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EL28/88

NEWNHAM EXPLORATION & MINING SERVICES

See Folio 52
Letter 19/11/00

ALLEGIANCE MINING NL

EL 28/88 - STONEHENGE PROSPECT

REPORT ON DRILLING PROGRAM

SEPTEMBER-OCTOBER 1999

For:

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Report on Drilling Program - September-October
1999 - EL28/88 - Stonehenge Prospect
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL28/1988

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1. SUMMARY

The Stonehenge area west of Zeehan was highlighted by previous explorers as having potential for Proterozoic shale hosted zinc deposits.

Support for this was derived from encouraging surface geochemical samples and drill hole results. Allegiance further evaluated the area by completing two (2) cored drill holes in late 1999. These holes each intersected a black shale unit overlying a sequence of interbedded calcareous siltstone-shale-carbonate.

The black shale unit was severely weathered and recoveries were poor.

In DDH S33, the best intersection was 4 m 1.26% Zn within a brecciated carbonate. This may correspond to a 3.2 m 2.5% Zn interval in the adjacent, previously drilled, S31.

In DDH S34, the best intersection was in the shale unit - 6.5 m 0.37% Zn.

These intersections support the target concept and further drilling would be required to better understand the area's zinc potential.

2. BACKGROUND

The Stonehenge prospect lies three (3) kilometres west of Zeehan.

The area is underlain by Proterozoic sediments, strongly influenced by the north-west trending Balstrup Fault. Outcrop is poor due to deep weathering of the soft sediments.

Significant exploration programs have previously been completed in the area - firstly by RGC and secondly by CRA.

The **RGC** effort was directed towards a search for both replacement tin deposits in lower Cambrian carbonates within the Heemskirk Granite aureole and base metal deposits as extensions of known deposits in the adjacent Comstock Mine to the north-west.

They completed a wide variety of geological, geochemical and geophysical surveys which led to several drilling campaigns. Minor mineralisation was located in drill holes but insufficient to attract continued exploration.

The **CRA** effort was focused on exploration for Proterozoic shale hosted zinc deposits in the large Zeehan sedimentary basin. They completed a variety of exploration programs, including fences of shallow drill holes and several deeper cored drill holes.

One of these holes, S31, intersected two intervals of significant zinc mineralisation:

- an upper zone in a black shale sequence with very poor recoveries which assayed 6.5 m 6.3% Zn
- a lower zone in brecciated calcareous sediments which assayed 3.2 m 2.5% Zn

CRA was encouraged by these results and proposed further drilling. However, before this eventuated, EL 28/88 was incorporated into a joint venture project with Allegiance Mining NL, who then became managers of ongoing exploration.

3. WORK COMPLETED 1999-2000

Allegiance Mining NL supported the view that the Stonehenge area still had potential for discovery of a shale hosted zinc deposit and decided to further test this potential by drilling two (2) cored holes, largely where CRA had proposed further drilling.

These two holes totalling 495 m were completed in September-October 1999 by Almac Drilling, using an LF70 rig.

Because of anticipated poor core recoveries, the holes were drilled as far as possible HQ, only reducing to NQ either when adverse drilling conditions prevented further advancement of HQ, or the ground conditions were considered good.

Hole collars were surveyed by Campbell Smith Phelps Pedley of Launceston, and down-hole surveyed with an Almac Eastman down-hole camera.

Core was logged by NEMS. Mineralised intervals were split in half with a core saw, and half submitted for assay to Analabs. The other half was retained and is stored at MRT in Hobart. Drill logs and assay data are attached as Appendices 1 and 2 respectively.

Drill hole locations are shown on the attached State 1:25,000 geological map (Map 2) and a local geological map (Map 3), adapted from CRA work. Drill hole sections are presented as Maps 4 and 5.

DDH S33:

This was a 250 m hole, drilled beneath S31 to test the downward extension of the zinc rich zones in that hole. It intersected four principal sedimentary units which can be broadly correlated with units in S31:

- black shale
- siltstone-carbonate
- brecciated shale-carbonate basal unit
- quartzite

These four units are conformable and dip to the north at approximately 40°.

Core recoveries in the **black shale** unit were extremely poor, with only mud present in some sections. In the interval 87.0-102.0 m there was no core recovered and the drill rods fell through this interval under their own weight, suggesting either a void or low-viscosity mud. This interval unfortunately may correspond to the interval in S31, which included 6.5 m 6.3% Zn (again with extremely poor recoveries).

No significant mineralisation was recognised in the **siltstone-carbonate** unit.

Underlying the siltstone-carbonate unit was a unit of **brecciated shales and carbonate** containing narrow carbonate veins containing minor galena and sphalerite, including between 192.0-196.0 m ' 4 m 0.39% Pb, 1.26% Zn. This probably correlates with a similar zone of brecciated sediments in S31 which assayed 3.2 m 2.5% Zn.

The drill hole terminated in a quartzite (minor shale) unit carrying only minor disseminated pyrite.

DDH S34:

This drill hole was collared 200 m west of S33 and was designed to test the strike extent of zinc mineralisation intersected in S31. It intersected a sequence of shales and siltstones similar to S33 and was stopped at 245 m.

The 6.5 m interval from 91.5-98.0 m in the uppr shale unit averaged 0.17% Pb, 0.37% Zn. However, this mineralisation was in a carbonate rich sequence and possibly does not correlate with the principal mineralised zone in S31.

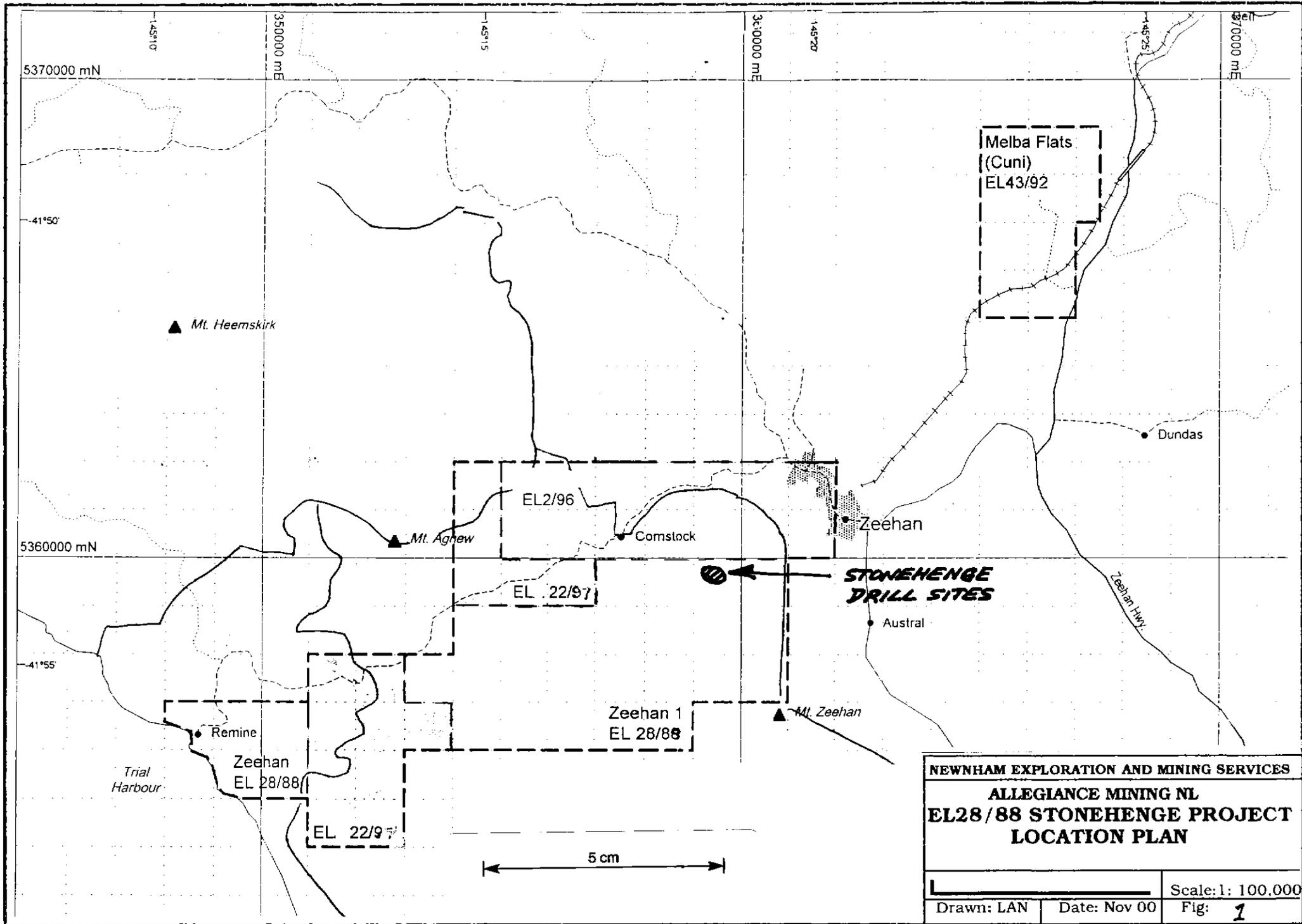
A carbonate-pyrite rich interval in the siltstone-carbonate unit from 213.0-216.6 m averaged 3.6 m 0.14% Pb, 0.04% Zn, and may correlate with the mineralised intervals in the brecciated carbonate unit in S31 and S33.

Interpretation:

Core drilling to date at Stonehenge has intersected a number of sulfidic intervals containing significant coarse galena and sphalerite, within the northern limb of an east-west anticline of fault disrupted Proterozoic shales-siltstones and carbonates.

Poor core recoveries in the black shales have made correlation of these intervals between holes difficult. This problem would have to be successfully addressed if further drilling for sediment hosted base metal deposits was undertaken in this area.

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ALLEGIANCE MINING NL
EL28/88 STONEHENGE PROJECT
LOCATION PLAN

		Scale: 1: 100,000
Drawn: LAN	Date: Nov 00	Fig: 1

683007

536,000N

359,500E

360,000E

PEbs

83
147

TH14

PEbs.

Poq

K60

T30

K30

T30

Pos.

No. 3 Spray

No. 1 Spray

TH16

TH13

PEbs.

Silver Beach
5359500N

80
66
70

TH15

5 cm

Sunshine Mine

SWANSEA SHEET

SHEET

Precambrian Stratigraphy

Pos: Undiff. sltst., sb., carbonates

PEbs: Black shales

Poq: Quartzites, minor shales

359,000E

T 89

37
56

T 56

Plan includes some data from previous CRA mapping

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EL 28/88 - STONEHENGE AREA
DISTRICT GEOLOGY

10 200m Scale: 1:50 00
Drawn: LAN Date: Sep 00 Fig: 3.

683009

685010

(S)

(N)

High Zn in wacker samples

2250

6.5m 6.3Zn

dark grey phyllite
black shale

siltstone,
sand, mud.

pyritic black pug
and grit.

Interbedded
sst-siltst.

2200

SHALE
UNIT

3.2m 2.5Zn

Interbedded
sst-sh-siltst,
dolomite

siltstone
shale, mud

black mud - no recovery

sandstone - siltstone
shale - siltstone

2150

Brecciated
sed.

shale

quartzite

4m
0.39Pb
1.26Zn

192

196

pyritic carbonate, siltstone,
minor shale

slumped siltstone - mudstone

siltstone

carbonate breccia, calc. sed.

200 Carbonate, sphalerite + gal
near top.

2100

SILTSTONE -
CARBONATE UNIT

shale - siltstone
brecciated

siltstone - quartzite,
minor shale

quartzite, minor shale
S33 2.50.5m.

BRECCIATED
SHALE -
CARBONATE

5 cm

2050

BASAL UNIT.

QUARTZITE UNIT

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DDH S 31 and S 33 SECTION

Scale: 1: 1000	
Drawn: LAN	Date: Oct 00
Fig: 4.	

(S)

(N)

2300

2250

2200

2150

2100

Button-grass, minor siltstone outcrops.

SHALE UNIT

SILTSTONE-CARBONATE UNIT

6.5m
0.17 Pb
0.37 Zn

91.5
98.0

100m

5 cm

3.6m
0.14 Pb
0.04 Zn

213.0

216.6

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DDH S 34 SECTION

Scale: 1:1000
Drawn: LAN Date: Oct 00 Fig: 5.

graphitic shale
black shale, siltstone
abundant pyrite and carbonate
black shale, sulfidic
limestone; carb. vened, sulfidic
siltstone, minor carbonate, pyritic, shale bands.
sheared black shale
sheared shale
interbedded shale-siltstone
comborted shale
interbedded siltstone-shale
shales

APPENDIX 1
Drill logs

COMPANY: Allegiance Mining NL
PROJECT: Stonehenge
HOLE NUMBER: S 33

Commenced:	16 September 99
Completed:	08 October 99
Logged By:	L.A.Newnham
Drilled By:	Almac

Purpose of Hole
To further test a sequence of zinc rich black shales in the Stonehenge area west of Zeehan:

Comments on Completion
Sequence of shales, siltstone and carbonates was intersected; only significant mineralisation was coarse sphalerite and galena associated with quartz and quartz-carbonate veins cutting a carbonate sequence between 192-196 m: 4.0 m. 0.39% Pb and 1.26% Zn;

Collar Details

Grid	Northing	Easting	Elevation	Dip	Bearing
AMG	5359544.6	359735.4	2262.16	-50	192

Length (m)
250.5

Hole Size	
To (m)	Size
79.5	HQ
250.5	NQ

Significant Core Loss Zones		
From	To	%Rec.
major losses		see log

Hole Condition on Completion

Summary of Results:

Depth		Recovery	Description	Assays							
From	To			%	Length	Cu	Pb	Zn			
192.0	196.0	98	sphalerite associated with carbonate and quartz carbonate veining cutting a carbonate sequence	4.0	<0.01	0.39	1.26				

DOWN HOLE SURVEY DATA

COMPANY: Allegiance Mining NL
PROJECT: Stonehenge
HOLE NUMBER: S 33

Depth (m)	Dip	Bearing (AMG)	Interval		Length (D)	Vertical Distance		Horizontal Distance		Co-ordinates			
			From	To		D.sin dip	R.L.	D. cos dip (HD)	Cumulative HD	N. distance HD. cos brg.	N. co-ordinate	E. distance HD. sin brg.	E. co-ordinate
COLLAR	-50	192					2262.20		0.00		5,359,544.6		359,735.4
0	-50	192	0	26	26	19.92	2242.28	16.71	16.71	-16.35	5,359,528.3	-3.47	359,731.9
52	-52	193	26	88	62	48.86	2193.43	38.17	54.88	-37.19	5,359,491.1	-8.59	359,723.3
124	-51	191	88	146	58	45.07	2148.35	36.50	91.38	-35.83	5,359,455.2	-6.96	359,716.4
168	-52	191	146	189	43	33.88	2114.47	26.47	117.86	-25.99	5,359,429.2	-5.05	359,711.3
210	-51	192	189	230.25	41.25	32.06	2082.41	25.96	143.82	-25.39	5,359,403.9	-5.40	359,705.9
250.5	-51	192	230.25	250.5	20.25	15.74	2066.67	12.74	156.56	-12.47	5,359,391.4	-2.65	359,703.3
250.5													

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COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 33

Description		Core Recovery			RQD			Assays									
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn				
0.0	1.0	HW tricorne: no core; 6.0 m. PVC inserted as casing;	0.0	1.0	0	0.0	75.5	0									
1.0	4.5	MUDSTONE: light gray highly decomposed very soft mudstone, extensively reduced to mud and sludge; phyllitic texture, poor recoveries;	1.0	3.5	90												
			3.5	4.0	80				3.0	4.0	<0.01	<0.01	<0.01				
			4.0	5.8	70												
			5.8	7.5	0												
4.5	34.7	SILTSTONE-SANDSTONE: light brown - fawn siltstone and mudstone; highly decomposed - rubble for most of unit; weathering results in dark brown coloration along fractures and broken surfaces; remnant thin highly broken quartz veins in places; pervasive minor small euhedral pyrite crystals occasionally up to 0.5% over short intervals; leaching of pyrite may be cause of total degradation and decomposition of unit; significant core losses;	7.5	9.3	95				4.5	5.5	<0.01	0.07	0.05				
			9.3	10.6	80												
			10.6	12.7	80				9.3	10.3	<0.01	0.03	0.13				
			12.7	15.3	100												
			15.3	16.8	90				14.0	15.0	<0.01	0.05	0.20				
			16.8	22.3	100												
			22.3	23.9	75				17.0	18.0	<0.01	0.03	0.12				
			23.9	26.9	100												
			26.9	27.9	50				20.0	21.0	<0.01	0.02	<0.01				
			27.9	29.5	80												
			29.5	30.8	70				24.0	25.0	<0.01	0.01	0.08				
			30.8	32.2	15												
			32.2	33.3	70				27.0	28.0	<0.01	<0.01	0.06				
34.7	38.3	SAND: dark gray-fawn medium-fine grained sand, possibly derived from unit below;	33.3	34.7	80												
			34.7	35.7	20				33.0	34.0	<0.01	<0.01	0.13				
			35.7	37.5	75												
			37.5	38.3	20				36.0	37.0	0.01	0.10	0.61				
38.3	39.0	SANDSTONE: fawn sandstone, highly decomposed and disaggregated;	38.3	39.3	80												
			39.3	40.8	100												
			40.8	42.3	70												
39.0	41.5	SHALE, black carbonaceous and pyritic: black shale, soft and graphitic, highly carbonaceous; pervasive minor-significant fine grained pyrite occasionally as small aggregates; shale strongly cleaved and very broken;	42.3	44.2	75				39.0	40.0	0.01	0.06	0.06				
			44.2	45.3	90				40.0	41.0	<0.01	0.02	0.02				
			45.3	46.8	90				41.0	42.0	<0.01	0.03	0.10				
			46.8	49.8	90				42.0	43.0	<0.01	0.03	0.13				
			49.8	51.3	90				43.0	44.0	<0.01	0.01	<0.01				
			51.3	52.8	90				44.0	45.0	<0.01	0.02	0.08				
			52.8	54.3	80				45.0	46.0	<0.01	0.02	0.09				
41.5	75.5	BLACK PUG and GRITS: black clayey pug and black grits; totally decomposed; grits appear to be composed of fine black shale fragments, fine quartz and black clay; fine euhedral pyrite is common throughout, approx. 2-3%, but more abundant in some....	54.3	55.8	90				46.0	47.0	<0.01	0.01	0.05				
			55.8	57.3	85				47.0	48.0	<0.01	0.02	0.07				
			57.3	58.8	90				48.0	49.0	<0.01	0.02	0.05				
			58.8	60.3	70				49.0	50.0	<0.01	0.01	0.11				
			60.3	61.8	80				50.0	51.0	<0.01	0.01	0.21				
			61.8	63.3	75				51.0	52.0	<0.01	0.01	0.08				

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Description		Core Recovery			RQD			Assays								
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn			
41.5	75.5	...intervals; unit may represent totally decarbonatised calcareous sediment and shale; recoveries difficult to judge but overall appear reasonable;	63.3	64.8	95	75.5	103.5	0	52.0	53.0	<0.01	0.01	0.07			
continued.....			64.8	66.3	85				53.0	54.0	<0.01	0.01	0.08			
			66.3	67.8	85				54.0	55.0	<0.01	<0.01	0.11			
			67.8	69.3	50				55.0	56.0	<0.01	0.01	0.10			
			69.3	70.8	85				56.0	57.0	<0.01	<0.01	0.30			
			70.8	72.3	90				57.0	58.0	<0.01	0.03	0.09			
75.5	79.8	SILTSTONE-CLAY: pale buff-off-white siltstone(?); severely weathered/ altered to soft pug and disaggregated material; original rock possibly fine grained feldspathitic siltstone; minor fine grained striated pyrite grains; several 0.5 m. intervals of sandy wash; remnant texture suggests unit was either strongly sheared and foliated; reduced to HQ at 79.5 m;	72.3	73.8	50				58.0	59.0	<0.01	0.01	0.21			
			73.8	75.3	75				59.0	60.0	<0.01	0.03	0.14			
			75.3	76.8	70				60.0	61.0	<0.01	0.01	0.41			
			76.8	78.3	100				61.0	62.0	<0.01	0.05	0.11			
			78.3	79.5	95				62.0	63.0	<0.01	<0.01	0.05			
									63.0	64.0	<0.01	0.02	0.09			
									64.0	65.0	<0.01	0.01	0.08			
									65.0	66.0	<0.01	0.02	0.06			
								66.0	67.0	<0.01	0.03	0.07				
								67.0	68.0	<0.01	0.03	0.06				
79.8	87.0	SHALE and MUD: totally decomposed black muds and very finely fragmented black graphitic shale forming as grit; fine grains of white quartz a significant component of these grits; several fragments of white quartz veins remain in black shaley muds; some bands of decomposed shale still recognisable as such (ie) the interval is not simply transported muds; 1-3% fine pyrite throughout, more abundant in some intervals; strong sulfide smell suggests substantial ultrafine sulfide may be present;	79.5	81.3	70				68.0	69.0	<0.01	<0.01	0.11			
			81.3	82.5	75				69.0	70.0	<0.01	<0.01	0.12			
			82.5	84.0	75				70.0	71.0	<0.01	0.02	0.13			
			84.0	85.5	60				71.0	72.0	<0.01	<0.01	0.08			
			85.5	87.0	45				72.0	73.0	<0.01	<0.01	0.14			
									73.0	74.0	<0.01	0.02	0.11			
									74.0	75.0	<0.01	0.01	0.14			
									75.0	76.0	<0.01	0.01	0.09			
									77.0	78.0	<0.01	0.04	0.12			
									80.0	81.0	<0.01	0.03	0.16			
								81.0	82.0	<0.01	0.02	0.09				
								82.0	83.0	0.01	0.03	0.10				
87.0	102.4	NO RECOVERY: despite careful drilling practices, rods just fell under their own weight and there was no recovery; very soft muds suspected;	87.0	102.4	0				83.0	84.0	<0.01	<0.01	0.07			
									84.0	85.0	<0.01	0.03	0.08			
									85.0	87.0	0.01	0.07	0.22			
									102.4	103.5	<0.01	0.06	0.03			
102.4	103.6	PYRITIC SHALE-SILTSTONE-PUG: dark gray and black graphitic shales and siltstone bands, strongly decomposed, reduced to mud and pug in places; striated euhedral pyrite common;	102.4	103.5	75											

685016

Description		Core Recovery			RQD			Assays									
From	To	From	To	%	From	To	%	From	To	Cu	Pb	Zn					
103.6	112.9	SANDSTONE-SILTSTONE, leached: light gray-fawn siltstone and sandstone with minor shaley bands; siltstone-sandstone strongly leached and decomposed in places with minor vuggy appearance; shale units reduced to mud and pug; numerous narrow random quartz veins cut siltstone-sandstone; minor pervasive fine grained disseminated pyrite, commonly euhedral; core extremely broken; drilling problems resulted in some redrilling of core and start of a new hole; several zones of high core loss;	103.5	105.0	50	103.5	112.9	0	107.5	108.5	<0.01	<0.01	0.09				
			105.0	106.5	15												
			106.5	107.5	50					111.0	112.9	<0.01	0.02	0.12			
			107.5	108.4	85												
			108.4	109.5	15												
			109.5	110.6	50												
			110.6	111.0	50												
			111.0	112.5	60												
		112.5	112.9	75													
112.9	118.2	SHALE-SANDSTONE, contorted and calcareous; mottled zone of finely disrupted and whispy black shale mixed with light gray groundmass of calcareous sandstone and large irregular patches of carbonate (dolomite?); this unit is possibly precursor of decomposed material in unit above; minor fine grained pyrite; unit strongly altered and broken in places but represents first competent rock in hole;	112.9	114.0	75	112.9	117.5	30	114.0	115.5	<0.01	0.01	<0.01				
			114.0	115.5	70												
			115.5	117.0	80												
			117.0	118.3	100												
118.2	155.2	CARBONATE, minor shale bands: light and dark gray carbonate, possibly a silty dolomite; extensively veined and brecciated by large masses white carbonate (calcite) and several later generations of 1-10 mm. white carbonate veins; stylolitic and slumped in places; foliation (? bedding) varies from sub parallel CA to 30° CA; several light gray pug and dark gray-black sandy silts possibly represent decomposed shale bands (eg) 128.0-129.7 m., 131.0-131.2 m., 135.0-135.2 m., 140.0-143.6 m; 140.2 m: 100 mm. vein of semi massive pyrite-galena-sphalerite; this vein is associated with a very broken and distorted....	118.3	128.4	100	117.5	120.9	70	119.0	120.0	<0.01	0.01	<0.01				
			128.4	129.0	15	120.9	124.4	60									
			129.0	135.0	100	124.4	127.7	50	122.0	123.0	<0.01	<0.01	<0.01				
			135.0	138.2	95	127.7	131.2	40									
			138.2	140.6	100	131.2	134.2	40	126.0	127.0	<0.01	<0.01	<0.01				
			140.6	141.3	40	134.2	137.9	70									
			141.3	142.5	15	137.9	142.5	50	134.0	135.0	<0.01	<0.01	<0.01				
			142.5	143.1	35	142.5	145.8	50									
			143.1	145.5	95	145.8	149.8	60	139.0	140.0	<0.01	<0.01	<0.01				
			145.5	148.8	90	149.8	153.4	80									
			148.8	155.2	100	153.4	156.8	90	140.2	140.6	<0.01	0.30	1.20				
								144.5	145.5	<0.01	0.01	0.03					
								151.5	152.5	<0.01	<0.01	<0.01					

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Description			Core Recovery			RQD			Assays									
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn					
.118.2	155.2	interval to 143.6 m. of decomposed shale, carbonate veining and carbonaceous carbonate; intervals of moderately competent ground separated by very broken zones of rubbly carbonate, decomposed shales and pug zones; below 145 m: very large irregular masses of white calcite; 152.7-155.2 m: carbonate finer grained and well bedded; possibly finer grained calcareous siltstone; BCA 45°; minor sulfides throughout as thin wispy zones along stylolites and foliations, small aggregates and blebs associated with late stage carbonate veining; sulfides mainly pyrite but occasional blebs of chalcopyrite with associated galena (?) and sphalerite (?); conformable contact with unit below;																
continued.....																		
155.2	178.8		SLUMPED SILTSTONE-MUDSTONE: light fawn-buff brown soft pelitic sediment with dark gray interbeds; slumped with soft sediment deformation structures common; tight small scale folding; irregular and broken bedding; thin quartz and quartz-carbonate veining common, often folded and fractured with pygmatic texture in places; bedding typically parallel and sub-parallel CA; trace fine grained euhedral pyrite; 175.6-177.0 m: intrusion of large masses white quartz and quartz-carbonate, making up approx. 50-75% of rock; HQ core moderately competent but NQ extensively fractured parallel to bedding and along several joint sets; sharp but slumped contact with unit below;	155.2	166.1	100	156.8	160.5	90	156.0	157.0	<0.01	<0.01	<0.01				
				166.1	169.4	65	160.5	163.9	80									
				169.4	178.4	100	163.9	166.4	90	161.5	162.5	<0.01	<0.01	<0.01				
						166.4	171.4	55										
						171.4	175.4	40	175.5	177.5	<0.01	<0.01	<0.01					
						175.4	180.0	80										
178.8	179.8	SILTY DOLOMITE: dark gray contorted dolomite with two narrow interbeds of black shale; minor quartz-.....	178.4	179.8	100													

683018

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 33

Description			Core Recovery			RQD			Assays								
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn				
178.8	179.8	carbonate veining; continued..... trace pyrite;															
179.8	185.9	SILTSTONE, quartz veined: dark gray siltstone with finely interbedded light gray - fawn partings; unit calcareous; contorted and slumped in places with BCA 0-40°; quartz present as thin discontinuous and distorted veins and large irregular masses, especially 182.2-182.7 m; minor pyrite as fine euhedral grains and larger aggregates replacing and accompanying quartz veins; ground moderately competent with some fracturing along bedding surfaces; sharp contact with unit below;	179.8	185.9	100	180.0	184.6	85	182.0	183.0	<0.01	<0.01	<0.01				
185.9	192.2	CALCAREOUS BRECCIA and CALCAREOUS SEDIMENT: dark gray calcareous shale fragments set in speckled white-gray carbonaceous groundmass near top and base of unit; light gray calcareous siltstone or dolomite with abundant white calcite veining in middle of unit; confused unit possibly representing a slumped sedimentary breccia within a carbonate sequence; in addition to calcite veins and irregular masses, carbonate sections contain abundant fine stylolitic structures; trace sphalerite (?) associated with pyrite; below 191.5 m: significant masses and spots of honey colored sphalerite and associated minor galena; several large aggregates near base; core moderately competent to 191.0 m., then broken with minor core loss; fractures along several joint sets and occasionally on stylolitic surfaces;	185.9	190.5	100	184.6	189.1	90	186.0	187.0	<0.01	<0.01	<0.01				
			190.5	193.5	90	189.1	194.0	80	187.0	188.0	<0.01	<0.01	<0.01				
									188.0	189.0	0.01	<0.01	<0.01				
									189.0	190.0	<0.01	<0.01	<0.01				
									190.0	191.0	<0.01	<0.01	<0.01				
									191.0	192.0	<0.01	0.03	0.04				

683019

Description		Core Recovery			RQD			Assays										
From	To	From	To	%	From	To	%	From	To	Cu	Pb	Zn						
192.2	209.7	CARBONATE SEQUENCE with SPHALERITE: light-dark gray carbonate sequence, extensively replaced by large masses white crystalline calcite and cut by thin (<5 mm) random white calcite veins; texture of carbonate is highly disturbed and irregular, suggesting significant sedimentary slumping and movement following diagenesis; stylolitic structures common throughout, abundant in places; fine grained pyrite common in stylolites; minor honey colored sphalerite present as coarse aggregates along margins of 1-5 mm carbonate and quartz-carbonate veins; accompanied by minor galena, and trace chalcopryrite in places; veins typically 20-30° CA; sphalerite also occasionally present in places along stylolites, in cross-cutting veins and small disseminated spots or aggregates in carbonate; amount of visible sphalerite appears to diminish towards base of unit; core moderately competent; principal joint set 50-60° CA; other fracturing along carbonate veins and stylolitic surfaces; relatively sharp contact with unit below 80° CA;	193.5	209.7	100	194.0	198.2	85	192.0	193.0	<0.01	1.02	1.98					
						198.2	202.7	85	193.0	194.0	<0.01	0.10	1.30					
						202.7	207.2	90	194.0	195.0	<0.01	0.06	0.80					
						207.2	211.8	75	195.0	196.0	<0.01	0.39	0.96					
											196.0	197.0	<0.01	0.06	0.37			
											197.0	198.0	<0.01	0.10	0.27			
											198.0	199.0	<0.01	0.03	0.13			
											199.0	200.0	<0.01	<0.01	0.03			
											200.0	201.0	<0.01	<0.01	0.02			
											201.0	202.0	<0.01	<0.01	0.30			
											202.0	203.0	<0.01	<0.01	0.01			
											203.0	204.0	<0.01	<0.01	0.01			
											204.0	205.0	<0.01	<0.01	<0.01			
								205.0	206.0	0.01	<0.01	<0.01						
								206.0	207.0	<0.01	<0.01	0.02						
								207.0	208.0	<0.01	<0.01	<0.01						
								208.0	210.0	<0.01	<0.01	<0.01						
209.7	219.4	INTERBEDDED SHALE and SILTSTONE, abundant quartz-carbonate veining: 209.7-210.8 m: interbedded dark gray and fawn siltstone with irregular bedding but generally 80-90° CA; 210.8-214.0 m: interbedded dark gray shale and light gray siltstone, slumped, contorted and brecciated; numerous thin carbonate and quartz-carbonate veins and patches; minor medium grained euhedral pyrite in veins, and fine grained disseminated pyrite in shale component;	209.7	211.2	100	211.8	217.0	50	214.0	216.0	<0.01	0.03	<0.01					
						211.2	213.9	90	217.0	221.2	20							
						213.9	214.4	80				218.0	220.0	0.01	0.01	<0.07		
						214.4	217.5	100										
						217.5	218.3	100										
						218.3	220.5	90										

685020

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S

Description		Core Recovery			RQD			Assays									
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn				
209.7 continued.....	219.4	214.0-219.4 m: interbedded dark gray siltstone and black carbonaceous shale; abundant quartz and quartz-carbonate as veins and large masses; 214.2 m: 200 mm. quartz and quartz-carbonate mass with 5-10% pyrite as large aggregates; minor pervasive disseminated euhedral pyrite in siltstone and fine grained disseminations in carbonaceous black shales; intraformational slump structures plentiful but overall bedding 80-90° CA; core generally broken and shattered along veins, bedding (graphitic surfaces) and several joint sets; grades into unit below.....															
219.4	245.0	INTERBEDDED BLACK SHALE-SILTSTONE / QUARTZITE: interbedded black graphitic shale and light gray siltstone-quartzite; BCA generally in the range 70-80° but slumped and contorted in places; random thin (1-5 mm) quartz and quartz-carbonate veins common throughout; fine grained pyrite common in graphitic shales; minor fine grained euhedral pyrite disseminated in quartzite and occasionally as coarse aggregates; fragment of core at 235.5 m. is solid pyrite; graphitic shales generally very broken along bedding planes, cleavage and joint sets; quartzites more competent but overall still quite broken; 233.8-235.5 m: some core loss;	220.5	221.7	90	221.2	225.7	65									
			221.7	233.8	100	225.7	230.1	75									
			233.8	235.1	45	230.1	235.0	50									
			235.1	235.5	40	235.0	239.6	40									
			235.5	238.5	90	239.6	243.9	45									
			238.5	245.0	100	243.9	248.2	50									
245.0	250.5	QUARTZITE-MINOR SHALE: dark gray quartzite interbedded with minor black shale; BCA variable due to slumping but overall more uniform towards bottom of hole at 70-80°; 1-2 mm. quartz and carbonate veining	245.0	250.5	100	248.2	250.5	75									

685021

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 33

Description			Core Recovery			RQD			Assays								
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn				
245.0	250.5	common throughout; minor disseminated euhedral pyrite; some coarser pyrite associated with quartz veins and quartz-carbonate masses; ground moderately broken along bedding surfaces and quartz-carbonate veins;															
continued.....		END OF HOLE															

685022

COMPANY: Allegiance Mining NL
PROJECT: Stonehenge
HOLE NUMBER: S 34

Commenced:	11 October 99
Completed:	20 October 99
Logged By:	L.A.Newnham
Drilled By:	Almac Drilling

Purpose of Hole
To further drill test a substantial zinc anomaly associated with a sequence of Proterozoic black shales and siltstones in the sedimentary basin at Stonehenge, west of Zeehan;

Comments on Completion

Collar Details

Grid	Northing	Easting	Elevation	Dip	Bearing
AMG	5,359,613	359,567	2271	-50	191

Length (m)
245

Hole Size	
To (m)	Size
165	HQ
245	NQ

Significant Core Loss Zones		
From	To	%Rec.
0.0	26.0	see log
77.3	79.2	<50

Hole Condition on Completion
all casing and rods removed from hole

Summary of Results:

Depth		Recovery	Description	Assays					
From	To	%		Length	Cu	Pb	Zn	Au	Ag
					ppm	ppm	ppm	ppb	ppm
91.5	98.0	100	limestone, minor black shale and breccia zones; abundant carbonate veining	6.5	16	1719	3687	15	<2
213.0	216.6	100	massive carbonate zones in shale and siltstone; abundant pyrite;	3.6	77	1401	403	27	<2

DOWN HOLE SURVEY DATA

COMPANY: Allegiance Mining NL
PROJECT: Stonehenge
HOLE NUMBER: S 34

Depth (m)	Dip	Bearing (AMG)	Interval		Length (D)	Vertical Distance		Horizontal Distance		Co-ordinates			
			From	To		D.sin dip	R.L.	D. cos dip (HD)	Cumulative HD	N. distance HD. cos brg.	N. co-ordinate	E. distance HD. sin brg.	E. co-ordinate
COLLAR	-50	191					2271.00		0.00		5,359,613.0		359,567.0
0	-50	191	0	14	14	10.72	2260.28	9.00	9.00	-8.83	5,359,604.2	-1.72	359,565.3
28	-50	193	14	56.5	42.5	32.56	2227.72	27.32	36.32	-26.62	5,359,577.5	-6.15	359,559.1
85	-51	193	56.5	110.5	54	41.97	2185.75	33.98	70.30	-33.11	5,359,544.4	-7.64	359,551.5
136	-51	191	110.5	160.5	50	38.86	2146.90	31.47	101.77	-30.89	5,359,513.5	-6.00	359,545.5
185	-50	191	160.5	210.5	50	38.30	2108.59	32.14	133.91	-31.55	5,359,482.0	-6.13	359,539.4
236	-50	193	210.5	240.5	30	22.98	2085.61	19.28	153.19	-18.79	5,359,463.2	-4.34	359,535.0
245	-50	193	240.5	245	4.5	3.45	2082.16	2.89	156.08	-2.82	5,359,460.4	-0.65	359,534.4
245													

685024

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 34

Description		Core Recovery			RQD			Assays											
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn						
0.0	10.3	SILTSTONE, minor shale: fine-medium grained siltstone, bleached white near top, becoming darker gray down hole; interbedded with thin bands of dark gray-black well bedded shale; siltstone contains significant sericite and quartz; weakly sheared; bedding chaotic due to slumping; generally 0-40° CA; 2.0-2.5 m: abundant quartz veining; rare grain of pyrite; core extensively broken and rubbly; only sand recovered in some intervals; some core loss;	0.0	1.5	0														
			1.5	3.8	100														
			3.8	5.8	75														
			5.8	7.3	90														
			7.3	8.0	sand														
			8.0	11.0	100														
10.3	23.0	BLACK SHALE and SAND: extremely brittle, highly fissile black graphitic shale with some intervals where only shaley sand recovered; increasing component of gray siltstone towards base of unit; minor narrow quartz veins; minor fine grained euhedral pyrite in black shale;	11.0	11.6	100														
			11.6	12.5	sand														
			12.5	14.0	90														
			14.0	14.8	90														
			14.8	15.3	sand														
			15.3	23.0	sand														
23.0	31.0	SILTSTONE, minor shale: medium-coarse grained, weakly sheared, light gray siltstone-sandstone; typically sericitic/ phyllitic; narrow interbeds of black graphitic shale; bedding in top section erratic and contorted, becoming more uniform towards base of unit at 40-45° CA; thin minor quartz veins parallel to bedding; minor partings and seams pyrite in siltstone; minor fine grained disseminated pyrite in shale beds; core very broken along bedding and several joint sets; grades into unit below.....	23.0	24.5	50														
			24.5	26.0	65														
			26.0	28.9	100														
			28.9	30.5	70														
			30.5	31.4	100														
31.0	40.1	INTERBEDDED SHALE and SILTSTONE: light-medium gray siltstone interbedded with thin beds dark gray-black shale, often graphitic;	31.4	33.5	60														
			33.5	36.0	100														
			36.0	36.5	70														
			36.5	40.2	100														

685025

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 34

Page No: 2

Description		Core Recovery			RQD			Assays								
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn	Au	Ag	
											ppm	ppm	ppm	g/t	g/t	
31.0	40.1	BCA variable, generally 60-70°; soft sediment deformation common; occasional thin quartz veins; pervasive trace-minor pyrite; coarse euhedral pyrite abundant on some fracture surfaces cf. 39.0 m; core soft and very broken with fracturing parallel to bedding and several joint sets; several crushed zones;														
continued.....																
40.1	44.8	BLACK SHALE: soft black graphitic shale, strongly laminated; BCA generally 70-80° but highly variable; minor siltstone interbeds increasing towards base; grades into unit below; minor fine grained disseminated pyrite in shale; more abundant coarse euhedral pyrite in siltstones near base of unit; core extremely broken and crushed in places;	40.2	41.7	80											
			41.7	43.4	100											
			43.4	44.9	90											
44.8	65.3	INTERBEDDED SILTSTONE and SHALE: light gray medium grained siltstone thinly interbedded with dark gray-black graphitic shales; BCA generally 70-80°; irregular narrow light brown-khaki carbonate veins, quartz-carbonate and quartz veins common; carbonate veins are earliest and generally discordant; quartz-carbonate and quartz veins are later and often parallel to bedding; euhedral pyrite commonly associated with quartz and quartz-carbonate veins, often as semi- massive bands; minor leaching of pyrite results in vuggy texture; 59.5-62.0 m: veining abundant and accompanied by soft sediment deformation; core generally very broken with most fractures parallel to bedding; several joint sets result in shaley sections being very broken;	44.9	57.5	100											
			57.5	58.3	65											
			58.3	59.5	85											
			59.5	62.0	100											
			62.0	63.5	90											
			63.5	64.5	85											
			64.5	65.5	90											
65.3	68.3	SHEARED QUARTZOSE BLACK SHALE: black graphitic shale, sheared and slumped...	65.5	68.3	100				65.5	67.5	9	32	87	13	<2	

685026

Description		Core Recovery			RQD			Assays									
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn	Au	Ag		
												ppm	ppm	ppm	g/t	g/t	
65.3	68.3	and containing high percentage of disrupted white quartz veins; suggests unit may have slumped post quartz veining; minor but pervasive fine-medium grained euhedral pyrite in shale; 1-2% medium-coarse euhedral pyrite associated with quartz veining; core moderately competent but several crushed zones and bedding plane failures common;															
68.3	77.3	SILTSTONE, minor shale, quartz veining: light gray siltstone with minor interbedded dark gray-black shale; abundant irregular white quartz veining and finer veins of light brown soft material - possibly decomposed carbonate; minor fine grained disseminated pyrite, especially in shale component; 1-2% coarse euhedral pyrite associated with quartz veins; significant leaching of core along soft thin brown carbonate (?) veins; core moderately competent but numerous fractures along bedding; broken zones associated with quartz veining;	68.3	77.3	100				75.5	76.5	23	65	79	30	<2		
77.3	84.0	GRAPHITIC SHALE: black, strongly graphitic sheared shales, with irregular thin white quartz veins; large irregular masses of white calcite near base of unit; BCA irregular, slumped in places but generally 70°; 77.3 - 79.3 m: puggy, broken and leached - possible fault zone; 2-3% fine grained disseminated pyrite pervasive in shale; minor medium grained euhedral pyrite associated with quartz veins and carbonate masses;	77.3	77.5	50												
			77.5	78.1	50				81.5	82.5	77	936	632	19	<2		
			78.1	78.5	25												
			78.5	79.2	10				84.0	85.0	18	463	1635	16	<2		
			79.2	80.7	80												
			80.7	81.5	90												
			81.5	84.5	90												
									87.5	88.5	4	50	169	12	<2		
									91.5	93.0	34	4470	7910	13	<2		
									93.0	95.0	5	315	495	7	<2		
									95.0	97.0	18	1785	4610	24	<2		
84.0	99.3	CARBONATE, calcareous breccias, extensive carbonate veining: dark gray siliceous carbonate, interbedded.....	84.5	99.5	100				97.0	98.0	8	273	1890	18	<2		
									98.0	99.3	<4	104	174	6	<2		

685027

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 34

Description			Core Recovery			RGD			Assays							
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn	Au	Ag	
												ppm	ppm	ppm	g/t	g/t
99.3	136.9	112.5-128.2 m: interbedded black shales and gray siltstone; BCA erratic but commonly 30-40°; minor thin carbonate and quartz-carbonate veining; minor fine euhedral pyrite generally in siltstone bands; black shale often graphitic; core moderately broken, principally along graphitic bedding planes and several irregular joint sets at low angles to CA; 128.2-136.9 m: light gray siltstone-quartzite component dominant with lesser interbeds of dark gray-black graphitic shale; irregular and disjointed quartz veins common; 1-2% medium-coarse euhedral pyrite associated with veining and as pervasive disseminations and aggregates in siltstone; quartzite-siltstone component moderately competent but shales very broken;														
136.9	182.7	SILTSTONE, minor carbonate, pyritic and carbonate veined: unusual sequence of mottled light brown-khaki colored siltstone with minor interbeds of lighter gray limestone/dolomite; whole unit appears altered/bleached and is extensively veined by light brown-white carbonate and quartz-carbonate veins up to 20 mm wide; and abundant large irregular masses of crystalline carbonate; some sections of siltstone appear slumped and brecciated; 136.9-144.0 m: altered/bleached siltstone with abundant carbonate and quartz-carbonate veining; fragmental texture in places; 3-5% coarse pyrite as clusters and aggregates associated with veining; BCA 40°; core moderately competent; 144.0-147.5 m: light gray dolomite/limestone; abundant carbonate and quartz-carbonate as veining and irregular masses; 2-3% coarse euhedral pyrite clusters; 147.5-162.4 m: as for 136.9 m.....; BCA erratic but generally 30-35°; pyrite as coarse...	136.9	167.0	100				137.0	139.0	5	10	85	6	<2	
			167.0	170.0	80				139.0	141.0	<4	<5	32	84	<2	
			170.0	182.7	100				141.0	143.0	4	14	32	11	<2	
									143.0	145.0	<4	<5	23	5	<2	
									145.0	147.0	<4	<5	21	4	<2	
									147.0	149.0	<4	<5	31	5	<2	
									149.0	151.0	<4	<5	18	2	<2	
									152.5	153.5	6	<5	36	<1	<2	
									157.0	159.0	<4	<5	36	<1	<2	
									159.0	161.0	<4	<5	43	<1	<2	
									170.0	171.0	8	8	40	4	<2	
									173.0	174.0	4	56	43	<1	<2	
									175.0	177.0	<4	10	44	<1	<2	
									177.0	179.0	7	11	50	<1	<2	
									179.0	181.0	8	7	53	<1	<2	
									181.0	183.0	6	9	82	<1	<2	

685029

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 34

Description			Core Recovery			RQD			Assays								
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn	Au	Ag		
												ppm	ppm	ppm	g/t	g/t	
136.9 continued.....	182.7	clusters, semi-massive in carbonate and quartz-carbonate veins and masses, especially towards base of unit; minor pyrite also disseminated in siltstone; core very competent except for two small broken zones; 182.4-166.9 m: similar to section above but with less veining; BCA 30°; 166.9-175.6 m: carbonate and quartz-carbonate veining and accompanying pyrite increasing, becoming abundant below 173 m; siltstones are extensively broken and disrupted by the veining; minor light gray and dark gray calcareous beds; BCA 30-40°; 3-5% coarse pyrite, locally to 10%, associated with the carbonate and quartz-carbonate veining; ground conditions very good; 175.6-179.0 m: as above but semi-massive and strongly disseminated euhedral pyrite in the large irregular masses and veins of carbonate and quartz-carbonate; BCA 30°; 179.0-182.7 m: bleached siltstone; disrupted by small microfaults; mottled appearance; pyrite common in small fractures and disseminated; becoming abundant (5-10%) towards calcareous base;															
182.7	194.6	CALCAREOUS SEDIMENT / LIMESTONE, veined and mineralised: laminated white-light green-gray limestone and calcareous sediment with stripey appearance; BCA 60-80°; 182.7-189.2 m: abundant irregular veins of white carbonate cutting well bedded/laminated unit; 3-5% pyrite disseminated throughout calcareous sediments; additional coarse euhedral pyrite associated with carbonate veining; ground conditions very good;	182.7	194.6	100				183.0	185.0	<4	<5	64	<1	<2		
									185.0	187.0	<4	5	52	<1	<2		
									187.0	189.0	<4	39	64	<1	<2		
									189.0	191.0	<4	<5	42	<1	<2		
									191.0	193.0	<4	<5	43	16	<2		
									193.0	194.0	21	95	101	9	<2		

685030

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 34

Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn	Au	Ag	
												ppm	ppm	ppm	g/t	g/t
182.7	194.6	<p>189.2-194.6 m: similar to above but white limey beds more abundant and more intensely mineralised; 3-5% disseminated pyrite pervasive; some zones of semi-massive pyrite with minor pyrite-galena patches; arsenopyrite and magnetite common in some intervals; large patches of fine grained pyrite common in calcareous sediments; overall 10% sulfides, locally up to 20% in some zones; ground conditions very good;</p>														
194.6	209.5	<p>BLACK SHALE-SILTSTONE: black graphitic shales interbedded with minor 2-5 mm. beds of gray siltstone; both are tightly folded with gray siltstone demonstrating crenulated and pygmatic folding; bedding highly irregular; white quartz and quartz-carbonate veining and large irregular masses common; carbonate often altered to light gray sericite; pyrite pervasive as either finely disseminated grains within the black shales (1-2%) or medium-coarse euhedral grains and aggregates generally associated with carbonate in quartz-carbonate veins and carbonate veins and masses (2-3%); trace of galena associated with pyrite; ground broken especially in more graphitic sections; 205.7 m: 800 mm. white quartz vein containing a small section of brecciated siltstone, thin carbonate veining and euhedral pyrite; grades into unit below.....</p>	194.6	209.5	100											
209.5	216.6	<p>SHALE and SILTSTONE, abundant pyrite and carbonate: similar to unit above but greater component of gray siltstone and correspondingly less graphitic shale; major sections of carbonate carrying semi-massive pyrite and minor</p>	209.5	216.6	100				210.0	212.0	12	2840	479	<1	2	
									213.0	215.0	78	1330	574	<1	<2	
									215.0	216.6	75	1490	190	48	<2	

685031

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 34

Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn	Au	Ag	
												ppm	ppm	ppm	g/t	g/t
209.5	216.6	galena, trace sphalerite; 210.0 m: 1000 mm mass cream carbonate with white quartz; fractured and stylolitic; 3-5% pyrite associated with carbonate; 213.5 m: 1000 mm carbonate zone in black shale; 10-20% pyrite, semi-massive in places; 215.0 m: 300 mm quartz-carbonate zone with semi-massive pyrite towards base; 215.9 m: 700 mm. mass of stylolitic cream carbonate carrying 10-15% pyrite; In between the above carbonate zones, shales and siltstones intensely veined by carbonate and quartz-carbonate veins; BCA 40-50°; 3-5% very fine disseminated pyrite pervasive in these sediments; core moderately competent;														
216.6	223.6	SHALE-SILTSTONE, abundant quartz and quartz-carbonate veins with pyrite: similar to unit above but less carbonate veining and more quartz veining; generally disrupted and fragmented; white quartz makes up approx. 50% of interval; shale bands highly graphitic and disaggregated in places; 2-3% pyrite, locally 5-10%, disseminated in shaley sections and more concentrated in carbonate veins; gradational with section below;	216.6	223.6	100				220.0	222.0	8	82	270	3	<2	
223.6	235.0	GRAPHITIC SHALES: black strongly graphitic contorted shales; similar to 194.6 m.....; minor gray siltstone beds; BCA generally 50-70°; quartz veining common but not abundant as in unit above; minor fine grained disseminated pyrite in black shales and associated with quartz and quartz-carbonate veinlets; unit very broken but becoming more.....	223.6	227.0	100											
			227.0	228.1	65											
			228.1	230.0	90											
			230.0	235.0	100											

683032

COMPANY: Allegiance Mining NL
 PROJECT: Stonehenge
 HOLE NUMBER: S 34

Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	Cu	Pb	Zn	Au	Ag	
											ppm	ppm	ppm	g/t	g/t	
223.6 continued.....	235.0	competent towards base; gradational with unit below;														
235.0	245.0	INTERBEDDED BLACK SHALE and GRAY SILTSTONE: dark gray and black graphitic shale interbedded with light gray siltstone; BCA's variable but generally 60-70°; Irregular quartz veining common but not abundant; ocassional late stage cream carbonate vein carrying coarse pyrite; pervasive 1-2% fine disseminated pyrite; core moderately competent except for graphitic sections which are very soft, broken and crumbly;	235.0	245.0	100											
		END OF HOLE														

685033

APPENDIX 2
Assay data



Our reference : BU016951
 Your reference : 128505
 Project code : Drill Core
 Date received : 05/10/99
 Date reported : 13/10/99

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

Lindsay Newnham
 Managing Geologist
 Allegiance Mining NL
 Newnham Exploration and Mining Service
 PO Box 132
 RIVERSIDE
 TAS 7250

Number of pages of results : 2
 Number of Samples : 65
 First Sample : S33 3 - 4
 Last Sample : S33 144.5 - 145.5

Invoice to:
 Lindsay Newnham
 Managing Geologist
 Allegiance Mining NL
 Newnham Exploration and Mining Service
 PO Box 132
 RIVERSIDE
 TAS 7250

Electronic Data Transmission :
 Modem Y 13/10/99
 Facsimile //
 Disk Report Y //

Results to:

Results to:

Remarks :

Authorised by ... *M.A. Good* ...
 On behalf of:

Rob Chapman
 Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory
 for preparation and/or analysis as requested by the client.



Our reference : BU016951
 Your reference : 128505
 Project code : Drill Core
 Report date : 13/10/99
 Report status : Final
 Page : 1 of 2

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Cu	Pb	Zn		
*Blk BLANK	<0.01	<0.01	<0.01		
S33 3 - 4	<0.01	<0.01	<0.01		
S33 4.5 - 5.5	<0.01	0.07	0.05		
S33 9.3 - 10.3	<0.01	0.03	0.13		
S33 14.0 - 15.0	<0.01	0.05	0.20		
S33 17.0 - 18.0	<0.01	0.03	0.12		
*Std 3024	0.26	>2.00	10.40		
S33 20.0 - 21.0	<0.01	0.02	<0.01		
S33 24.0 - 25.0	<0.01	0.01	0.08		
S33 27.0 - 28.0	<0.01	<0.01	0.06		
S33 33.0 - 34.0	<0.01	<0.01	0.13		
S33 36.0 - 37.0	0.01	0.10	0.61		
*SS S33 36.0 - 37.0	<0.01	0.10	0.62		
S33 39.0 - 40.0	0.01	0.06	0.06		
S33 40.0 - 41.0	<0.01	0.02	0.02		
S33 41.0 - 42.0	<0.01	0.03	0.10		
S33 42.0 - 43.0	<0.01	0.03	0.13		
S33 43.0 - 44.0	<0.01	0.01	<0.01		
S33 44.0 - 45.0	<0.01	0.02	0.08		
S33 45.0 - 46.0	<0.01	0.02	0.09		
S33 46.0 - 47.0	<0.01	0.01	0.05		
S33 47.0 - 48.0	<0.01	0.02	0.07		
S33 48.0 - 49.0	<0.01	0.02	0.05		
S33 49.0 - 50.0	<0.01	0.01	0.11		
S33 50.0 - 51.0	<0.01	0.01	0.21		
S33 51.0 - 52.0	<0.01	0.01	0.08		
S33 52.0 - 53.0	<0.01	0.01	0.07		
S33 53.0 - 54.0	<0.01	0.01	0.08		
S33 54.0 - 55.0	<0.01	<0.01	0.11		
S33 55.0 - 56.0	<0.01	0.01	0.10		
*Std MGS3	1.31	>2.00	1.23		
S33 56.0 - 57.0	<0.01	<0.01	0.30		
S33 57.0 - 58.0	<0.01	0.03	0.09		
S33 58.0 - 59.0	<0.01	0.01	0.21		
S33 59.0 - 60.0	<0.01	0.03	0.14		
S33 60.0 - 61.0	<0.01	0.01	0.41		
S33 61.0 - 62.0	<0.01	0.05	0.11		
S33 62.0 - 63.0	<0.01	<0.01	0.05		
*SS S33 63.0 - 64.0	<0.01	0.02	0.09		
S33 63.0 - 64.0	<0.01	0.03	0.10		
S33 64.0 - 65.0	<0.01	0.01	0.08		
S33 65.0 - 66.0	<0.01	0.02	0.06		
S33 66.0 - 67.0	<0.01	0.03	0.07		
S33 67.0 - 68.0	<0.01	0.03	0.06		
S33 68.0 - 69.0	<0.01	<0.01	0.11		
S33 69.0 - 70.0	<0.01	<0.01	0.12		
S33 70.0 - 71.0	<0.01	0.02	0.13		
*Rep S33 41.0 - 42.0	<0.01	0.04	0.11		
*Rep S33 48.0 - 49.0	<0.01	0.01	0.06		
*Std MPIA	1.39	>2.00	16.80		
Method	A103	A103	A103		
Units	%	%	%		
Detection Limit	0.01	0.01	0.01		
Upper Method		A120			

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

685038

A N A L A B S



Our reference : BU016999
Your reference : 128506
Project code : Drill Core
Date received : 18/10/99
Date reported : 22/10/99

Analabs Pty. Ltd.
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Number of pages of results : 2
Number of Samples : 30
First Sample : S33 151.5-152.5
Last Sample : S33 218.0-220.0

Invoice to:
Lindsay Newnham
Managing Geologist

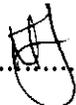
Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Electronic Data Transmission :
Modem Y 22/10/99
Facsimile / /
Disk Report Y / /

Results to:

Results to:

Remarks :

Authorised by
On behalf of: 
Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.



Our reference : BU016999
 Your reference : 128506
 Project code : Drill Core
 Report date : 22/10/99
 Report status : Final
 Page : 1 of 2

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Cu	Pb	Zn		
*Blk BLANK	<4	<5	<4		
S33 151.5-152.5	<4	18	46		
S33 156.0-157.0	14	14	43		
S33 161.5-162.5	23	28	74		
*Std GS2	6720	228	445		
S33 175.5-177.5	20	27	98		
S33 182.0-183.0	34	38	82		
S33 186.0-187.0	27	24	57		
S33 187.0-188.0	5	16	36		
S33 188.0-189.0	100	38	97		
*SS S33 189.0-190.0	5	32	51		
S33 190.0-191.0	<4	69	85		
S33 190.0-191.0	<4	68	93		
S33 191.0-192.0	<4	357	418		
S33 192.0-193.0	81	> 5000	> 10000		
S33 193.0-194.0	13	1035	> 10000		
S33 194.0-195.0	11	628	8070		
S33 195.0-196.0	39	3940	9660		
S33 196.0-197.0	8	630	3740		
S33 197.0-198.0	8	106	2690		
S33 198.0-199.0	<4	337	1375		
*Std GS12	3510	> 5000	1720		
S33 199.0-200.0	<4	47	317		
S33 200.0-201.0	<4	13	193		
S33 201.0-202.0	9	52	2990		
S33 202.0-203.0	4	24	168		
S33 203.0-204.0	8	27	109		
S33 204.0-205.0	<4	8	88		
S33 205.0-206.0	110	70	81		
S33 206.0-207.0	59	80	225		
S33 207.0-208.0	<4	5	38		
S33 208.0-210.0	<4	6	40		
S33 214.0-216.0	10	374	32		
S33 218.0-220.0	167	124	74		
*Rep S33 190.0-191.0	<4	65	90		
*Rep S33 208.0-210.0	<4	5	43		
Method	A104	A104	A104		
Units	ppm	ppm	ppm		
Detection Limit	4	5	4		

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received



Our reference : BU016999
 Your reference : 128506
 Project code : Drill Core
 Report date : 22/10/99
 Report status : Final
 Page : 2 of 2

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Pb	Zn			
*Blk BLANK	N.A.	N.A.			
S33 151.5-152.5	N.A.	N.A.			
S33 156.0-157.0	N.A.	N.A.			
S33 161.5-162.5	N.A.	N.A.			
S33 175.5-177.5	N.A.	N.A.			
S33 182.0-183.0	N.A.	N.A.			
S33 186.0-187.0	N.A.	N.A.			
S33 187.0-188.0	N.A.	N.A.			
S33 188.0-189.0	N.A.	N.A.			
S33 189.0-190.0	N.A.	N.A.			
*SS S33 190.0-191.0	N.A.	N.A.			
S33 190.0-191.0	N.A.	N.A.			
S33 191.0-192.0	N.A.	N.A.			
S33 192.0-193.0	1.02	1.98			
S33 193.0-194.0	N.A.	1.30			
S33 194.0-195.0	N.A.	N.A.			
S33 195.0-196.0	N.A.	N.A.			
S33 196.0-197.0	N.A.	N.A.			
S33 197.0-198.0	N.A.	N.A.			
S33 198.0-199.0	N.A.	N.A.			
S33 199.0-200.0	N.A.	N.A.			
S33 200.0-201.0	N.A.	N.A.			
S33 201.0-202.0	N.A.	N.A.			
*Std 3024	N.A.	N.A.			
S33 202.0-203.0	N.A.	N.A.			
*Std MGS3	N.A.	N.A.			
S33 203.0-204.0	N.A.	N.A.			
S33 204.0-205.0	N.A.	N.A.			
S33 205.0-206.0	N.A.	N.A.			
S33 206.0-207.0	N.A.	N.A.			
S33 207.0-208.0	N.A.	N.A.			
S33 208.0-210.0	N.A.	N.A.			
S33 214.0-216.0	N.A.	N.A.			
S33 218.0-220.0	N.A.	N.A.			
*Rep S33 190.0-191.0	N.A.	N.A.			
*Rep S33 193.0-194.0	N.A.	N.A.			
*Std MPIA	N.A.	N.A.			
Method	A103	A103			
Units	%	%			
Detection Limit	0.01	0.01			

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received



Our reference : BU017068
Your reference : 128510
Project code : Drill Core
Date received : 02/11/99
Date reported : 12/11/99

Analabs Pty. Ltd.
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Number of pages of results : 2
Number of Samples : 19
First Sample : S34 152.5-153.5
Last Sample : S34 220.0-222.0

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Electronic Data Transmission :
Modem Y 12/11/99
Facsimile / /
Disk Report Y / /

Results to:

Results to:

Remarks :

Authorised by
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.



Our reference : BU017068
 Your reference : 128510
 Project code : Drill Core
 Report date : 12/11/99
 Report status : Final
 Page : 1 of 2

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Au	Au(R)				
*Blk BLANK	<1	--				
S34 152.5-153.5	<1	--				
S34 157.0-159.0	<1	--				
S34 159.0-161.0	<1	--				
S34 170.0-171.0	4	5				
S34 173.0-174.0	<1	--				
S34 175.0-177.0	<1	--				
S34 177.0-179.0	<1	--				
S34 179.0-181.0	<1	--				
S34 181.0-183.0	<1	--				
*SS S34 183.0-185.0	<1	<1				
S34 183.0-185.0	<1	--				
S34 185.0-187.0	<1	--				
*Std ST15	36	--				
S34 187.0-189.0	<1	--				
S34 189.0-191.0	<1	<1				
S34 191.0-193.0	16	10				
S34 193.0-194.0	9	9				
S34 210.0-212.0	<1	<1				
S34 213.0-215.0	<1	--				
S34 215.0-216.6	48	47				
S34 220.0-222.0	3	--				
*Rep S34 189.0-191.0	<1	--				
*Rep S34 210.0-212.0	<1	--				
*Std QFA9	104	--				
Method Units	F614 ppb	F614 ppb				
Detection Limit	1	1				

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received



Our reference : BU017028
 Your reference : 128508
 Project code : Drill Core
 Date received : 22/10/99
 Date reported : 29/10/99

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

Lindsay Newnham
 Managing Geologist
 Allegiance Mining NL
 Newnham Exploration and Mining Service
 PO Box 132
 RIVERSIDE
 TAS 7250

Number of pages of results : 2
 Number of Samples : 18
 First Sample : S34 65.5-67.5
 Last Sample : S34 149.0-151.0

Invoice to:
 Lindsay Newnham
 Managing Geologist
 Allegiance Mining NL
 Newnham Exploration and Mining Service
 PO Box 132
 RIVERSIDE
 TAS 7250

Electronic Data Transmission :
 Modem Y 29/10/99
 Facsimile / /
 Disk Report Y / /

Preliminary Reports :
 27/10/99 Report
 29/10/99 Report

Results to:

Results to:

Remarks :

Authorised by
 On behalf of:

Rob Chapman
 Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.



Our reference : BU017028
 Your reference : 128508
 Project code : Drill Core
 Report date : 29/10/99
 Report status : Final
 Page : 1 of 2

Analabs Pty. Ltd.
 ACN 004 591 664
 14 Thirkell St, Burnie
 Tasmania 7320
 Telephone : (03) 6431 6837
 Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Au	Au(R)				
*Blk BLANK	<1	--				
S34 65.5-67.5	13	--				
S34 75.5-76.5	30	43				
S34 81.5-82.5	19	--				
S34 84.0-85.0	16	11				
S34 87.5-88.5	12	--				
S34 91.5-93.0	13	--				
S34 93.0-95.0	7	--				
S34 95.0-97.0	24	22				
S34 97.0-98.0	18	--				
*SS S34 98.0-99.3	6	--				
S34 98.0-99.3	4	--				
S34 100.0-101.0	8	--				
*Std ST15	29	--				
S34 137.0-139.0	6	--				
S34 139.0-141.0	84	88				
S34 141.0-143.0	11	--				
S34 143.0-145.0	5	4				
S34 145.0-147.0	4	--				
S34 147.0-149.0	5	--				
S34 149.0-151.0	2	--				
*Rep S34 84.0-85.0	11	--				
*Rep S34 143.0-145.0	4	--				
*Std ST07	218	--				
Method	F614	F614				
Units	ppb	ppb				
Detection Limit	1	1				

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

