The Shell Company of Australia Limited
METALS DIVISION

512038

DRILL LOG SHEET

Hole No : US 1

PROJECT : HAYES PEAK/UPPER STOWPORT

LOCATION CODE : MQ 01

COLLAR CO-ORDINATES : 2110N 1575E

COLLAR R.L. : 240m O.D.

LOCATION : UPPER STOWPORT

MAP/PHOTO REFERENCE : 54 402 210N 406 160E

DATE STARTED	29-11-82	HOLE SIZE		FROM	TO	TOTAL	CORE STORAGE	DEVONPORT
DATE FINISHED	4-12-82	NON CORE	TRICONED	0	6	6m	No OF TRAYS	10
TOTAL DEPTH	99.60M						SAMPLE STORAGE	DEVONPORT
LOGGED BY	P.A. RUXTON	CORE	NQ	18.00	54.20	36.2m	ASSAY LAB.	COMLABS
CONTRACTOR	OVERLAND DRILLING CO.		BQ	54.20	99.60	45.4m	ASSAY REPORTS	DEVONPORT
RIG	WARMAN 250							
DRILL CREW	W. EVERSDEN B. LOVELL	CASING	6" PVC	0	6	6m	MIN. & PET. LAB.	
			4" PVC	0	18	18m	MIN. & PET. REPORTS	
		CASING LEFT						

HOLE SURVEY DATA

INSTRUMENT :

DEPTH	INSTRUMENT INCL.	INSTRUMENT AZ.	ACID ETCH INCL.	ACID ETCH AZ.	REMARKS
COLLAR	-50°	240°			CLINO / COMPASS

GRAPHIC / LETTER SYMBOL LOGGING KEY

x x x	Medium grained shist Meta volcanic		Po	Pyrrhotite	Py Pyrite
S S S	Fine to coarse grained schist Meta sediment (bedded)		As Py	Arsenopyrite	
			He	Hematite	
			Lim	Limonite	
			Chp	Chalcopyrite	

STRUCTURE / ALTERATION CODE

B BEDDING
J JOINTING
C CLEAVAGE
F FOLIATION
sh SHEARING
q QUARTZ VEINS
O OXIDATION
V VEIN

DRILLING SUMMARY : This hole was drilled to test a combined max-min E.M. conductor and a broad gravity anomaly. Dip constraints from geophysical modelling tentatively suggested a westerly dipping source. Precambrian basic volcanics and shales of the Burnie Formation outcrop 20m south of the drill site. A steep dip of 80° west to vertical is recorded from these rocks. Vein related pyrite, pyrrhotite and arsenopyrite occurs. The hole was designed to test for a Sn-W-bearing replacement sulphide body within Precambrian basic igneous rocks. A sequence of metasomatized basic igneous and sedimentary rocks was intersected with minor sulphide (<2%).

PROJECT : HAYES PEAK / UPPER STOWPORT [redacted] SCALE : [redacted] [redacted]E NO [redacted] US[redacted]

038

From	To	Inter'l (m)	Core Rec'd	% Rec'd	Sample No	Grap'c Log	Sn	W	Cu	Pb	Zn	Ni	As	Mo	Magnetic Susceptibility	% Estimates Po	Core Angles B	Core Angles V	Core Angles F	Alt.	T.S. P.S.	Description
0	2	2			9162		<4	<10	170	12	30	120	22	4	450					0		SOIL - Large chips of weathered aphiric basalt Hm/Lim staining common, red soil, Po along fractures.
2	4	2			9163		10	15	150	<4	75	175	12	<4	98					0		SOIL - Weathered basalt chips, Hm/Lim coatings Po in fractures (<1%) Precambrian volcanics (i.e. metasomatically altered by Housetop granite intrusion).
4	6	2			9164		<4	10	200	<4	170	210	4	<4	50					0		SOIL - Aphinic basalt - minor Hm/Lim coatings. Mottled weathered basalt.
6	8	2			9165	X	<4	20	85	<4	55	125	2	<4	120							BASALT - Aphinic basalt chips, Tr. po in fractures few weathered chips.
						X																
8	10	2			9166	X	<4	10	100	<4	55	130	<2	<4	220							BASALT - Aphinic basalt - large chips, Tr. po + Hm/Lim on fractures. Drilling problems - ground very broken. rod-binding.
						X																
10	12	2			9167	X	<4	<10	65	<4	80	130	10	<4	62							BASALT/DOLERITE - Black homogenous dolerite/basalt.
						X																
12	14	2	WT		9168	X	4	15	65	<4	90	135	9	<4	54							BASALT/DOLERITE - Medium grained basic volcanic/intrusive - dolerite. v.hard WATER TABLE 12m
						X																
14	16	2			9169	X	<4	<10	70	<4	50	115	7	<4	80							BASALT/DOLERITE - Greenish/black. Amphibole and Po in fractures and veins. Tr quartzite fragments.
						X																
16	18	2			9170	X	<4	<10	65	<4	46	105	10	<4								BASALT/DOLERITE - Partly silicified - (as above).
						X	CORE DRILLING 18m															18m - NQ coring.
18.00	20.5	2.5	2.4	96	19171	X	<4	20	34	<4	70	120	14	<4	50	Tr						18.1-29.3 Dolerite(?) Grey/brown schist composed of amphibole in random aggregates with interstitial plagioclase - Probably a
															55							highly metasomatized basic volcanic rock. Actinolite veins and
						X																fracture fills common associated Po (Py) Brecciation also common;
															40							Schist contains disseminated Po <2% + Tr tourmaline (?)
20.5	22.7	2.2	2.2	100	19172	X	<4	15	18	<4	60	100	20	<4				25°				20.6 Carbonate vein/fracture fill 25° to CA
															40							
						X																
															45							
22.7	23.0	0.3	0.3	100	19173	X	<4	20	120	<4	90	195	16	<4								
23.0	25.5	2.5	2.5	100	19174		<4	15	48	<4	80	110	4	<4	40	Tr		20°				23.2 Good example of characteristic blue colouration surrounding
						X												50°				actinolite fracture fills and veins.
															55							
						X																

512039

HOLE NO: US1

PROJECT : HAYES PEAK/UPPER STOWPORT SCALE : 1:100 HOLE NO : US-1

939

From	To	Inter'l (m)	Core Rec'd	% Rec'd	Sample No	Grap'c Log	Assays Sn	W	Cu	Pb	Zn	Ni	As	Mo	Magnetic Susceptibility	% Estimates Po	Core Angles B	V	F	Alt.	T.S. P.S.	Description
						X									50			15°				23·0-28·5 Schist dominantly blue due to extensive alteration
25·5	28·5	3·0	3·0	100	19175		4	25	200	<4	65	150	7	<4				50°				associated with numerous actinolite/Po veins and fracture-fills.
						X									50							
						X									65							
															60							
						X																
28·5	29·3	0·8	0·8	100	19176		<4	<10	130	<4	75	120	<2	4								
29·3	30·1	0·8	0·8	100	19177	X S	4	<10	270	<4	65	115	<2	10	80	Tr	20°					29·3-30·1 Bedded schists - fine grained dark green/grey siliceous schist - bedded with finely disseminated Po + rare Py grains.
						S																Intercalated with above coarser grained schists. Bedding 20° to CA
30·1	32·7	2·6	2·6	100	19178		<4	<10	130	<4	60	110	<2	6	150							30·1 Siliceous clasts in c.g. schist - suggests a sedimentary origin
						S																for some of these m to c.g. schists.
															60							
						S																
															70							
32·7	34·7	2·0	2·0	100	19179	S	<4	<10	85	<4	65	130	3	4								30·1-34·7 Dark green massive schist - actinolite veining rare -
															60							siliceous - occassional quartz clast - pressumed sedimentary in origin
						S																Bedding 34·3 25° to CA disseminated Po <2%
															90		25°					
34·7	37·1	2·4	2·4	100	19180	S	<4	15	150	<4	44	160	3	8					15°			34·7 Faulted contact with bedded fine shales complex relationship.
															85							
						S										Tr						34·7-42·3 Medium grained schists with finer intercalated shales -
															70							In coarser metasediments quartz clasts (1mm or less) present -
						S																bedding spasmodic - disseminated Po in actinolitic/amphibole
37·1	39·6	2·5	2·5	100	19181 s		6	<10	190	<4	26	120	<2	4	250							aggregate. Rock is a grey colouration (actinolite veins and fractures
						S																rare)
															85	Min						36·7 Amphibole + Po fracture fills associated with coarse gritty
						S											20°					metasediment.
															85		20°					38·7 Bedded unit 20° to CA
39·6	42·3	2·7	2·7	100	19182	S	<4	195	250	<4	100	140	<2	4			15°					39·6 Minor evidence of sedimentary slumping.
															80		10°					
						S																
															150							
						S																
42·3	45·4	3·1	3·1	100	19183		4	135	190	<4	140	180	26	6	85	Tr	15°					42·3-57·5 Brown mg schist - fractures with actinolite/sulphide
						X																common - rock consists of amphibole aggregates and plagioclase
															60							+ disseminated Po - presumed metasomatically altered. Basic volcanic -
						X																Apparently conformable contact with sedimentary rocks. Blue alteration
															150			50°				surrounding actinolite/Po veins and fracture fills
						X																
45·4	45·5	0·1	0·1	100	19184		<4	10	6	<4	38	20	5	10	40			60°				45·4-45·5 6 cm calcite vein (minor siderite) with an amphibolitic
45·5	49·2	3·7	3·7	100	19185	X	8	20	85	<4	70	165	14	<4								matrix
															150			40°				
						X																
															150							47·0 actinolitic veins contain Po + tourmaline and minor
						X												65°				carbonate (dolomite?)
															50							
						X																
49·2	52·8	3·6	3·6	100	19186 s		6	<10	38	<4	60	135	20	<4	40							
						X																

PROJECT : HAYES PEAK/UPPER STOWPORT SCALE : 1:100 HOLE No : US [redacted]

From	To	Inter'l (m)	Core Rec'd	% Rec'd	Sample No	Grap'c Log	Assays Sn	W	Cu	Pb	Zn	Ni	As	Mo	Magnetic Susceptibility	% Estimates Po	Chp	Py	Core Angles B	V	F	Alt.	T.S. P.S.	Description
						X									45									
						X									40					45°				
						X									40									
52·8	55·4	2·6	2·6	100	19187		<4	55	90	<4	65	125	<2	4										
						X									45									
						X									65									54·2 Changed to BQ Coring.
55·4	57·6	2·1	2·1	100	19188	X	4	70	42	<4	85	120	12	<4	40					40°				
						X									50									
																				5°				
57·5	61·5	4·0	4·0	100	19189	S	<4	15	80	<4	80	100	12	<4	45					2°				57·5 - 68·6 Blue/grey f to m.g. schist/sediment often bedded with minor basic volcanic "layers" and "bands". Rare actinolite/Po veining plus minor CO_3 veins and fracture fills. The rock consists of predominantly amphibole with quartz and disseminated Po + Tr tourmaline
						S									80					45°				
						S									40				25°					
																			5°	5°				
						S									35				10°					60·0 Calcite vein 1-2 cm across with c.g. Po + Tr Py - vein contains brecciated fragments of host rock (10° to CA)
61·5	64·0	2·5	2·5	100	19190	S	<4	70	130	<4	95	120	3	<4	40									
						S									80				20°					
						S									40									
																			20°					63·5 5cm thick basic volcanic band at 20° to CA
64·0	66·8	2·8	2·8	100	19191	S	<4	270	280	60	145	130	<2	<4	80				20°					
																					25°			64·5 Minor Jarocite staining along fractures.
						S									65									
						S									65									
66·8	68·6	1·8	1·8	100	19192		<4	580	360	<4	240	135	<2	6										
						S									20									67·1 Cross bedded "sandstone/shale"
						S									60									
68·6	71·9	3·3	3·3	100	19193	s	4	10					<2	4		Min								68·6 - 77·5 Intercalated basic volcanic and sedimentary schists - similar to rocks described above. Amphibole/Po veins present - also fractures - filling (% Sed^m > volcanic) + frequent calcite veining
						S									45					15°				
						X									20									70·9 Actinolite/Po fracture filling plus chalcopyrite/pyrite + unrelated calcite vein - cross cutting 15° to CA
																Tr	Tr	Tr			15°			
						X									300									
71·9	74·5	2·6	2·6	100	19194		<4	330	270	<4	190	135	<2	<4										
						S									55					40°				
						S									35									
74·5	77·5	3·0	3·0	100	19195	S	<4	320	170	<4	160	115	<2	4	25									

SHEET 3 OF 4 SHEETS

HOLE No : US [redacted]

[redacted]

PROJECT : HAYES PEAK/UPPER STOWPORT SCALE : 1:100 HOLE No : U91

From	To	Inter's (m)	Core Rec'd	% Rec'd	Sample No	Grap'c Log	Assays Sn	W	Cu	Pb	Zn	Ni	As	Mo	Magnetic Susceptibility	% Estimates Po	Core Angles B	V	f	Alt.	T.S. P.S.	Description
						X									35							
						X									40							
77.5	80.5	3.0	3.0	100	19196	X	<4	440	200	<4	180	120	6	<4	40							77.5-86.5 Blue/grey f to m grained schist - metasediment. Minor intercalated basic volcanics. Bedding not uncommon.
						S									35							
						S									40							
80.5	83.5	3.0	3.0	100	19197	S	<4	540	350	<4	220	135	<2	6	60							
						S									30		30°					
						S									45		30°					
																	20°					
83.5	86.5	3.0	3.0	100	19198	S	<4	45	55	<4	70	130	7	<4	45							
						S									30							
						S									45							
86.5	89.5	3.0	3.0	100	19199	S	<4	30	230	<4	60	135	6	<4	35							86.5-89.5 Dark blue/grey schist (metasediment) with frequent actinolite veins and fracture fills.
						S									35			55°				
						S									25							
89.5	92.5	3.0	3.0	100	19200 s	S	<4	<10	160	<4	34	75	<2	<4	45				50°			89.5-92.5 Blue/grey schist of metasedimentary origin. f to m.g.
						S									30							
						X									25							
92.5	95.6	3.1	3.1	100	19201	S	<4	45	90	<4	85	95	<2	<4	45							92.5-99.6 Intercalated schists of sedimentary and volcanic origin. Metasedimentary units are well bedded - metavolcanic units contain numerous actinolite / Po veins and fracture fills - 50:50 sedimentary to volcanic rocks.
						X									65							
						S									30			25°				
						X									40							
95.6	99.6	4.0	4.0	100	19202		<4	80	170	<4	75	75	2	4				35°				
						S									50				75°			
						X									25			30°				
						S									40				50°			98.2 Calcite / Tm vein with Po and Py
						X									35							
99.6	E of H				s = split core																	

SHEET 4 OF 4 SHEETS

HOLE No : U91