63 Lindsay Street Perth WA 6000
p 61 8 9428 2900
f 61 8 9428 2910
e ahn@athenaresources.com.au
www athenaresources.com.au
ABN : 69 113 758 900

21 October 2010

Company Announcements Platform
Australian Securities Exchange
Level 4, 20 Bridge Street
SYDNEY NSW 2000

Athena Byro Iron Ore
Excellent Davis Tube Results

- **Davis Tube Recovery results include:-**

AHRC0008	**83m @ 70.7% Fe from 68m**
AHRC0006	**76m @ 70.4% Fe from 85m**
AHRC0011	**60m @ 70.4% Fe from 107m**
AHRC0003	**50m @ 70.5% Fe from 59m**
AHRC0005	**38m @ 69.0% Fe from 64m**
AHRC0017	**10m @ 71.1% Fe from 88m**

- **Concentrate grades of up to 71.6% Fe**
- **Concentrate grades of up to 93.8% Fe_3O_4**
- **DTR Weight Recoveries of up to 56.0%**
- **Potential for a premium magnetite product with super low detrimental impurities of aluminium, phosphorous and sulphur.**

Details

The Directors of Athena Resources Limited (ASX: AHN) are pleased to advise that the Company has received extremely positive results from its Davis Tube Recovery (DTR) testwork. The analysis was carried out on the high grade magnetite iron ore samples from the first drilling program on the Company's highly prospective Byro Iron Ore Project in the Mid West region of Western Australia.

The Byro Iron Ore Project is strategically located approximately 100km west of the proposed Midwest Iron Ore Railway which is planned to link existing and future iron ore projects in the Mid West Region to the proposed Oakajee deep water bulk shipping port north of Geraldton. (Figure 1)

The DTR analysis was carried out on each of the intersections included in the announcement to ASX on 5 October 2010 (See Appendix 1). Table 1 lists these results.

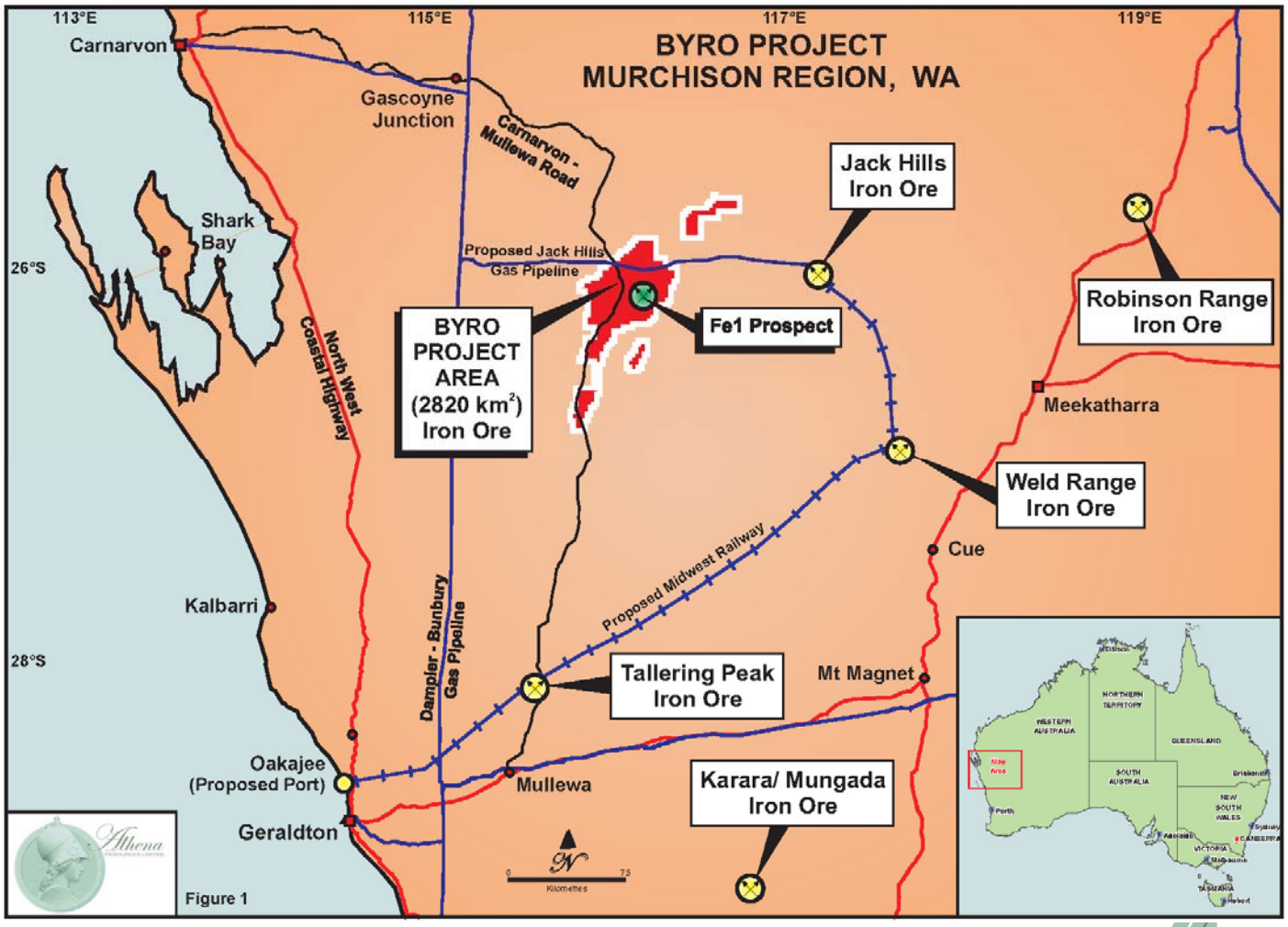

TABLE 1. BYRO – IRON ORE – Davis Tube Recovery Results.

Hole ID	From	To	Intercept	Fe% Head	Fe% Conc	DTR Wt%	Fe_3O_4% Conc	SiO_2% Conc	Al_2O_3% Conc	P% Conc	LOI% Conc
AHRC0001	95	99	4	40.90	70.3	49.0	75.9	1.09	0.33	0.003	-2.33
AHRC0002	117	123	6	37.80	70.7	50.5	92.0	1.35	0.26	0.005	-3.15
and	133	146	13	34.64	70.5	43.6	91.8	1.32	0.53	0.003	-3.12
AHRC0003	59	109	**50**	**34.66**	**70.5**	**41.5**	**90.6**	**1.53**	**0.39**	**0.004**	**-3.28**
including	86	91	5	39.33	70.5	41.1	91.2	1.19	0.46	0.003	-3.25
AHRC0004	96	100	4	25.66	66.5	30.2	85.8	4.25	1.32	0.003	-2.82
and	116	118	2	32.23	69.9	39.4	90.0	1.72	0.47	0.004	-3.14
AHRC0005	64	102	**38**	**30.38**	**69.0**	**38**	**89.9**	**3.01**	**0.62**	**0.003**	**-3.03**
including	82	88	6	38.22	70.0	45.5	91.5	2.35	0.33	0.002	-3.14
AHRC0006	85	161	**76**	**28.54**	**70.4**	**33.5**	**91.1**	**1.71**	**0.39**	**0.003**	**-3.23**
including	91	95	4	32.68	70.5	40.4	92.0	1.40	0.39	0.003	-3.19
including	125	161	38	33.97	70.9	46.1	90.8	1.44	0.26	0.004	-3.34
AHRC0007	38	52	14	32.16	71.0	39.5	90.8	1.10	0.40	0.006	-3.30
including	44	52	10	33.13	71.1	41.3	90.9	1.07	0.24	0.002	-3.27
and	74	80	6	25.25	71.1	28.2	92.2	0.81	0.34	0.001	-3.21
AHRC0008	68	151	**83**	**32.62**	**70.7**	**40.2**	**90.6**	**1.32**	**0.33**	**0.003**	**-3.29**
AHRC0009	98	118	20	29.26	70.6	33.9	89.8	1.45	0.38	0.003	-3.27
including	98	108	10	30.33	70.6	35	90.2	1.35	0.44	0.003	-3.29
including	108	118	10	28.20	70.7	32.7	89.4	1.55	0.31	0.003	-3.25
AHRC0011	107	167	**60**	**34.87**	**70.4**	**44.8**	**90.0**	**1.67**	**0.29**	**0.003**	**-3.27**
AHRC0015	88	124	36	26.73	69.4	22.1	87.0	2.07	0.79	0.003	-2.94
including	88	96	8	32.16	69.4	31.4	87.8	2.12	0.75	0.002	-3.06
AHRC0017	88	98	**10**	**39.81**	**71.1**	**52**	**92.5**	**1.07**	**0.39**	**0.002**	**-3.32**

Note:
Fe: Iron; SiO_2: Silicon Dioxide; Al_2O_3 : Aluminium Oxide; P: Phosphorus; LOI: Loss On Ignition; Fe_3O_4%: Magnetite

The DTR analysis was carried out on the samples recovered from the 1800 meter, 17 drill hole Reverse Circulation (RC) program carried out on the magnetic targets on E09/1507. Results confirmed the potential to produce a high-grade magnetite concentrate with super low levels of detrimental impurities. Grades include up to 71.6% Fe and 93.8% Fe_3O_4 in concentrate from a grind preparation of nominally 80% passing 35 micrometers. Weight recoveries of up to 56% were achieved.

Figures 3, 4, and 5 are cross sections of drill holes AHRC0004 to AHRC0011 at the Fe1 Prospect. These figures show the DTR concentrate Fe grades achieved on each of the sections.

Following on from these exceptional DTR results, Athena intends to examine the full extent of the iron ore targets (in yellow on Figure 2) identified from the aeromagnetic surveys flown over E09/1552, E09/1507, E09/1508, E09/1637 and ELA09/1781. The targets cover an area of 40 km by 30 km (or 1200 sq km). The high priority magnetic targets, shown as red dots on Figure 2, provide Athena with more than 20 km strike length of prospective magnetite iron ore horizon.

Work to obtain statutory clearances to drill test these priority iron ore targets has commenced.

E W Edwards
Managing Director

About Athena Resources Limited

Athena Resources Limited (ASX: AHN), which is based in Perth, was listed on the ASX in 2007 and currently has 65.6 million shares on issue. **Ishine International Resources Limited (ASX: ISH)** an Australian listed exploration company has agreed to acquire a 19.9% strategic stake in Athena through the placement of 14.2 million shares, of which the first 8.3 million shares have been taken up. Ishine's major shareholders are Shandong Ishine Mining Industry Co Ltd (SIMIC) 68.7% and Mr. Yunde Li, 11.5%, Chairman of SIMIC. SIMIC owns three iron ore plants and iron ore resources in China and its core business is production and sale of iron ore concentrates. Athena's major asset is its 80% interest in the Byro Project where it is exploring for copper, nickel, PGE's in addition to iron ore. The company also has significant gold, lead and silver targets in the Ashburton Area, (ref 2010 Annual Report).

Competent Persons Statement

The technical information relating to Athena's exploration projects was compiled by Mr Martin Dormer, an employee of Ishine International Resources Limited. Mr Dormer is a Member of the Australasian Institute of Mining and Metallurgy, and has sufficient relevant experience in the styles of mineralisation and deposit styles under consideration to qualify as a Competent Person as defined in "*The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2004 edition)".* Mr Dormer consents to this inclusion of the information in this report in the context and format in which it appears.

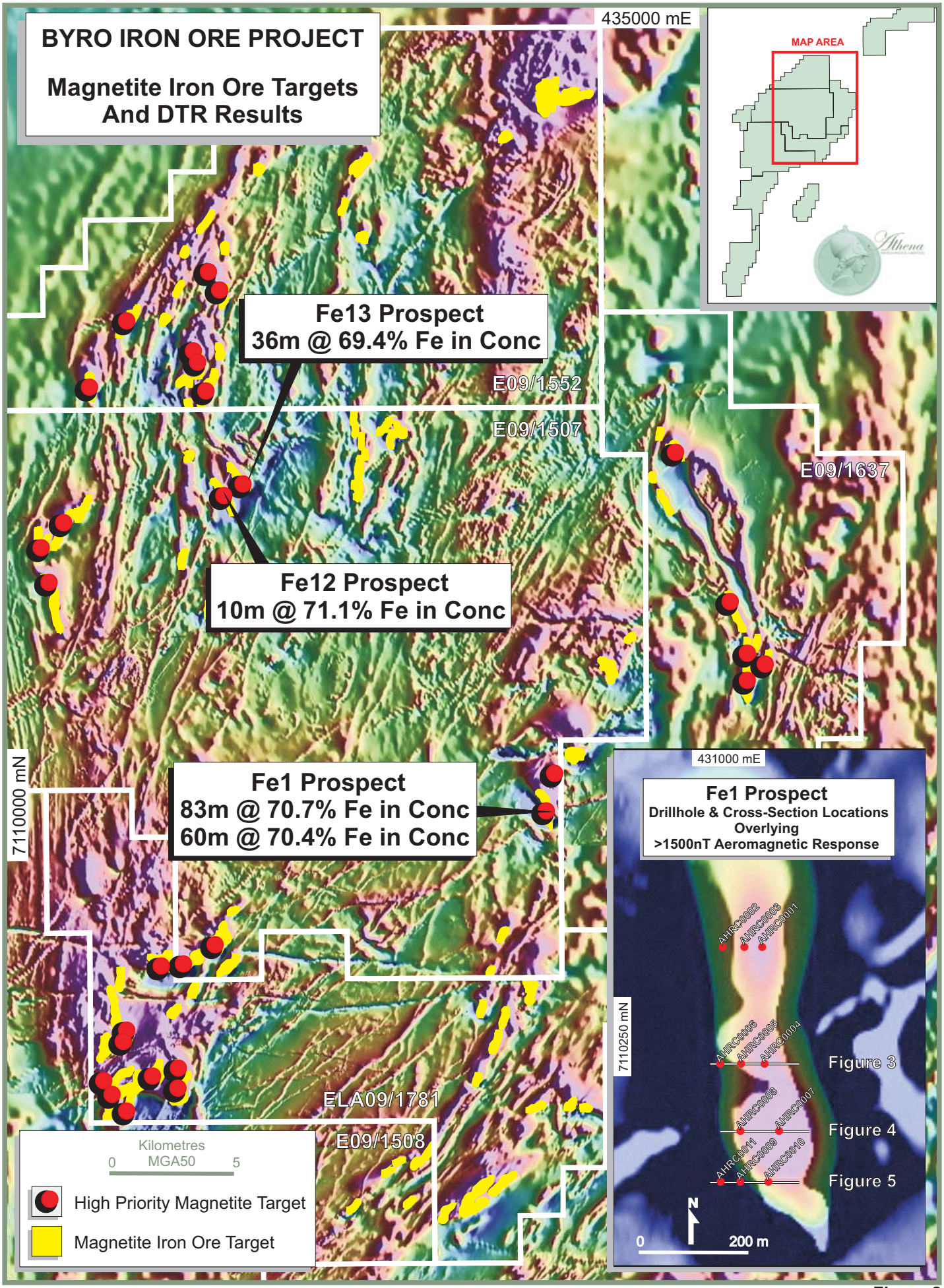

Figure 2

D1010ASXplanIronOre

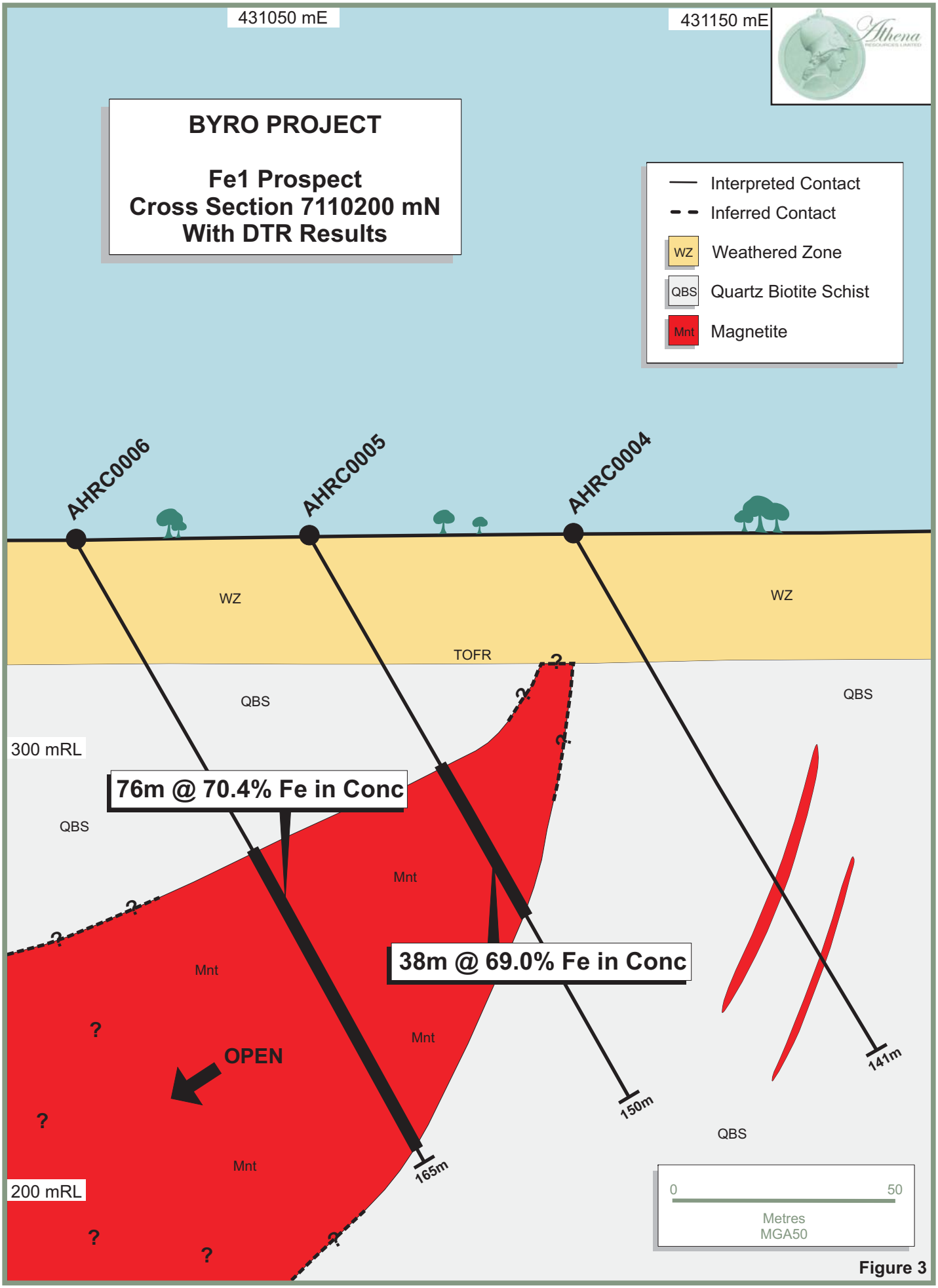

Figure 3

D1010ASXxsect7110200N

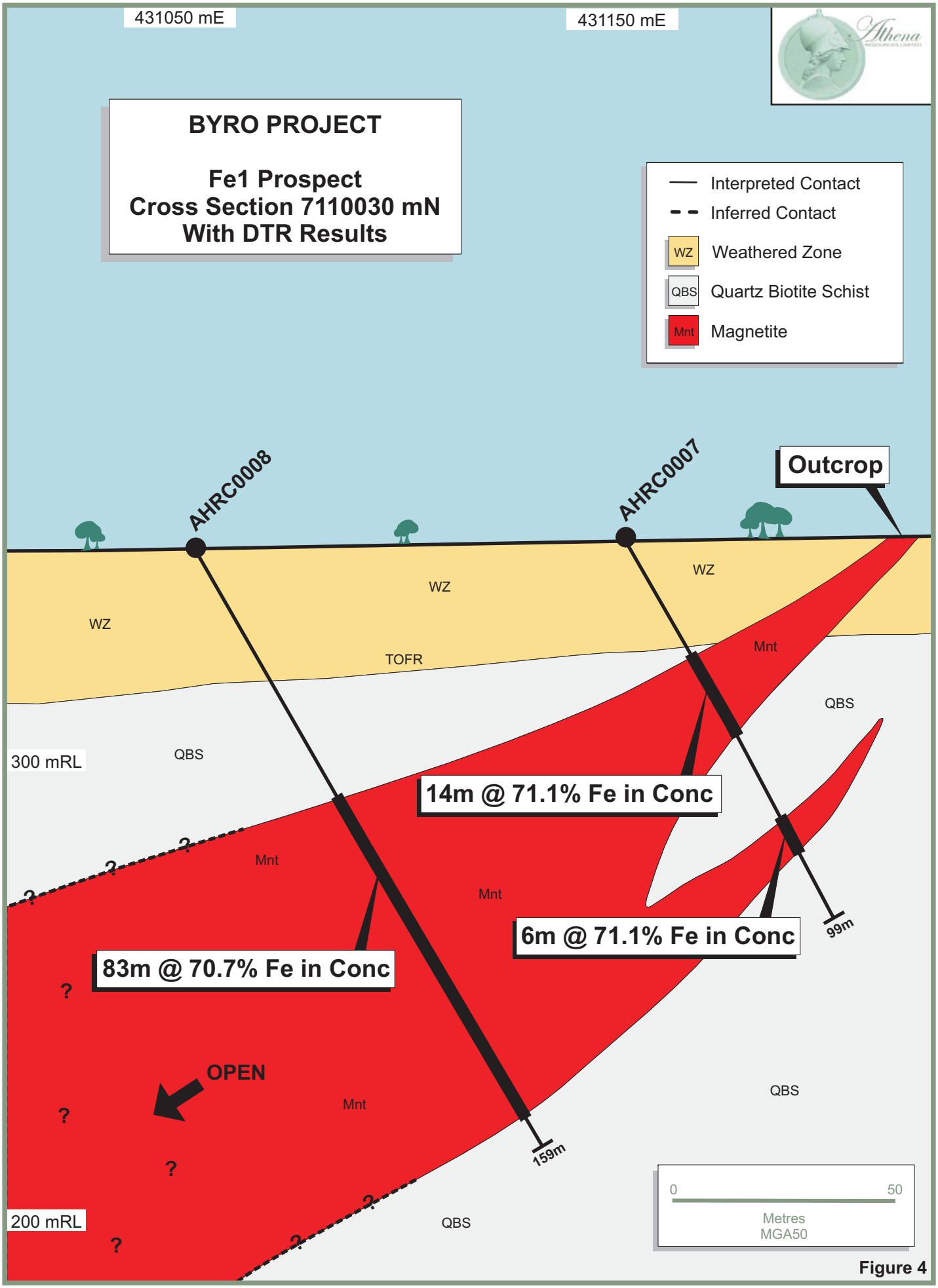
431050 mE
431150 mE
BYRO PROJECT
Fe1 Prospect
Cross Section 7110030 mN
With DTR Results
Interpreted Contact
Inferred Contact
WZ
Weathered Zone
QBS
Quartz Biotite Schist
Mnt
Magnetite
AHRC0008
AHRC0007
Outcrop
WZ
WZ
WZ
TOFR
Mnt
QBS
QBS
QBS
300 mRL
14m @ 71.1% Fe in Conc
Mnt
Mnt
6m @ 71.1% Fe in Conc
99m
83m @ 70.7% Fe in Conc
OPEN
Mnt
QBS
159m
200 mRL
QBS
0
50
Metres
MGA50

Figure 4

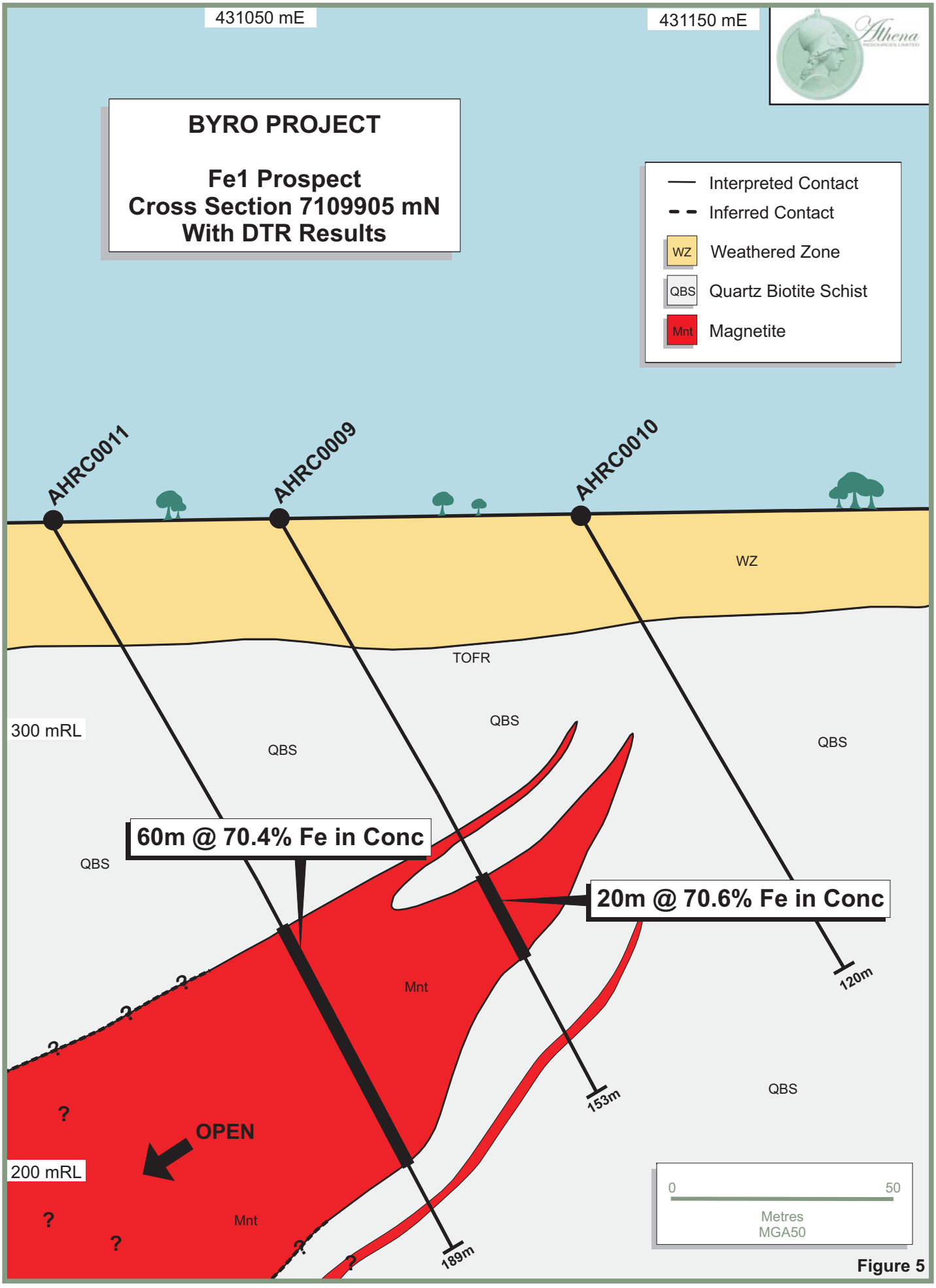

Figure 5

D1010ASXxsect7109905N

Appendix 2

BYRO DRILL HOLE DETAILS – Magnetite

Grid: MGA50 (GDA94)

Hole	Prospect	Easting	Northing	Depth	Dip	Azimuth
AHRC0001	FE1	431107	7110500	129	-60	90
AHRC0002	FE1	431007	7110500	170	-60	90
AHRC0003	FE1	431062	7110500	117	-60	90
AHRC0004	FE1	431113	7110204	141	-60	90
AHRC0005	FE1	431054	7110205	150	-60	90
AHRC0006	FE1	431001	7110204	165	-60	90
AHRC0007	FE1	431150	7110035	99	-60	90
AHRC0008	FE1	431052	7110035	159	-60	90
AHRC0009	FE1	431052	7109907	153	-60	90
AHRC0011	FE1	431002	7109907	189	-60	90
AHRC0015	FE13	419273	7123031	152	-79.4	60
AHRC0017	FE12	418618	7122628	175	-59.8	240

Appendix 3

SAMPLING DETAILS

- **Davis Tube Analysis performed by Amdel-Ultratrace Laboratories of the Bureau Veritas Group.**
- **Composited assay intercepts ≥10m**
- **Feed assays quoted are from X-Ray Fluorescence Spectrometry, (XRF).**
- **DTR head sample prepared to nominally 80% passing 35 micrometers**

Corrected Separation Size		Weight Retained		Cumulative Weight	
Cyclone	µm	(g)	%	% Retained	% Passing
C1	35.4	14.14	20	20	80

Correction Factors				
Water Temperature (°C)		22	**F1**	0.98
Cyclosizer Feed SG (g/cm3)		3.24	**F2**	0.86
Elutriation Time (min)		25	**F3**	0.96
Flow Setting (mm)		180	**F4**	1
			Overall	0.81
P_{80} (µm)	**35.5**			

Appendix 4

INTERSECTION WIDTH

- **All intersections reported are based on down hole width**
- **Sections display apparent width not true width**