DATE SENT: Dec - 10/81

DATE RECEIVED BY WHITEHORSE

TRANSMITTAL SHEET

TO: REGIONAL MANAGER MINERAL RIGHTS
WHITEHORSE, YUKON TERRITORY

FROM: DAWSON MINING DISTRICT

NEW APPLICATION FOR PLACER LEASE TO PROSPECT: NAME _____

_____ RENEWAL OF PLACER LEASE TO PROSPECT: NAME _____

AFFIDAVIT OF EXPENDITURE ON PLACER LEASE: NAME _____

LEASE NO. _____

ASSIGNMENT OF PLACER LEASE NO. _____

FROM _____ TO _____

GROUPING APPLICATION UNDER SECTION 52(2) PLACER MINING ACT

OWNER _____ DAWSON GROUPING NO. _____

DIAMOND DRILL LOGS CLAIM Pluto CLAIM SHEET NO. 116-c-8

QUARTZ ASSESSMENT REPORT CLAIM _____ CLAIM SHEET NO. _____

_____ _____

Type of Report: _____ Submitted By: Dominco

C.I.S. work performed on: Pluto 28, 30, 32-34

$ Req. for rend. application: 74,000.00

B.J. Proudfoot.

B. J. PROUDFOOT
MINING RECORDER

REPLY ACTION:

090916

YUKON RIVER

AREA OF GRID GEOCHEM (1979)

1980 STAKING

1980 GRID GEOCHEM

CLAIM BOUNDARY

TO CLINTON CREEK

1980 STAKING

CASSIAR DOME

DAWSON 65 km.

CRETACEOUS or EARLY TERTIARY

4 BIOTITE – AUGITE MONZONITE

3 QUARTZ – FELDSPAR PORPHYRY

PALEOZOIC

2 NASINA QUARTZITE, PHYLLITE, LIMESTONE

PALEOZOIC or PROTEROZOIC

1 QUARTZITE, BIOTITE – CHLORITE SCHIST

GEOLOGICAL CONTACT

APPROXIMATE

INFERRED

ACCESS TRAILS

ROADS

1980 TRENCHING

2. 1981 DIAMOND DRILL HOLE WITH NUMBER

090916

PLUTO CLAIMS

N.T.S. 116 C/8

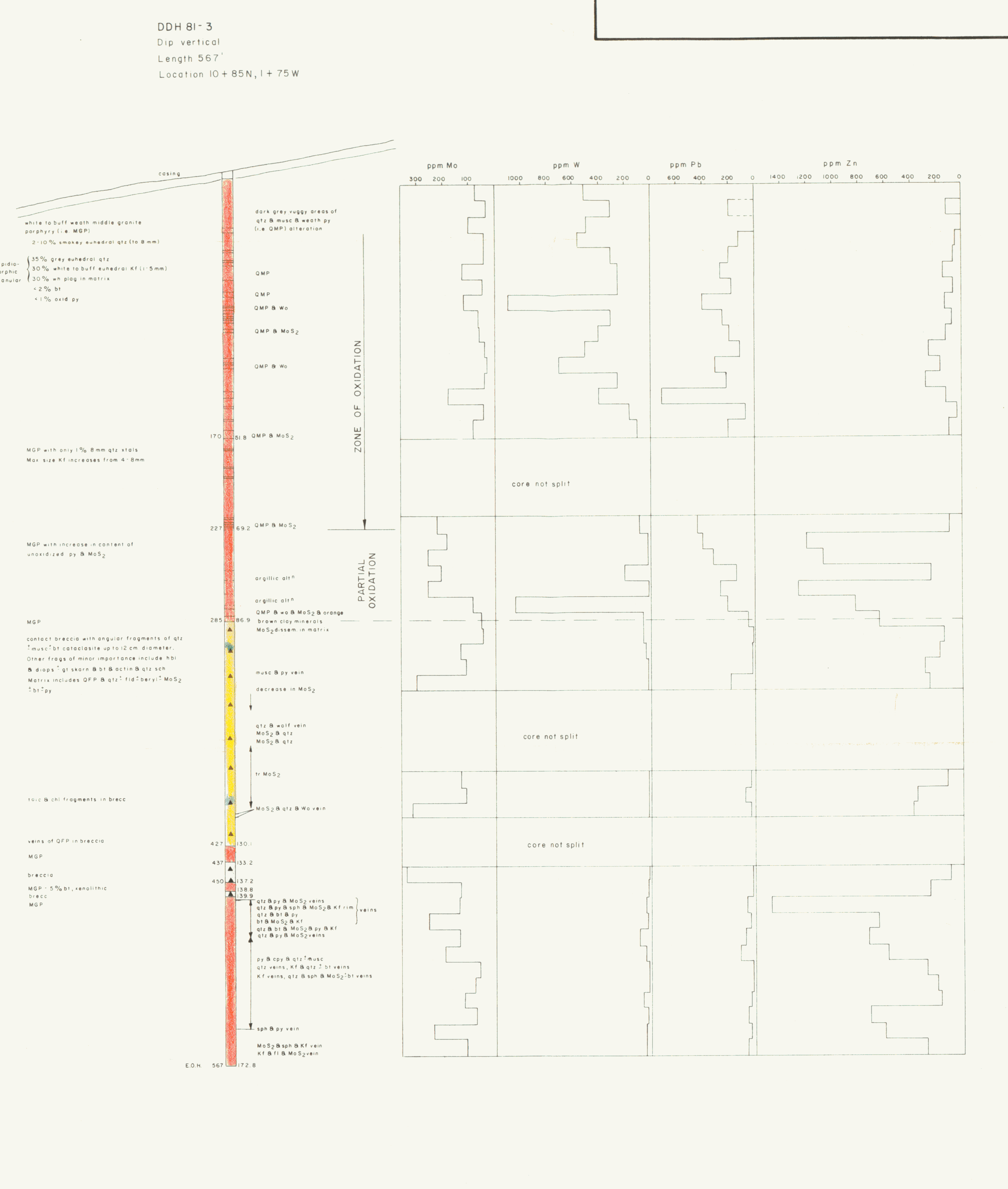
Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

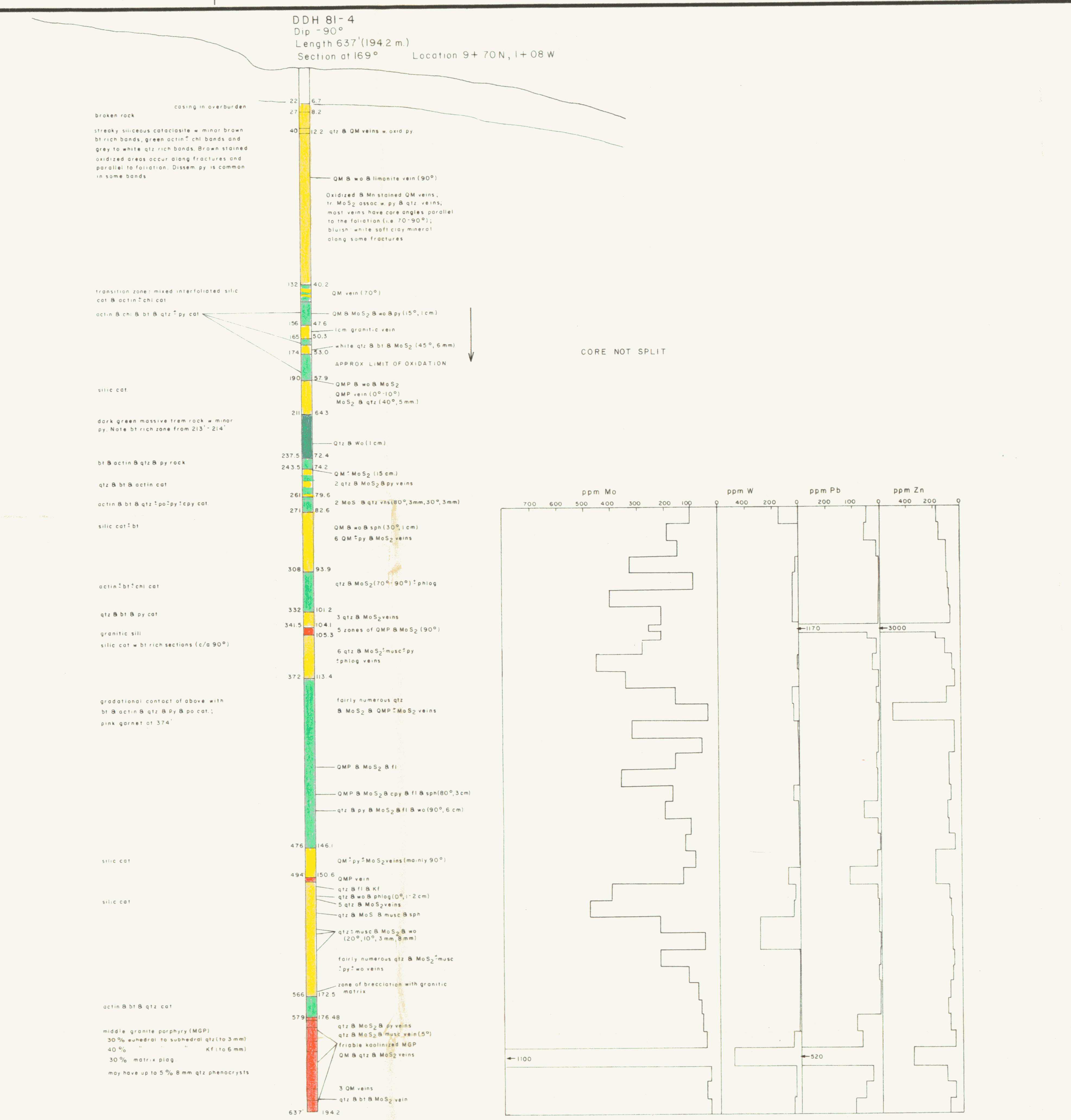
REGIONAL GEOLOGY and SUMMARY OF WORK DONE

Scale: 1:20,000 Date: NOV. 1981 Plate: 1

NCI - 117 - C.L.

FORM 210 0660





DRILL HOLE LOCATION MAP

LEGEND

PALEOCENE INTRUSIVES

- MGP (middle granite porphyry)
- K-feldspar + quartz + fluorite pegmatite
- NQFP (northern quartz feldspar porphyry)
- QBFP (quartz biotite feldspar porphyry)
- crowded porphyry (phase of QBFP)

PALEOZOIC OR PROTEROZOIC METASEDIMENTS

- siliceous cataclasite with bands rich in biotite, muscovite and feldspar; minor disseminated pyrrhotite (meta-impure quartzite)
- actinolite + chlorite + biotite + quartz + pyrrhotite pyrite cataclasite (meta-marl or tuff)
- dark green massive tremolite rock with minor biotite and pyrite.
- streaky green and brown biotite + diopside + hornblende ± plagioclase ± garnet ± magnetite skarn

SYMBOLS

- ▲ brecciated zone
- ◊ crowded porphyry
- ≈ banded quartz in QFP or "brain" texture

ABBREVIATIONS

silic	siliceous	QMP	quartz + muscovite + pyrite
cat	cataclasite	sph	sphalerite
bt	biotite	phlog	phlogopite
actin	actinolite	kf	K-feldspar
chl	chlorite	fl	fluorite
po	pyrrhotite	plag	plagioclase
py	pyrite	peg	pegmatite
qtz	quartz	cpy	chalcopyrite
MoS2	molybdenite	hbl	hornblende
musc	muscovite	gt	garnet
wo	wolframite	diop	diopside
		magn	magnetite

J. Watson 090916

PLUTO

N.T.S. 116C/8

Drawn by: IAP | Traced by: APR
Revised by | Date | Revised by | Date

DDH 81-1 to 4
SUMMARY LOGS AND Mo, W, Pb, Zn
ROCK GEOCHEMISTRY

Scale: 1:500 | Date: Oct. 1981 | Plate: 2

NCI - 119 - C.L.

FORM 210 - 0680

LEGEND

PALEOCENE INTRUSIVES

- 🟥 MGP (middle granite porphyry)
- 🟥 K - feldspar + quartz + fluorite pegmatite
- 🟥 NQFP (northern quartz feldspar porphyry)
- 🟧 QBFP (quartz biotite feldspar porphyry)
- 🟧 crowded porphyry (phase of QBFP)

PALEOCENE OR PROTEROZOIC METASEDIMENTS

- 🟧 siliceous cataclasite with bands rich in biotite, muscovite and feldspar; minor disseminated pyrrhotite (meta - impure quartzite)
- 🟩 actinolite + chlorite + biotite + quartz + pyrrhotite pyrite cataclasite (meta - marl or tuff)
- 🟩 dark green massive tremolite rock with minor biotite and pyrite
- ⬜ streaky green and brown biotite + diopside + hornblende ± plagioclose ± garnet ± magnetite skarn.

SYMBOLS

- △ brecciated zone
- ◇ crowded porphyry
- ≈ banded quartz in QFP or "brain" texture

ABBREVIATIONS

silic	siliceous	QMP	quartz + muscovite + pyrite
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bt	biotite	phlog	phlogopite
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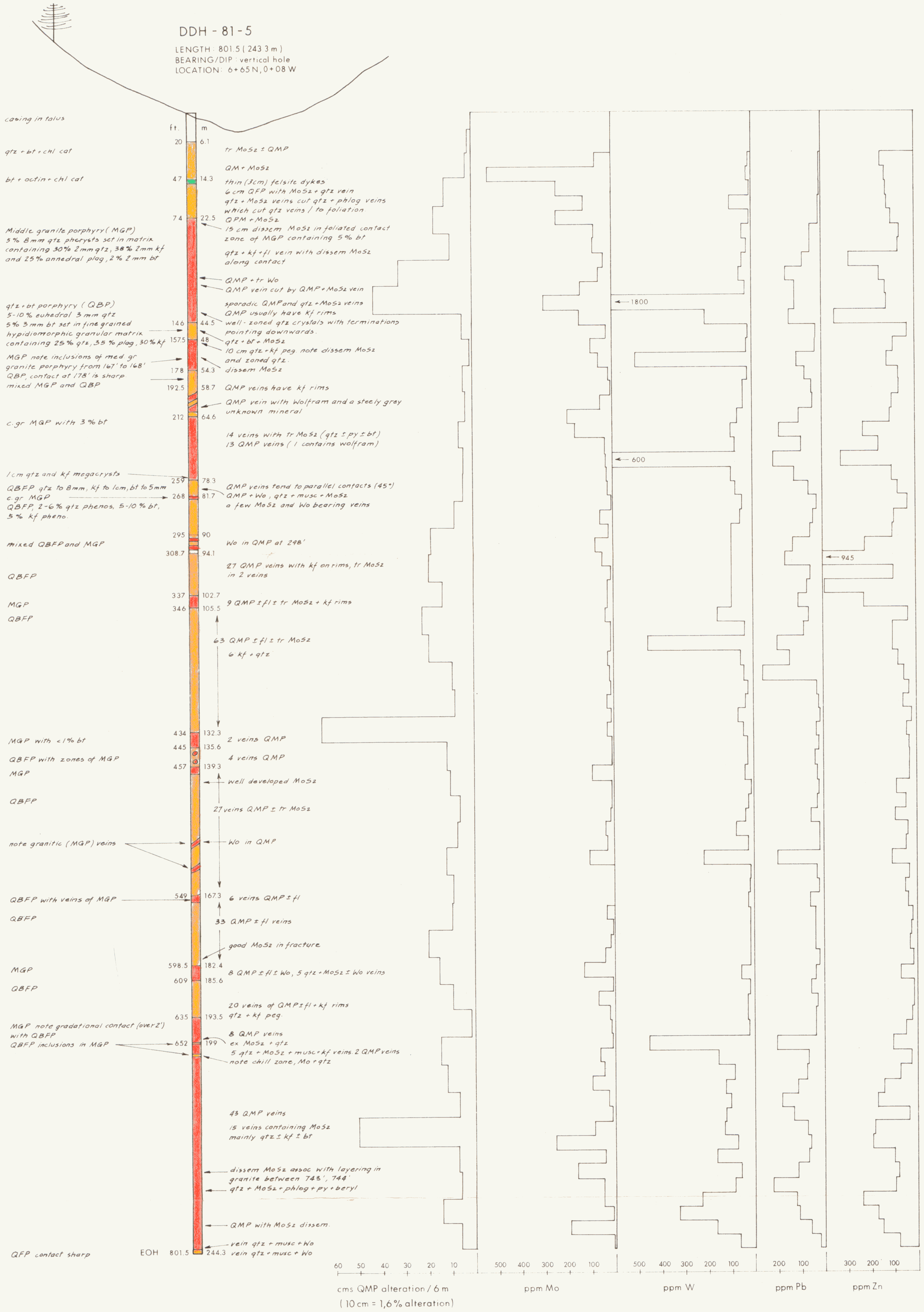
chl	chlorite	fl	fluorite
po	pyrrhotite	plag	plagioclose
py	pyrite	peg	pegmatite
qtz	quartz	cpy	chalcopyrite
MoS2	molybdenite	hbl	hornblende
musc	muscovite	gt	garnet
wo	wolframite	diop	diopside
		magn	magnetite



DDH - 81 - 5
LENGTH: 801.5 (243.3 m)
BEARING/DIP: vertical hole
LOCATION: 6+65 N, 0+08 W
casing in talus
ft. m
20 6.1
qtz + bt + chl cat
tr MoS2 ± QMP
QM + MoS2
bt + actin + chl cat
47 14.3
thin (3cm) felsite dykes
6 cm QFP with MoS2 + qtz vein
qtz + MoS2 veins cut qtz + phlog veins which cut qtz veins / to foliation
74 22.5
QPM + MoS2
Middle granite porphyry (MGP) 5% 8mm qtz pherysts set in matrix containing 30% 2mm qtz, 38% 2mm kf and 25% annedral plag, 2% 2 mm bt
15 cm dissem MoS2 in foliated contact zone of MGP containing 5% bt
qtz + kf + fl vein with dissem MoS2 along contact
QMP + tr Wo
QMP vein cut by QMP + MoS2 vein
sporadic QMP and qtz + MoS2 veins
QMP usually have kf rims
qtz + bt porphyry (QBP) 5-10% euhedral 3 mm qtz 5% 3 mm bt set in fine grained hypidiomorphic granular matrix containing 25% qtz, 35% plag, 30% kf
146 44.5
well - zoned qtz crystals with terminations pointing downwards.
157.5 48
qtz + bt + MoS2
10 cm qtz + kf peg. note dissem MoS2 and zoned qtz.
MGP note inclusions of med. gr granite porphyry from 167' to 168'
178 54.3
dissem MoS2
QBP, contact at 178' is sharp
mixed MGP and QBP
192.5 58.7
QMP veins have kf rims
QMP vein with Wolfram and a steely grey unknown mineral
212 64.6
c. gr MGP with 3% bt
14 veins with tr MoS2 (qtz ± py ± bt)
13 QMP veins (1 contains wolfram)
1 cm qtz and kf megacrysts
259 78.3
QBFP qtz to 8mm, kf to 1cm, bt to 5mm
QMP veins tend to parallel contacts (45°)
c. gr MGP
268 81.7
QMP + Wo, qtz + musc + MoS2
QBFP, 2-6% qtz phenos, 5-10% bt, 5% kf pheno.
a few MoS2 and Wo bearing veins
295 90
mixed QBFP and MGP
Wo in QMP at 298'
308.7 94.1
27 QMP veins with kf on rims, tr MoS2 in 2 veins
QBFP
337 102.7
MGP
9 QMP ± fl ± tr MoS2 + kf rims
346 105.5
QBFP
63 QMP ± fl ± tr MoS2
6 kf + qtz
434 132.3
MGP with <1% bt
2 veins QMP
445 135.6
QBFP with zones of MGP
4 veins QMP
457 139.3
MGP
well developed MoS2
QBFP
27 veins QMP ± tr MoS2
note granitic (MGP) veins
Wo in QMP
QBFP with veins of MGP
549 167.3
6 veins QMP ± fl
QBFP
33 QMP ± fl veins
good MoS2 in fracture
598.5 182.4
MGP
8 QMP ± fl ± Wo, 5 qtz + MoS2 ± Wo veins
609 185.6
QBFP
20 veins of QMP ± fl + kf rims
qtz + kf peg.
635 193.5
MGP note gradational contact (over 2') with QBFP
8 QMP veins
QBFP inclusions in MGP
652 199
ex MoS2 + qtz
5 qtz + MoS2 + musc + kf veins. 2 QMP veins
note chill zone, Mo + qtz
43 QMP veins
15 veins containing MoS2 mainly qtz ± kf ± bt
dissem MoS2 assoc with layering in granite between 743', 744'
qtz + MoS2 + phlog + py + beryl
QMP with MoS2 dissem.
vein qtz + musc + Wo
QFP contact sharp
EOH 801.5 244.3
vein qtz + musc + Wo
1800
600
945
60 50 40 30 20 10
cms QMP alteration / 6 m
(10 cm = 1,6 % alteration)
500 400 300 200 100
ppm Mo
500 400 300 200 100
ppm W
200 100
ppm Pb
300 200 100
ppm Zn

[illegible] 090916

PLUTO		N.T.S. 116 C/8		
Drawn by: I. A. P.	Traced by: H. H.	DDH 81-5		
Revised by / Date	Revised by / Date	CORE LOG and Mo, W, Pb, Zn ROCK GEOCHEMISTRY		
		Scale: 1 : 500	Date: NOV. 1981	Plate: 3

NCI - 117 - C.L.

Form 210 0660

COMINCO LTD.

EXPLORATION
NTS: 116C/8

WESTERN DISTRICT

PLUTO GROUP

DAWSON M.D., YUKON TERRITORY

LATITUDE: 64°20'N; LONGITUDE: 140°22'W

ASSESSMENT REPORT FOR DIAMOND DRILLING PROGRAM ON MINERAL CLAIMS PLUTO 28, 30, 32, 33 AND 34 DURING THE PERIOD 10 JULY TO 4 AUGUST 1981

DECEMBER 1981

090916

I.A. PATERSON

TABLE OF CONTENTS

Figure 1 - Location Map

Plate 1 - Regional Geology and Location of Diamond Drill Holes.

Plate 2 - Plan and cross sections for DDH-81-1, 81-2, 81-3 and 81-4 at scales of 1:5000 and 1:500, respectively.

Plate 3 - Cross section for DDH-81-5.

Appendix I - Drill Core logs for DDH-81-1, 81-2, 81-3, 81-4 and 81-5.

Statement of Expenditures - Exhibit "A"

Statement of Qualifications - Exhibit "B"

Statement - Exhibit "C"

Report by: I.A. Paterson
Project Geologist

Endorsed by: D.L. Cooke
Senior Geologist

Approved for Release by: W.J. Wolfe, Assistant Manager
Exploration
Western District

IAP/vmk

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	PLUTO	District	Dawson, Y.T.	Hole No.	81-1
Commenced	13 July, 1981	Location	NTS: 116C/8	Tests at	-
Completed	15 July, 1981	Core Size	NQ	Corr. Dip	-60°
Co-ordinates	8+50NW (on "new" baseline)			True Brg.	240°
Objective	To locate and test source of W-Mo geochemical anomaly in area of northern porphyry			% Recov.	95 - 100%

Hor. Comp. 118' (36 m)
Vert. Comp. 186' (56.7 m)
Logged by IAP
Date 16 July 1981

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
34 and 33	240°	-60	2510' (765 m)	219' (66.8 m)	81-1	1 of 1

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	Analysis W	Analysis Sn
0	33'	Overburden containing silt with QFP and amphibolite boulders.					
33'	51'	Pale to dark green decomposed amphibolite schist (casing to 47').					
51'	52'	Brown and black gouge zone.					
52'	56'	Friable brown weathering andesitic feldspar porphyry with 10 to 20% 8 mm white feldspar phenocrysts set in a brown fine grained matrix; attitude of contact unknown.	51- 56	5	44	40	<20
			56- 60	4	77	100	<20
56'	121'	Green to pale green actinolite + quartz ± plagioclase ± chloritic cataclasites with crosscutting zones of brecciation, tourmalinization and silicification from 56' to 60', 68' to 69', 72.8' to 74', 82' to 84', 86' to 89' and 91.5' to 121'. Note the presence of andesitic-feldspar porphyry and granitic clasts in the breccia. Quartz and muscovite occur along late fractures.	60- 70	10	28	12	<20
			70- 80	10	17	100	<20
			80- 90	10	19	120	<20
			90-100	10	17	240	<20
121'	124.5'	Grey to white streaky siliceous cataclasites.	100-110	10	16	100	<20
124.5	127'	Buff weathering contorted quartz + muscovite schist (recrystallized cataclasites).	110-121	10	19	150	<20
127'	219'	Mainly grey streaky siliceous cataclasites with bands rich in biotite ± muscovite. Disseminated pyrrhotite is present in biotite bands. Core angles 60° to 80°.					
		146',159'					
		to 160',					
		184'-185' - gouge zones					
		172'-178' - rusty schistose muscovite zones					
		180'-184' - biotite rich zones					
		166'-169' - biotite + pyrrhotite siliceous cataclasites.					
		Late fractures are filled with Mn oxides, muscovite or white clay minerals.					

211-9437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	PLUTO	District	Dawson, Y.T.	Hole No.	81-2
Commenced	15 July 1981	Location	NTS: 116C/8	Tests at	-
Completed	21 July 1981	Core Size	NQ	Corr. Dip	-
Co-ordinates	7+50NW, 0+30SW			True Brg.	200°
Objective	To locate and test source of W-Mo geochemical anomaly and			% Recov.	>99%

Hor. Comp. 90 m
Vert. Comp. 112.2 m
Logged by IAP
Date 22 July 1981

Claim	T Brg.	Collar Dip	Elev.	Length	Sheet	Hole No.
32	200°	-50	2575' (785 m)	450' (137.2 m)	1 of 4	81-2

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
0	4'	Casing in silt.							
4'	17'	Fresh QFP with 10 to 25% euhedral quartz phenocrysts (8 mm max.) and 25 to 45% white to buff k-feldspar up to (1 cm max.) set in a fine grained white quartz + plagioclase + k-feldspar matrix. This lithology will hereafter be referred to as NQFP (N for northern). Approximately 40 barren quartz veins between 1 mm and 1 cm in width are present (core angles 45° to 75°). A few biotite veins are present sometimes associated with 1 cm pyrite cubes. Green fluorite is fairly abundant especially adjacent to quartz veins. Mn coated fractures are common.	4'-10'	5'	7	20	3	21	25
			10'-17.5'	7'	5	25	3	9	27
			17.5'-22.5'	5'	9	95	<1	13	17
17'	22.5'	Pegmatite containing 90% buff k-feldspar and 10% pale green fluorite. Contact at 22.5 is gradational and cut by grey - black quartz veins (c/a 90° - 0°).							
22.5'	68.5'	NQFP with 10 to 15% quartz phenocrysts and 20 to 30% k-feldspar phenocrysts set in a medium grained matrix darker in colour than section 4' - 17'. Quartz + fluorite veins are common; Mn coated fractures; some fractures contain soft pink clay mineral; minor pyrite associated with fractures and veins.							
68.5'	70.5'	K-feldspar + fluorite pegmatite.							
70.5'	139.5'	NQFP; fractures coated with Mn oxides ± muscovite and clay minerals. Biotite (<2% occurs in clots and is usually altered to chlorite). Minor pyrite is present (<0.5%). Quartz vein intensity is much lower than at top of hole (4-5 veins/10'). At 107' a undirectional solidification texture indicates that the direction of crystallization was downwards. Note thin (1 mm) veins of quartz + brown mica; pyrite + quartz + fluorite veins at 111' and 121'; k-feldspar + quartz veins at 126'.	70'-80'	10'	12	25	2	36	57

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-2 | Sheet 2 of 4

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
139.5'	146.5'	Pegmatite with k-feldspar + quartz ± fluorite ± phlogopite (?). Note large (1-2 cm) crystals of euhedral grey quartz set in k-feldspar matrix. Contains layer of NQFP from 144' to 144.5'.							
146.5'	156'	NQFP with a few k-feldspar + quartz pegmatite layers (90° c/a). Minor 7 mm quartz veins, pyrite veins, clay filled fractures and Mn oxide fractures.							
156'	157.5'	K-feldspar + quartz + fluorite pegmatite c/a at 156' is 30°, c/a at 157.5' is 80°. Note presence of pyrite + moly at 1 cm from contact at 157.5'. This mineralization does not appear to be fracture related and is probably associated with crystallization of the pegmatite.							
157.5'	176.5'	NQFP, note red colouration of k-feldspar adjacent to 1 mm quartz + pyrite veins. The NQFP contains a few biotite rich zones (2-5%) less than 0.5' in width. K-feldspar + quartz + foliated pegmatite is present between 169' and 170'. The quartz crystals are well zoned and up to 3 cm in diameter and occur in the pegmatite and the NQFP. Only 2-3 hairline quartz veins are present.							
176.5'	179'	K-feldspar + fluorite + quartz + minor biotite pegmatite.							
179'	222'	NQFP with up to 50% k-feldspar phenocrysts and 20% quartz phenocrysts in grey matrix. Proportion of phenocrysts changes from one layer to the other. Fluorite occurs as disseminations and stringers. Veins: 10 quartz veins (<3 mm), moly in vein very close to pyrite vein.							
222'	246.5'	K-feldspar + quartz + fluorite pegmatite; subhedral quartz crystals up to 9 cm in length. Contains patches with up to 50% fluorite content. Biotite (2% max.) is also present. Patches of medium grained k-feldspar and fluorite are present locally. At contact (246.5') a 2 cm dyke of QFP containing 5% quartz and 20% k-feldspar phenocrysts set in a fine grained matrix appears to intrude both the pegmatite and the QFP described in the next section.	230'-240'	10'	74	30	1	144	21

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-2 | Sheet 3 of 4

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
257'	259.5'	K-feldspar ± fluorite ± biotite pegmatite with 4 mm vein of biotite + moly + powellite (20° c/a).							
259.5'	262.5'	Buff biotite granite. Biotite phenocrysts to 6 mm.							
262.5'	296.5'	K-feldspar + fluorite pegmatite, with a few 3 mm biotite veins. Contact with biotite granite is gradational.							
296.5'	316'	NQFP: 20% quartz, 45% k-feldspar, 3% biotite phenocrysts in grey fine grained matrix; 2 x 1 mm quartz veins; Mn stain on fractures; minor pyrite along fractures.							
316'	321'	Weakly porphyritic QFP containing granitic phases and bands of k-feldspar ± quartz alteration up to 1.5 cm in width.							
321'	324'	K-feldspar + fluorite pegmatite. Fluorite crystals are up to 4 cm across.							
324'	344'	NQFP containing chunks of buff k-feldspar + fluorite pegmatite: broken rock (fault zone?) between 325' and 327'.	340'-350'	10'	79	25	1	131	39
			350'-360'	10'	80	80	1	146	40
344'	379.5'	Grey to white QFP with 5-10% quartz phenocrysts (to 6 mm) set in an equigranular to weakly feldspar porphyritic matrix. Note moly + fluorite + powellite associated with vuggy areas at 348', 354', 356' and 371'; note 3 quartz + pyrite veins (1 mm) and Mn oxides coating late fractures.							
379.5'	389.5'	K-feldspar + fluorite + quartz pegmatite with abundant Mn stain along fractures.	380'-390'	10'	57	25	2	125	56
389.5'	391.5'	Kaolinized friable NQFP: contact with fresh QFP is sharp.							
391.5'	392.5'	Fresh NQFP.							
392.5'	399.5'	K-feldspar + fluorite + quartz pegmatite. Note gradational contact between fresh QFP and k-feldspar pegmatite.							
399.5'	403.5'	NQFP.							

211-9437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-2 | Sheet 4 of 4

Footage From	To	Description	Sample No.	Length	Analysis
403.5'-	450'	Mixed k-feldspar + fluorite + quartz ± biotite pegmatite and NQFP. Contacts are sometimes gradational and sometimes sharp. Speck of moly at 420.5'. Quartz veins (1 mm) are fairly common (ie. 1-2 per 1 ft. of core). K-feldspar veins also common. Sometimes k-feldspar rims quartz veins.			

211-9437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	PLUTO	District	Dawson, Y.T.	Hole No.	81-3
Commenced	22 July, 1981	Location	Middle QFP	Tests at	Hor. Comp.
Completed	25 July, 1981	Core Size	NQ	Corr. Dip	Vert. Comp.
Co-ordinates	10+85N, 1+75W			True Brg.	Logged by IAP
Objective	To test the middle quartz-feldspar porphyry for molybdenum-tungsten mineralization			% Recov. 98-100%	Date 25 July 1981

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
30	-	90°	2955' (approx.)	567' (172.8 m)	81-3	1 of 4

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn	WO_3
0	5'	Casing in overburden	10- 20		76	500				
5'	170'	Middle granite porphyry (hereafter MGP) contains 2-10% smokey subhedral to euhedral quartz phenocrysts up to 8 mm diameter. The rest of the constituents (ie. the matrix) show hypidiomorphic granular texture with 35% grey euhedral quartz crystals up to 4 mm diameter and 30% white to buff euhedral to subhedral k-feldspar crystals up to 5 mm in diameter set in a white plagioclase matrix. Biotite content is less than 2%. The feldspars are generally quite fresh, but near the top of the hole between 5' and 30' they are kaolinized.	20- 30		34	300	11	198	119	
			30- 40		103	480				
			40- 50		43	550	8	127	47	
			50- 60		43	300	17	198	58	
			60- 70		125	250	70	264	142	
			70- 80		48	250	42	176	68	
		Dark grey vuggy areas of quartz + muscovite ± weathered pyrite alteration of the granite porphyry are present throughout. Wolframite, pyrite, molybdenite, chalcopyrite are present sporadically associated with the quartz + muscovite alteration. Contacts of altered sections are often stained brown. The following list shows footage of altered areas, core angles of contacts (where available) and minerals present other than quartz + muscovite: 5'-6', 33.5'-34', 36'-39', 57.5', 60.5'-70', 77'-78', (0^{o},10^{o}), 86' (70^{o}, pyrite + wolframite), 92'(70^{o}), 94'-95.5'(45^{o}, 45^{o}, pyrite), 100'-101'(20^{o}, pyrite + molybdenite), 118.5'-121' (60^{o}), 122'-125' (20^{o}, wolframite + pyrite), 140'-143'(70^{o}), 149'(90^{o}, chalcopyrite + wolframite + pyrite), 154.5'(70^{o}), 164'-170' (50^{o}, pyrite + molybdenite).	80- 90		110	1100	48	400	120	.13
			90-100		61	300	8	248	67	
			100-110		59	400	7	195	111	
			110-118		49	500	12	110	252	
			118-128		30	700	36	300	165	.092
			128-140		39	250	20	214	270	
			140-150		180	400	24	705	110	
			150-160		45	160	2	79	39	
			160-170		85	100	15	205	98	
170'	227'	MGP containing 1% large quartz phenocrysts (to 8 mm). Maximum size of k-feldspar crystals increases from 4 to 8 mm. Quartz and k-feldspar+plagioclase matrix. Quartz + muscovite alteration: 177'(80^{o}), 187.5'(90^{o}, pyrite), 194'(80^{o}), 220', 22.5'-223'(90^{o}, molybdenite + pyrite), 224'-225'(70^{o}, 45^{o}). Note also k-feldspar + plagioclase + fluorite vein cut by muscovite vein and 2 thin quartz veins (1 mm) between 207' and 226'.								

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-3 | Sheet 2 of 4

Footage From	Footage To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
227'	277'	MGP, but with increase in content of fresh pyrite and molybdenite - these minerals are disseminated rather than being associated with veins. Note zones of argillic alteration from 252'-258', 267'-274' and quartz veins + molybdenite at 243'(30°, 1 cm), 261'(45°, 3 mm), 262' (20°, 6 mm), 263' (20°, 2 mm), 265' (70°, 2 mm). Most of the molybdenite in this section appears disseminated, but the mineralization may be associated spatially with the quartz veins.	220-230		225	80	12	450	95
			230-240		185	<10	25	400	1210
			240-250		260	<10	18	325	1070
			250-260		210	190	8	140	230
			260-270		260	<10	32	270	1260
			270-280		85	1050	40	215	820
277'	281'	Dark grey quartz + muscovite ± pyrite vein c/a 90°. Wolframite, molybdenite and orange brown clay minerals are also present.	280-290		54	50	28	52	645
			290-300		50	50	21	11	130
281'	285'	MGP with disseminated molybdenite, minor clay alteration and pyrite veins.	300-310		135	32	14	21	170
285'	354'	Breccia with angular fragments of quartz ± biotite ± muscovite cataclasite up to 12 cm in diameter. Other fragments of minor importance include pale to dark green hornblende + diopside cataclasites, pink garnet skarn, biotite + actinolite + quartz schist. The interstitial material consists of QFP with trace molybdenite near the contact and quartz ± fluorite ± beryl ± molybdenite ± biotite ± pyrite in the main part of the breccia.	310-320		115	90	32	20	285
			320-330		305	20	32	185	250
		Note (1) well developed beryl crystals associated with quartz filling interstices at 287'.							
		(2) molybdenite at 292', 297', 315', 316.5', 320'-322', 326 (mainly disseminated in interstices).							
		(3) pyrite + muscovite vein at 317'.							
		(4) quartz + molybdenite vein (30°, 4 mm) at 304.5.							
		(5) at 340', QFP fragment is present in breccia.							
		(6) Quartz + wolframite vein at 350' (80°, 8 cm).							

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-3 | Sheet 3 of 4

Footage From	To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
354'	- 391'	Breccia similar to above: note molybdenite + quartz veins at 354' (30°, 4 mm), 359', 382.5'	380-390		135	<10	12	34	105
		(75°, 9 cm); disseminated molybdenite at 373', 387', 390.5'. Well developed red brown	390-400		115	10	28	78	350
		sec. biotite in both fragments and interstitial material at 386'.	400-410		320	10	45	28	380
391'	- 427'	Breccia similar to above, but with soft green talc ± chlorite rock at 394', QFP fragments at							
		397'; Molybdenite (in interstices) at 395.5', 396.5', 405', 407'; Molybdenite + quartz							
		+ wolframite veins at 406.5' (90°, 3 cm) and 407.5' (40°, 1 cm); note interstitial beryl							
		+ muscovite + soft white clay mineral at 415.5'. QFP veinlets at 424', 426'.	440-450		345	<10	6	28	90
427'	- 437'	MGP containing xenoliths of siliceous cataclasite. Note fine grained disseminated molybdenite	450-460		135	20	36	24	250
		in MGP. Quartz + pyrite + molybdenite veinlet cutting MGP at 436'.	460-470		140	40	32	74	1475
437'	- 450'	Breccia mainly composed of siliceous cataclasite. Quartz + molybdenite + pyrite at 446' (90°);	470-480		260	32	24	42	650
		Molybdenite disseminated in MGP between fragments (trace).	480-490		140	90	16	80	730
450'	- 455.5'	MGP with 5% biotite ± chlorite - disseminated molybdenite and xenolithic.	490-500		195	40	7	125	570
455.5'	- 459'	Quartz + biotite + actinolite + pyrite cataclasites; trace molybdenite in quartz veins.	500-510		64	24	4	26	270
459'	- 465'	MGP with quartz + pyrite + molybdenite veins at 461' (8 cm, 90°), 463' (8 cm, 90°).	510-520		82	10	4	27	195
465'	- 567'	MGP with 2% biotite. Contains numerous molybdenite bearing veins and disseminations usually close	520-530		125	70	5	38	170
		to veins: quartz + pyrite + sphalerite + molybdenite + k-feldspar rim (465', 60°, 2 cm);	530-540		79	32	24	59	710
		quartz + biotite + pyrite (465.5', 20°, 2 mm); biotite + molybdenite + k-feldspar (470', 80°,	540-550		245	40	22	36	600
		6 mm); quartz + biotite + molybdenite (471', 50°, 3 mm); quartz + biotite ± molybdenite +	550-560		115	40	8	58	280
		pyrite + k-feldspar (472.5', 50°, 3 cm); quartz + pyrite + molybdenite (473-475', 70°, 1 mm -							
		3 cm, 9 veins in all), quartz + pyrite + molybdenite ± biotite (478', 60°, 2 cm). From 478'							
		to 501' there are molybdenite occurrences at least every foot. Between 496' and 500', 1-2 mm							
		quartz veins are vertical and contain molybdenite (no k-feldspar rims). Note how some quartz							

Scale

Colour Plot & Dips

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Drill Hole Record

Property PLUTO | District Dawson, Y.T. | Hole No. 81-3

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-3 | Sheet 4 of 4

Footage From	Footage To	Description	Sample No.	Length	Analysis
		veins have gradational contact with granites and others have sharp contacts. Pyrite + chalcopyrite + quartz ± muscovite vein at 497'.			
		501'-520' - 51 assorted veins containing quartz ± k-feldspar ± biotite, k-feldspar, k-feldspar + quartz + muscovite + pyrite, quartz + sphalerite + molybdenite ± biotite (2 mm). Molybdenite fairly abundant.			
		520'-537' - k-feldspar + fluorite vein at 524', well developed molybdenite veins at 525', but not as abundant as in 501' to 520'. (28 veins total mineralized and unmineralized).			
		537'-556' - Quartz + molybdenite (45^0, 80^0, 80^0, 80^0), quartz + k-feldspar rim at 550'. Molybdenite + chalcopyrite + sphalerite (2 mm, 549.5); sphalerite + pyrite (543'), 44 veins.			
		556'-567' - Molybdenite + sphalerite + k-feldspar rim (556.5', 80^0), molybdenite + k-feldspar rim (557', 80^0); Molybdenite + k-feldspar + fluorite (560'): 13 veins with 6 mineralized.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	PLUTO	District	Dawson, Y.T.	Hole No.	81-4
Commenced	26 July 1981	Location	Between middle and main porphyries.	Tests at	Hor. Comp. -
Completed	29 July 1981	Core Size	NQ	Corr. Dip	Vertical Hole
Co-ordinates	9+70N, 1+08W			True Brg.	Vert. Comp. -
Objective	To test molybdenum/tungsten geochemical anomaly			% Recov.	>98%
				Logged by	IAP
				Date	29 July 1981

Claim 30 | T Brg. Vertical Hole | Collar Dip | Elev. 2925' (approx.) | Length 637' (194.2 m) | Hole No. 81-4 | Sheet 1 of 8

Footage From	Footage To	Description	Sample No.	Length	Analysis
0'	22'	Casing in overburden and talus.			
22'	27'	Broken weathered cataclasite.			
27'	37'	Streaky siliceous cataclasite with brown biotite rich bands, green actinolite ± chlorite bands and grey to white quartz rich bands. Brown stained oxidized areas occur along fractures or parallel to the foliation. Disseminated pyrite is common in some bands (2-3%). Traces of molybdenite in quartzite adjacent to thin quartz-muscovite veins (QM).			
37'	40'	White quartz vein with Mn stained QMP vein, 8 cm wide along contact at 37'. Pyrite in QMP vein is oxidized.			
40'	132'	Siliceous cataclasite similar to 27' to 37' with brown staining along QM veins. Trace MoS_2 associated with quartz vein at 57'. QM ± limonite + Mn stained veins at 61.5' (90^0), 81.5' (75^0), 88.5' (90^0), 123 (80^0, 4 cm), 126' (80^0, 6 cm). Most veins are parallel to the foliation (core angles 75^0 to 90^0). Note bluish-white soft clay mineral along some fractures. Trace molybdenite associated with pyrite vein at 90'. Trace molybdenite associated with quartz vein at 104'. Quartz + wolframite + muscovite + limonite vein at 61.5' (90^0).			
132'	142'	Interfoliated quartz + biotite ± pyrite ± chlorite cataclasite and banded bluish white to green actinolite ± chlorite + biotite + quartz cataclasite containing pyrrhotite ± pyrite ± chalcopyrite. QM vein at 141' (70^0).			
142'	156'	Actinolite + biotite + chlorite + quartz ± pyrite cataclasite: quartz + muscovite + molybdenite + wolframite + pyrite vein from 149' to 150' (15^0, 1 cm); QM vein at 151'.			

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-4 | Sheet 2 of 8

Footage From	Footage To	Description	Sample No.	Length	Analysis
156'	165'	Quartz + biotite + chlorite cataclasite: buff weathering oxidized zones; 1 cm granitic vein (90^0) cuts across foliation.			
165'	168.5'	Actinolite + biotite + chlorite + quartz ± pyrrhotite cataclasite (70^0 core angle): contains a few cross cutting partly oxidized pyrite veins (1-2 mm width).			
168.5'	174'	Streaky grey and white to black siliceous cataclasite: QM vein at 169' (25^0, 1 cm); quartz + biotite + molybdenite vein at 170.5' (45^0, 6 mm).			
174'	190'	Green biotite + actinolite + chlorite + quartz cataclasite: at 175.5' 2 veins containing MoS_2 + quartz (60^0, 2 mm); at 178.5', QMP vein (1 cm); at 183' quartz + biotite + molybdenite vein (5 cm, 90^0) - cuts across foliation. From 187' - 190' buff weathering vein of QMP ± wolframite ± molybdenite with wolframite growing adjacent to the contacts.			
190'	211'	Quartz + biotite cataclasite with QMP vein containing limonite constituting half the core (c/a 0^0 to 10^0), molybdenite + quartz vein at 195' (40^0, 5 mm).			
211'	237.5'	Green massive actinolite rock containing minor pyrite. Note biotite rich well foliated zone from 213' to 214' and a weakly foliated zone containing white irregular veins in a grey to green amphibole matrix also containing pyrrhotite ± magnetite. Note 1 cm quartz + wolframite vein at 234'.			
237.5'	243.5'	Biotite + actinolite + quartz + pyrite cataclasite. Pyrite veins cut across foliation and also parallel foliation.			
243.5'	246.5'	6" section of buff QM ± molybdenite at 243.5' then into white quartz with contorted bands of biotite + tremolite cataclasite.			

Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Sheet 3 of 8 | Hole No. 81-4

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
246.5'	261'	Quartz + biotite + actinolite cataclasite: quartz + molybdenite + pyrite at 255' (90°, 8 mm) and	270-280	10	105	150	56	47	180
		258' (90°, 2 cm).	280-290	10	190	10	52	57	160
261'	271'	Actinolite + biotite + quartz ± pyrrhotite ± pyrite ± chalcopyrite green to brown cataclasite;	290-300	10	145	<10	42	14	120
		pyrite is associated with quartz rich bands and boudins; max. 5% pyrite + pyrrhotite in some	300-310	10	325	30	40	6	110
		zones: Molybdenite + quartz veins at 267' (80°, 3 mm) and 271' (30°, 3 mm).	310-320	10	84	40	56	6	100
271'	308'	Streaky quartz + biotite cataclasite; biotite locally chloritized at 272': QMP + molybdenite +	320-330	10	400	50	76	8	90
		chalcopyrite + sphalerite vein at 272' (90°, 4 cm); note secondary biotite recrystallized at	330-341.5	10	205	50	64	9	80
		the margins of vein adjacent to molybdenite rich zone.	341.5-345.5	10	255	<10	215	1170	3000
		Veins: 278', QM + wolframite + sphalerite (30°, 1 cm); 281', QM + molybdenite (1 cm, 0°);	345.5-350	10	210	<10	36	46	190
		289', quartz + molybdenite (90°, 2 cm); 291', quartz + molybdenite (20°);	350-360	10	290	<10	64	14	120
		292', QM + molybdenite (90°); 296', QMP (20°, 1 cm); 300', QMP + molybdenite;							
		303', quartz + molybdenite (2 mm); 308', QM + molybdenite (30°, 2 cm).							
308'	332'	Actinolite ± biotite ± chlorite + diopside(?) + quartz ± pyrrhotite ± pyrite cataclasite:							
		brecciated between 320' and 325'. Note increase in quartz + biotite content towards 332'.							
		Veins: 310', quartz + phlogopite + molybdenite (90°, 2 cm); 320'-328' fairly numerous quartz							
		+ molybdenite veins (70° to 90°, 2 mm to 7 cm); 327', quartz + phlogopite vein zoned							
		to muscovite + molybdenite.							
332'	341.5'	Quartz + biotite + pyrite cataclasite with pyrite and pyrrhotite clots: quartz + molybdenite							
		veins at 333', 333.5' (90°, 2 cm), 338.5' (30°, 3 mm).							
341.5'	345.5'	Granitic "sill" with fine bands of QMP + molybdenite. The bands near contacts are darkest in							
		colour (c/a for contacts and alteration zones = 90°).							

Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Sheet 4 of 8 | Hole No. 81-4

Footage From	To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
345.5'	372'	Quartz + biotite ± pyrite cataclasite with biotite rich sections between 356' and 358' (c/a 90°).	360-370		450	<10	40	28	70
		Veins: 353.5', QMP + molybdenite (90°, 1 cm); 356.5', quartz + molybdenite (90°, 8 mm).	370-380	10	340	<10	68	7	50
		367', quartz + molybdenite (70°, 2 cm); 368', quartz + molybdenite (90°, 1 cm).	380-390	10	155	70	54	16	110
		368.5', quartz + molybdenite (45°, 8 mm); 371', quartz + molybdenite + biotite	390-400	10	34	50	70	8	510
		(phlogopite?) (90°, 1 cm).	400-410	10	320	<10	36	10	60
372'	476'	The streaky quartz + biotite cataclasite grades into actinolite + biotite + quartz + pyrite +	410-420	10	54	10	52	8	55
		pyrrhotite cataclasite containing pinkish garnets (?) at 374'.	420-430	10	155	<10	36	18	90
		Veins: Molybdenum + quartz at 374' (70°, 5 mm), 380' (80°, 1 cm), 420' (80°, 3 mm), 425' (90°,	430-440	10	355	<10	44	14	95
		1 cm).	440-450	10	165	60	68	10	70
		QMP + molybdenite at 388' (90°, 3 cm), 436' molybdenite + quartz + biotite at 392';	450-460	10	200	<10	44	62	100
		403' (90°, 1 cm); 405' (80°, 4 mm).	460-470	10	100	<10	52	13	90
		QMP + molybdenite + biotite at 406' (90°, 2 cm), pyrrhotite + muscovite at 422' (90°,							
		3 mm).							
		Molybdenite + quartz + pyrite ± muscovite ± fluorite at 427' (90°, 6 cm).							
		Molybdenite + quartz + pyrite + biotite at 438'.							
		Molybdenite + quartz + biotite at 439' (90°, 1 cm).							
		Molybdenite + quartz + muscovite at 442' (80°, 1 cm).							
		QMP + molybdenite + chalcopyrite + fluorite + sphalerite at 443' (80°, 3 cm).							
		Molybdenite + quartz + pyrrhotite + biotite k-feldspar rim at 448' (90°, 5 cm).							
		Quartz + molybdenite + fluorite + kaolinite + wolframite + pyrite at 453' (90°, 6 cm).							
		Quartz + molybdenite + pyrite at 458' (20°, 1 mm).							

211-9437

Scale

Colour Plot & Dips

0

Drill Hole Record

Property PLUTO | District Dawson, Y.T. | Hole No. 81-4

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | True Brg. | Logged by

Objective | % Recov. | Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-4 | Sheet 5 of 8

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
372'	476'	Veins: Quartz + molybdenite + muscovite at 460' (80°, 4 cm).	470-480		120	<10	48	4	55
(cont'd.)		Quartz + pyrite + molybdenite at 461.2' (10°, 5 mm).	480-490		82	<10	130	18	190
		Quartz + molybdenite + biotite at 466' (10°, 5 mm).	490-500		125	90	76	120	190
		Quartz + molybdenite + pyrite at 475' (15°, 3 cm).	500-510		390	40	40	16	90
476'	494'	Biotite + quartz cataclasite; gradational contact with actinolite biotite cataclasite.	510-520		470	50	40	13	80
		Veins: 476': QMP + molybdenite (10°);	520-530		215	300	36	12	75
		478': Quartz + pyrrhotite (90°, 5 cm) at 478'; quartz + muscovite + molybdenite (1 cm).	530-540		50	300	34	7	80
		481.4': pyritic breccia zone (90°, 2 cm).	540-550		215	<10	40	5	70
		490': Quartz + muscovite or phlogopite(?) + trace molybdenite.	550-560		110	<10	30	12	70
		490.7': Quartz + muscovite + fluorite + pyrite + trace molybdenite (90°).	560-570		76	<10	52	8	90
		492': Quartz + muscovite + molybdenite (90°).	570-580		66	<10	58	2	105
		493'-494': Quartz + molybdenite (20°, 3 mm).							
494'	496.5'	Grey-White quartz + pyrite + muscovite rock containing soft black unknown mineralization.							
496.5'	566'	Quartz ± biotite cataclasite.							
		Veins: 497': Molybdenite + QMP.							
		499': Fluorite + quartz + k-feldspar.							
		501': Quartz + phlogopite + pyrite + molybdenite (85°, 3 cm).							
		505'-506': Wolframite + quartz + phlogopite (0°, 1-2 cm).							
		505'-506.5': Molybdenite + quartz ± phlogopite (3 mm).							
		506'-515.5': 5 x quartz + molybdenite (0°, each vein between 1 and 2 mm).							
		515.5': Molybdenite + quartz + phlogopite + wolframite (90°, 1-5 cm).							

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Sheet 6 of 8 | Hole No. 81-4

Footage From	To	Description	Sample No.	Length	Analysis
496.5'	566'	516.7'-517.5': Quartz vein with 1 cm of molybdenite + muscovite + sphalerite + quartz.			
(cont'd.)		525': Quartz + muscovite + wolframite + molybdenite (10^0, 8 mm).			
		528'-529': Quartz + molybdenite + wolframite (20^0, 2 veins each 3 mm).			
		534'-535': Quartz + molybdenite (2 veins).			
		536.5'-537': Quartz + molybdenite + wolframite + muscovite (15^0, 4 mm).			
		537.5': Quartz + pyrite + k-feldspar + molybdenite (90^0, 1 cm).			
		538': Sill of biotite granite (90^0, 5 cm).			
		541': Quartz + molybdenite + wolframite (90^0, 3 mm).			
		542': Quartz vein (2 cm) cored with muscovite and molybdenite (6 mm).			
		542'-543': Molybdenite in thin (2 mm) white quartz veins (25^0).			
		545': Granite sill (90^0, 6 cm).			
		546'-547': Quartz + molybdenite + pyrite (10^0, 8 mm) - ex. vein note how the molybdenite crystals grow in from edge of vein.			
		548': Granite sill (90^0, 4 cm).			
		550': Molybdenite + quartz (90^0, 3 mm).			
		550'-551': Quartz + biotite cataclasite brecciated and intruded by white quartz.			
		551': Molybenite + quartz + pyrite (90^0, 1 cm).			
		552.5'-553': Granitic veins in cataclasite.			
		556'-557': Trace molybdenite + quartz (90^0, 7 cm).			
		559.5': Molybdenite + quartz (90^0, 2 cm).			
		561.5'-564': Zone of brecciation with granitic matrix. Late quartz veins cut across breccia.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-4 | Sheet 7 of 8

Footage From	To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
496.5'	566'	566': Quartz + biotite + trace molybdenite.	580-590		60	<10	56	95	80
(cont'd.)			590-600		48	50	36	74	60
566'	579'	Actinolite + biotite + quartz cataclasite with pyrite and pyrrhotite clots.	600-610		1100	500	200	520	365
		Veins: 569': Granitic vein (1.5 cm).	610-620		34	40	24	31	110
		569'-572': Molybdenite + quartz vein (10°, 3 mm) - cut and offset by chlorite + quartz	620-630		38	40	36	60	55
		vein (45°, 2 mm).	630-640		32	60	16	98	90
579'	580.5'	Quartz + biotite cataclasite.							
580.5'	637'	Middle granite porphyry (MGP). Note fine grained contact phase extending to 583' where granite							
		becomes medium grained and equigranular. The granite is composed of euhedral to subhedral							
		quartz (30%, up to 3 mm), euhedral to subhedral k-feldspar (40%, 6 mm) set in a plagioclase							
		matrix. The MGP commonly possess up to 5% of coarse grained quartz phenocrysts up to 8 mm							
		diameter. The contact c/a at 580.5' is 50°.							
		Alteration: The granite possesses sections of friable intensely kaolinized rock from 583' to							
		592.5', 594.5' to 596', 599' to 612', 613' to 617', 618' to 622', 630' to 637'.							
		From 583' to 587' the c/a of alteration zones is 30°.							
		Veins: 581': Quartz + molybdenite.							
		583'-587': Several quartz + molybdenite + pyrite veins.							
		592.5'-594.5': Four quartz veins (70°, 4 mm).							
		596'-599': Four quartz veins							
		601'-602': Clay alteration superimposed on well mineralized quartz + molybdenite							
		+ muscovite vein (5°).							
		618': QM (45°).							

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property PLUTO	District Dawson, Y.T.	Hole No. 81.4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-4 | Sheet 8 of 8

Footage From	Footage To	Description	Sample No.	Length	Analysis
580.5'	637'				
(cont'd.)		622': Quartz + molybdenite (60°, 4 mm).			
		624': QM (60°, 1 cm).			
		626': QM (80°, 1 cm).			
		627': Quartz + biotite + molybdenite (10°, 2 mm).			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	PLUTO	District	Dawson	Hole No.	81-5
Commenced	29 July 1981	Location	Margin of main QFP	Tests at	Hor. Comp.
Completed	4 Aug. 1981	Core Size	NQ	Corr. Dip	Vertical	Vert. Comp.
Co-ordinates	6+65N, 0+08W			True Brg.	Logged by I.A. Paterson
Objective	To test contact zone of main porphyry for Mo-W mineralization			% Recov.	>98%	Date 5 August 1981

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
28	-	90°	2525' (approx.)	801.5' (244.3 m)	81-5	1 of 10

Footage From	To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
0'	20'	Casing in talus and broken rock.	30-40		70	10	43	5	145
20'	47'	Quartz + biotite ± chlorite cataclasite with sections of broken rock (core angles 70° to 90°)	40-50		533	20	43	6	126
		Veins: 21.5': Granitic vein (80°, 2 cm); 22': QM + trace MoS_2 (30°, 5 mm).	50-60		238	<10	40	5	120
		28': QMP (30°, 4 mm); 29': QMP + trace MoS_2 (70°, 8 mm).	60-70		121	90	57	12	118
		30': QM (80°, 6 mm) - highly oxidized veins; 32': Quartz + trace MoS_2 (90°, 2 cm).	70-80		237	<10	5	11	99
		36': QM + trace MoS_2 (45°, 1 cm); 37.5': Quartz + Mn stain (80°, 2 cm).							
		37'-42': 4 x 2 mm whole quartz veins							
		42': Quartz + MoS_2 (20°, 2 cm); 43': QM + ex. molybdenite (45°).							
		43'-44': Quartz + trace MoS_2 (90°, 2 mm), QMP + trace MoS_2 (90°, 1 cm).							
		47': Thin felsite dykes up to 3 cm.							
47'	49.7'	Actinolite + biotite + chlorite cataclasite.							
		49.7': 6 cm QFP and quartz + MOS_2 vein.							
49.7'	74'	Quartz + biotite cataclasite.							
		49.7'-51': White quartz + MoS_2 veins - these veins cut quartz + phlogopite (0°, 1 cm) veins which in turn cut quartz veins which parallel foliation.							
		52': QMP (80°, 3 cm);							
		54'-55': QMP with ex. MoS_2 (45°, 8 cm) - note open space fracture filled with QMP.							
		55': Quartz + MoS_2 (90°);							
		62': QM + trace MoS_2 (5°, 5 mm).							
		66'-67': Quartz + MoS_2 (20°, 3 mm).							
		68': QMP + wolframite (90°, 8 cm).							

211-9437

Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-5 | Sheet 2 of 10

Footage From	Footage To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
49.7'	74'	68.5': Muscovite + pyrite + fluorite (15°, 8 mm).	80- 90		76	40	11	46	63
		70': Quartz + MoS_2 vein (0°, 2 mm) cuts biotite vein (2 mm).	90-100		78	20	18	45	68
		72.5': Fragment of feldspar porphyry cut by pyrite and feldspar vein.	100-110		32	40	32	78	280
74'	146'	Middle granite porphyry (MGP) with 5%, 8 mm quartz phenocrysts set in medium grained matrix	110-120		57	50	31	152	223
		consisting of euhedral to subhedral quartz (30%, 2 mm max.), 38% k-feldspar (2 mm max.) and	120-130		135	24	19	112	135
		25% matrix plagioclase. Note 15 cm zone of disseminated MoS_2 at 75' in a foliated part of the	130-140		292	1800	52	110	138
		MGP which also contains up to 5% biotite. Quartz crystals tend to form layers.							
		Veins: MoS_2 + quartz at 75.5' (90°, 2 mm), 80.8' (80°, 2mm), 84' (20°). QMP at 79' (15°),							
		82' (5°), 85' (20°, 80°), 86 (80°) - all 1-3 cms.							
		86': 2 QMP veins (80°, 2 cm, 4 cm).							
		88.7': Quartz + MoS_2 (90°).							
		93.5': Quartz + k-feldspar + fluorite with disseminated MoS_2 along contact with							
		MGP (90°).							
		94.5': QP + MoS_2 (25°, 3 mm).							
		97.5': Quartz + MoS_2 (2 mm, 80°).							
		99.5': QMP (75°, 1 cm).							
		102': QMP (80°, 1 mm).							
		103': Disseminated MoS_2 in "layered" zone in intrusive.							
		103'-108': QMP (0° - 5 mm).							
		111': QMP (60°, 5 cm).							
		114': QMP + minor wolframite (45°, 10 cm).							

211-0437

Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Sheet 3 of 10 | Hole No. 81-5

Footage From	To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
74'	- 146'	116': Quartz k-feldspar pegmatite (90^0, 3 cm).	140-150		139	200	42	135	342
		117': QMP (45^0, 2 cm); trace molybdenite in quartz vein.	150-160		23	10	4	24	30
		118'-119': QMP vein parallel to core and cut by QMP molybdenite veins.	160-170		89	20	6	24	86
		121': Quartz + MoS_2 (80^0, 2 mm) - cuts QMP.	170-180		58	500	18	105	118
		122.5': QMP (45^0, 2 cm) with well developed pink to buff k-feldspar mineralization- as have most QMP veins in this area.							
		122.5'-142': 11 mineralized fractures - mainly quartz + MoS_2, but also QMP + trace MoS_2 (42 cm of QMP alteration).							
		137': Very large 12 cm well zoned quartz crystals with terminations pointing down the hole; note adjacent disseminated MoS_2 in M.G.P.							
146'	-157.5'	Quartz-biotite porphyry (ie QBP) with 5-10% euhedral to subhedral quartz (3 mm maximum) and 5% biotite (3mm max.) set in a fine grained hypidiomorphic granular matrix (av. grain size <1 mm) containing 25% quartz, 35% plagioclase and 30% k-feldspar.							
		Veins: 148.5': Quartz + biotite + MoS_2 (3 mm); 155 (3 mm).							
		155': QMP (1 cm).							
157.5'	- 178'	Medium grained biotite granite with 10 cm quartz + k-feldspar pegmatite zone near contact at 157.5'. Note disseminated MoS_2 in contact zone and 8 mm zoned quartz grains. From 167.5' to 167' there is a zone of fine grained granite containing quartz phenocrysts and from 167' to 168' the biotite granite contains "inclusions" of medium grained granite porphyry with quartz and k-feldspar phenocrysts. Contacts are sharp. Disseminated MoS_2 present in biotite granite at 168'.							

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Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-5 | Sheet 4 of 10

Footage From	Footage To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
157.5'	178'	Veins: 2 pyrite + quartz veins (80°, 40°, 2mm, 2mm)	180-190		15	20	8	70	66
		2 QMP veins; one contains MoS_2.	190-200		7	35	7	42	67
		165': Quartz + k-feldspar vein (90°, 1 cm).	200-210		52	32	23	36	94
178'	-192.5'	Quartz + biotite porphyry (ie. QBP) - contact at 178' sharp.	210-220		189	60	10	95	101
		Veins: 6 QMP veins with k-feldspar rims (25°, 10°, 35°, 15°, 10°, 10°, total thickness = 4 cm).	220-230		160	90	38	180	220
		2 quartz + k-feldspar bands (90°, 2 cm).	230-240		28	70	21	85	154
		1 quartz + biotite + trace Mo + k-feldspar rim (2 mm).	240-250		26	600	59	205	317
		1 QMP + trace MoS_2 (10°, 2 mm).	250-260		24	90	13	115	100
		1 QP + trace MoS_2 (60°, 2 mm).							
192.5'	- 212'	Mixed granite (contact c/a at 192.5' = 45°) and QBP. The age relationship are not clear.							
		Evidence further down the drill hole indicates that the QBP intrudes the granite (xenoliths							
		of granite in QBP).							
212'	- 257'	Coarse grained granite with 3% biotite; note 1 cm quartz and k-feldspar megacrysts from 255' to							
		257'.							
		Veins: 197'-217': 3 QMP veins (20°, 20°, 30°, each 1 cm); one of the veins carries wolframite							
		and a steely grey mineral - galenabismutite.							
		: 15 trace mineralized veins (mainly quartz + MoS_2, quartz + biotite + pyrite							
		+ MoS_2 - all 1-2 mm).							
		217'-236': 6 QMP veins (10°- 30°, 6 cm total thickness).							
		13 MoS_2 bearing veins (quartz + MoS_2 ± pyrite ± biotite).							
		1 QMP + wolframite vein (50°, 1 cm) at 231'.							

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Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev | Length | Hole No. 81-5 | Sheet 5 of 10

Footage From	Footage To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
212'	- 257'	236'-257': 7 QMP veins (30°, 40°, 30°, 90°, 5°, 30°, 4 cms total).	260-270		21	70	8	58	75
		1 QMP with disseminated MoS_2.	270-280		7	40	7	24	30
		1 quartz + biotite vein (0°, 2 mm) cut by quartz + pyrite.	280-290		55	50	7	40	88
		1 quartz + biotite + trace MoS_2 (8 mm).	290-300		17	90	6	53	97
257'	- 268'	Grey QBFP with quartz to 8 mm, feldspar to 1 cm and biotite to 5 mm in fine grained matrix:	300-310		74	90	24	125	215
		contact at 45°. Note how QMP alteration veins tend to parallel the contact.							
		Veins: 260": QMP + wolframite (4 cm, 45°).							
		160'-268': K vein (80°, 6 mm)							
		2 quartz + MoS_2 (2 mm)							
		1 well mineralized quartz + muscovite + MoS_2.							
268'	-270.5'	Coarse grained granite with 3 QM veins (40°, 3 cms total).							
270.5'	-294.8'	QBFP with 2-6% quartz phenocrysts (8 mm max.), 5-10% biotite, k-feldspar phenocrysts have							
		gradational contacts (5%). Quartz phenocrysts are sometimes glomeroporphyritic. Matrix is							
		fine grained.							
		Veins: 275.5': Quartz + pyrite (10°, 2 mm); 276': quartz (80°, 3 mm); 278.5': quartz +							
		pyrite (45°, 2 mm).							
		279': QM + wolframite (80°, 3 mm) cut by quartz + MoS_2 (30°, 1 mm).							
		281': Quartz + pyrite + trace MoS_2 (40°, 3 mm); 282': quartz + muscovite +							
		pyrite (60°, 5 mm).							
		283.5': Quartz + k-feldspar + MoS_2 (5 mm); 287': QMP (60°, 3 mm).							
		281.5': Quartz + phlogopite (3 mm); 290': QM + good MoS_2 (40°, 3 mm).							
		292': Quartz + k-feldspar ± MoS_2 (45°, 1 cm)							

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Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property	PLUTO	District	Dawson	Hole No.	81-5
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-5 | Sheet 6 of 10

Footage From	Footage To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
270.5'	294.8'	291.5': QMP (90°, 6 cm); 292': QM - 2 veins (80°, 3 mm).	310-320		48	90	120	160	945
294.8'	296.3'	Medium grained granite (MGP?).	320-330		12	90	6	48	91
296.3'	306.5'	QBFP.	330-340		25	90	24	64	386
306.5'	308.7'	MGP	340-350		23	90	15	100	220
308.7'	337'	QBFP	350-360		32	150	10	58	30
		Veins: 292'-311': QMP - 13 veins varying from 2 mm to 6 cm in width. Note k-feldspar	360-370		10	32	8	78	95
		recrystallization along rims and trace MoS_2 with 2 veins (c/a: 5°, 45°, 45°,	370-380		8	450	8	193	95
		5°, 10°, 60°). Note wolframite associated with QMP at 298'.	380-390		23	50	16	140	70
		3 quartz + biotite veins (30° - 45°).	390-400*		15	35	8	256	50
		3 quartz + MoS_2 veins (80° - 90°, all 2 mm).							
		311'-330': Phlogopite (90°, 1 cm)	*Cominco Lab						
		8 QMP veins (10°, 60°, 80°, 0°, 60°, 60°, 19 cm total)							
		2 quartz + trace MoS_2 (90°, 2 mm).							
		Quartz + phlogopite + trace MoS_2 (0°, 3 mm).							
		2 QP (0°, 70°, 5 mm, 2 mm).							
		330'-337': 6 minor QMP veins (all approximately 5 mm).							
337'	346'	Granite (MGP)							
		Veins: 337'-346': 9 QMP ± fluorite ± trace MoS_2 veins (70° - 90°, 1-5 cm) with k-feldspar							
		rims.							
346'	434'	QBFP							
		Veins: 346'-365': 16 QMP ± fluorite ± trace MoS_2 (60° - 90°, 0.5 -3 cms), with k-feldspar							
		rims.							

Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length

Sheet 7 of 10

Hole No. 81-5

Footage From	To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
346'	- 434'	365'-384': 4 k-feldspar + quartz veins at 369' (90°, 5 mm), 370' (85°, 3 cm),	400-410		14	20	1	22	26
		385' (90°, 1-2 cm), 377' (85°, 2 cm).	410-420		27	30	4	14	51
		: 17 QMP ± trace MoS_2 veins. Note wolframite in veins at 378' (45°, 1 cm)	420-430		9	62	1	12	18
		and 374' (20°, 1 cm). MoS_2 in veins at 383.5' (85°, 2 mm), 382' (45°,	430-440		27	40	10	25	39
		2 cm), 381' (45°, 0.5 cm), 378.5' (20°, 1 cm), 376.5' (60°, 2 mm).	440-450		<2	12	<1	18	28
		384'-403': 15 QMP ± fluorite + k-feldspar rims.	450-460		3	10	2	30	26
		: 2 k-feldspar veins at 399' (85°, 2.5 cm, 1 cm).	460-470		88	33	1	22	27
		: traces of molybdenite in 3 veins.	470-480		6	3	<1	15	81
		403'-422': 10 veins of QMP ± fluorite; xenoliths of granite at 417.5', 421'-422';	480-490		5	20	3	22	42
		no molybdenite or wolframite observed.	490-500		11	30	9	49	90
		422'-434': 5 veins of QMP (<1 cm).	500-510		34	70	<1	16	33
434'	- 445'	MGP with less than 1% biotite. Note 2 veins of QMP and dyke of QBFP cutting MGP.	510-520		26	20	2	13	43
445'	- 457'	Xenoliths of MGP in QBFP matrix. 4 QMP veins.	520-530		101	>210	20	192	101
457'	-462.8'	MGP, 1 vein QMP.	530-540		4	8	2	22	27
462.8'	-549'	QBFP: 469': ex. molybdenite on fracture.							
		463': molybdenite on margins of vein (5°, 0.5 cm)							
		479.5': molybdenite in quartz vein.							
		480'-500': 12 veins of QMP ± fluorite with traces of molybdenite at 492' (30°, 0.5 cm),							
		493' (5°, 0.2 cm). Note vein containing fine grained quartz + plagioclase							
		with coarse grained k-feldspar along margins.							
		500'-518': Note granitic xenolith from 513' to 517', 3 veins QMP. Note wolframite							
		in QMP vein at 505' (50°, 1-2 cm).							

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-5 | Sheet 8 of 10

Footage From	Footage To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
462.8'	549'	518'-537': Note granitic xenoliths at 530' (0.5'-1') and from 532' - 533.5' (45° c/a).	540-550*		<2	10	<1	13	45
		: 8 QMP veins at 521' (4°, 1 cm, minor wolframite), 525' (45°, <.2 cm,	550-560*		<2	20	5	53	33
		traces molybdenite), 524' (10°, 1 cm, traces molybdenite).	560-570		28	10	<1	29	15
		537'-549': 4 veins QMP with traces molybdenite.	570-580		4	10	4	32	20
549'	554'	QBFP with xenoliths of MGP.	580-590		16	8	<1	32	25
		Veins: 6 veins of QMP ± fluorite.	590-600		40	12	<1	18	10
554'	598.5'	QBFP with increase in size of feldspar phenocrysts; approx. 33 QMP ± fluorite veins.	600-610		130	50	8	34	65
		555': QMP + fluorite + wolframite vein (90°, 0.2 cm).	610-620		6	14	2	52	10
		556',558-560: granitic xenoliths.	620-630		68	24	4	23	10
		593': excellent molybdenite occurrence in fracture (80°, 0.1 cm).	630-640		20	24	3	29	20
		596': granitic xenolith.	640-650		14	20	4	32	45
598.5'	609'	MGP							
		Veins: 8 QMP ± fluorite veins.							
		602.5': QMP ± fluorite + traces wolframite (80°, 0.2 cm).	* Cominco Lab						
		Note quartz veins containing molybdenite at 603.5' (60°, 2.5 cm, excellent), 604' (70°, 0.5							
		cm, trace), 604.2' (75°, 0.2 cm, trace), 605' (90°, 0.2 cm, trace) and minor wolframite at							
		607.5' (75°, 2-3 cm).							
609'	635'	QBFP with 20 veins of QMP ± fluorite + k-feldspar rims. Note well developed molybdenite in							
		fractures at 622' (90°, 0.1 cm), 624' (90°, 0.4 cm), 630' (80°, 0.2 cm), 631' (75°, 0.3 cm).							
		Note quartz + k-feldspar pegmatite vein at 634'.							
635'	652.1'	MGP with gradational contact over 2' with QBFP.							

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Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
					81-5	9 of 10

Footage From	Footage To	Description	Sample No.	Length	Analysis ppm Mo	W	Cu	Pb	Zn
635'	-652.1'	Veins: 635'-651': 8 QMP veins.	650-660		10	450	8	195	100
		650': Well developed molybdenite bearing quartz vein (85°, 0.2 cm).	660-670		62	150	8	63	20
652.1'	-653.8'	QBFP dyke (?); note molybdenite bearing fracture (90°, 2 mm).	670-680		44	80	16	68	70
653.8'	-660.5'	MGP.	680-690		98	120	34	110	140
		Veins: 5 quartz + molybdenite ± k-feldspar ± muscovite veins (10°, 2 mm; 80°, 1 cm; 90°, 1 mm;	690-700		24	100	32	178	165
		45°, 1 mm).							
		2 QMP veins (80°, 4 cm).							
660.5'	-662.7'	QBFP with fine grained chill zone (?) at 660.5'. Note pegmatitic phase in granite at 662.7'.							
		Veins: Molybdenite + quartz (75°, 1 mm).							
		: 1 QMP vein.							
662.7'	-797.2'	MGP.							
		Veins: 662.7'-670': 10 cms of QMP in 4 veins (45° - 60°), Molybdenite + quartz + k-feldspar							
		+ pyrite (75°, 2 cm, ex).							
		670'-688': 12 cm of QMP alteration in 11 veins (80° - 90°).							
		: 1 quartz + k-feldspar + biotite + molybdenite vein (80°, 1.5 cm).							
		: 4 quartz ± pyrite + molybdenite veins (45°, 2 mm; 35°, 2 mm; 55°, 5mm;							
		45°, 5 mm.							
		: 1 fluorite + clay filled 1 mm fracture/vein.							
		688'-707': Crumbly clay along alteration between 689' and 690'.							
		: 6.5 cms of QMP in 4 veins (80° to 90°).							
		: 4 QP veins (45°, 80°, 80°, 1-3 mm).							
		: 2 QP + trace molybdenite (60°, 60°, both 2 mm).							

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property PLUTO	District Dawson	Hole No. 81-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 81-5 | Sheet 10 of 10

Footage From	Footage To	Description	Sample No.	Length	Analysis Mo	W	Cu	Pb	Zn
662.7'	-797.2'	688'-707': Note 1.5 cm of fine grained phase at 690'.	700-710		8	120	1	49	29
		707'-726': 7 veins of QMP totalling 50 cms (20^0 - 80^0).	710-720		81	122	26	124	179
		: 25 quartz + pyrite ± molybdenite (0^0 to 80^0, 4 veins).	720-730		252	67	20	68	183
		726'-744': 7 cms QMP in 9 veins (all 80^0 - 90^0, 2 veins have traces molybdenite).	730-740		41	160	16	54	93
		: 3 well mineralized quartz + muscovite + molybdenite (80^0 - 90^0, 3 mm).							
		: Note molybdenite associated with layering in granite between 743' and 744' (c/a = 90^0).							
		744'-763': 5 QMP veins, 6 cms total thickness (45^0 - 90^0).							
		: 1 quartz + pyrite + molybdenite vein (5^0, 1 cm).							
		: 1 quartz + molybdenite (trace) + phlogopite + pyrite + beryl (?) (90^0, 1 cm).							
		: 1 pyrite + quartz (45^0, 2 mm).							
		463'-782': 4 QMP veins, 14 cms total (all 90^0).							
		: 2 pyrite + quartz veins cross-cutting QMP veins (10^0, 4 mm).							
		: Note well developed molybdenite associated with QMP vein at 782'.							
		782'-797.2': 3 QMP veins, 6 cm total (80^0 - 90^0, trace molybdenite associated with 1 QMP).							
		: Quartz + muscovite + wolframite at 798' (50^0, 2 mm).							
797.2'	-801.5'	QFP with sharp contact with MGP (c/a = 50^0); contains vein of quartz + muscovite + wolframite.							

EXHIBIT "A"

STATEMENT OF EXPENDITURES

For the Period 10 July to 4 August 1981

Direct Drilling Costs $85,182.35

Contractor: Amity Drilling Ltd.
10 - 12th Avenue,
Whitehorse, Yukon
Y1A 4J4

I.A. Paterson
Project Geologist

IAP/vmk

COMINCO LTD.

EXPLORATION
NTS: 116C/8

WESTERN DISTRICT
2 December 1981

EXHIBIT "B"

PLUTO GROUP

DAWSON M.D., Y.T.

STATEMENT OF QUALIFICATIONS

I, Ian A. Paterson, with business address at 700 - 409 Granville Street, Vancouver, British Columbia, do hereby certify that I have supervised the field work and have assessed and interpreted the data resulting from this diamond drilling programme on the Pluto Mineral claims.

I also certify that:

1) I graduated from the University of Aberdeen, Scotland with a B.Sc. (Hons.) degree in 1967.

2) I graduated from the University of British Columbia with a Ph.D. degree in 1973.

3) I am a registered Professional Engineer of the Province of British Columbia, a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.

4) I have been engaged in my profession since my graduation in 1973.

5) I have been employed by Cominco Ltd. since 1974.

Respectfully Submitted:

I.A. Paterson
Project Geologist

IAP/vmk

EXHIBIT "C"

IN THE MATTER OF THE ACT RESPECTING QUARTZ MINING IN THE YUKON TERRITORY AND IN THE MATTER OF A DIAMOND DRILLING PROGRAMME CARRIED OUT IN PORTIONS OF THE PLUTO MINERAL CLAIMS LOCATED 54 KM NORTHWEST OF THE TOWN OF DAWSON IN THE DAWSON MINING DIVISION OF THE YUKON TERRITORY.

S T A T E M E N T

I, Ian A. Paterson of the City of Vancouver in the Province of British Columbia, make oath and say:

1. THAT I am employed as a geologist by Cominco and, as such, have a personal knowledge of the facts to which I hereinafter depose;

2. THAT included in this report and marked as Exhibit "A" is a true copy of expenditures incurred on a diamond drilling programme on the Pluto mineral claims;

3. THAT the said expenditures were incurred between the 10th of July and the 4th of August 1981 for the purpose of mineral exploration on the above claims;

4. THAT the diamond drill core for holes 1 to 5 is stored at the cleared campsite at 12+00N on the baseline near DDH 81-3.

I.A. Paterson
Project Geologist

Dated this 7 day of December, 1981,
at Vancouver, British Columbia.