

ASSESSMENT REPORT
1979 DIAMOND DRILLING PROGRAM UNDERTAKEN ON THE
BIG MISSOURI PROPERTY
STEWART, BRITISH COLUMBIA

CLAIMS INVOLVED : PROVINCE; BUENA VISTA, GOOD HOPE

MINING DIVISION : SKEENA

NTS LOCATION : MAP 104 BIE

LATITUDE AND LONGITUDE : $56^{\circ}05'N$; $130^{\circ}02'W$

OWNER OF CLAIMS : TOURNIGAN MINING EXPLORATIONS LTD.

OPERATOR : WESTERN MINES LIMITED

AUTHOR : SHAUN M. DYKES
PROJECT GEOLOGIST
WESTERN MINES LIMITED

DATE : JANUARY 29, 1980

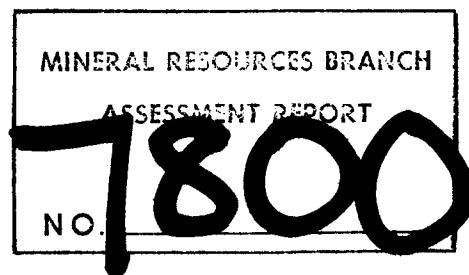


TABLE OF CONTENTS

	<u>PAGE</u>
1. TITLE PAGE	
2. INTRODUCTION	1
3. 1979 DRILLING PROGRAM	4
3.1 Purpose	4
3.2 Description	4
4. INTERPRETATION OF THE RESULTS	5
5. ITEMIZED 1979 DRILLING COSTS	6
6. APPORTIONMENT OF DRILL FOOTAGE	6

APPENDIX

Fig. 1 LOCATION MAP	2
Fig. 2 CLAIM LOCATION MAP	3
Fig. 3 1979 DRILL SITE LOCATION MAP	(BACK POCKET)
DIAMOND DRILL LOGS	(BACK POCKET)
STATEMENT OF QUALIFICATIONS	7

INTRODUCTION

The Big Missouri Property is located 25 kilometres north of the town of Stewart, B. C. and situated between the Silbak Premier and Granduc Mines in northwestern British Columbia (Fig. 1).

The property is accessible by road during snow-free months by way of the Granduc road from Stewart to Premier; and then by the Big Missouri road into Joker Flats and the claims areas (Fig. 1 and Fig. 2).

The Big Missouri Mine was discovered in 1904, and was subsequently put in production between 1938 and 1942 by Consolidated Mining and Smelting Co. (Cominco). Subsequent to the mine closure in 1942, there have been several attempts by various mining companies to re-evaluate the mineral potential in the area. This includes :

- work by Hecla Mining
- geological work by Falconbridge in 1966
- geological and geochemical work by El Paso in 1970
- extensive underground sampling by Aetna Mines in late 1960's and early 1970's

and - diamond drilling by Giant Mascot Mines in 1974.

Since the fall of 1973, Tournigan Mining Explorations Ltd. has held title to the property. In 1979 Tournigan and Western Mines Ltd. entered into agreement whereby Western Mines Ltd. by fulfilling certain obligations, could earn an interest in the property. It is in conjunction with this agreement that the 1979 diamond drilling program was undertaken.

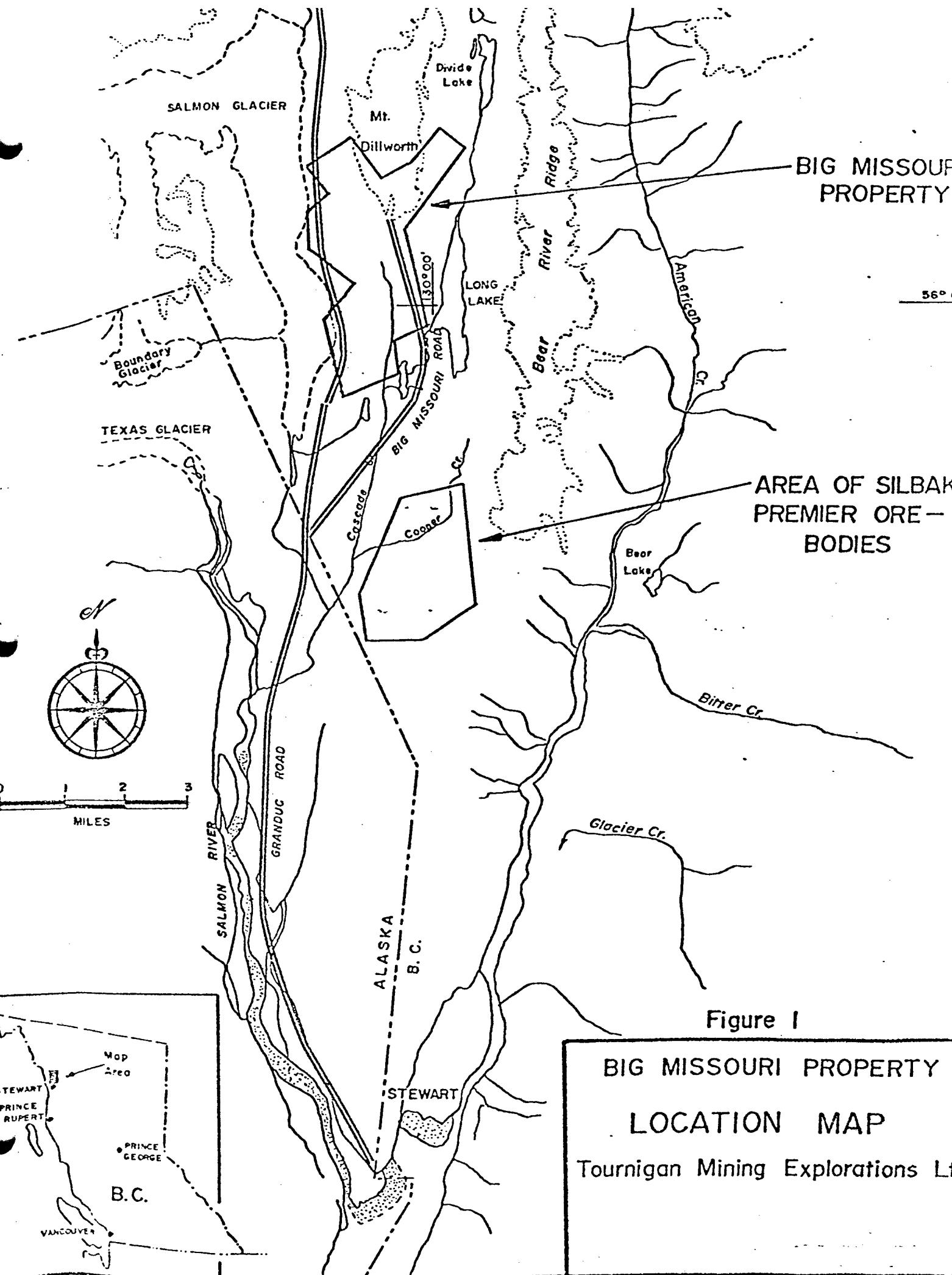


Figure 1

BIG MISSOURI PROPERTY
LOCATION MAP

Tournigan Mining Explorations Lt

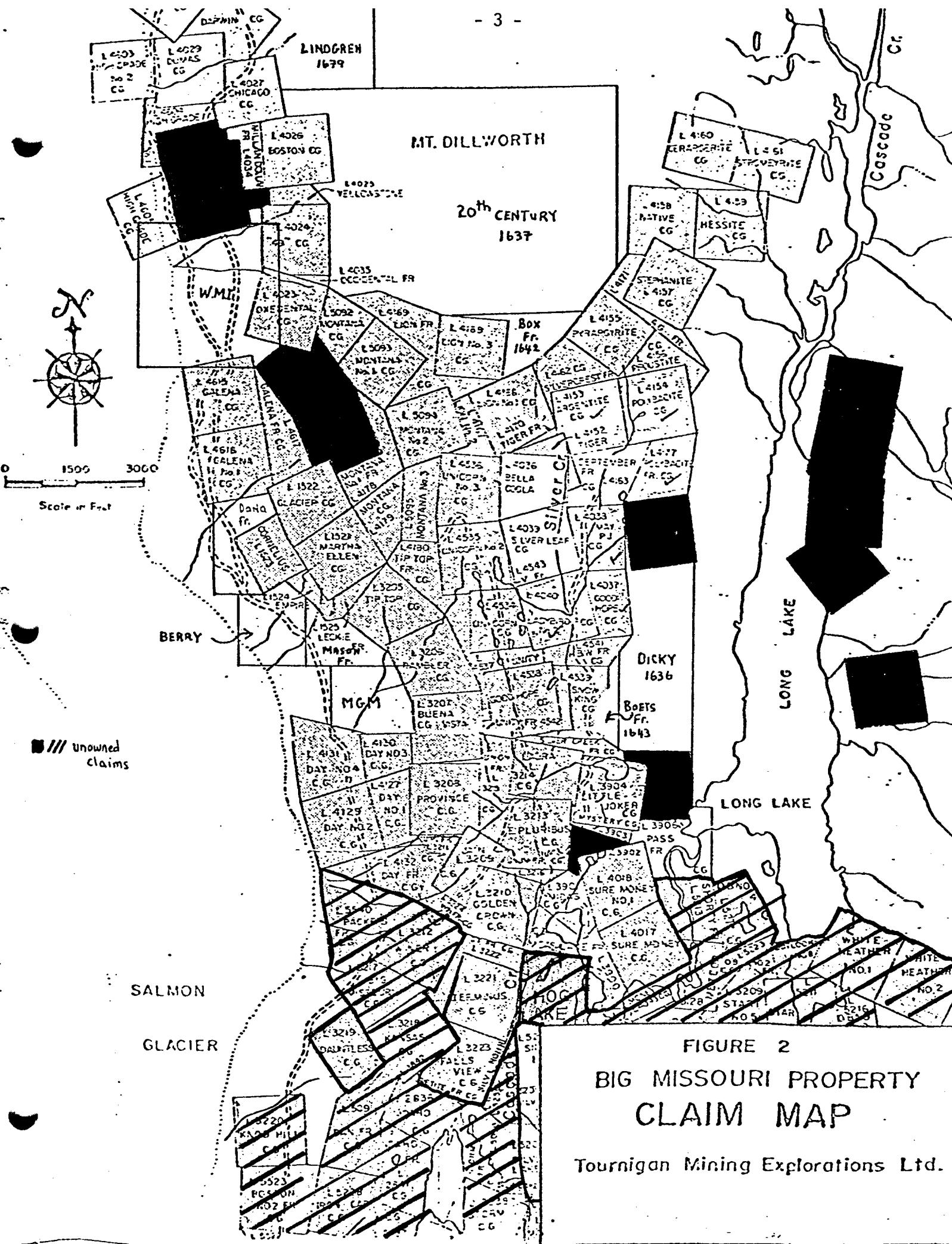


FIGURE 2
BIG MISSOURI PROPERTY
CLAIM MAP.

Tournigan Mining Explorations Ltd.

1979 DRILLING PROGRAM

Purpose : To establish the volcanic stratigraphy within the mineralized zones of the Big Missouri property with special emphasis on the Province East zone which overlies the underground workings of the old Big Missouri Mine.

Description : A total of 3188 ft. (971.7 m) of NQ (2"-5cm) diamond drilling was carried out during the period September 10, 1979 to October 11, 1979. A total of seven drill holes ranging from 125 ft. (38.1 m) to 775 ft. (236.22 m) in depth were drilled using a Longyear 38 diamond drill. The details of the individual holes are outlined in Table 1 and their locations are shown in Fig. 3.

Table 1 Diamond drill hole data

DDH#	Grid Location	Depth	Inclination	Azimuth	Dip Test	Corrected Dip Test	Collar Elevation
79-1	18+46N/9+30E	576' (175.6m)	70°	-	-86°	-84.5°	1105 m
79-2	18+50N/10+75E	526' (160.3m)	70°	090°	-62°	-55°	1078 m
79-3	12+50N/8+65E	205' (62.5m)	-45°	030°	-	-	1078 m
79-4	12+50N/8+65E	537' (163.7m)	-90°	-	-75°	-70.5°	1066 m
79-5	11+95N/9+17E	775' (236.2m)	-50°	070°	-38°	-30.5°	1057 m
79-6	11+50N/9+40E	446' (135.9m)	-80°	070°	-72°	-67°	1056 m
79-7	11+50N/9+40E	123' (37.5m)	-45°	070°	-	-	1056 m

N.B. Drill core stored in Powerhouse at Big Missouri property.

INTERPRETATION OF THE RESULTS

The volcanic sequence consists of agglomerates, tuffs and flows of andesitic composition intercalated with cherty tuff bands. The sequence is cross-cut by andesitic and granitic dykes, and truncated by numerous faults of several ages. The mineralization observed consists of fine grained disseminated pyrite with or without sphalerite and galena contained mainly in the cherty tuff horizons or as small sulphide stringers and veinlets within the andesite. Gold and silver values are erratic. Better intersections are commonly in the 0.10 to 0.15 oz./T Au and 0.5 to 1.0 oz./T Ag range. Lead and zinc values greater than 1% are present locally. Nature and control of the gold and silver distribution is as yet unknown.

Sericitization and silicification are the predominant alteration types within the mineralized zones. Sericitization is the most pervasive and widespread, while silicification is found locally in relationship to the mineralized horizons.

The preliminary interpretation of the geological environment is that the mineralization occurs in narrow stratabound interflow siliceous exhalative horizons.

As a result of the 1979 drilling program, several stratigraphic units have been established within the mineralized zones. Correlation of these units has proven difficult due to faulting and must await further information.

ITEMIZED 1979 DRILLING COSTS INCURRED DURING PERIOD SEPT. 10 - OCT. 14, 1979

SUMMARY

1. Mobilization & Demobilization	\$ 7,575.08
2. Drilling Cost	74,661.88
3. Helicopter Cost	8,306.12
4. Assay Cost	6,771.10
5. Core preparation and logging cost	2,791.70
6. Report preparation cost	450.00

Total Overall Expenditure = \$100,555.88

APPORTIONMENT OF DRILL FOOTAGE

<u>CLAIM</u>	<u>DRILL HOLE(S)</u>	<u>FOOTAGE</u>	<u>% OF TOTAL</u>
Buena Vista	79-1	576 ft. (175.6m)	18.06%
Good Hope	79-2 and 79-3	731 ft. (222.8m)	22.92%
Province	79-4 and 79-7	1881 ft. (573.3m)	59.02%
	Total	3188 ft. (971.7m)	100%

STATEMENT OF QUALIFICATIONS

UNIVERSITY EDUCATION : - 1976 graduated with B.Sc (eng.) degree in Geology from Queen's University, Kingston, Ontario.

: - 1979 graduated with M.Sc (eng.) degree in Geology from Queen's University, Kingston, Ontario.

: - Courses taken based on mineral exploration, igneous petrology, and mineral economics.

PRACTICAL EXPERIENCE : - 4 summers experience in northern Ontario and northeastern British Columbia.

: - Summer 1979 began work for Western Mines Ltd. on Big Missouri property.

Respectively submitted



Shaun M. Dykes

WESTERN MINES LIMITED

PROPERTY :	Big Missouri	NTS	LAT. $56^{\circ}05'N$	LOGGED BY:	H. Meade	DATE: Sept. 21-23/	BM 79-1
PROJECT No:	50459	104/BIE	DEP. $130^{\circ}00'W$	SURVEYED BY:	H. Meade	79	COLLARED: Sept. 15/79
COLLAR: CHAINED ; SURVEYED ; ESTIMATED		CASING:	CORE SIZE	DEPTH	HOLE CHARACTERISTICS		
LENGTH	GROUND	DRILL DECK	TOP OF CASING	NO	0	175.6m	LOST CIRCULATION
ELEVATION	1105m	θ					WATER POINTS
HOLE COORD.	9+30E/18+46N						
HOLE SURVEY		175.6m					
DEPTH	Collar						
DIP	090	-84.5					
MAG. PEARING	-	-					
GRID. PEARING	-	-					
TRUE PEARING	-	-					
INSTRUMENT	Brunton	Acid					

OBJECTIVE / COMMENTS: Buena Vista Claim: - To test Northstar-Lindeberg Zone

Rock Types

A₁-: Feldspar Porphyritic

A₂-: Amphibole Porphyritic

A₃-: Non porphyritic

A₄-: Feldspar & amphibole porphyritic

-Si-: Silica-rich matrix

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Page 2 of 13

Hole No BM 79-1

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE	SAMPLE	SAMPLE	ASSAYS				
				INTERVAL	LENGTH	No.	Au oz/t	Ag oz/t	% Cu	% Pb	% Zn
0 / 0	6 / 1.8	CASING									
6 / 1.8	21.8 / 6.6	A ₄ ANDESITE FLOW: - medium green, weak to moderate foliation, quite variable texture of fine to coarse plagioclase porphyritic andesite with or without hornblende phenocrysts	Foliation at 40° to core axis shears at 11 ft/3.4m, 12.5 ft/3.8m, 13 ft/4.0m, 14 ft/4.3m, 17 ft/5.2m, 18 ft/5.5m, 0-5% quartz veining; numerous quartz with carbonate, pyrite & with or without chlorite; locally fine disseminated pyrite								
21.8 / 6.6	22.2 / 6.7	CHERTY TUFF - bed of grey siliceous tuff	10% fine disseminated pyrite; contact at 35° to core axis								

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Page 3 of 13

House No BM 79-1

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Hole No BM. 79-1

Page 4 of 13

WESTERN MINES LIMITED

Page 5 of 13

Hole No BM 79-1

FEET/METERS	← Rock Type/ALTERATION	GRAPHIC LOG MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE	SAMPLE	SAMPLE	ASSAYS						
				INTERVAL	LENGTH	NO.	Au	oz/t	Ag	oz/t	%Cu	%Pb	%Zn
78.5 / 81.2			78.5-81.4										
23.9 / 24.7	A ₄ ANDESITE AGGLOMERATIC LAPILLI TUFF: mainly feldspar porphyritic fragments; well silicified	numerous quartz veins with pyrite, sphalerite, galena, 5-10% pyrite, 3-4% sphalerite & galena, minor carbonate in the quartz veins, shears at 81.5 ft/24.8m 78 ft/23.8m	8-14	23.9-24.8	2.9ft 1.9m	2407	0.068	0.35	-	0.27	0.90		
81.2 / 123.5			81.4-86.9										
24.7 / 37.5	A ₁ ANDESITE TUFFACEOUS LAPILLI AGGLOMERATE: medium to dark green, feldspar phenocrysts up to 3mm dominate, lighter green andesite tuff matrix - andesite fragments up to 10cm	Pyrite with sphalerite & galena in quartz veins; quartz carbonate veins with hematite - numerous carbonate veins with or without quartz, saussurite, hematite, 90.5 ft/27.6 m - 98 ft./29.9 m fault zone 16.5 ft/ 35.5 m - 121.5 ft./37.0 m quartz with pyrite,	24.8-26.5	116.5-121.5	5.5ft 1.7m	2452	0.012	0.12	-	0.07	0.22		
			35.5-37.0		5ft 1.5m	2408	0.028	0.28	-	0.43	0.67		

WESTERN MINES LIMITED

Page 6 of 13

Hole No BM 79-1

WESTERN MINES LIMITED

Page 7 of 13

Hole No BM 79-1

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE	SAMPLE	SAMPLE	ASSAYS				
				INTERVAL	LENGTH	NO AÜ	OZ/T	AG OZ/T	%Cu	%Pb	%Zn
143.0 / 43.6	191.0 / 58.2	A ₁ ANDESITE AGGLOMERATIC LAPILLI TUFF: - with porphyritic fragments, weak schistosity, feldspar phenocrysts up to 4mm.		schistosity at 45° to core axis					t		
				fault at 167 ft/50.9m-167.5 ft/	143.0-148.0 5.0ft 43.6-45.1 1.5ft	2454	0.003	0.04	--	0.02	0.12
				51.1 m shears at 143 ft/43.6; 146 ft/44.5 m; 147 ft/44.8; 156 ft/	148.0-153.0 5.0ft 45.1-46.6 1.5ft	2455	0.008	0.09	--	0.19	0.22
				47.5; 161.5 ft/49.2 m to 166.5 ft/	161.5-166.5 5.0ft 49.2-50.7 1.5ft	2410	0.24	0.04	--	0.23	0.30
				50.7m. Two 10 cm quartz-pyrite-sphalerite and galena veins							
191 / 58.2	192.5 / 58.7	A ₃ ANDESITE TUFF: - medium green, lower contact is quartz-pyrite-sphalerite-galena vein, gradational contact		Lower contact at 30° to core axis							
192.5 / 58.7	208.5 / 63.6	A ₁ ANDESITE TUFFACEOUS LAPILLI AGGLOMERATE: - bleached light green matrix to medium green fragments: A ₁ gradational to A ₃ finegrained 193 ft/		Pyrite stringers with or without sphalerite and galena. A few thin 1/2 to 1 cm quartz veins	192-198.0 6ft 58.5-60.4 1.9m 62.5-63.4 0.9	2456	0.003	0.10	--	0.02	0.04
					205-208 3ft 62.5-63.4 0.9	2457	0.003	0.22	--	0.01	0.01

WESTERN MINES LIMITED

Page 8 of 13

Hole No BM 79-1

WESTERN MINES LIMITED

Page 9 of 13

Hole No BM 79-1

FEET / METERS	← REEF TYPE / ALTERATION	GRAPHIC LOG	MINERALIZATION / STRUCTURE	ASSAYS								
				% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	Au oz/t	Ag oz/t	Cu %	Pb %	Zn %
212.0 / 64.6	213.5 / 65.1	A ₃	ANDESITE CHERTY TUFF: - Andesite fragments floating in greenish quartz rich matrix & sericitic-quartz-pyrite tuff matrix	disseminated pyrite & a few pyrite stringers					t			
213.5 / 65.1	228.0 / 69.5	A ₃ -Si	ANDESITE AGGLOMERATE LAPILLI TUFF (?): massive, medium green with patched grey bleached zones with quartz & sericite	numerous 2-5mm quartz veins with red-brown sphalerite; also larger irregular quartz veins have disseminated pyrite, sphalerite & galena (chloritic bleached zones cut by planar quartz veins with sphalerite: shears at 214.5 ft/65.4m, 216 ft/65.8m, 217 ft/66.1m, 227.5 ft/69.3m, 228 ft/69.5m	213.5-218.5 65.1-66.6	5ft 1.5m	2458 2459	<0.003 <0.003	0.13 0.10	- -	0.08 0.02	0.19 0.02

WESTERN MINES LIMITED

Page 10 of 13

Hole No BM 79-1

WESTERN MINES LIMITED

Page 11 of 13

Hole No BM 79-1

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG	MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS	
299.0 / 91.1	303.5 / 92.5	A ₄ -Si BLEACHED ANDESITE LAPILLI TUFF: mixed	3-5% disseminated pyrite,						
		green to grey, massive moderate schistosity &	schistosity 45° to core axis;						
		chlorite	shears at 298 ft/90.8m, 300 ft/						
303.5 / 92.5	355.0 / 108.20	A ₄ ANDESITE LAPILLI TUFF OR FLOW: massive,	91.4m, 303 ft/92.4m						
		medium green, granular, salt & pepper	1-2% pyrite in carbonate						
		textured, fine chloritic spots; local	stringers & disseminated						
		bleaching gives ghost fragmental fabric	pyrite; quartz-carbonate veins						
355.0 / 108.2	359.5 / 109.6	A ₄ BLEACHED ANDESITE TUFF: medium green to	with or without pyrite, hematite,						
		grey;	chlorite						
			variable disseminated pyrite						
			content up to 15%; quartz-						
			carbonate-chlorite-epidote stringers						

WESTERN MINES LIMITED

Page 12 of 13

BM 79-1

Hole No

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG	MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS			
								Au oz/t	Ag oz/t	Cu%	Pb%
359.5 / 109.6	476.5 / 145.2	FELDSPAR PORPHYRY ANDESITE DYKE (TERTIARY);	lower contact at 45° to core axis, shears at small angle to core axis - calcite-chlorite fracture filling at 25° to core axis								
476.5 / 145.2	482.0 / 146.9	A ₄ ANDESITE TUFFACEOUS LAPILLI AGGLOMERATE:	1-2% disseminated pyrite 3% quartz & carbonate veinlets								
482.0 / 146.9	518.5 / 158.0	A ₄ -Si ANDESITE TUFFACEOUS LAPILLI AGGLOMERATE-	3-5% pyrite disseminated & in patches within the quartz, coarse pyrite bands in chlorite patches, grey sericitic zones 493 ft/150.2m pyrite, sphalerite & galena in quartz stringers	484-489.5 147.5-149.2	5.5ft 1.7m	2462 2463 2464 2465 2466	0.044 <0.003 0.030 0.050 0.012	0.15 0.02 0.09 0.12 0.08	- - - - -	0.05 0.01 0.02 0.02 0.06	0.23 0.10 0.02 0.12 0.04

WESTERN MINES LIMITED

Page 13 of 13

Hole No BM 79-1

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE No	ASSAYS				
			5-10	518-522.5	4.5ft	Au oz/t	Ag oz/t	Cu %	Pb %	Zn %	
518.5 / 158.0	528.5 / 161.1	A ₄ -Si ANDESITE TUFF AGGLOMERATE LAPILLISTONE,	5-10% pyrite disseminated & in stringers with minor sphalerite	157.9-159.2	1.3m	2413	0.012	0.24	-	0.05	0.84
		green to grey, sericitic, silicified & pyritized andesite fragments floating in a grey cherty matrix		522.5-527.3	4.8ft						
528.5 / 161.1	576.0 / 175.6	A ₄ -Si ANDESITE LAPILLI TUFF:-medium green to grey, massive, matrix locally cherty, andesite fine to medium granular with small feldspar phenocrysts & chloritic spots	3-5% fine disseminated pyrite abundant quartz-carbonate veins form a stockwork, trace red sphalerite	528-533 3-5 160.9-162.4	5ft 1.5m	2467	<0.003	0.02	-	0.01	0.02
		END OF HOLE		542.5-547.5 3-5 165.4-166.9	5ft 1.5m	2468	<0.003	0.08	-	0.04	0.14
				547.5-552.5 3-5 166.9-168.4	5ft 1.5m	2469	(0.003	0.03	-	0.02	0.05
				552.5-557.5 3-5 168.4-169.9	5ft 1.5m	2470	<0.003	0.08	-	0.02	0.04
				561.5-566.5 3-5 171.1-172.7	5ft 1.5m	2471	0.003	0.05	-	0.04	0.10

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PROPERTY : Big Missouri

PROJECT No: 50459

NTS

104/BIE

LAT. 56° 05' N

DEP. 130° 00' W

LOGGED By: H. Meade

SURVEYED By: H. Meade

DATE Sept. 25-27/79

DATE Sept. 23/79

PAGE 1 OF 14

HOLE No BM 79-2

FOLLOW UP: Sept. 22/79

COMPLETED: Sept. 23/79

COLLAR: CHAINED SURVEYED ; ESTIMATED				CASING: LEFT IN HOLE: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	CORE SIZE	DEPTH	HOLE CHARACTERISTICS			EQUIPMENT, ROCKS, BIT, ETC IN HOLE:
LENGTH	GROUND	DRILL DECK	TOP OF CASING		NO.	Ø 160.3m	CAVING	LOST CIRCULATION	WATER POINTS	2 - 2ft. NW Casing
LENGTH	0	0	0							
ELEVATION	1078m									
HOLE COORD.	18+50N/10+75E									
HOLE SURVEY										
DEPTH	Collar	160.3m								
DIP	-70°	-55°								
MAG. BEARING	090°	-								
GRID FLARING	090°	-								
TRUE BEARING	071°	-								
INSTRUMENT	Brunton Acid									

OBJECTIVE / COMMENTS: GOOD HOPE CLAIM: to test Unity-Unicorn Zone

Rock Types:

A₁ : - Feldspar porphyriticA₂ : - Amphibole porphyriticA₃ : - Non-porphyriticA₄ : - Feldspar and amphibole porphyritic

- Si: - Silica rich matrix

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Page 2 of 14

Hole No BM 79-2

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Page 3 of 14

House No BM 79-2

WESTERN MINES LIMITED

Page 4 of 14

Hoe No BM 79-2.

WESTERN MINES LIMITED

Page 5 of 14

Hole No BM 79-2

WESTERN MINES LIMITED

Page 7 of 14

BM 79-2

Hoc No^{BA}

WESTERN MINES LIMITED

Page 8 of 14

HOLE NO. BM 79-2

WESTERN MINES LIMITED

Page 9 of 14

HOLE NO. BM 79-2

WESTERN MINES LIMITED

Page 10 of 14

HOLE NO. BM 79-2

FEET/ METRES	ROCK TYPE / ALTERATION	GRAPHIC LOG.	MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS					
								oz/t	Ag oz/t	Cu%	Pb%	Zn%	
329.3 100.4	331 100.9	ANDESITE TUFFACEOUS LAPILLISTONE-CHERTY TUFF			99.91m 101.43m	m 1.52	8254	<0.003	0.26	-	<0.01	0.02	
331 100.9	337.5 102.9	A ₄ ANDESITE FLOW:-moderate to light green, bleached, sericitic & pyritic halos on cherty grey quartz stringers											
337.5 102.9	338.5 103.2	BRECCIATED ANDESITE DYKE: bleached (ground- water) to light grey green, fault breccia	Fault 338.5 ft/103.2m										
338.5 103.2	349.5 106.5	A ₄ ANDESITE (fragmental?) medium grey to green; variably bleached and weathered by groundwater, quartz-carbonate veining	minor pyrite shears at 339 ft/ 103.3m										
349.5 106.5	353.0 107.6	A ₄ BLEACHED ANDESITE FLOW: - medium grey, pervasive silicification & sericitization	5-7% fine pyrite-grey quartz stringers, fault 349.5 ft/106.5m	5-7	106.5 108.1m	1.6	8255	<0.003	0.20	-	0.02	0.13	

WESTERN MINES LIMITED

Page 11 of 14

HOLE NO. BM 79-2

FEET/ METRES		ROCK TYPE / ALTERATION	GRAPHIC LOG.		MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS					
oz/t	Aq oz/t		Cu%	Pb%	Zn%										
353.0 107.6	366.0 111.6	A ₄ ANDESITE FLOW: - medium green to grey bleached; medium grained granular to sub-			5-8cm quartz-carbonate veins - 5%		108.1m 109.9m	" 1.8	8256	0.003 0.08	-	0.06	0.24		
		porphyritic, carbonate-quartz breccia near base					109.9 111.6	1.7	8257	0.064 0.24	-	0.02	0.06		
366.0 111.6	367.5 112.0	RHYOLITE TUFFACEOUS LAPILLI AGGLOMERATE- CHERTY TUFF:-light grey green to grey, white to greenish siliceous subangular fragments in a carbonate-quartz-carbon matrix- sedimentary?			Pyrite stringers		111.60 113.08	1.48	8258	0.048 0.13	-	0.02	0.05		
367.5 112.0	369.5 112.6	A ₄ ANDESITE: medium green fragments cut by well developed quartz stringer stockwork; very pervasive silicification			5% pyrite as stringers										
369.5 112.6	375.0 114.3	RHYOLITE TUFFACEOUS LAPILLI AGGLOMERATE OR FRAGMENTED CHERTY TUFF:-mottled white & green, minor carbonate stringers, minor carbon			5-7% pyrite as dispersed patches, disseminations & stringers	5-7	113.08 114.6	1.52	8259	<0.003 0.16	-	0.04	0.08		

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Page 12 of 14

HOLE NO. BM 79-2

WESTERN MINES LIMITED

Page 13 of 14

HOLE NO. BM 79-2

WESTERN MINE LEVEL										HOLE NO.						
FEET / METRES		ROCK TYPE / ALTERATION		GRAPHIC LOG.		MINERALIZATION / STRUCTURE		% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS				
								oz/t	Ag oz/t	Cu%	Pb%	Zn%				
431.0 131.4	453.5 138.2	A ₃ ANDESITE FLOW:-medium green, massive, non calcarous, non-magnetic, fine granular texture with occasional chloritized mafic spots, carbonate amygdules				1% fine disseminated & stringered pyrite			m							
453.5 138.2	511.0 155.8	A ₃ ANDESITE TUFFACEOUS LAPILLI AGGLOMERATE- medium green, interflow fragmental, silicified, variable bleaching; fuzzy fragmental fabric further down hole, bands of siliceous tuff, 471 ft/143.6m & 478 ft/ 145.7m a few amygdaloidal fragments & lighter grey-green mafic porphyritic andesite fragments less silicified & bleached down hole & darker green, more chloritic- increasing feldspar> mafic porphyritic andesite fragments down hole, increased fine tuff near base			carbonate-quartz veining with or without minor galena & sphalerite in upper part, 3% pyrite disseminated & occasional pyrite stringers	138.2m 139.0m	0.8	8266	<0.003	0.24	-	0.10	0.17			

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Page 14 of 14

HOLE NO. BM 79-2

WESTERN MINES LIMITED

PROPERTY : Big Missouri
PROJECT No.: 50459

NTS
104/BIE

LAT. $56^{\circ}05'N$
DEP. $130^{\circ}00'W$

LOGGED BY: H. Meade
SURVEYED BY: H. Meade

PAGE 1 OF 7

HOLE NO BM 79-3

DATE: Sept. 30-Oct. 1/79
BELLTIME: Sept. 24/79

DATE: Sept. 26/79

COMPLETED: Sept. 26/79

EQUIPMENT, ROCKS, BIT, ETC IN HOLE:

2 - 2ft. NW Casing

COLLAR: CHAINED		SURVEYED	ESTIMATED	CASING:
LENGTH	GROUND	DRILL DECK	TOP OF CASING	LEFT IN HOLE: YES X No -
ELEVATION	1078m			
HOLE COORD.	10+50N/10+75E			
HOLE SURVEY				
DEPTH	Collar			
DIP	-45°			
MAG. BEARING	030°			
GRID FLARING	030°			
TRUE BEARING	001°			
INSTRUMENT	Brunton			

OBJECTIVE / COMMENTS: GOOD HOPE CLAIM: Test Unity-Unicorn Zone

ROCK TYPES

A₁ : - Feldspar porphyritic

A₂ : - Amphibole porphyritic

A₃ : - Non porphyritic

A₄ : - Feldspar and amphibole porphyritic

-Si : - silica-rich matrix

WESTERN MINES LIMITED

Page 2 of 7

HOLE NO. BM 79-3

WESTERN MINES LIMITED

Page 3 of 7

HOLE NO. BM 79-3

WESTERN MINES LIMITED

Page 4 of 7

HOLE NO. BM 79-3

WESTERN MINES LIMITED

Page 5 of 7

HOLE NO. BM 79-3

WESTERN MINES LIMITED

Page 6 of 7

HOLE NO. BM 79-3

WESTERN MINES LIMITED

Page 7 of 7

HOLE NO. BM 79-3

WESTERN MINES LIMITED

PROPERTY : BIG MISSOURI

PROJECT No: 50459

NTS
104/BIELAT. $56^{\circ}05'N$ DEP. $130^{\circ}00'W$

LOGGED BY: S. Dykes

SURVEYED BY: S. Dykes

PAGE 1 OF 17

HOLE NO BM 79-4

DATE: Oct. 1-3, 1979

DATE: Sept. 30, 1979

COLLAPSED: Sept. 28, 1979

COMPLETED: Sept. 30, 1979

COLLAR: CHAINED X; SURVEYED ; ESTIMATED				CASING:	CORE SIZE NO	DEPTH 0	HOLE CHARACTERISTICS		
LENGTH	GROUND	DRILL DECK	TOP OF CASING	LEFT IN HOLE: YES X No -			CAVING	LOST CIRCULATION	WATER POINTS
ELEVATION	1066m								
HOLE COORD.	12+50N/8+65E								
DEPTH	Collar	163.7m							
DIP	90°	70.5°							
MAG. BEARING	-	-							
GRID. BEARING	-	-							
TRUE BEARING	-	-							
INSTRUMENT	Brunton Acid								

OBJECTIVE / COMMENTS: PROVINCE CLAIM

Rock Types

A₁ : - Feldspar PorphyriticA₂ : - Amphibole PorphyriticA₃ : - Non porphyriticA₄ : - Feldspar and amphibole porphyritic

-Si : - Silica-rich matrix

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG	MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS				
								Au oz/t	Ag oz/t	Cu%	Pb%	Zn%
0/0	4/12	COLLAR							/t			
4/12	13.5/4.11	BLEACHED A ₄ ANDESITE TUFF: light grey, fine grained, schistose, sericitic with feldspar and amphibole crystals	<5% fine grained disseminated pyrite cross cut by two ages of quartz veins and/or stringers; oldest, 5-10% with <1% galena, <1% sphalerite; youngest, 5%; non-mineralized 8.25-9.0 ft. broken core 2.5 -2.74m 10.5-13.5 <1 cm pyrite bands at 3.2- 4.1m 30° to core axis with 1mm black carbonaceous stringers	5	4.5-10.5 ft. 1.37-3.2m	6 ft. 1.83m	8279	0.003	.14	-	0.06	0.12
13.5/4.11	15.8/4.81	A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC TUFF: medium grey, schistose, up to 15 cm dark grey-green fine to medium grained feldspar and amphibole porphyritic fragments contained in a 5-10% more siliceous matrix.	5% fine disseminated pyrite crosscut by 1-2% barren Quartz veins containing minor carbon stringers upper contact at 40° to Core Axis.	5	13.5-15.8 ft. 4.11-4.81m	2.3ft. 0.7m	8281	0.016	0.24	-	0.01	0.05

WESTERN MINES LIMITED

Page 3 of 17

Hole No BM-79-4

WESTERN MINES LIMITED

Page 4 of 17

Hole No BM-79-4

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS	ASSAYS	ASSAYS
						Au oz/t	Ag oz/t	Cu%	Pb% Zn%
		in a sericitic matrix; matrix is 5-10% more siliceous than fragments							
43.0 / 13.11	52.5 / 16.0	A ₄ - Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: medium dark green <15cm feldspar & amphibole andesite fragments in a grey silicified matrix schistose	5-10% fine disseminated pyrite cross cut by 10% quartz veins with minor sphalerite & galena	42.1-46.0 ft. 5-10	3.9ft 12.8-14.0m	1.2m	8288 < 0.003	0.12	- 0.01 0.02
				46.0-50.6 ft. 5-10	4.6ft 14.0-15.4	1.4m	8289 < 0.003	0.10	- 0.01 0.02
52.5 / 16.0m	55.0 / 16.76m	A ₄ BLEACHED ANDESITE TUFF: light grey, schistose, fine grained, sericite	5% fine disseminated pyrite	50.6-56.25 ft. 5	5.65ft 15.4-17.1m	1.7m	8290 < 0.003	0.06	- < 0.01 0.02
55.0 / 16.76m	62.25 / 18.97	A ₄ - Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: same as 43.0 to 52.5 ft. above	5-10% fine disseminated pyrite with a trace sphalerite & galena	56.5-62.5 ft. 5-10	6.0ft 17.2-19.05m	1.85m	8291 0.003 0.14	- 0.24 0.65	
			55'/16.8m fault at 75° to core axis, carbonate veining at 10° to core axis						

WESTERN MINES LIMITED

Page 5 of 17

Hole No BM 79-4

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG	MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE No Au	ASSAYS	
							oz/t	Ag oz/t	Cu% Pb% Zn%
62.25 / 63.5									t
18.97 / 19.35	CHERTY TUFF: light grey, mottled, siliceous		8% fine disseminated pyrite, <390 fine galena with a trace sphalerite contacts at 40° to core axis						
63.5 / 67.0 19.35 / 20.4	A ₄ - Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF:		5-10% fine disseminated pyrite with a trace sphalerite & galena foliation at 50° to core axis, contacts at 40° to core axis	5-10	62.5-67.0 ft. 19.05-20.4 m	4.5ft 1.35m	8292 <0.003 0.08	-	0.26 0.26
	same as 43.0 to 52.5 ft. above		65.5/20.0 shear at 30° C.A.						
67.0 / 67.5 20.4 / 20.6	CHERTY TYFF: light grey, mottled, silicified with minor carbon stringers		6% fine disseminated pyrite with a trace sphalerite & galena.	6	67.0-72.0 ft. 20.4-21.94 m	5.0ft 1.54m	8293 0.262 0.22	-	0.06 0.13
67.5 / 80.5 20.6 / 24.5	A ₄ - Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF:		Contacts at 40° to core axis 5% fine disseminated pyrite; cross- cut, 5% quartz veins at 20° & 10° to core axis	5	72.0-77.0 ft. 21.94-23.5 m	5.0ft 1.5m	8294 0.003 0.08	-	0.26 0.26
	same as 43.0 to 52.5 ft. above			5	77.0-82.0 ft. 23.5-25.0 m	5.0ft 1.5m	8295 0.003 0.18	-	0.01 0.04

WESTERN MINES LIMITED

Page 6 of 17

Hole No BM-79-4

FEET/METERS	← Rock Type/ALTERATION	GRAPHIC LOG MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE	SAMPLE	Sample No	ASSAYS				
				INTERVAL	LENGTH		Au oz/t	Ag oz/t	Cu%	Pb%	Zn%
80.5 / 80.75											
24.5 / 24.61	CARBONACEOUS TUFF: Narrow dark green black carbonaceous zone beneath 1cm quartz stringers	3% fine disseminated pyrite- quartz stringer contains 1% sphalerite & galena									
80.75 / 93.25											
24.61 / 28.42	A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: same as 43.0 to 52.5 ft. above	5% fine disseminated pyrite cross-cut by 5% quartz veins at 10° & 20° to core axis	82.0-86.5 ft.	4.5ft							
			25.0-26.4 m	1.4m	8296	< 0.003	0.10	-	< 0.01	0.02	
			86.5-91.5 ft.	5 ft							
			26.4-27.9 m	1.5m	8297	0.036	0.10	-	0.03	0.08	
93.25 / 94.0											
28.42 / 28.65	A ₄ BLEACHED ANDESITE TUFF: medium green, moderately schistose, fine grained	1% fine disseminated pyrite foliation at 55° to core axis									
94.0 / 104.0											
28.65 / 31.7	A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF same as 43.0 to 52.5 ft. above	5% fine disseminated pyrite; cross-cut by 2-4% non-mineralized quartz veins, 95.5/29.1 small fault at 40° to core axis	5 91.5-96.0 ft.	4.5ft							
			27.9-29.3 m	1.4m	8298	< 0.003	0.1	-	< 0.01	0.02	
			5 96.0-100.5 ft	4.5ft							
			29.3-30.7 m	1.4m	8299	< 0.003	0.14	-	0.07	0.07	
			5 100.5-104 ft	3.5ft							
			30.7-31.7 m	1.0m	8300	< 0.003	0.16	-	0.04	0.08	

WESTERN MINES LIMITED

Page 7 of 17

Hole No BM 79-4

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	ASSAYS							
			SULFIDE INTERVAL	SAMPLE LENGTH	SAMPLE NO	Au oz/t	Ag oz/t	%Cu	Pb%	Zn%
104.0 / 31.7	107.0 / 32.6	A ₂ BLEACHED ANDESITE TUFF: light to medium green, fine grained with moderate to strong foliation	1% disseminated pyrite with 1% carbonate veins containing sphalerite; galena & pyrite	<1 ft	31.7-32.6 0.9m	8301	0.042 0.14	t	-	0.04 0.08
107.0 / 32.6	112.5 / 34.29	A ₄ BLEACHED ANDESITE FLOW: light to medium green, fine grained	<1% fine disseminated pyrite with 3% fine carbonate & quartz stringers							
112.5 / 34.29	122.0 / 37.2	A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: medium to dark green, foliated, carbonaceous with up to 8 cm A ₄ andesite fragments in a more siliceous matrix	<3% disseminated pyrite foliation at 55° to core axis shears at 70° to core axis	<3 ft	34.29-35.7 1.4m	8302	0.003 0.16	-	<0.01 0.01	
122.0 / 37.2	124.5 / 37.9	HETEROLITHIC ANDESITE LAPILLI TUFF AGGLOMERATE: medium to dark green with 3 types of fragments 1) light grey-green black up to 8 cm Amphibole porphyritic 2) dark green up to 4cm-feldspar-porphyritic	1-2% fine disseminated pyrite cross-cut by 10% quartz stringers	120-125 ft	36.6-38.2 1.6m	8303	<0.003 0.06	-	<0.01 0.01	

WESTERN MINES LIMITED

Page 8 of 17

Hole No BM 79-4

FEET/METERS	← Rock Type/ALTERATION	GRAPHIC LOG MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE	SAMPLE	SAMPLE	ASSAYS			
				INTERVAL	LENGTH	NO.	AU oz/t	Ag oz/Cu%	Pb%	Zn%
		3) dark green up to 5cm feldspar & amphibole porphyritic, andesite fragments in a lapilli tuff matrix								
124.5 / 37.9	125.5 / 38.2	ANDESITE DYKE: Feeder, feldspar porphyritic								
125.5 / 38.2	128.25 / 39.1	HETEROLITHIC ANDESITE LAPILLI TUFF AGGLOMERATE: same as 122.0 to 124.5 ft		contacts at 80° to core axis						
128.25 / 39.1	129.5 / 39.5	ANDESITE DYKE: as above								
129.5 / 39.5	130.5 / 39.8	HETEROLITHIC ANDESITE LAPILLI TUFF AGGLOMERATE: As above								
130.5 / 39.8	131.25 / 40.0	CHERTY TUFF: Flow Top, light grey-green, minor (2%) andesite fragments in a siliceous re- crystallized cherty matrix		<1% fine grained disseminated pyrite						

WESTERN MINES LIMITED

Page 9 of 17

House No BM 79-4

FECT / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE	SAMPLE	SAMPLE	ASSAYS		
				INTERVAL	LENGTH	No Au	oz/t	Ag oz/	Cu% Pb% Zn%
131.25 / 134.0	A ₄ BLEACHED ANDESITE FLOW: light green, fine grained	1-2% fine disseminated pyrite, cross-cut by 10% quartz veins containing 2% pyrite, contact at 50° to core axis	1-2	31.25-134.0 ft	2.75ft	8304	<0.003	0.16	- 0.01 0.01
40.0 / 40.8				40.0-40.8 m					
134.0 / 137.5	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF:	3-4% disseminated pyrite, cross-cut by 1-2% non-mineralized quartz veins	3-4	134.0-137.5 ft	3.5ft	8305	<0.003	0.20	- <0.01 0.01
40.8 / 41.91	Dark green black, foliated, sericite, carbonaceous, 5% up to 3cm andesite fragments in chloritized matrix			40.8-41.91 m	1.11m				
137.5 / 146.5	A ₃ BLEACHED ANDESITE LAPILLI TUFF: light medium grey, bedded, fine grained, with rare dark up to 1cm carbonaceous andesite lapilli	1-2% fine disseminated pyrite, 5% quartz veins & 3% white carbonate veins: Bedding at 45° to core axis	137.5-143.5	ft 6.0ft		8342	<0.003	0.08	- <0.01 0.01
41.91 / 44.65			41.91-43.74m	74m	1.83m				
146.5 / 154.5	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: Dark-green-black, foliated, sericitic & carbonaceous with up to 10% green chloritized andesite fragments partially replaced by pyrite	2-3% pyrite in the matrix, 4% in the fragments; 5% quartz & 7% carbonate veins	146.5-151.0	ft 4.5ft	8307	<0.003	0.12	- 0.01 0.02	
44.65 / 47.1			44.65-46.0 m	1.4m					
			151.0-155.5	4.5ft	8308	<0.003	0.12	- 0.01 0.01	
			46.0-47.4m	1.4m					

WESTERN MINES LIMITED

Page 10 of 17

Hole No BM 79-4

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO.	ASSAYS				
							Au oz/t	Ag oz/t	Cu%	Pb%	Zn%
154.5 / 47.1	157.0 / 47.85	RHYOLITE-ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey, sericitic with 60% rhyolite, foliated	10% fine disseminated pyrite, minor carbonate quartz & pyrite stringers, foliation at 60° to core axis	10	155.5-157.2 ft 47.4-47.9 m	1.7ft 0.5m	8309	<0.003	0.14	-	<0.01 0.01
157 / 47.85	168.2 / 51.3	A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey, sericitic, foliated, up to 6cm andesite fragments in a 5-10% more siliceous matrix	7-10% fine disseminated pyrite, 1% quartz, with or without carbonate, veins foliation at 60° to core axis	7-10	157.2-162.2 ft 47.9-49.4 m	5ft 1.5m	8310	<0.003	0.12	-	<0.01 0.01
168.2 / 51.3	169.5 / 51.7	CHERTY TUFF-BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey white mottled, 15-20% sericitic andesite in a siliceous recrystallized matrix	10% fine disseminated pyrite				8311	0.003	0.16	-	<0.01 0.01
169.5 / 51.7	174.0 / 53.0	A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: same as 157 to 168.2 ft.		7-10	167.0-172.0 ft 50.9-52.4 m	4.8ft 1.5m	8312	<0.003	0.10	-	<0.01 0.01

WESTERN MINES LIMITED

Page 11 of 17

BM 79-4

Hole No

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG	MINERALIZATION / STRUCTURE	%	SAMPLE	SAMPLE	SAMPLE	ASSAYS				
					SULFIDE INTERVAL	LENGTH	NO	Au	oz/t	Ag	oz/t	Cu%
174.0 / 179.8 /					172.0-176.8 ft	4.8ft						
53.0 / 54.8	CHERTY TUFF-BLEACHED ANDESITE AGGLOMERATIC LAPILLI	TUFF:	Trace Galena	10	52.4-53.9	1.5m	8313	0.016	0.10	-	<0.01	0.01
			same as 168.2 to 169.5 ft.									
179.8 / 195.0 /					176.8-181.5 ft	4.7ft						
54.8 / 59.4	A_4 -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI	TUFF:		7-10	53.9-55.3	1.4m	8314	0.01	0.03	-	<0.01	0.02
			same as 157-168.2 ft.		181.5-186.5 ft	5 ft						
				7-10	55.3-56.8	1.5m	8315	<0.003	0.04	-	<0.01	0.01
					186.5-191.0 ft	4.5ft						
				7-10	56.8-58.2	1.4m	8316	0.003	0.14	-	<0.01	0.01
195.0 / 198.5 /					191.1-195.75							
59.4 / 60.5	CHERTY TUFF-BLEACHED ANDESITE AGGLOMERATIC LAPILLI	TUFF:	Trace Galena 198.5/60.5m fault at 20° to core axis	7-10	58.2-59.6	4.65ft						
					1.4m	8317	<0.003	0.14	-	<0.01	0.01	
				10	195.75-200.75 ft	5ft						
					59.6-61.1	1.5m	8318	<0.003	0.14	-	0.02	0.19
198.5 / 205.0 /					200.75-205.5 ft							
60.5 / 62.5	A_4 BLEACHED ANDESITE TUFF: light grey-green, bleached due to faulting		5% fine disseminated pyrite, 4% quartz veins. Foliation at 50° to core axis. 198.5/60.5 fault at 20° to core axis	5	61.1-62.6	4.75ft						
					1.5m	8319	<0.003	0.01	-	<0.01	0.01	

WESTERN MINES LIMITED

Page 12 of 17

Höc No

BM-79-4

WESTERN MINES LIMITED

Page 13 of 17

Hole No. BM-79-4

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	ASSAYS							
			% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE No Au	oz/t Ag	oz/t Cu	% Pb	% Zn
226.0 / 239.0	A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF:	6-7% fine disseminated pyrite, light grey green with 20-30% <8cm andesite fragments in a 10% more siliceous matrix, foliated, sericitic	6-7	227.5-234.6.5ft						
68.9 / 72.8				69.3-71.3 2.0m		8325 <0.003 0.04	-	<0.01 0.01		
239.0 / 242.5	CHERTY TUFF-BLEACHED ANDESITE AGGLOMERATIC TUFF:	6% fine disseminated pyrite, 5% quartz veins, 240.75 ft/73.4m fault at 70° to core axis foliation at 50° to core axis	6	239-242.5 3.5ft						
72.8 / 73.9				72.8-73.9 1.1m		8326 <0.003 0.06	-	<0.01 0.01		
242.5 / 339.0	A ₄ ANDESITE FLOW: light-medium grey green, moderately bleached results in a psuedo fragmental appearance	<1% fine disseminated pyrite; 5-10% quartz & 5% carbonate veins at 20-30° core axis, small shears at 80° core axis <1% disseminated pyrite	<1	267.3-272.3 5ft						
73.9 / 103.3				81.5-83.0 1.5m		8327 <0.003 0.01	-	<0.01 0.01		
339 / 341.5	CHERTY TUFF FAULT BRECCIA: light grey with 3cm cherty tuff fragments in a calcareous matrix		<1	305.5-310.5 5ft						
103.3 / 104.1				83.0-84.5 1.5m		8328 <0.003 0.01	-	<0.01 0.02		
				310.5-315.5 5ft						
				84.5-86.0 1.5m		8329 <0.003 0.02	-	<0.01 0.01		
			<1	338.5-342.25 3.75ft						
				103.2-104.3 1.1m		8330 <0.003 0.01	-	<0.01 0.02		

WESTERN MINES LIMITED

Page 14 of 17

Hole No BM-79-4

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS			
							Au oz/t	Ag oz/t	%Cu	%Pb
341.5 / 104.1	342.5 / 104.4	CHERTY TUFF-ANDESITE FAULT BRECCIA: Dark grey black, carbonaceous & calcareous with 40% andesite	4-5% fine disseminated pyrite upper contact at 60° to core axis							
342.5 / 104.4	349.5 / 106.5	A ₄ ANDESITE FAULT BRECCIA: Dark grey black, carbonaceous & calcareous with up to 1cm angular andesite fragments	4-5% fine disseminated pyrite shears at 80° & 85° to core axis	342.25-346.5 4-5 104.3-105.6	4.25ft 1.3m	8331	40.003 0.06	-	<0.01	0.01
349.5 / 106.5	361.0 / 110.0	A ₄ ANDESITE-CHERTY TUFF FAULT BRECCIA: light to medium green, up to 4cm angular andesite fragments in a light grey re-crystallized chert matrix - brecciated flow top	<1% fine disseminated pyrite	351-358.0 <1 107.0-109.1	7.0ft 2.1m	8332	<0.003 0.01	-	<0.01	0.02
361.0 / 110.0	367.75 / 112.1	A ₂ ANDESITE FLOW - light grey, green, fine grained	<1% fine disseminated pyrite 10% carbonate veins at 20-30° to core axis							

WESTERN MINES LIMITED

Page 15 of 17

Hole No BM 79-4

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE	SAMPLE	Sample No	ASSAYS				
				INTERVAL	LENGTH		No Au oz/t	Ag oz/t	% Cu	% Pb	% Zn
367.75 / 379.5		< 4% fine disseminated pyrite									
112.1 / 115.7	A ₄	ANDESITE LAPILLI TUFF AGGLOMERATE: medium green with occasional <2% small dark chlorite stringers		cross-cut by 5% carbonate veins, at 20°-30° to core axis, 10%							
				light grey cherty bands at 80° to core axis							
379.5 / 383.0		Contact irregular at 10-15° to core axis									
115.7 / 116.7	A ₁	ANDESITE DYKE: Feeder with large up to 4mm feldspar									
383.0 / 386.25		< 2% fine disseminated pyrite, with 5% light grey chert bands at 80° to core axis and 10% carbonate veins at 20° to core axis	384.5-386.5	2.0ft							
116.7 / 117.7	A ₄	ANDESITE LAPILLI TUFF AGGLOMERATE: medium green, fine grained	< 2	117.2-117.8	0.6m	8333	0.003	0.06	-	< 0.01	0.01
386.25 / 395.0		Contacts at 10-15° to core axis									
117.7 / 120.4		ANDESITE DYKE (TERTIARY): Beige to light cream; brown weathering		390.75 ft / 119.1m. Dyke brecciated							
				by light cream to tan silica-dolomite (Ferro) vein							

WESTERN MINES LIMITED

Page 16 of 17

Hole No BM 79-4

WESTERN MINES LIMITED

Page 17 of 17

Hole No BM 79-4

WESTERN MINES LIMITED

PROPERTY : Big Missouri

PROJECT No: 50459

NTS

104/BIE

LAT. 56° 05' N

DEP. 136° 00' W

LOGGED BY:

S. Dykes

DATE: Oct. 8-10/79

SURVEYED BY:

S. Dykes

DATE: Oct. 6/79

PIRL 1 OF 21

HOLE NO BM 79-5

COLLAR'D: October 4, 1979

COMPLETED: October 6, 1979

EQUIPMENT, RODS, BIT, ETC IN HOLE:

2 - 2' NW Casing

COLLAR: CHAINED ; SURVEYED ; ESTIMATED				CASING:	CORE SIZE NO	DEPTH 0	HOLE CHARACTERISTICS		
LENGTH	GROUND	DRILL DECK	TOP OF CASING	LEFT IN HOLE: YES X No -			CAVING	LOST CIRCULATION	WATER POINTS
ELEVATION	1057m								
HOLE CORD.	11+95N/9+15E								
INSTRUMENT	Brunton Acid								

OBJECTIVE / COMMENTS: PROVINCE CLAIM

ROCK TYPES

A₁ : - Feldspar porphyriticA₂ : - Amphibole porphyriticA₃ : - Non-porphyriticA₄ : - Feldspar & amphibole porphyritic

-Si : - Silica-rich matrix

WESTERN MINES LIMITED

Page 2 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 3 of 21

HOLE NO. BM 79-5

FEET/ METRES		ROCK TYPE / ALTERATION	GRAPHIC LOG.		MINERALIZATION/STRUCTURE		% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO.Au	ASSAYS				
								m	m		oz/t	Ag oz/t	Cu%	Pb%	Zn%
26.0 7.9	37.0 11.3	A ₄ ANDESITE FLOW:-medium green, fine grained, weak to non-foliated			upto 2% fine disseminated pyrite- 10-15% quartz, carbonate & quartz- carbonate veins with pyrite, sphalerite & galena-some contain 30% sulphide ranging from 1-4cm in size, 0.5m apart-galena-rich related to higher carbonate sphalerite-rich related to higher silica	4	7.91 9.44	9.44 10.97	1.53	8347	0.022 0.06	0.020 0.12	0.01 0.01	0.22 0.55	1.13 0.60
37.0 11.3	39.5 12.0	CHERTY TUFF-BLEACHED ANDESITE: light grey to white siliceous upto 3cm grey sericitic feldspar andesite fragments in a light grey to green cherty tuff matrix, trace carbon material			10-15% fine disseminated pyrite with minor sphalerite & galena contact at 85° to core axis										
39.5 12.0	48.5 14.8	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey, foliated, sericitic upto 3cm andesite fragments in fine lapilli tuff matrix			10-15% fine disseminated pyrite 15% quartz-carbonate veins with pyrite, sphalerite & galena, 40.5 42.5 ft/12.3-13.0m fault at 70° to core axis	10-15	10.97 12.50	1.53	8349	0.010 0.01	0.01 0.01	0.01 0.01	0.14 0.02	0.66 0.34	

WESTERN MINES LIMITED

Page 4 of 21

HOLE NO. BM 79-5

FEET/ METRES	ROCK TYPE / ALTERATION	GRAPHIC LOG.	MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS				
								oz/t Ag	oz/t Cu	% Pb	% Zn	
48.5 14.8	60.5 18.4	A ₄ BLEACHED ANDESITE LAPILLI TUFF: medium dark green, sericitic, fine to medium grained	several upto 30cm stringers of semi-massive pyrite, sphalerite & galena related to quartz carbonate	10 30-40	14.17 15.24 17.22	m 1.07 1.98	88451 88452 88453	0.040 0.132 <0.003	0.10 0.81 0.12	- - -	0.10 4.68 0.06	0.13 4.43 0.07
			veining in high grade zone contain 20% pyrite, 10% galena, 4-7% sphalerite, <1% chalcopyrite-									
			overall 10% sulphide, quartz veined contact at 40° to core axis									
60.5 18.4	67.25 20.5	A ₄ ANDESITE FLOW: medium to dark green, medium grained, weak to non-foliated	1% fine disseminated pyrite fault 64.0 ft/19.5m at 15° to core axis	1-2	18.29 19.81	1.52	88454	<0.003	0.04	-	0.08	0.15
67.25 20.5	85.8 26.2	A ₄ -Si ANDESITE LAPILLI TUFF AGGLOMERATE: medium green, with 4cm dark green andesite fragments in a light green more siliceous matrix	3-4% fine disseminated pyrite, 15% carbonate, 5% quartz veins, 5% light grey chert bands-faults at 67.3 ft/20.5m; 68.5 ft/20.9m; 69.5 ft/21.2m	3-4	19.81 21.34	1.53	88455 88456 88457	0.005 0.003 <0.003	0.10 0.06 0.08	- - -	0.05 0.11 0.01	0.07 0.07 0.01

WESTERN MINES LIMITED

Page 5 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 6 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 7 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 8 of 21

HOLE NO. BM 79-5

FEET/ METRES		ROCK TYPE / ALTERATION	GRAPHIC LOG.		MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS				
										oz/t Ag	oz/t Cu	Pb%	Zn%	
192.7 58.7	202.75 61.8	A ₄ BLEACHED ANDESITE FLOW: medium grey-green, weak schistosity, white speckled (leucoxene?)			1-2% fine disseminated pyrite, 5-10% carbonate, 1-2% quartz veins	1-2	58.73 60.73	m 2.0	88470	<0.003	0.01	-	0.01	0.01
202.75 61.8	205.5 62.6	A ₄ BLEACHED ANDESITE ALPILLI TUFF: light to medium grey, fine to medium grained, white speckled (leucoxene?), interflow tuff			3-5% fine disseminated pyrite, 3% carbonate	3-5	60.73 62.94	2.21	88471	<0.003	0.04	-	0.01	0.01
205.5 62.6	212.0 64.6	A ₂ ANDESITE FLOW: medium green, fine grained, weak schistosity, white speckles			2% fine disseminated pyrite, 5% carbonaceous	2	63.55 65.07	1.52	88472	<0.003	0.04	-	0.01	0.01
212.0 64.6	226.5 69.0	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey, fine to medium grained			5-7% fine disseminated pyrite- 15% carbonate with or without	5-7	65.07 66.52	1.45	88473	<0.003	0.06	-	0.01	0.01
					quartz veins, veins at 50° to 60° to core axis, faults at 213	5-7	66.52 68.04	1.52	88474	0.034	0.16	-	0.03	0.16
					ft/64.9m and 216 ft/65.8m at 70-80° to core axis	5-7	68.04 69.03	0.99	88475	<0.003	0.22	-	0.01	0.01

WESTERN MINES LIMITED

Page 9 of 21

HOLE NO. BM 79-5

FEET/ METRES		ROCK TYPE / ALTERATION	GRAPHIC LOG.		MINERALIZATION/STRUCTURE		% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. _{Au}	ASSAYS			
								oz/t	Ag oz/t	Cu%	Pb%	Zn%		
226.5 69.0	246.0/ 75.0	A ₄ ANDESITE FLOW:-medium green, medium grained, white speckled-light grey bleached zone associated with fault			1-2% fine disseminated pyrite- 5% carbonate & quartz veins fault at 230 ft/701.m at 70° to core axis	1-2	72.32 73.84	m 1.52	88551	0.008 0.07	-	0.03 0.04		
246.0 75.0	261.0 79.6	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light to medium green, variable bleaching, fine grained, 5% <6cm andesite fragments			1% fine disseminated pyrite, 10% carbonate, small fault 70°- 90° to core axis	1	75.21 76.66	1.45	88552	0.003 0.06	-	0.01 0.02		
261.0 79.6	266.5 81.2	ANDESITE DYKE (FEEDER): medium to dark green-fine grained contact				1	76.66 78.03	1.37	88553	0.003 0.01	-	<0.01 0.01		
266.5 81.2	288.0 87.8	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: dark green, medium grained, upto 4cm andesite fragments			2-3% fine disseminated pyrite, 10% carbonate, 1-2% quartz veins	2-3	81.08 82.45	1.37	88555	0.003 0.01	-	<0.01 0.01		
						2-3	82.45 83.74	1.29	88556	0.003 0.02	-	<0.01 0.01		
						2-3	83.74 85.27	1.53	88557	0.003 0.02	-	<0.01 0.01		
						2-3	85.27 86.64	1.47	88558	0.003 0.01	-	<0.01 0.01		
						2-3	86.64 88.08	1.44	88559	0.003 0.12	-	<0.01 0.01		

WESTERN MINES LIMITED

Page 10 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 11 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 12 of 21

HOLE NO. BM 79-5

FEET / METRES	ROCK TYPE / ALTERATION	GRAPHIC LOG.	MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS				
								Au oz/t	Ag oz/t	Cu%	Pb%	Zn%
327.5 99.8	336.25 102.5	A ₄ BLEACHED ANDESITE TUFFACEOUS LAPILLI	<5% fine disseminated pyrite, AGGLOMERATE: medium to dark green, sericitic, medium to coarse grained, upto 10cm andesite fragments, 1-2% carbon stringers	15	99.97 101.50	m 1.43	98568	0.003	0.01	-	<0.01	0.01
336.25 102.5	338.25 103.1	CARBONATE FAULT BRECCIA: white to black, with up to 6cm carbonate fragments	1% fine disseminated pyrite; contacts at 45° to core axis									
338.25 103.1	340.25 103.7	A ₄ BLEACHED ANDESITE LAPILLI AGGLOMERATIC TUFF: medium green with dark up to 4cm andesite fragments	1-2% fine disseminated pyrite, 5-10% carbonate with or without quartz veining	1-2	101.50 103.71	2.21	88569	0.003	0.02	-	<0.01	<0.01
340.25 103.7	347.5 105.9	A ₄ BLEACHED ANDESITE TUFFACEOUS LAPILLI AGGLOMERATE-CHERTY TUFF: light grey to black, carbonaceous, 60-70% andesite, dark grey, black fragments in a carbonate and/or cherty tuff matrix	<15-20% fine disseminated pyrite	15-20	103.71 105.84	2.13	88570	0.003	0.08	-	<0.01	0.01

WESTERN MINES LIMITED

Page 13 of 21

HOLE NO. BM 79-5

FEET/ METRES		ROCK TYPE / ALTERATION	GRAPHIC LOG.		MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS				
								oz/t	Ag oz/t	Cu%	Pb%	Zn%		
347.5 105.9	355.0 108.2	A ₄ ANDESITE AGGLOMERATIC LAPILLI TUFF: medium green, fine grained, 10% up to 4cm dark-			1-2% fine disseminated pyrite, 5% carbonate veins	1-2	105.84 107.4	m 1.56	88571	0.003 0.06	-	<0.01	0.01	
		medium green andesite fragments												
355.0 108.2	358.0 109.1	A ₄ ANDESITE-LAPILLI TUFF-CHERTY TUFF:-light grey, fine grained with 60% andesite			20% fine disseminated pyrite, 5% carbonate with or without	20	108.05 110.03	1.98	88572	0.003 0.14	-	<0.01	0.01	
					quartz veins									
358.0 109.1	365.0 111.3	A ₂₍₄₎ ANDESITE LAPILLI TUFF: medium grey			1-2% fine disseminated pyrite, 5% carbonate with or without	1-2	110.50 112.01	1.51	88573	0.003 0.01	-	<0.01	0.01	
		green, fine grained, white speckled-leucoxene(?)			quartz veins									
365.0 111.3	372.5 113.5	A ₂₍₄₎ BLEACHED ANDESITE LAPILLI TUFF: dark			1-% fine disseminated pyrite, 5% carbonate with or without	10	112.01 113.53	1.52	88574	0.003 0.02	-	<0.01	0.01	
		black, carbonaceous			quartz veins									
372.5 113.5	381.25 116.2	A ₄ BLEACHED ANDESITE LAPILLI TUFF:-CHERTY TUFF			15-20% fine grained disseminated	15-20	113.53 115.06	1.53	88575	0.003 0.02	-	<0.01	<0.01	
		light to medium grey, fine grained, 70% andesite, 20% black carbon &/or chlorite			pyrite, 5% carbonate with or without quartz veining; 1-2% quartz veining		115.06 116.21	1.15	88576	0.003 0.08	-	<0.01	0.01	

WESTERN MINES LIMITED

Page 14 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 15 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 16 of 21

HOLE NO. BM 79-5

FEET/ METRES	ROCK TYPE / ALTERATION	GRAPHIC LOG.	MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO.Au	ASSAYS				
								oz/t	Ag oz/t	Cu%	Pb%	Zn%
474.0 144.5	485.5 148.0	A ₄ ANDESITE LAPILLI TUFF: light medium green,	<1% fine grained disseminated moderate schistosity		m							
			pyrite, 5% carbonate with or without quartz veining, schistosity									
			at 70° to core axis									
485.5 148.0	492.75 150.19	A ₄ ANDESITE FLOW: medium green, fine grained	<1% fine grained disseminated pyrite with 5% carbonate with or without quartz veins, shears									
			at 60°-80° to core axis, fault									
			488 ft/148.7m at 30° to core axis									
492.75 150.19	499.5 152.25	ANDESITE DYKE: Amphibole porphyritic with small feldspar, <0.5cm carbonate amygdules,	<<1% fine disseminated pyrite									
			<<1% fine disseminated pyrite									
499.5 152.25	533.25 162.53	A ₄ ANDESITE FLOW: medium green, fine grained	<1% fine grained disseminated pyrite, 5% carbonate & quartz veins	<1	160.42 161.85	1.43	88590	<0.003	0.02	-	<0.01	0.01

WESTERN MINES LIMITED

Page 17 of 21

BM 79-5

WESTERN MINES LIMITED

Page 18 of 21

HOLE NO. BM 79-5

FEET/ METRES		ROCK TYPE / ALTERATION	GRAPHIC LOG.		% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS					
oz/t	Ag oz/t		Cu%	Pb%	Zn%									
610.0	623.5	A ₄ ANDESITE FLOW: medium to dark green <6cm		2% fine disseminated & 5mm		185.93	m							
185.9	190.0	andesite fragments, locally bleached resulting		crystals of pyrite, contact is		187.30	1.27	88596	0.003	0.09	-	0.25	0.52	
		in psuedo-fragmental appearance		0.3m wide cherty tuff with 5%										
				pyrite, <1% sphalerite, 0.5% galena										
623.5	632.75	CHERTY TUFF:-A ₄ ANDESITE: medium to dark green,	<10% fine disseminated &		10	187.30								
190.0	192.9	upto 5cm andesite frgments floating in a	irregular stringered pyrite with		10	188.82	1.02	88597	0.018	0.01	-	0.04	0.08	
		cherty tuff-carbonate matrix, distinct chert	minor sphalerite & galena; 5-10%		10	188.32								
		bands present at 90° to core axis	carbonate-quartz veins with		10	190.35	2.03	88598	0.003	0.38	-	0.05	0.18	
			pyrite, sphalerite & galena, contact			191.87								
			at 80°-85° to core axis			191.87	1.52	88599	0.020	1.04	-	0.16	0.33	
					10	193.24								
632.75	668.0	A ₄ ANDESITE TUFFACEOUS LAPILLI AGGLOMERATE:	1% fine grained disseminated		2	194.77	1.53	88601	0.003	0.01	-	0.01	0.04	
192.9	203.6	medium to dark green, upto 10cm andesite	pyrite, 5% carbonate & 5% quartz		2	194.77								
		fragments in a light grey bleached andesite	veins with sphalerite,galena,		2	196.29	1.52	88602	0.003	0.01	-	0.06	0.37	
		matrix	pyrite, upto 5mm in size, may		2	197.82	1.53	88603	0.012	0.01	-	0.10	0.46	
			contain upto 90% sulphide,shears @ 60-70° to core axis,quartz veins 40-50° to core axis-60-70° core axis parallel to shears		2	199.34								
					2	200.71	1.37	88604	0.010	0.01	-	0.04	0.16	
					2	200.71	1.37	88605	0.080	0.12	-	0.04	0.20	

WESTERN MINES LIMITED

Page 19 of 21

HOLE NO. BM 79-5

FEET/ METRES	ROCK TYPE / ALTERATION	GRAPHIC · MINERALIZATION/STRUCTURE LOG.	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS					
							oz/t Ag	oz/t Cu	% Pb	% Zn		
			2	200.71 202.31	m 1.60	88606	0.008	0.11	-	0.02	0.02	
			2	202.31 203.76	1.45	88607	0.003	0.01	-	0.02	0.22	
668.0 203.6	672.0 204.8	A ₄ ANDESITE-CHERTY TUFF: light medium green	3-5% fine disseminated pyrite	203.76 205.28	1.52	88608	0.018	0.01	-	0.01	0.03	
		andesite fragments in a recrystallized light	with minor sphalerite, galena, 5%									
		grey-green cherty tuff matrix	carbonate-quartz veins-contact									
			irregular 70-80° to core axis									
				1	205.28 206.81	1.53	88609	0.003	0.01	-	0.01	0.04
672.0 204.8	732.5 223.27	A ₄ -Si ANDESITE AGGLOMERATIC LAPILLI TUFF: -	1% fine disseminated pyrite; 5%	1	206.81 208.33	1.52	88610	0.003	0.01	-	0.01	0.03
		Light grey-green <4cm andesite fragments in a	carbonate with or without quartz	1	211.22 212.75	1.53	88611	0.003	1.17	-	0.01	0.01
		fine grained matrix	veins, trace sphalerite & galena	1	213.97 215.80	1.83	88612	0.003	0.01	-	0.05	0.16
				1	215.80 217.63	1.83	88613	0.048	0.31	-	0.12	0.30
					218.62 220.29	1.57	88614	0.003	0.07	-	0.02	0.04
					220.29 221.74	1.45	88615	0.003	0.01	-	0.01	0.02
					221.74 223.27	1.53	88616	0.003	0.01	-	0.01	0.02

WESTERN MINES LIMITED

Page 20 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

Page 21 of 21

HOLE NO. BM 79-5

WESTERN MINES LIMITED

PROPERTY : Big Missouri

PROJECT No: 50459

NTS

104/BIE

LAT. $56^{\circ}05'N$ DEP. $136^{\circ}00'W$

LOGGED BY:

S. Dykes

SURVEYED BY:

S. Dykes

PAGE 1 OF 10

HOLE NO BM 79-6

DATE: Oct. 10-12/79

COLLAPSED: October 8/79

DATE: Oct. 9/79

COMPLETED: October 9/79

COLLAR: CHAINED ; SURVEYED ; ESTIMATED				CASING:	CORE SIZE	DEPTH	HOLE CHARACTERISTICS			
LENGTH	GROUND	DRILL DECK	TOP OF CASING	LEFT IN HOLE: YES <input checked="" type="checkbox"/> NO -	NO	0	135.9	CAVING	LOST CIRCULATION	WATER POINTS
ELEVATION	1056m									
HOLE COORD.	11+50N/9+40E									
HOLE SURVEY										
DEPTH	Collar	135.9m								
DIP	-80°	-67°								
MAG. BEARING	070°	-								
GRID. BEARING	070°	-								
TRUE BEARING	041°	-								
INSTRUMENT	Brunton Acid									

OBJECTIVE / COMMENTS: PROVINCE CLAIM

ROCK TYPES

A₁ : - Feldspar porphyriticA₂ : - Amphibole porphyriticA₃ : - Non-porphyriticA₄ : - Feldspar & amphibole porphyritic

-Si : - Silica-rich matrix

WESTERN MINES LIMITED

Page 2 of 10

HOLE NO. BM 79-6

WESTERN MINES LIMITED

Page 3 of 10

HOLE NO.

BM 79-6

FEET/ METRES	ROCK TYPE / ALTERATION	GRAPHIC LOG.	MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO.Au	ASSAYS				
								oz/t	Ag oz/t	Cu%	Pb%	Zn%
24.0/ 7.3	27.3/ 8.32	CHERTY TUFF-A ₄ BLEACHED ANDESITE TUFF:-	10% fine disseminated & light grey white with 50% light to dark grey andesite fragments-andesite increases. from almost pure chert at the top to 80% near lower contact		m							
27.3/ 8.32	34.5/ 10.5	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI	locally up to 40% pyrite in TUFF:-light grey, foliated, bedded, 5% <5cm round andesite fragments in fine grained highly pyritic matrix	5-10	8.53 9.91	1.38	88629	0.003	0.32	<0.01	0.03	0.1
34.5/ 10.5	36.75/ 11.20	CHERTY TUFF-BLEACHED ANDESITE LAPILLI TUFF:-	10% fine disseminated pyrite, light grey with 10% light grey sericitic andesite fragments in a highly siliceous matrix; 2% fine black carbon	10	8.53 11.37	1.84	88630	0.003	0.19	<0.01	0.01	0.02

WESTERN MINES LIMITED

Page 4 of 10

HOLE NO. BM 79-6

WESTERN MINES LIMITED

Page 5 of 10

HOLE NO. BM 79-6

WESTERN MINES LIMITED

Page 6 of 10

HOLE NO. BM 79-6

FEET/ METRES		ROCK TYPE / ALTERATION	GRAPHIC LOG.		MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS				
							oz/t	Ag oz/t	Cu%	Pb%	Zn%			
106.5 32.5	114.5 34.9	A ₄ BLEACHED ANDESITE FLOW: light medium			5% fine grained disseminated	5	31.85 33.38	m 1.53	88645	0.003 0.01	-	<0.01	0.01	
		grey, fine grained, white speckled (leucoxene)			pyrite, shears at 60° to core axis in foliation plane,	5	33.38 34.90	1.52	88646	0.003 0.01	-	<0.01	0.01	
					fault 114.5 ft/34.9m at 10° to core axis									
114.5 34.9	126.0 38.4	A ₁ BLEACHED ANDESITE TUFF; light grey, strongly foliated, sericitic			10-15% fine grained disseminated pyrite, fault 119.5 ft/36.4m at 60° to core axis, broken core	10-15	34.90 36.42 36.42 37.94	1.52 1.52	88647 88648 88649	0.003 0.02 0.003 0.016	-	<0.01	0.01 <0.01 0.01	
					124 ft/37.8m at 10° core axis									
126.0 38.4	136.0 41.5	A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI			7-9% fine disseminated pyrite	7-9	39.32 40.84	1.52	88650	0.003 0.01	-	<0.01	0.01	
		TUFF: light to medium grey <4cm andesite fragments in a fine lapilli tuff matrix-MARKER				7-9	40.84 42.36	1.52	88651	0.003 0.05	-	<0.01	0.01	
136.0 41.5	201.7 61.5	A ₄ ANDESITE FLOW: light medium green, fine grained, non to weakly foliated			1% fine disseminated pyrite-numerous shears 70° core axis fault 185 ft/56.4m at 80° core axis		42.36 43.89 54.56 56.08	1.53 1.52	88652 88653	0.003 0.06 0.003 0.03	-	<0.01	<0.01 <0.01 0.01	

WESTERN MINES LIMITED

Page 7 of 10

HOLE NO. BM 79-6

WESTERN MINES LIMITED

Page 8 of 10

HOLE NO. BM 79-6

FEET/ METRES	ROCK TYPE / ALTERATION	GRAPHIC LOG.	MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS				
								Au oz/t	Ag oz/t	Cu%	Pb%	Zn%
267.0 / 81.4	276.0 / 84.1	A ₄ BLEACHED ANDESITE-CHERTY TUFF:-65-70%	5-7% fine disseminated pyrite	5-7	81.84 83.36	m 1.52	88661	0.003	0.14	-	0.01	0.03
		andesite, higher amount of chert on top-	contains trace galena, contact	5-7	83.36 84.88	1.52	88662	0.003	0.16	-	0.01	0.01
		intermixed - 1-2% carbon at top	at 70° to core axis-4% quartz									
			veins									
276.0 / 84.1	280.75 / 85.6	A ₃ ANDESITE LAPILLI TUFF:-light to medium	1% fine disseminated pyrite,		84.88 86.33	1.53	88704	0.003	0.02	-	<0.01	0.01
		green, fine grained, 10% lapilli	contact at 70° to core axis									
280.75 / 85.6	308.0 / 93.9	A ₄₋₂ ANDESITE FLOW: medium green, fine	1% fine disseminated pyrite	1	86.33 87.93	1.63	88705	0.003	0.10	-	<0.01	0.01
		grained-minor interflow cherty tuffs		1	87.93 89.21	1.28	88663	0.003	0.14	-	0.01	0.01
				1	89.21 90.68	1.47	88664	0.003	0.01	-	0.01	0.02
308.0 / 93.9	312.5 / 95.25	A ₄ BLEACHED ANDESITE FLOW: light grey,	5-7% fine disseminated pyrite	1	90.68 92.12	1.44	88665	0.003	0.12	-	<0.01	0.01
		sericitic flow top with minor grey chert,		1	92.12 93.26	1.14	88666	0.003	0.08	-	<0.01	0.01
		gradational contacts		5-7	93.26 95.17	1.91	88667	0.003	0.08	-	0.04	0.06

WESTERN MINES LIMITED

Page 9 of 10

HOLE NO. BM 79-6

FEET/ METRES	ROCK TYPE / ALTERATION	GRAPHIC LOG.	MINERALIZATION/STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO. Au	ASSAYS				
								oz/t	Ag oz/t	Cu%	Pb%	Zn%
312.5/ 95.25	362.5/ 110.5	A ₄ ANDESITE FLOW: medium green, medium-coarse grained, white speckled	1% fine disseminated pyrite- locally 4% stringered pyrite 3% carbonate veins	4	95.17 96.62	m 1.45	88668	<0.003	0.08	-	0.01	0.01
362.5/ 110.5	367.25/ 111.9	CHERTY TUFF-A ₄ BLEACHED ANDESITE: light grey, calcareous with cherty tuff & andesite fragments floating in carbonate	3-4% fine disseminated pyrite		109.80 111.32	1.52	88671	<0.003	0.20	-	0.01	0.01
367.25/ 111.9	433.0/ 132.0	A ₄ ANDESITE FLOW: medium green, fine to medium grained, several interflow cherty horizons	1% fine disseminated pyrite, locally 5% stringered pyrite, contacts at 65 to 75° to core axis	5	111.32 112.77	1.45	88672	<0.003	0.24	-	0.01	0.02
					113.60 114.83	1.23	88673	0.012	0.22	-	0.04	0.14
					115.60 117.12	1.52	88674	0.003	0.11	-	0.01	0.01
					117.73 120.10	2.37	88675	<0.003	0.1	-	0.01	0.01
					120.7 122.52	2.45	88676	<0.003	0.11	-	0.01	0.01
					122.99 125.04	2.05	88677	0.005	0.06	-	0.01	0.01

WESTERN MINES LIMITED

Page 10 of 10

HOLE NO. BM 79-6

WESTERN MINES LIMITED

Page I of 3

Hole No BM 79-7

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG	MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE NO	ASSAYS				
								Au oz/t	Ag oz/t	%Cu	%Pb	%Zn
0 4	CASING											
0 1.21												
4 22												
1.21 6.7	CHERTY TUFF-A ₄ BLEACHED ANDESITE AGGLOMERATIC LAPILLI		<15% fine disseminated & stringer Pyrite with <1% sphalerite & galena; 5% black carbonaceous material as stryolites & fine grained matrix; 2-3% quartz veins 17 ft/5.2 fault at 10° to core axis	15	1.21-2.74	5ft 1.5m	88681	0.164	0.29	<0.01	0.1	0.09
	TUFF: light grey-white mottled with up to 10% <5cm angular subrounded medium grey black andesite fragments in a highly siliceous cherty tuff matrix			15	2.74-4.26	5ft 1.5m	88682	0.242	0.29	<0.01	0.01	0.01
				15	4.26-5.8m	5ft 1.5m	88683	0.27	0.22	<0.01	0.02	0.03
				15	5.8-7.3	5ft 1.5m	88684	0.06	0.18	<0.01	0.06	0.28
	carbon											
22 / 44 /												
6.7 13.4	CHERTY TUFF - A ₄ -Si BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey to green with 10% andesite fragments in a siliceous cherty tuff matrix		15-20% fine disseminated & stringer pyrite with locally up to 1% sphalerite & galena; 15% quartz veins & stringers containing sphalerite & galena upper contact at 70°, lower at 60° to core axis	15-	24-28.5	4.5ft						
				20	7.3-8.7	1.4m	88685	0.052	0.23	<0.01	0.06	0.14
				15-	28.5-33.25	4.7ft						
				20	8.7-10.1	1.4m	88686	0.022	0.03	<0.01	0.01	0.06
				15-	33.25-37.0							
				20	10.1-11.3	3.75ft						
				15-	37.0-42.0	1.2m	88687	0.032	0.18	<0.01	0.06	0.11
				20	11.3-12.8	5ft 1.5m	88688	0.02	0.14	<0.01	0.02	0.03
				15-	42.0-47.25	5.25ft						
				20	12.8-14.40	1.6m	88689	0.01	0.23	<0.01	0.01	0.02

WESTERN MINES LIMITED

Page 2 of 3

Hole No BM 79-7

FEET / METERS	← Rock Type / Alteration	GRAPHIC LOG	MINERALIZATION / STRUCTURE	% SULFIDE	SAMPLE INTERVAL	SAMPLE LENGTH	SAMPLE No	ASSAYS				
								Au oz/t	Ag oz/t	%Cu	%Pb	zn
44 / 13.4	68.75 / 21.0	A ₄	BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey with minor (5%) up to 8cm andesite fragments in a fine grained sericitic & pyritic matrix	10-15% fine disseminated & stringered pyrite; 5-10% quartz veins. Faults at 40-45° C.A. @ 54 ft/16.5m, 63 ft/19.2m	10-15 10-15 10-15 10-15	47.25-52.25 14.4-15.9 52.25-57.0 15.9-17.4 57.0-61.75 17.4-18.8 61.75-66.25 18.8-20.2	.25 5ft 1.5m 4.75ft 1.5m 4.75ft .25 1.4m	88690 88691 88692 88693	<0.003 <0.003 <0.003 0.003	0.1 0.01 0.1 0.19	<0.01 <0.01 <0.01 <0.01	0.01 0.01 0.01 <0.01
68.75 / 21.0	84.5 / 25.8	A ₄	BLEACHED ANDESITE FLOW: light grey green; fine grained	<1% fine disseminated pyrite locally 5% pyrite stringers, 2- 3% quartz stringers, foliation at 70° to core axis	5 5	66.25-71.25 20.2-21.7 78.5-85.75 23.9-26.1	.25 5ft 7.25ft 2.2m	88694	<0.003 <0.003	0.14 0.18	<0.01 <0.01	0.01 0.01
84.5 / 25.8	94.0 / 28.7	A ₄	BLEACHED ANDESITE AGGLOMERATIC LAPILLI TUFF: light grey sericitic, moderately foliation	2-3% fine disseminated pyrite, cross-cut 2-3% quartz veins	2-3 2-3	85.75-90.5 26.1-27.6 90.5-95.0	.5 4.75ft 4.5ft	88696	<0.003 <0.003	0.08 0.12	<0.01 <0.01	0.01 0.01
94.0 / 28.7	99.75 / 30.4	A ₄	BLEACHED ANDESITE FLOW: light grey-green, fine grained	<1% disseminated pyrite locally 5% pyrite stringers, 2% quartz veins	2-3	27.6-29.0 95.0-99.75 29.0-30.4	1.4m 4.75ft 1.4m	88697 88698	<0.003 <0.003	0.12 0.12	<0.01 <0.01	0.01 0.01

WESTERN MINES LIMITED

Page 3 of 3

House No BM 79-7

