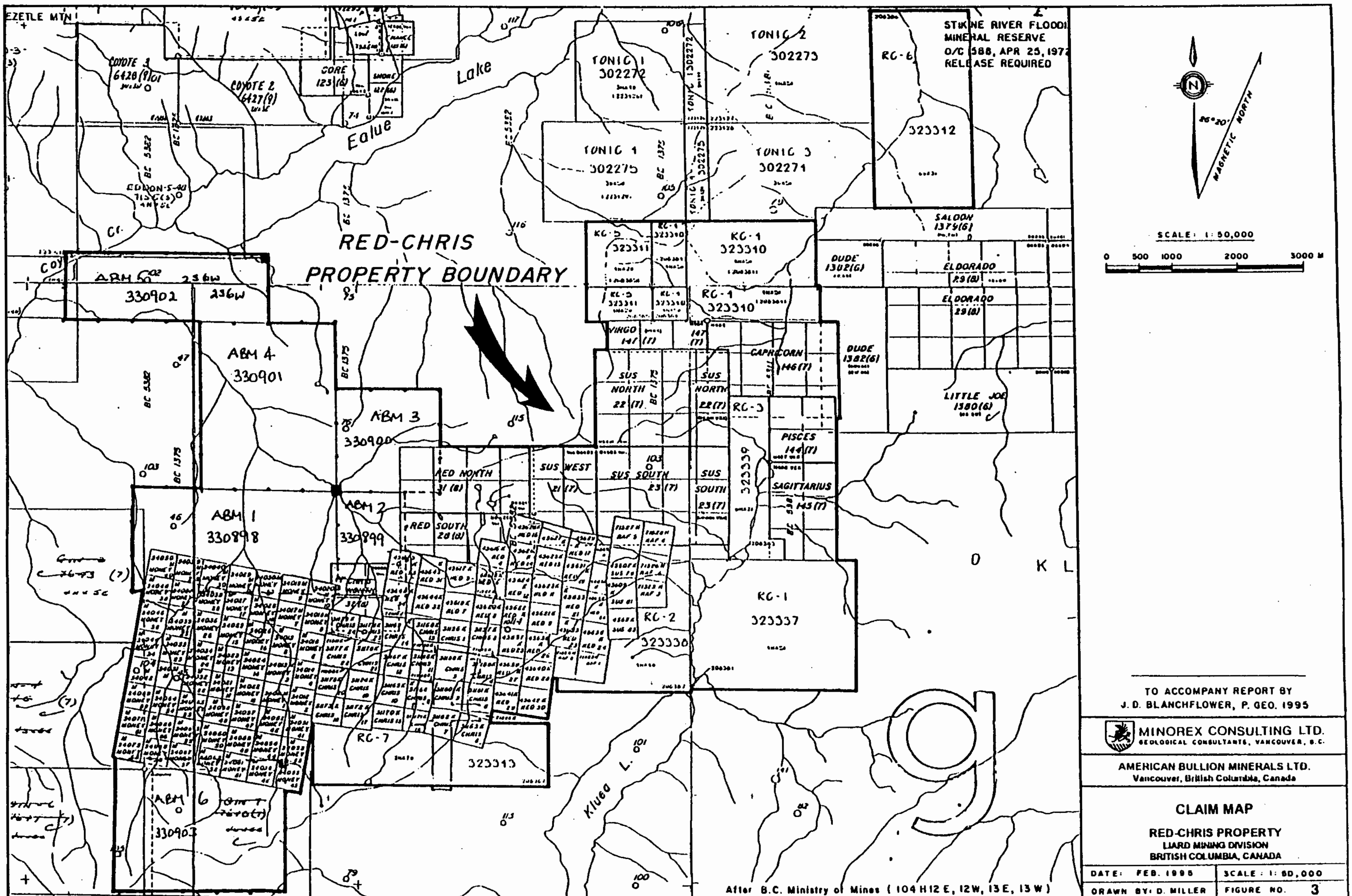
TABLE IX.1

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
Red 10	1	45622	227049	Aug 5, 1970	Aug 5, 2004
Red 11	1	45623	227050	Aug 5, 1970	Aug 5, 2004
Red 12	1	45624	227051	Aug 5, 1970	Aug 5, 2004
Red 13	1	45625	227052	Aug 5, 1970	Aug 5, 2004
Red 14	1	45626	227053	Aug 5, 1970	Aug 5, 2004
Red 15	1	45627	227054	Aug 5, 1970	Aug 5, 2004
Red 16	1	45628	227055	Aug 5, 1970	Aug 5, 2004
Red 17	1	45629	227056	Aug 5, 1970	Aug 5, 2004
Red 18	1	45630	227057	Aug 5, 1970	Aug 5, 2004
Red 19	1	45631	227058	Aug 5, 1970	Aug 5, 2004
Red 20	1	45632	227059	Aug 5, 1970	Aug 5, 2004
Red 21	1	45633	227060	Aug 5, 1970	Aug 5, 2004
Red 22	1	45634	227061	Aug 5, 1970	Aug 5, 2004
Red 23	1	45635	227062	Aug 5, 1970	Aug 5, 2004
Red 24	1	45636	227063	Aug 5, 1970	Aug 5, 2004
Red 25	1	45637	227064	Aug 5, 1970	Aug 5, 2004
Red 26	1	45638	227065	Aug 5, 1970	Aug 5, 2004
Red 27	1	45639	227066	Aug 5, 1970	Aug 5, 2004
Red 28	1	45640	227067	Aug 5, 1970	Aug 5, 2004
Red 29	1	45641	227068	Aug 5, 1970	Aug 5, 2004
Red 30	1	45642	227069	Aug 5, 1970	Aug 5, 2004
Red 31	1	45643	227070	Aug 5, 1970	Aug 5, 2004
Red 32	1	45644	227071	Aug 5, 1970	Aug 5, 2004
Red 33	1	45645	227072	Aug 5, 1970	Aug 5, 2004
Red 34	1	45646	227073	Aug 5, 1970	Aug 5, 2004
Sagittarius	6	145	221681	July 7, 1976	July 7, 2004
Sus North	12	22	221636	July 15, 1975	July 15, 2004
Sus South	12	23	221637	July 15, 1975	July 15, 2004
Sus West	6	21	221635	July 15, 1975	July 15, 2004
Sus 79	1	45607	227040	Aug 5, 1970	Aug 5, 2004
Sus 81	1	45609	227041	Aug 5, 1970	Aug 5, 2004
Sus 83	1	45611	227042	Aug 5, 1970	Aug 5, 2004
Virgo	3	147	221683	July 7, 1976	July 7, 2004

Total Number of Claims 156

Total Number of Units 452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STIKINE RIVER FLOOD
MINERAL RESERVE
O/C 588, APR 25, 1972
RELEASE REQUIRED
MAGNETIC NORTH
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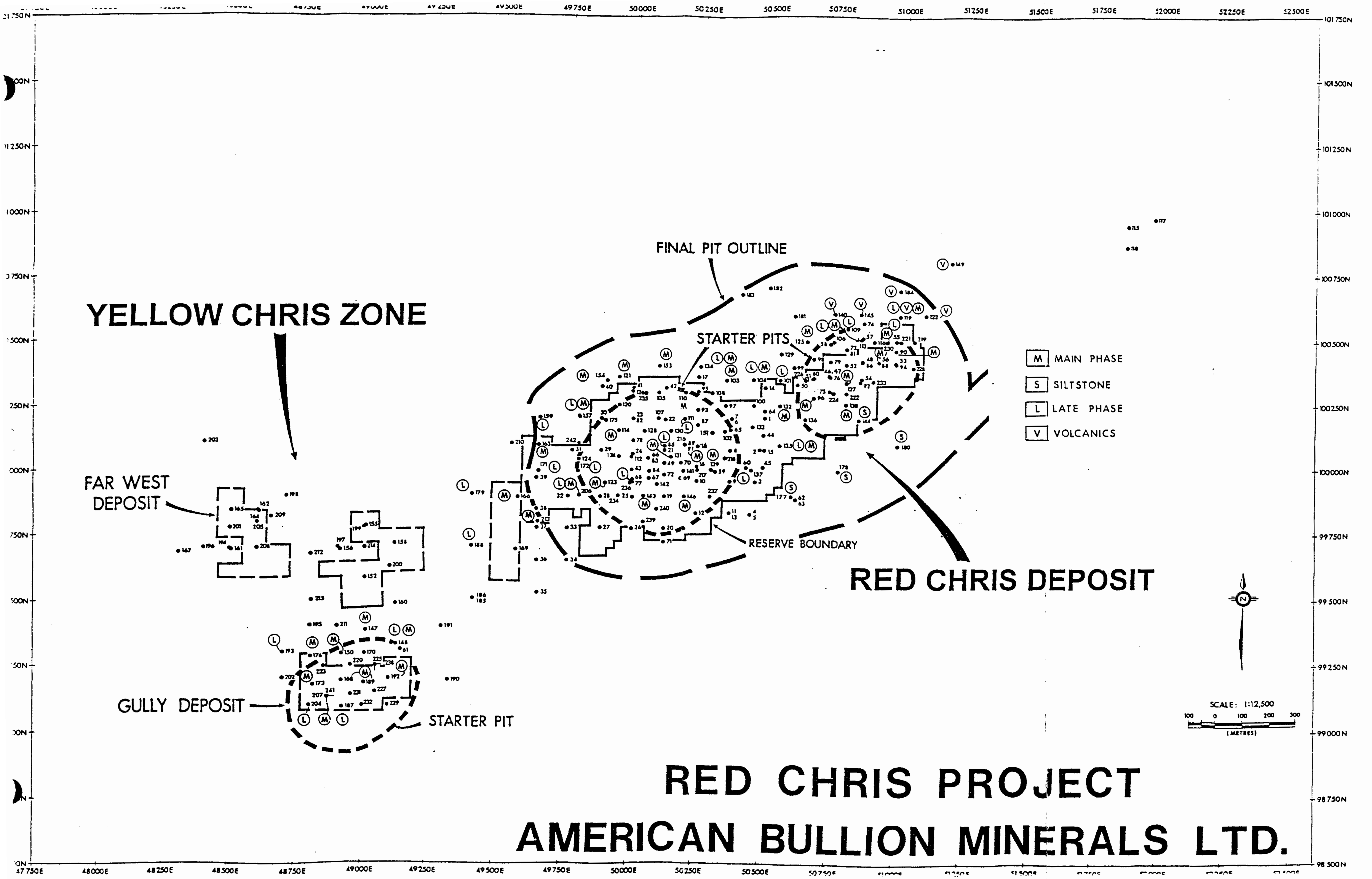
0 500 1000 2000 3000 M
Eaglo Lake
Klueo L.
ABM 4 330901
ABM 3 330900
ABM 1 330898
ABM 2 330899
ABM 6 330903
330902
TONIC 1 302272
TONIC 2 302273
TONIC 4 302275
TONIC 3 302271
RC-1 323310
RC-1 323337
RC-2 323338
RC-3 323339
RC-5 323311
RC-6 323312
RC-7 323313
SALOON
DUDE
ELDORADO
LITTLE JOE
VIRGO
CAPRICORN
SUS NORTH
SUS WEST
SUS SOUTH
RED NORTH
RED SOUTH
PISCES
SAGITTARIUS
After B.C. Ministry of Mines (104 H 12 E, 12 W, 13 E, 13 W)
TO ACCOMPANY REPORT BY
J. D. BLANCHFLOWER, P. GEO. 1995
MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.
AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada
CLAIM MAP
RED-CHRIS PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA
DATE: FEB. 1995
SCALE: 1:50,000
DRAWN BY: D. MILLER
FIGURE NO. 3

FIGURE IX.1

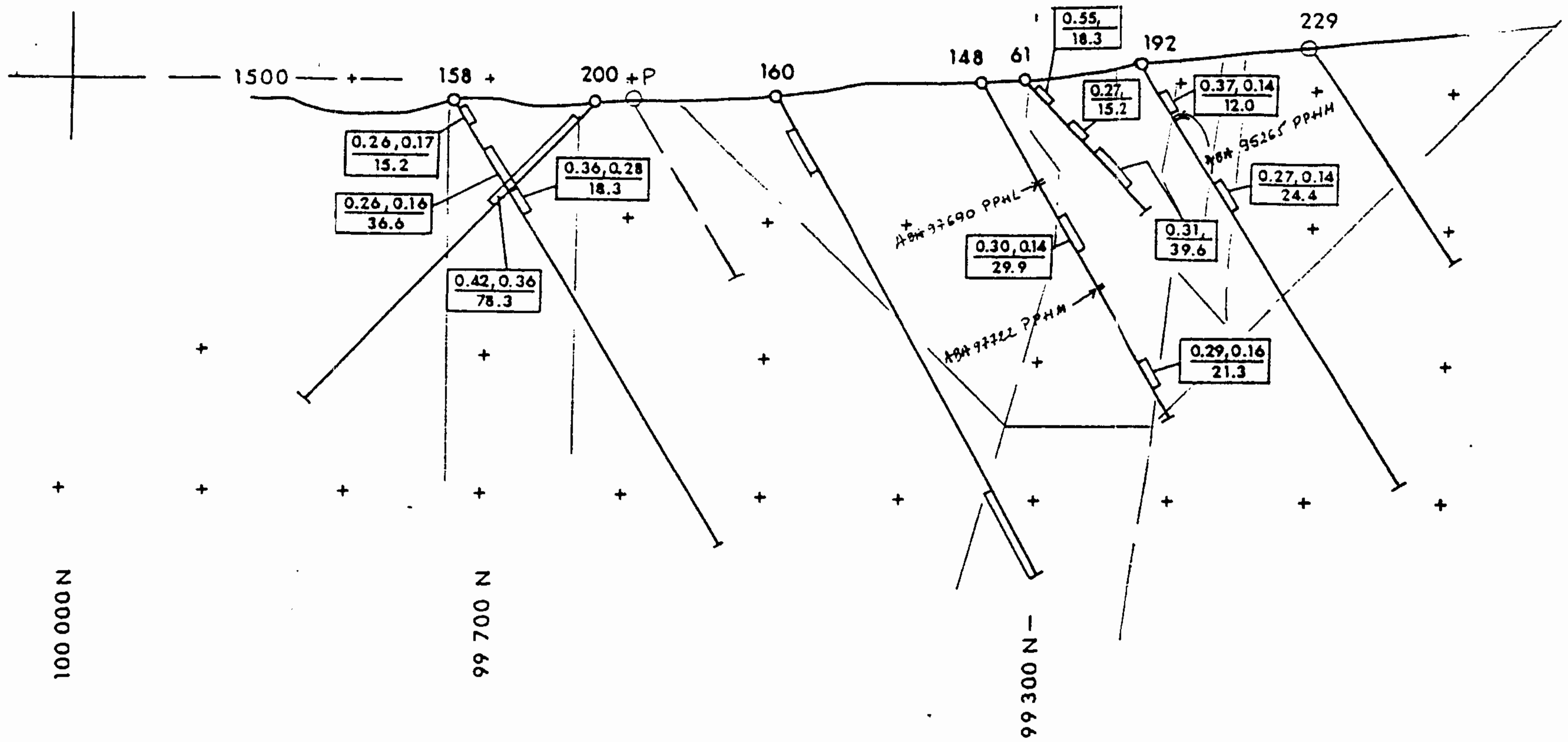
APPENDIX X

PLAN VIEW OF DRILL HOLE LOCATIONS AND CROSS-SECTIONAL DIAGRAMS



RED CHRIS PROJECT

AMERICAN BULLION MINERALS LTD.



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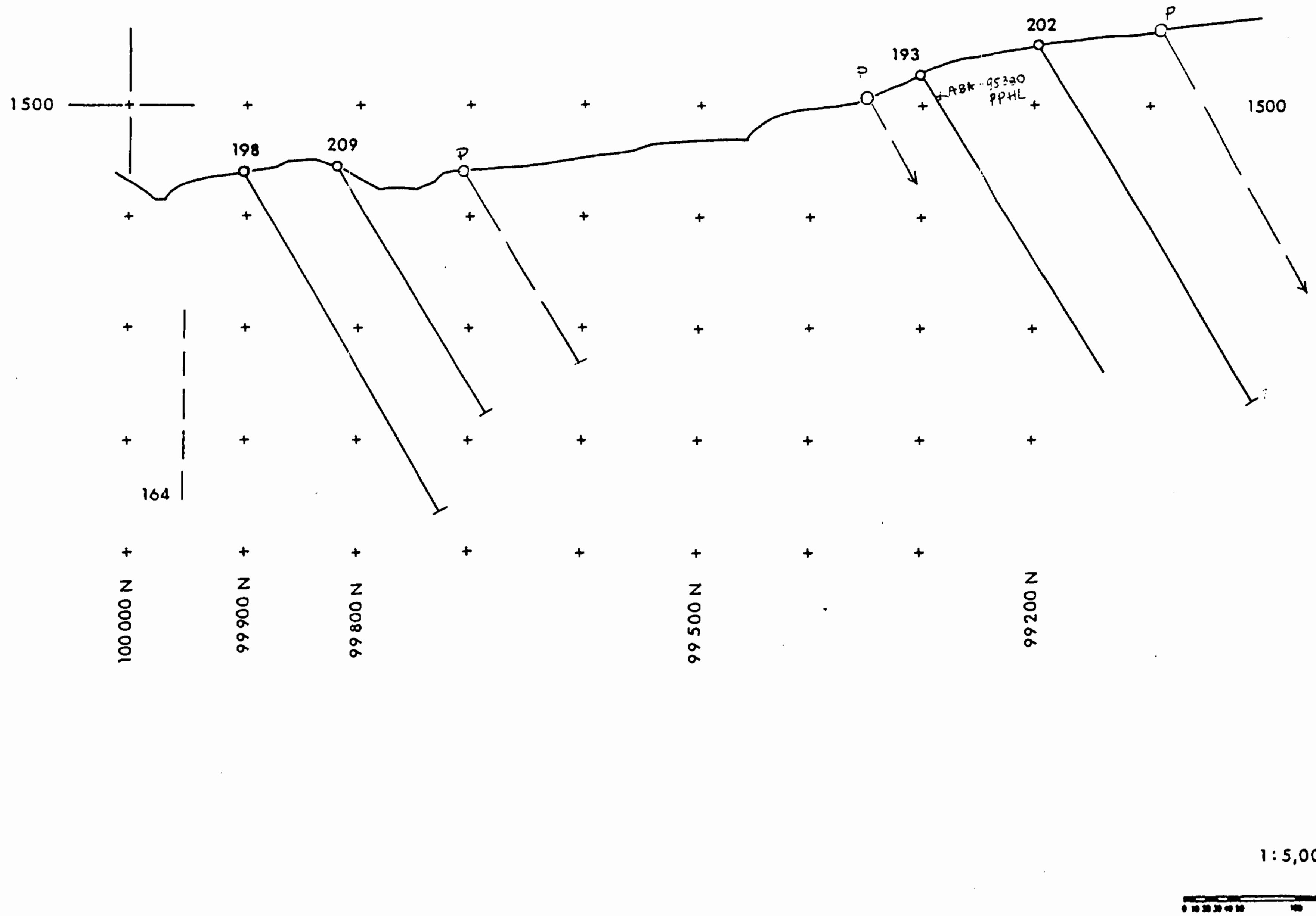
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 49100 E

Section looking EAST

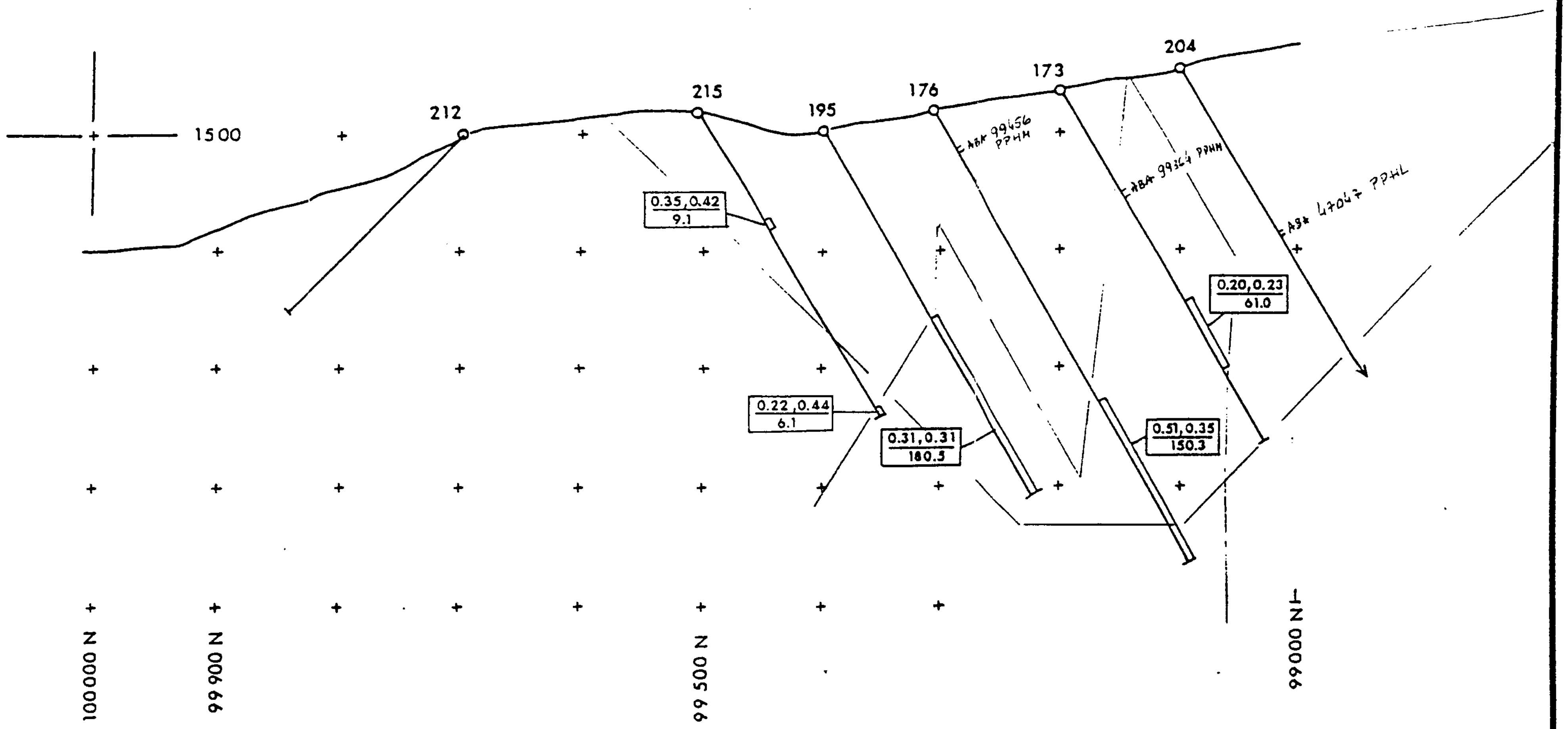


AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 48700 E

Section looking EAST



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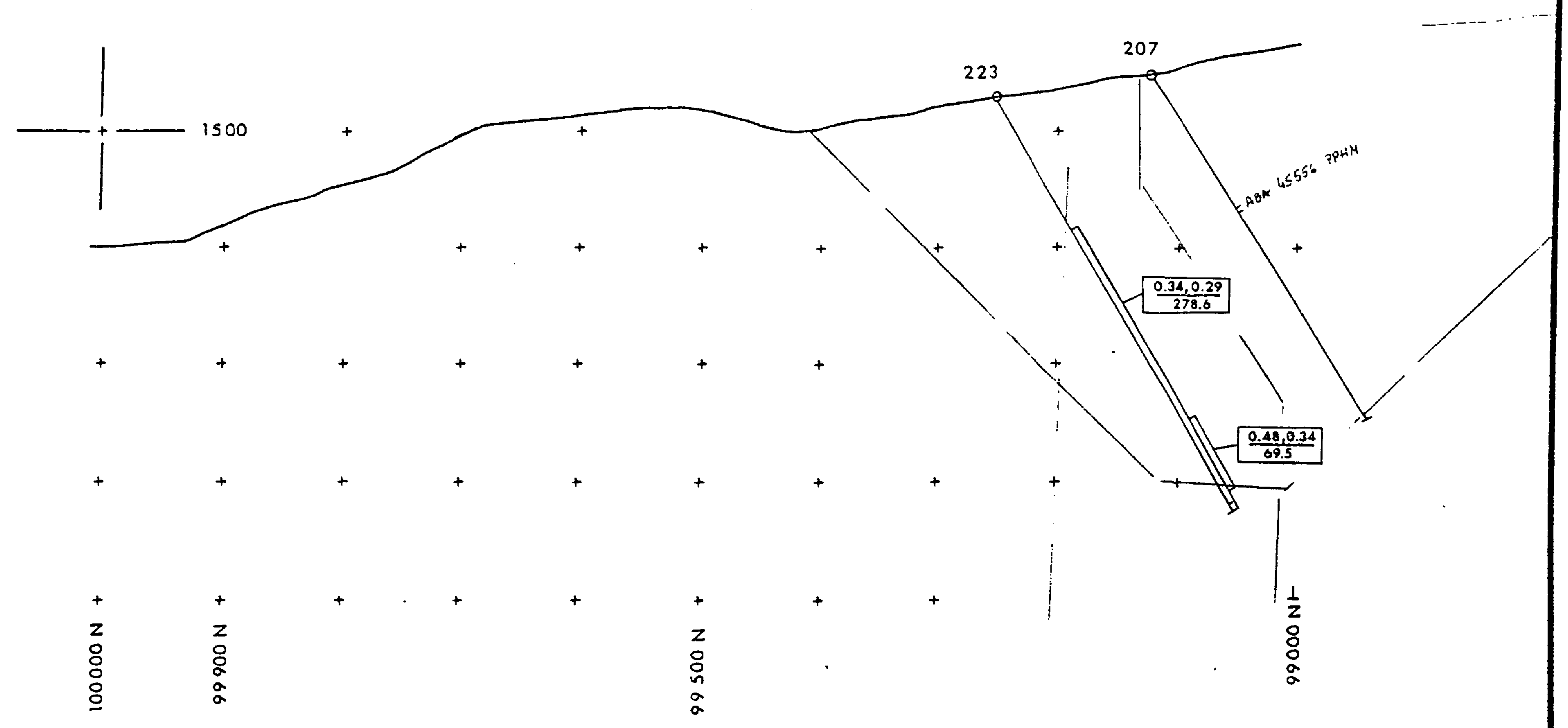
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 48800 E



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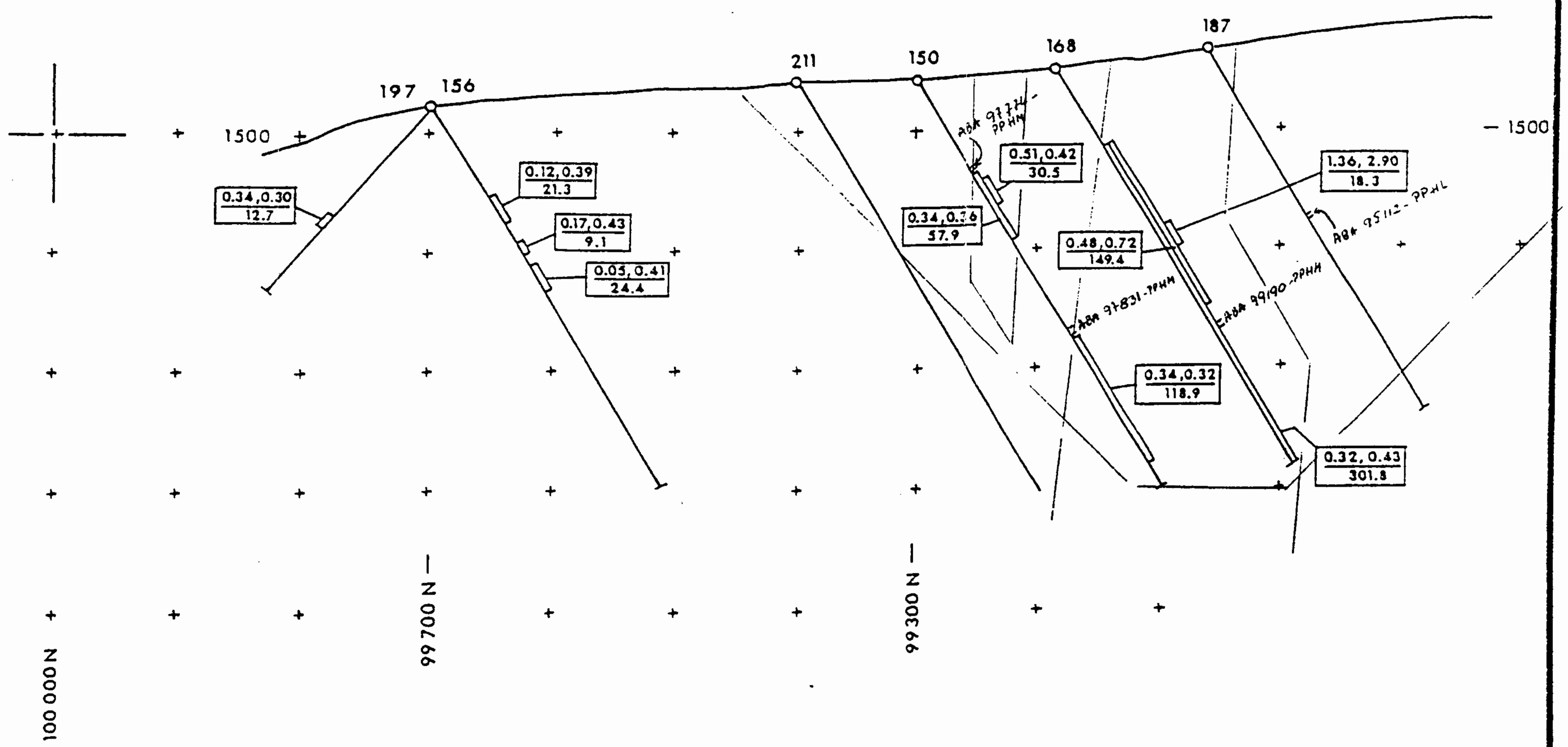
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 48850E



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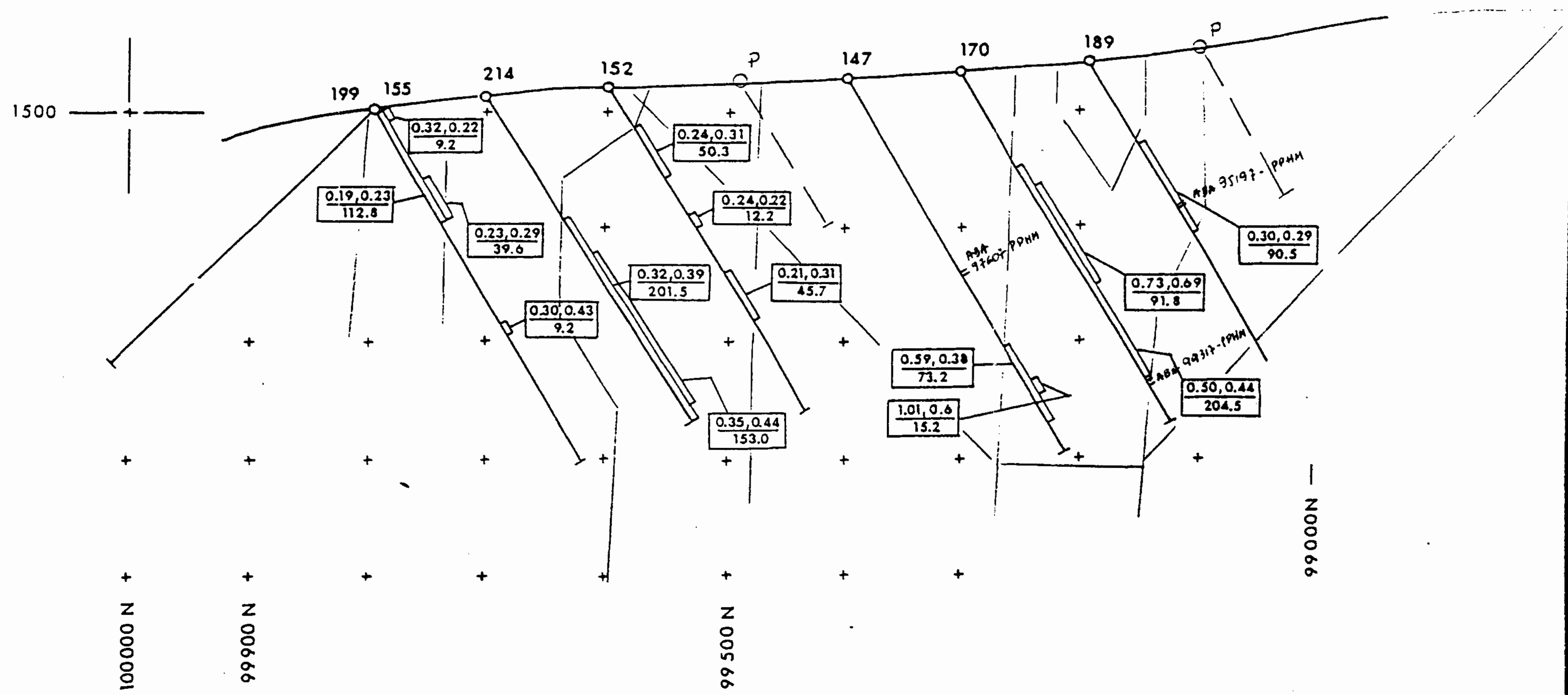
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 48900 E



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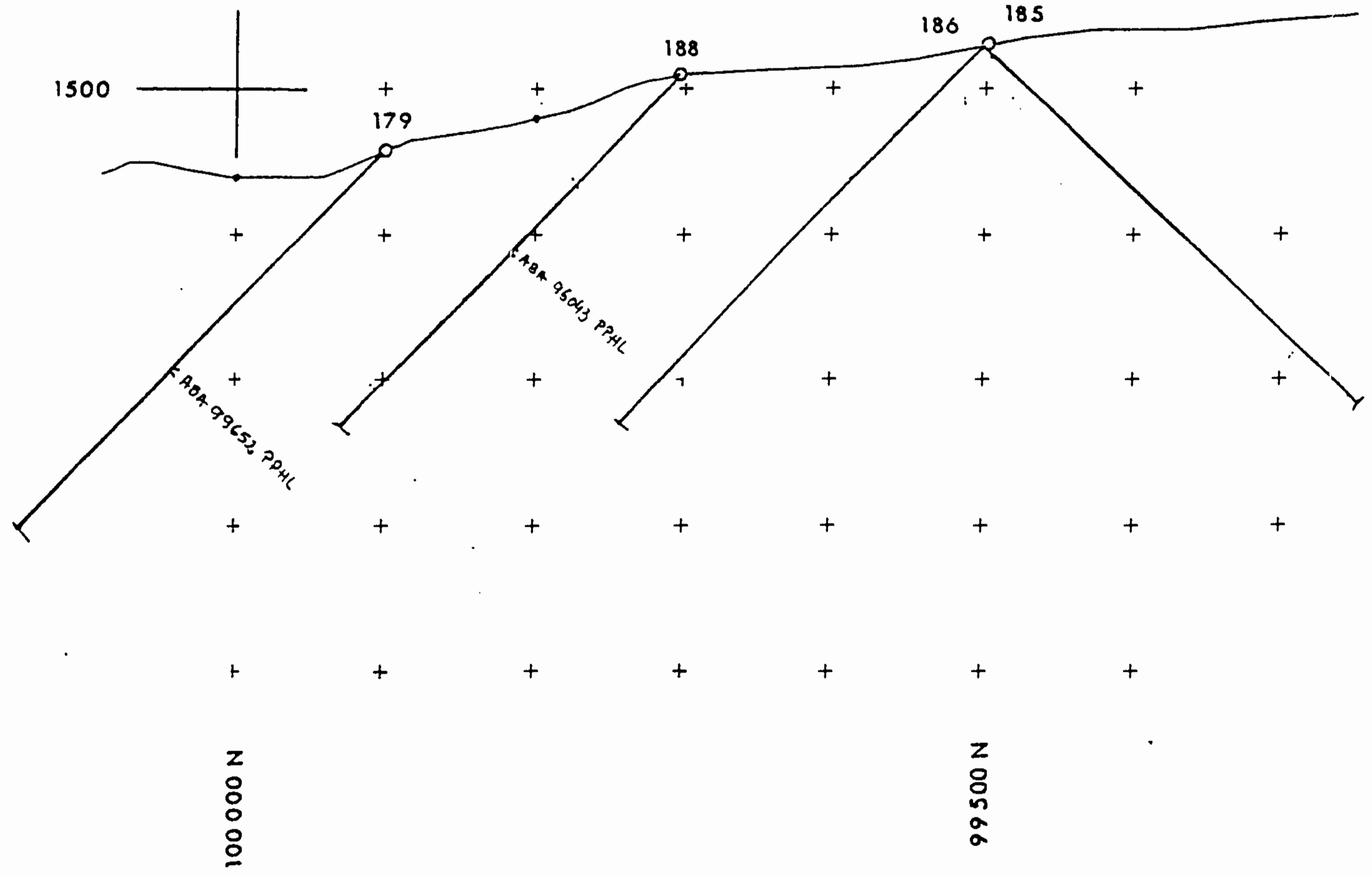
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 49000 E

Section looking EAST



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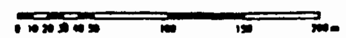
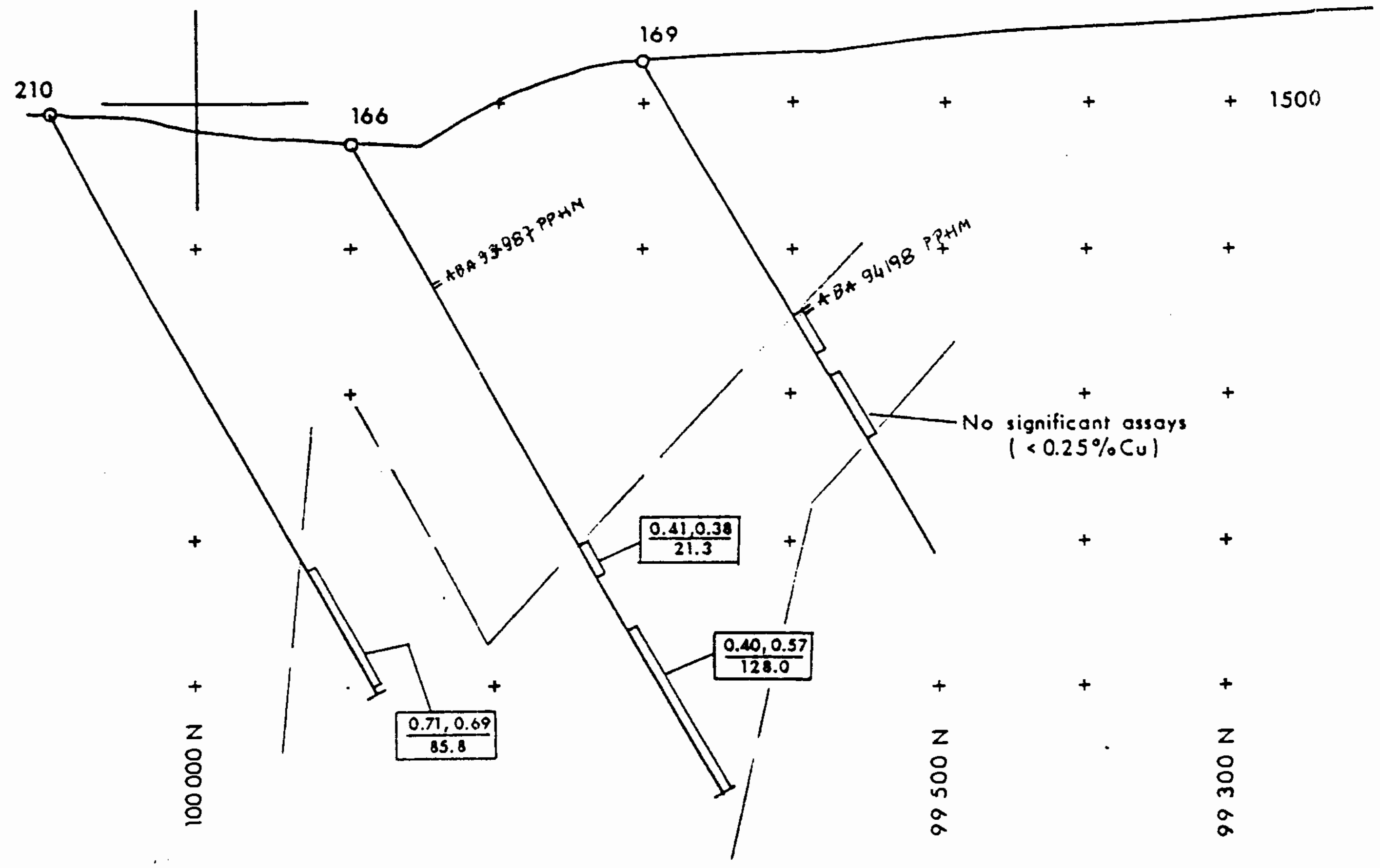


AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION
49400 E

Section looking EAST



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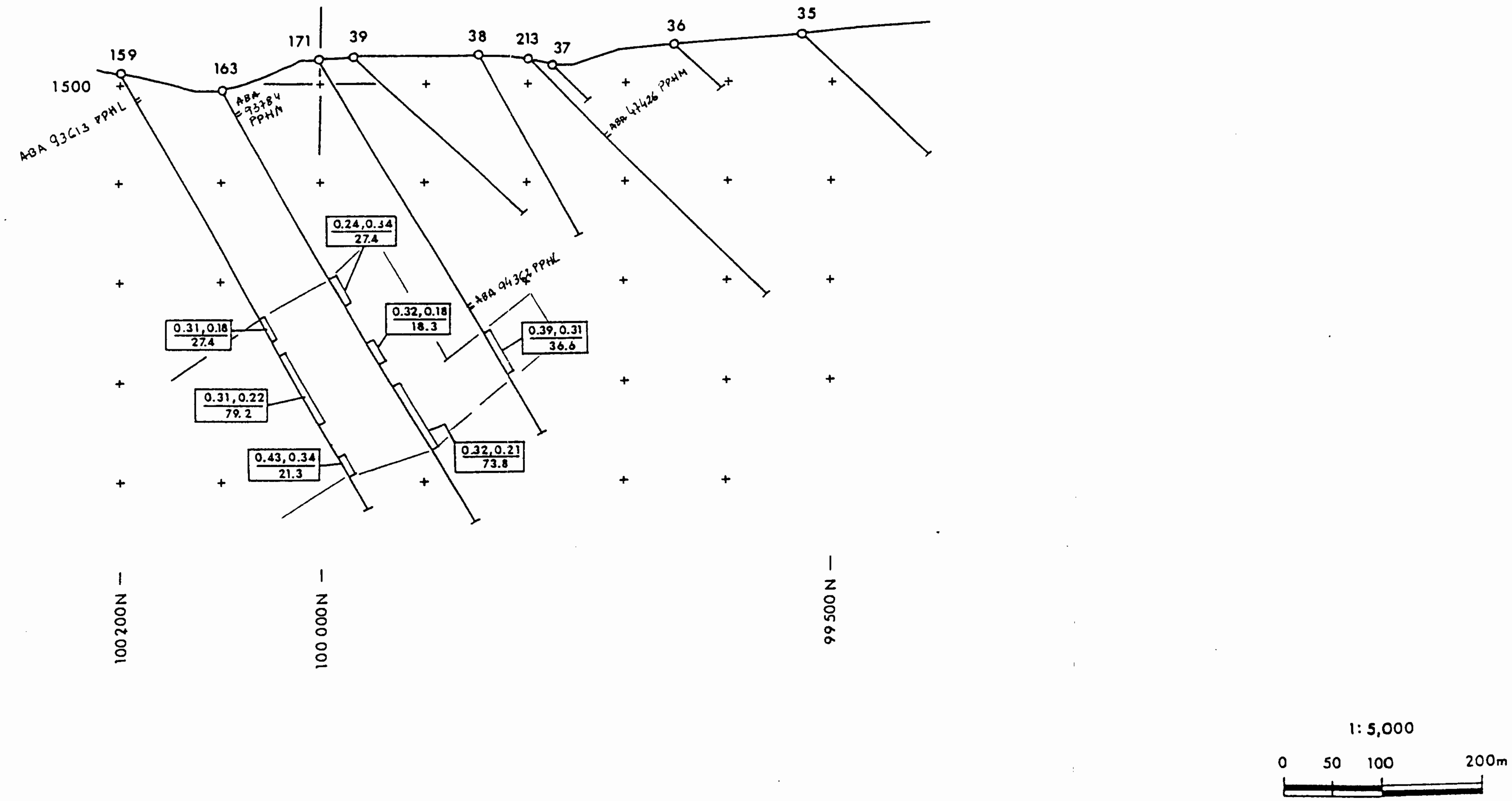
Red Chris Project

DRILL SECTION 49550 E

Section looking EAST



AMERICAN BULLION MINERALS LIMITED

Red Chris Project

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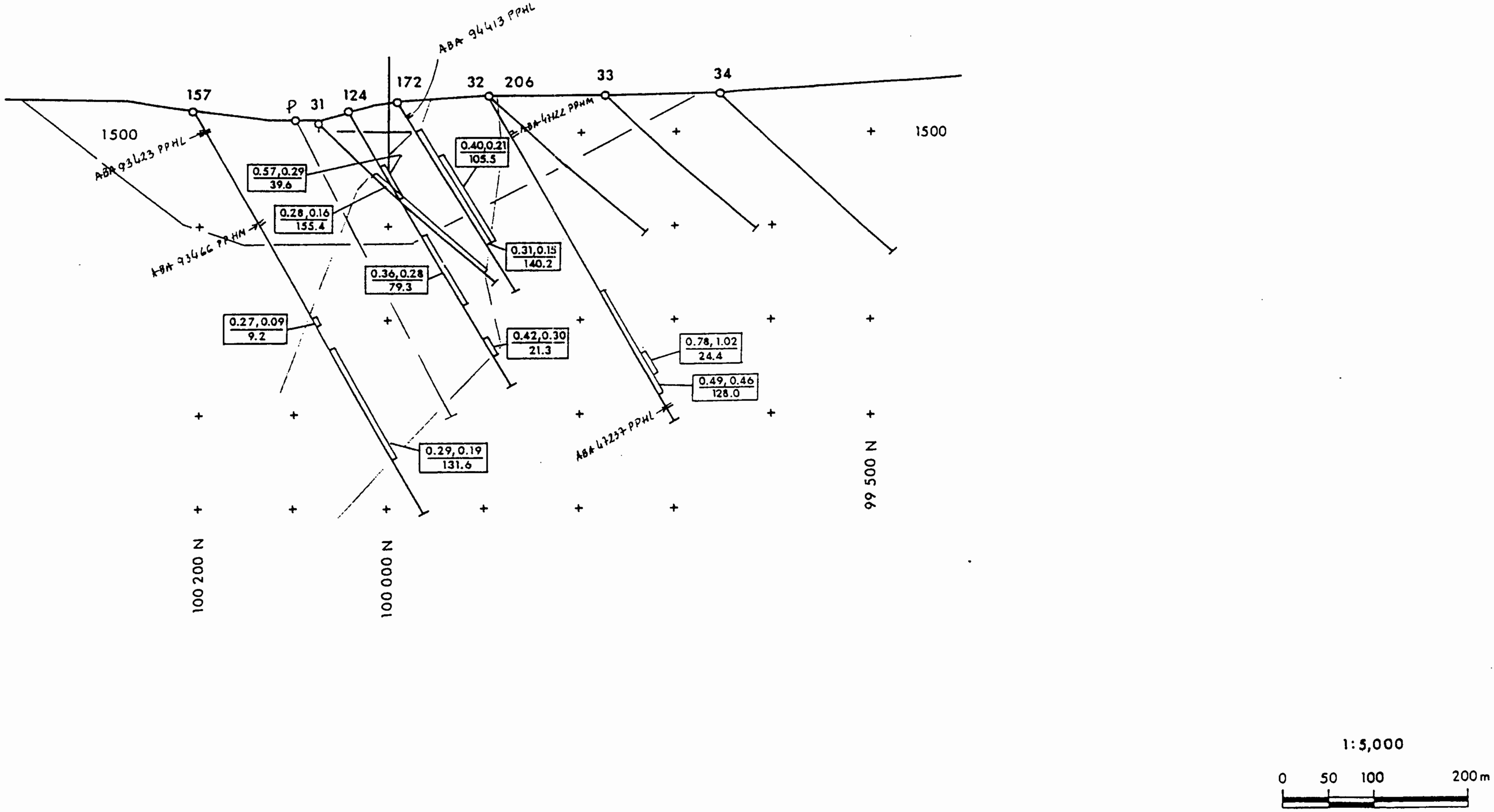

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Red Chris Project

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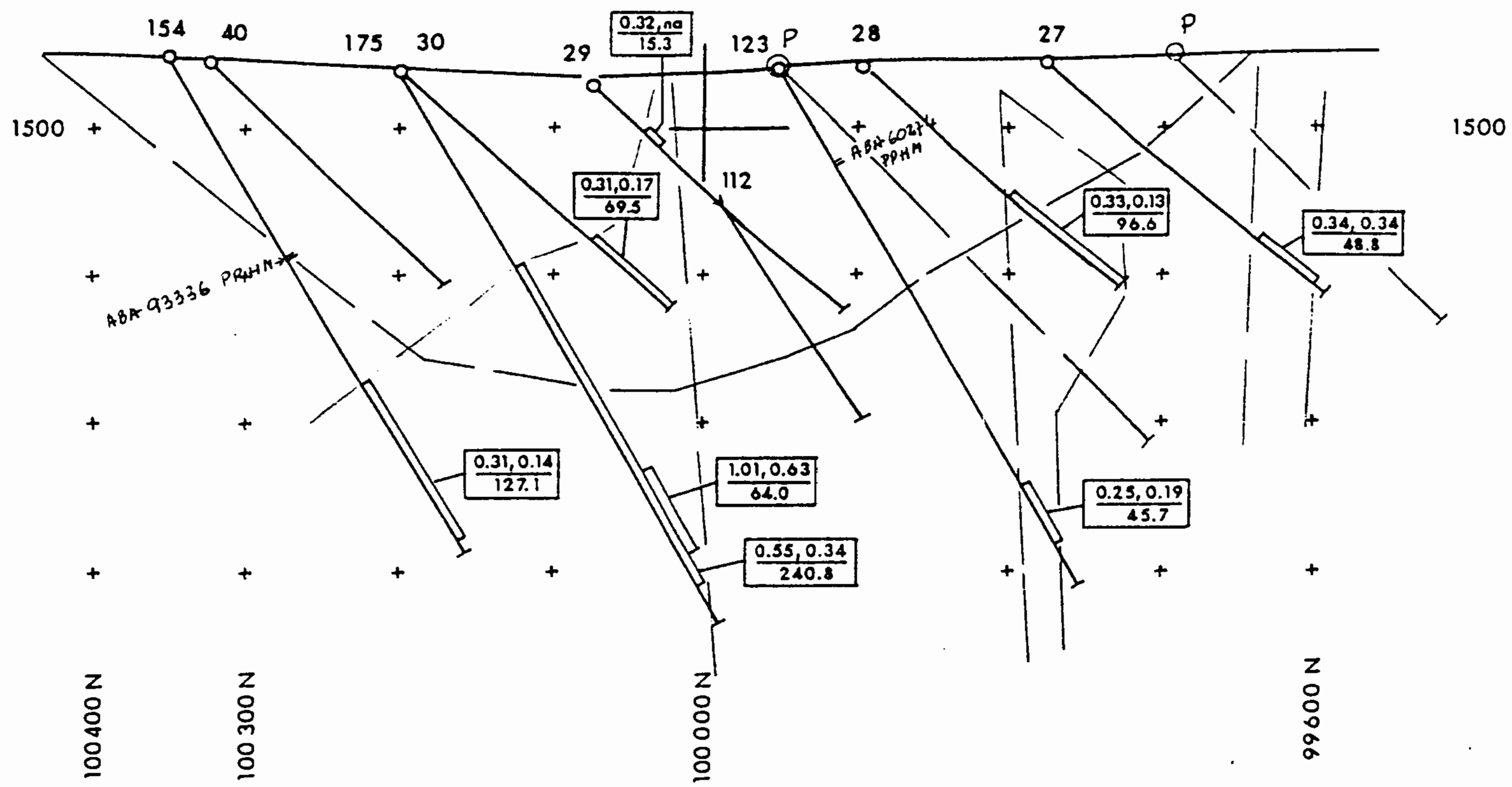

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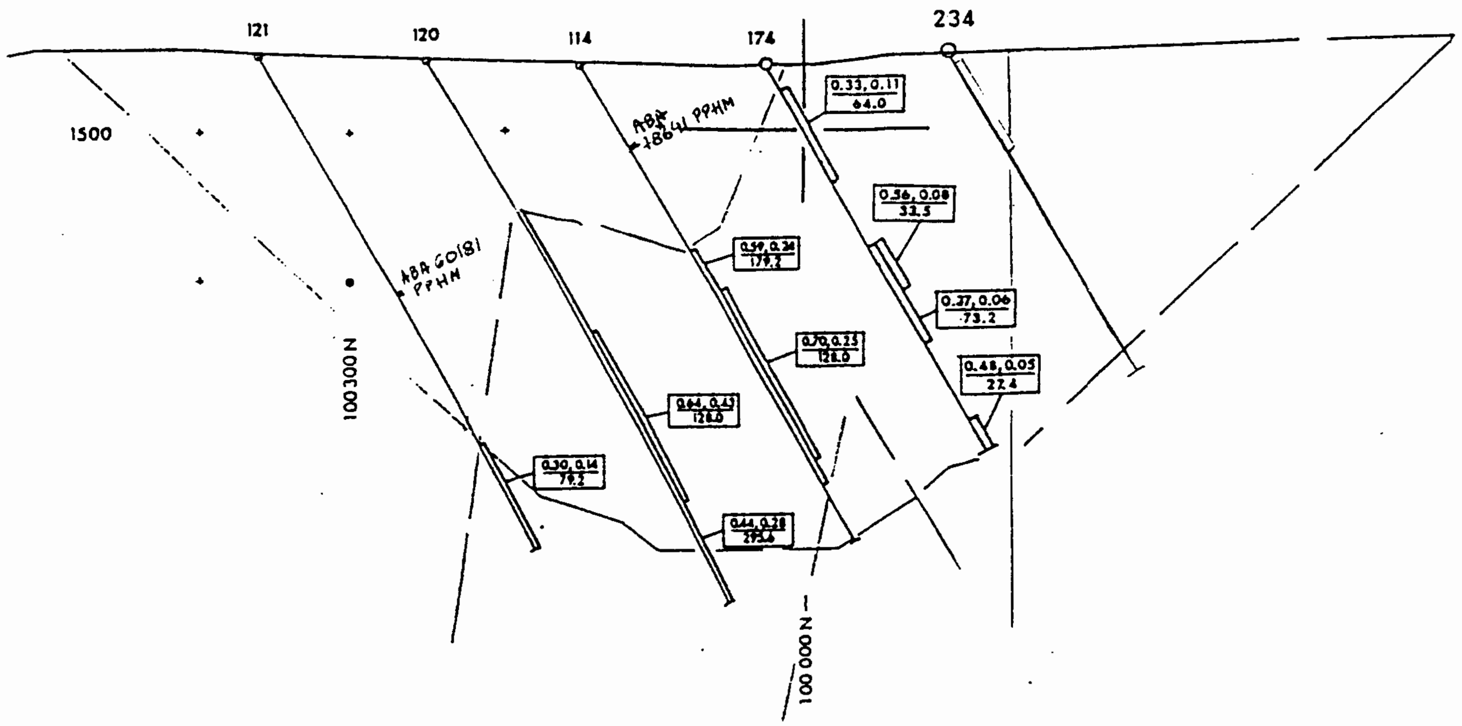
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION
49880 E

Section looking EAST



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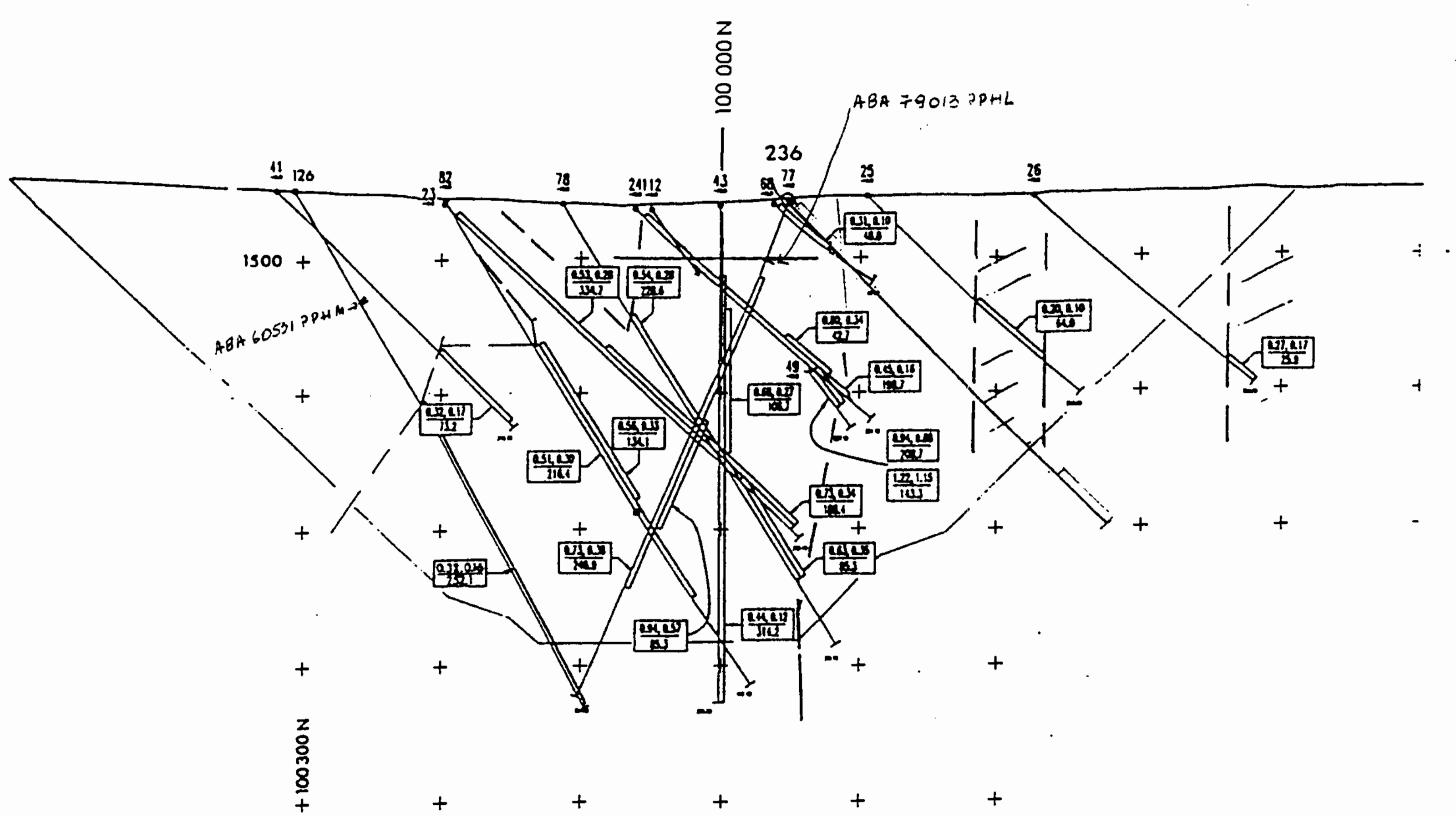
DRILL SECTION 49950 E

RED–CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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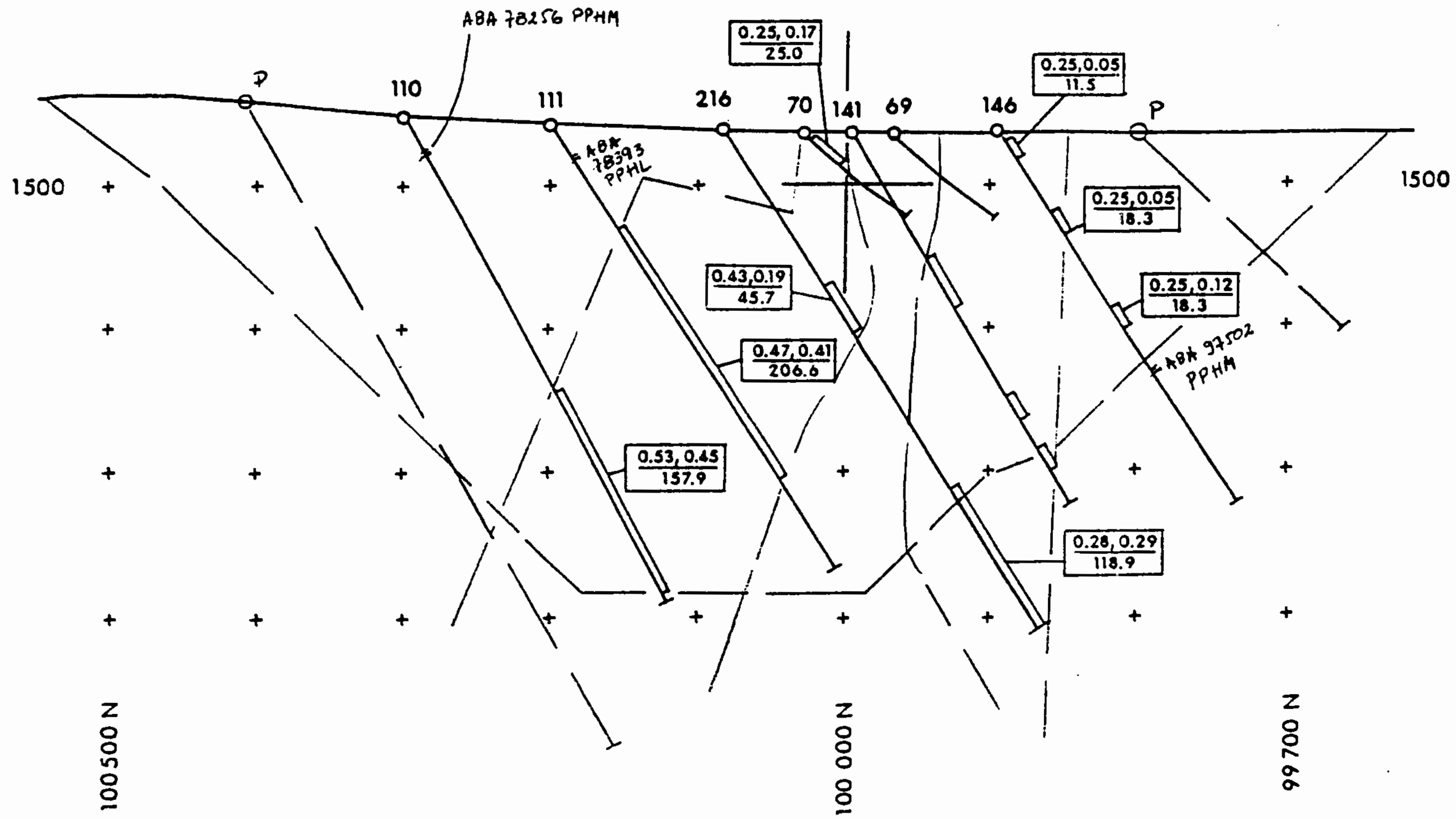
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 50000 E

Section looking EAST



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0 50 100 200 m

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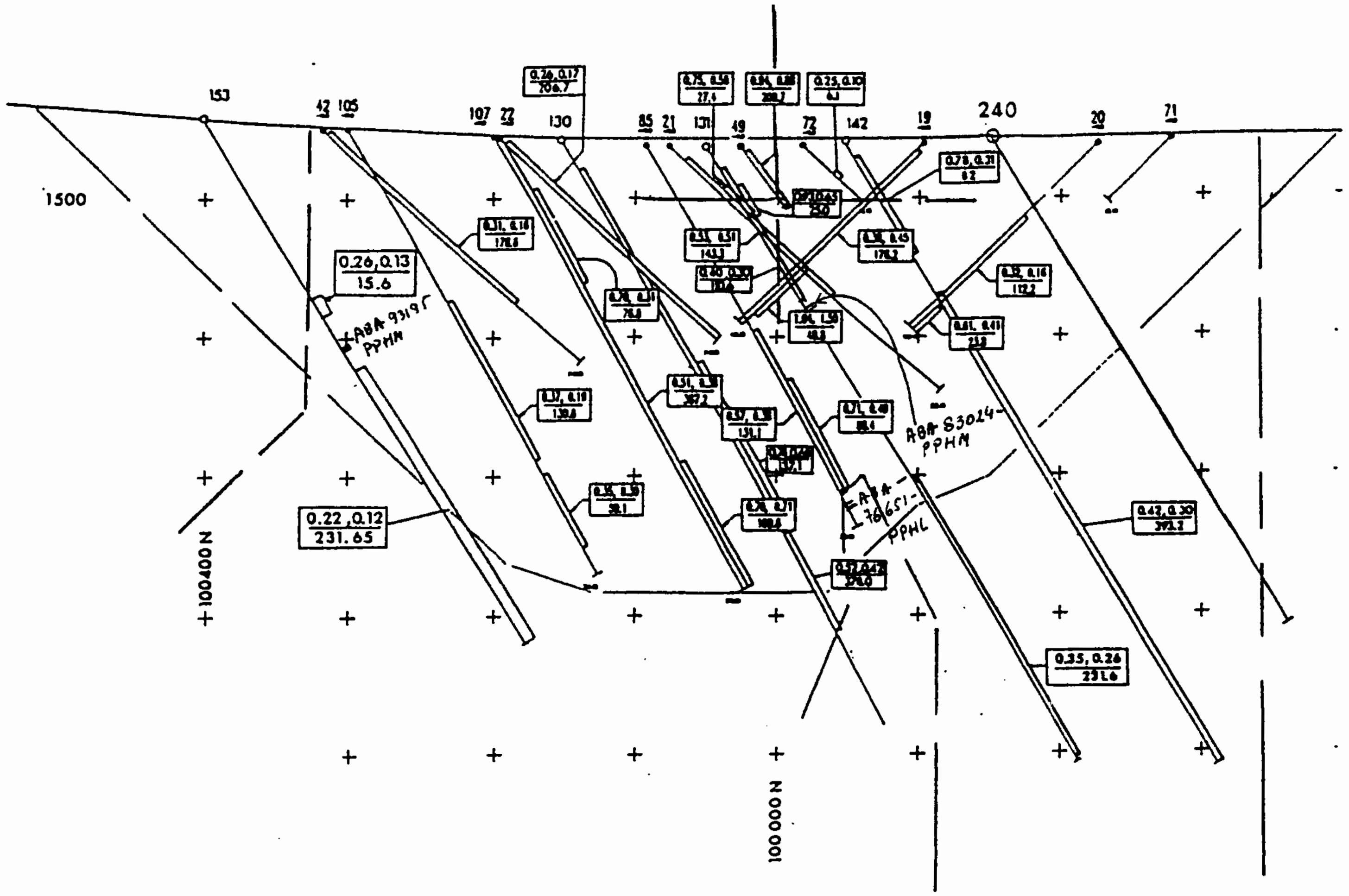
DRILL SECTION 50200 E

RED-CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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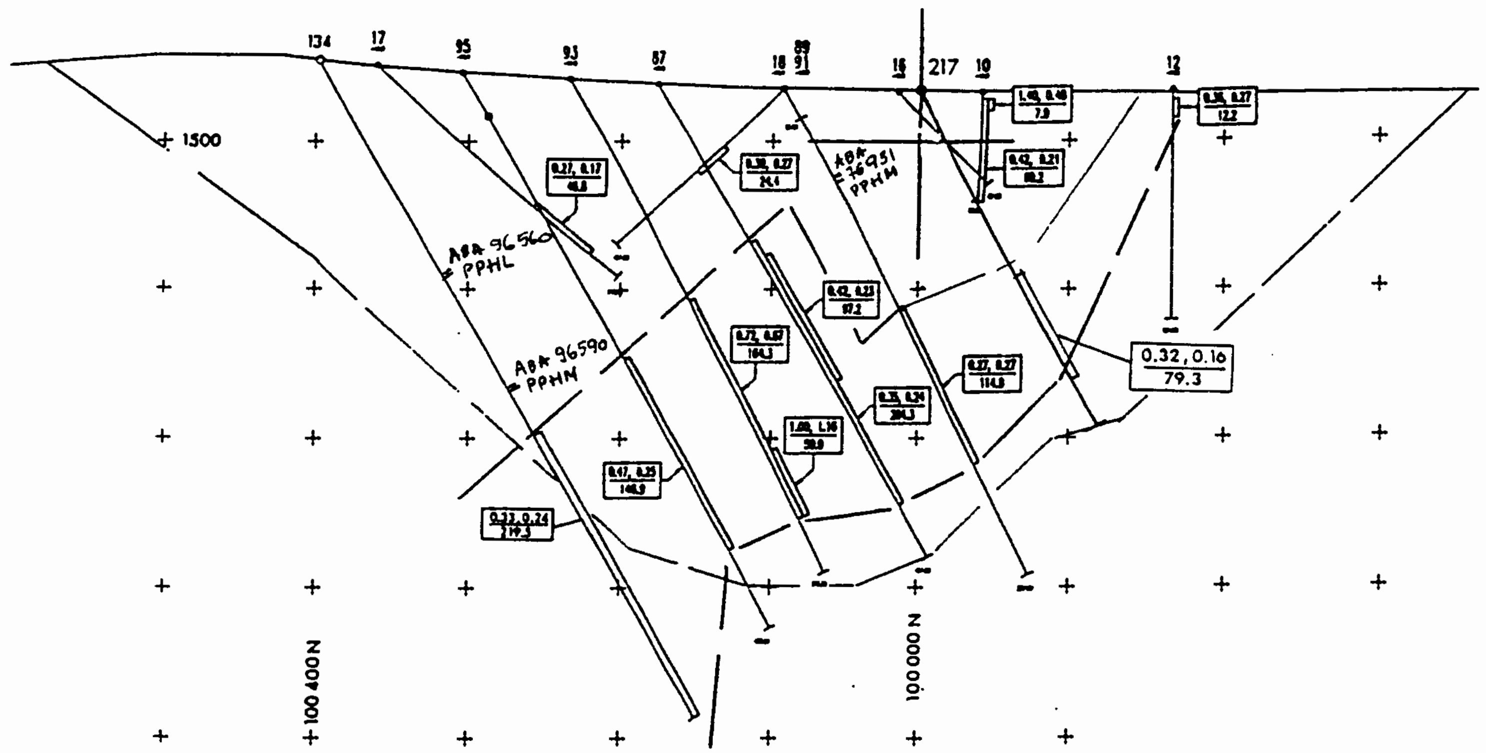
DRILL SECTION 50120 E

RED-CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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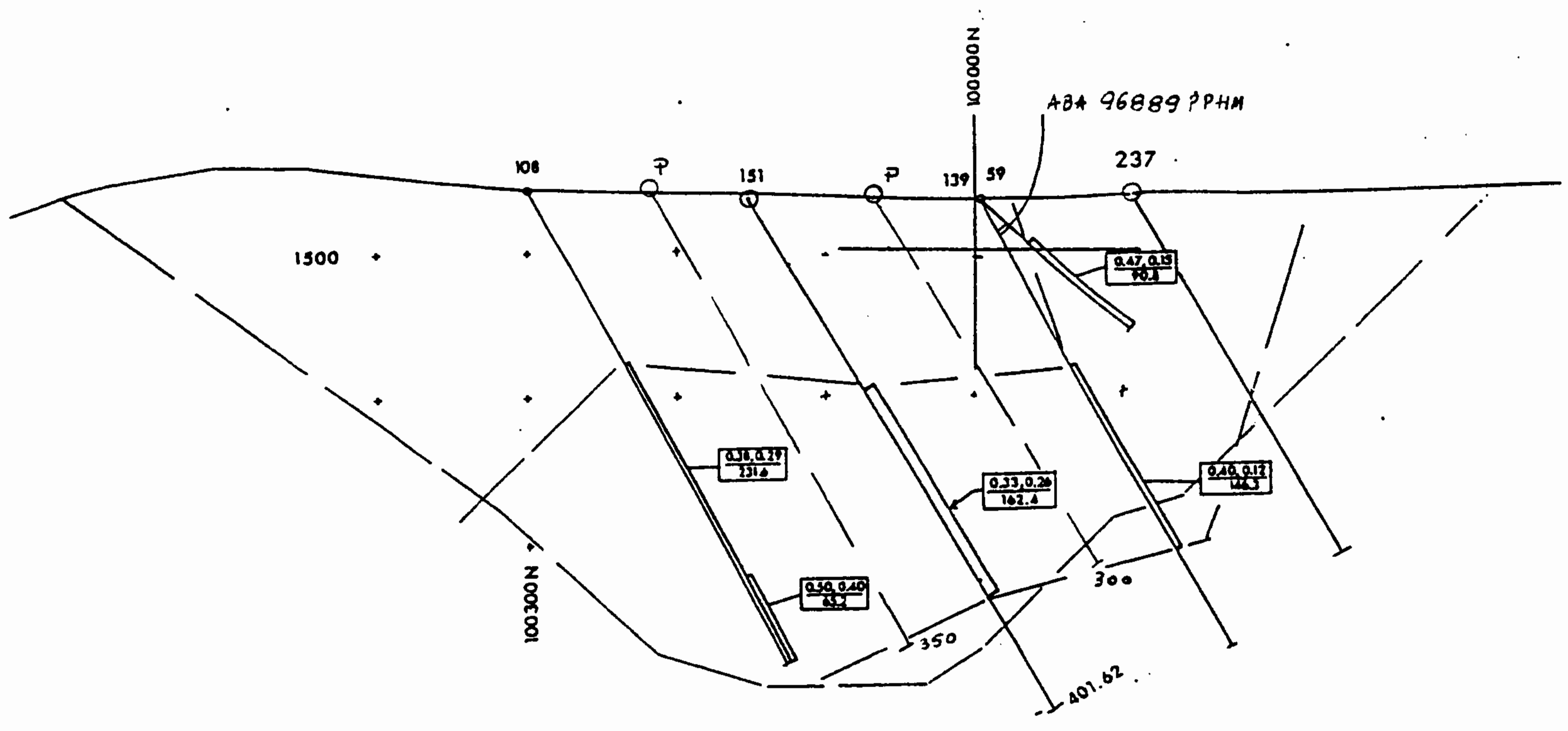
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION
50250 E

Section looking EAST



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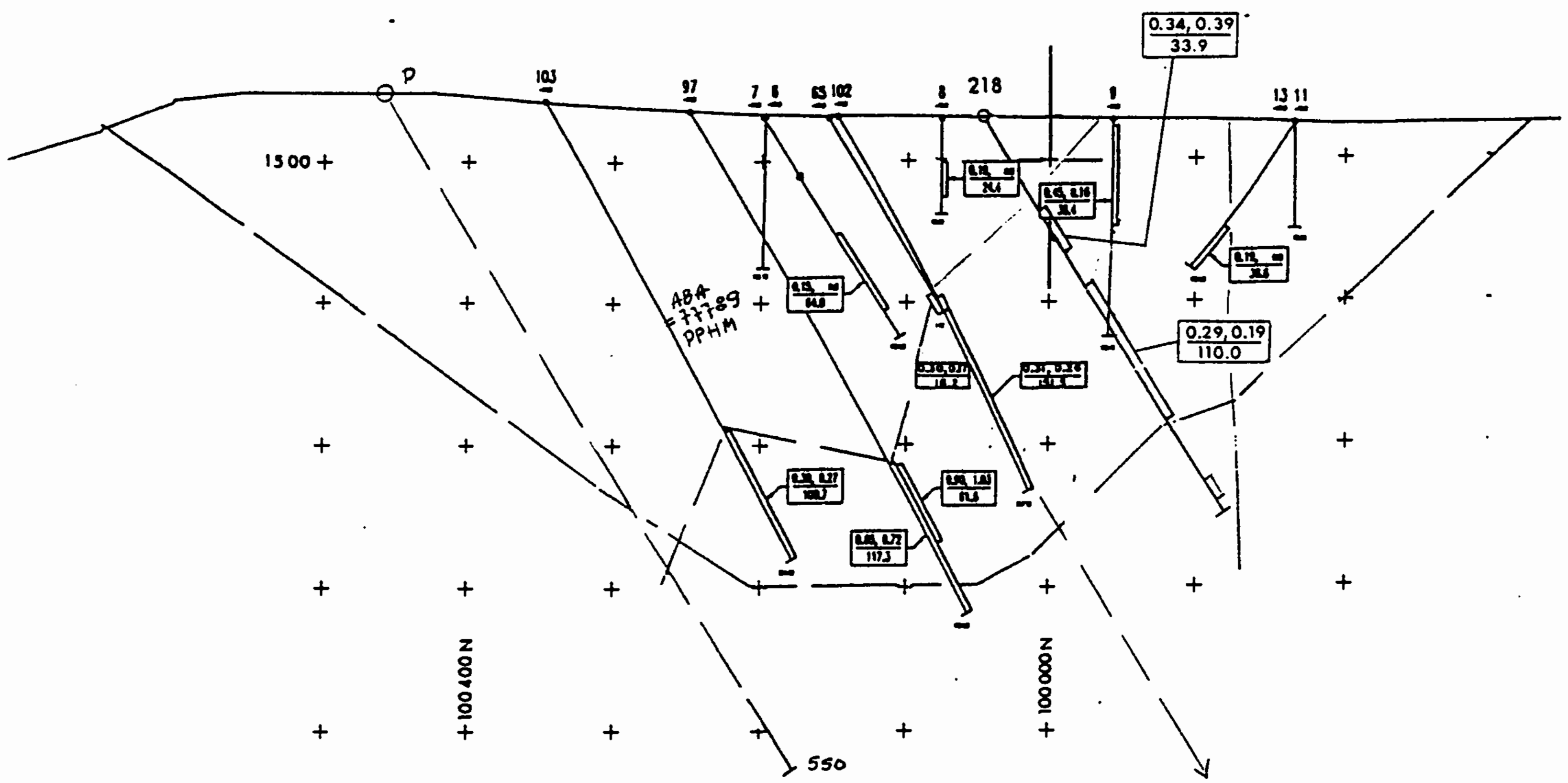
VANCOUVER, BRITISH COLUMBIA

DRILL SECTION 50300 E

RED-CHRIS PROPERTY

LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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AMERICAN BULLION MINERALS LIMITED

Red Chris Project

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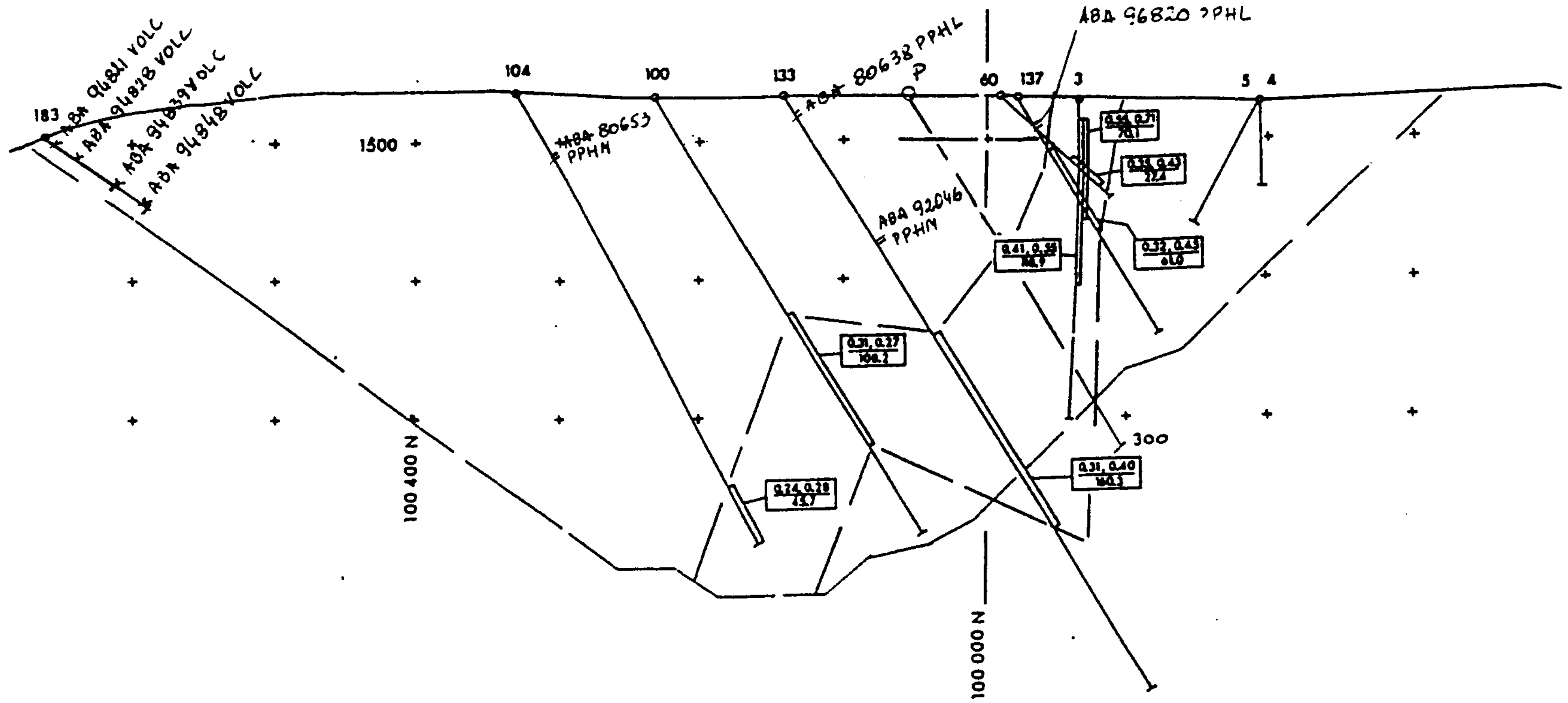

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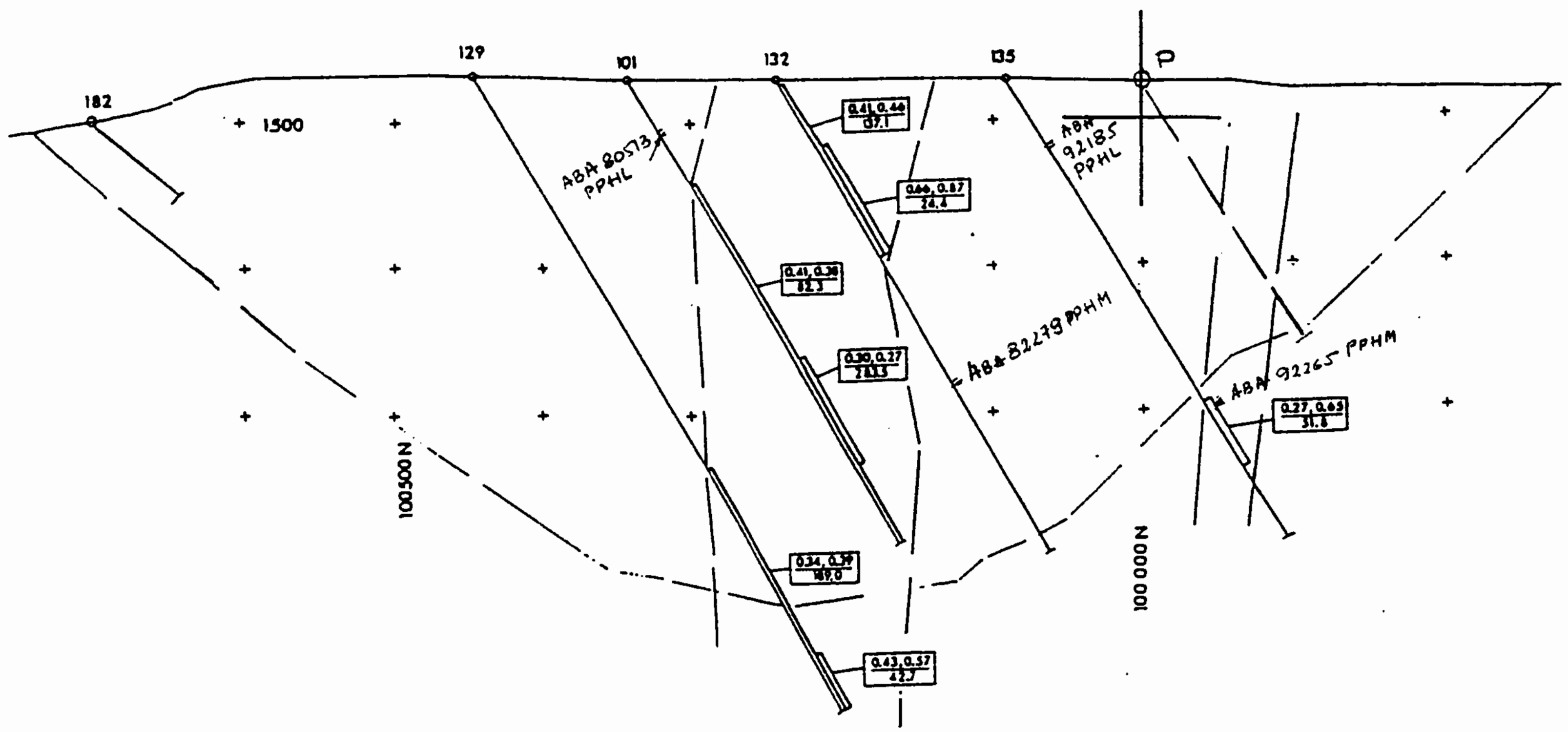
AMERICAN BULLION MINERALS LTD.
VANCOUVER, BRITISH COLUMBIA

DRILL SECTION 50450 E

RED-CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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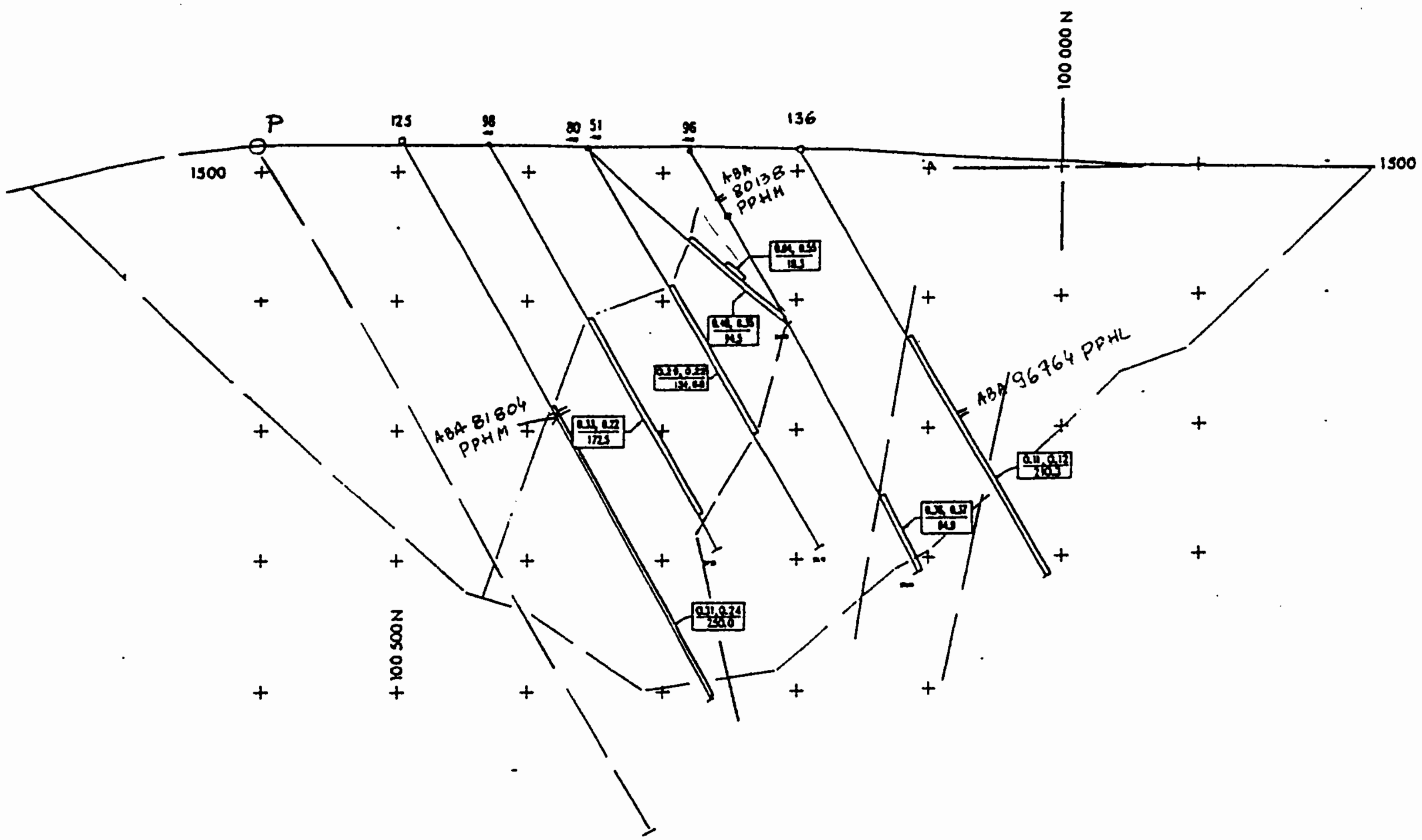
VANCOUVER, BRITISH COLUMBIA

DRILL SECTION 50550 E

RED-CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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AMERICAN BULLION MINERALS LIMITED

Red Chris Project

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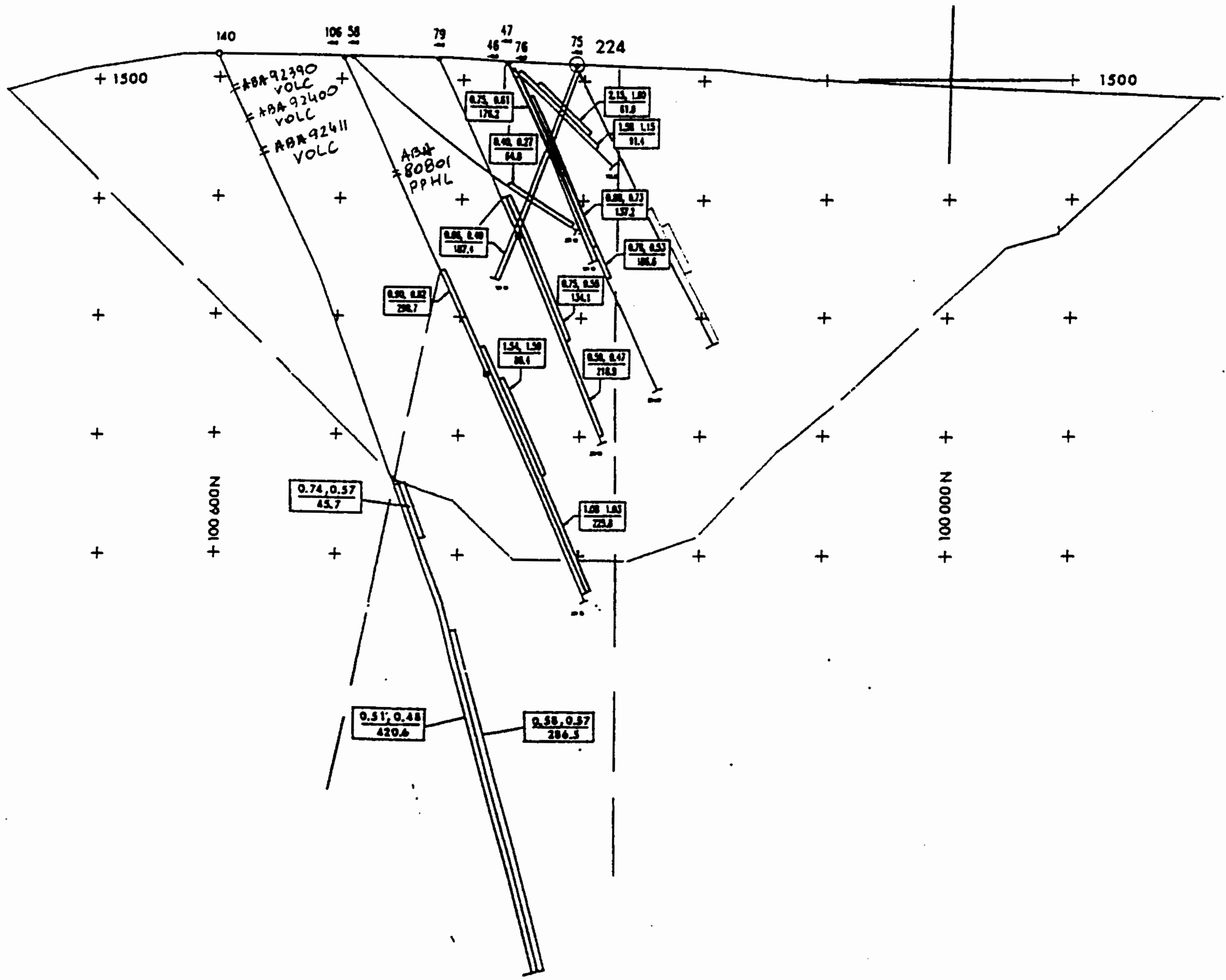

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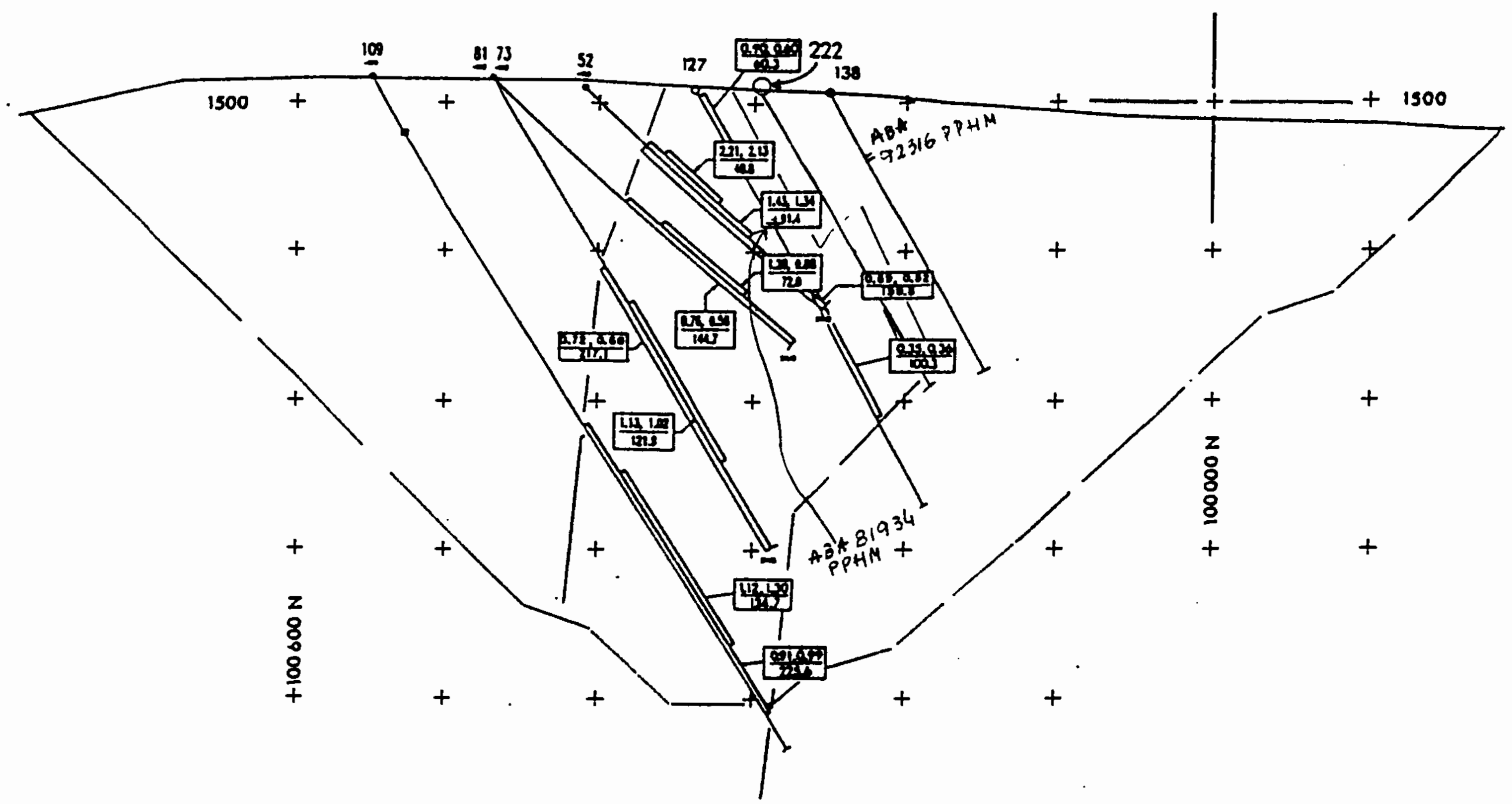
AMERICAN BULLION MINERALS LTD.
VANCOUVER, BRITISH COLUMBIA

DRILL SECTION 50750 E

RED-CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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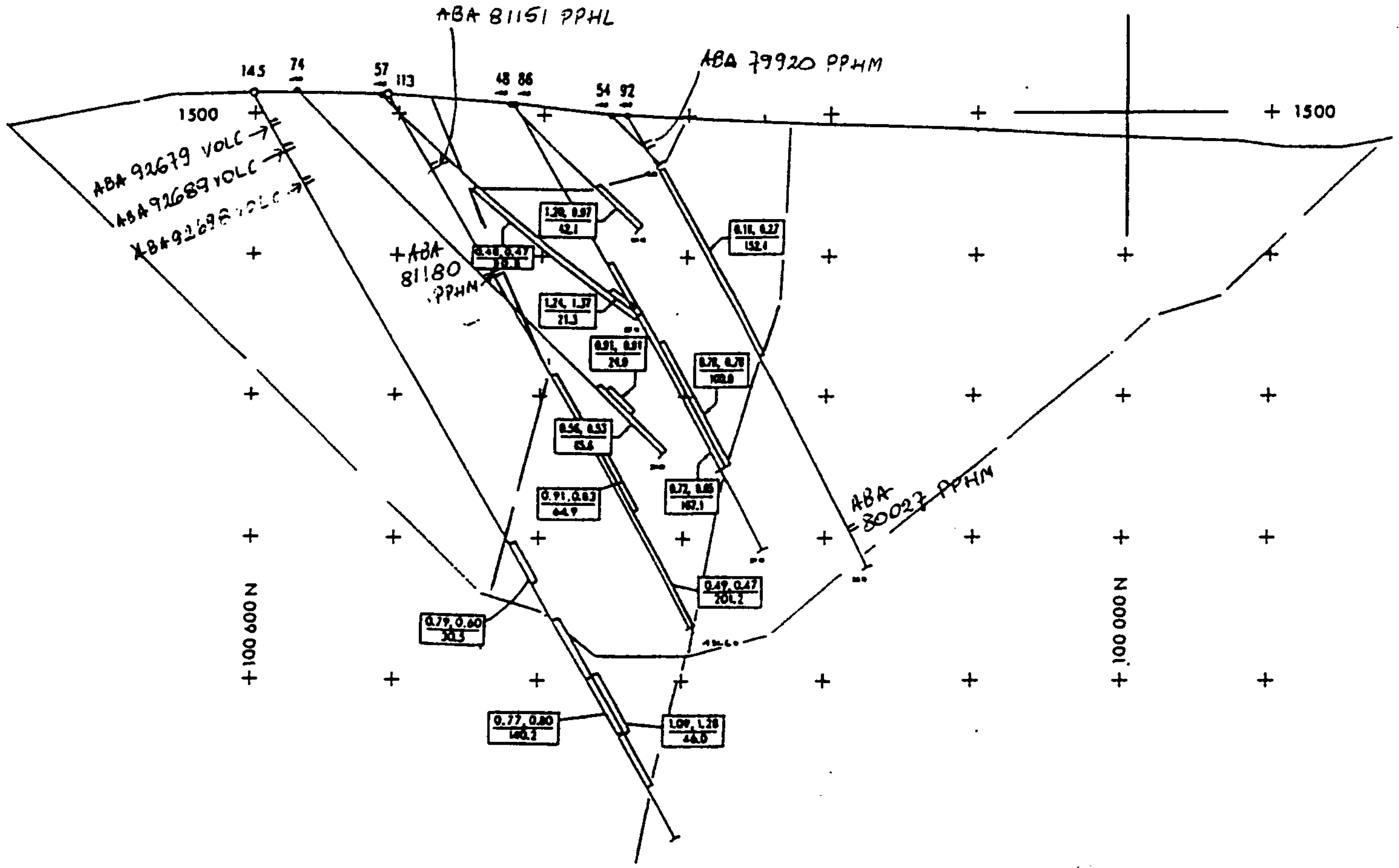
AMERICAN BULLION MINERALS LIMITED

Red Chris Project

DRILL SECTION 50800 E



1: 5,000

0 10 20 30 40 50 100 150 200 m

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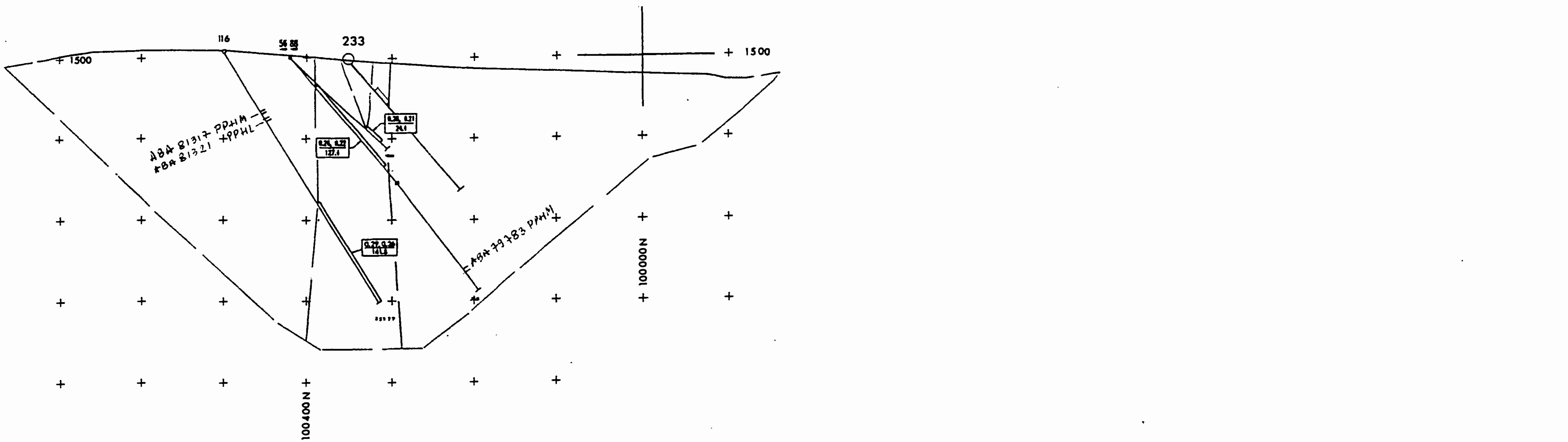
DRILL SECTION 50850 E

RED–CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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VANCOUVER, BRITISH COLUMBIA

DRILL SECTION 50900 E

RED-CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA

APPENDIX XI

WASTE CHARACTERIZATION PROGRAM

ACID-BASE ACCOUNTING (ABA) DATA

Appendix XI

AMERICAN BULLION MINERALS LTD.
RED CHRIS PROPERTY

WASTE CHARACTERIZATION PROGRAM
ACID-BASE ACCOUNTING (ABA) DATA

Rock Type	Sample Number	Hole Number	Year	From (m)	To (m)	Length (m)	Paste pH	Total Sulphur (%)	Total Sulphate-S (%)	Total Sulphide-S (%)	AP (t/1000t)	NP (t/1000t)	NNP (t/1000t)	NP/AP Ratio
Bowser Sediments														
	94744	177	1995	20.42	23.47	3.05	9.05	1.45	0.3	1.15	35.94	69.06	33.12	1.922
	94747	177	1995	26.52	29.57	3.05	9.55	1.38	0.25	1.13	35.31	61.22	25.90	1.734
	94749	177	1995	32.61	35.66	3.05	9.45	1.6	0.24	1.36	42.50	50.96	8.46	1.199
	94753	144	1995	11.28	14.33	3.05	8.2	1.5	0.21	1.29	40.31	49.75	9.44	1.234
	94754	144	1995	14.33	16.46	2.13	8.45	1.54	0.22	1.32	41.25	57.29	16.04	1.389
	94756	144	1995	18.29	20.12	1.83	8.35	1.35	0.24	1.11	34.69	89.57	54.88	2.582
	94757	144	1995	20.12	22.86	2.74	8.3	1.39	0.2	1.19	37.19	48.85	11.66	1.314
	94742	177	1995	14.33	17.37	3.04	8.5	1.71	0.3	1.41	44.06	65.44	21.38	1.485
	94760	178	1995	8.23	11.28	3.05	8.75	1.36	0.22	1.14	35.63	47.34	11.72	1.329
	94762	178	1995	14.33	17.37	3.04	8.6	1.73	0.22	1.51	47.19	44.63	-2.56	0.946
	94764	178	1995	20.42	23.47	3.05	8.5	1.71	0.24	1.47	45.94	56.69	10.75	1.234
	94766	178	1995	26.52	29.57	3.05	9.05	1.92	0.31	1.61	50.31	132.83	82.52	2.640
	94767	178	1995	29.57	32.61	3.04	9.2	1.83	0.16	1.67	52.19	29.85	-22.34	0.572
	94769	178	1995	8.23	11.28	3.05	8.35	1.71	0.26	1.45	45.31	72.07	26.76	1.591
	94771	178	1995	14.33	17.37	3.04	8.55	1.82	0.31	1.51	47.19	89.87	42.68	1.905
	94773	178	1995	20.42	23.47	3.05	9.6	1.49	0.23	1.26	39.38	53.37	14.00	1.356
	94774	178	1995	23.47	26.52	3.05	9.65	1.43	0.21	1.22	38.13	45.83	7.71	1.202
	94776	178	1995	26.52	29.57	3.05	9.7	1.64	0.2	1.44	45.00	45.53	0.53	1.012
	94751	177	1995	38.71	41.76	3.05	9.5	1.47	0.25	1.22	38.13	71.77	33.65	1.883
	94758	144	1995	22.86	29.57	6.71	8.8	1.27	0.24	1.03	32.19	75.99	43.81	2.361
	94742 Dup.	177	1995	14.33	17.37	3.04		1.68	0.29	1.39	43.44	65.14	21.70	1.500
	94751 Dup.	177	1995	38.71	41.76	3.05		1.49	0.24	1.25	39.06	71.47	32.41	1.830
	94758 Dup.	144	1995	22.86	29.57	6.71		1.26	0.24	1.02	31.88	74.19	42.31	2.327
Volcanics (Proximal)														
	81417	119	1995	10.97	14.02	3.05	8	0.54	0.48	0.06	1.88	171.91	170.04	91.686
	81583	122	1995	3.96	7.92	3.96	8	3.93	0.56	3.37	105.31	252.58	147.27	2.398
	92411	140	1995	88.39	91.44	3.05	8.4	4.89	0.84	4.05	126.56	136.62	10.06	1.079
	92698	145	1995	72.24	75.29	3.05	8.45	5.88	0.5	5.38	168.13	288.01	119.88	1.713
	81584	122	1995	7.92	9.45	1.53	8	3.57	0.56	3.01	94.06	252.88	158.82	2.688
	92390	140	1995	29.57	32.61	3.04	8.4	4.36	0.58	3.78	118.13	427.43	309.30	3.618
	92400	140	1995	57.00	60.05	3.05	8.45	6.13	0.36	5.77	180.31	64.09	-116.23	0.355
	92679	145	1995	22.86	26.21	3.35	8.4	2.78	0.59	2.19	68.44	271.18	202.75	3.963
	92689	145	1995	47.85	50.29	2.44	8.45	3.81	0.6	3.21	100.31	439.97	339.66	4.386
	94852	184	1995	5.18	8.23	3.05	8.25	3.62	0.46	3.16	98.75	189.09	90.34	1.915
	94885	184	1995	102.72	105.77	3.05	8.5	2.51	0.48	2.03	63.44	189.39	125.95	2.985
	94969	184	1995	343.51	346.56	3.05	9.55	0.44	0.42	0.02	0.63	161.64	161.02	258.627
	81417 Dup.	119	1995	10.97	14.02	3.05		0.53	0.5	0.03	0.94	171.31	170.37	182.728
	81583 Dup.	122	1995	3.96	7.92	3.96		3.87	0.54	3.33	104.06	244.57	140.51	2.350
	92411 Dup.	140	1995	88.39	91.44	3.05		4.85	0.86	3.99	124.69	133.59	8.90	1.071
	92698 Dup.	145	1995	72.24	75.29	3.05		5.82	0.49	5.33	166.56	288.01	121.45	1.729
Volcanics (Distal)														
	94794	182	1995	5.18	8.23	3.05	8.1	1.4	0.43	0.97	30.31	143.08	112.77	4.720
	94799	182	1995	20.42	23.47	3.05	8.2	1.91	0.46	1.45	45.31	221.51	176.19	4.888
	94806	182	1995	38.71	41.76	3.05	8.6	0.64	0.43	0.21	6.56	116.10	109.53	17.691
	94814	182	1995	63.09	66.14	3.05	8.4	0.61	0.41	0.2	6.25	93.19	86.94	14.910
	94828	183	1995	29.57	32.61	3.04	8.3	0.52	0.38	0.14	4.38	91.98	87.61	21.024
	94839	183	1995	60.05	63.09	3.04	8.25	0.69	0.49	0.2	6.25	248.05	241.80	39.688
	94848	183	1995	87.48	90.53	3.05	8.7	1.63	0.35	1.28	40.00	73.88	33.88	1.847
	94821	183	1995	8.23	11.28	3.05	8.35	0.95	0.49	0.46	14.38	303.79	289.42	21.134
	94821 Dup.	183	1995	8.23	11.28	3.05		0.96	0.47	0.49	15.31	304.10	288.78	19.859
Main Phase (Main Zone)														
	80653	104	1995	50.60	53.34	2.74	7.4	4.37	0.13	4.24	132.50	30.00	-102.50	0.226
	47122	206	1995	47.85	50.90	3.05	8.2	3.95	0.31	3.64	113.75	141.13	27.38	1.241
	47426	213	1995	108.81	111.86	3.05	7.95	7.37	2.84	4.53	141.56	33.77	-107.80	0.239
	60181	121	1995	185.01	188.06	3.05	8.15	3.21	0.26	2.95	92.19	74.95	-17.24	0.813
	60274	123	1995	75.29	78.33	3.04	8	3.5	0.36	3.14	98.13	148.08	49.95	1.509
	60531	126	1995	90.53	93.57	3.04	8.1	2.15	0.29	1.86	58.13	87.61	29.49	1.507
	76931	91	1995	69.19	72.24	3.05	7.55	4.6	0.23	4.37	136.56	73.44	-63.12	0.538
	77789	103	1995	172.82	175.87	3.05	8.55	0.52	0.25	0.27	8.44	66.50	58.06	7.882
	78256	110	1995	26.52	29.57	3.05	7.3	4.23	0.13	4.1	128.13	25.48	-102.65	0.199
	78641	114	1995	63.09	66.14	3.05	7.95	2.61	0.32	2.29	71.56	134.81	63.25	1.884
	79783	88	1995	339.85	342.00	2.15	8.2	4.16	0.24	3.92	122.50	88.82	-33.68	0.725
	79799	90	1995	35.36	38.40	3.04	6.9	7.98	0.12	7.86	245.63	27.59	-218.03	0.112
	79920	92	1995	20.12	23.16	3.04	7.8	2.56	0.31	2.25	70.31	125.16	54.85	1.780
	80027	92	1995	331.01	334.04	3.03	8.8	3.83	0.23	3.6	112.50	80.68	-31.82	0.717
	80138	96	1995	43.89	47.55	3.66	7.7	5.21	0.26	4.95	154.69	106.01	-48.67	0.685
	81180	113	1995	145.08	148.13	3.05	8	4.6	0.26	4.34	135.63	125.76	-9.86	0.927
	81317	116	1995	87.17	90.22	3.05	8.15	3.15	0.28	2.87	89.69	129.68	40.00	1.446
	81457	119	1995	116.13	119.18	3.05	8.25	3.42	0.3	3.12	97.50	137.83	40.33	1.414

Appendix XI

AMERICAN BULLION MINERALS LTD.
RED CHRIS PROPERTY

WASTE CHARACTERIZATION PROGRAM
ACID-BASE ACCOUNTING (ABA) DATA

Rock Type	Sample Number	Hole Number	Year	From (m)	To (m)	Length (m)	Paste pH	Total Sulphur (%)	Total Sulphate-S (%)	Total Sulphide-S (%)	AP (t/1000t)	NP (t/1000t)	NNP (t/1000t)	NP/AP Ratio
Main Phase (Main Zone cont'd)														
	81804	125	1995	233.48	236.52	3.04	9.45	0.4	0.33	0.07	2.19	154.41	152.23	70.589
	81934	127	1995	105.46	108.20	2.74	9.05	1.25	0.36	0.89	27.81	152.00	124.19	5.465
	82279	132	1995	240.18	242.62	2.44	9.05	3.17	0.36	2.81	87.81	137.22	49.41	1.563
	83024	131	1995	139.29	142.34	3.05	8.75	2.52	0.3	2.22	69.38	121.84	52.46	1.756
	92046	133	1995	120.40	123.44	3.04	7.8	4.98	0.25	4.73	147.81	61.67	-86.14	0.417
	92265	135	1995	267.00	270.05	3.05	9.3	2.79	0.33	2.46	76.88	96.96	20.09	1.261
	92316	138	1995	44.50	47.55	3.05	8.25	4.57	0.29	4.28	133.75	95.76	-37.99	0.716
	93195	153	1995	194.16	197.20	3.04	9.25	2.67	0.34	2.33	72.81	137.81	65.00	1.893
	93336	154	1995	154.53	157.58	3.05	8.65	1.93	0.29	1.64	51.25	98.76	47.51	1.927
	93466	157	1995	133.20	136.25	3.05	8.9	2.45	0.35	2.1	65.63	115.79	50.17	1.764
	93784	163	1995	25.91	29.26	3.35	6.3	5.55	0.38	5.17	161.56	131.18	-30.38	0.812
	93987	166	1995	111.86	114.91	3.05	6.3	3.89	0.34	3.55	110.94	82.63	-28.31	0.745
	94198	169	1995	205.89	208.94	3.05	7.9	4.06	0.37	3.69	115.31	90.47	-24.84	0.785
	96590	134	1995	252.07	255.12	3.05	8.6	3.07	0.28	2.79	87.19	97.03	9.85	1.113
	96889	139	1995	23.47	26.51	3.04	8.1	4.39	0.35	4.04	126.25	116.11	-10.14	0.920
	97502	146	1995	200.25	203.30	3.05	9.1	3.65	0.3	3.35	104.69	94.55	-10.14	0.903
	97607	147	1995	194.16	196.60	2.44	8.15	5.4	3.36	2.04	63.75	30.45	-33.30	0.478
	80653 Dup.	104	1995	50.60	53.34	2.74		4.52	0.15	4.37	136.56	28.50	-108.07	0.209
Main Phase (Gully Zone)														
	45556	207	1995	135.64	139.29	3.65	8.1	4.65	1.9	2.75	85.94	75.09	-10.85	0.874
	95197	189	1995	144.78	147.22	2.44	9	2.61	0.25	2.36	73.75	80.52	6.77	1.092
	95265	192	1995	44.81	47.85	3.04	8.7	2.92	0.28	2.64	82.50	96.95	14.45	1.175
	97722	148	1995	171.30	172.82	1.52	9.35	3.08	0.33	2.75	85.94	71.47	-14.47	0.832
	97774	150	1995	84.43	87.48	3.05	7.7	6.44	1.64	4.8	150.00	46.74	-103.26	0.312
	97831	150	1995	245.97	249.02	3.05	8.2	2.39	0.42	1.97	61.56	103.89	42.33	1.688
	99190	168	1995	249.02	252.07	3.05	7.85	4.96	0.32	4.64	145.00	62.42	-82.58	0.430
	99317	170	1995	313.03	316.08	3.05	9.6	1.57	0.44	1.13	35.31	154.40	119.09	4.372
	99364	173	1995	99.67	102.72	3.05	8.15	4.29	2.06	2.23	69.69	84.14	14.45	1.207
	99456	176	1995	38.71	41.76	3.05	8.05	4.94	0.3	4.64	145.00	53.67	-91.33	0.370
Late Phase Dykes														
	47047	204	1995	160.63	163.68	3.05	8.1	4.16	0.41	3.75	117.19	81.42	-35.76	0.695
	47237	206	1995	383.13	386.18	3.05	8.15	4.66	0.63	4.03	125.94	126.65	0.72	1.006
	76651	85	1995	300.69	303.73	3.04	8.3	3.04	0.22	2.82	88.13	88.22	0.09	1.001
	78393	111	1995	24.99	28.04	3.05	8.15	2.79	0.31	2.48	77.50	129.68	52.18	1.673
	79013	77	1995	41.45	44.50	3.05	7.95	4.09	0.25	3.84	120.00	104.81	-15.19	0.873
	80513	101	1995	38.10	41.15	3.05	8.1	1.54	0.34	1.2	37.50	92.74	55.24	2.473
	80638	104	1995	14.02	17.07	3.05	7.3	5.5	0.16	5.34	166.88	39.05	-127.82	0.234
	80801	106	1995	101.19	104.24	3.05	7.55	5.46	0.18	5.28	165.00	38.75	-126.25	0.235
	81151	113	1995	59.74	62.79	3.05	7.8	5.3	0.23	5.07	158.44	87.31	-71.12	0.551
	81321	116	1995	99.36	102.41	3.05	7.95	6.49	0.23	6.26	195.63	83.99	-111.63	0.429
	81437	119	1995	64.92	67.97	3.05	8.05	4.47	0.28	4.19	130.94	142.05	11.11	1.085
	81593	122	1995	29.26	32.00	2.74	7.95	5.98	0.5	5.48	171.25	253.49	82.24	1.480
	92185	135	1995	56.69	59.74	3.05	8.1	4.07	0.27	3.8	118.75	95.46	-23.30	0.804
	93423	157	1995	20.42	23.47	3.05	8.15	3.94	0.31	3.63	113.44	99.67	-13.77	0.879
	94362	171	1995	288.65	291.69	3.04	8.55	4.14	0.31	3.83	119.69	97.11	-22.58	0.811
	94413	172	1995	14.33	17.37	3.04	8.3	3.33	0.31	3.02	94.38	77.50	-16.87	0.821
	95112	187	1995	163.68	166.73	3.05	7.95	6.29	1.15	5.14	160.63	57.80	-103.03	0.359
	95380	193	1995	23.47	26.52	3.05	7.85	5.37	0.17	5.2	162.50	33.77	-128.73	0.208
	96043	188	1995	163.88	166.73	3.05	7.65	6.07	0.44	5.63	175.94	30.15	-145.79	0.171
	96764	136	1995	239.88	242.93	3.05	9.55	3.93	0.46	3.47	108.44	276.08	167.64	2.546
	96820	137	1995	20.42	23.47	3.05	7.8	4.23	0.2	4.03	125.94	43.27	-82.66	0.344
	97690	148	1995	81.38	84.43	3.05	7.85	5.05	0.24	4.81	150.31	34.37	-115.94	0.229
	93613	159	1995	29.57	32.61	3.04	7.95	5.18	0.28	4.9	153.13	50.36	-102.77	0.329
	96560	134	1995	163.68	166.73	3.05	7.1	4.79	0.14	4.65	145.31	18.84	-126.47	0.130
	99652	179	1995	209.40	212.45	3.05	8.1	6.25	2.17	4.08	127.50	41.31	-86.19	0.324
	79013 Dup.	77	1995	41.45	44.50	3.05		4.12	0.26	3.86	120.63	103.90	-16.72	0.861
	93613 Dup.	159	1995	29.57	32.61	3.04		5.14	0.26	4.88	152.50	50.96	-101.54	0.334
	96560 Dup.	134	1995	163.68	186.73	3.05		4.81	0.15	4.66	145.63	20.80	-124.83	0.143
	99652 Dup.	179	1995	209.40	212.45	3.05		6.2	2.1	4.1	128.13	41.31	-86.82	0.322

APPENDIX XII

WASTE CHARACTERIZATION PROGRAM

WHOLE ROCK ANALYSIS DATA

Appendix XII

AMERICAN BULLION MINERALS LTD.
RED CHRIS PROPERTY

WASTE CHARACTERIZATION PROGRAM
WHOLE ROCK ANALYSIS DATA

Rock Type	Sample Number	Hole Number	Year	From (m)	To (m)	Length (m)	Al_2O_3 (%)	BaO (%)	CaO (%)	Fe_2O_3 (%)	K_2O (%)	MgO (%)	MnO (%)	Na_2O (%)	P_2O_5 (%)	SiO_2 (%)	SrO_2 (%)	TiO_2 (%)	L.O.I. (%)	Total (%)
Bowser Sediments																				
	94744	177	1995	20.42	23.47	3.05	13.54	0.075	5.73	5.12	2.16	1.97	0.05	1.29	0.12	58.47	0.045	0.64	9.7	98.91
	94747	177	1995	26.52	29.57	3.05	13.75	0.07	4.98	4.89	2.11	1.83	0.05	1.62	0.11	58.91	0.035	0.64	10.3	99.30
	94749	177	1995	32.61	35.66	3.05	13.95	0.08	4.45	4.89	2.25	1.74	0.04	1.61	0.07	59.79	0.03	0.62	9.7	99.22
	94753	144	1995	11.28	14.33	3.05	13.98	0.055	4.77	5.3	2.36	2.06	0.05	1.19	0.19	59.18	0.025	0.66	9.5	99.32
	94754	144	1995	14.33	16.46	2.13	13.44	0.05	5.41	4.76	2.1	1.93	0.04	1.14	0.22	58.91	0.025	0.64	10.5	99.17
	94756	144	1995	18.29	20.12	1.83	13.17	0.04	6.95	4.61	2.18	2.02	0.07	1.16	0.21	56.73	0.03	0.59	11.6	99.36
	94757	144	1995	20.12	22.86	2.74	13.07	0.05	4.41	4.84	2.1	2.04	0.04	1.08	0.15	60.53	0.03	0.62	10	98.96
	94742	177	1995	14.33	17.37	3.04	13.51	0.04	5.83	5.02	2.11	1.93	0.05	1.26	0.13	58.67	0.02	0.62	10	99.19
	94760	178	1995	8.23	11.28	3.05	14.38	0.05	4.37	5.78	2.35	2.29	0.05	1.44	0.16	57.84	0.025	0.68	9.8	99.22
	94762	178	1995	14.33	17.37	3.04	14.87	0.055	4.77	5.78	2.36	2.25	0.04	1.53	0.22	57.52	0.03	0.7	9.2	99.13
	94764	178	1995	20.42	23.47	3.05	13.91	0.05	5.18	5.75	2.13	2.16	0.05	1.49	0.21	58.7	0.035	0.67	8.6	98.94
	94766	178	1995	26.52	29.57	3.05	13.43	0.05	9.46	4.92	2.09	1.87	0.05	1.56	0.23	55.07	0.04	0.63	9.8	99.20
	94767	178	1995	29.57	32.61	3.04	14.01	0.045	3.2	4.91	2.21	1.8	0.03	1.48	0.23	61.23	0.035	0.66	9.3	99.14
	94769	178	1995	8.23	11.28	3.05	13.86	0.065	6.15	5.65	2.38	2.11	0.06	1.2	0.19	57.75	0.025	0.65	8.9	98.99
	94771	178	1995	14.33	17.37	3.04	12.83	0.05	7.04	4.78	1.99	1.81	0.05	1.2	0.17	58.04	0.045	0.6	10.3	98.91
	94773	178	1995	20.42	23.47	3.05	13.39	0.07	4.77	4.78	2.07	1.85	0.04	1.49	0.16	60.38	0.035	0.61	9.6	99.25
	94774	178	1995	23.47	26.52	3.05	13.45	0.49	4.35	4.68	2.22	1.85	0.04	1.34	0.15	60.38	0.03	0.61	9.5	99.09
	94776	178	1995	26.52	29.57	3.05	13.95	0.05	4.14	5.02	2.37	1.92	0.04	1.5	0.13	60.11	0.03	0.62	9.4	99.28
	94751	177	1995	38.71	41.76	3.05	13.84	0.085	5.72	5.1	2.15	1.85	0.05	1.44	0.15	58.79	0.04	0.61	9.4	99.23
	94758	144	1995	22.86	29.57	6.71	12.2	0.045	6	4.07	1.87	1.7	0.11	1.33	0.15	62.03	0.035	0.56	9.1	99.20
	94742 Dup.	177	1995	14.33	17.37	3.04														
	94751 Dup.	177	1995	38.71	41.76	3.05														
	94758 Dup.	144	1995	22.86	29.57	6.71														
Volcanics (Proximal)																				
	81417	119	1995	10.97	14.02	3.05	15.56	0.065	12.58	8.6	0.62	4.61	0.13	2.07	0.02	43.31	0.045	0.68	10.9	99.19
	81583	122	1995	3.96	7.92	3.96	10.3	0.205	11.83	11.2	0.62	7.12	0.35	1.16	0.97	41.43	0.04	0.66	12.9	98.79
	92411	140	1995	88.39	91.44	3.05	9.12	0.36	10.02	11.47	0.24	13.61	0.33	0.82	0.67	42.72	0.82	0.51	8.4	99.09
	92698	145	1995	72.24	75.29	3.05	8.91	0.055	12.48	12.37	0.64	8.08	0.27	0.29	0.84	41.35	0.035	0.54	13	98.86
	81584	122	1995	7.92	9.45	1.53	9.37	0.16	12.12	10.88	0.61	7.33	0.32	1.17	0.89	42.31	0.04	0.59	13	98.79
	92390	140	1995	29.57	32.61	3.04	7.27	0.055	15.72	9.44	0.17	8.16	0.31	0.01	0.6	38.75	0.03	0.46	18.2	99.18
	92400	140	1995	57.00	60.05	3.05	6.56	0.04	7.84	12.72	0.02	19.99	0.34	0.03	0.63	41.39	0.065	0.43	8.8	98.86
	92679	145	1995	22.86	26.21	3.35	9.19	0.195	11.8	10.71	0.38	9.36	0.25	0.82	0.7	41.93	0.045	0.56	13.2	99.14
	92689	145	1995	47.85	50.29	2.44	6.6	0.055	15.68	9.27	0.09	8.29	0.29	0.01	0.64	37.82	0.03	0.4	19.8	98.98
	94852	184	1995	5.18	8.23	3.05	11.76	0.095	9.48	11.77	0.85	5.8	0.28	2.51	0.98	45.6	0.05	0.78	9.2	99.16
	94885	184	1995	102.72	105.77	3.05	8.3	0.195	8.79	10.06	0.59	14.04	0.4	0.03	0.52	44	0.06	0.4	11.4	98.79
	94969	184	1995	343.51	346.56	3.05	14.94	0.025	12.43	8.22	0.6	5.57	0.15	1.74	0.08	46.25	0.04	0.61	8.2	98.86
	81417 Dup.	119	1995	10.97	14.02	3.05														
	81583 Dup.	122	1995	3.96	7.92	3.96														
	92411 Dup.	140	1995	88.39	91.44	3.05														
	92698 Dup.	145	1995	72.24	75.29	3.05														

Appendix XII

AMERICAN BULLION MINERALS LTD.
RED CHRIS PROPERTY

WASTE CHARACTERIZATION PROGRAM
WHOLE ROCK ANALYSIS DATA

Rock Type	Sample Number	Hole Number	Year	From (m)	To (m)	Length (m)	Al_2O_3 (%)	BaO (%)	CaO (%)	Fe_2O_3 (%)	K_2O (%)	MgO (%)	MnO (%)	Na_2O (%)	P_2O_5 (%)	SiO_2 (%)	SrO_2 (%)	TiO_2 (%)	L.O.I. (%)	Total (%)
Volcanics (Distal)																				
	94794	162	1995	5.18	8.23	3.05	9.02	0.035	11.72	10.29	0.16	10.83	0.21	2.28	0.86	44.39	0.05	0.56	8.6	99.01
	94799	182	1995	20.42	23.47	3.05	9.86	0.13	11.17	10.37	1.1	7.27	0.46	1.76	0.77	43.65	0.06	0.58	11.8	98.98
	94806	182	1995	38.71	41.76	3.05	8.03	0.18	11.54	10.81	0.2	14.67	0.28	1.05	0.71	42.85	0.055	0.5	8.3	99.18
	94814	182	1995	63.09	66.14	3.05	7.57	0.1	11.31	10.47	0.11	15.7	0.21	0.87	0.57	43.24	0.04	0.44	8.4	99.03
	94828	183	1995	29.57	32.61	3.04	8.2	0.025	10.86	10.84	0.06	14.52	0.24	1.3	0.66	44.65	0.045	0.5	6.8	98.70
	94839	183	1995	60.05	63.09	3.04	7.58	0.075	14.34	10.36	0.21	12.16	0.27	0.56	0.56	38.55	0.035	0.44	13.9	99.04
	94848	183	1995	87.48	90.53	3.05	6.53	0.015	9.74	10.58	0.05	19.98	0.25	0.04	0.62	43.49	0.045	0.42	7.4	99.16
	94821	183	1995	8.23	11.28	3.05	9.35	0.1	13.18	9.76	0.89	6.84	0.19	1.99	0.72	40.09	0.06	0.57	15.2	98.94
	94821 Dup.	183	1995	8.23	11.28	3.05														
Main Phase (Main Zone)																				
	80653	104	1995	50.60	53.34	2.74	14.88	0.055	2.84	6.45	3.6	1.24	0.03	0.01	0.24	62.69	0.015	0.44	6.4	98.89
	47122	206	1995	47.85	50.90	3.05	13.66	0.04	6.91	7.46	2.27	2.29	0.1	0.08	0.29	54.23	0.03	0.42	10.9	98.68
	47426	213	1995	108.81	111.86	3.05	14.35	0.065	7.64	5.44	3.73	0.9	0.04	0.22	0.25	53.63	0.05	0.42	12.5	99.24
	60181	121	1995	185.01	188.06	3.05	15.81	0.24	4.77	4.96	2.99	1.81	0.02	0.95	0.2	59.54	0.035	0.41	7.2	98.94
	60274	123	1995	75.29	78.33	3.04	15.41	0.245	6.38	6.38	2.26	2.51	0.09	0.01	0.3	54.17	0.03	0.5	10.7	98.99
	60531	126	1995	90.53	93.57	3.04	15.6	0.025	5.57	6.84	2.46	2.05	0.04	1.26	0.3	55.3	0.025	0.49	9.2	99.16
	76931	91	1995	69.19	72.24	3.05	14.7	0.09	3.86	8.71	3.51	2.39	0.2	0.01	0.3	56.03	0.04	0.49	8.6	98.93
	77789	103	1995	172.82	175.87	3.05	15.41	0.05	4.31	9.96	3.31	2.28	0.05	0.01	0.28	53.93	0.02	0.46	9	99.07
	78256	110	1995	26.52	29.57	3.05	15.33	0.04	2.62	5.98	4.01	1.18	0.03	0.01	0.15	62.56	0.015	0.39	6.9	99.22
	78641	114	1995	63.09	66.14	3.05	13.74	0.02	7.44	6.18	2.59	3.15	0.06	0.02	0.23	54.31	0.025	0.45	10.7	98.92
	79783	88	1995	339.85	342.00	2.15	15.95	0.02	4.96	7.8	2.1	1.94	0.23	0.01	0.27	54.24	0.025	0.49	11.2	99.24
	79799	90	1995	35.36	38.40	3.04	13.6	0.045	2.32	10.31	2.67	0.86	0.02	0.18	0.25	59.71	0.035	0.48	8.4	98.88
	79920	92	1995	20.12	23.16	3.04	14.43	0.01	6.63	7.45	2.19	2.95	0.13	0.01	0.27	53.02	0.03	0.42	11.6	99.14
	80027	92	1995	331.01	334.04	3.03	15.35	0.03	5.09	6.86	3.47	1.78	0.13	0.26	0.22	55.93	0.02	0.43	9.4	98.97
	80138	96	1995	43.89	47.55	3.66	14.02	0.04	5.56	8.16	3.13	2.45	0.13	0.01	0.21	56.22	0.02	0.41	8.5	98.86
	81180	113	1995	145.08	148.13	3.05	14.5	0.06	5.95	8.82	3.29	2.69	0.04	0.01	0.29	53.48	0.02	0.45	9.7	99.30
	81317	116	1995	87.17	90.22	3.05	14.63	0.06	6.66	6.87	2.9	2.57	0.04	0.01	0.28	54.98	0.02	0.47	9.7	99.19
	81457	119	1995	116.13	119.18	3.05	14.76	0.055	6.88	7.49	2.63	2.6	0.05	0.01	0.29	54.14	0.015	0.47	9.8	99.19
	81804	125	1995	233.48	236.52	3.04	15.82	0.07	6.4	7.26	2.35	2.05	0.15	1.1	0.31	53.16	0.03	0.44	9.8	98.94
	81934	127	1995	105.46	108.20	2.74	14.07	0.02	6.48	6.41	1.81	2.41	0.14	0.01	0.23	54.98	0.025	0.41	12	99.00
	82279	132	1995	240.18	242.62	2.44	13.64	0.035	7.76	7.56	2.92	3.14	0.1	0.01	0.22	53.21	0.02	0.4	9.8	99.02
	83024	131	1995	139.29	142.34	3.05	14.63	0.045	5.74	6.2	2.96	2.34	0.14	0.01	0.17	56.66	0.02	0.37	9.7	98.99
	92046	133	1995	120.40	123.44	3.04	15.79	0.13	4.16	7.96	3.47	1.95	0.08	0.01	0.27	56.19	0.03	0.47	8.5	99.01
	92265	135	1995	267.00	270.05	3.05	14.98	0.05	5.42	7.96	2.48	2.43	0.28	1.82	0.3	53.8	0.03	0.49	9.1	99.14
	92316	138	1995	44.50	47.55	3.05	16.05	0.075	5.47	7.14	3.05	2.71	0.11	0.01	0.31	54.72	0.02	0.46	9.2	99.33
	93195	153	1995	194.16	197.20	3.04	15.58	0.06	6.47	6.48	3.03	2.64	0.05	0.55	0.25	54.71	0.025	0.47	8.7	99.02
	93336	154	1995	154.53	157.58	3.05	16.93	0.03	5.48	4.49	3.41	2.08	0.06	0.28	0.24	56.78	0.02	0.43	8.6	98.83
	93466	157	1995	133.20	136.25	3.05	15.39	0.075	6.14	6.03	3.96	1.97	0.07	2.26	0.23	55.45	0.08	0.43	6.9	98.99
	93784	163	1995	25.91	29.26	3.35	14.02	0.13	6.11	10.53	3.59	2.68	0.21	1.24	0.26	49.84	0.025	0.4	10.3	99.34
	93987	166	1995	111.86	114.91	3.05	16.62	0.085	5.05	6.97	2.34	1.86	0.11	1.47	0.33	55.18	0.07	0.51	8.5	99.10
	94198	169	1995	205.89	208.94	3.05	16.88	0.05	5.06	6.56	3.18	2.28	0.1	0.01	0.27	54.95	0.06	0.54	9.3	99.24
	96590	134	1995	252.07	255.12	3.05	15.97	0.06	6.23	7.1	2.19	2.41	0.03	0.96	0.31	53.98	0.02	0.51	9.3	99.07
	96889	139	1995	23.47	26.51	3.04	14.63	0.035	5.89	9.47	2.95	2.75	0.16	0.01	0.36	52.22	0.02	0.49	10	98.99
	97502	146	1995	200.25	203.30	3.05	15.48	0.025	5.45	8.52	2.4	2.3	0.1	0.01	0.32	53.84	0.02	0.49	10.3	99.26
	97607	147	1995	194.16	196.60	2.44	14.43	0.055	8.69	3.31	2.44	1.48	0.18	4.02	0.16	53.11	0.075	0.4	10.7	99.05
	80653 Dup.	104	1995	50.60	53.34	2.74														

Appendix XII

AMERICAN BULLION MINERALS LTD.
RED CHRIS PROPERTY

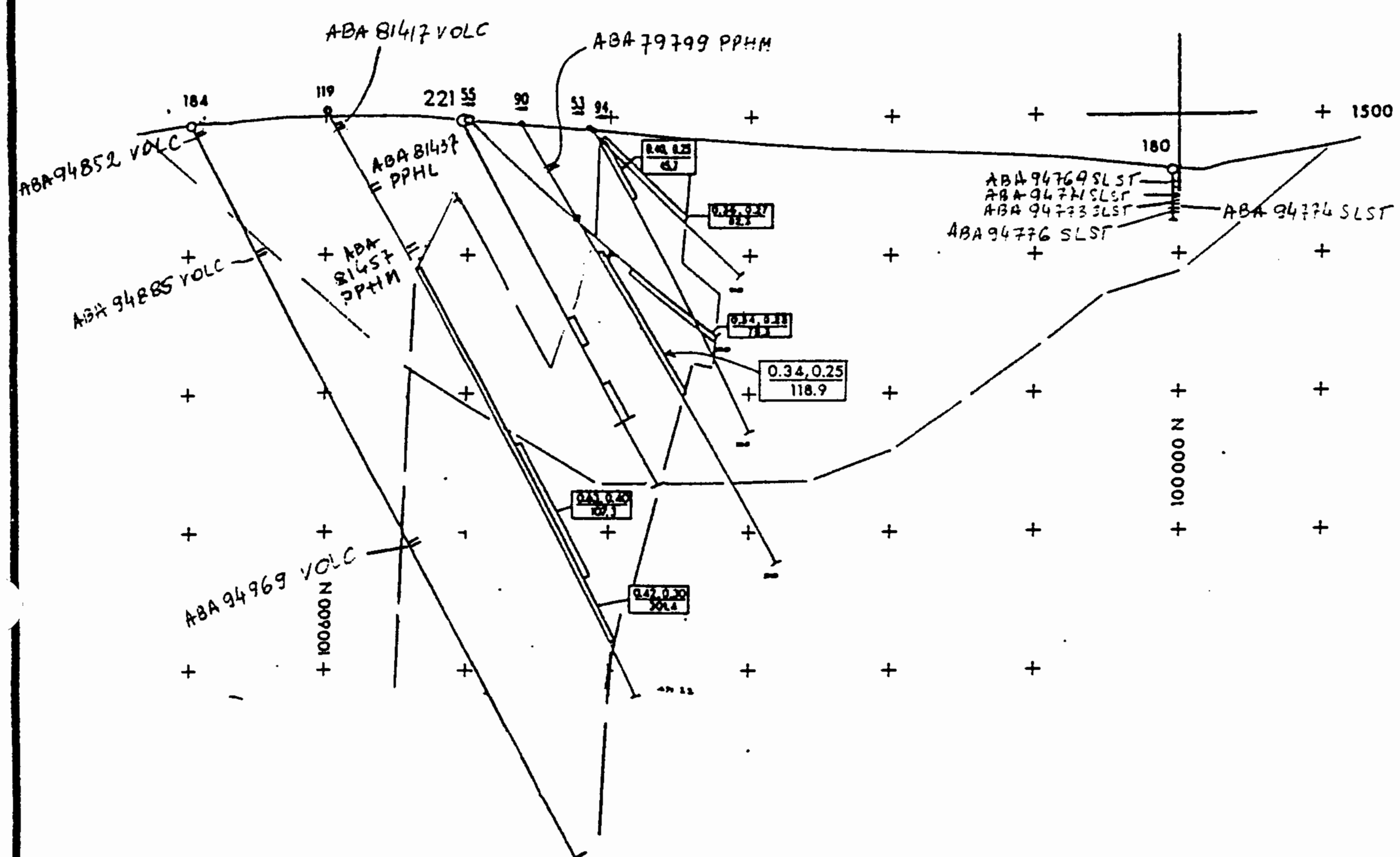
WASTE CHARACTERIZATION PROGRAM
WHOLE ROCK ANALYSIS DATA

Rock Type	Sample Number	Hole Number	Year	From (m)	To (m)	Length (m)	Al_2O_3 (%)	BaO (%)	CaO (%)	Fe_2O_3 (%)	K_2O (%)	MgO (%)	MnO (%)	Na_2O (%)	P_2O_5 (%)	SiO_2 (%)	SrO_2 (%)	TiO_2 (%)	L.O.I. (%)	Total (%)
Main Phase (Gully Zone)																				
	45556	207	1995	135.64	139.29	3.65	14.68	0.075	7.14	6.8	3.12	2.27	0.12	2.25	0.33	51.13	0.065	0.47	10.5	98.95
	95197	189	1995	144.78	147.22	2.44	15.02	0.105	4.81	6.06	4.12	1.58	0.17	2.09	0.24	58.44	0.035	0.37	6	99.04
	95265	192	1995	44.81	47.85	3.04	15.45	0.105	4.94	5.25	4.34	1.97	0.2	0.46	0.23	57.77	0.04	0.41	8	99.17
	97722	148	1995	171.30	172.82	1.52	15.29	0.095	5.87	7.09	3.57	1.67	0.11	2.83	0.3	56.7	0.045	0.44	4.9	98.91
	97774	150	1995	84.43	87.48	3.05	15.21	0.075	5.91	8.77	4.27	1.59	0.17	0.84	0.23	54.53	0.05	0.44	9.1	99.19
	97831	150	1995	245.97	249.02	3.05	15.85	0.045	5.41	5.37	4.49	2.15	0.2	0.01	0.22	56.74	0.065	0.42	8	98.97
	99190	168	1995	249.02	252.07	3.05	14.19	0.155	2.15	11.51	3.97	2.23	0.38	0.01	0.16	54.62	0.025	0.4	9.4	99.20
	99317	170	1995	313.03	316.08	3.05	14.24	0.125	5.39	9.16	3.06	3.93	0.37	0.24	0.29	50.46	0.025	0.46	11.2	98.95
	99364	173	1995	99.67	102.72	3.05	14.23	0.1	7.29	6.99	3.33	2.38	0.23	1.87	0.32	47.44	0.06	0.46	14.4	99.10
	99456	176	1995	38.71	41.76	3.05	15.94	0.05	4.43	7.34	2.62	2.81	0.22	3.21	0.33	54.55	0.04	0.53	6.8	98.87
Late Phase Dykes																				
	47047	204	1995	160.63	163.68	3.05	15.96	0.09	5.25	6.49	3.59	2.26	0.43	1.58	0.32	56.16	0.035	0.42	6.4	98.99
	47237	206	1995	383.13	386.18	3.05	14.44	0.07	5.92	6.89	3.42	2.49	0.23	0.01	0.3	54.85	0.075	0.44	10	99.14
	76651	85	1995	300.69	303.73	3.04	16	0.055	5.39	4.8	2.62	2.15	0.05	0.01	0.19	58.47	0.02	0.43	8.7	98.89
	78393	111	1995	24.99	28.04	3.05	15.4	0.145	6.39	6.31	2.69	2.32	0.09	0.36	0.28	54.11	0.02	0.41	10.4	98.93
	79013	77	1995	41.45	44.50	3.05	14.43	0.075	5.29	5.95	2.5	2.42	0.1	0.01	0.15	58.37	0.02	0.37	9.2	98.89
	80513	101	1995	38.10	41.15	3.05	16.03	0.5	5.25	5.84	1.82	2.19	0.14	0.01	0.29	54.85	0.03	0.45	11.7	99.10
	80638	104	1995	14.02	17.07	3.05	14.96	0.05	3.39	7.55	2.87	1.41	0.04	0.04	0.25	60.71	0.04	0.46	7.3	99.07
	80801	106	1995	101.19	104.24	3.05	16.3	0.07	3.57	8.75	3.49	1.33	0.02	0.01	0.27	56.14	0.02	0.51	8.4	98.88
	81151	113	1995	59.74	62.79	3.05	15.03	0.07	5.05	8.01	3.32	2.09	0.04	0.01	0.24	55.79	0.02	0.45	8.9	99.02
	81321	116	1995	99.36	102.41	3.05	12.83	0.06	4.95	9.29	3.22	2.2	0.03	0.01	0.19	56.67	0.015	0.4	9.1	98.97
	81437	119	1995	64.92	67.97	3.05	15.06	0.045	6.5	6.22	2.69	3.08	0.07	0.01	0.23	54.47	0.02	0.43	10.5	99.33
	81593	122	1995	29.26	32.00	2.74	8.37	0.05	12.05	10.42	0.19	6.14	0.31	0.01	0.72	46.95	0.055	0.55	13.4	99.22
	92185	135	1995	56.69	59.74	3.05	15.49	0.17	5.5	7.12	2.66	2.4	0.1	0.01	0.26	55.56	0.02	0.43	9.2	98.92
	93423	157	1995	20.42	23.47	3.05	16.14	0.085	5.47	7.88	3.06	2.01	0.15	0.33	0.35	53.33	0.02	0.48	10	99.31
	94362	171	1995	288.65	291.69	3.04	15.82	0.08	5.06	5.66	3.57	2.31	0.09	0.17	0.18	56.87	0.025	0.4	8.7	98.94
	94413	172	1995	14.33	17.37	3.04	16.15	0.08	5.94	5.07	2.67	2.02	0.15	2.62	0.21	57.04	0.04	0.4	6.6	98.99
	95112	187	1995	163.68	166.73	3.05	15.2	0.065	4.72	6.68	4.28	1.89	0.23	0.1	0.3	55.3	0.025	0.41	10.1	99.30
	95380	193	1995	23.47	26.52	3.05	16.19	0.05	2.13	7.5	3.7	1.91	0.25	1.7	0.33	57.35	0.02	0.44	7.6	99.17
	96043	188	1995	163.68	166.73	3.05	15.28	0.08	3.32	6.84	3.97	1.1	0.03	0.01	0.22	59.72	0.06	0.42	8.2	99.25
	96764	136	1995	239.88	242.93	3.05	11.85	0.055	11.54	8.69	2.67	5.51	0.11	0.01	0.19	45.49	0.025	0.33	12.4	98.87
	96820	137	1995	20.42	23.47	3.05	17.13	0.06	3.3	6.3	3.87	1.58	0.11	0.01	0.26	58.2	0.02	0.49	7.7	99.03
	97690	148	1995	81.38	84.43	3.05	17	0.085	2.31	6.78	4.36	1.47	0.15	0.28	0.27	59.1	0.07	0.48	6.7	99.06
	93613	159	1995	29.57	32.61	3.04	16.26	0.09	4.35	7.03	4.15	1.04	0.09	0.01	0.16	58.83	0.08	0.41	6.8	99.30
	96560	134	1995	163.68	166.73	3.05	16.16	0.125	2.06	7.24	4.08	1.02	0.02	0.01	0.19	60.88	0.025	0.44	6.6	98.85
	99652	179	1995	209.40	212.45	3.05	14.73	0.09	5.96	5.4	3.06	1.51	0.07	2.49	0.24	54.01	0.055	0.39	11.2	99.21
	79013 Dup.	77	1995	41.45	44.50	3.05														
	93613 Dup.	159	1995	29.57	32.61	3.04														
	96560 Dup.	134	1995	163.68	166.73	3.05														
	99652 Dup.	179	1995	209.40	212.45	3.05														

APPENDIX XIII

WASTE CHARACTERIZATION PROGRAM

MULTIELEMENTAL SCAN (ICP) DATA



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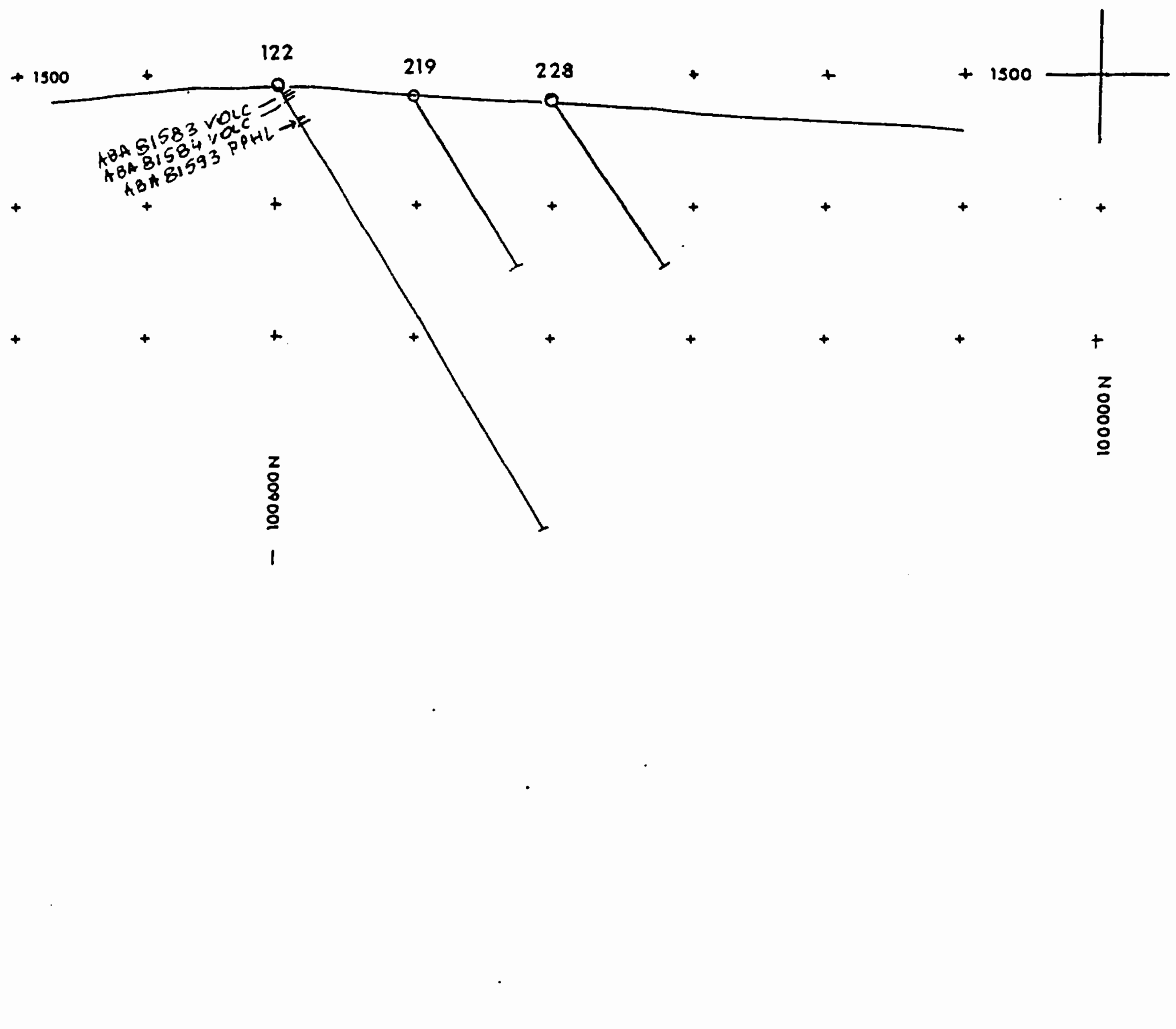
To Accompany Report By J.D. Blanchflower, P.Geo.

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, DELTA, BRITISH COLUMBIA

AMERICAN BULLION MINERALS LTD.
VANCOUVER, BRITISH COLUMBIA

DRILL SECTION 51000 E

RED-CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA



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LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA

Appendix XIII

AMERICAN BULLION MINERALS LTD.
RED CHRIS PROPERTY

WASTE CHARACTERIZATION PROGRAM
MULTIELEMENTAL (ICP) DATA

Rock Type	Sample Number	Hole Number	Year	From (m)	To (m)	Length (m)	Ag (ug/g)	Al (%)	As (ug/g)	Ba (ug/g)	Be (ug/g)	Bi (ug/g)	Ca (%)	Cd (ug/g)	Co (ug/g)	Cr (ug/g)	Cu (ug/g)	Fe (%)	Ga (ug/g)	K (%)	Li (ug/g)	Mg (%)	Mn (ug/g)	Mo (ug/g)	Na (%)	Ni (ug/g)	P (ug/g)	Pb (ug/g)	Sb (ug/g)	Sn (ug/g)	Sr (ug/g)	Th (ug/g)	Ti (%)	U (ug/g)	V (ug/g)	W (ug/g)	Zn (ug/g)
Bowser Sediments																																				
	94744	177	1995	20.42	23.47	3.05	1.2	1.1	1	199	1.8	5	2.86	0.1	7	13	34	2.51	3	0.23	17	0.69	335	7	0.11	23	760	37	7	1	474	1	0.01	1	29.2	1	152
	94747	177	1995	26.52	29.57	3.05	1.5	0.97	1	265	1.9	6	2.61	0.1	7	13	36	2.38	3	0.19	17	0.6	309	6	0.22	27	770	34	6	1	357	1	0.01	1	31.5	1	148
	94749	177	1995	32.61	35.66	3.05	1.5	0.92	1	293	1.8	6	2.49	0.1	7	11	36	2.4	2	0.19	15	0.53	267	9	0.24	26	610	37	5	1	325	1	0.01	1	31.6	1	245
	94753	144	1995	11.28	14.33	3.05	0.9	1.12	1	71	2	7	2.71	0.1	9	15	34	2.67	2	0.2	15	0.74	322	4	0.03	30	800	34	4	1	173	1	0.01	1	29.2	1	124
	94754	144	1995	14.33	16.46	2.13	1.2	1.01	1	92	1.8	4	2.64	0.1	7	15	43	2.29	1	0.22	12	0.63	292	5	0.03	24	910	33	4	1	191	1	0.01	1	38	1	131
	94756	144	1995	18.29	20.12	1.83	1.7	0.98	1	73	1.7	6	3.47	0.1	6	12	33	2.29	3	0.19	13	0.68	488	5	0.02	26	880	33	6	1	327	1	0.01	1	35.3	1	120
	94757	144	1995	20.12	22.86	2.74	1.5	1	1	72	1.7	6	2.45	0.1	7	13	37	2.41	2	0.19	14	0.7	283	8	0.03	29	770	35	5	1	330	1	0.01	1	40.4	1	249
	94742	177	1995	14.33	17.37	3.04	0.9	0.9	1	65	1.6	6	2.64	0.1	8	13	51	2.34	1	0.23	13	0.62	342	7	0.03	24	710	36	4	1	107	1	0.01	1	26.7	1	161
	94760	178	1995	8.23	11.26	3.05	1.4	1.25	1	74	2.2	7	2.33	0.1	10	17	38	3.09	3	0.19	18	0.93	326	4	0.02	29	780	46	7	1	102	1	0.01	1	26.9	1	117
	94762	178	1995	14.33	17.37	3.04	1.7	1.15	1	81	2.2	9	2.42	0.1	10	16	32	3.02	6	0.2	16	0.88	276	4	0.04	32	690	44	8	1	190	1	0.01	1	26.5	2	123
	94764	178	1995	20.42	23.47	3.05	1.2	1.12	1	72	2.2	9	2.87	0.1	10	18	29	3.06	3	0.19	17	0.87	377	5	0.05	31	910	45	6	1	264	1	0.01	1	27.2	1	131
	94766	178	1995	26.52	29.57	3.05	1.8	0.91	1	92	1.7	8	4.44	0.1	8	14	31	2.52	4	0.19	14	0.66	361	6	0.11	26	880	39	6	1	406	1	0.01	1	27	1	141
	94767	178	1995	29.57	32.61	3.04	1.6	0.92	1	67	1.9	8	1.2	0.1	8	15	35	2.48	4	0.22	13	0.56	197	5	0.15	26	840	38	6	1	356	1	0.01	1	31.6	1	139
	94769	178	1995	8.23	11.28	3.05	0.6	1.17	1	112	1.9	5	3.1	0.1	9	14	31	2.81	1	0.2	16	0.77	415	4	0.03	27	830	39	3	1	156	1	0.01	1	25.2	1	117
	94771	178	1995	14.33	17.37	3.04	0.6	0.99	1	105	1.6	4	3.44	0.1	7	14	33	2.28	1	0.23	12	0.57	355	4	0.1	21	750	31	3	1	519	1	0.01	1	30.7	1	117
	94773	178	1995	20.42	23.47	3.05	0.8	0.98	1	135	1.6	3	2.35	0.1	6	13	31	2.18	1	0.21	14	0.57	235	7	0.21	24	740	29	2	1	308	1	0.01	1	38.9	1	203
	94774	178	1995	23.47	26.52	3.05	1.2	0.97	1	105	1.7	4	1.79	0.1	6	13	34	2.19	1	0.22	15	0.56	248	6	0.27	22	660	33	3	1	273	1	0.01	1	35.2	1	174
	94776	178	1995	26.52	29.57	3.05	1	1.02	1	93	1.9	4	1.66	0.1	6	12	36	2.37	1	0.22	16	0.57	254	9	0.28	27	610	34	3	1	274	1	0.01	1	39.7	1	230
	94751	177	1995	38.71	41.76	3.05	1.8	1.06	1	319	2	8	3.27	0.1	8	12	33	2.74	6	0.2	17	0.64	360	8	0.24	25	770	45	9	1	551	1	0.01	1	27	1	180
	94758	144	1995	22.86	29.57	6.71	0.8	1.04	1	68	1.4	4	3.18	0.1	8	16	43	1.99	1	0.19	11	0.56	802	5	0.18	25	670	25	5	1	331	1	0.01	1	37.9	1	144
	94742 Dup.	177	1995	14.33	17.37	3.04																														
	94751 Dup.	177	1995	38.71	41.76	3.05																														
	94758 Dup.	144	1995	22.86	29.57	6.71																														
Volcanics (Proximal)																																				
	81417	119	1995	10.97	14.02	3.05	1.4	3.2	1	279	3.4	10	4.23	0.1	33	162	79	4.71	1	0.09	22	2.58	849	3	0.2	96	170	46	19	3	383	1	0.01	1	124.7	9	95
	81583	122	1995	3.96	7.92	3.98	0.1	1.32	1	100	3.8	7	4.79	0.1	38	190	170	5.41	1	0.12	9	3.2	1858	1	0.03	114	2970	65	1	3	192	1	0.01	1	85.4	8	206
	92411	140	1995	88.39	91.44	3.05	1.2	2.17	1	75	3.7	5	3.19	0.1	40	236	156	4.82	1	0.07	12	4.39	1170	1	0.08	116	2060	48	4	4	8116	1	0.01	1	96.5	9	153
	92898	145	1995	72.24	75.29	3.05	0.1	1.02	88	76	3.8	3	4.59	0.1	39	154	268	5.76	1	0.09	6	3.82	1429	1	0.02	90	2380	56	1	4	211	1	0.01	1	81.9	5	95
	81584	122	1995	7.92	9.45	1.53	0.1	1.72	1	154	4.1	4	4.57	0.1	33	224	207	5.33	1	0.15	15	3.78	1824	1	0.03	105	2680	48	1	5	220	1	0.01	1	76.8	9	181
	92390	140	1995	29.57	32.61	3.04	0.4	0.39	259	118	3.1	5	6.82	0.1	37	123	200	4.59	1	0.05	3	4.14	1727	1	0.01	79	1920	50	1	4	245	1	0.01	1	85.7	4	149
	92400	140	1995	57.00	60.05	3.05	0.6	1.75	74	97	3.5	5	1.41	0.1	50	292	223	5.26	1	0.01	7	4.73	901	1	0.02	177	1800	41	1	6	713	1	0.02	1	42.8	10	220
	92679	145	1995	22.86	26.21	3.35	0.7	2.24	1	164	3.9	5	4.33	0.1	39	299	128	5.29	1	0.09	20	4.94	1418	1	0.02	151	2240	41	1	7	291	1	0.01	1	131.2	12	113
	92689	145	1995	47.85	50.29	2.44	0.7	0.28	337	137	3	6	7.38	0.1	37	122	128	4.82	1	0.04	2	4.47	1665	1	0.01	82	2060	53	1	6	213	1	0.01	1	94.6	3	181
	94852	184	1995	5.18	8.23	3.05	0.1	2.28	1	110	4.6	11	4.42	0.1	39	108	131	6.82	1	0.12	14	3.37	1847	1	0.02	67	3670	111	6	2	343	1	0.01	1	165.2	5	209
	94885	184	1995	102.72	105.77	3.05	0.1	2.46	1	293	4	2	4.06	0.1	37	291	134	4.7	1	0.13	14	6.63	2137	1	0.03	170	1570	21	1	8	746	1	0.01	1	95.4	9	187
	94989	184	1995	343.51	346.56	3.05	1.1	4.03	1	57	3.2	10	5.09	0.1	31	130	79	4.66	1	0.06	18	2.96	914	2	0.47	85	100	43	23	3	384	1	0.03	1	124.6	7	72
	81417 Dup.	119	1995	10.97	14.02	3.05																														
	81583 Dup.	122	1995	3.96	7.92	3.98																														
	92411 Dup.	140	1995	88.39	91.44	3.05																														
	92698 Dup.	145	1995	72.24	75.29	3.05																														
Volcanics (Distal)																																				
	94794	182	1995	5.18	8.23	3.05	1	2.01	1	57	3.2	4	4.38	0.1	35	230	181	4.16	1	0.06	11	4.5	863	1	0.02	88	2720	29	1	5	403	1	0.03	1	104.1	9	73
	94799	182	1995	20.42	23.47	3.05	0.1	2.05	1	59	3.9	6	5.16	0.1	39	230	168	5.2	1	0.06	12	3.98	2751	1	0.02	101	2500	63	1	7	486	1	0.01	1	142.6	10	701
	94806	182	1995	38.71	41.76	3.05	0.3	2.17	1	333	3.1	1	3.37	0.1	30	168	119	3.43	1	0.08	12	5.35	1065	1	0.02	137	2160	9	1	8	473	1	0.02	1	53	4	78
	94814	182	1995	63.09	66.14	3.05	0.7	2.19	1	286	2.9	1	3.26	0.1	35	215	77	3.48	1	0.05	14	5.74	800	1	0.02	151	1570	3	1	8	263	1	0.02	1	70.1	8	87
	94828	183	1995	29.57	32.61	3.04	1.1	2.19	1	68	3	2	3.09	0.1	33	206	94	3.47	1	0.04	14	5.46	835	1	0.02	127	2190	40	2	7	368	1	0.03	1	68.3	6	84
	94839	183	1995	60.05	63.09	3.04	0.9	2.42	1	229	3.5	5	5.46	0.1	37	307	36	4.3	1	0.05	11	5.48	1436	1	0.01	172	1660	25	4	6	323	1	0.01	1	76.7	11	106
	94848	183	1995	87.48	90.53	3.05	1.3	2.28	51	47	3.1	1	2.98	0.1	44	300	100	3.4	1	0.03	10	6.59	827	1	0.04	178	1690	24	1	8	561	1	0.02	1	40.7	8	76
	94821	183	1995	8.23	11.28	3.05	0.8	1.55	97	138	4.2	6	5.47	0.1	35	210	113	5.06	1	0.1	8	3.86	1206	1	0.02	88	2550	47	1	5	589	1	0.01	1	102	8	81
	94821 Dup.	183	1995	8.23	11.28	3.05																														
Main Phase (Main Zone)																																				
	80653	104	1995	50.60	53.34	2.74	1.4	0.33	136	61	2.4	3	1	0.1	14	35	1055	3.71	4	0.25	1	0.37	169	25	0.01	14	1190	61	5	1	48	1	0.01	1	5.9	2	63
	47122	206	1995	47.85	50.90	3.05	1	0.49	134	154	2.6	1	3.27	0.1	17	49	2952	4.25	1	0.2	1	1.18	637	7	0.01	15	1230	59	1	1	357	1	0.01	1	31.6	3	65
	47426	213	1995	108.81	111.86	3.05	3.1	0.32	31	105	1.9	4	3.78	0.1	10	18	560	3.34	1	0.2	1	0.08	235	17	0.07	11	1070	91	135	1	545	1	0.01	1	4.7	1	187
	60181	121	1995	185.01	188.06	3.05	0.7	0.42	68	130	1.6	1	2.17	0.1	9	38	1936	2.62	1	0.24	1	0.77	134	16	0.03	10	1040	41	1	2	199	1	0.01	1	10.5	2	73
	60274	123	1995	75.29	76.33	3.04	0.3	0.46	99	124	1.9	2	2.76	0.1	12	26	265	3.19	1	0.23	2	1.13	525	6	0.01	14	1270	42	1	2	165	1	0.01	1	38.7	1	60
	60531	126	1995	90.53	93.57	3.04	0.9	0.52	85	40	2.1	1	2.6	0.1	9	21	1091	3.38	1	0.28	2	0.95	236	17	0.03	13	1230	45	1	1	135	1	0.01	1	28.6	1	53
	78931	91	1995	69.19	72.24	3.05	0.1	0.36	1	118	2.5	1	1.89	0.1	14	16	1420	4.2	1	0.27	1	0.97	1211	8	0.01	16	1120	73	3	1	39	1	0.01	1	19.5	1	122
	77789	103	1995	172.62	175.87	3.05	1.2	0.34	188	145	2.7	3	2.04	0.1	11	20	836	4.03	3	0.27	2	1.02	277	6	0.02	16	1200	51	1	1	83	1	0.01	1	20.4	1	70
	78256	110	1995	26.52	29.57	3.05	1.3	0.3	93	73	1.9	1	0.92	0.1	12	31	1735	3.43	1	0.24	1	0.32	152	33	0.01	12	820	52	14	1	6	1	0.01	1	5.1	2	43
	78641	114	1995	63.09	66.14	3.05	1.4	0.5	188	72	2.2	1	2.88	0.1	18	69	1369	3.39	1	0.28	3	1.51	394	15	0.01	16	1050	50	6	3	91	1	0.01	1	33.7	4	80
	79783	88	1995	339.85	342.00	2.15	0.1	0.46	1	17	2.3	2	2.25	0.1	11	22	983	4.01	1	0.22	2	0.81	1388	11	0.08	15	1110	62	1	1	48	1	0.01	1	31.1	2	457
	79799	90	1995	35.36	38.40	3.04	0.2	0.25	67	47	2.7	1	0.71	0.1	15	40	1335	5.45	1	0.15	1	0.25	92	13	0.02	28	1040	62	2	1	43	1	0.01	1	6.9	1	43
	79920	92	1995	20.12	23.16	3.04	0.1	0.42	50	33	2.2	1	2.56	0.1	9	27	1285	3.57	1	0.22	2	1.34	755	35	0.01	12	980	53	1	1	65	1	0.01	1	28.2	1	126
	80027	92	1995	331.01	334.04	3.03	1.1	0.57	72	45	2.4	6	2.38	0.1	9	47	691	3.81	2	0.31	3	0.78	859	30	0.12	14	1140	69	5	1	104	1	0.01	1	16.9	4	491
	80138	96	1995	43.89	47.55	3.66	1.2	0.31	168	69	2.8	7	2.46	0.1	16	22	652	4.44	2	0.21	2	1.14	849	10	0.01	17	1020	92	41	1	49	1	0.01	1	16	2	234
	61160	113	1995	145.08	148.13	3.05	0.4	0.55	87	58	2.6	1	2.44	0.1	13	38	1050	4.26	1	0.34	1	1.16	198	12	0.01	14	1180	46	1	1	53	1	0.01	1	25.4	1	31
	81317	116	1995	87.17	90.22	3.05	1.6	0.41	217	72	2.5	1	2.67	0.1	10	30	1400	3.66	4	0.24	2	1.23	278	15	0.02	14	1240	48	3	3	90	1	0.01	1	30.1	2	23
	81457	119	1995	116.13	119.16	3.05	1.3	0.55	160	91	2.6	1	2.68	0.1	14	28	1361	4.06	2	0.29	3	1.27	317	10	0.03	14	1300	55	1	3	85	1	0.01	1	32.5	2	63
	61604	125	1995	233.46	236.52	3.04	0.2	0.35	37	282	1.8	1	2.84	0.1	7	19	1385	2.5	1	0.19	1	1.07	900	1	0.09	10	1270	34	1	1	136	1	0.01	1	40.4	1	46
	81934	127	1995	105.46	108.20	2.74	0.6	0.4	107	79	2.3	2	2.99	0.1	10	32	809	3.53	1	0.16	2	1.3	912	11	0.07	15	1180	48	19	2	103	1	0.01	1	44.1	2	267
	82279	132	1995	240.18	242.62	2.44	1.3	0.39	158	107	2.3	1	3	0.1	12	30	1084	3.63	1	0.27	1	1.38	580	7	0.06	16	920	57	1	3	94	1	0.01	1	23.6	1	72

Appendix XIII

AMERICAN BULLION MINERALS LTD.
RED CHRIS PROPERTY

WASTE CHARACTERIZATION PROGRAM
MULTIELEMENTAL (ICP) DATA

Rock Type	Sample Number	Hole Number	Year	From (m)	To (m)	Length (m)	Ag (ug/g)	Al (%)	As (ug/g)	Ba (ug/g)	Be (ug/g)	Bi (ug/g)	Ca (%)	Cd (ug/g)	Co (ug/g)	Cr (ug/g)	Cu (ug/g)	Fe (%)
Main Phase (Main Zone cont'd)																		
	83024	131	1995	139.29	142.34	3.05	0.8	0.43	89	78	2.1	8	2.76	0.1	10	23	273	3.24
	92046	133	1995	120.40	123.44	3.04	1	0.38	92	101	2.2	1	2.1	0.1	14	18	1198	3.98
	92265	135	1995	267.00	270.05	3.05	0.1	0.7	1	57	2.6	1	2.74	0.1	12	21	1749	4.28
	92316	138	1995	44.50	47.55	3.05	0.6	0.38	124	60	2.4	7	2.64	0.1	9	19	212	3.77
	93195	153	1995	194.16	197.20	3.04	0.6	0.38	141	121	2.2	1	2.89	0.1	10	25	1484	3.38
	93336	154	1995	154.53	157.58	3.05	0.1	0.3	32	42	1.6	1	2.87	0.1	8	17	1881	2.22
	93466	157	1995	133.20	136.25	3.05	0.1	0.25	63	164	1.7	1	2.77	0.1	8	20	976	2.94
	93784	163	1995	25.91	29.26	3.35	0.1	0.27	100	70	3	3	2.93	0.1	14	23	615	5.71
	93987	166	1995	111.86	114.91	3.05	0.5	0.46	25	156	2.1	2	2.68	0.1	11	22	665	3.78
	94198	169	1995	205.89	208.94	3.05	0.4	0.33	116	92	2.4	2	2.7	0.1	16	41	924	3.68
	96590	134	1995	252.07	255.12	3.05	1.6	0.52	170	95	2.4	2	2.75	0.1	12	36	846	3.62
	96889	139	1995	23.47	26.51	3.04	3.9	0.39	99	45	2.8	3	2.74	0.1	16	34	942	4.77
	97502	146	1995	200.25	203.30	3.05	1.1	0.46	142	67	2.6	3	2.67	0.1	13	21	1224	4.56
	97607	147	1995	194.16	196.60	2.44	0.3	0.53	1	69	1.1	4	3.68	0.1	5	27	184	1.77
	80653 Dup.	104	1995	50.60	53.34	2.74												
Main Phase (Gully Zone)																		
	45556	207	1995	135.84	139.29	3.65	0.4	0.49	34	155	2.5	3	3.36	0.1	13	19	529	3.74
	95197	189	1995	144.78	147.22	2.44	0.1	0.35	1	211	2	1	2.66	0.1	7	19	1532	3.12
	95265	192	1995	44.81	47.85	3.04	0.1	0.32	1	237	2.1	1	2.97	0.1	8	16	1541	2.98
	97722	148	1995	171.30	172.62	1.52	0.4	0.9	1	177	2.1	1	2.75	0.1	10	22	1617	3.64
	97774	150	1995	84.43	87.48	3.05	0.6	0.23	1	79	2.1	1	2.77	0.1	7	26	1031	3.69
	97831	150	1995	245.97	249.02	3.05	0.1	0.23	1	127	1.9	1	2.7	0.1	8	17	1197	2.6
	99190	168	1995	249.02	252.07	3.05	0.1	0.2	1	72	3.7	2	1.22	0.1	12	21	1790	6.58
	99317	170	1995	313.03	316.08	3.05	0.1	0.87	1	328	3	9	3.1	0.1	12	43	60	5
	99364	173	1995	99.67	102.72	3.05	0.1	0.4	14	91	2.3	8	3.42	0.1	9	26	275	3.77
	99456	176	1995	38.71	41.76	3.05	0.1	0.94	1	96	2.8	6	2.5	0.1	13	23	403	4.21
Late Phase Dykes																		
	47047	204	1995	160.63	163.68	3.05	0.1	0.98	1	170	2.4	8	3.26	0.1	10	16	50	3.68
	47237	208	1995	363.13	366.16	3.05	0.1	0.39	11	147	2.6	7	3.28	0.1	12	27	195	4.08
	76651	85	1995	300.69	303.73	3.04	0.2	0.37	78	59	1.7	1	2.18	0.1	7	43	296	2.38
	78393	111	1995	24.99	28.04	3.05	0.2	0.54	54	209	2.3	5	2.66	0.1	12	34	155	3.43
	79013	77	1995	41.45	44.50	3.05	0.1	0.33	35	125	2	1	2.37	0.1	7	11	172	3.05
	80513	101	1995	38.10	41.15	3.05	0.3	0.47	91	493	2.3	7	2.46	0.1	11	17	70	3.13
	80638	104	1995	14.02	17.07	3.05	2	0.38	161	46	2.8	6	1.2	0.1	14	41	764	4.4
	80801	106	1995	101.19	104.24	3.05	1.7	0.71	94	107	2.8	5	1.37	0.1	19	29	1047	4.67
	81151	113	1995	59.74	62.79	3.05	0.5	0.4	120	82	2.5	4	2.25	0.1	15	51	286	4.31
	81321	118	1995	99.36	102.41	3.05	1.9	0.31	256	56	3.1	3	2.38	0.1	16	37	1597	5.42
	81437	119	1995	64.92	67.97	3.05	1.3	0.36	225	61	2.5	6	2.67	0.1	10	23	73	3.73
	81593	122	1995	29.26	32.00	2.74	0.1	0.4	212	78	3.4	7	4.41	0.1	36	128	189	5.11
	92185	135	1995	56.69	59.74	3.05	1.3	0.42	161	48	2.3	7	2.73	0.1	11	21	365	3.76
	93423	157	1995	20.42	23.47	3.05	0.1	0.32	1	102	2.3	3	2.68	0.1	11	14	134	3.82
	94362	171	1995	268.65	291.69	3.04	0.6	0.28	154	103	2.3	5	2.79	0.1	10	10	101	3.32
	94413	172	1995	14.33	17.37	3.04	0.1	0.83	1	116	2	5	2.9	0.1	9	25	16	2.98
	95112	187	1995	163.68	166.73	3.05	0.1	0.27	29	73	2.7	6	3.02	0.1	11	7	107	4.16
	95380	193	1995	23.47	26.52	3.05	0.1	0.45	1	87	2.8	8	1.13	0.1	14	7	114	4.65
	96043	186	1995	163.68	168.73	3.05	0.4	0.28	37	106	2.3	6	1.3	0.1	9	24	32	4.15
	96764	136	1995	239.86	242.93	3.05	1.8	0.35	328	129	2.7	4	4.48	0.1	10	30	621	4.54
	96820	137	1995	20.42	23.47	3.05	0.7	0.44	50	61	2.1	7	1.33	0.1	11	17	36	3.47
	97690	148	1995	81.38	84.43	3.05	1.5	0.22	4	131	2.3	3	1.02	0.1	13	24	784	3.77
	93613	159	1995	29.57	32.61	3.04	0.6	0.18	1	99	2.1	4	2.24	0.1	9	17	151	3.78
	96560	134	1995	163.68	166.73	3.05	1.3	0.32	89	118	2.1	1	0.72	0.1	16	37	1604	3.82
	99652	179	1995	209.40	212.45	3.05	0.4	0.36	2	79	2	3	3.2	0.1	9	29	355	3.24
	79013 Dup.	77	1995	41.45	44.50	3.05												
	93613 Dup.	159	1995	29.57	32.61	3.04												
	96560 Dup.	134	1995	163.68	166.73	3.05												
	99652 Dup.	179	1995	209.40	212.45	3.05												

Sample Number	Ga (ug/g)	K (%)	Li (ug/g)	Mg (%)	Mn (ug/g)	Mo (ug/g)	Na (%)	Ni (ug/g)	P (ug/g)	Pb (ug/g)	Sb (ug/g)	Sn (ug/g)	Sr (ug/g)	Th (ug/g)	Ti (%)	U (ug/g)	V (ug/g)	W (ug/g)	Zn (ug/g)
Main Phase (Main Zone cont'd)																			
83024	2	0.26	2	1.13	892	5	0.05	16	900	44	1	1	94	1	0.01	1	18.1	1	41
92046	1	0.25	1	0.67	473	33	0.02	17	1080	55	1	1	63	1	0.01	1	13.4	1	88
92265	1	0.15	5	1.29	1766	13	0.08	19	1270	125	3	1	124	1	0.01	1	53.2	2	892
92316	1	0.21	1	1.19	643	2	0.03	14	1150	68	1	1	73	1	0.01	1	15.1	1	143
93195	1	0.22	1	1.29	299	25	0.07	10	1150	46	1	2	109	1	0.01	1	24.1	1	62
93336	1	0.22	1	0.93	342	30	0.03	8	1070	36	1	3	131	1	0.01	1	10.9	1	59
93466	1	0.22	1	0.89	439	16	0.05	10	1010	46	1	1	616	1	0.01	1	15.4	1	60
93784	1	0.27	1	1.19	1290	17	0.02	19	1070	77	1	1	62	1	0.01	1	17.6	1	77
93987	1	0.15	3	0.84	655	5	0.02	13	1340	57	1	1	699	1	0.01	1	24.4	1	186
94198	1	0.16	2	0.92	607	35	0.02	17	1230	57	1	1	775	1	0.01	1	19.7	2	80
96590	4	0.23	3	1.13	169	24	0.04	13	1360	45	1	1	92	1	0.01	1	36.4	2	30
96889	1	0.24	1	1.2	936	8	0.01	25	1350	85	1	1	31	1	0.01	1	29.9	2	172
97502	1	0.22	3	1.09	635	4	0.07	17	1360	62	1	1	101	1	0.01	1	41	1	69
97607	1	0.11	5	0.6	1068	20	0.04	9	940	38	3	1	679	1	0.01	1	24.9	1	334
80653 Dup.																			
Main Phase (Gully Zone)																			
45556	1	0.23	2	1.14	771	9	0.03	13	1260	68	1	1	592	1	0.01	1	31.2	1	145
95197	1	0.25	1	0.71	1092	3	0.06	12	920	51	1	1	147	1	0.01	1	21.3	1	100
95265	1	0.25	1	0.89	1371	15	0.04	14	850	79	1	1	185	1	0.01	1	7.2	1	206
97722	1	0.2	10	0.81	732	7	0.07	13	1360	49	2	1	337	1	0.01	1	41.2	1	71
97774	1	0.22	1	0.43	961	3	0.03	13	1150	125	1	1	438	1	0.01	1	7.9	1	719
97831	1	0.23	1	0.93	1221	8	0.06	10	940	46	1	3	646	1	0.01	1	10.7	1	117
99190	1	0.21	1	1.04	2541	7	0.02	30	860	93	35	1	38	1	0.01	1	14.7	1	112
99317	1	0.23	6	2.2	2496	1	0.08	25	1120	64	1	3	85	1	0.01	1	55.5	2	102
99364	1	0.26	3	1.16	1576	23	0.04	16	1280	63	1	2	522	1	0.01	1	34.6	1	243
99456	1	0.13	10	1.41	1421	10	0.03	16	1480	67	1	1	51	1	0.01	1	64.2	1	149
Late Phase Dykes																			
47047	1	0.21	9	1.03	2906	3	0.05	17	1380	70	3	1	217	1	0.01	1	38	2	168
47237	1	0.22	1	1.22	1639	2	0.05	17	1220	150	5	1	656	1	0.01	1	22.7	1	279
76651	1	0.15	2	0.95	293	11	0.04	13	910	35	1	2	65	1	0.01	1	18	2	52
78393	1	0.29	3	1.16	626	3	0.01	12	1290	52	4	1	94	1	0.01	1	23.6	2	105
79013	1	0.16	1	1.11	557	1	0.02	11	790	80	8	1	95	1	0.01	1	12	1	534
80513	1	0.19	4	1.17	909	3	0.01	14	1330	50	2	1	171	1	0.01	1	49.9	2	182
80638	5	0.22	3	0.52	217	17	0.01	18	990	88	25	1	25	1	0.01	1	8.8	2	108
80801	6	0.38	3	0.45	126	18	0.01	14	1380	58	6	1	53	1	0.01	1	18.4	2	41
81151	1	0.24	1	0.96	251	8	0.01	14	1210	53	1	1	33	1	0.01	1	8.6	2	50
81321	6	0.24	2	0.9	211	15	0.02	18	1050	63	1	1	65	1	0.01	1	13	2	31
81437	2	0.18	2	1.57	488	3	0.01	15	1110	68	3	1	132	1	0.01	1	9.5	1	147
81593	1	0.06	3	3.23	1786	1	0.01	93	2180	60	1	6	139	1	0.01	1	88.1	4	271
92185	3	0.22	2	1.08	609	10	0.02	15	1120	64	1	1	33	1	0.01	1	19.8	1	55
93423	1	0.21	1	0.87	871	3	0.01	13	1310	64	1	1	61	1	0.01	1	19.7	1	217
94362	1	0.16	1	1.02	593	1	0.03	18	990	62	1	1	169	1	0.01	1	12.8	1	157
94413	1	0.14	6	0.97	1001	2	0.03	15	1030	46	2	2	97	1	0.01	1	40.5	1	78
95112	1	0.18	1	0.66	1522	2	0.06	16	1300	108	3	1	211	1	0.01	1	8.3	1	325
95380	1	0.2	3	0.58	1656	2	0.02	18	1400	91	1	1	4	1	0.01	1	12.7	1	216
96043	1	0.18	1	0.26	191	1	0.03	12	1040	61	1	1	754	1	0.01	1	2.6	1	131
96764	1	0.21	2	2.85	666	5	0.05	17	710	59	1	5	69	1	0.01	1	16.7	1	89
96820	1	0.26	1	0.51	603	1	0.01	14	1230	109	2	1	41	1	0.01	1	9.7	1	690
97690	1	0.21	1	0.33	859	17	0.03	17	1120	78	3	1	710	1	0.01	1	4.5	1	580
93613	1	0.14	1	0.17	483	3	0.01	13	950	76	1	1	799	1	0.01	1	1.4	1	308
96560	4	0.22	2	0.22	72	52	0.03	13	920	54	3	1	44	1	0.01	1	3.7	1	52
99652	1	0.15	1	0.51	484	4	0.06	11	990	56	1	1	530	1	0.01	1	5.1	1	287
79013 Dup.																			
93613 Dup.																			
96560 Dup.																			
99652 Dup.																			

Appendix XV

A GEOSTATISTICAL RESOURCE EVALUATION

of

THE RED CHRIS COPPER-GOLD DEPOSIT

for

AMERICAN BULLION MINERALS LTD.

by

G.H. Giroux, P.Eng., MASc.
Montgomery Consultants Ltd.

February 12, 1996
Ammended February 28, 1996

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APPENDICES

1.0 SUMMARY AND CONCLUSIONS

At the request of American Bullion Minerals Ltd. an update of the geological resource was calculated for the Red Chris Porphyry Copper-Gold Deposit incorporating the 1995 drill results. This resource estimate represents an audit of the resouce evaluation completed by Fluor Daniel Wright Ltd.

The deposit is located approximately 10 km east of the Stewart-Cassiar Highway, near the community of Iskut and 200 km by road north of the port of Stewart. The deposit is hosted by the elongate monzodiorite Red Stock containing a pervasive phyllitic alteration and both fracture controlled and disseminated copper-gold mineralization.

Data for this study was provided by American Bullion in the form of 244 drill holes with gold and copper assays. A specific gravity established in 1995 as 2.79 and based on a total of 2,604 specific gravity measurements was used in tonnage calculations.

The geology was simplified for the resource evaluation into three rock types: plutonic plagioclase hornblende main phase porphyry (PPHM containing most of the mineralization), plutonic plagioclase hornblende late phase porphyry (PPH2) and volcanic units (VOLC). These rock domains were digitized from cross sections with contacts transferred to level plans. The level plans were then interpreted and digitized to produce a three dimensional geologic block model for blocks 20 x 20 x 15 m. in dimension.

Variography indicated a anisotropic spherical models for both copper and gold with longest ranges down dip and at azimuth 090 in the Main Zone and 045 in the East Zone.

Grades for copper and gold were interpolated by ordinary kriging for each block in the geologic model coded as main phase porphyry, late phase porphyry and volcanic. Three separate estimates were completed to test the sensitivity to search distances and capping of composite grades. A final estimate was completed using search radius of 150 m. along strike, 100 m. down dip and 100 m. across dip. Composites were capped at 1.5 % Cu and 1.5 g Au/t. In an attempt to better define inferred material within the geologic model the search radii were doubled if a minimum 3 composits were not found. Blocks were classified as measured, indicated and inferred based on the distance from the block centroid to the nearest composite used to estimate the block. The results are summarized for a series of Cu cutoffs below for all zones.

Cu Cutoff (%)	Classification	Tonnes	Cu (%)	Au (g/t)
0.20	Measured	87,100,000	0.394	0.309
	Indicated	696,300,000	0.347	0.294
	Measured+Indicated	783,400,000	0.352	0.296
	Inferred	478,200,000	0.333	0.288
0.25	Measured	69,400,000	0.437	0.339
	Indicated	533,800,000	0.384	0.326
	Measured+Indicated	603,200,000	0.390	0.327
	Inferred	389,800,000	0.357	0.311
0.30	Measured	53,200,000	0.486	0.378
	Indicated	387,500,000	0.426	0.362
	Measured+Indicated	440,700,000	0.433	0.364
	Inferred	279,100,000	0.390	0.344
0.35	Measured	39,200,000	0.545	0.418
	Indicated	266,500,000	0.472	0.401
	Measured+Indicated	305,700,000	0.481	0.403
	Inferred	186,200,000	0.423	0.384
0.40	Measured	29,800,000	0.599	0.456
	Indicated	177,500,000	0.521	0.440
	Measured+Indicated	207,300,000	0.532	0.442
	Inferred	109,000,000	0.459	0.404
0.45	Measured	22,900,000	0.652	0.501
	Indicated	113,700,000	0.577	0.483
	Measured+Indicated	136,600,000	0.589	0.486
	Inferred	58,100,000	0.494	0.401
0.50	Measured	18,400,000	0.696	0.540
	Indicated	77,300,000	0.626	0.529
	Measured+Indicated	95,700,000	0.639	0.531
	Inferred	21,900,000	0.537	0.461

To allow for a comparison with a Fluor Daniel Wright estimate a conversion to an NSR value was produced using an equation supplied by FDW (NSR (Can.$) = 16.96 x Cu + 10.18 x Au) A table with similar cutoffs in NSR terms is shown below.

NSR CAN $	Classification	Tonnes	Cu (%)	Au (g/t)
5.00	Measured	88,790,000	0.388	0.315
	Indicated	733,400,000	0.336	0.302
	Measured+Indicated	822,190,000	0.342	0.303
	Inferred	495,700,000	0.326	0.291
6.00	Measured	73,100,000	0.424	0.346
	Indicated	586,800,000	0.367	0.331
	Measured+Indicated	659,900,000	0.373	0.333
	Inferred	416,900,000	0.348	0.311
7.50	Measured	52,630,000	0.483	0.400
	Indicated	406,100,000	0.414	0.377
	Measured+Indicated	458,730,000	0.422	0.380
	Inferred	279,100,000	0.386	0.359
9.00	Measured	37,720,000	0.545	0.456
	Indicated	267,300,000	0.465	0.430
	Measured+Indicated	305,020,000	0.475	0.433
	Inferred	190,400,000	0.419	0.398
10.00	Measured	30,070,000	0.588	0.494
	Indicated	202,300,000	0.498	0.462
	Measured+Indicated	232,370,000	0.510	0.466
	Inferred	147,000,000	0.438	0.413
11.00	Measured	24,470,000	0.629	0.526
	Indicated	146,400,000	0.535	0.500
	Measured+Indicated	170,870,000	0.548	0.504
	Inferred	84,900,000	0.459	0.453
12.00	Measured	19,850,000	0.670	0.562
	Indicated	106,000,000	0.573	0.537
	Measured+Indicated	125,850,000	0.588	0.541
	Inferred	46,100,000	0.485	0.486

A comparison of Fluor Daniel Wright Proven/Probable reserves with the MCL measured plus indicated resource showed MCL calculated more tonnes with the larger search area and lower grades with the capping of composites. The differences are still diffilcult to evaluate because they compare different volumes of material. To test the two methods effectively they both should be compared within the same volume ie. the optimized open pits.

A series of plots showing tonnages, average NSR values, average copper values and average gold values as a function of depth showed there is excellent potential to increase the size of the pit by additional drilling at depth. Higher than average grades exist below the current pit but are not included in the pit optimization because they are classed as inferred. The increased strip required to dig these blocks may still exclude them from the pit but a test optimization run using the inferred blocks should be completed to see if the additional drilling is warrented.

2.0 INTRODUCTION

At the request of Wayne Roberts of American Bullion Minerals Ltd. a geologic resource evaluation was completed for the Red Chris Porphyry Copper-Gold Deposit south of Dease Lake near Iskut, B.C. The data was provided by American Bullion and consisted of drill hole location information, assays for copper and gold and geologic data. No site visit was made. The purpose of this estimate was to update a previous estimate (Giroux, 1995), made in February 1995 incorporating the 1995 drill data. For this resource estimate geology as digitized by Fluor Daniel Wrights Ltd. ("FDW") was used to control the estimation process. The grade block model produced is suitable for input into open pit optimization software to produce a minable resource.

3.0 DATA ANALYSIS

Data was provided by American Bullion in the form of collar coordinates, down hole survey information, assay information and down hole geologic information for drill holes numbered 1 to 244.

Drill hole data was subdivided into main phase porphyry (PPHM), late phase porphyry (PPH2) and volcanics (VOLC) 15 m. composites by FDW. The actual lengths of composites were tested and of the 5068 supplied a total of 1684 or about 33 % were less than 7.5 m. in lenght or less than one half the bench height. This was because composites were formed from lithologies logged in drill core and small intervals of units coded FAUL, PBRN, DQCA, PBRX etc. formed separate composites even though they were within the main digitized units of PPHM, PPH2 and VOLC. Since geostatistical theory and semi-variogram analysis assumes a uniform sample support (ie. composites roughtly the same length), the PPHM unit which forms the vast majority of the data was recomposited to include all small internal units into uniform 15 m. +/- 7.5 m. composites. Small intervals at the end of drill holes or at zone boundaries were combined with the preceeding composite. This resulted in a total of 3567composites for the PPHM zone. A total of 15 composites were coded PPH2 by FDW and 56 were coded as VOLC.

Histograms, log histograms and lognormal cumulative frequency plots were produced for copper and gold within the PPHM composites (see Appendix 1). Results showed both elements were positively skewed with high grade tails. A lognormal conversion showed overlapping lognormal populations.

The distribution of copper within the PPHM unit showed three overlapping lognormal populations. A background populalation representing 15.3 % of the data had a mean of 0.03 % Cu. The main mineralizing event representing 84.6 % of the composites had a mean of .23 % Cu. A small erratic high grade population was present representing .1 % of the data with a mean of 1.16 % Cu and highest composite 2.97 % Cu. A threshold of 1 % was used to cap this high grade population and the upper tail of population 2. A total of 74 composites were effected with an average grade of 1.363 % Cu.

The distribution of gold within PPHM was very similar to copper with four overlapping lognormal populations identified. The lowest two representing a combined 9.6 % of the composites represented background. The main mineralizing event with a mean of 0.163 g Au/t formed 89.7 % of the data. Again a high grade erratic population was present representing .74 % of the data with highest value 2.714 g Au/t. A threshold of 0.78 g Au/t was used to cap this high grade population and the upper tail of population 2. A total of 104 compoistes were capped with an average grade of 1.23 g Au/t.

No duplicate analysis were evaluated for this study.

4.0 SEMI-VARIOGRAM MODELLING

4.1 Copper

Composites from the Main Phase Porphyry with less than 1.0 % Cu were used to model copper as this distribution of copper grades represented the main mineralizing event. In addition the deposit was subdivided into a Main zone and East zone based on location relative to 50650 E.

Relative semi-variograms were produced in four horizontal directions within the Main Zone and from these a geometric anisotropy was modelled with longest range of 200 m. in Azimuth 090 and shortest range of 60 m. in Azimuth 000. Looking in the vertical plane along azimuth 090 the maximum range was 450 m. at -45 N. Simple spherical models were used to fit the data. The semi-variograms are included as Appendix 2 with parameters summarized below.

Nugget Effect (C0)	-	0.200		
Structure (C1)	-	0.800	-	Range 200 m. at Az. 090
			-	Range 180 m. at Az. 090 -45 S
			-	Range 450 m. at Az. 090 -45 N

Relative semi-variograms were also produced in four horizontal directions within the East Zone and from these a geometric anisotropy was modelled with longest range of 120 m. in Azimuth 045 and shortest range of 70 m. in Azimuth 135. Looking in the vertical plane along azimuth 045 the maximum range was 300 m. at -45 NW. Simple spherical models were used to fit the data. The semi-variograms are included as Appendix 2 with parameters summarized below.

Nugget Effect (C0)	-	0.100		
Structure (C1)	-	0.700	-	Range 120 m. at Az. 045
			-	Range 200 m. at Az. 045 -45 SE
			-	Range 300 m. at Az. 045 -45 NW

4.2 Gold

Composites from the Main Phase Porphyry with gold values less than 0.78 g Au/t were used to model gold. As with copper a geometric anisotropy was present in the horizontal plane with longest range of 160 m. at azimuth 090 and shortest range of 50 m. at azimuth 000. In the vertical plane along azimuth 090 the maximum range of 350 m. was at -45 N. The relative semi-variograms are shown in Appendix 3 with parameters summarized below.

Nugget Effect (C0)	-	0.200
Structural Component (C1)	-	0.600
Range	-	160 m. at azimuth 090
	-	180 m. at azimuth 090 -45 S
	-	350 m. at azimuth 090 -45 N.

Again the East Zone gold semi-variograms showed a similar geometric anisotropy as copper with longest range in the horizontal plane of 150 m. at azimuth 045 and shortest of 100 m. at azimuth 135. The vertical plane along azimuth 045 showed the longest range of 250 m. at -45 NW. All models are shown in Appendix 3 and the parameters are summarized below.

Nugget Effect (C0)	-	0.100
Structural Component (C1)	-	0.600
Range	-	150 m. at azimuth 045
	-	100 m. at azimuth 045 -45 SE
	-	250 m. at azimuth 045 -45 NW

Units PPH2 and VOLC had too few composites to model so the models for copper and gold in PPHM were used.

5.0 BLOCK MODELLING BY KRIGING

5.1 Geologic Block Model

A geologic block model was created by FDW from sections and level plans produced by American Bullion. Polygons representing the three main rock types were digitized from level plans at 15 m. intervals. A block model with blocks 20 x 20 x 15 m. in dimension, was superimposed on the three dimensional geologic solids based on the following coordinates.

NW Corner of block grid	48,000 E	101,000 N
SE Corner of block grid	51,500 E	98,400 N
Top level	Crest - 1725	Toe - 1710
Bottom level	Crest - 915	Toe - 900
175 blocks E-W	130 Blocks N-S	55 Benches

5.2 Sensitivity Results

The model was first run by Fluor Daniel Wright using inverse distance cubed interpolation and a search radius of 100 m. at azimuth 080, 75 m. at azimuth 350 and 75 m. vertical. Compoistes were length weighted to account for the shorter than average lengths. The results are presented in Table 1 for various Cu cutoffs. The purpose of this study was to audit these results and as a result several runs were made to test the sensitivity of the resource to high grades composites and search strategies. In addition as mentioned in earlier sections the compositing was done in a different manner for the PPHM zone composites and semi-variograms indicated different anisotropacies than were used in the FDW estimate.

The method for grade interpolation used for the sensitivity runs was ordinary kriging. Based on the geologic block model an estimate was attempted for each block with codes PPHM, PPH2 or VOLC if the appropriate composites from a minimum of 2 drill holes were found within a search radius of 150 m along strike, 100 m. down dip and 70 m. across dip. If the mimimum number of composites were not found the block was not estimated. The

AMERICAN BULLION MINERALS LTD. RED CHRIS PROJECT
Preliminary insitu geological resource estimate
January 3, 1995

Zone	Main	West/ Gully	Total
0.10% Cu cutoff grade			
Tonnes (millions)	701	192	893
Copper grade (% Cu)	0.30%	0.22%	0.28%
Gold grade (grams/tonne)	0.24	0.26	0.24
0.15% Cu cutoff grade			
Tonnes (millions)	596	123	719
Copper grade (% Cu)	0.33%	0.27%	0.32%
Gold grade (grams/tonne)	0.26	0.30	0.27
0.20% Cu cutoff grade			
Tonnes (millions)	489	80	569
Copper grade (% Cu)	0.36%	0.32%	0.36%
Gold grade (grams/tonne)	0.29	0.34	0.30
0.25% Cu cutoff grade			
Tonnes (millions)	377	55	433
Copper grade (% Cu)	0.40%	0.37%	0.40%
Gold grade (grams/tonne)	0.33	0.36	0.33
0.30% Cu cutoff grade			
Tonnes (millions)	278	41	319
Copper grade (% Cu)	0.45%	0.41%	0.45%
Gold grade (grams/tonne)	0.37	0.38	0.37
0.35% Cu cutoff grade			
Tonnes (millions)	200	29	229
Copper grade (% Cu)	0.50%	0.45%	0.49%
Gold grade (grams/tonne)	0.42	0.40	0.41
0.40% Cu cutoff grade			
Tonnes (millions)	140	21	161
Copper grade (% Cu)	0.56%	0.48%	0.55%
Gold grade (grams/tonne)	0.46	0.42	0.45
0.45% Cu cutoff grade			
Tonnes (millions)	103	14	117
Copper grade (% Cu)	0.61%	0.51%	0.60%
Gold grade (grams/tonne)	0.51	0.44	0.50
0.50% Cu cutoff grade			
Tonnes (millions)	77	7	85
Copper grade (% Cu)	0.66%	0.54%	0.65%
Gold grade (grams/tonne)	0.55	0.47	0.54

TABLE 1

results are summarized as a grade-tonnage tables for a range of copper cutoff values for each rock type in Tables 2. Gold values contained within the blocks above each cutoff interval are shown. and plotted on grade tonnage curves as Case 1 (Figures 1-3).

A second estimate was run shortening the search radii in each direction to match closer the serarch used in the Fluor Daniel Wright inverse distance squared estimate. This estimate called Case 2 searched for composites from a minimum 2 drill holes within a radius of 100 m. along strike, 75 m. down dip and 75 m. across dip. These results are presented as Table 3 and shown on Figures 1-3 as Case 2.

A third estimate was completed to test the grade sensitivity of capping high grade values at 1% Cu and 0.78 g Au/t. For this estimate a similar search criteria as used in Case 2 of 100 x 75 x 75 m. was used but high grade values were not capped. These results are presented as Table 4 and shown on Figures 1-3 as Case 3.

The effects of reducing the search radius is shown in Figure 1. Case 1 with the larger search ellipse produces 23 % more tonnes at a .2 % Cu cutoff and 17 % more tonnes at a .5 % Cu Cutoff than Case 2. These effects are more pronounced at lower grades with more low grade fringe material estimated with the larger search. It is worth noting, however, that even with the larger search ellipse a significant number of blocks within the geologic model were not estimated. The tonnages produced from the FDW model, which used a search of 100 m. E-W, 75 m. N-S and 75 m. vertical, fall between the two kriging estimates.

The effects of capping 74 copper grades or 2 % of the composites is shown by comparing estimates using capped (Cases 1 and 2) versus non capped composites (Cases 3 and FDW in Figure 2). The curves show a more or less consistant 4-5% decrease in copper grades is produced by capping samples at 1 % Cu. In terms of contained copper at a .2 % Cu cutoff the difference between the FDW estimate of 205 million tonnes of copper and the capped Case 2 estimate of 184 million tonnes represents an 11 % decrease.

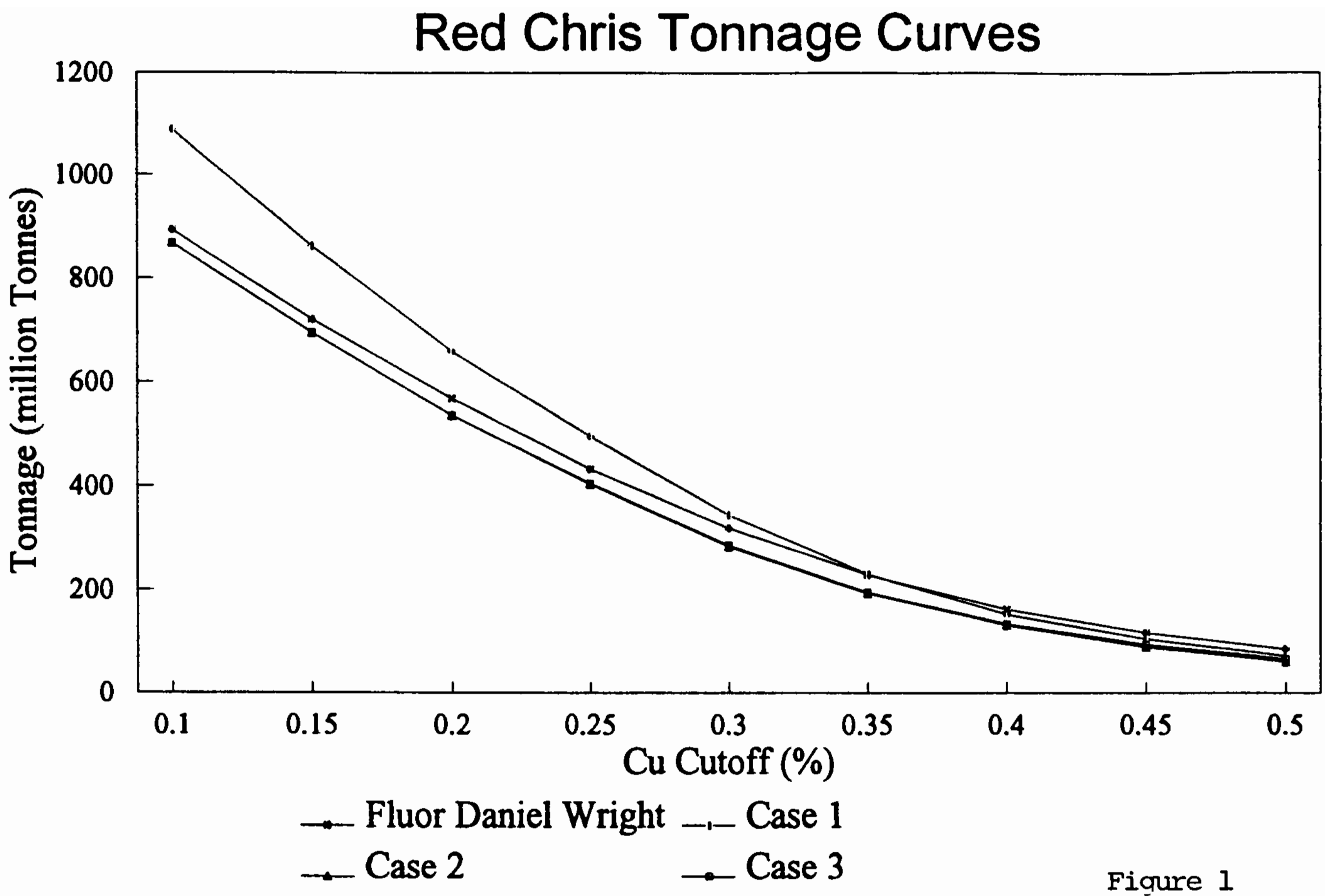


Figure 1

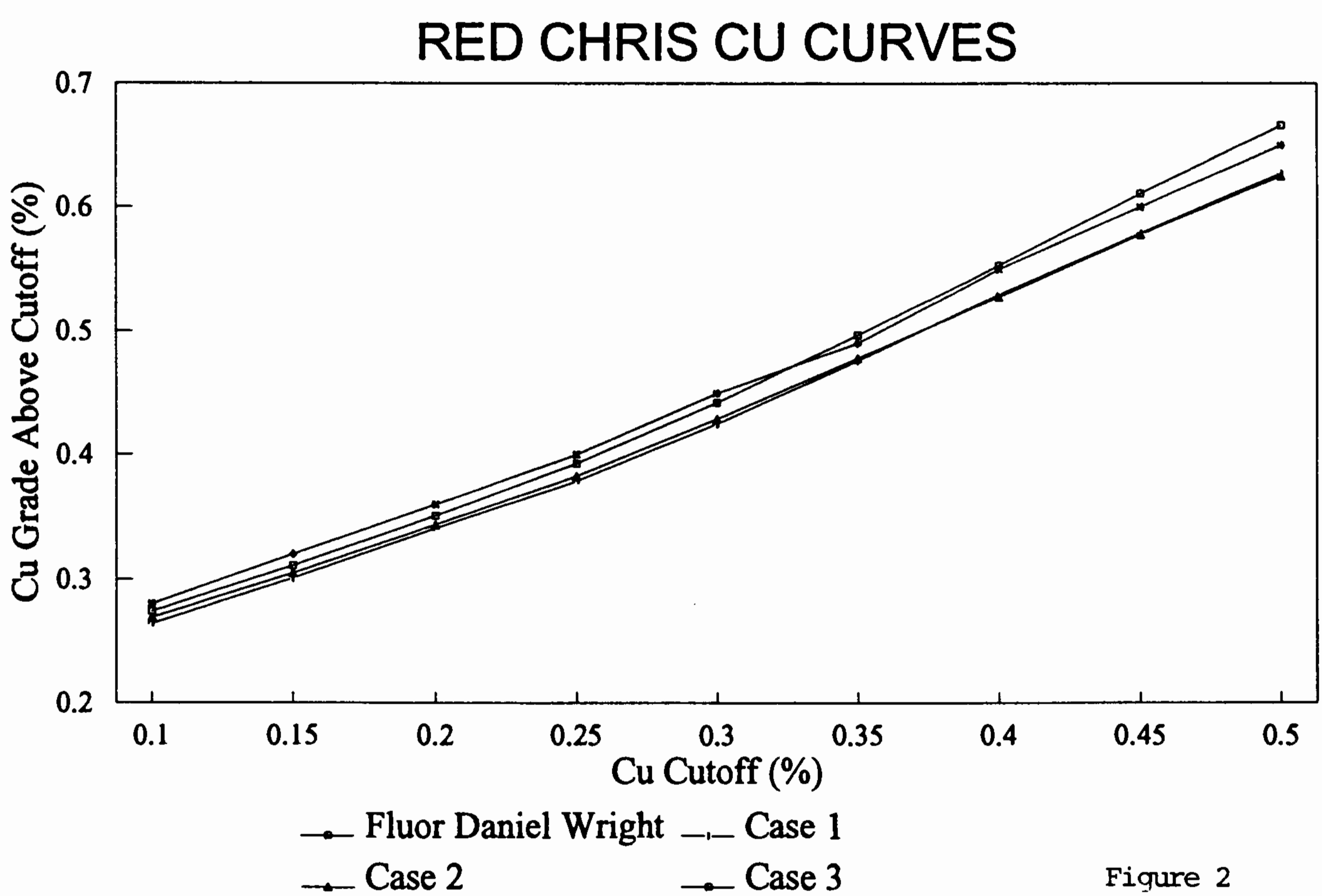


Figure 2

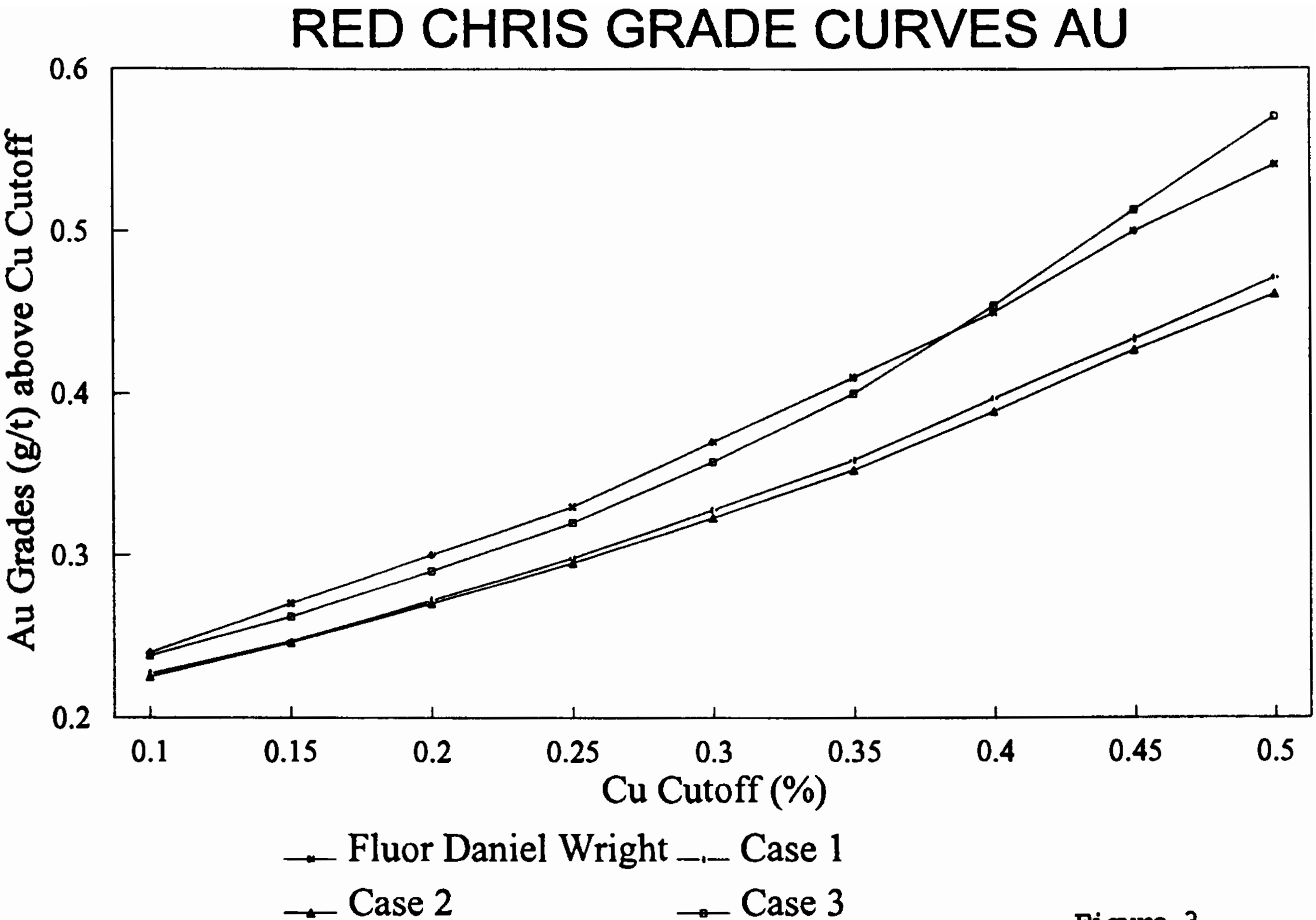

RED CHRIS GRADE CURVES AU
Au Grades (g/t) above Cu Cutoff
0.6
0.5
0.4
0.3
0.2
0.1
0.15
0.2
0.25
0.3
0.35
0.4
0.45
0.5
Cu Cutoff (%)
Fluor Daniel Wright
Case 1
Case 2
Case 3

Figure 3

The effects of capping 104 gold grades or 3 % of the composites are more pronounced as shown in Figure 3 in a comparison of Case 2 results to Case 3 with an 7% decrease at a .2 % Cu cutoff up to a 19 % decrease at a .5 % Cu cutoff. At a .2 % Cu cutoff this represents a decrease of 10.7 million grams or 345,000 ounces.

TABLE 2: Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for All Rock Types Using SG=2.79 Search required minimum 2 drill holes within 150 m. along strike, 100 m. down dip and 70 m. across dip High grade values capped at 1% Cu and 0.78 g Au/t

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	1,088,500,000.	.264	.227
.150	862,000,000.	.301	.247
.200	657,980,000.	.341	.272
.250	494,580,000.	.379	.298
.300	344,430,000.	.425	.328
.350	231,380,000.	.476	.359
.400	151,250,000.	.530	.397
.450	104,220,000.	.579	.434
.500	71,630,000.	.627	.471
.550	49,380,000.	.674	.509
.600	33,460,000.	.722	.551
.650	22,570,000.	.769	.599
.700	16,090,000.	.808	.642
.750	11,270,000.	.845	.679
.800	7,680,000.	.878	.708
.850	5,270,000.	.904	.730
.900	2,810,000.	.929	.746
.950	650,000.	.961	.759

TABLE 3: Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for All Rock Types Using SG=2.79 Search required minimum 2 holes within 100 m. along Strike, 75 m. down dip and 75 m. across dip High grade values capped at 1% Cu and 0.78 g Au/t

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	867,500,000.	.269	.225
.150	693,900,000.	.305	.246
.200	535,600,000.	.344	.270
.250	403,200,000.	.383	.295
.300	283,300,000.	.429	.323
.350	193,300,000.	.478	.353
.400	130,800,000.	.528	.389
.450	88,700,000.	.578	.427
.500	61,400,000.	.625	.461
.550	41,900,000.	.672	.497
.600	29,680,000.	.713	.530
.650	19,400,000.	.760	.572
.700	12,200,000.	.812	.626
.750	8,420,000.	.853	.671
.800	5,890,000.	.887	.700
.850	4,230,000.	.912	.731
.900	2,610,000.	.936	.751
.950	770,000.	.965	.765

TABLE 4: Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for All Rock Types Using SG=2.79 Search required minimum 2 holes within 100 m. along Strike, 75 m. down dip and 75 m. across dip High grade values not capped

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	867,600,000.	.274	.238
.150	694,100,000.	.311	.262
.200	536,100,000.	.351	.290
.250	404,400,000.	.393	.320
.300	285,000,000.	.442	.358
.350	195,900,000.	.497	.400
.400	134,200,000.	.553	.454
.450	92,900,000.	.611	.513
.500	66,300,000.	.666	.570
.550	47,600,000.	.723	.634
.600	35,400,000.	.774	.693
.650	25,200,000.	.835	.770
.700	17,900,000.	.901	.851
.750	13,600,000.	.959	.924
.800	10,800,000.	1.006	.983
.850	8,500,000.	1.056	1.042
.900	7,050,000.	1.093	1.082
.950	5,760,000.	1.131	1.123
1.000	4,570,000.	1.172	1.164
1.100	2,480,000.	1.278	1.236
1.200	1,420,000.	1.375	1.260
1.300	870,000.	1.462	1.292
1.400	385,000.	1.617	1.269
1.500	234,000.	1.730	1.266
1.600	134,000.	1.875	1.324

5.3 Results

Discussions with American Bullion geologists concerning the sensitivity focussed on two issues. Geolgists felt the geologic continuity between drill holes was good within the areas defined as PPHM and as a result felt a larger search and the corresponding estimation of more blocks within the geologic model would be justified. Secondly they felt the capping at 1% Cu and .078 g Au/t was ultra conservative given the grade continuity they see in drill data. A closer examination of the histograms for copper and gold shown in Appendix 1 indicates a more reasonable cap might be 1.5 % Cu and 1.5 g Au/t as the distribution of copper and gold above these levels breaks up into scattered erratic values.

As a result the deposit was again estimated using a search ellipse of 150 m. along strike, 100 m. down dip and 100 m. across dip. In an attempt to fill blocks within the geologic block model the search radius in each direction was doubled if the minimum 2 drill holes were not found. Composites above 1.5 % Cu (23 composites) and above 1.5 g Au/t (26 composites) were capped at these levels.

The results were evaluated on a series of level plans and compared with geologic information. Two problems were identified. First the requirment of a minimum of two holes to estimate a block resulted in gaps with blocks not estimated but containing a single drill hole. A second problem indicated a possible over smoothing in both high and low grade well drilled areas that was probably due to using a maximum of 20 composites. As a result the four benches used to evaluate the interpolation namely 1185, 1290, 1395 and 1500 were kriged again four separate times with the following parameters.

- first a search of 100 x 75 x 75 m. was used with no capping of high grades to compare with the FDW estimate. A minimum of 3 composites within the search area was required to estimate a block and the maximum was left at 20 composites.
- second a search of 100 x 75 x 75 m. was used with no capping of high grades to compare with the FDW estimate but a minimum of 3 composites and a

maximum of 8 composites were used.

- The third run used the larger search of 150 x 100 x 100 with expansion to 300 x 200 x 200 if a minimum 3 composites were not found. The maximum was set at 20 composites.
- Finally the larger search was used with a minimum of 3 composites and maximum of 8.

The results of these four tests were evaluated in plots and in the form of grade-tonnage tables shown as Tables 5 to 8.

By changing the minimum requirement for estimation from 2 holes to 3 composites the gaps containing data were filled and as a result more tonnes estimated. The reduction in the maximum number of composites allowed to estimate a block from 20 to 8 gave better local estimation and less smoothing. The results as shown in the Tables 5 to 8 show fewer tonnes and higher grades at the low cutoff values and more tonnes and slightly lower grades at the high grade cutoffs. This interpretation was considered more realistic when compared to the geologic interpretation and raw data.

The entire deposit was then kriged again with the larger search of 150 x 100 x 100 with expansion to 300 x 200 x 200 if a minimum of 3 composites were not found. The maximum number of composites used was 8. The results are presented as grade-tonnage tables for all rock types within all zones -Table 9, within the Main Zone as Table 10 and within the West/Gully Zone as Table 11.

TABLE 5 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for Main Zone Test Area Using SG=2.79 Using Search of 100 x 75 x 75 m. with High Values Uncapped Minimum 3 composites Maximum 20 composites used (Test Area benches 1185, 1290, 1395 and 1500)

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	95,470,000.	.280	.215
.150	78,760,000.	.313	.239
.200	62,070,000.	.350	.267
.250	46,020,000.	.394	.300
.300	32,460,000.	.445	.341
.350	22,130,000.	.502	.387
.400	15,450,000.	.558	.436
.450	11,230,000.	.610	.482
.500	7,800,000.	.669	.537
.550	5,830,000.	.719	.586
.600	4,420,000.	.766	.624
.650	3,110,000.	.827	.676
.700	2,080,000.	.905	.762
.750	1,610,000.	.957	.818
.800	1,190,000.	1.022	.883
.850	950,000.	1.071	.914
.900	770,000.	1.117	.955
.950	600,000.	1.171	.982
1.000	520,000.	1.204	1.000
1.100	300,000.	1.317	1.118
1.200	270,000.	1.339	1.145
1.300	150,000.	1.405	1.190
1.400	67,000.	1.517	1.178
1.500	33,000.	1.621	.951
1.600	17,000.	1.662	.967

TABLE 6 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for Main Zone Test Area Using SG=2.79 Using Search of 100 x 75 x 75 m. with High Values Uncapped Minimum 3 composites Maximum 8 composites used (Test Area benches 1185, 1290, 1395 and 1500)

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	93,250,000.	.283	.217
.150	76,050,000.	.319	.242
.200	60,920,000.	.355	.270
.250	44,680,000.	.402	.307
.300	31,840,000.	.454	.348
.350	21,080,000.	.521	.400
.400	15,770,000.	.571	.445
.450	11,530,000.	.625	.495
.500	8,400,000.	.682	.554
.550	6,360,000.	.734	.607
.600	4,900,000.	.782	.657
.650	3,730,000.	.832	.716
.700	2,660,000.	.897	.789
.750	1,910,000.	.965	.871
.800	1,510,000.	1.017	.950
.850	1,050,000.	1.097	1.023
.900	887,000.	1.139	1.058
.950	720,000.	1.189	1.131
1.000	636,000.	1.217	1.147
1.100	368,000.	1.334	1.189
1.200	301,000.	1.378	1.255
1.300	234,000.	1.410	1.240
1.400	84,000.	1.516	1.433
1.500	33,000.	1.622	1.706
1.600	33,000.	1.622	1.706

TABLE 7 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for Main Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values Capped at 1.5 % Cu and 1.5 g Au/t Minimum 3 composites Maximum 20 composites used (Test Area benches 1185, 1290, 1395 and 1500)

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	119,200,000.	.263	.198
.150	97,100,000.	.294	.220
.200	74,400,000.	.330	.246
.250	51,700,000.	.377	.284
.300	33,800,000.	.432	.328
.350	21,700,000.	.493	.374
.400	14,300,000.	.554	.421
.450	10,300,000.	.607	.465
.500	7,330,000.	.660	.510
.550	5,290,000.	.713	.560
.600	4,100,000.	.754	.594
.650	2,960,000.	.803	.637
.700	2,040,000.	.862	.718
.750	1,460,000.	.917	.774
.800	1,070,000.	.970	.820
.850	840,000.	1.013	.846
.900	650,000.	1.052	.900
.950	520,000.	1.085	.921
1.000	390,000.	1.125	.936
1.100	180,000.	1.206	1.101
1.200	84,000.	1.250	1.177
1.300	17,000.	1.314	1.183

TABLE 8 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for Main Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values Capped at 1.5 % Cu and 1.5 g Au/t Minimum 3 composites Maximum 8 composites used (Test Area benches 1185, 1290, 1395 and 1500)

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	115,300,000.	.268	.201
.150	93,200,000.	.302	.224
.200	74,100,000.	.335	.248
.250	51,600,000.	.383	.287
.300	34,400,000.	.438	.328
.350	21,300,000.	.510	.383
.400	15,500,000.	.560	.426
.450	10,800,000.	.620	.475
.500	7,930,000.	.674	.525
.550	6,060,000.	.722	.570
.600	4,700,000.	.765	.615
.650	3,530,000.	.813	.673
.700	2,540,000.	.868	.737
.750	1,790,000.	.927	.815
.800	1,410,000.	.970	.881
.850	937,000.	1.041	.942
.900	770,000.	1.076	.980
.950	653,000.	1.103	1.019
1.000	469,000.	1.157	1.051
1.100	234,000.	1.254	1.130
1.200	167,000.	1.289	1.199
1.300	67,000.	1.344	1.312

TABLE 9 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for All Rock Types Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	1,907,000,000.	.278	.246
.150	1,558,000,000.	.312	.269
.200	1,261,000,000.	.345	.293
.250	993,000,000.	.377	.321
.300	720,000,000.	.416	.356
.350	491,800,000.	.459	.396
.400	316,300,000.	.507	.429
.450	194,700,000.	.561	.461
.500	117,500,000.	.621	.518
.550	69,300,000.	.689	.572
.600	44,000,000.	.758	.642
.650	30,700,000.	.817	.704
.700	22,400,000.	.870	.758
.750	16,300,000.	.925	.818
.800	12,400,000.	.972	.865
.850	9,510,000.	1.017	.905
.900	7,300,000.	1.061	.941
.950	5,640,000.	1.102	.978
1.000	4,420,000.	1.138	1.002
1.100	2,610,000.	1.199	1.059
1.200	1,070,000.	1.276	1.159
1.300	335,000.	1.345	1.236
1.400	33,000.	1.407	1.328

TABLE 10 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for Main Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	1,410,000,000.	.292	.245
.150	1,236,000,000.	.316	.264
.200	1,027,000,000.	.344	.289
.250	815,300,000.	.376	.319
.300	592,500,000.	.413	.356
.350	389,100,000.	.460	.405
.400	235,300,000.	.517	.450
.450	138,400,000.	.585	.494
.500	95,900,000.	.636	.538
.550	58,600,000.	.709	.592
.600	41,800,000.	.764	.642
.650	29,700,000.	.821	.703
.700	22,000,000.	.872	.756
.750	16,100,000.	.926	.817
.800	12,400,000.	.973	.864
.850	9,470,000.	1.018	.904
.900	7,300,000.	1.061	.941
.950	5,640,000.	1.102	.978
1.000	4,420,000.	1.138	1.002
1.100	2,610,000.	1.199	1.059
1.200	1,070,000.	1.276	1.159
1.300	330,000.	1.345	1.236
1.400	33,000.	1.407	1.328

TABLE 11 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for West/Gulley Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	497,000,000.	.237	.249
.150	322,200,000.	.299	.285
.200	234,100,000.	.347	.310
.250	177,500,000.	.386	.330
.300	127,200,000.	.431	.355
.350	102,800,000.	.456	.364
.400	81,000,000.	.478	.370
.450	56,300,000.	.501	.378
.500	21,700,000.	.553	.428
.550	10,600,000.	.583	.462
.600	2,210,000.	.655	.649
.650	990,000.	.699	.743
.700	370,000.	.743	.885
.750	120,000.	.790	1.005
.800	33,000.	.863	1.168

5.4 Classification

The Red Chris Deposit can be classified at this time as a geologic resource based on the following definition supplied in the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (1988) :

> *"A 'Resource' is an in situ (meaning as it occurs on surface or underground) mineral occurrence quantified on the basis of geological data and a geological cut-off grade only. The term 'Ore Reserve' will only be used if a study of technical and economic criteria and data relating to the 'Resource' has been carried out and it will be stated in terms of mineable tonnes or volume and grade."*

This definition is similar to the U.S.G.S. definition of an Indicated Resource (1980):

> *"Resources whose location, grade, quality and quantity are known or estimated from specific geologic evidence. Identified resources include economic, marginally economic, and subeconomic components. To reflect varying degrees of geologic certainty, these economic divisions can be subdivided into measured, indicated and inferred."*

Each block can be classified as measured, indicated or inferred based on geologic continuity and the proximity of drill data. The mineralization present within each rock type shows good continuity from hole to hole both along strike and down dip. The principal economic minerals, copper and gold have shown, based on variography within the Main Phase Porphyry in both the Main and East Zones, continuity up to at least 120 m. along strike, at least 180 m. down dip and at least 100 m across dip. Based on the continuity established for both geology and grade a classification scheme based on the anisotropic distance of the nearest composite to the block centroid could be used. By using the anisotropic distance, which will adjust for the different ranges in the directions along strike, down dip and across dip, the true variability of copper and gold is taken into account. The actual distances chosen for the various classes of resource definition will be a function of the range in the direction of maximum continuity. The anisotropic distance calculation will then adjust the distance in terms of this range.

Measured - blocks with at least one data point within a radius from the block centroid defined as 10% of the maximum range for the appropriate variable and zone.

Indicated - blocks with at least one data point within a radius from the block centroid defined as one third or 33% of the maximum range for the appropriate variable and zone.

Inferred - all other blocks estimated or based on the search strategy, blocks with a minimum 2 drill holes within a radius of 100 m. along strike, 75 m. down dip and 75 m. across dip

The terms Measured, Indicated and Inferred are defined by the U.S.G.S. as follows:

The term "Measured Resource" means the *"quantity is computed from dimensions revealed in outcrops, trenches, workings, or drill holes; grade and (or) quality are computed from the results of detailed sampling. The sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth, and mineral content of the resource are well established."*

The term "Indicated Resource" means the *"quantity and grade and (or) quality are computed from information similar to that used for measured resource, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than* *that for measured resources, is high enough to assume continuity between points of observation."*

The term "Inferred Resource" is an *"estimate based on an assumed continuity beyond measured and (or) indicated resources, for which there is geologic evidence. Inferred resources may or may not be supported by samples or measurements."*

The choice of 10 % for measured is roughly the size of mining blocks and the amount of measured material will increase dramatically when the production samples are included in the estimate.

For conversion of the resource to a reserve an economic evaluation needs to be completed using only blocks classified as measured/indicated (ie. a feasibility study). When the pits have been optimized blocks within the pit classed as measured/indicated/inferred status become proven/probable/possible. The term possible reserve is a bit confusing but refers to blocks classed inferred within the pit that could be mined economically but that were not used in the economic evaluation.

The results are presented as grade-tonnage table for the entire deposit Tables 12-14, for the Main Zone Tables 15-17 and for the West/Gully Zone Tables 18-20.

TABLE 12 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for All Rock Types Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Measured (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Grade > Cutoff Au (g/t)
.100	128,200,000.	.315	.256
.150	106,500,000.	.354	.281
.200	87,100,000.	.394	.309
.250	69,400,000.	.437	.339
.300	53,200,000.	.486	.378
.350	39,200,000.	.545	.418
.400	29,800,000.	.599	.456
.450	22,900,000.	.652	.501
.500	18,400,000.	.696	.540
.550	14,060,000.	.750	.581
.600	11,320,000.	.792	.626
.650	8,350,000.	.852	.702
.700	6,600,000.	.900	.757
.750	4,920,000.	.959	.822
.800	3,980,000.	1.003	.865
.850	3,230,000.	1.045	.905
.900	2,680,000.	1.081	.945
.950	2,180,000.	1.117	.983
1.000	1,760,000.	1.151	1.007
1.100	1,160,000.	1.203	1.038
1.200	569,000.	1.266	1.125
1.300	117,000.	1.330	1.145

TABLE 13 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for All Rock Types Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Indicated (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Grade > Cutoff Au (g/t)
.100	1,121,300,000.	.271	.241
.150	884,100,000.	.310	.267
.200	696,300,000.	.347	.294
.250	533,800,000.	.384	.326
.300	387,500,000.	.426	.362
.350	266,500,000.	.472	.401
.400	177,500,000.	.521	.440
.450	113,700,000.	.577	.483
.500	77,300,000.	.626	.529
.550	49,000,000.	.687	.583
.600	31,700,000.	.749	.647
.650	21,900,000.	.806	.705
.700	15,800,000.	.857	.759
.750	11,300,000.	.910	.816
.800	8,420,000.	.958	.865
.850	6,280,000.	1.003	.905
.900	4,620,000.	1.050	.939
.950	3,470,000.	1.093	.974
1.000	2,660,000.	1.130	.999
1.100	1,460,000.	1.196	1.075
1.200	500,000.	1.287	1.197
1.300	218,000.	1.353	1.285
1.400	33,000.	1.407	1.328

TABLE 14 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for All Rock Types Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Inferred (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	657,700,000.	.283	.253
.150	567,700,000.	.308	.269
.200	478,200,000.	.333	.288
.250	389,800,000.	.357	.311
.300	279,100,000.	.390	.344
.350	186,200,000.	.423	.384
.400	109,000,000.	.459	.404
.450	58,100,000.	.494	.401
.500	21,900,000.	.537	.461
.550	6,190,000.	.573	.461
.600	940,000.	.645	.666
.650	390,000.	.679	.719

TABLE 15 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for Main Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Measured (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	107,800,000.	.328	.250
.150	92,400,000.	.361	.274
.200	76,600,000.	.400	.302
.250	61,200,000.	.443	.334
.300	47,200,000.	.494	.373
.350	35,100,000.	.553	.417
.400	26,600,000.	.611	.456
.450	20,700,000.	.664	.500
.500	16,700,000.	.709	.540
.550	13,400,000.	.755	.579
.600	11,000,000.	.795	.623
.650	8,120,000.	.856	.699
.700	6,440,000.	.903	.752
.750	4,850,000.	.962	.819
.800	3,970,000.	1.004	.863
.850	3,210,000.	1.046	.904
.900	2,680,000.	1.081	.945
.950	2,180,000.	1.117	.983
1.000	1,760,000.	1.151	1.007
1.100	1,160,000.	1.203	1.038
1.200	569,000.	1.266	1.125
1.300	117,000.	1.330	1.145

TABLE 17 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for Main Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Inferred (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	447,400,000.	.293	.258
.150	418,200,000.	.304	.268
.200	359,100,000.	.326	.287
.250	295,100,000.	.347	.311
.300	211,500,000.	.376	.346
.350	128,500,000.	.410	.400
.400	61,500,000.	.450	.448
.450	23,700,000.	.503	.484
.500	13,000,000.	.532	.509
.550	1,940,000.	.593	.577
.600	540,000.	.647	.693
.650	218,000.	.682	.751

TABLE 18 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for West-Gulley Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Measured (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	20,470,000.	.249	.285
.150	14,100,000.	.305	.328
.200	10,460,000.	.352	.364
.250	8,190,000.	.387	.382
.300	5,990,000.	.428	.418
.350	4,130,000.	.475	.428
.400	3,200,000.	.505	.451
.450	2,180,000.	.545	.514
.500	1,670,000.	.566	.540
.550	650,000.	.634	.626
.600	320,000.	.701	.752
.650	230,000.	.728	.827
.700	150,000.	.758	.968
.750	67,000.	.788	1.048
.800	17,000.	.873	1.181

TABLE 19 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for West-Gulley Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Indicated (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

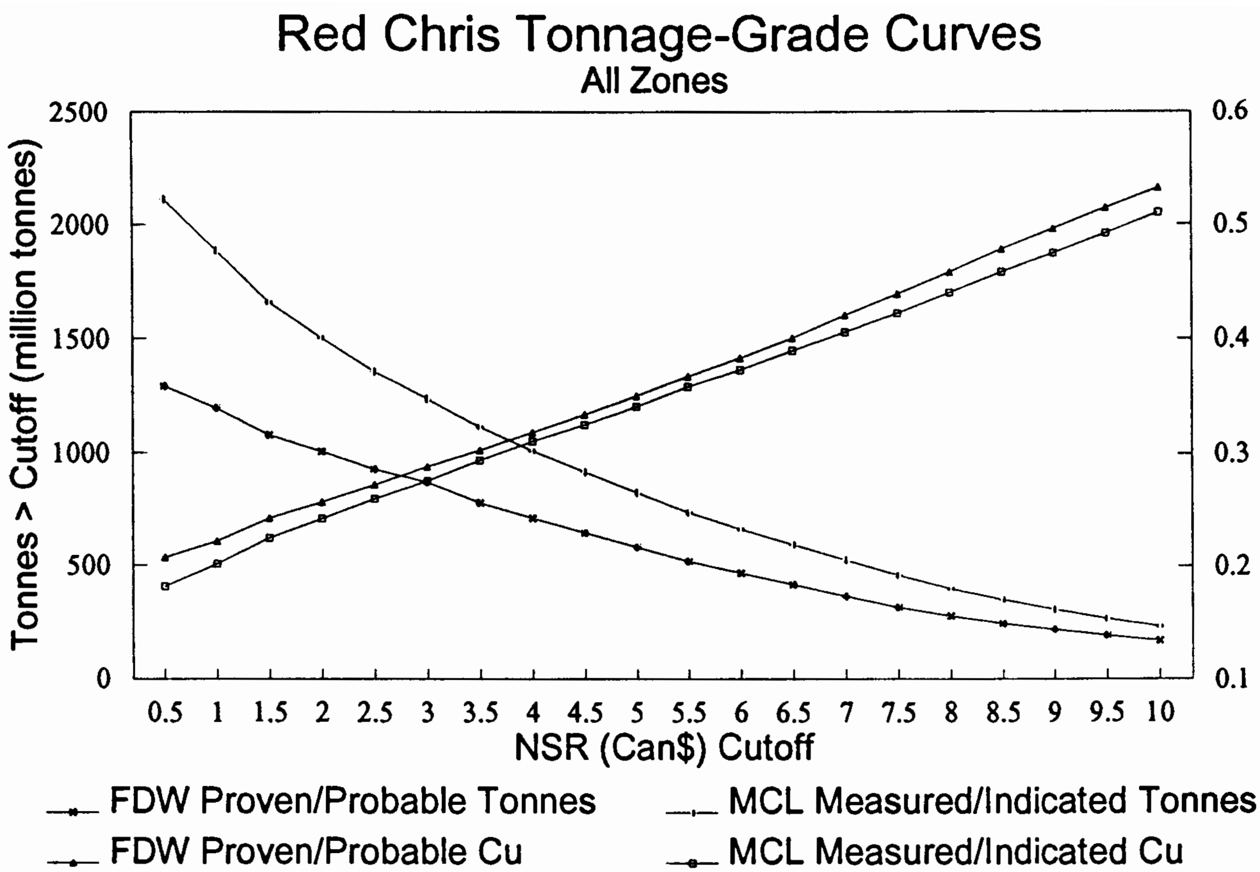
Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	266,200,000.	.217	.251
.150	158,600,000.	.281	.294
.200	104,600,000.	.337	.325
.250	74,700,000.	.383	.350
.300	53,600,000.	.426	.367
.350	40,900,000.	.458	.379
.400	30,200,000.	.487	.398
.450	19,700,000.	.519	.422
.500	11,100,000.	.557	.442
.550	5,730,000.	.591	.484
.600	1,490,000.	.648	.632
.650	586,000.	.695	.728
.700	218,000.	.732	.828
.750	50,000.	.793	.947
.800	17,000.	.852	1.156

TABLE 20 : Red Chris Grade-Tonnage for In Situ Geologic Resource Jan. 1996 Results for West-Gulley Zone Using SG=2.79 Using Search of 150 x 100 x 100 m. with High Values capped at 1.5 % Cu and 1.5 g Au/t Classed as Inferred (If minimum 3 composites not found search expanded to 300 x 200 x 200 m) Maximum 8 composites used

Cutoff (Cu %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)
.100	210,300,000.	.262	.243
.150	149,500,000.	.319	.272
.200	119,100,000.	.356	.292
.250	94,700,000.	.389	.309
.300	67,600,000.	.435	.339
.350	57,700,000.	.454	.350
.400	47,500,000.	.470	.348
.450	34,400,000.	.487	.343
.500	8,920,000.	.545	.390
.550	4,250,000.	.564	.408
.600	400,000.	.644	.629
.650	167,000.	.674	.678

To compare the results with an estimate from Fluor Daniel Wrights a NSR in Canadian dollars was devised by FDW using metal prices, recoveries and costs. The equation as supplied by FDW was **NSR (Can $) = 16.96 x Cu + 10.18 x Au**

Using this equation grade-tonnage curves were produced for the FDW Proven/Probable categories as a function of a range of NSR cutoffs and as a comparison the same plots were produced for measured plus indicated from a search of 150 x 100 x 100 and capped grades. The results are presented in Figure 4. The proven/probable categories at FDW are based on a search of 100 x 75 x 75 so the tonnage generated from the kriged model is higher. Grades are lower because the kriged estimate caps high grades. The only valid comparison between the two methods will be to compare within the same volume and the best volume to use would be the designed open pits.


Red Chris Tonnage-Grade Curves
All Zones
Tonnes > Cutoff (million tonnes)
Cu (%) Above Cutoff
NSR (Can$) Cutoff
FDW Proven/Probable Tonnes
MCL Measured/Indicated Tonnes
FDW Proven/Probable Cu
MCL Measured/Indicated Cu

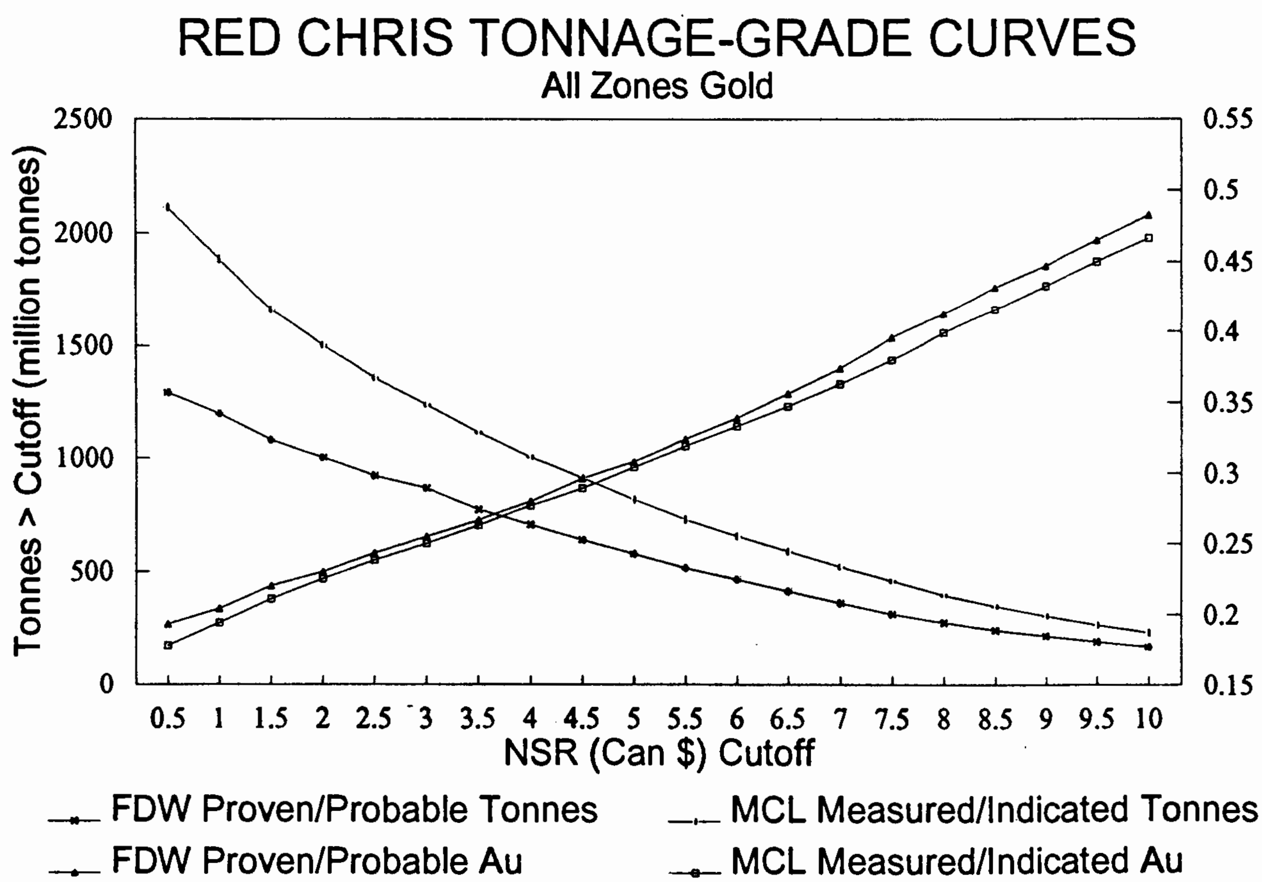

RED CHRIS TONNAGE-GRADE CURVES
All Zones Gold
Tonnes > Cutoff (million tonnes)
Au > cutoff (g/t)
NSR (Can $) Cutoff
FDW Proven/Probable Tonnes
MCL Measured/Indicated Tonnes
FDW Proven/Probable Au
MCL Measured/Indicated Au

FIGURE 4

5.5 Distribution of grade and tonnes by Level

In an attempt to better understand the distribution of results for the Red Chris Deposit the Main Zone and West/Gully Zone were examined as a function of depth. A series of plots showing tonnage, average NSR value, average copper grade and average gold grade above a $ 4.00 Can. NSR Cutoff, on a level by level basis through the two zones are shown as Figures 5 though 20. Both Main and West/Gully Zones are shown for all classifications and again for just measured plus indicated.

Main Zone measured/indicated/inferred plots (Figures 5-8) show increasing tonnage with depth to a peak at about 1020 with a gradual decrease below. NSR and copper also show increases with depth with the highest average values below the 1050 level. Gold shows an even more pronounced increase below the 1050 level.

The West/Gully Zone for measured/indicated/inferred (see Figures 9 to 12) shows a marked decrease in tonnage below the 1110 level with the highest tonnage benches between 1230 and 1110. Average values for NSR and copper, on the other hand are highest below the 1050 level. Average gold values start dropping below 1380 down to 1005 where a spike elevates values for the lower benches.

When only measured/indicated blocks are considered for the Main Zone (see Figures 11 to 14) the tonnage starts dropping dramatically below the 1110 level. This means there is less data below this level and blocks are mostly in the inferred category. This would help explain why the pit optimization doesn't pull below about 1065 since only measured/indicated blocks are allowed to influence the optimization. The average NSR, copper and gold values in these lower benches are still higher than levels above indicating higher grade mineralization at depth that needs more drilling. If additional holes can bring more of this mineralization into the measured/indicated classes and as a result allow it to be used in the optimization perhaps the pits would grab more of this contained metal at depth.

For blocks considered measured and indicated in the West/Gully Zone the tonnage drops steeply below 1200 down to 1005. Below 1005 down to the 900 level all tonnage is considered inferred. Again the average NSR, copper and gold values show elevated values in the lower levels and more deep drilling might be needed to bring these lower level blocks into the measured/indicated class and as a result into the pit optimizations.

Although more drilling in the deeper parts of the deposit will allow the pits to dig deeper, it obviously still depends on stripping ratios. The inferred blocks should be included in an optimization run to test if the additional grade and tonnage at depth can compensate for the higher strip and if so then the additional drilling is warranted.

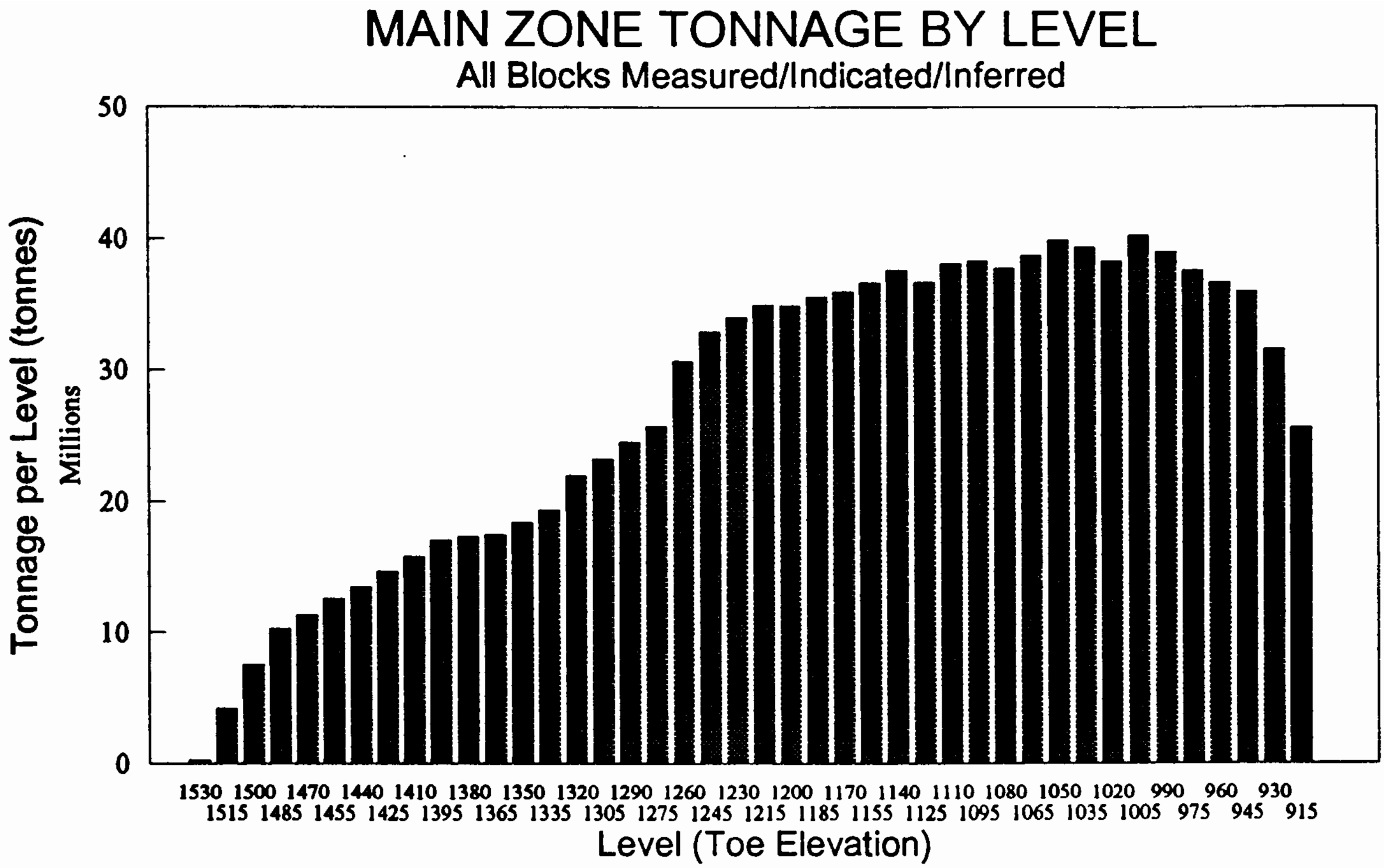


FIGURE 5

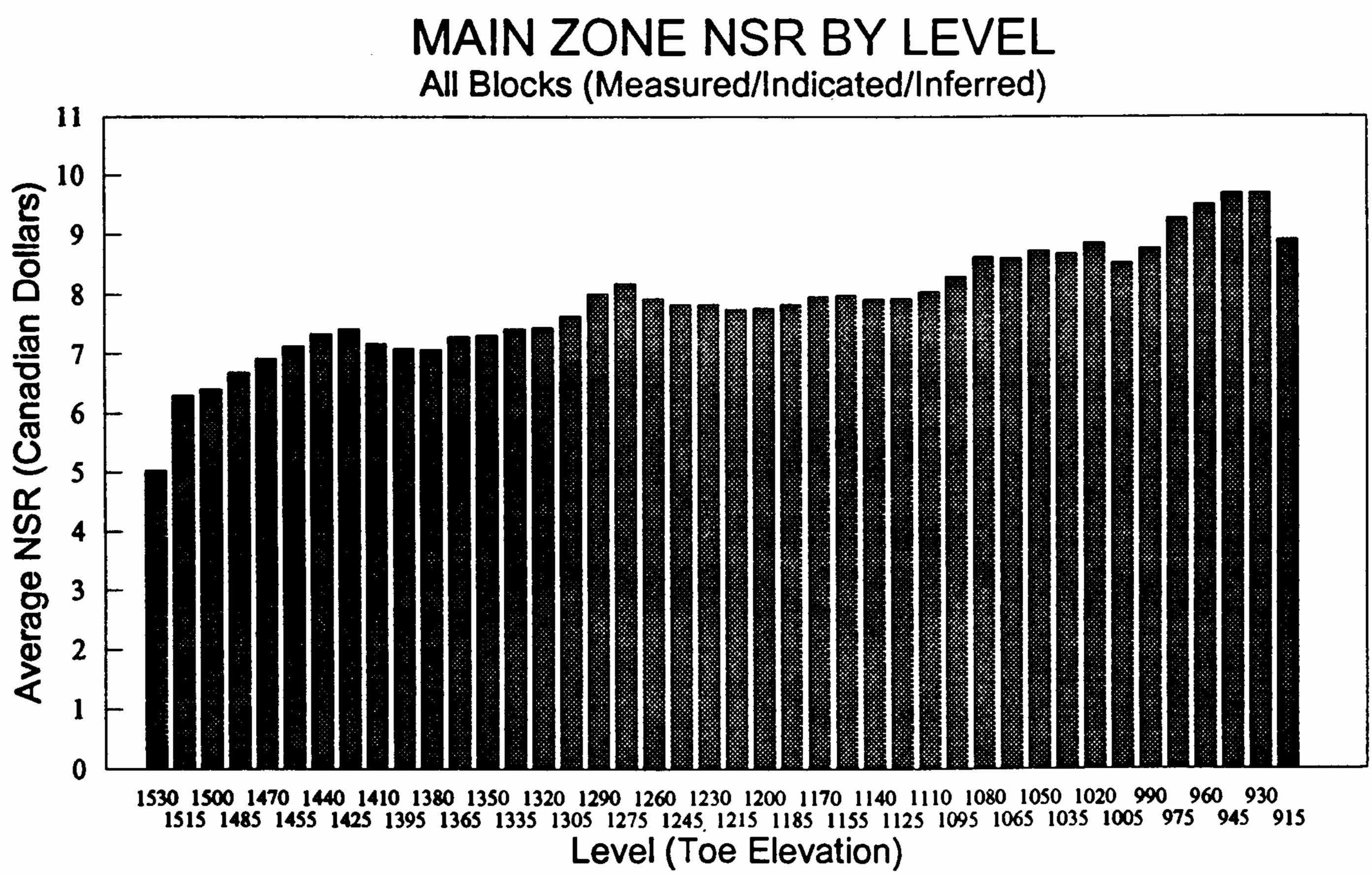


FIGURE 6

MAIN ZONE COPPER BY LEVEL

All Blocks (Measured/Indicated/Inferred)

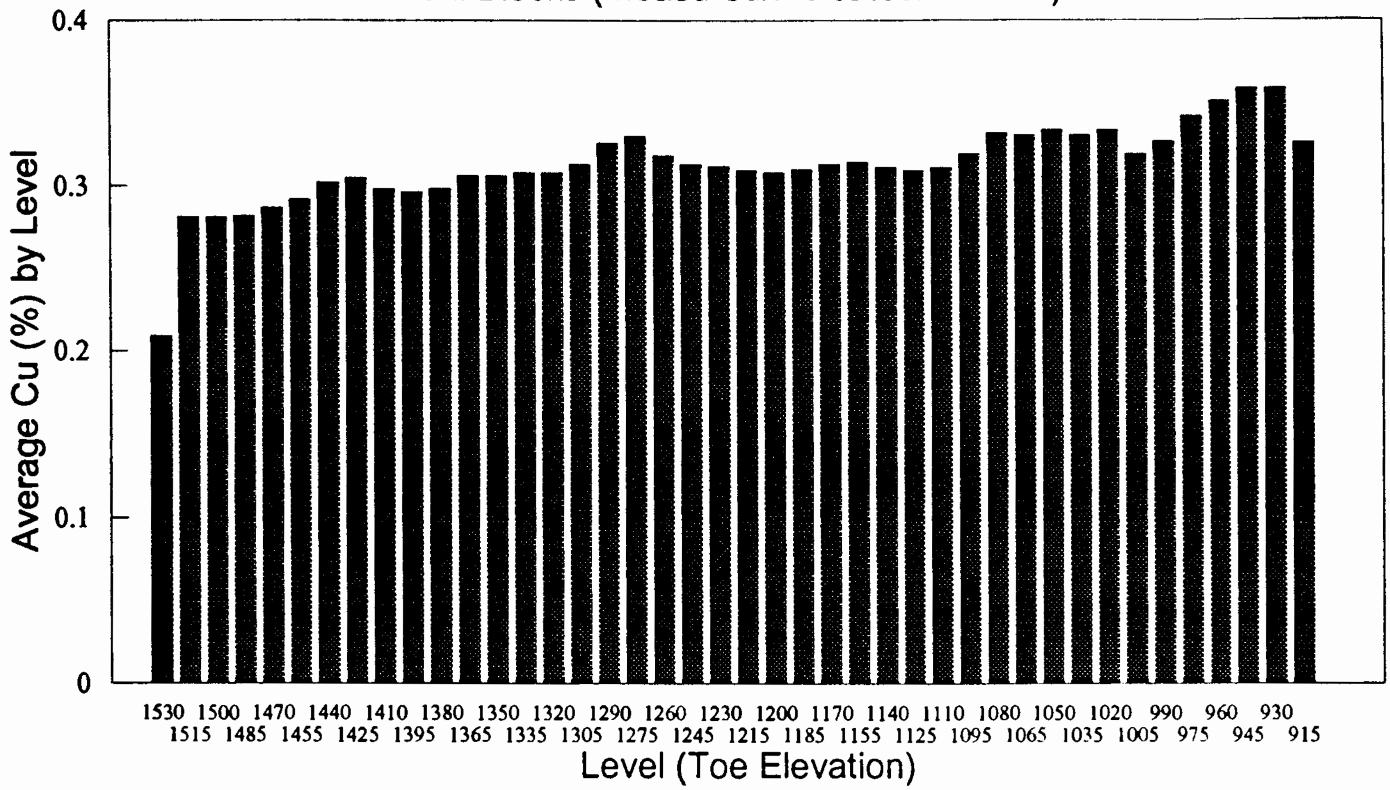


FIGURE 7

MAIN ZONE GOLD BY LEVEL

All Blocks (Measured/Indicated/Inferred)

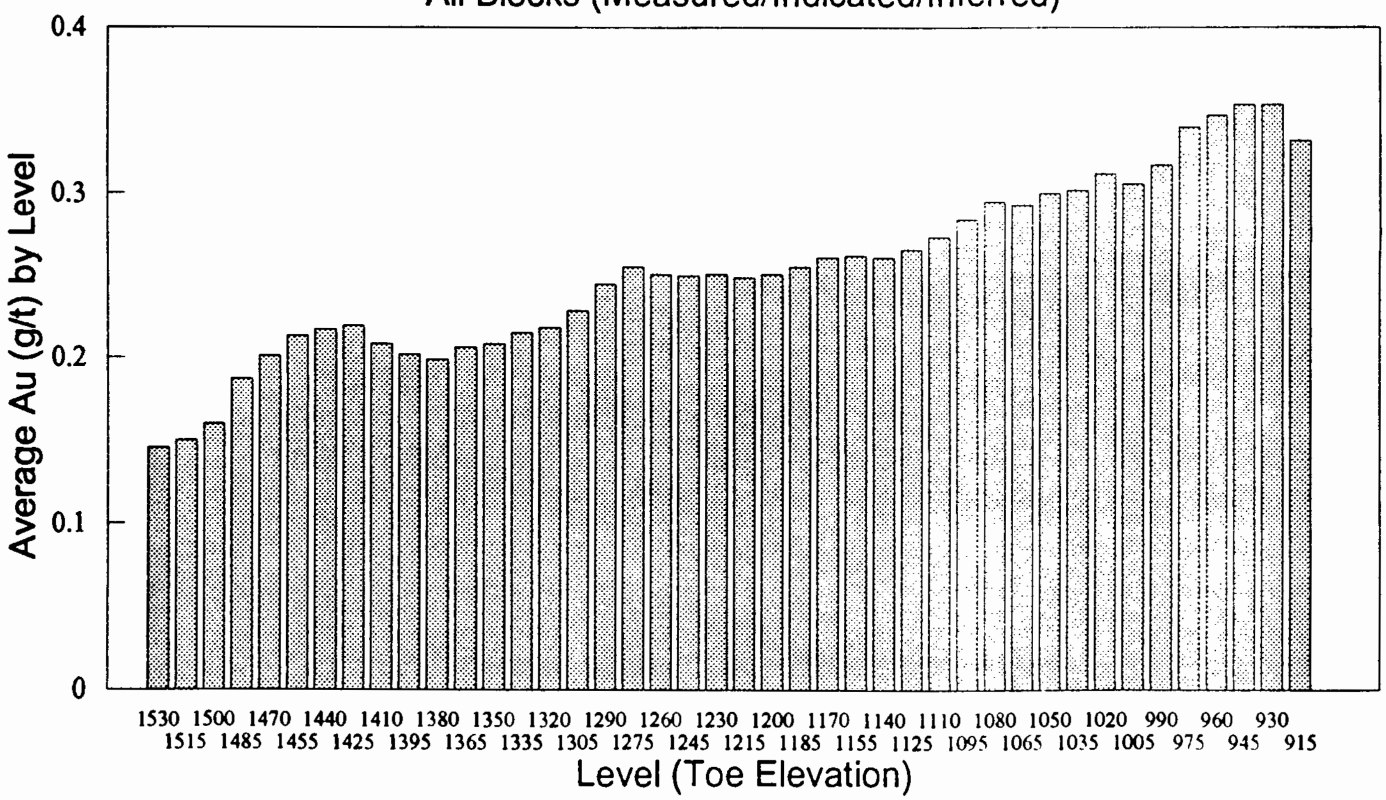


FIGURE 8

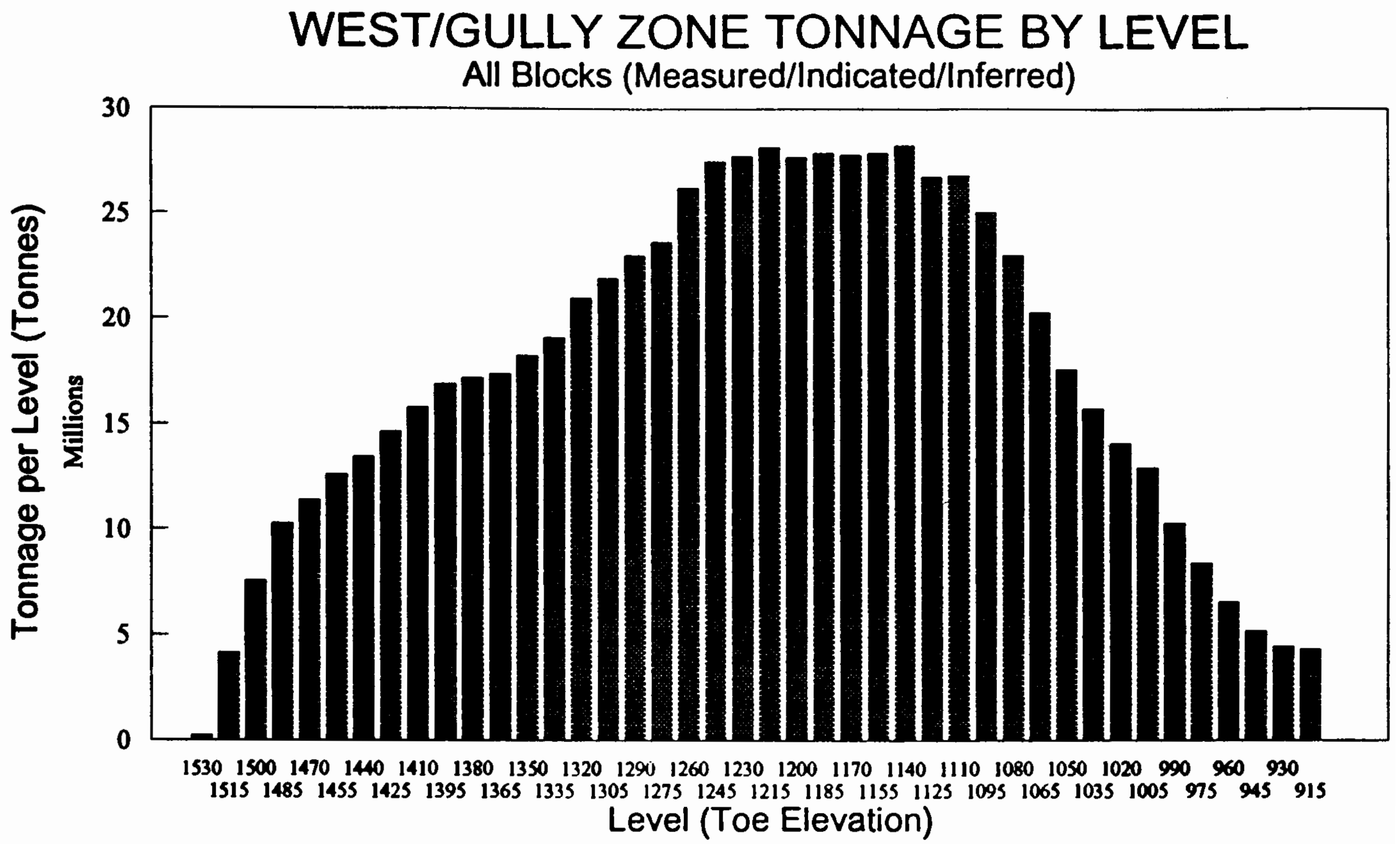


FIGURE 9

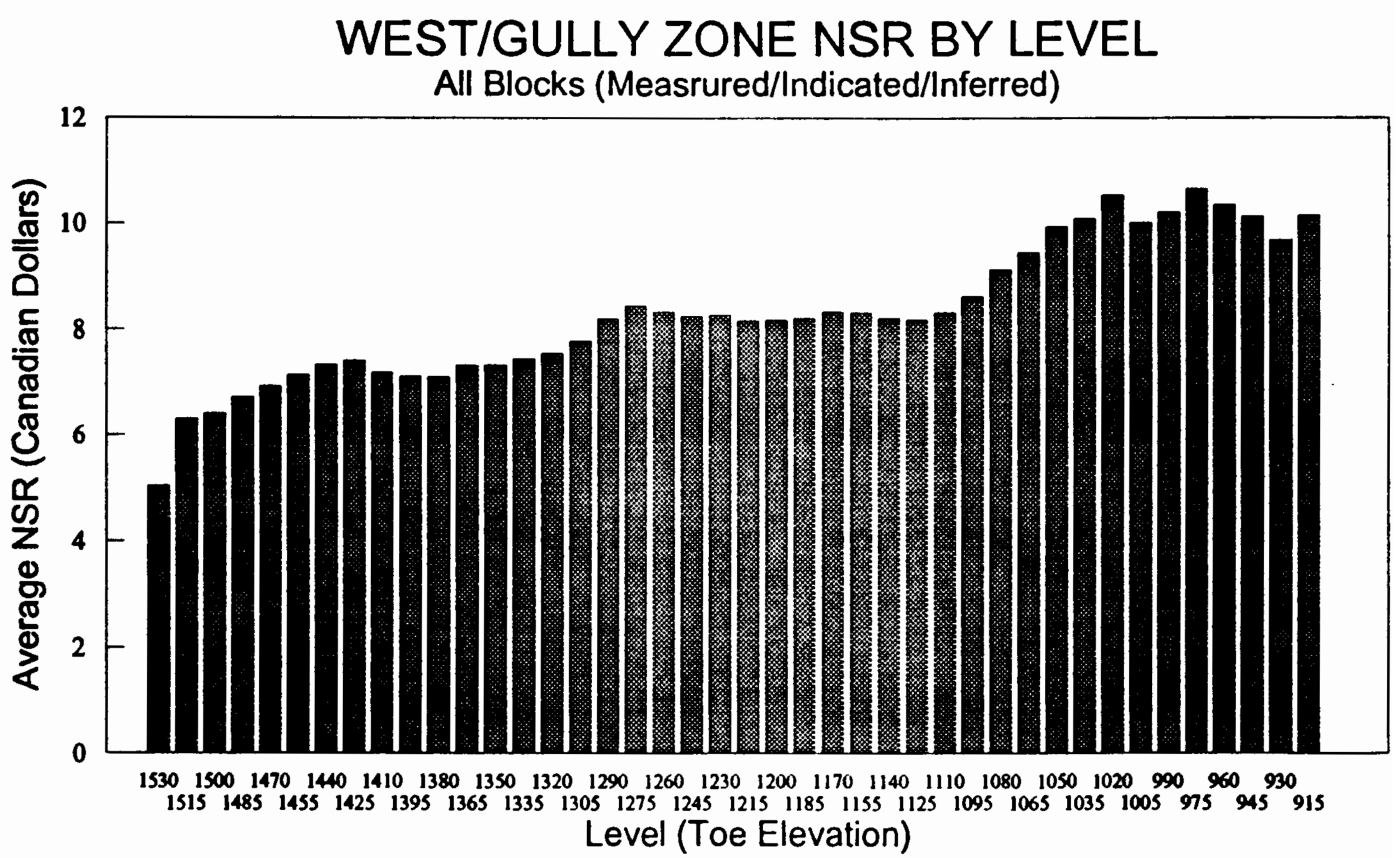


FIGURE 10

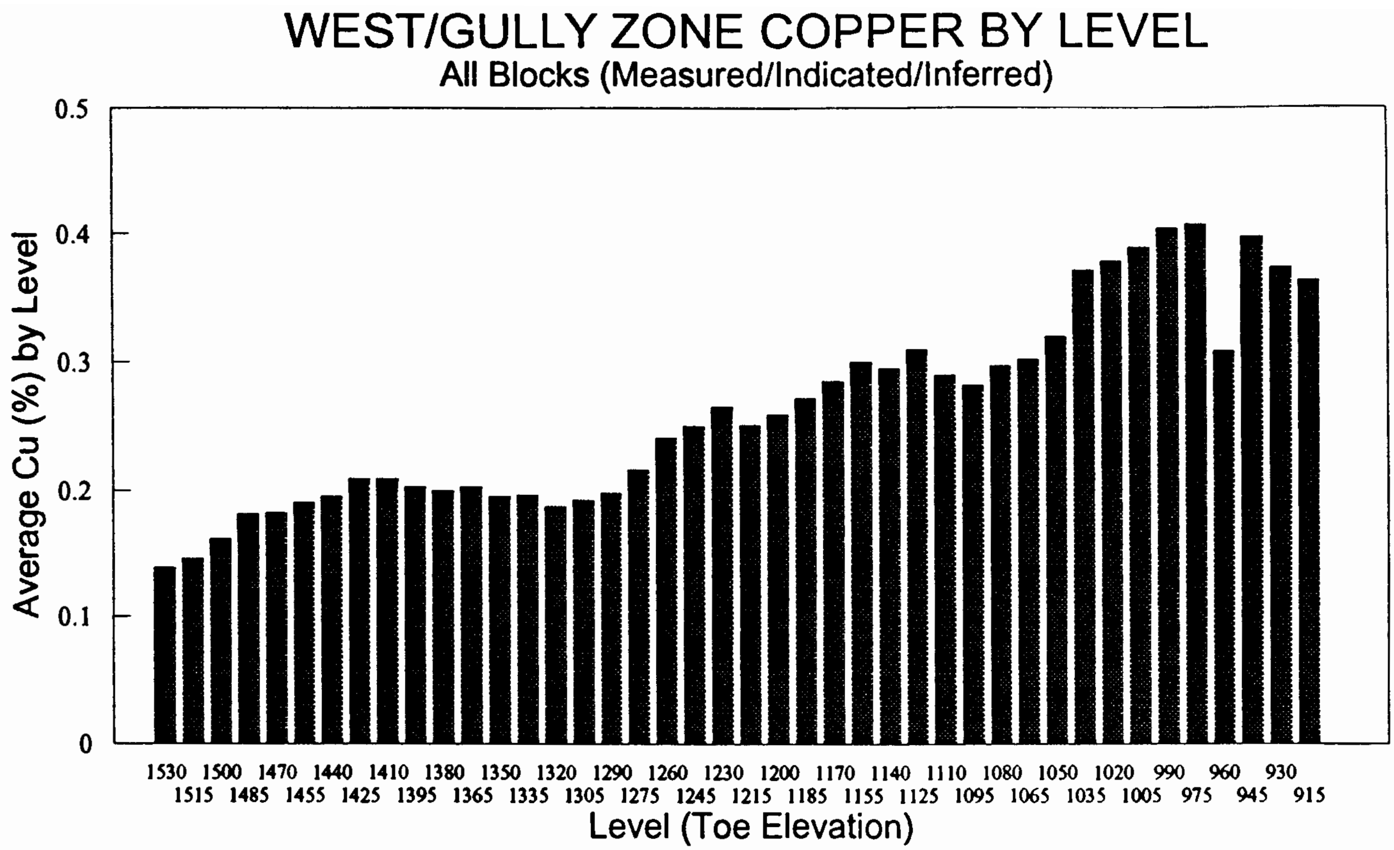


FIGURE 11

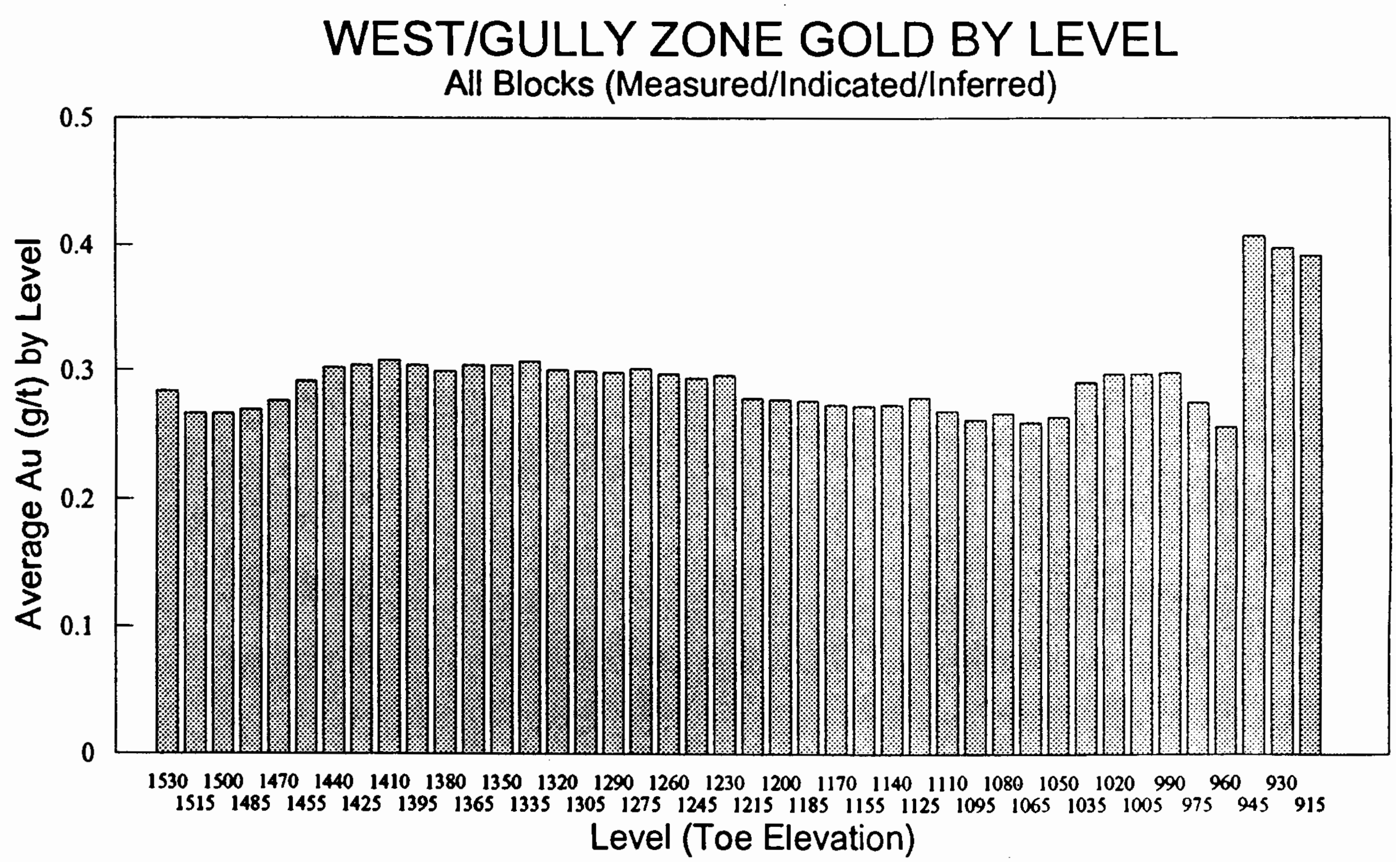


FIGURE 12

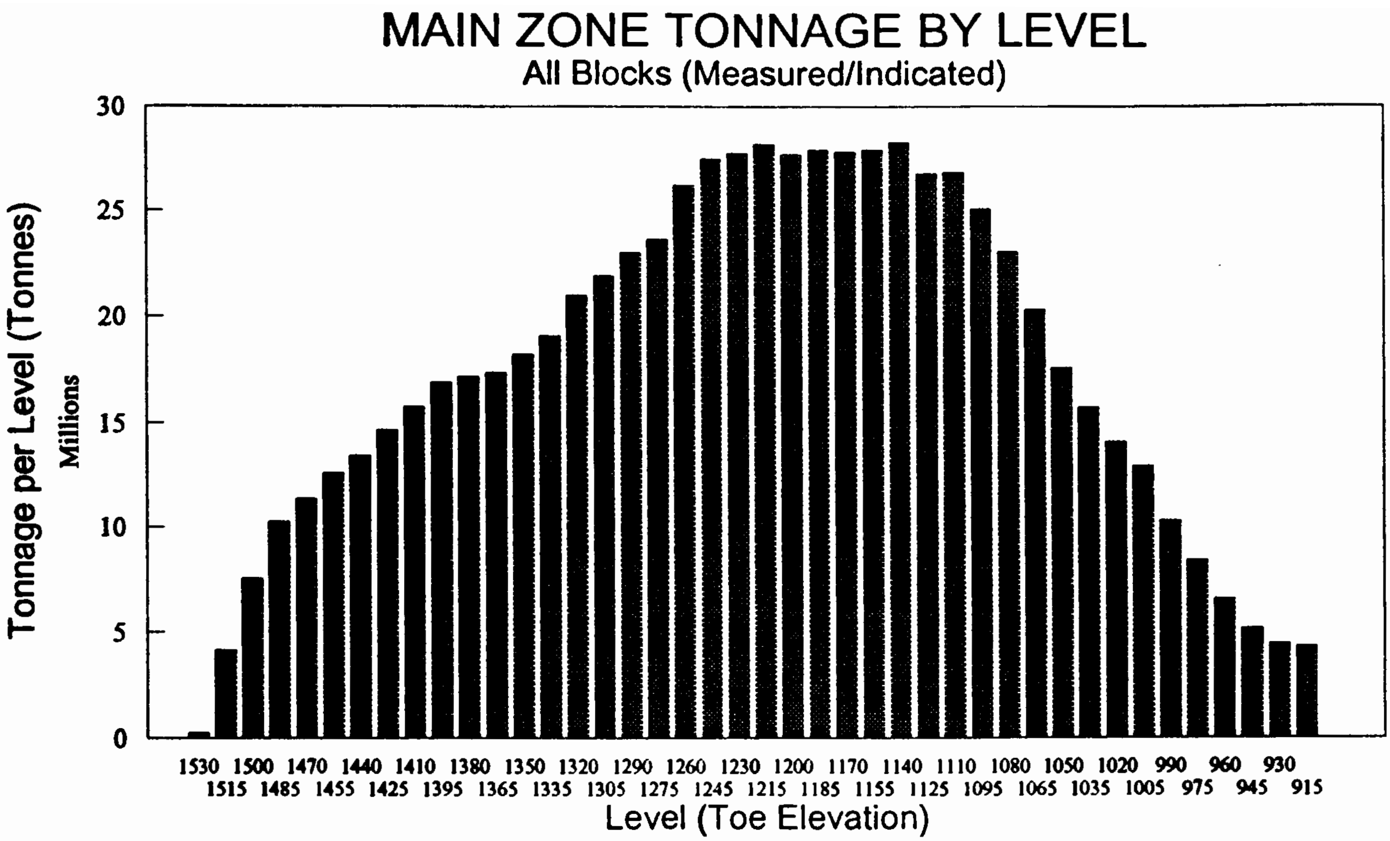


FIGURE 13

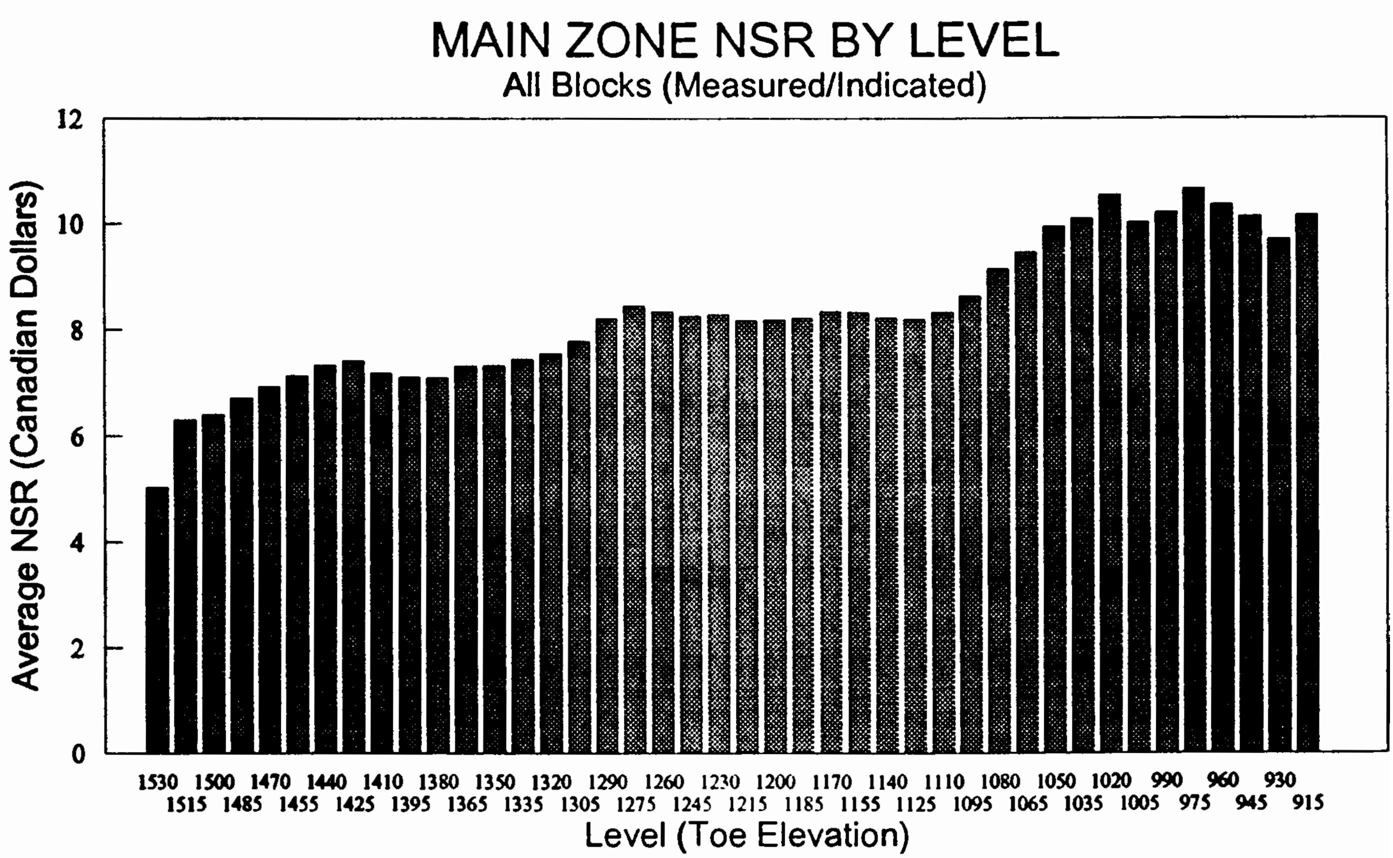


FIGURE 14

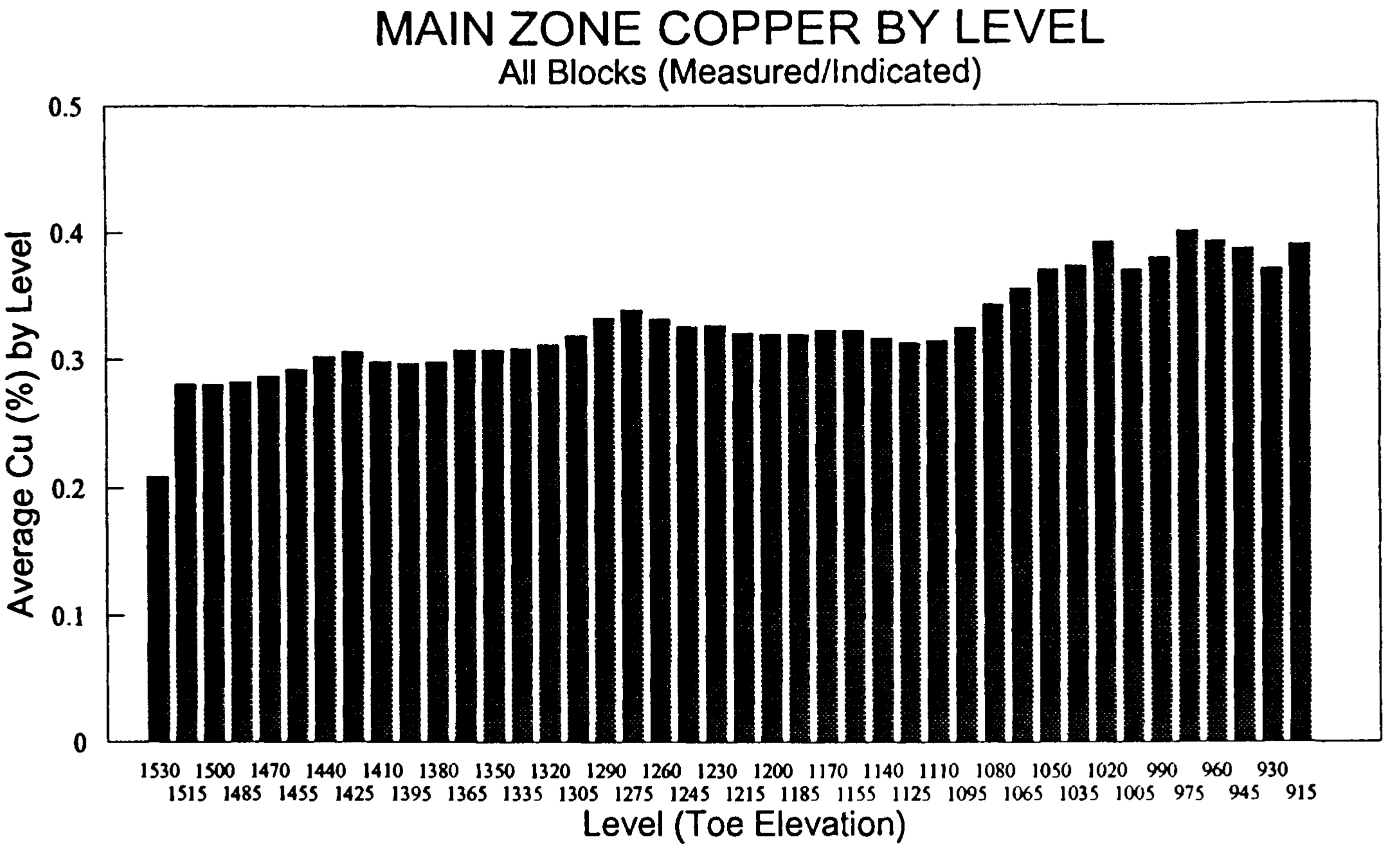


FIGURE 15

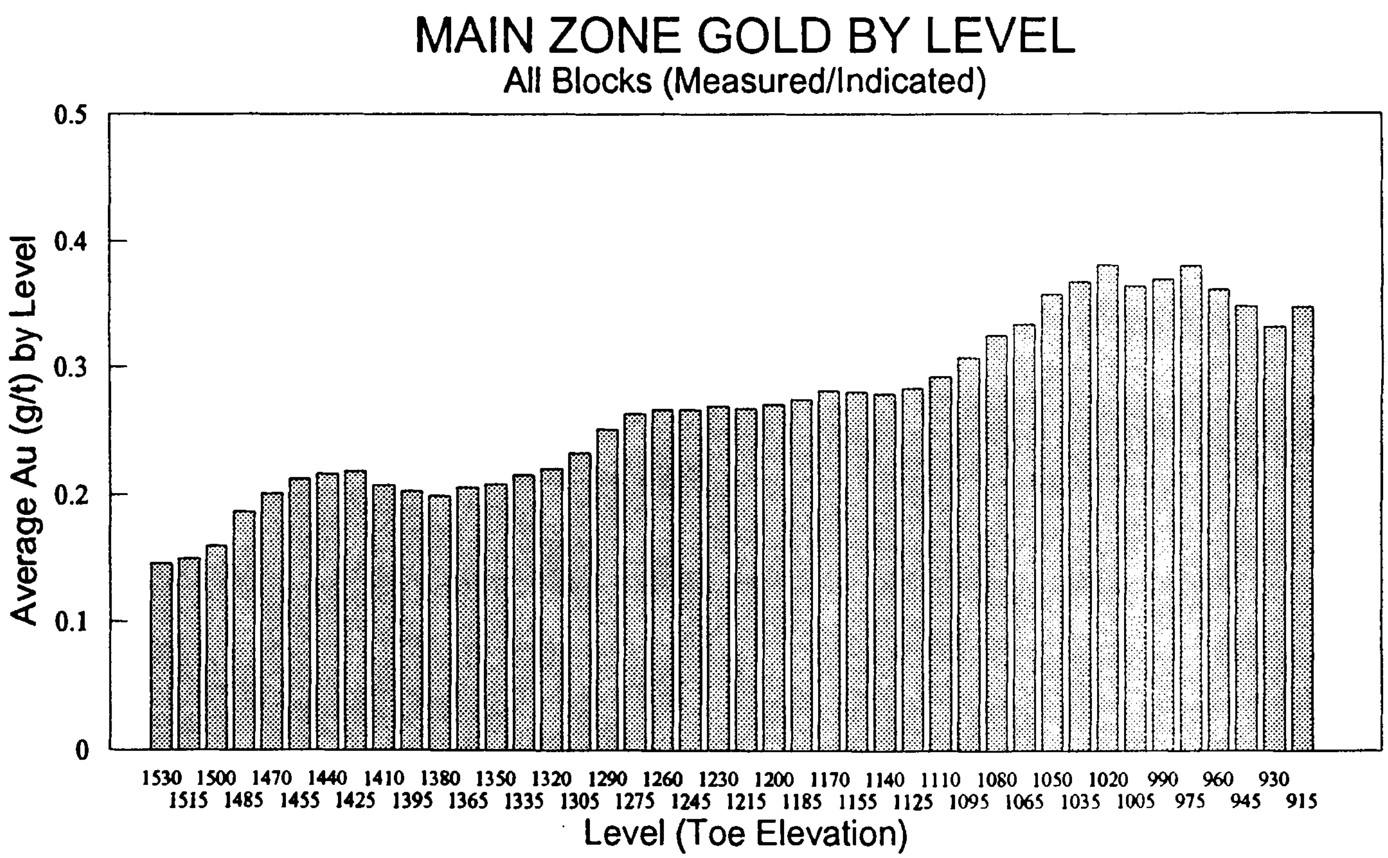


FIGURE 16

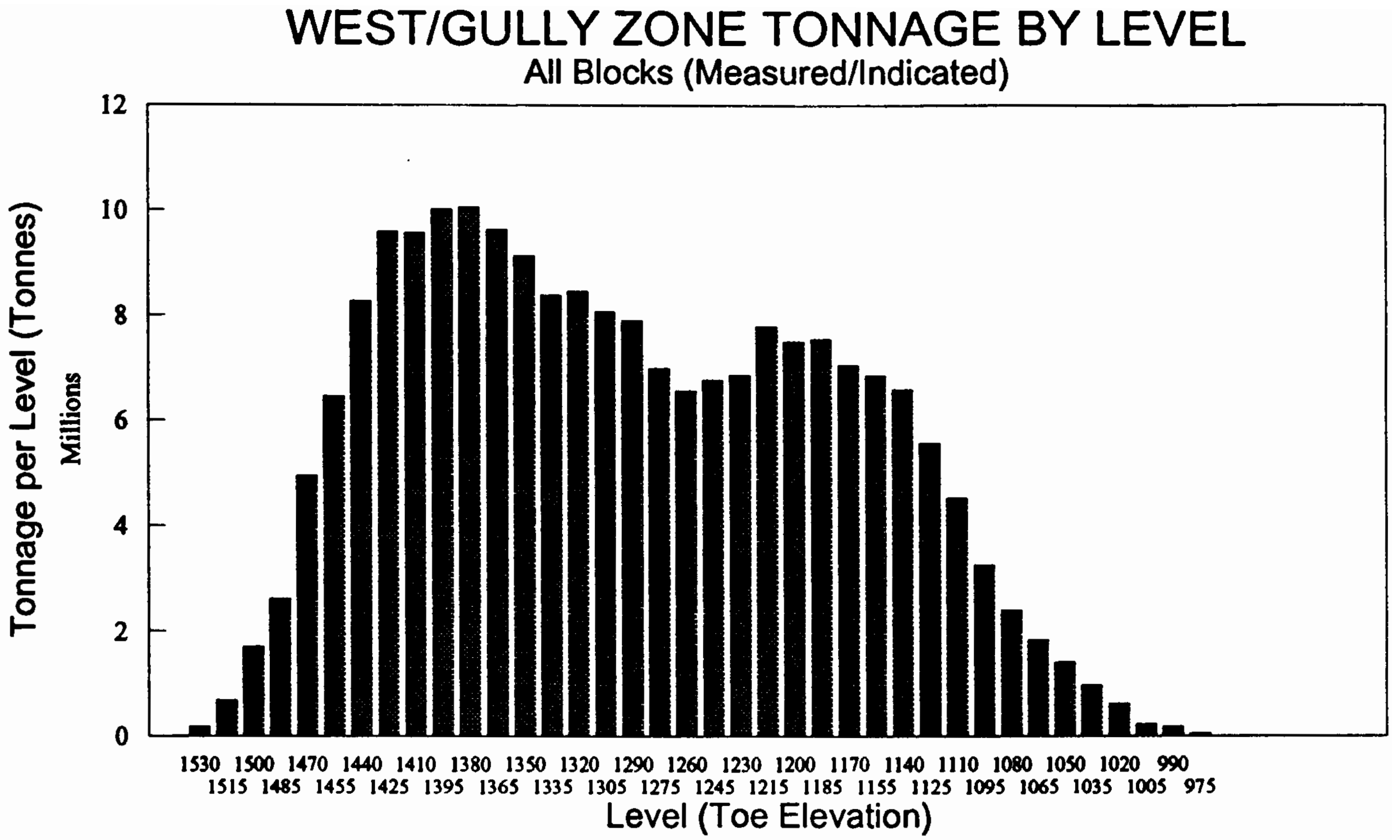


FIGURE 17

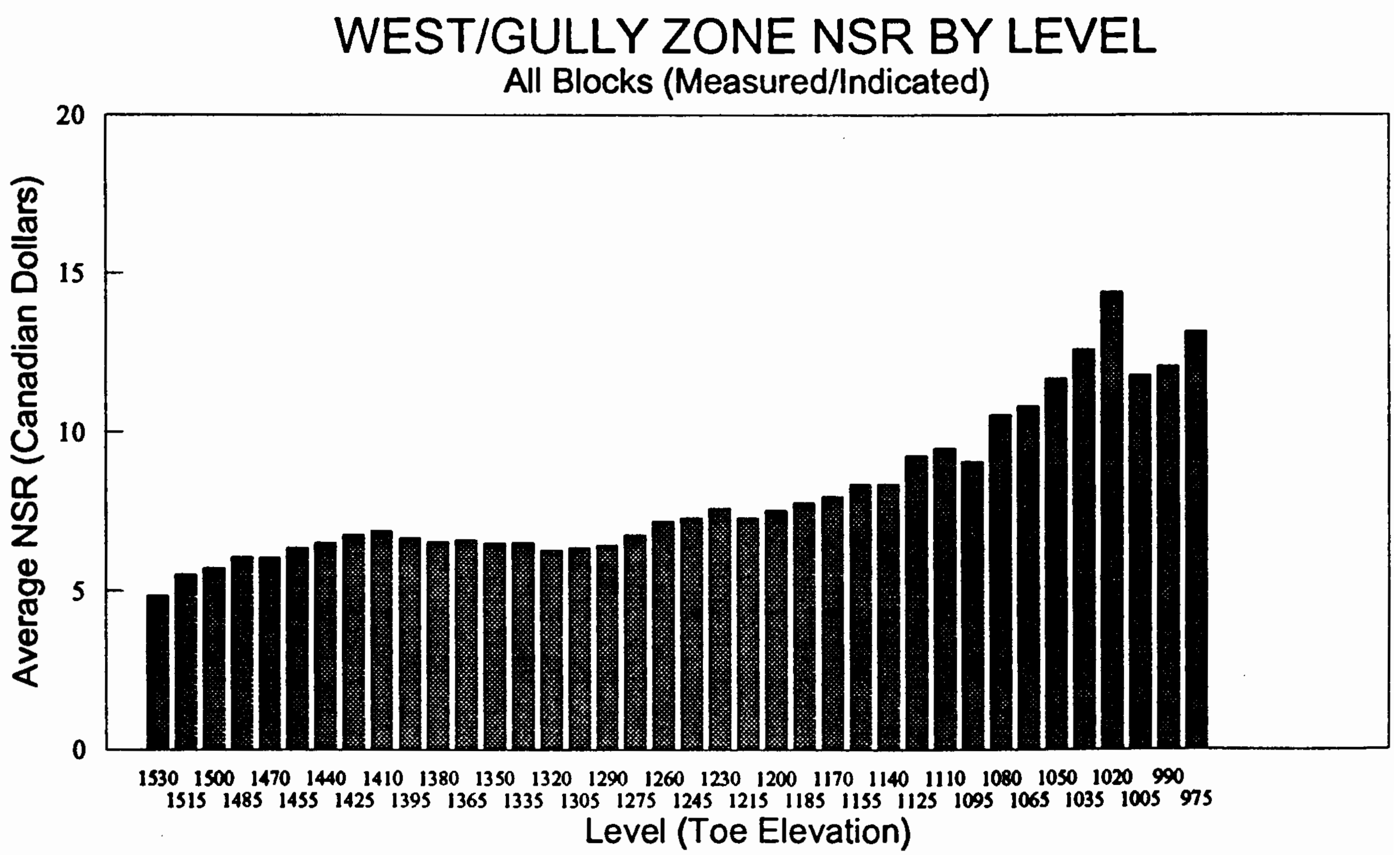


FIGURE 18

WEST/GULLY ZONE COPPER BY LEVEL
All Blocks (Measured/Indicated)

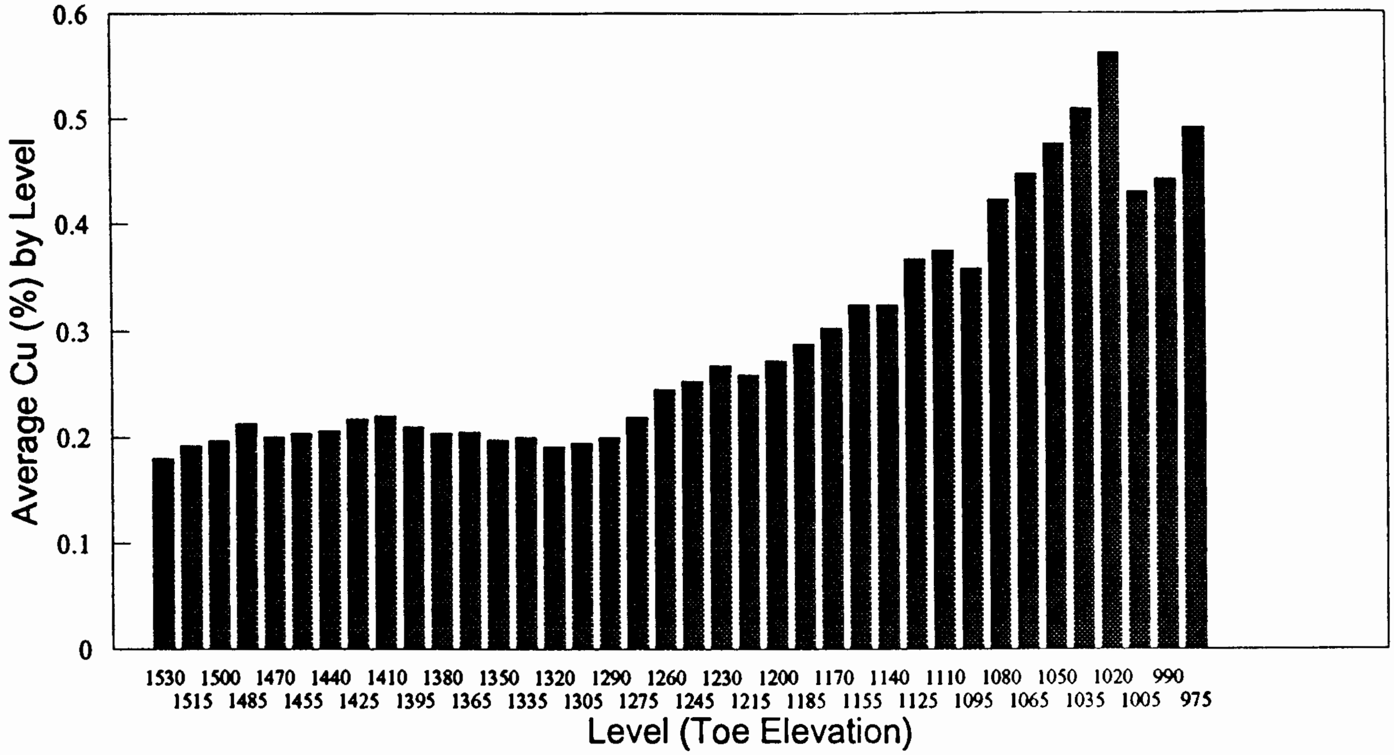


FIGURE 19

WEST/GULLY ZONE GOLD BY LEVEL
All Blocks (Measured/Indicated)

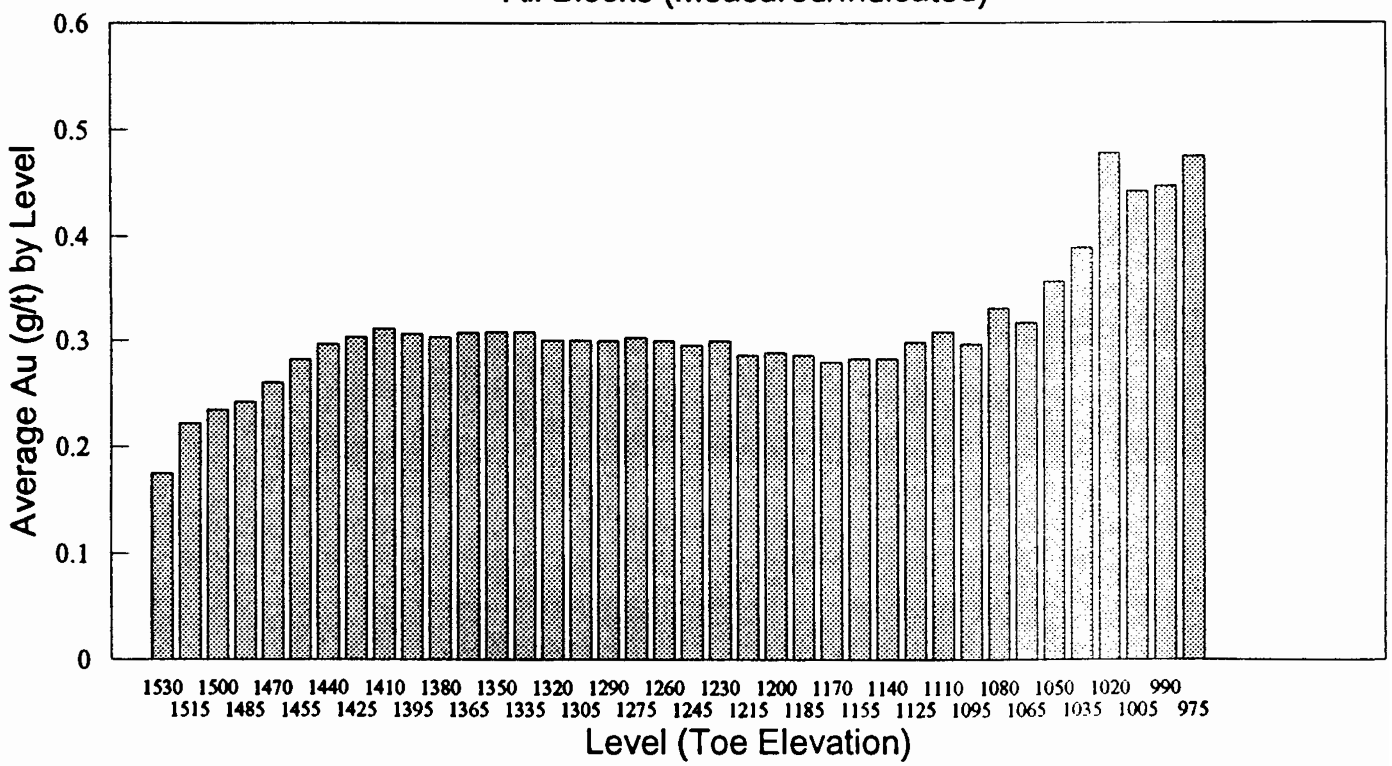


FIGURE 20

6.0 CERTIFICATE

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer with an office at #701 - 675 West Hastings Street, Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc. both in Geological Engineering.
3. I have practised my profession continuously since 1970.
4. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
5. This report is based on a study of available data provided by American Bullion Minerals Ltd. and no site visit was made.
6. I have no interest, either direct or indirect in the properties or securities of American Bullion Minerals Ltd., nor do I expect to receive any such interest.

G. H. Giroux, P.Eng., MASc.
February 28, 1996

APPENDIX 1

HISTOGRAMS AND CUMULATIVE PROBABILITY PLOTS FOR RED CHRIS COPPER AND GOLD

```
##########################################################################
SUMMARY STATISTICS and HISTOGRAM                        ARITHMETIC VALUES

 Variable = CU              Unit =  %                    N =  3465

     Mean =      0.263        Min =      0.010   1st Quartile =      0.096
Std. Dev. =      0.258        Max =      2.967         Median =      0.198
     CV % =     98.137   Skewness =      2.915   3rd Quartile =      0.341

==========================================================================
  %   cum %   cls int           (# of bins = 36  -  bin size =    0.084)
----- -----  --------           --------------------------------------
 0.00  0.01   -0.032
13.77 13.78    0.052            ******************************* -->   81
21.99 35.76    0.137            ******************************* -->  129
18.67 54.43    0.221            ******************************* -->  109
15.82 70.24    0.306            ******************************* -->   93
10.07 80.31    0.390            ******************************* -->   59
 6.18 86.48    0.475            ************************************
 3.78 90.26    0.559            **********************
 2.74 93.00    0.644            ****************
 1.93 94.94    0.728            ***********
 1.07 96.00    0.813            ******
 0.98 96.98    0.897            ******
 0.75 97.74    0.982            ****
 0.58 98.31    1.066            ***
 0.49 98.80    1.151            ***
 0.14 98.95    1.235            *
 0.26 99.21    1.320            **
 0.17 99.38    1.404            *
 0.00 99.38    1.489
 0.09 99.47    1.573            *
 0.12 99.58    1.657            *
 0.14 99.73    1.742            *
 0.06 99.78    1.826
 0.00 99.78    1.911
 0.03 99.81    1.995
 0.03 99.84    2.080
 0.03 99.87    2.164
 0.00 99.87    2.249
 0.03 99.90    2.333
 0.00 99.90    2.418
 0.00 99.90    2.502
 0.00 99.90    2.587
 0.00 99.90    2.671
 0.03 99.93    2.756
 0.03 99.96    2.840
 0.00 99.96    2.925
 0.03 99.99    3.009
--------------------------------------------------------------------------
                               0         1         2         3         4

                    Each "*" represents approximately 5.9 observations.

##########################################################################
```

SUMMARY STATISTICS and HISTOGRAM — LOGARITHMIC VALUES

Variable = CU   Unit = %   N = 3465

Mean =	-0.7717	Min =	-2.0000	1st Quartile =	-1.0189
Std. Dev. =	0.4490	Max =	0.4723	Median =	-0.7033
CV % =	58.1793	Skewness =	-0.5913	3rd Quartile =	-0.4672

Anti-Log Mean = 0.169   Anti-Log Std. Dev. : (-) 0.060
(+) 0.476

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0706)
0.00	0.01	0.009	-2.0353	
0.69	0.71	0.011	-1.9647	****
0.84	1.54	0.013	-1.8940	*****
1.70	3.25	0.015	-1.8234	**********
0.72	3.97	0.018	-1.7528	****
0.84	4.80	0.021	-1.6821	*****
1.21	6.02	0.024	-1.6115	*******
0.98	7.00	0.029	-1.5409	******
1.62	8.61	0.034	-1.4702	*********
1.67	10.29	0.040	-1.3996	**********
2.02	12.31	0.047	-1.3289	************
2.42	14.73	0.055	-1.2583	**************
2.77	17.50	0.065	-1.1877	****************
3.06	20.56	0.076	-1.1170	******************
2.86	23.41	0.090	-1.0464	*****************
4.30	27.71	0.106	-0.9758	*************************
4.96	32.67	0.124	-0.9051	*****************************
5.28	37.95	0.146	-0.8345	*******************************
6.12	44.07	0.172	-0.7638	************************************
6.70	50.76	0.203	-0.6932	***************************************
7.33	58.09	0.238	-0.6226	******************************* --> 43
7.65	65.74	0.281	-0.5519	******************************* --> 45
8.02	73.76	0.330	-0.4813	******************************* --> 47
6.35	80.11	0.388	-0.4107	*************************************
5.48	85.59	0.457	-0.3400	********************************
3.69	89.28	0.538	-0.2694	**********************
3.46	92.74	0.633	-0.1987	********************
2.45	95.20	0.745	-0.1281	**************
1.67	96.87	0.876	-0.0575	**********
1.15	98.02	1.031	0.0132	*******
0.89	98.92	1.213	0.0838	*****
0.46	99.38	1.427	0.1544	***
0.26	99.64	1.679	0.2251	**
0.17	99.81	1.976	0.2957	*
0.09	99.90	2.325	0.3664	*
0.03	99.93	2.735	0.4370	
0.06	99.99	3.218	0.5076	

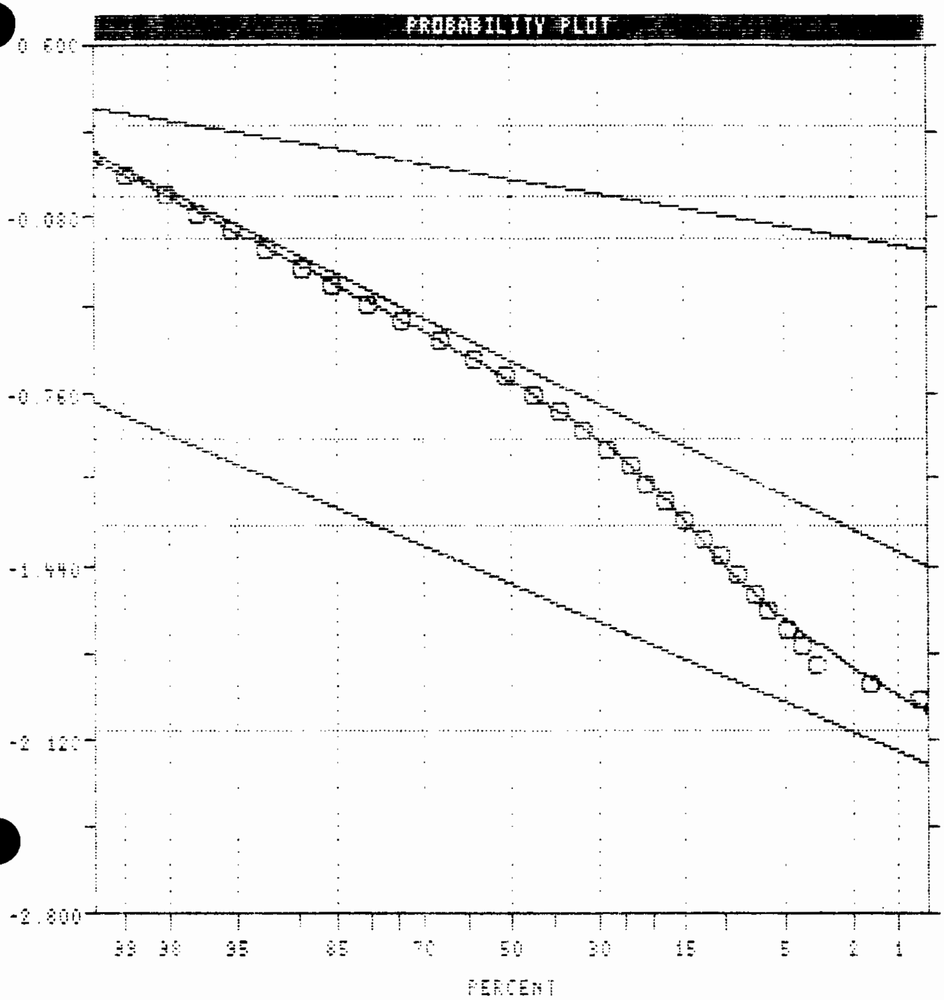
0 1 2 3 4

Each "*" represents approximately 5.9 observations.

06:35.04

01/06/95

RED-CHRIS PPHM ZONE 15 m COMPOSITES



LOGARITHMIC VALUES

VARIABLE = CU

UNIT = %

N = 3465

CI = 35

POPULATIONS

Pop	mean	Std.Dev.	%
1	-1.3104	0.2862	15.3
2	-0.6396	0.3211	84.6
3	0.3624	0.1110	0.1

Pop	THRESHOLDS	
1	-2.0879	-0.9429
2	-1.2817	0.0026
3	-1.1596	0.2845

CLASS INTERVAL ML

PARAMETER ESTIMATES

##

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = D:\REDCHRIS\RC96PPHM.PPP

Variable = CU   Unit = %   N = 3465
N CI = 36

Transform = Logarithmic   Number of Populations = 3

# of Missing Observations = 3.

97 Observations Were Below the Minimum Value of 0.0100
0 Observations Were Above the Maximum Value of 99999.9999

==

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -11141.346

Parameterized Degrees of Freedom = 5

Population	Mean		Std Dev	Percentage
1	0.031	-	0.016	15.29
		+	0.059	
2	0.229	-	0.109	84.60
		+	0.480	
3	1.155	-	0.894	0.11
		+	1.491	

==

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds	
1	0.008	0.114
2	0.052	1.006
3	0.692	1.925

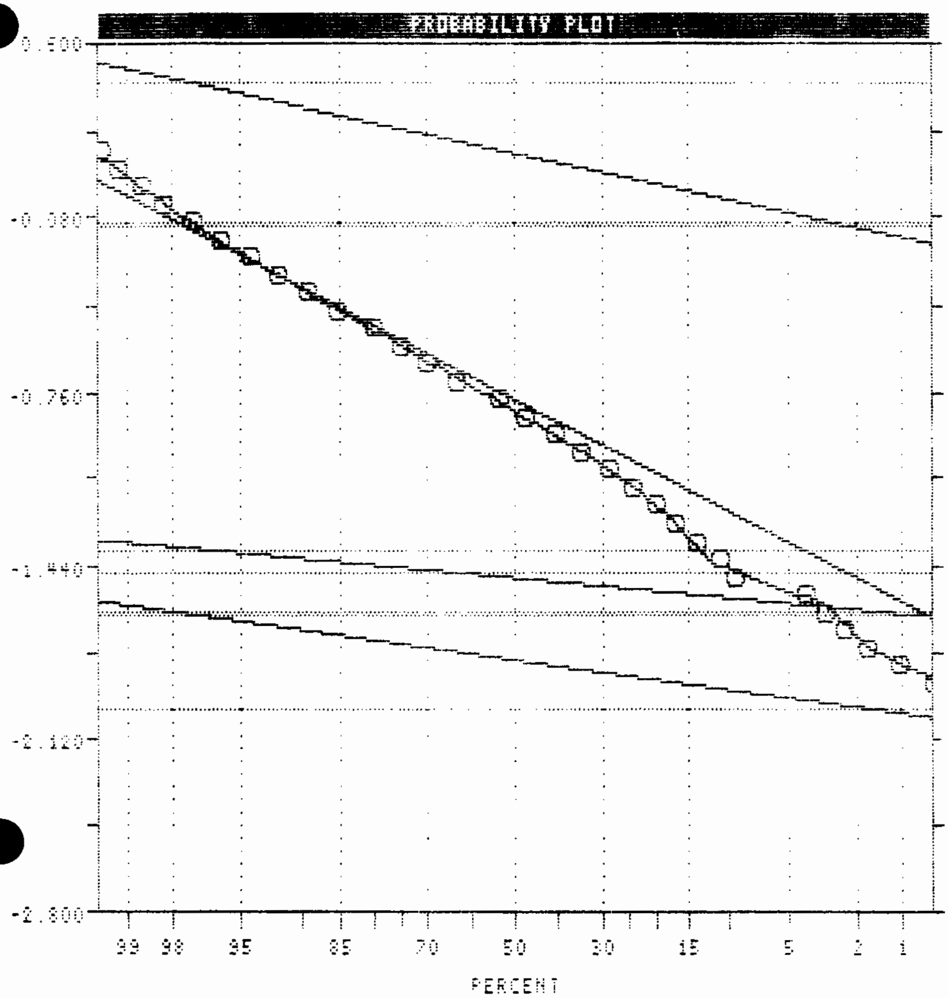
##

```
##########################################################################
SUMMARY STATISTICS and HISTOGRAM                         ARITHMETIC VALUES

 Variable = AU                Unit = g/t                      N =  3491

     Mean =      0.217         Min =      0.010   1st Quartile =     0.077
Std. Dev. =      0.244         Max =      2.714         Median =     0.151
     CV % =    112.322    Skewness =      3.820   3rd Quartile =     0.271

==========================================================================
  %    cum %    cls int           (# of bins = 36  -  bin size =    0.077)
-----  -----   --------           ----------------------------------------
 0.00  0.01    -0.029
14.69 14.71     0.049             ******************************* -->   87
26.81 41.51     0.126             ******************************* -->  158
23.15 64.65     0.203             ******************************* -->  137
11.63 76.27     0.280             ******************************* -->   69
 8.45 84.72     0.358             ******************************* -->   50
 4.35 89.08     0.435             **************************
 3.29 92.37     0.512             *******************
 1.80 94.17     0.589             ***********
 1.49 95.66     0.667             *********
 0.97 96.64     0.744             ******
 0.69 97.32     0.821             ****
 0.52 97.84     0.898             ***
 0.43 98.27     0.976             ***
 0.29 98.55     1.053             **
 0.14 98.70     1.130             *
 0.20 98.90     1.207             *
 0.17 99.07     1.285             *
 0.06 99.13     1.362
 0.06 99.18     1.439
 0.14 99.33     1.517             *
 0.03 99.36     1.594
 0.06 99.41     1.671
 0.09 99.50     1.748             *
 0.06 99.56     1.826
 0.03 99.58     1.903
 0.06 99.64     1.980
 0.14 99.79     2.057             *
 0.00 99.79     2.135
 0.09 99.87     2.212             *
 0.00 99.87     2.289
 0.09 99.96     2.366             *
 0.00 99.96     2.444
 0.00 99.96     2.521
 0.00 99.96     2.598
 0.00 99.96     2.675
 0.03 99.99     2.753
--------------------------------------------------------------------------
                                 0         1         2         3         4

               Each "*" represents approximately 5.9 observations.

##########################################################################
```

```
###########################################################################
SUMMARY STATISTICS and HISTOGRAM                          LOGARITHMIC VALUES

 Variable = AU                Unit = g/t                        N =  3491

     Mean =    -0.8498         Min =    -2.0000   1st Quartile =    -1.1135
Std. Dev. =     0.4111         Max =     0.4336         Median =    -0.8210
     CV % =    48.3836    Skewness =    -0.1312   3rd Quartile =    -0.5670

        Anti-Log Mean =      0.141     Anti-Log Std. Dev. : (-)     0.055
                                                            (+)     0.364

===========================================================================
  %    cum %    antilog  cls int  (# of bins = 36  -  bin size =   0.0695)
-----  -----   --------  -------  ----------------------------------------
 0.00  0.01     0.009   -2.0348
 0.29  0.30     0.011   -1.9652   **
 0.29  0.59     0.013   -1.8957   **
 0.43  1.02     0.015   -1.8262   ***
 0.66  1.68     0.018   -1.7566   ****
 0.72  2.39     0.021   -1.6871   ****
 0.69  3.08     0.024   -1.6176   ****
 0.86  3.94     0.028   -1.5480   *****
 5.30  9.24     0.033   -1.4785   *******************************
 1.60 10.84     0.039   -1.4090   *********
 2.69 13.53     0.046   -1.3394   ****************
 2.98 16.51     0.054   -1.2699   ******************
 3.18 19.69     0.063   -1.2004   *******************
 4.12 23.81     0.074   -1.1309   ************************
 4.58 28.39     0.087   -1.0613   ***************************
 5.64 34.03     0.102   -0.9918   *********************************
 5.87 39.91     0.120   -0.9223   ***********************************
 6.82 46.72     0.140   -0.8527   ******************************* -->   40
 6.59 53.31     0.165   -0.7832   ***************************************
 9.68 62.99     0.193   -0.7137   ******************************* -->   57
 6.50 69.49     0.227   -0.6441   **************************************
 5.16 74.64     0.266   -0.5746   ******************************
 5.24 79.88     0.313   -0.5051   *******************************
 5.47 85.35     0.367   -0.4355   ********************************
 3.58 88.93     0.431   -0.3660   *********************
 3.18 92.11     0.505   -0.2965   *******************
 2.06 94.17     0.593   -0.2269   ************
 1.89 96.06     0.696   -0.1574   ***********
 1.20 97.27     0.817   -0.0879   *******
 0.92 98.18     0.959   -0.0183   *****
 0.52 98.70     1.125    0.0512   ***
 0.40 99.10     1.320    0.1207   **
 0.23 99.33     1.550    0.1902   *
 0.23 99.56     1.819    0.2598   *
 0.23 99.79     2.135    0.3293   *
 0.17 99.96     2.505    0.3988   *
 0.03 99.99     2.940    0.4684
---------------------------------------------------------------------------
                                  0         1         2         3         4

                                Each "*" represents approximately 5.9 observations.

###########################################################################
```

06 39 13
01.08.96

RED-CHRIS PPHM ZONE 15 M COMPOSITES



LOGARITHMIC VALUES
=========== ======

VARIABLE = AU

UNIT = g/t

N = 3491

N CI = 38

POPULATIONS
===========

Pop.	Mean	Std.Dev.	%
1	-1.8223	0.0935	2.0
2	-1.5003	0.0606	7.6
3	-0.7880	0.3429	89.7
4	0.1662	0.1404	0.7

Pop	THRESHOLDS	
1	-2.0094	-1.6352
2	-1.6215	-1.3790
3	-1.4738	-0.1022
4	-0.1146	0.4470

CLASS INTERVAL ML
PARAMETER ESTIMATES

##

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = D:\REDCHRIS\RC96PPHM.PPP

Variable = AU   Unit = g/t   N = 3491
N CI = 36

Transform = Logarithmic   Number of Populations = 4

# of Missing Observations = 74.

==

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -11077.909

Parameterized Degrees of Freedom = 7

Population	Mean		Std Dev	Percentage
1	0.015	-	0.012	1.96
		+	0.019	
2	0.032	-	0.027	7.60
		+	0.036	
3	0.163	-	0.074	89.70
		+	0.359	
4	1.466	-	1.061	0.74
		+	2.026	

==

Default Thresholds.

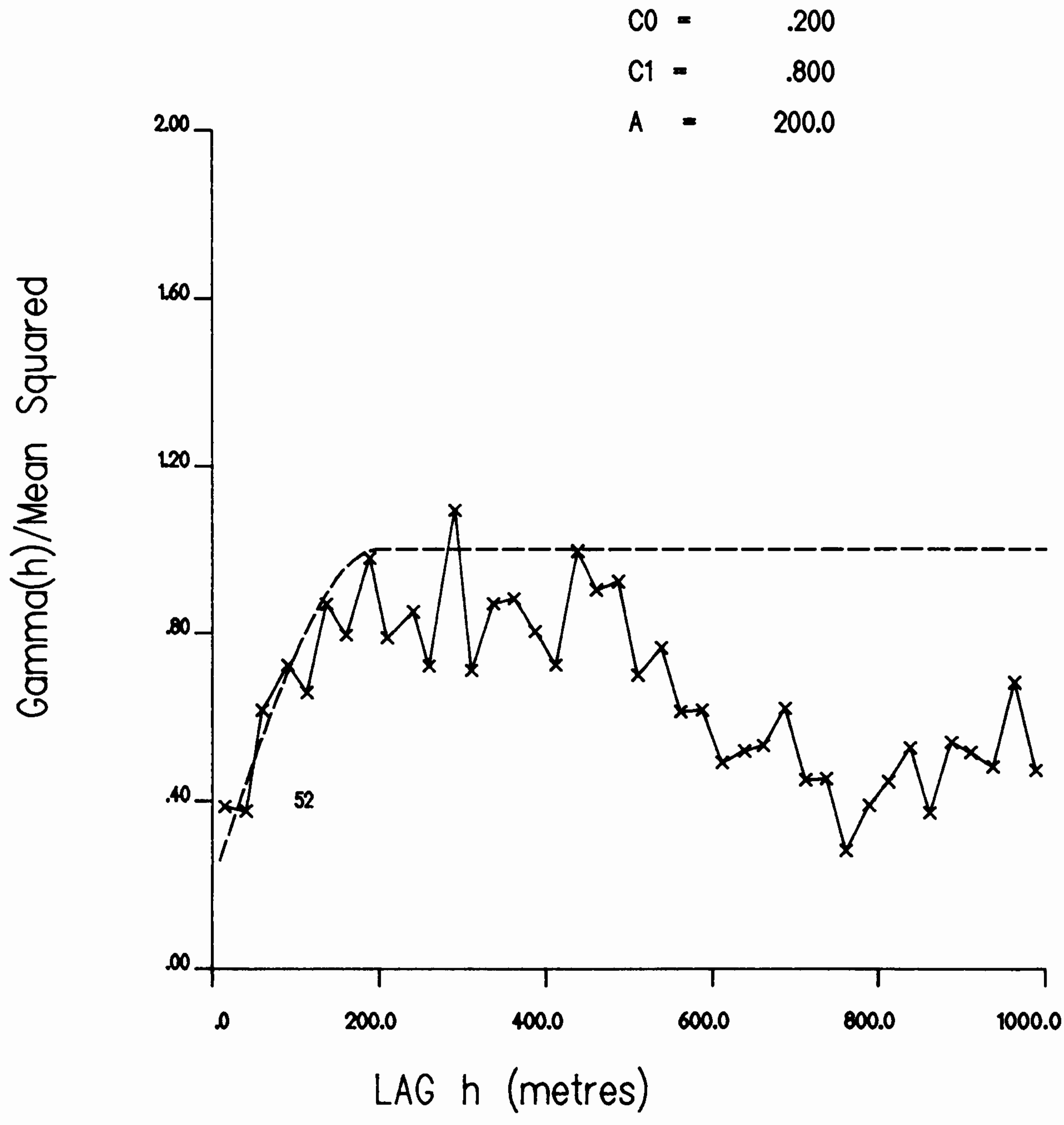
Standard Deviation Multiplier = 2.0

Pop.	Thresholds	
1	0.010	0.023
2	0.024	0.042
3	0.034	0.790
4	0.768	2.799

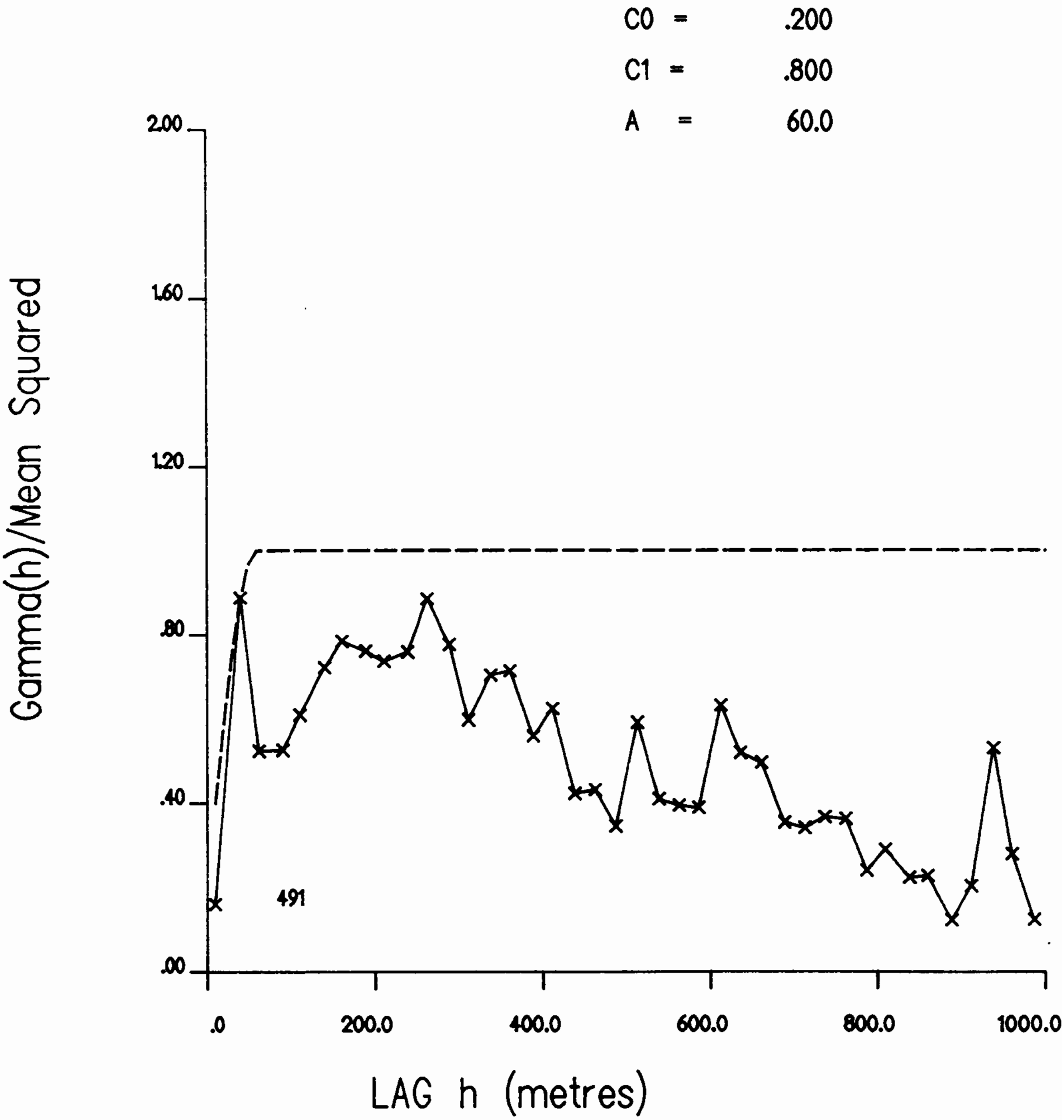
##

APPENDIX 2

RELATIVE SEMI-VARIOGRAMS
FOR
COPPER



RED CHRIS MAIN PPHM ZONE CU - AZ. 090



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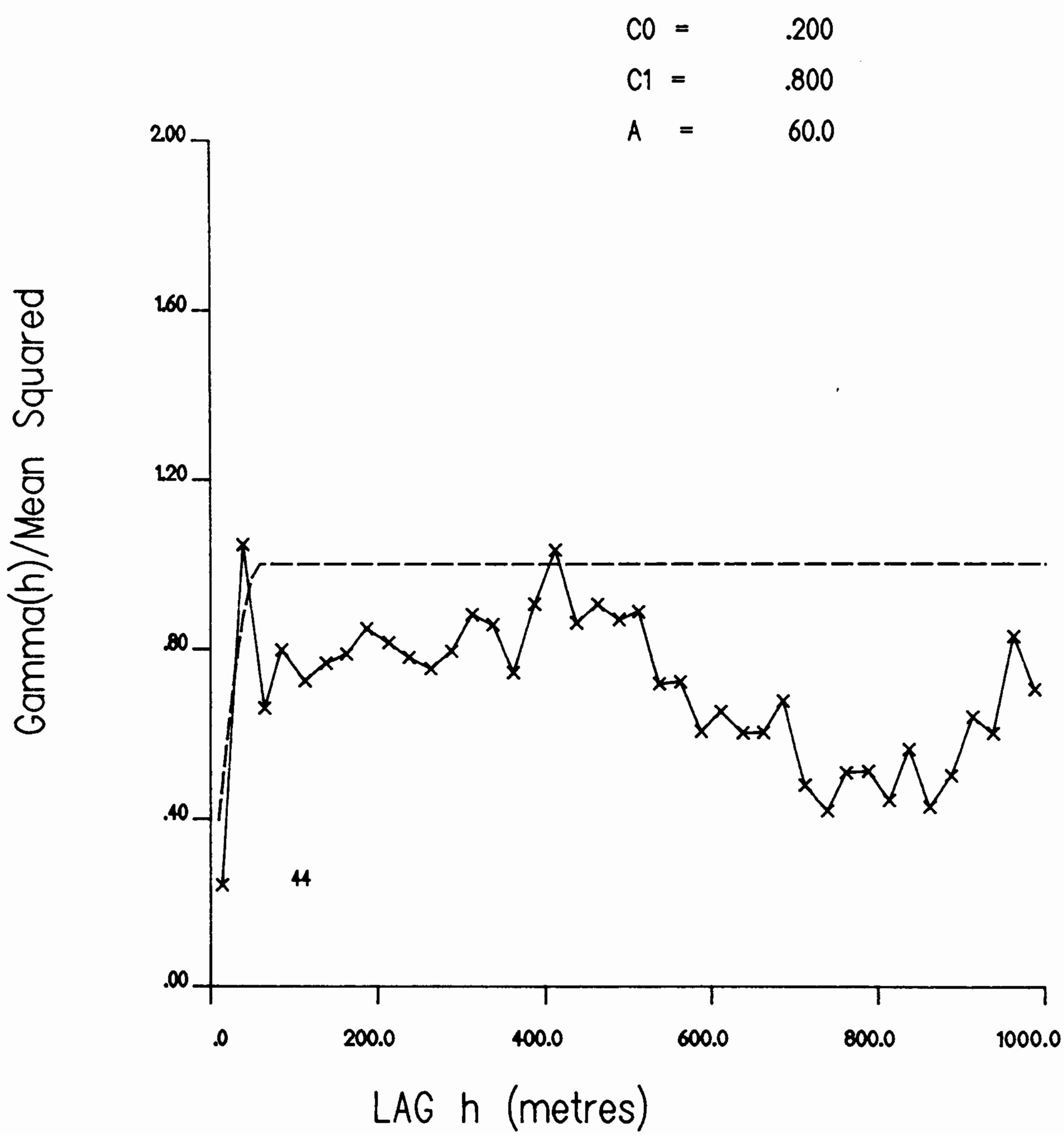
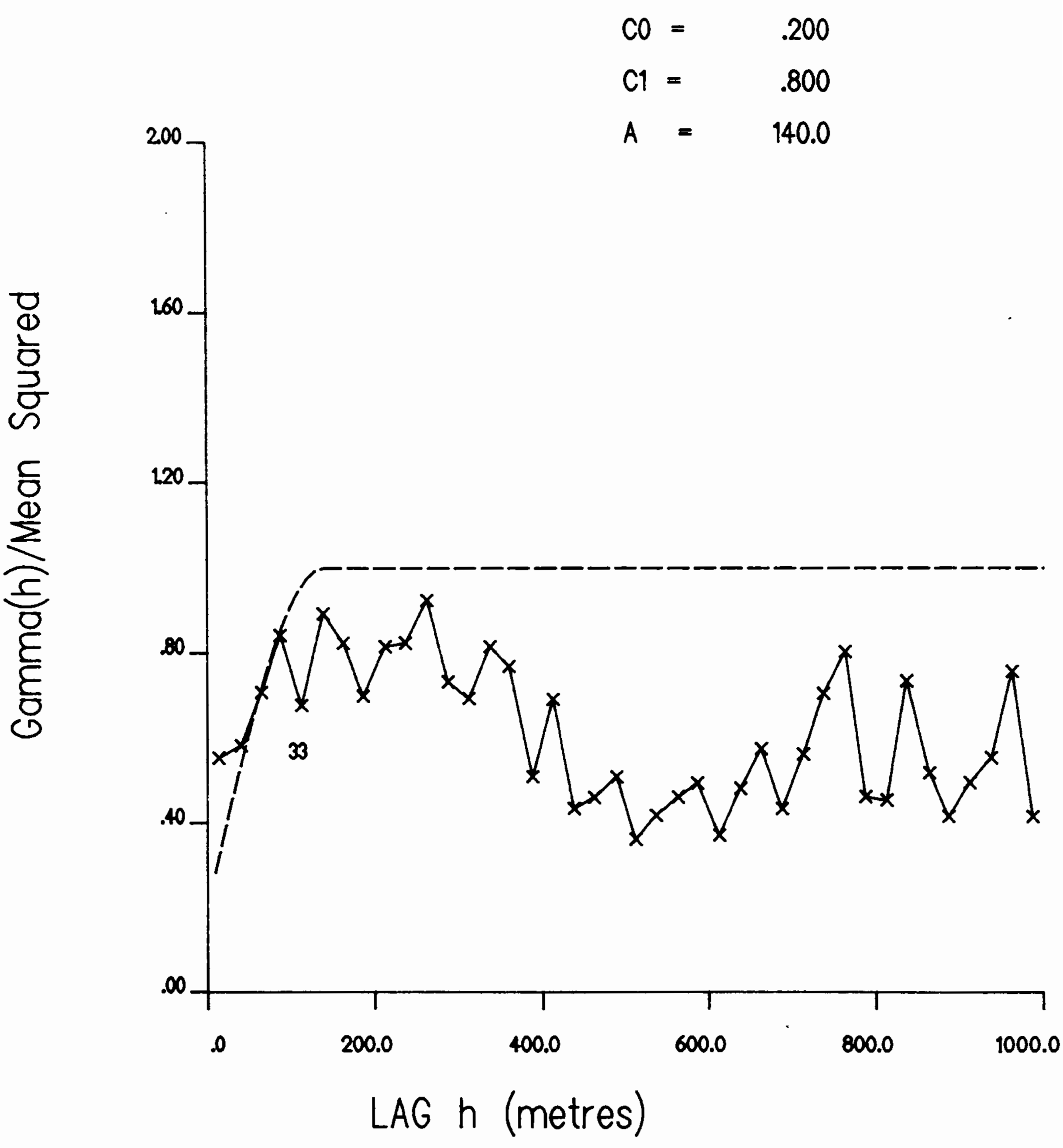
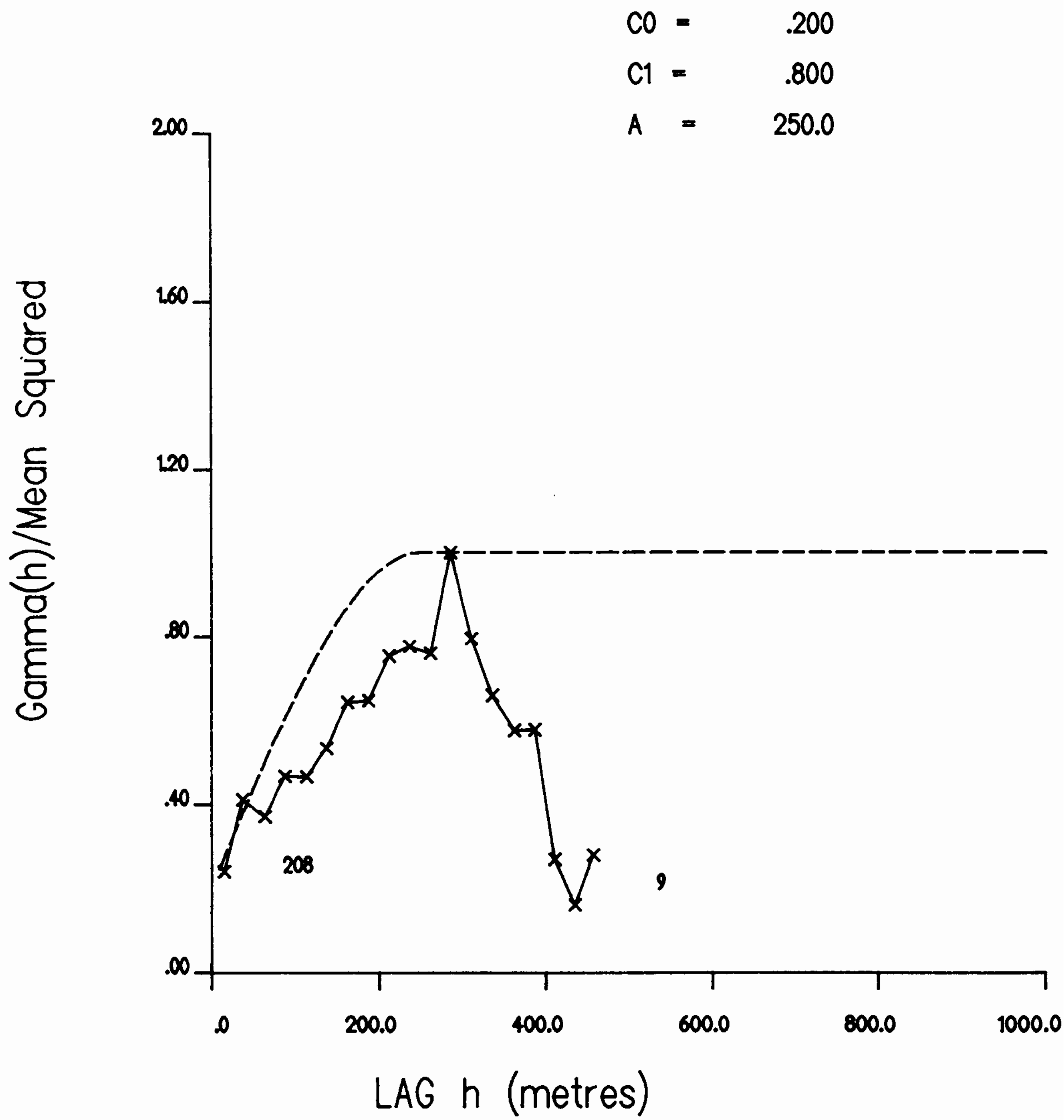


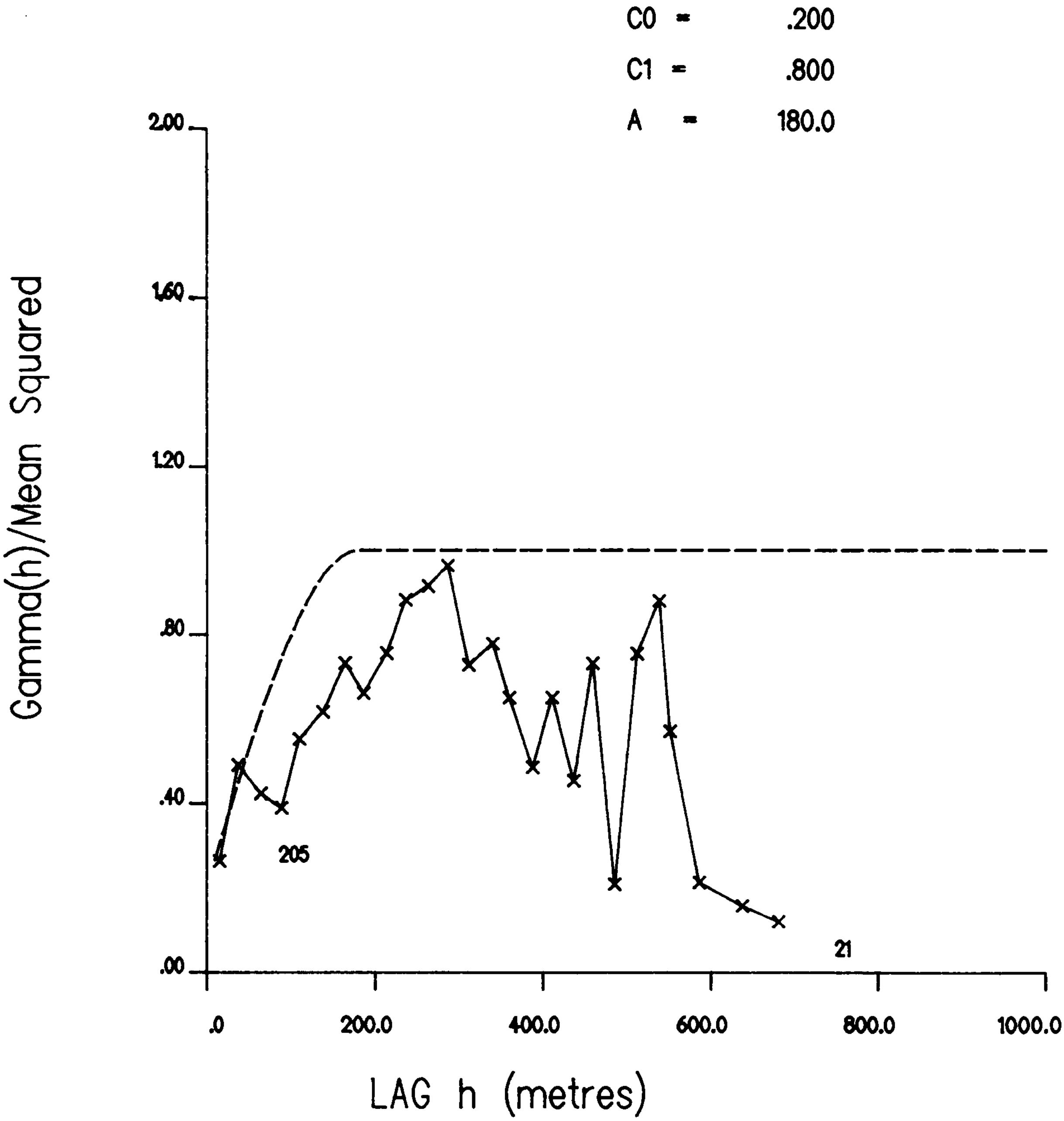
RED CHRIS MAIN PPHM ZONE CU - AZ. 045



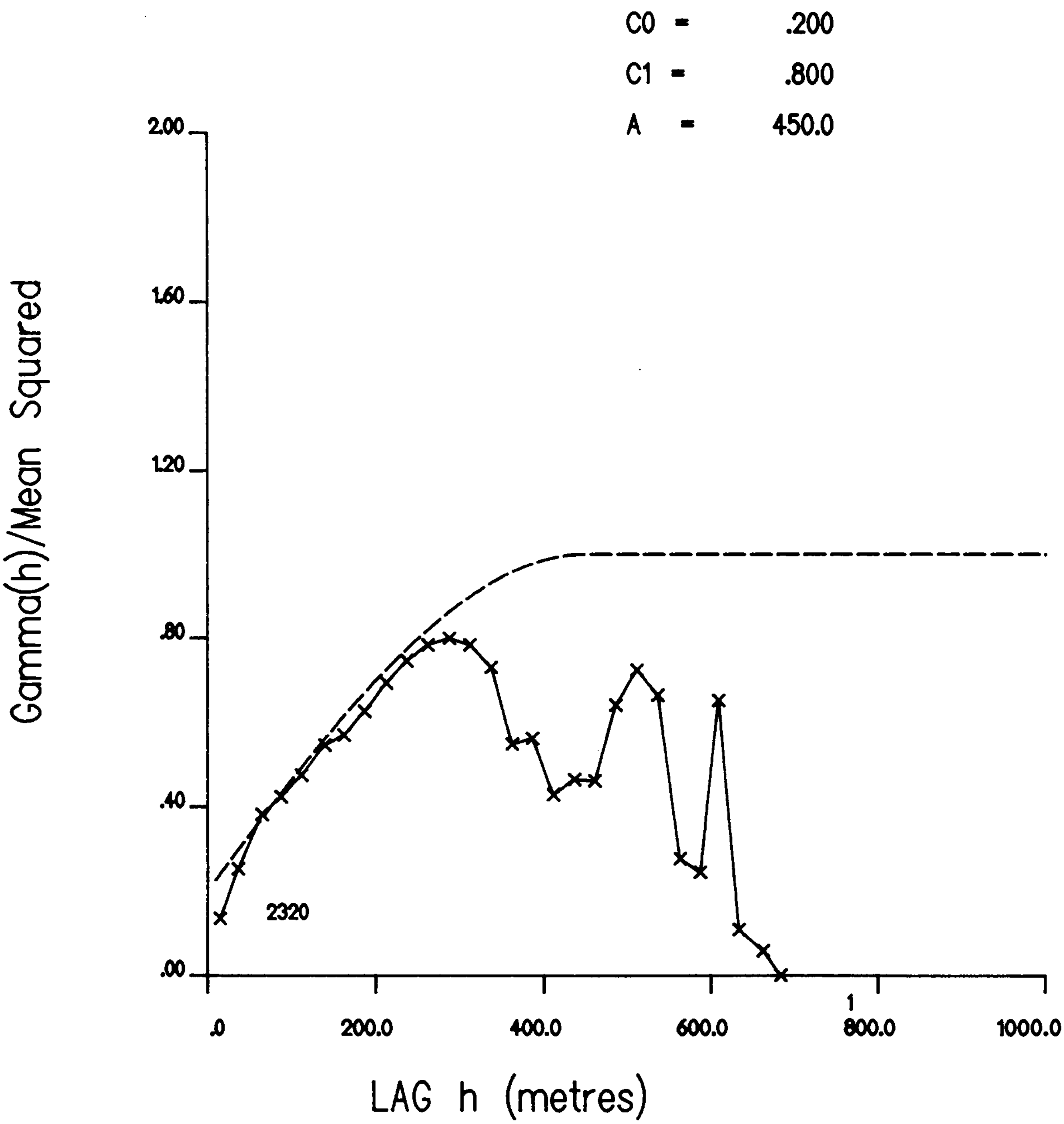
RED CHRIS MAIN PPHM ZONE CU - AZ. 135



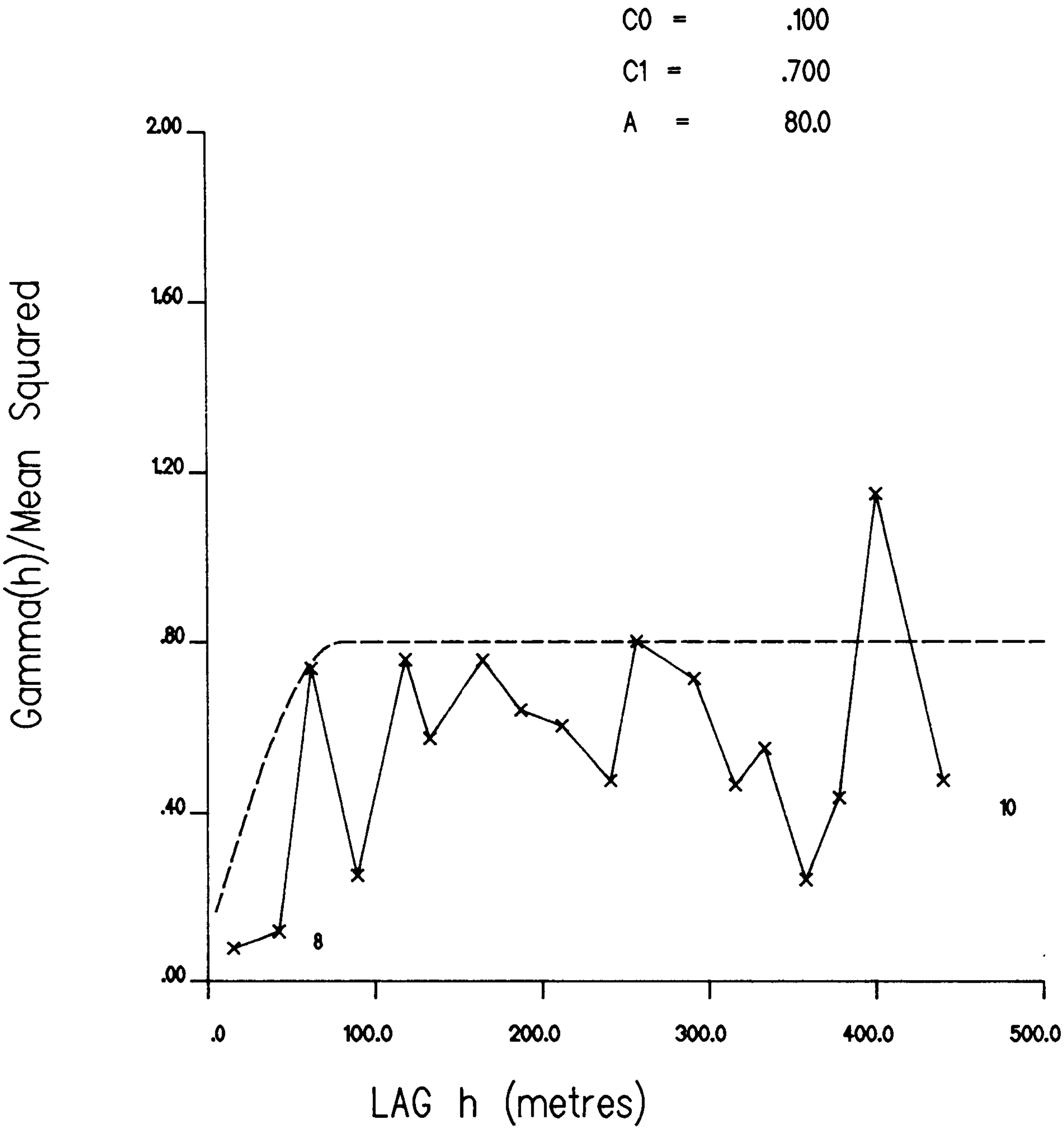
RED CRHIS MAIN PPHM ZONE CU - -90



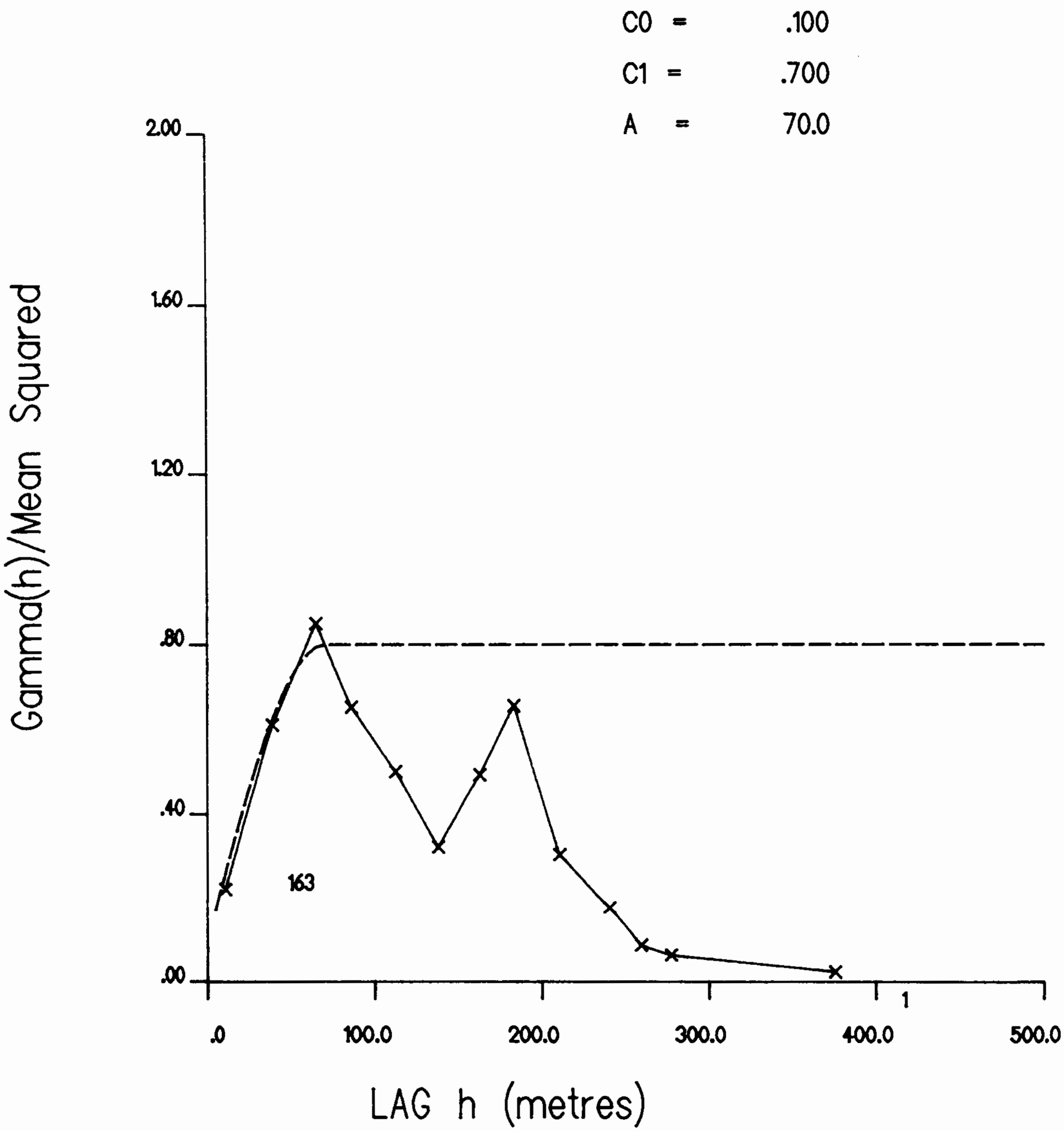
RED CHRIS MAIN PPHM ZONE CU - -45 S



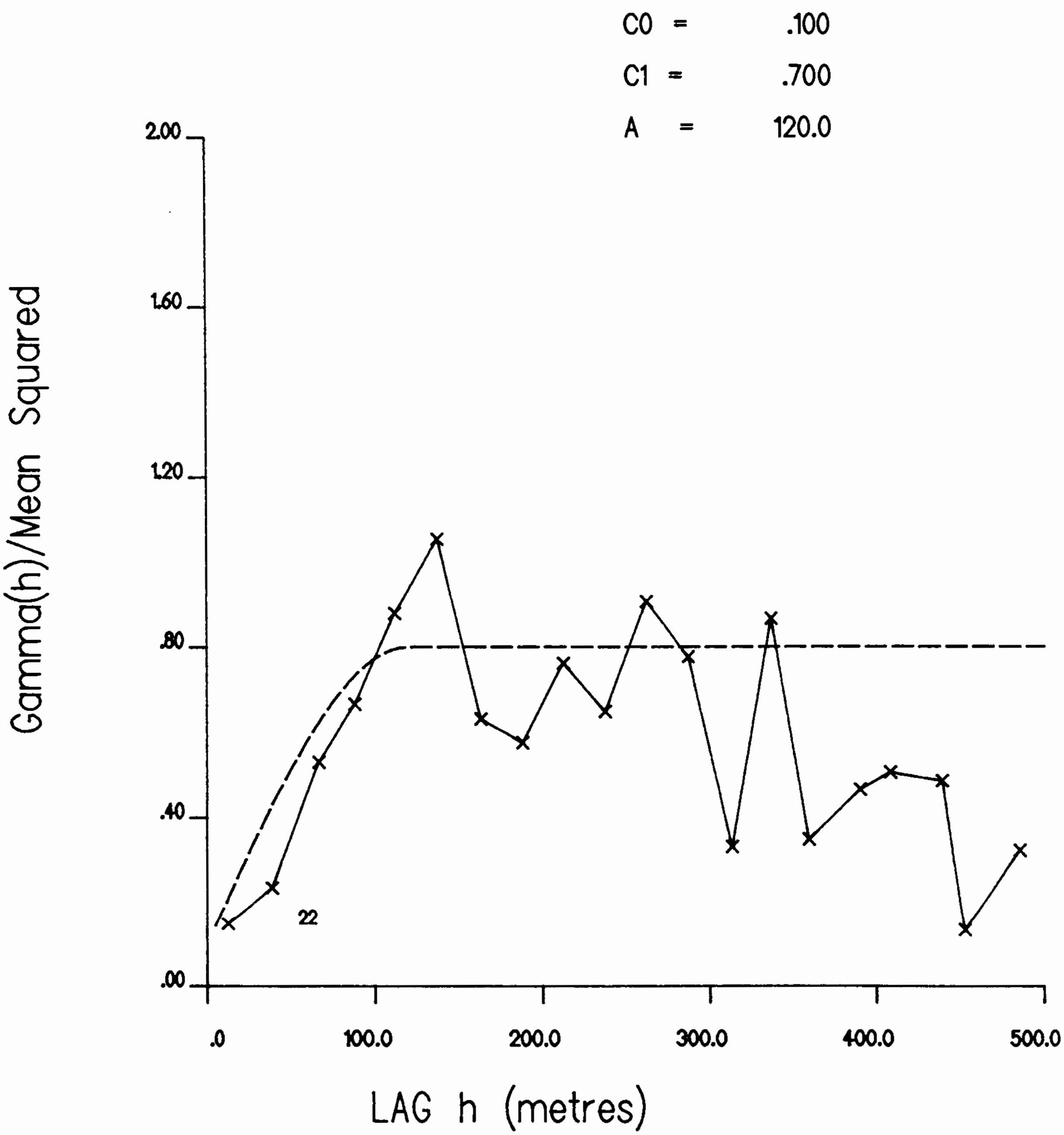
RED CHRIS MAIN PPHM ZONE CU - -45 N



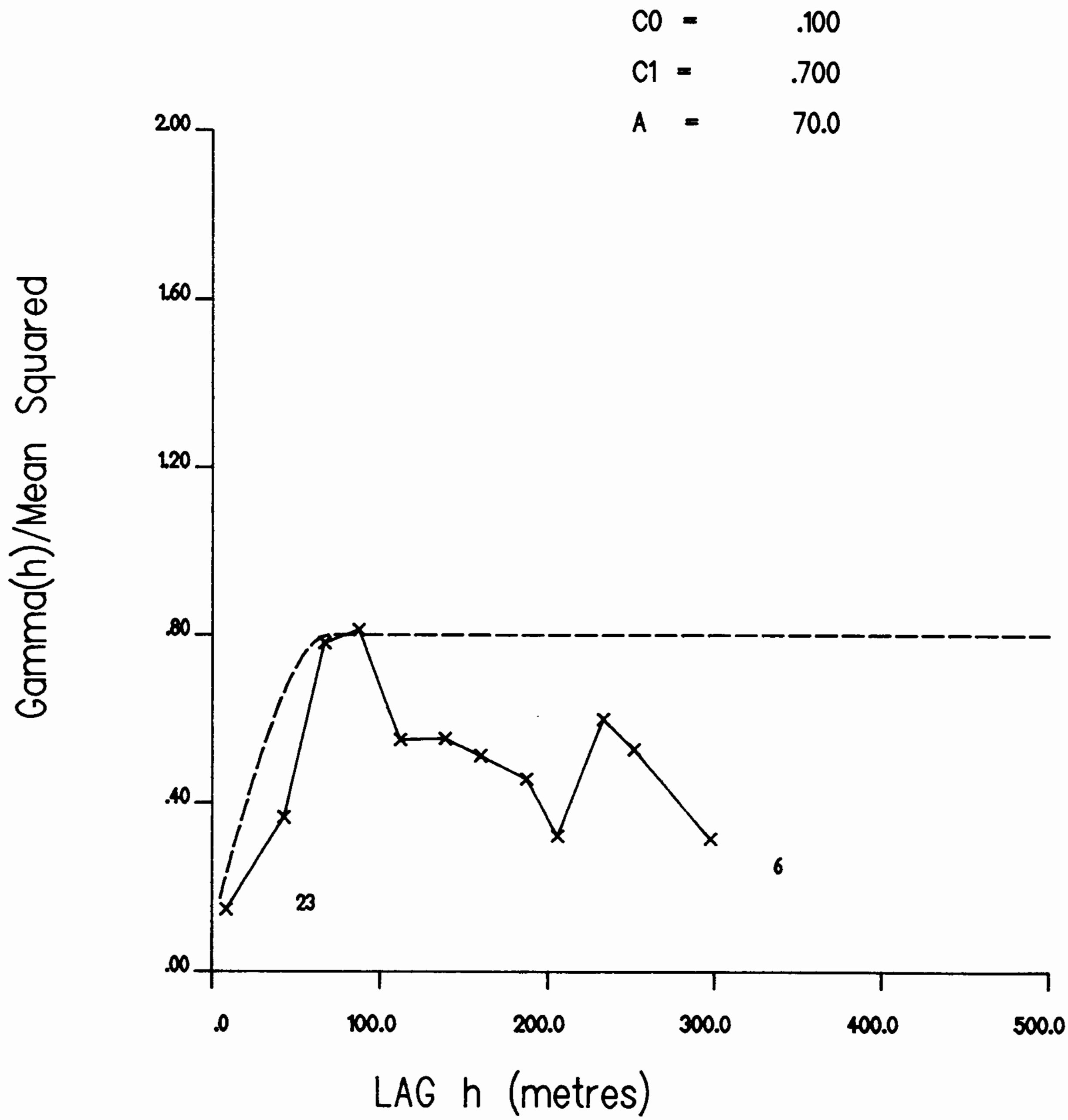
RED CHRIS EAST PPHM ZONE CU - AZ. 090



RED CHRIS EAST PPHM ZONE CU - AZ. 000



RED CHRIS EAST PPHM ZONE CU - AZ. 045



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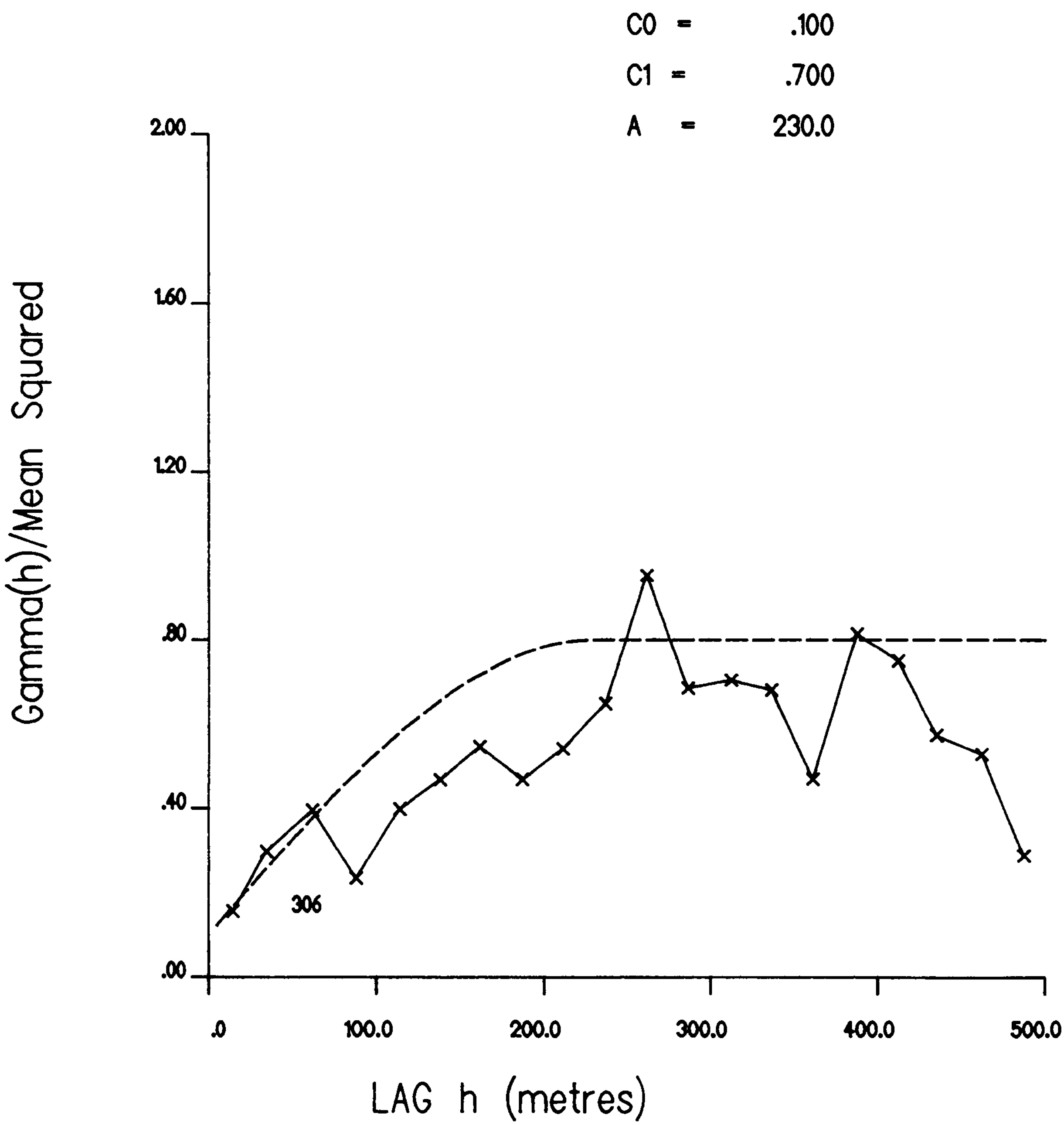
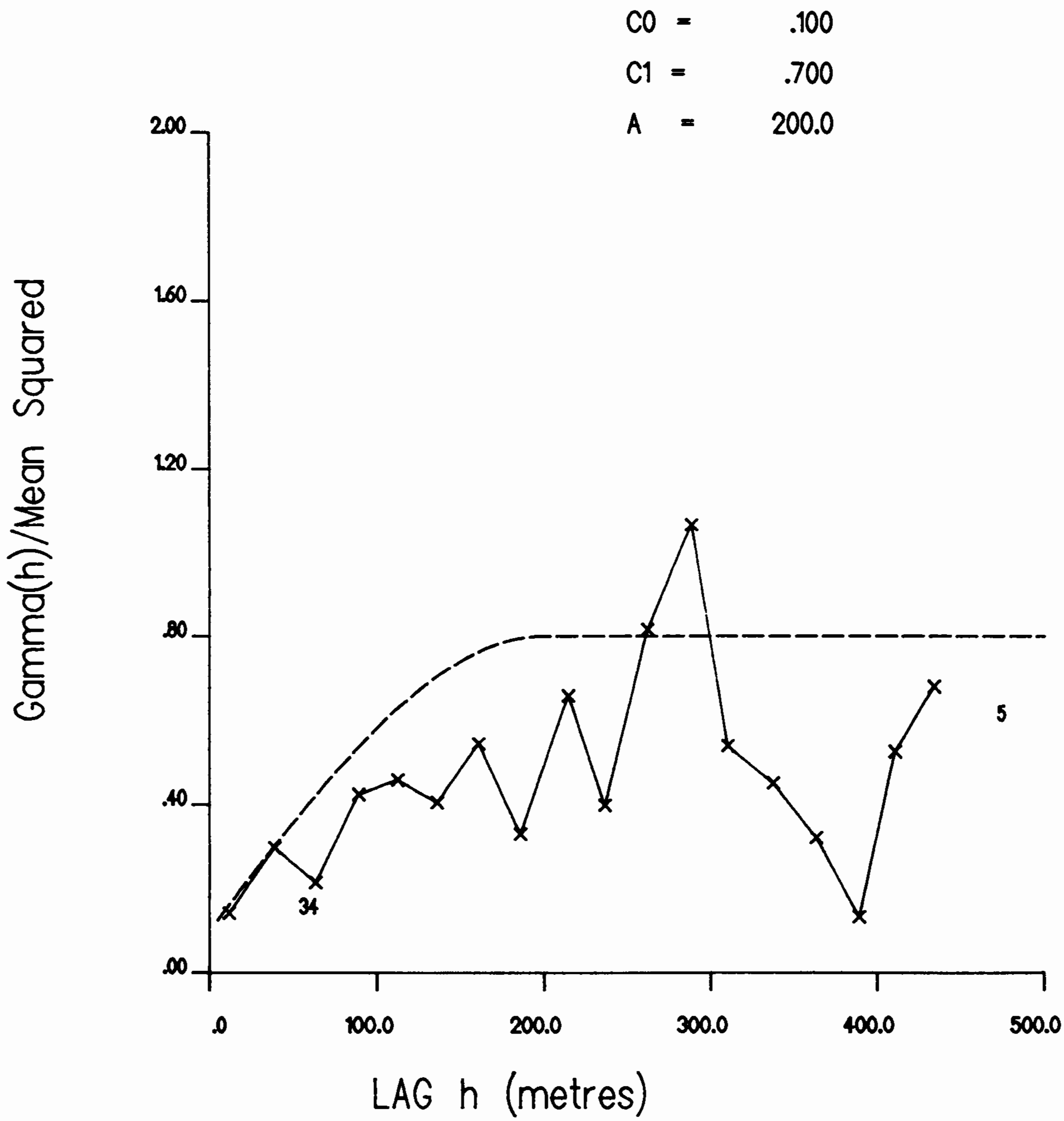


RED CHRIS EAST PPHM ZONE CU - -90



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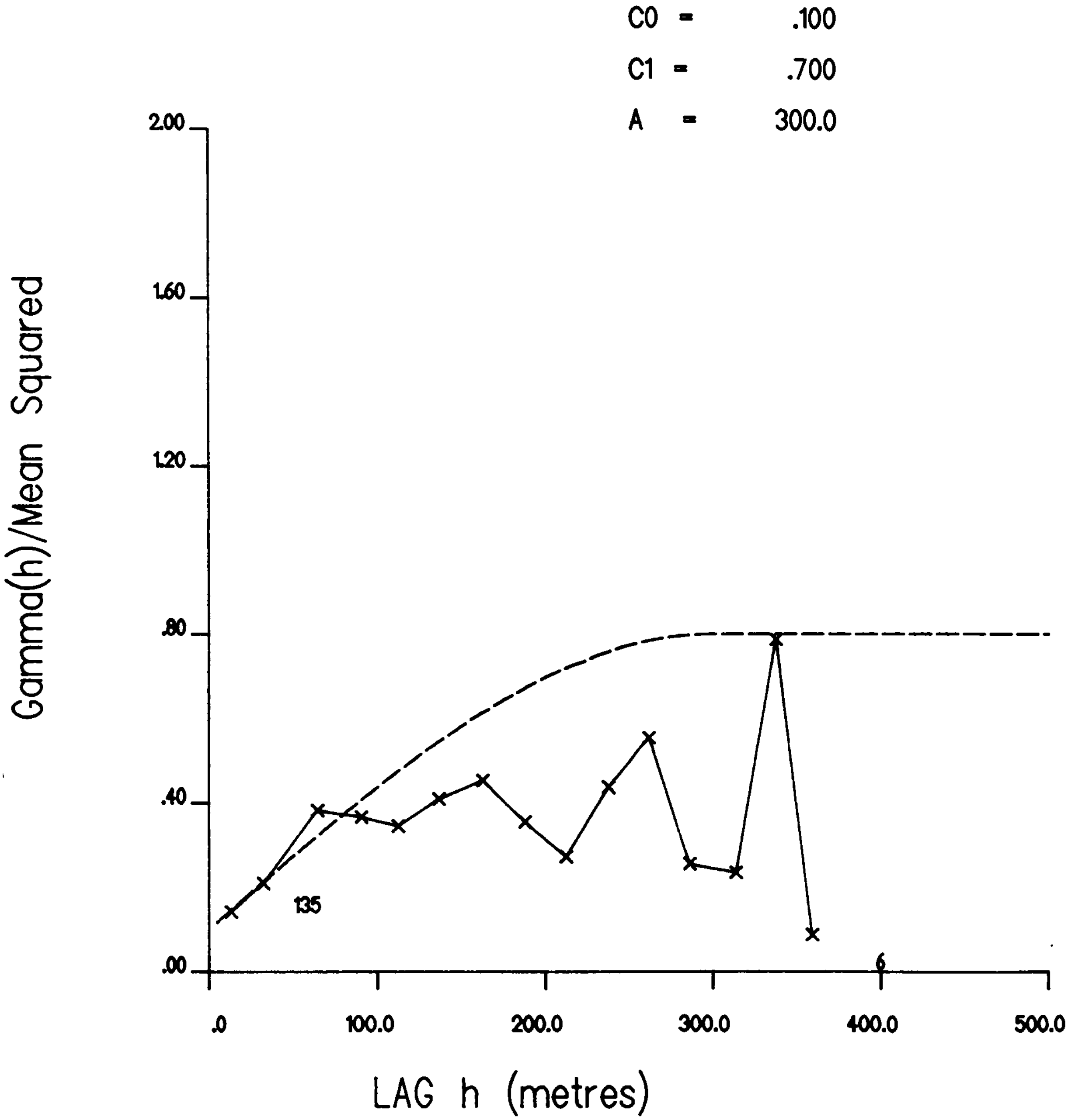
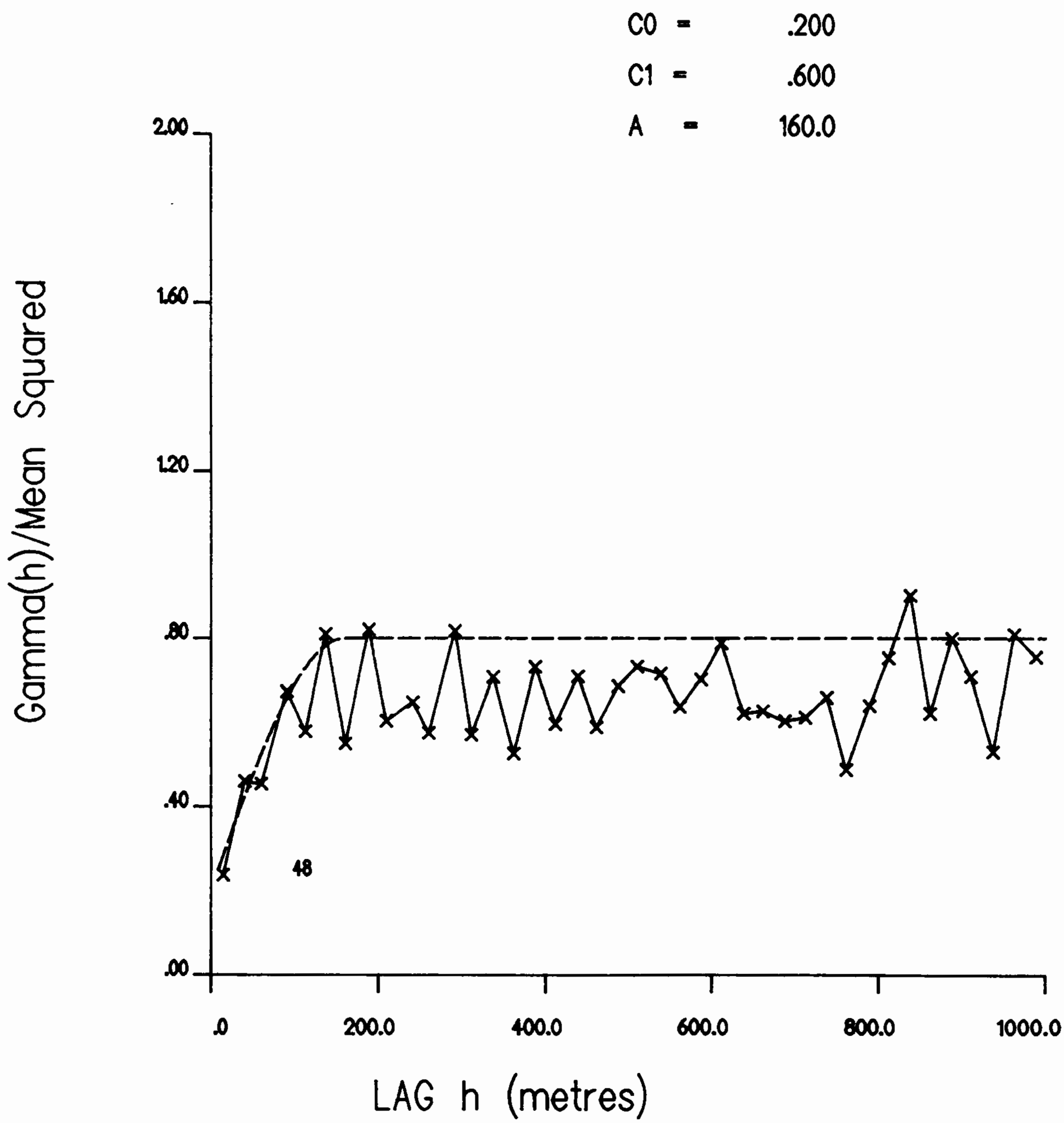


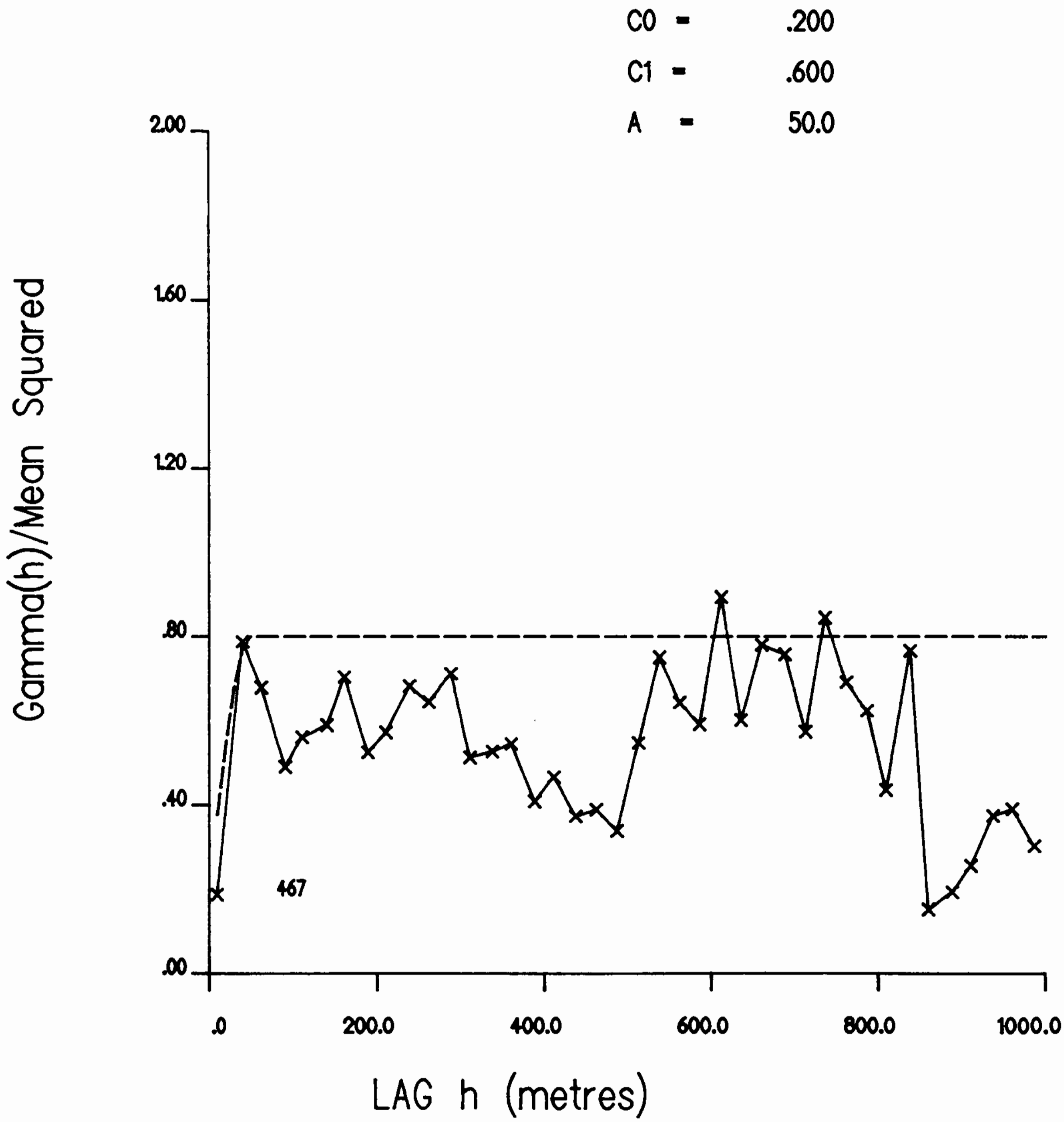
RED CHRIS EAST PPHM ZONE CU - -45 NW

APPENDIX 3

RELATIVE SEMI-VARIOGRAMS
FOR
GOLD



RED CHRIS MAIN PPHM ZONE AU - AZ. 090



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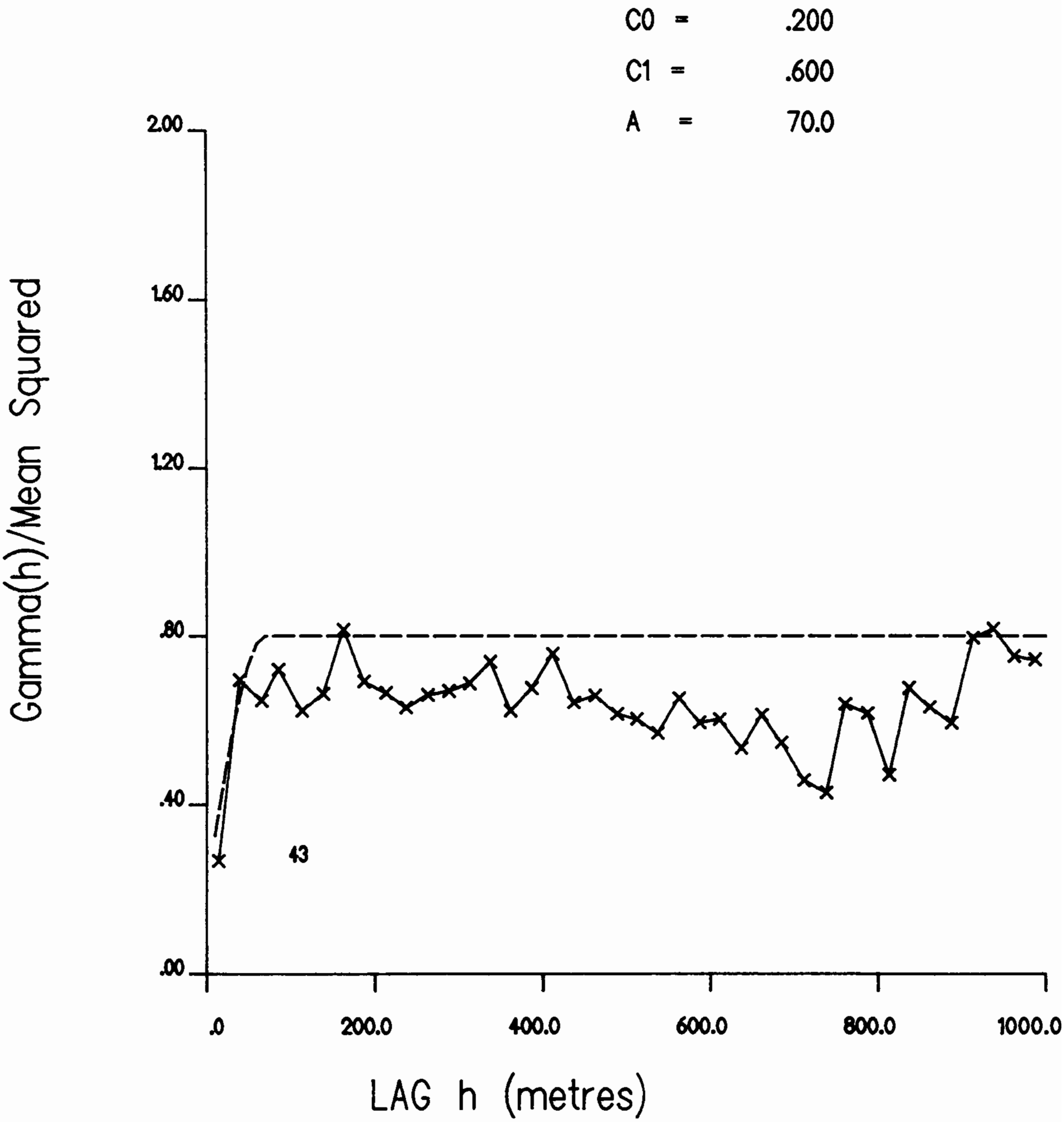

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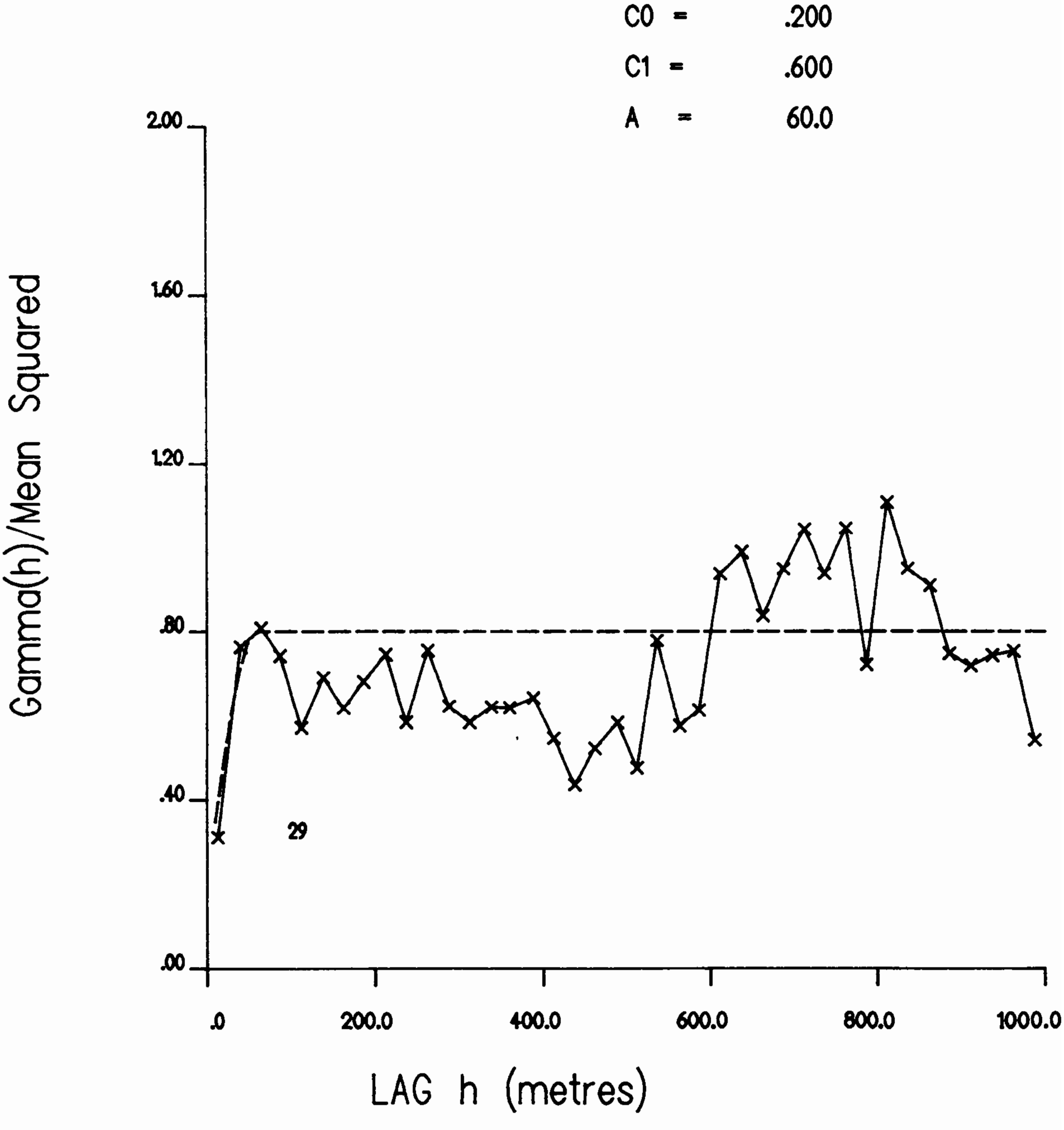

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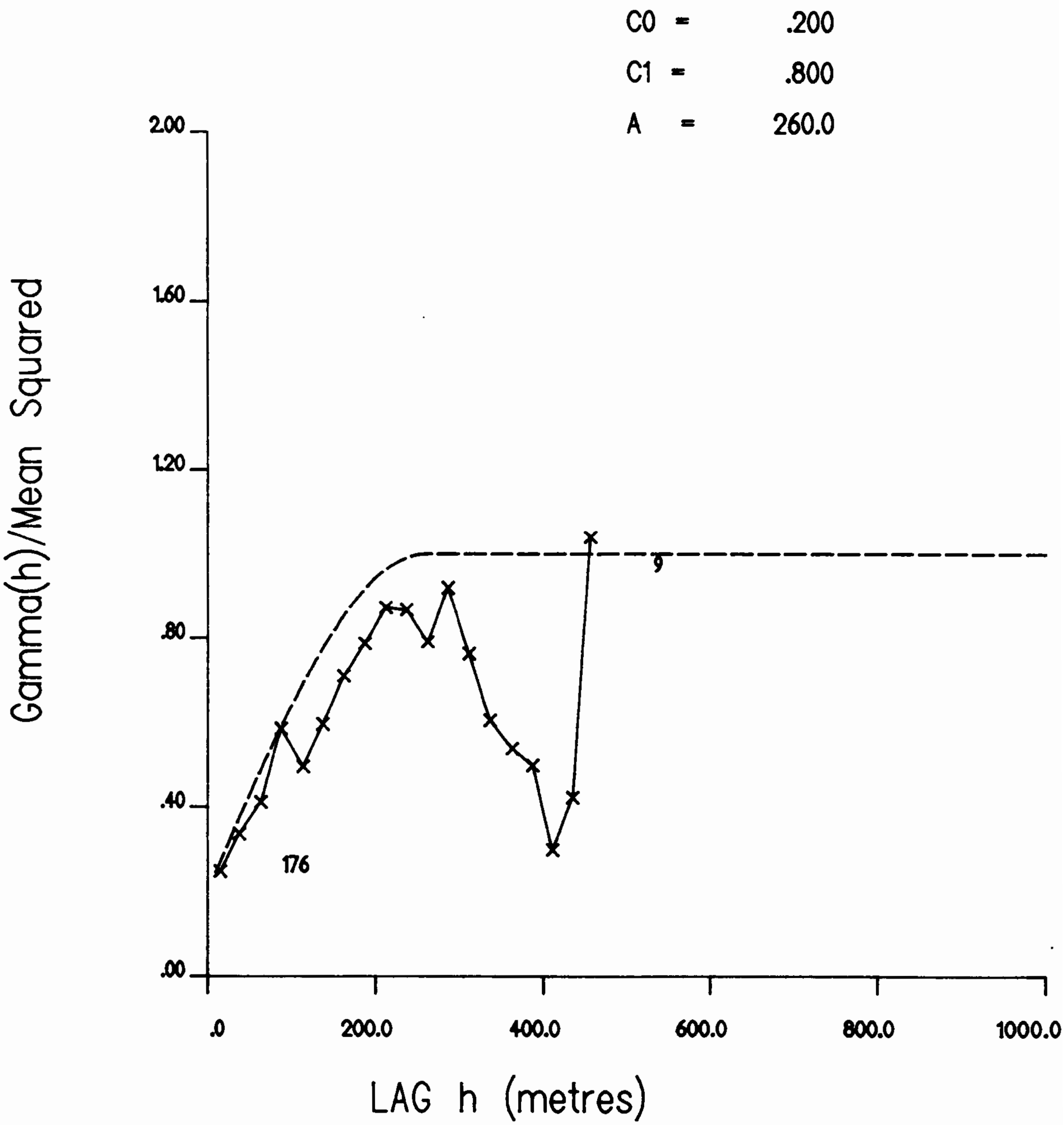

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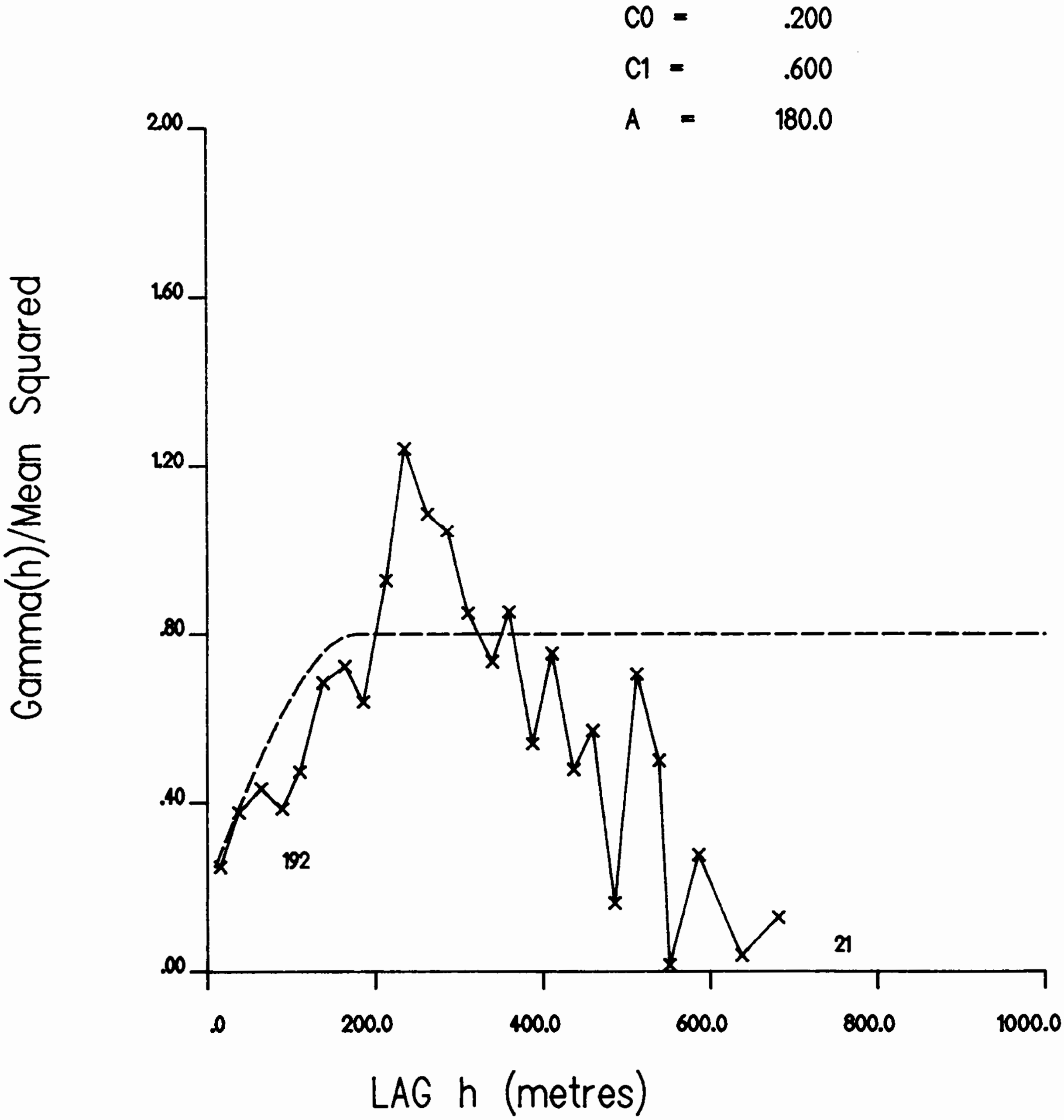

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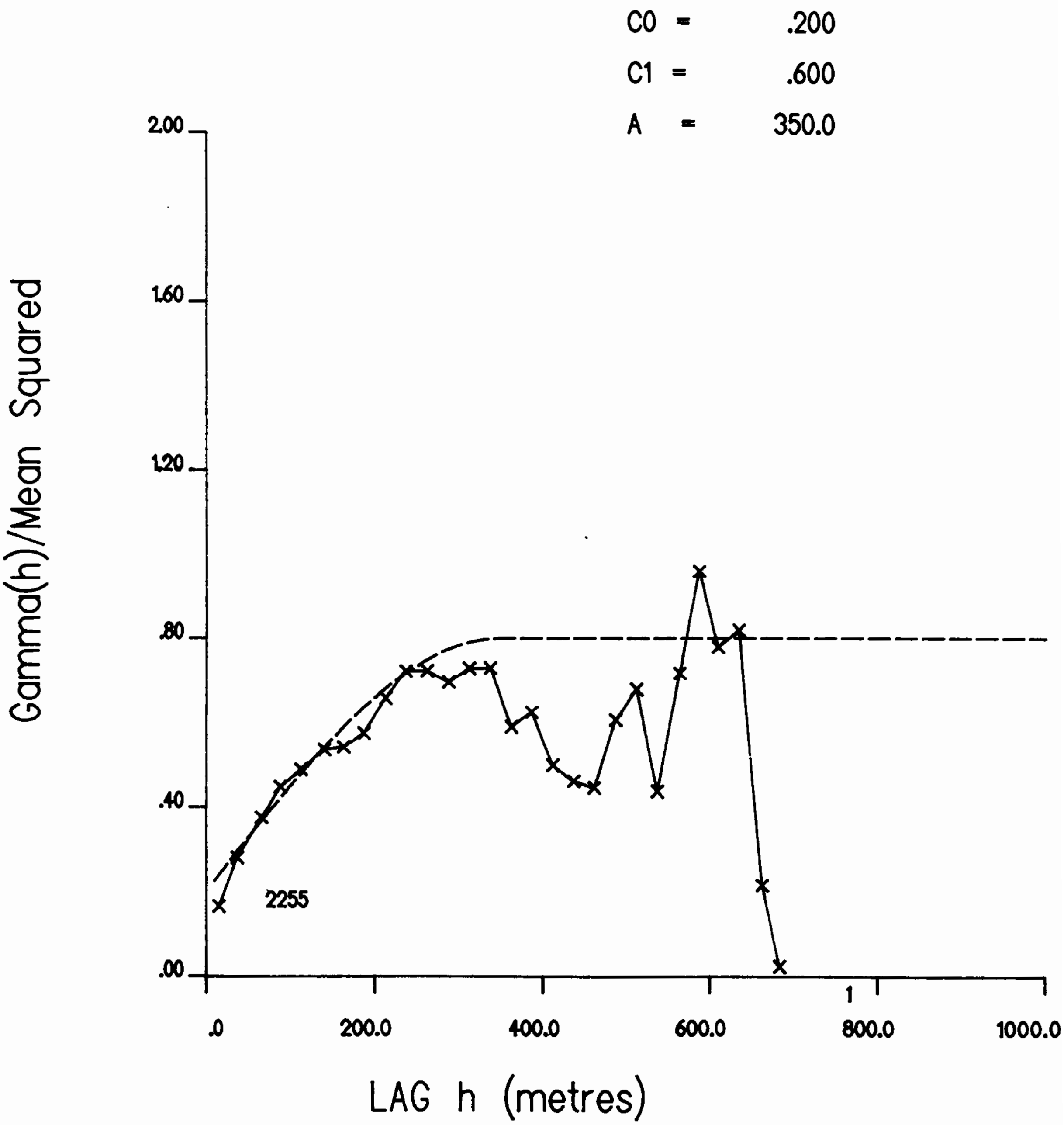

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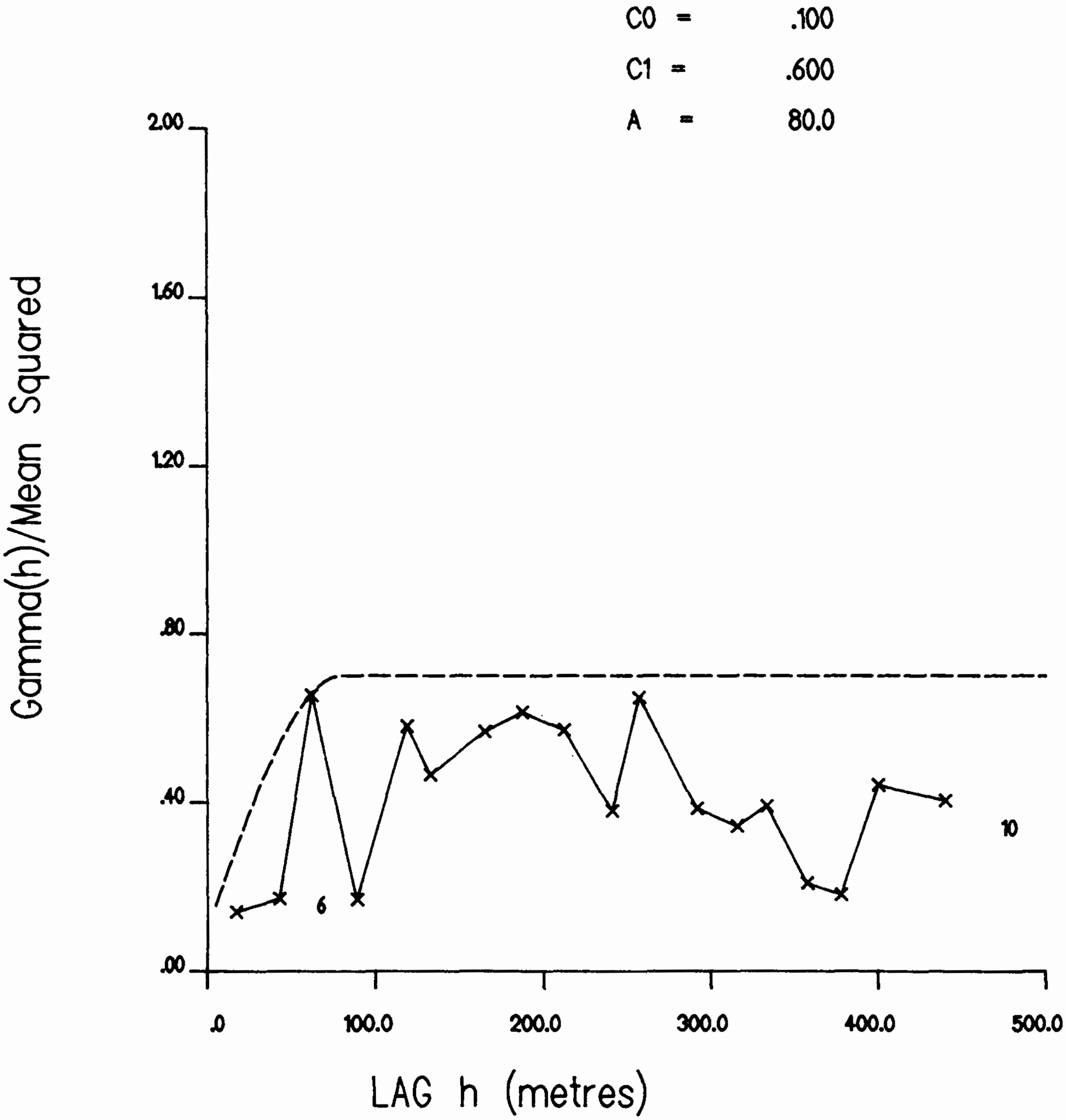

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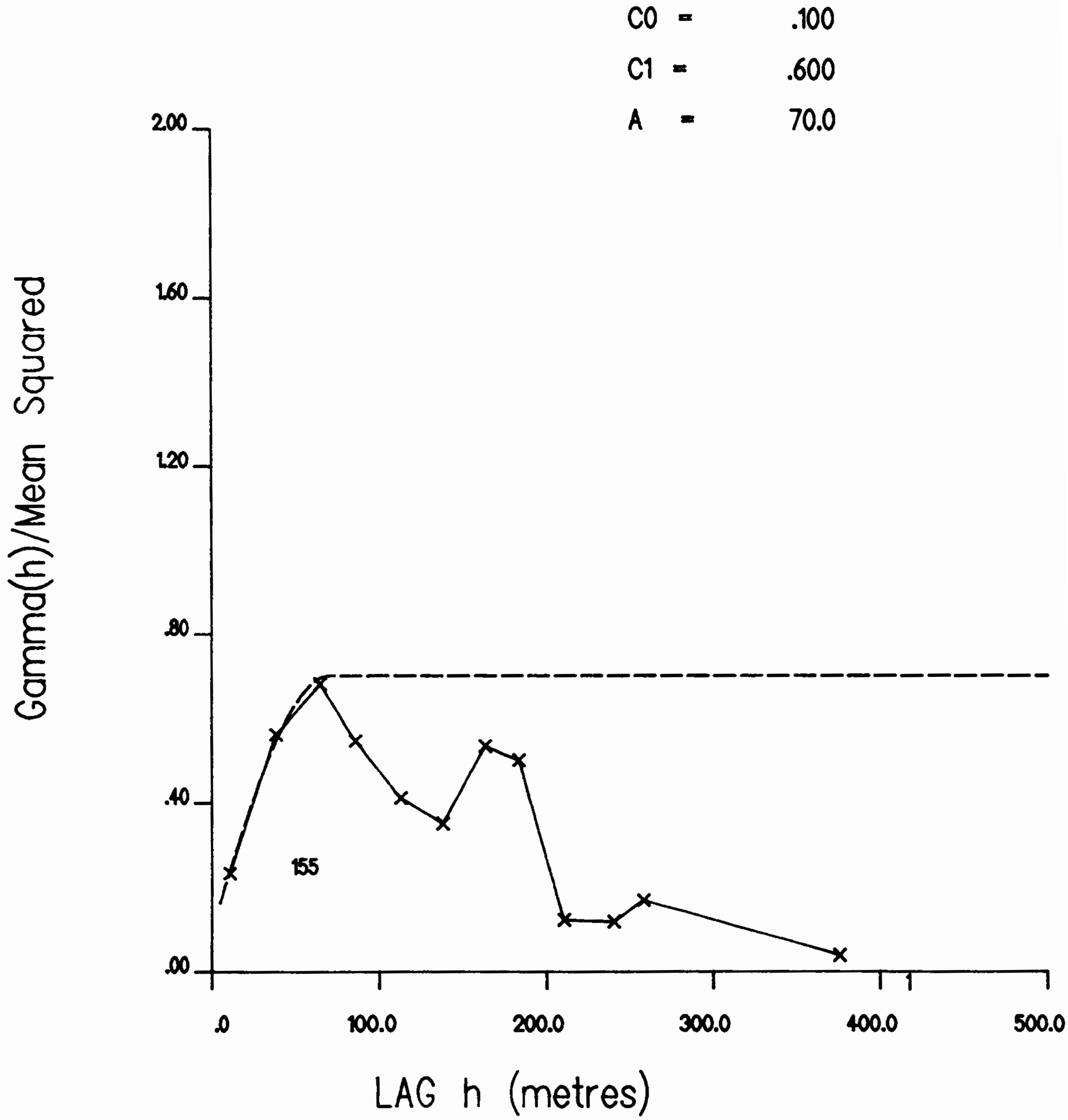

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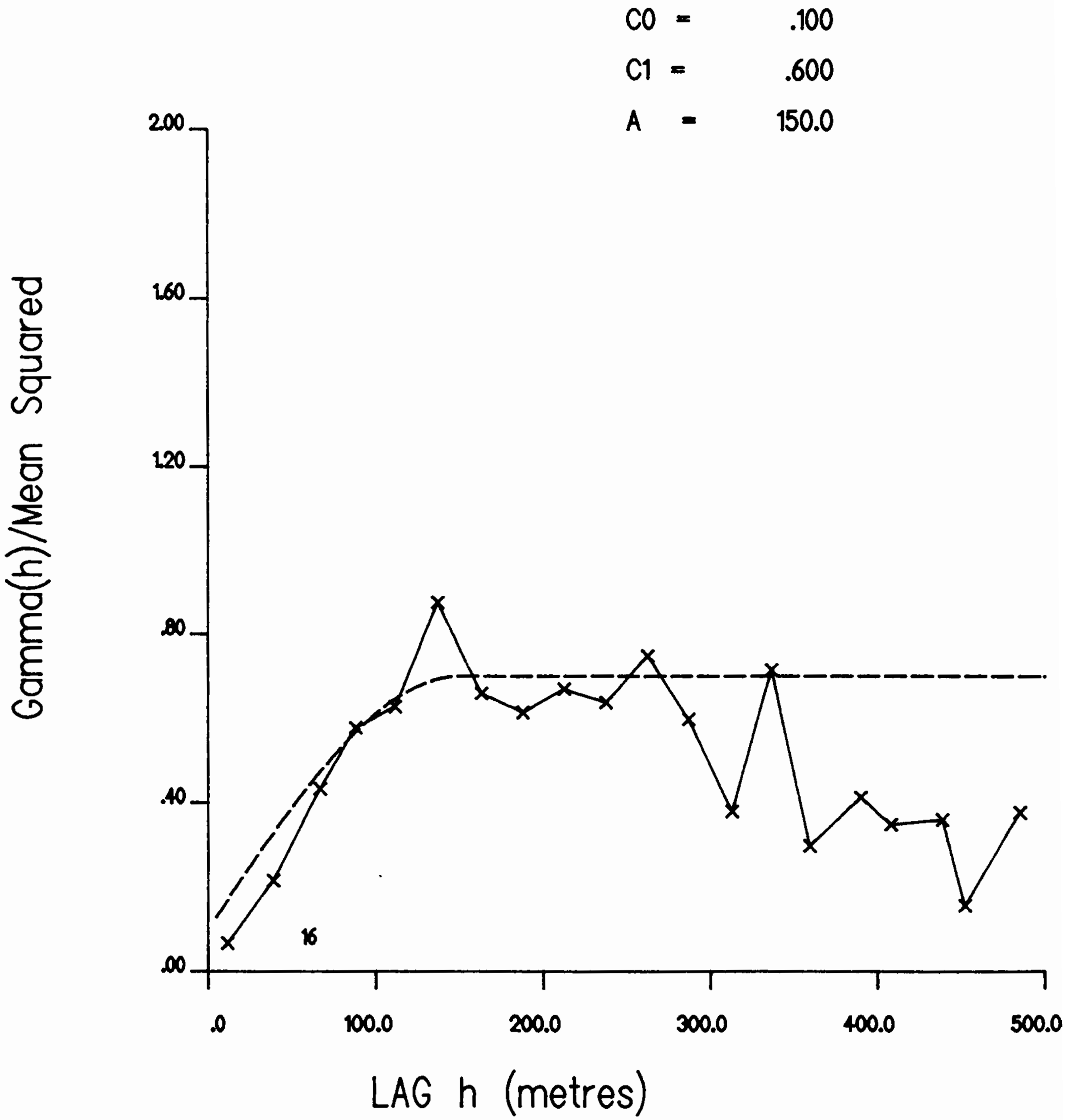

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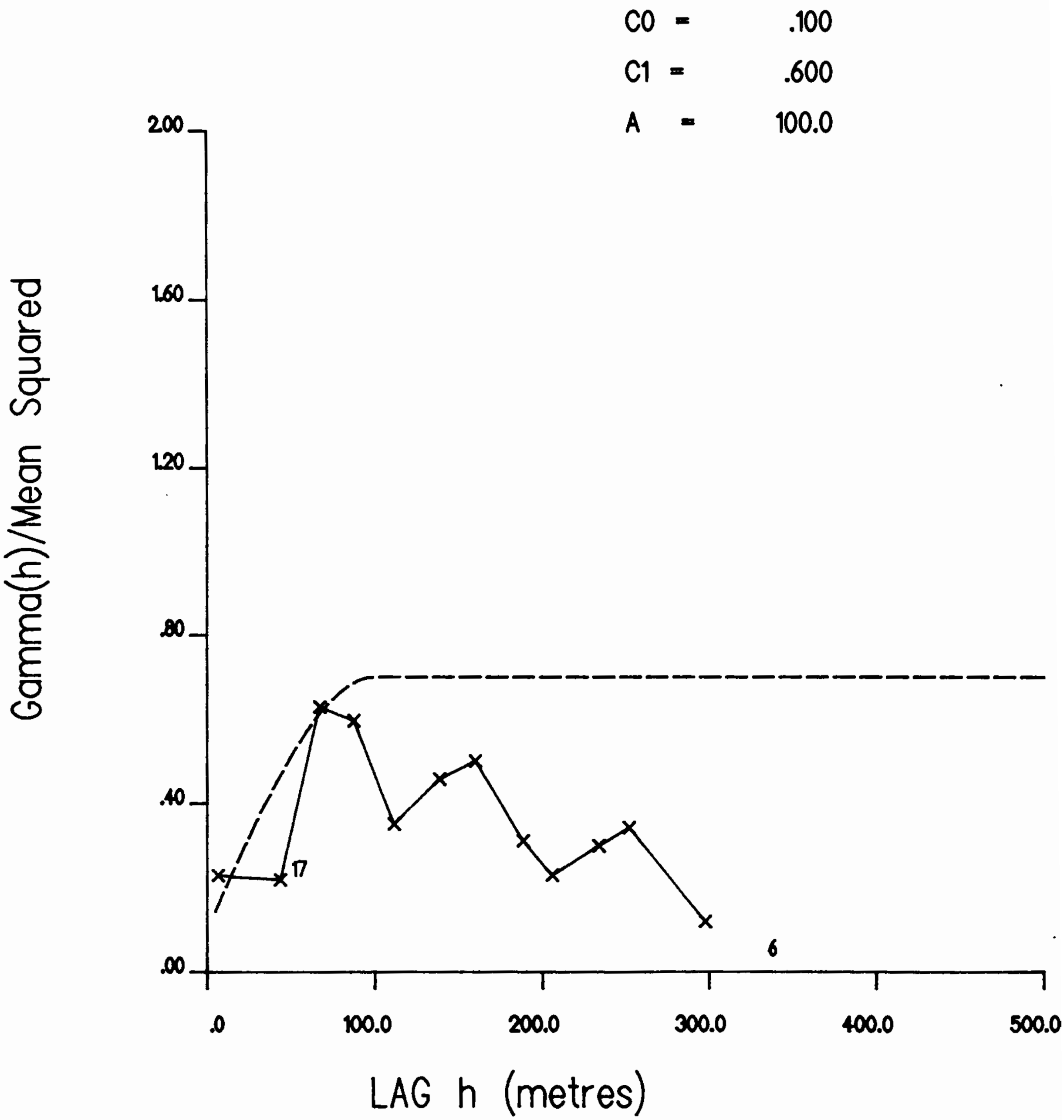

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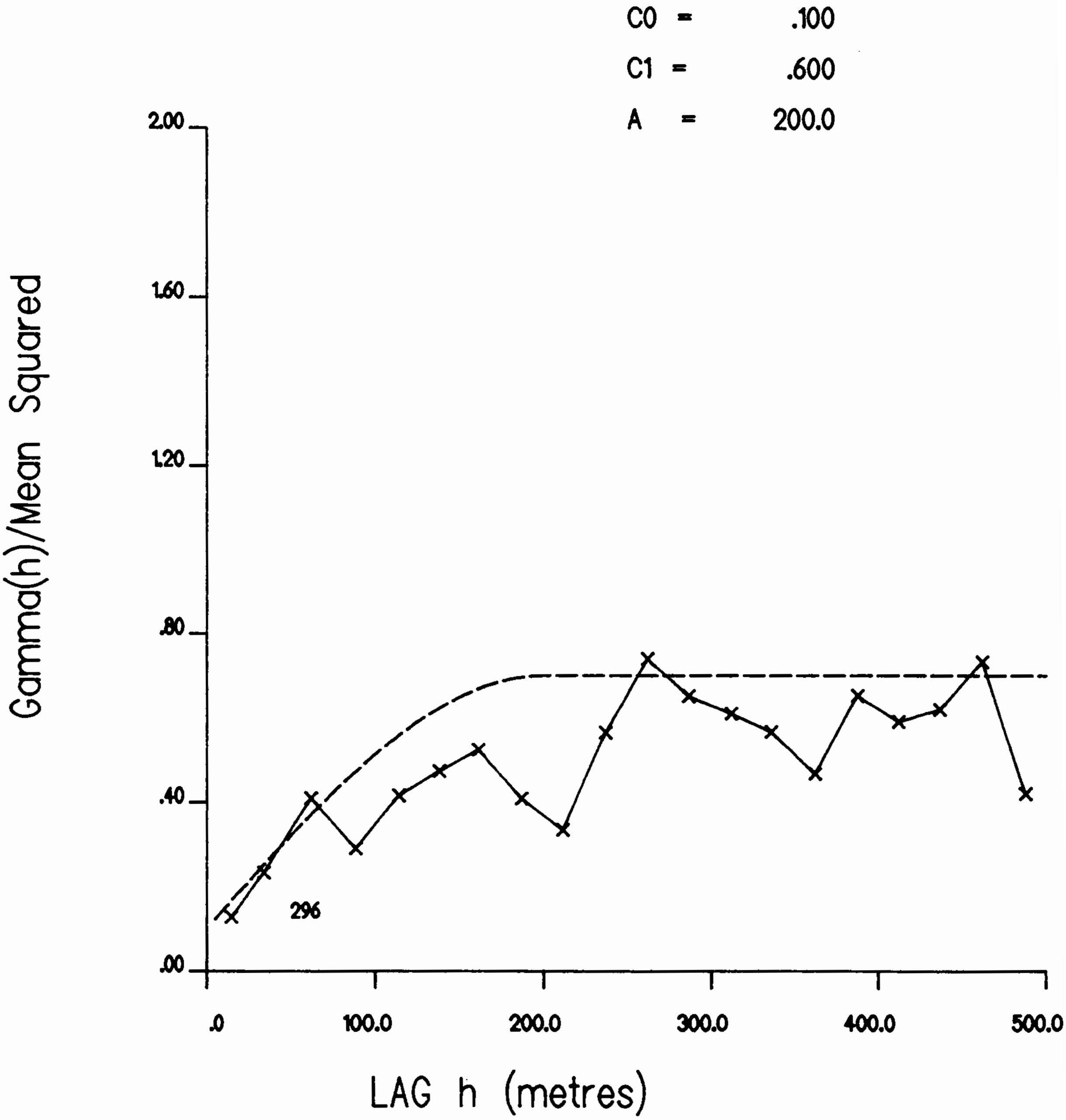

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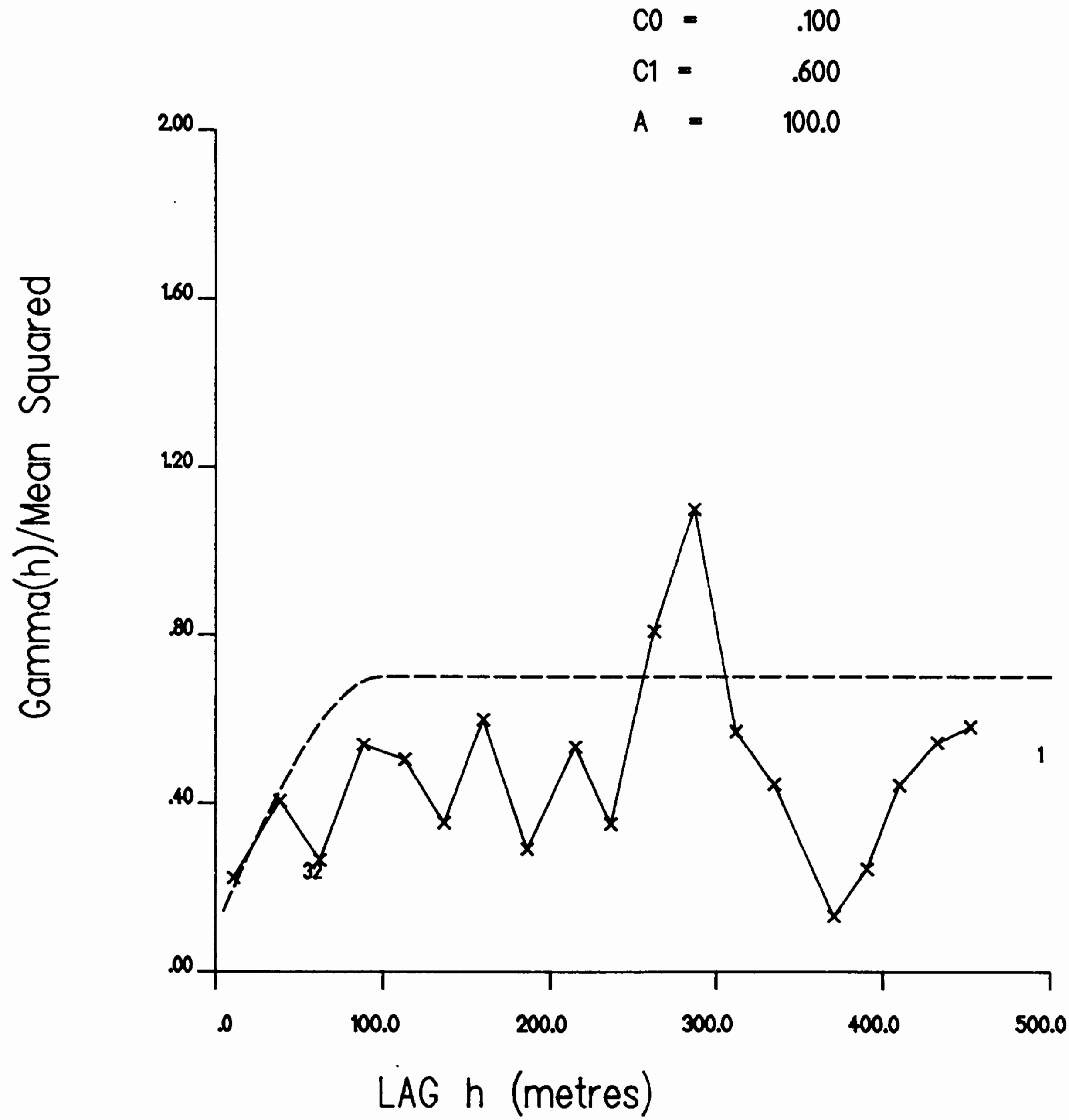

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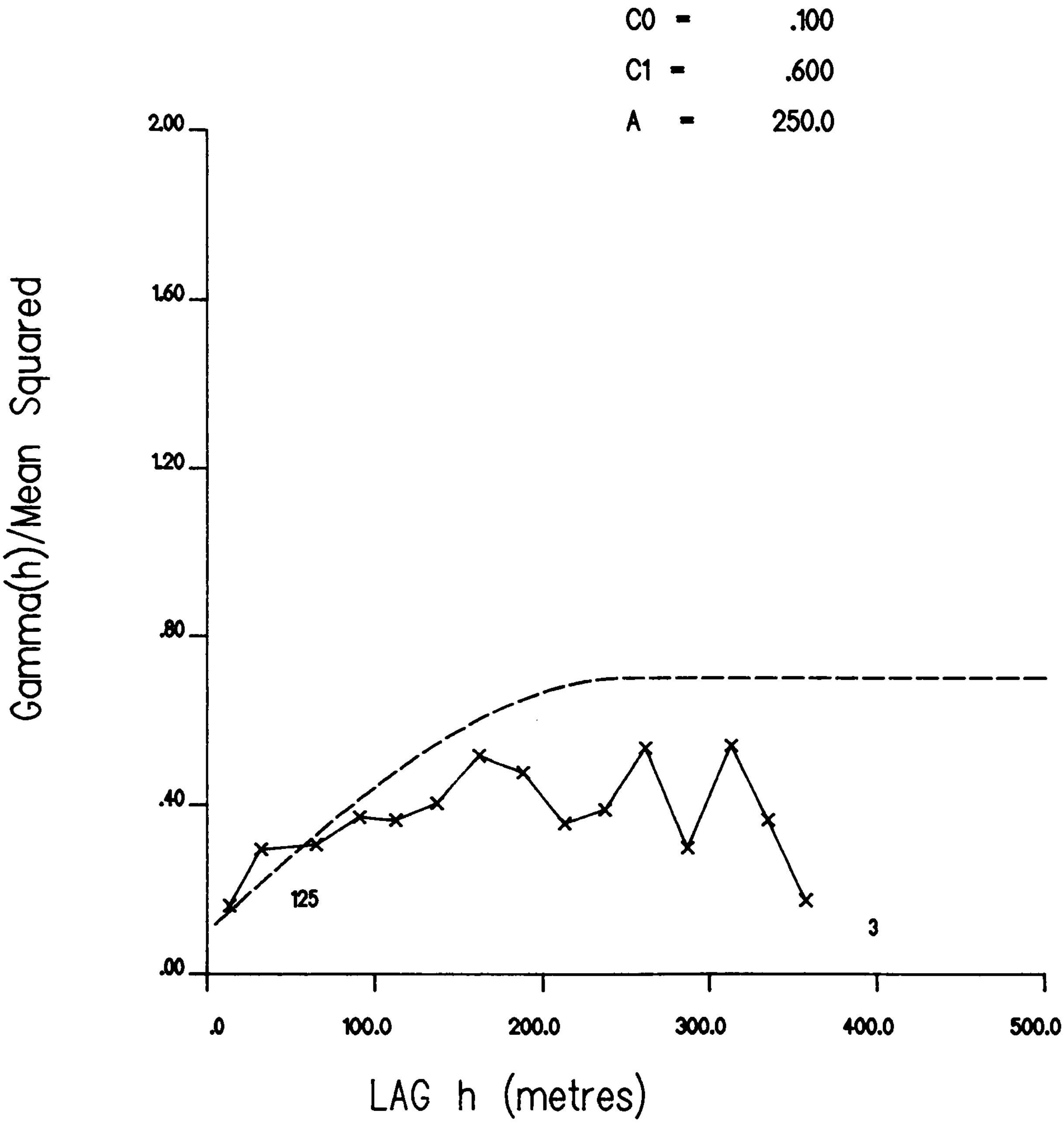

RED CHRIS EAST PPHM ZONE AU - -45 NW