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Logistics Report on a BH UTEM 4 Survey
in
Sudbury, Ontario area
for
Wallbridge Mining Company Ltd.
January to June, 2015

Property	Boreholes
Wisner	WIS-194, WIS-195, WIS-174, WIS-175, WIS-201, WIS-200, WIS-202, WIS-204, WIS-191, WIS-208, WIS-209, WIS-211, WIS-210, WIS-212

LAMONTAGNE GEOPHYSICS LTD. GÉOPHYSIQUE LTÉE.

October 2015
Bruce McMonnies, P.Geo.
Christina Demerling, M.Sc.

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INTRODUCTION

A BH UTEM 4 survey was conducted by Lamontagne Geophysics Ltd. personnel on behalf of Wallbridge Mining Company Ltd. from January 1st through to June 30th, 2015. During this time, fourteen holes were surveyed, many using two loops, at Wisner in the Sudbury Basin (see Figure 1), with a total of 9,392 m of borehole surveying. The purpose of these surveys was to locate and define any conductors present in the vicinity of the boreholes.

This report documents all survey logistics. Results, presented as BH UTEM 4 profiles and vector plots, are attached as appendices.

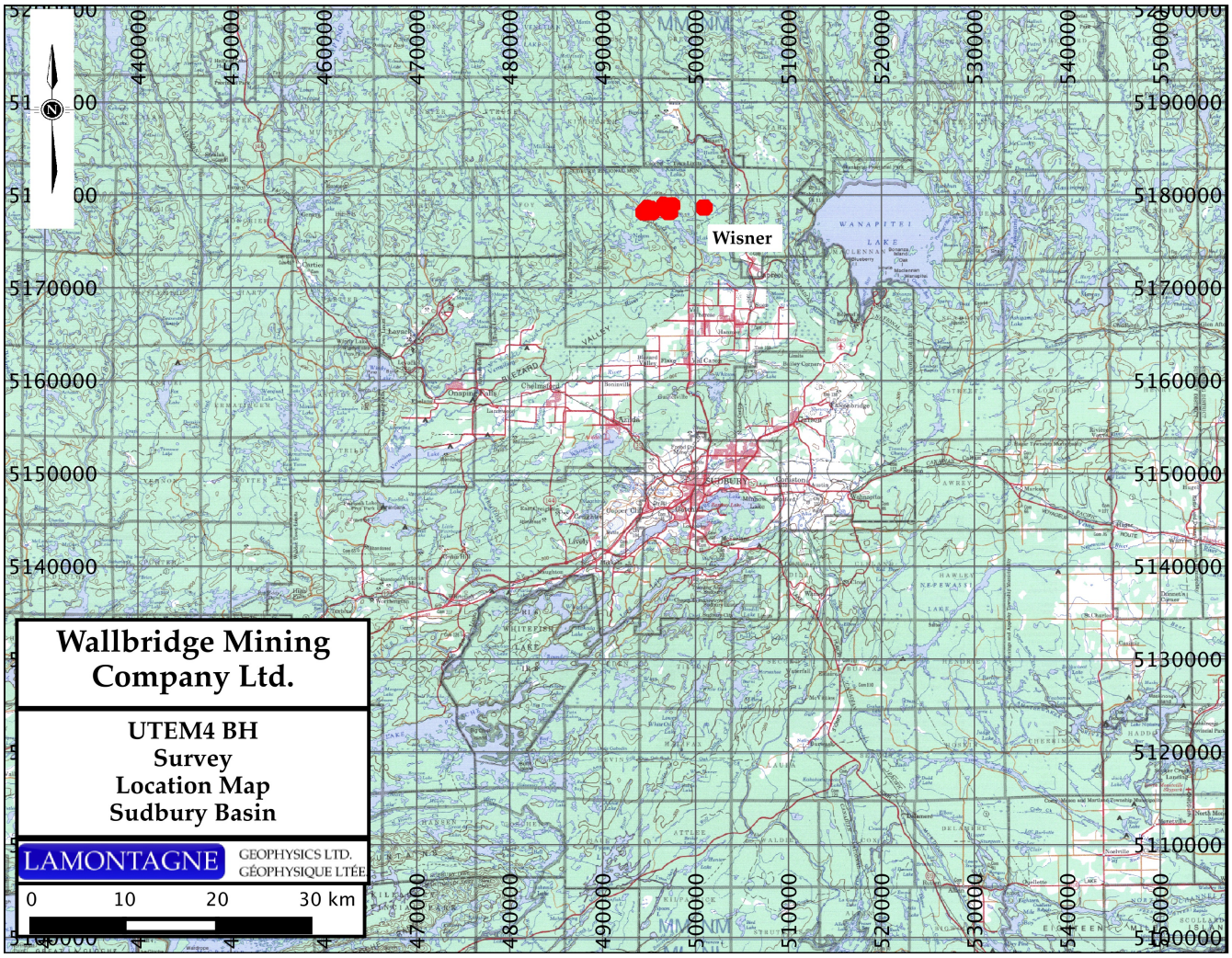


Figure 1: UTEM 4 BH survey locations in the Sudbury area for Wallbridge Mining Company Ltd. in the first half of 2015.

SURVEY DESIGN

Wisner (see Figure 2)

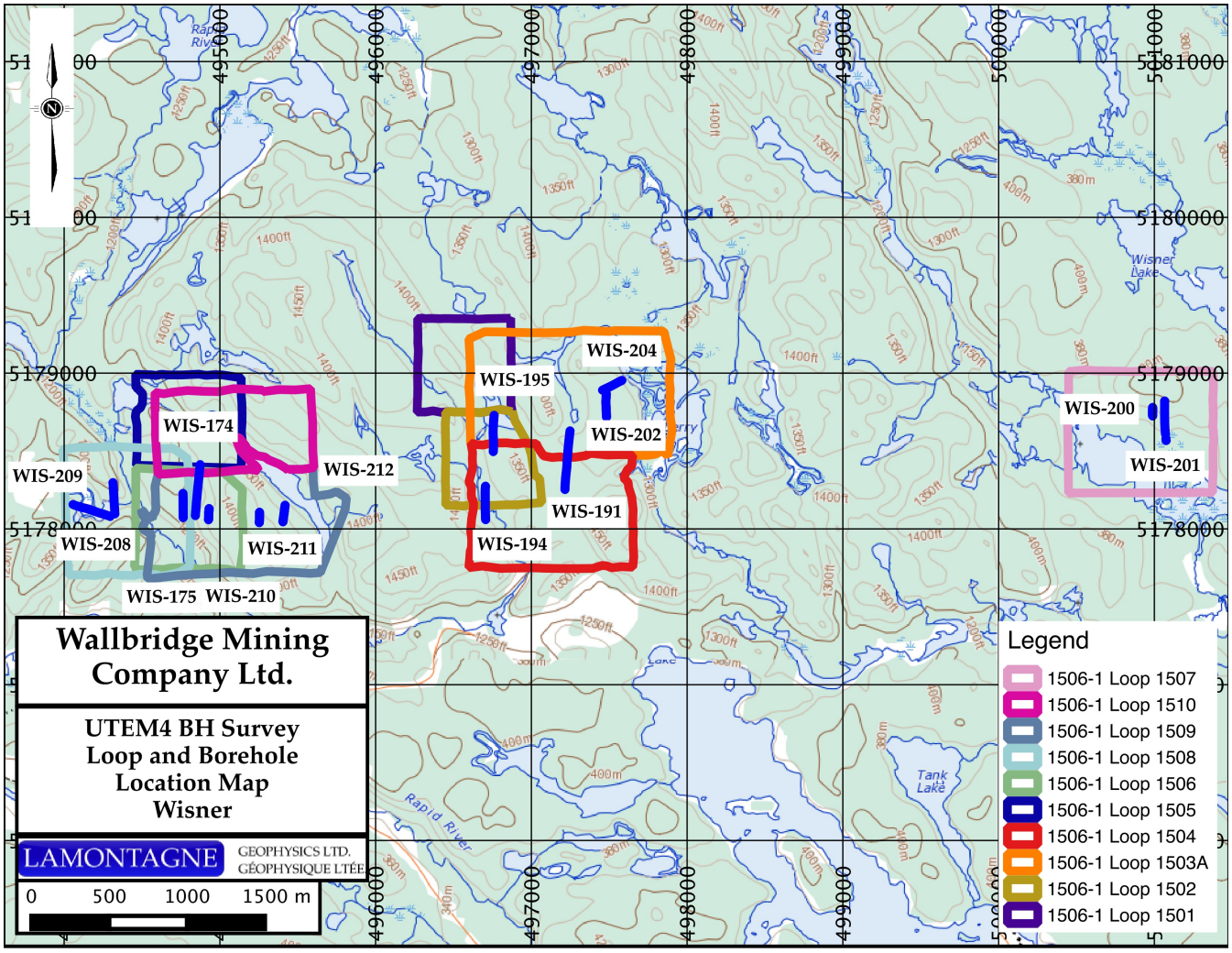


Figure 2: Loop and borehole location map for Wisner.

All surveys were completed at 30.974Hz.

Borehole WIS-174 was surveyed using Loop 1505 (measuring approximately 700m by 600m) and Loop 1506 (measuring approximately 650m by 700m). Borehole WIS-175 was surveyed using Loops 1505 and 1506. Borehole WIS-191 was surveyed using Loops 1503A (irregularly-shaped and measuring approximately 1300m by 750m) and 1504 (irregularly-shaped and measuring approximately 1000m by 750m). Borehole WIS-194 was surveyed using Loops 1502 (irregularly-shaped and measuring approximately 600m by 550m). Borehole WIS-195 was surveyed using Loop 1501 (measuring approximately 600m by 620m) and Loop 1502. Boreholes WIS-200 and WIS-201 were surveyed using Loop 1507 (measuring

approximately 940m by 800m). Boreholes WIS-202 and WIS-204 were surveyed using Loop 1503A and Loop 1504. Boreholes WIS-208 and WIS-209 were surveyed using Loop 1508 (measuring approximately 800m by 830m). Boreholes WIS-210, WIS-211 and WIS-212 were surveyed using Loops 1509 (irregularly-shaped and measuring approximately 1200m by 640m) and Loop 1510 (irregularly-shaped and measuring approximately 1000m by 540m)

For the above BH UTEM 4 coverage, measurements of the axial (Hw) and the two transverse (Hs and Hn) components of the electromagnetic field were taken at each station. Also, at each station, three component magnetometer, three component accelerometer and temperature data were collected. The nominal station spacing was forty metres (40m) for the top portion of the hole. The spacing was decreased to ten or twenty metres for the bottom portion of the hole and further to five metres if it was thought necessary to better define an anomalous zone. At every station, thirteen channel data were collected with a minimum stack of 512 half cycles recorded at every station. Repeat readings were taken regularly to ensure the repeatability of the data.

For additional information on aspects of BH UTEM 4 survey design and the Data Presentation and reduction schemes used during this survey, see Appendix D.

FIELD WORK

The Lamontagne Geophysics crew commenced operations in the Sudbury Basin on January 1st and continued until June 30th, 2015. The crew consisted of B. O'Bomsawin, R. Fox, J. Savage, K. Arsenault, J. Pichler, K. Arsenault, T. Gallant, C. Carrier, J. Young, C. McMullen, G. Lafortune. Operations were based out of the Lamontagne Sudbury Office in Chelmsford, Ontario.

The survey equipment consisted of one UTEM 4 transmitter, one UTEM 4 or UTEM 5 receiver, two BH UTEM 4 probes, one borehole winch system, fibre optic cables and all accessories and support equipment. A field computer (iMac) was used for all reduction and plotting of the survey data while on site. This data was delivered to Wallbridge Mining Company Ltd. on a timely basis.

A description of the daily field work is provided in the Production Log that follows in Appendix A. All production is summarized in Table 1. Site-specific details of all data acquisition activities are provided below. Geometric control for all transmitter loops was achieved with a hand-held GPS system.

Wisner

Borehole WIS-174 was dummied to a depth of 511m and surveyed to a depth of 500m. Borehole WIS-175 was dummied to a depth of 256m and surveyed to a depth of 250m.

Borehole WIS-191 was dummied to a depth of 596m and surveyed to a depth of 585m.
Borehole WIS-194 was dummied to a depth of 355m and surveyed to a depth of 347m.
Borehole WIS-195 was dummied to a depth of 385m and surveyed to a depth of 360m.
Borehole WIS-200 was dummied to a depth of 223m and surveyed to a depth of 215m.
Borehole WIS-201 was dummied to a depth of 404m and surveyed to a depth of 390m.
Borehole WIS-202 was dummied to a depth of 308m and surveyed to a depth of 300m.
Borehole WIS-204 was dummied to a depth of 334m and surveyed to a depth of 330m.
Borehole WIS-208 was dummied to a depth of 307m and surveyed to a depth of 300m.
Borehole WIS-209 was dummied to a depth of 401m and surveyed to a depth of 400m.
Borehole WIS-210 was dummied to a depth of 545m and surveyed to a depth of 530m.
Borehole WIS-211 was dummied to a depth of 551m and surveyed to a depth of 525m.
Borehole WIS-212 was dummied to a depth of 504m and surveyed to a depth of 490m.

Table 1: Survey Summary

Project Area	Borehole Name	Survey Depth (m)	Dummy Depth (m)	Loop Number	Frequency
Wisner	WIS-194	347	355	1502	30.974
	WIS-195	360 360	385 385	1501 1502	30.974 30.974
	WIS-174	500 500	511 511	1505 1506	30.974 30.974
	WIS-175	250 250	256 256	1505 1506	30.974 30.974
	WIS-201	390	404	1507	30.974
	WIS-200	215	223	1507	30.974
	WIS-204	330 330	334 334	1503A 1504	30.974 30.974
	WIS-202	300 300	308 308	1503A 1504	30.974 30.974
	WIS-191	585 585	596 596	1503A 1504	30.974 30.974
	WIS-208	300	307	1508	30.974
	WIS-209	400	401	1508	30.974
	WIS-211	525 525	551 551	1509 1510	30.974 30.974
	WIS-210	530 530	545 545	1509 1510	30.974 30.974
	WIS-212	490 490	504 504	1509 1510	30.974 30.974

Appendix A: Production Log

BH UTEM 4 Survey

Sudbury area, Ontario, Canada

for

Wallbridge Mining Company Ltd.

Production Log (1506)

Wallbridge Mining Company Ltd.

Sudbury, ON

Date	Rate	Production	Comments
Jan 7	Mob	-	B. O'Bomsawin organised the upcoming surveys with clients and prepared the survey equipment. Over the holidays BH UTEM 4 equipment was brought down to the Kingston office for maintenance. Crew: B. O'Bomsawin.
Jan 16	L-8	-	Laid Loops 1501 and 1502 at Wisner. Crew: B. O'Bomsawin, R. Fox, J. Savage, J. Pichler, C. Carrier, K. Arsenault, T. Gallant, J. Young.
Jan 21	SP-6	347m	Read: **Hole WIS-194 Loop 1502 347m 30.974Hz** at Wisner. Dummied Holes WIS-195 (blocked at 14m) and WIS-194 (355m). Picked up most of Loops 1413 and 1414 at Wisner. Crew: R. Fox, J. Savage, K. Arsenault, J. Pichler, K. Arsenault, T. Gallant.
Feb 4	AL-2	-	Finished picking up Loop 1413 at Wisner. Crew: J. Savage, K. Arsenault.
Feb 5	SP-5	720m	Read: **Hole WIS-195 Loop 1501 360m 30.974Hz** **Hole WIS-195 Loop 1502 360m 30.974hz** at Wisner. Dummied Hole WIS-195 (385m). Repaired both Loop 1501 and Loop 1502. Crew: B. O'Bomsawin, R. Fox, J. Savage, J. Pichler, K. Arsenault.
Feb 10	L-4	-	Laid Loop 1503 at Broken Hammer. Crew: R. Fox, J. Savage, C. Carrier, J. Pichler
Feb 11	L-4	-	Laid Loop 1504 at Broken Hammer. Crew: R. Fox, J. Savage, C. Carrier, J. Pichler.

Date	Rate	Production	Comments
Feb 22	n/c-7	-	Read: Hole WIS-191 Loop 1501 360m 30.974Hz Hole WIS-191 Loop 1502 360m 30.974Hz at Wisner. Dummied Hole WIS-191 (595m). Loops 1503 and 1504 were walked and monitored. Problems with the receiver prevented the collection of good data. Crew: B. O'Bomsawin, J. Young, C. McMullen, C. Carrier, K. Arsenault, J. Savage, J. Pichler.
Mar 16	AL-3	-	Laid Loop 1506 at Wisner . Crew: B. O'Bomsawin, C. McMullen, J. Pichler.
Mar 17	AL-4	-	Dummied Hole WIS-174 (blocked at 247m) and Hole WIS-175 (252m) at Wisner. The trail had to be broken into Hole WIS-174. Then went and broke trail to Hole WIS-175 which took a long time to find and dig out because the hole collar was not marked and then dummied it to bottom. Loop 1505 was laid. Had some issues with the winch and generator - BH equipment was not charged for on this day. Crew: B. O'Bomsawin, T. Gallant, C. McMullen, J. Pichler.
Mar 23	D-7	-	Read: Hole WIS-174 Loop 1505 500m 30.974Hz Hole WIS-174 Loop 1506 500m 30.974Hz at Wisner. Dummied Hole WIS-174 (511m). The dummy probe got blocked at 247m but was able to be pounded through the blockage. Dummied the hole twice as a precaution with no issue. Loops 1505 and 1506 were walked and monitored. The data, because of technical problems, was unacceptable and will have to be re-surveyed. Crew: B. O'Bomsawin, R. Fox, J. Savage, K. Arsenault, T. Gallant, C. Carrier, C. McMullen.
Mar 24	SP-4	1000m	Read: **Hole WIS-174 Loop 1505 500m 30.974Hz** **Hole WIS-174 Loop 1506 500m 30.974Hz** at Wisner. Hole WIS-174 was dummied the previous day. Crew: B. O'Bomsawin, C. McMullen, T. Gallant, C. Carrier.

Date	Rate	Production	Comments
Mar 25	SP-4	500m	Read: **Hole WIS-175 Loop 1505 250m 30.974Hz** **Hole WIS-175 Loop 1506 250m 30.974Hz** at Wisner. Dummied Hole WIS-175 (256m). Crew: B. O'Bomsawin, R. Fox, C. Carrier, K. Arsenault.
Mar 26	L-5	-	Picked up Loop 1505 and Loop 1506 at Wisner. Crew: B. O'Bomsawin, R. Fox, J. Pichler, K. Arsenault, C. Carrier.
Apr 7	AL-3	-	Laid most of Loop 1507. Three sides were laid along the south water section where the ice was tested. Crew: B. O'Bomsawin, C. McMullen, J. Pichler.
Apr 9	SP-4	390m	Read: **Hole WIS-201 Loop 1507 390m 30.974Hz** at Wisner. Dummied Hole WIS-201 (404m) and Hole WIS-199 (blocked at 4m). The water crossings were laid and retrieved at the end of the shift. Crew: R. Fox, K. Arsenault, C. McMullen, J. Pichler.
Apr 10	SP-6	215m	Read: **Hole WIS-200 Loop 1507 215m 30.974Hz** at Wisner. Dummied Hole WIS-200 (223m). The water crossings were laid and retrieved at the end of the shift. Crew: G. Lafortune, C. Carrier, K. Arsenault, C. McMullen, J. Savage, R. Fox.
Apr 13	AL-2	-	Tried to lay wire on the east side of the Loop 1503 extension at Wisner. Because there was a lot of water on the lake the crew could not get out onto the ice. Crew: K. Arsenault, J. Pichler.
Apr 16	AL-2	-	Laid the east side of Loop 1503. The ice was tested before laying the wire. Crew: B. O'Bomsawin, J. Savage.

Date	Rate	Production	Comments
Apr 21	SP-5	660m	Read: **Hole WIS-204 Loop 1503A 330m 30.974Hz** **Hole WIS-204 Loop 1504 330m 30.974Hz** at Wisner. Dummied Hole WIS-204 (334m). Loops 1503A and 1504 were both walked and monitored. Crew: B. O'Bomsawin, J. Young, J. Savage, J. Pichler, K. Arsenault.
Apr 27	SP-6	600m	Read: **Hole WIS-202 Loop 1503A 300m 30.974hz** **Hole WIS-202 Loop 1504 300m 30.974Hz** at Wisner. Dummied Hole WIS-202 (308m). The ATV Ranger got stuck on the drill road on the way to the hole and took a couple of hours to get it out. Loops 1503A and 1504 were both walked and monitored. Crew: B. O'Bomsawin, R. Fox, K. Arsenault, T. Gallant, C. Carrier, J. Savage.
Apr 28	SP-6	1170m	Read: **Hole WIS-191 Loop 1503A 585m 30.974Hz** **Hole WIS-191 Loop 1504 585m 30.974Hz** at Wisner. Dummied Hole WIS-191 (596m). Picked up half of Loop 1501. Crew: B. O'Bomsawin, R. Fox, K. Arsenault, T. Gallant, C. Carrier, J. Savage.
May. 14	SP-7	700m	Read: **Hole WIS-208 Loop 1508 300m 30.974Hz** **Hole WIS-209 Loop 1508 400m 30.974Hz** at Wisner. Dummied Hole WIS-208 dummied (307m), and hole WIS-209 dummied (401m). Loop 1508 was layed out while hole was being dummied. Crew: B. O'Bomsawin, R. Fox, C. Carrier, J. Savage, J. Pichler, K. Arsenault, T. Gallant.
June 8	L-5	-	Went out to Wisner for Wallbridge Mining and laid out entire Loops 1509 and 1510. Crew: B. O'Bomsawin, R. Fox, J. Savage, C. Carrier, K. Arsenault.

Date	Rate	Production	Comments
June 9	L-5	-	Went out to Wisner for Wallbridge Mining and picked up Loops 1501 and 1502. All loops were retrieved. Crew: G. Lafortune, R. Fox, J. Savage, C. Carrier, K. Arsenault.
June 17	SP-7	1060m	Read: **Hole WIS-210 Loop 1510 530m 30Hz** **Hole WIS-210 Loop 1509 530m 30Hz** at Wisner. Dummied Hole WIS-210 (545m) Loop 1510 and 1509 were both walked and monitored along with the common side offset was laid. Crew: B. O'Bomsawin, R. Fox, G. Lafortune, J. Savage, J. Pichler, K. Arsenault, C. Carrier.
June 25	SP-6	1050m	Read: **Hole WIS-211 Loop 1509 525m 30.974Hz** **Hole WIS-211 Loop 1510 525m 30.974Hz** at Wisner. Dummied Hole WIS-211 (551m). Loop 1509 and Loop 1510 were both walked and monitored, equipment was transported in by RTV. Crew: B.. O'Bomsawin, R. Fox, G. Lafortune,, T. Gallant, J. Savage, C. Carrier.
June 26	SP-7	960m	Read: **Hole WIS-212 Loop 1509 490m 30Hz** **Hole WIS-212 Loop 1510 490m 30Hz** at Wisner. Dummied Hole WIS-212 (504m). Loop 1509 and Loop 1510 were both good loops. Equipment was transported into site by RTV. Crew: B. O'Bomsawin, R. Fox, G. Lafortune, J. Pichler, K. Arsenault, T. Gallant, J. Savage.

LEGEND

Code	Meaning
SP-x	Short Production (UTEM 4 Tx) - # of personnel <1400m depth
P-x	Medium Production (UTEM 4 Tx) - # of personnel >1400m, <2100m depth
DP-x	Deep Production (UTEM 4 Tx) - # of personnel >2100m depth
L-x	Looping (UTEM 4 Tx) - # of personnel
S-x	Stand By (UTEM 4 Tx) - # of personnel
AL-x	Advance Looping - # of personnel
n/c	No charge
D-x	Down - # of personnel

Appendix B: BH UTEM 4 Plot Profiles

BH UTEM 4 Survey

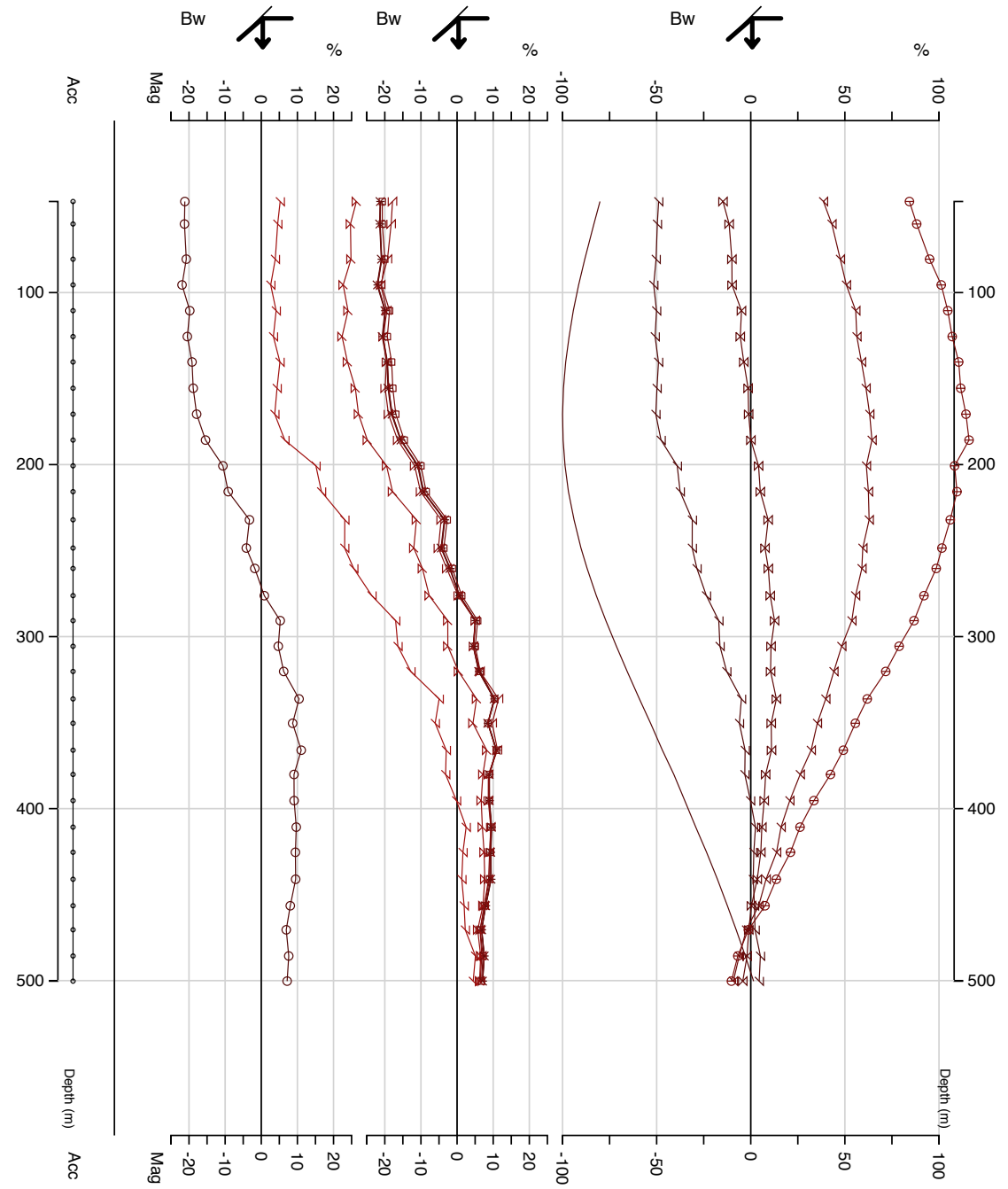
Sudbury area, Ontario, Canada

for

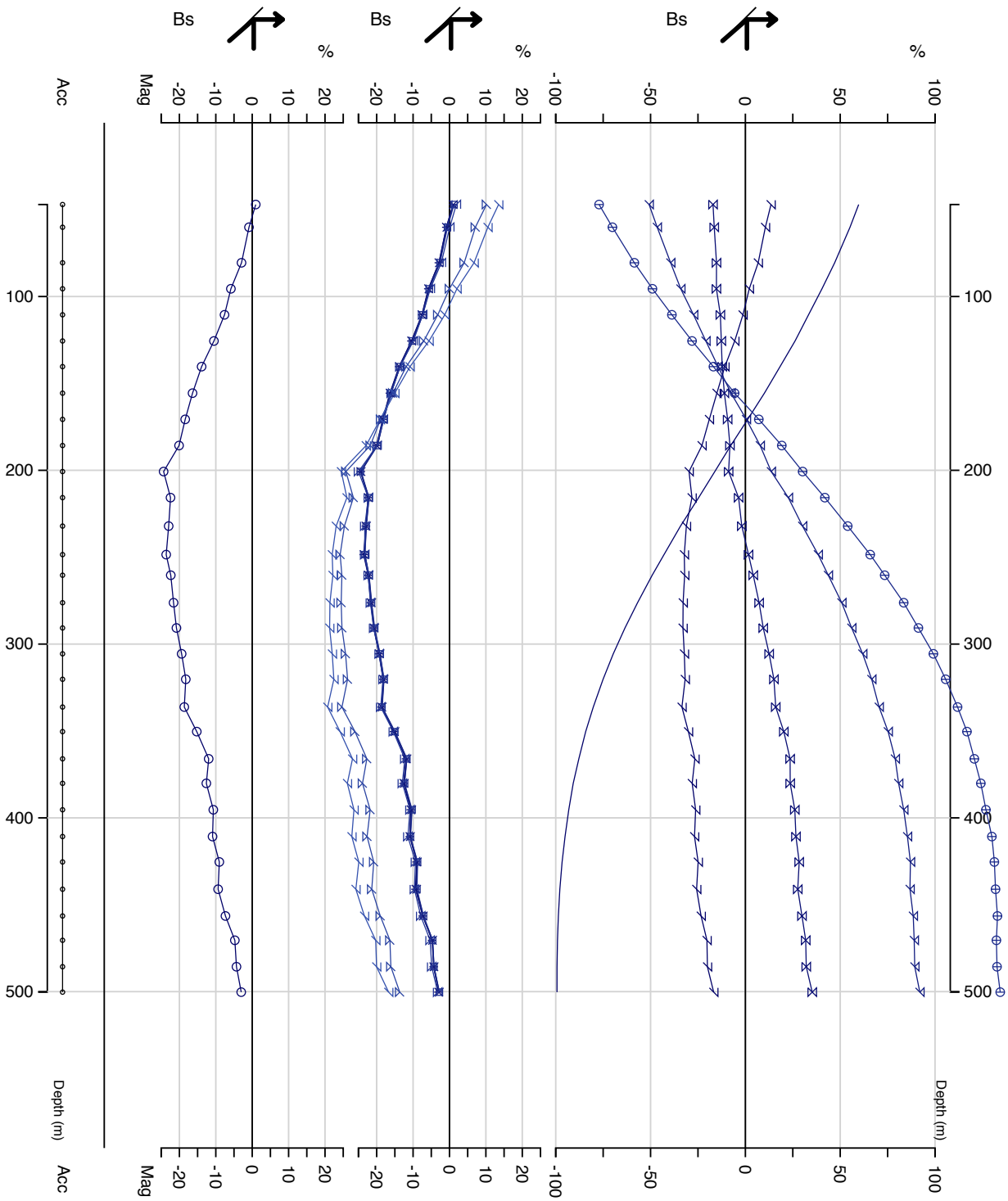
Wallbridge Mining Company Ltd.

BH UTEM 4 Plot Profiles—Wisner

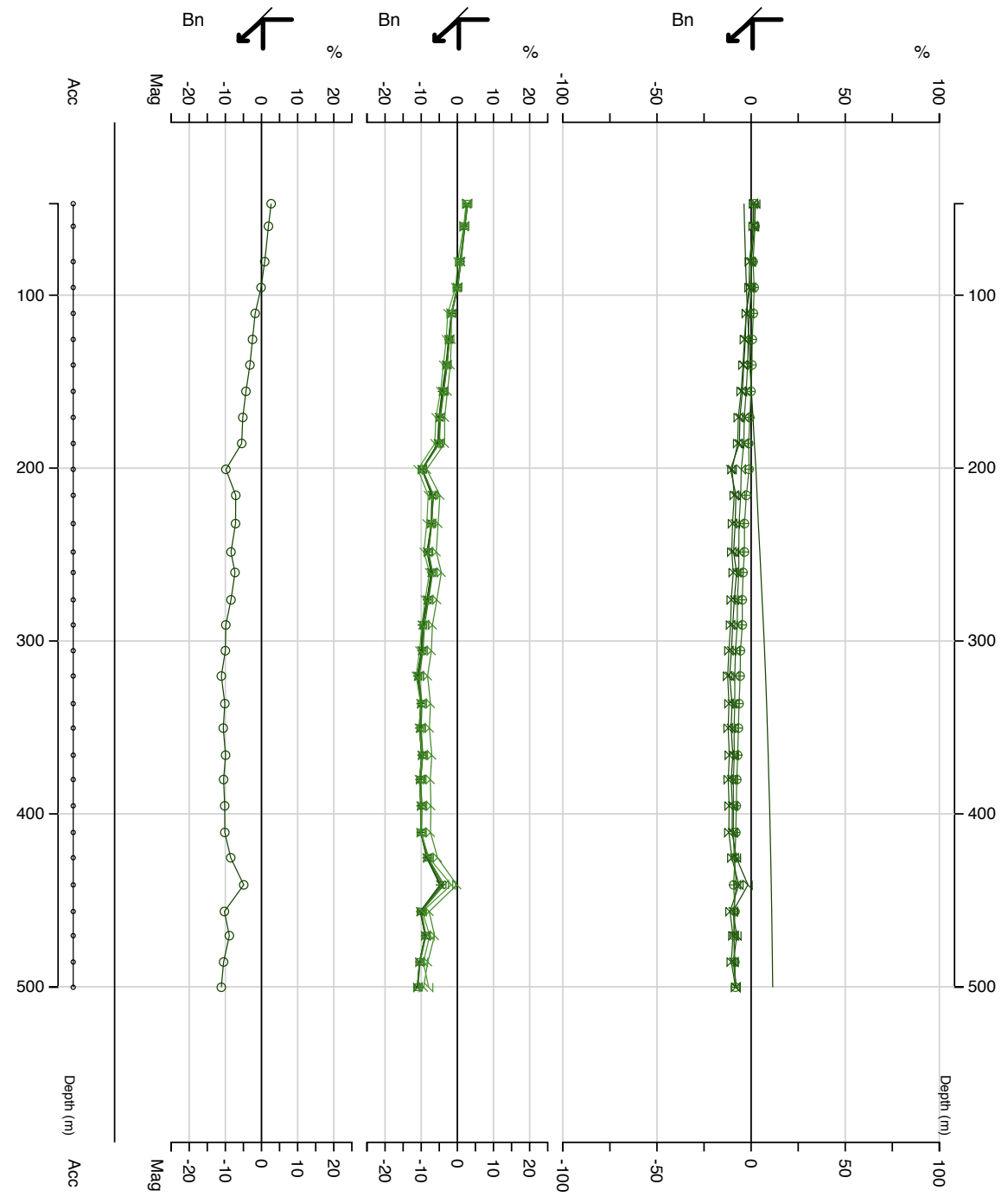
Project Area	Borehole	Loop Number	Frequency (Hz)
Wisner	WIS-174	1505 1506	30.974
Wisner	WIS-175	1505 1506	30.974
Wisner	WIS-191	1503A 1504	30.974
Wisner	WIS-194	1502	30.974
Wisner	WIS-195	1501 1502	30.974
Wisner	WIS-200	1507	30.974
Wisner	WIS-201	1507	30.974
Wisner	WIS-202	1503A 1504	30.974
Wisner	WIS-204	1503A 1504	30.974
Wisner	WIS-208	1508	30.974
Wisner	WIS-209	1508	30.974
Wisner	WIS-210	1509 1510	30.974
Wisner	WIS-211	1509 1510	30.974
Wisner	WIS-212	1509 1510	30.974



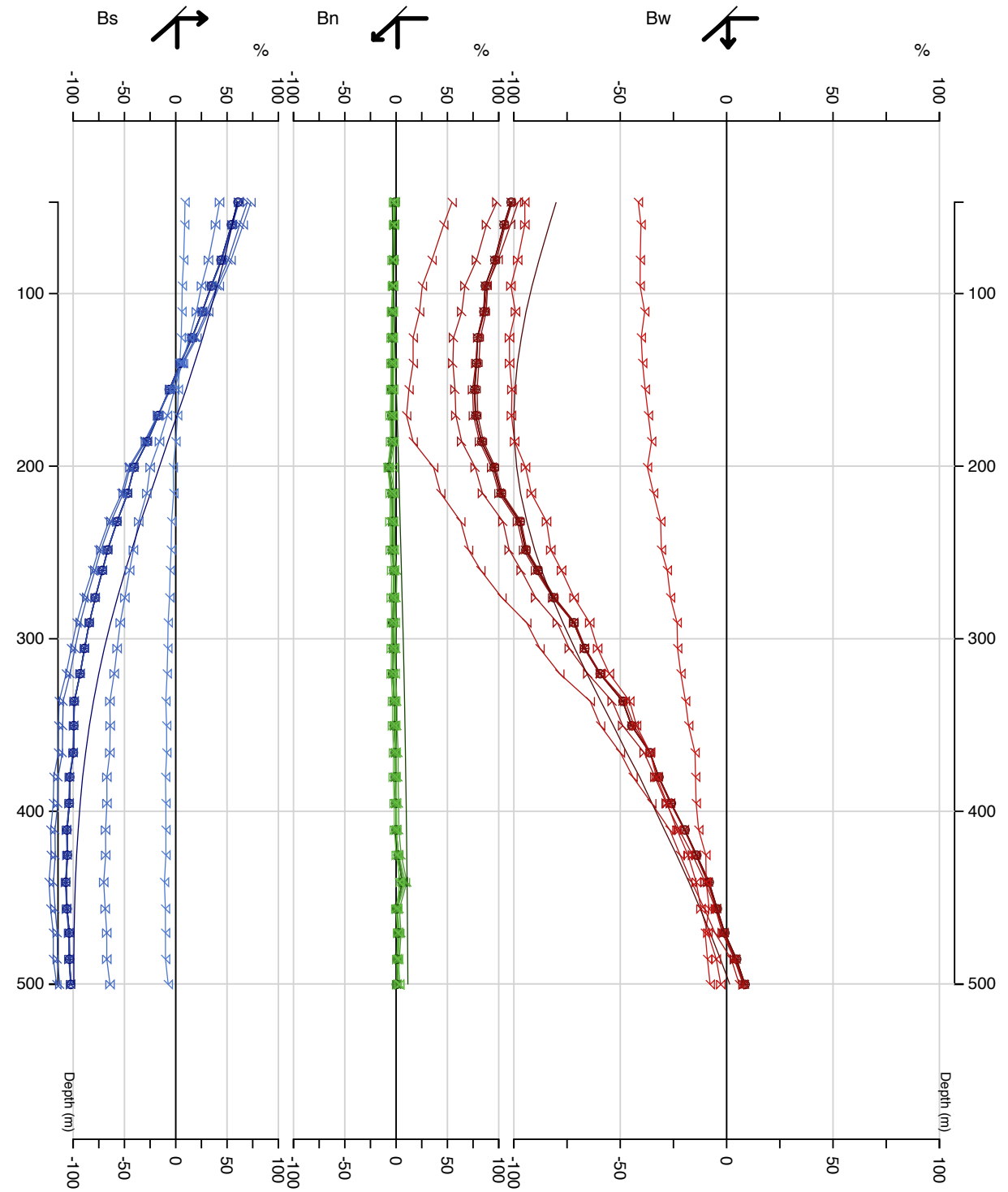
Hole: WIS-174 Loop: 1505 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-174.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 30/9/15



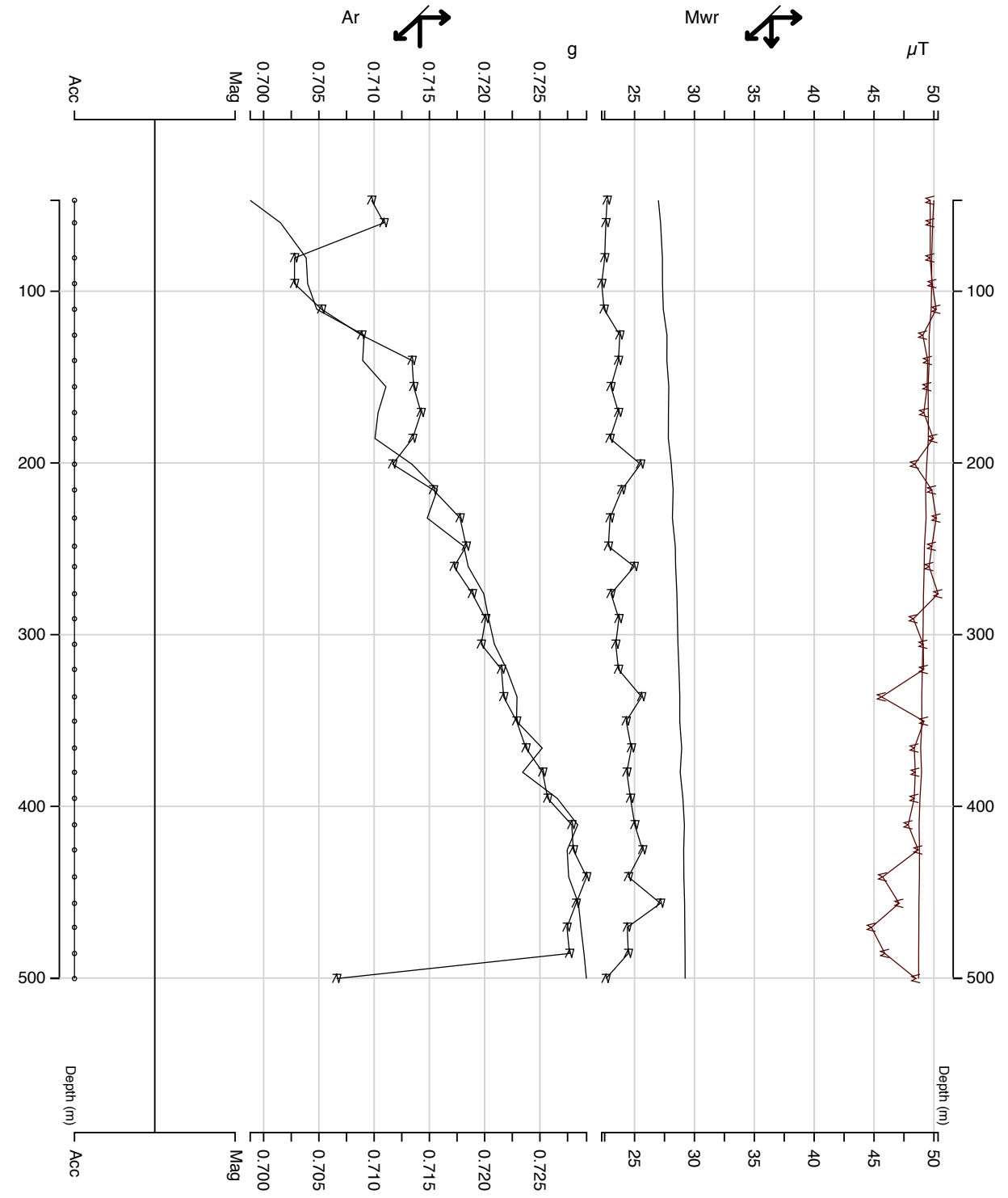
Hole: WIS-174 Loop: 1505 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-174.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 30/9/15



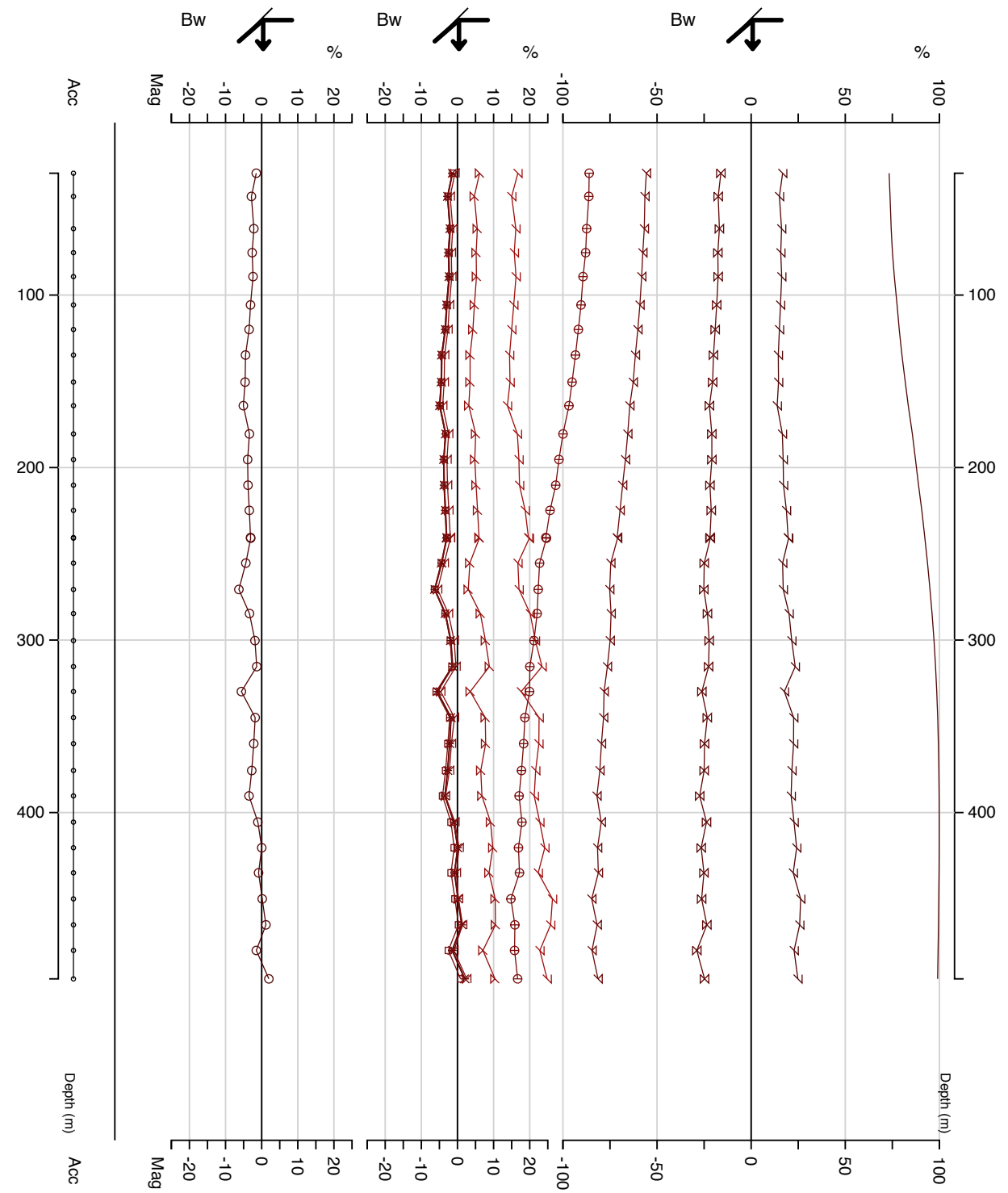
Hole: WIS-174 Loop: 1505 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-174.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 30/9/15



Hole: WIS-174 Loop: 1505 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-174.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 29/9/15



Hole: WIS-174 Loop: 1505 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1505HWIS-174.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 29/9/15



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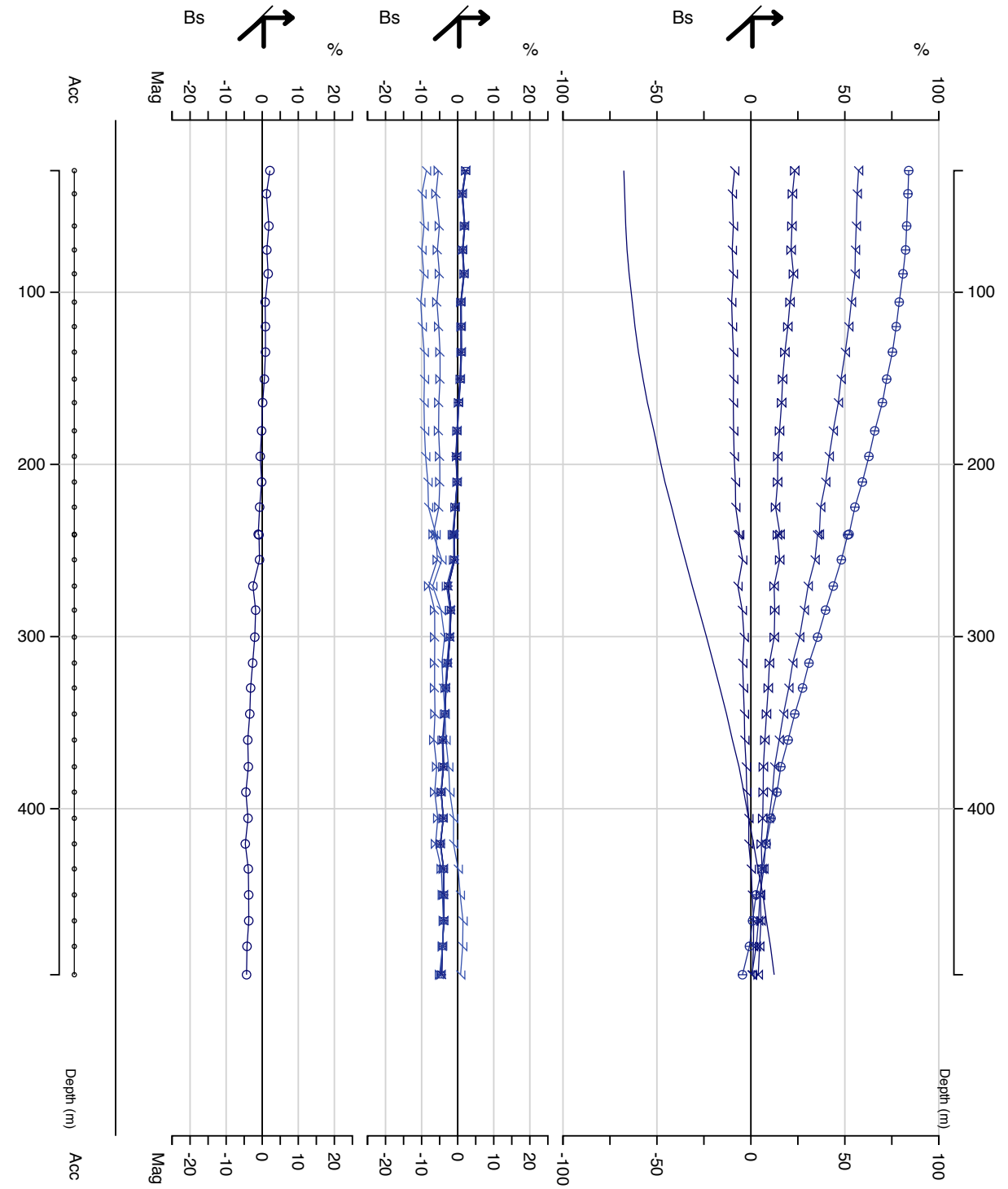
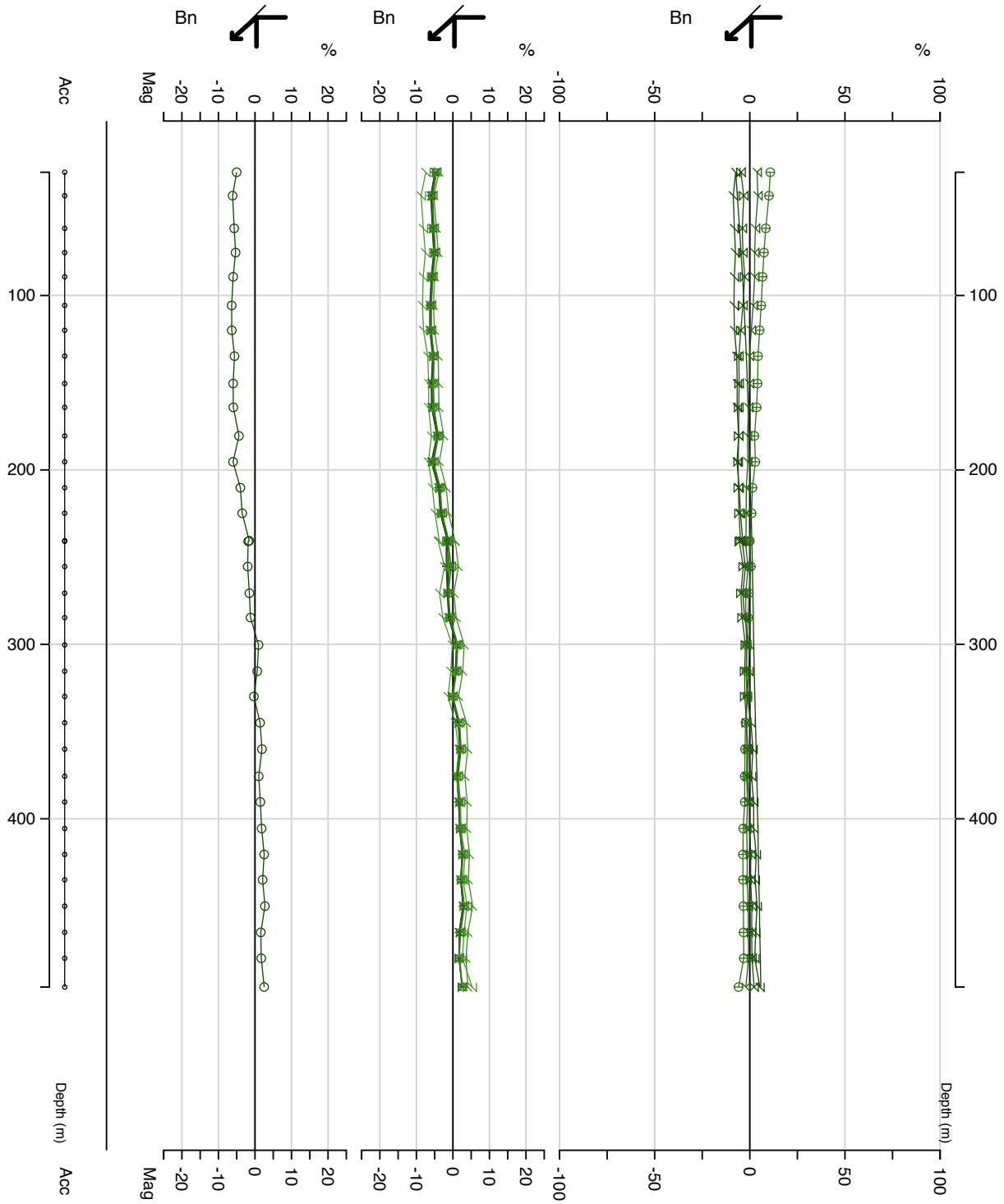
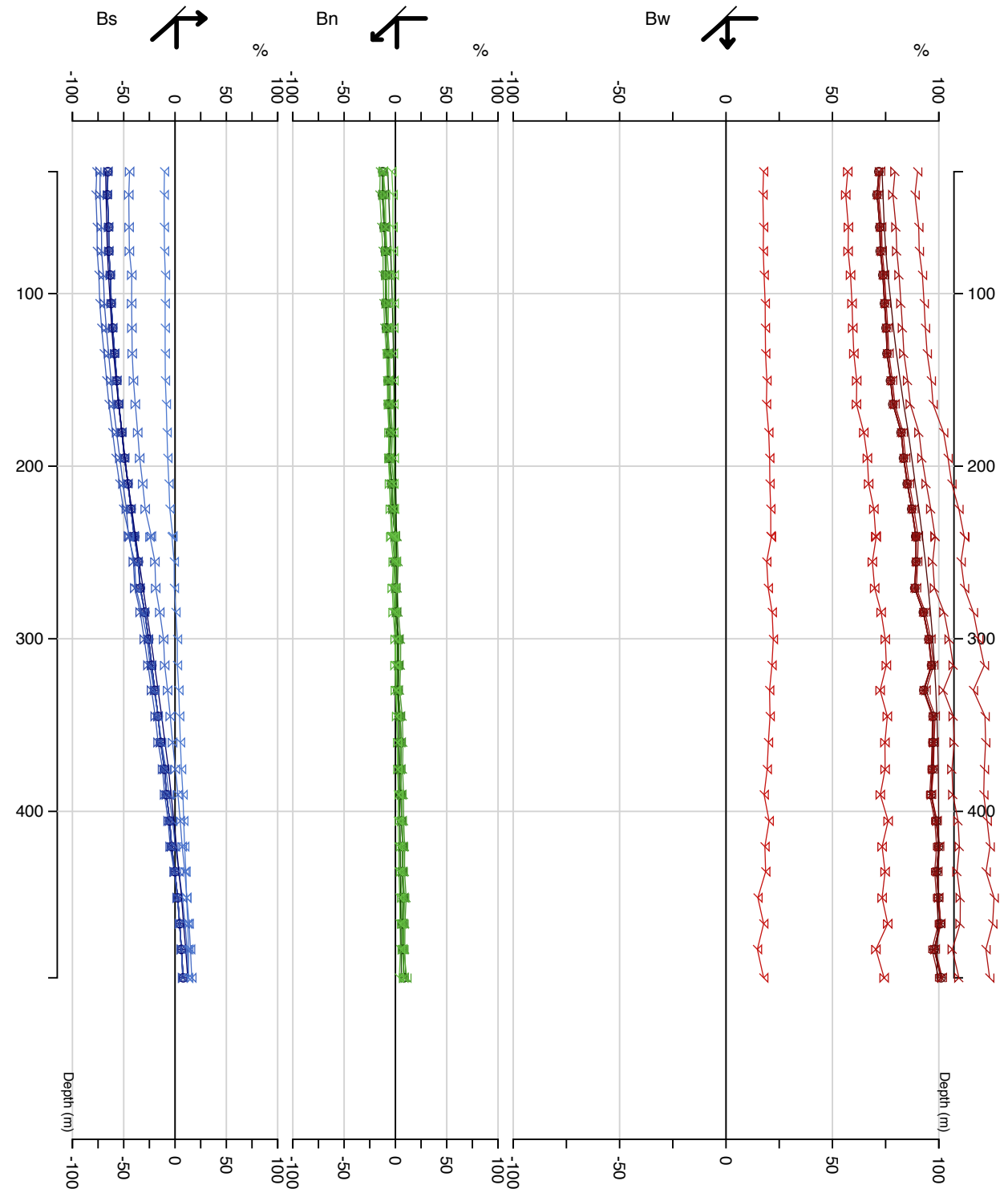


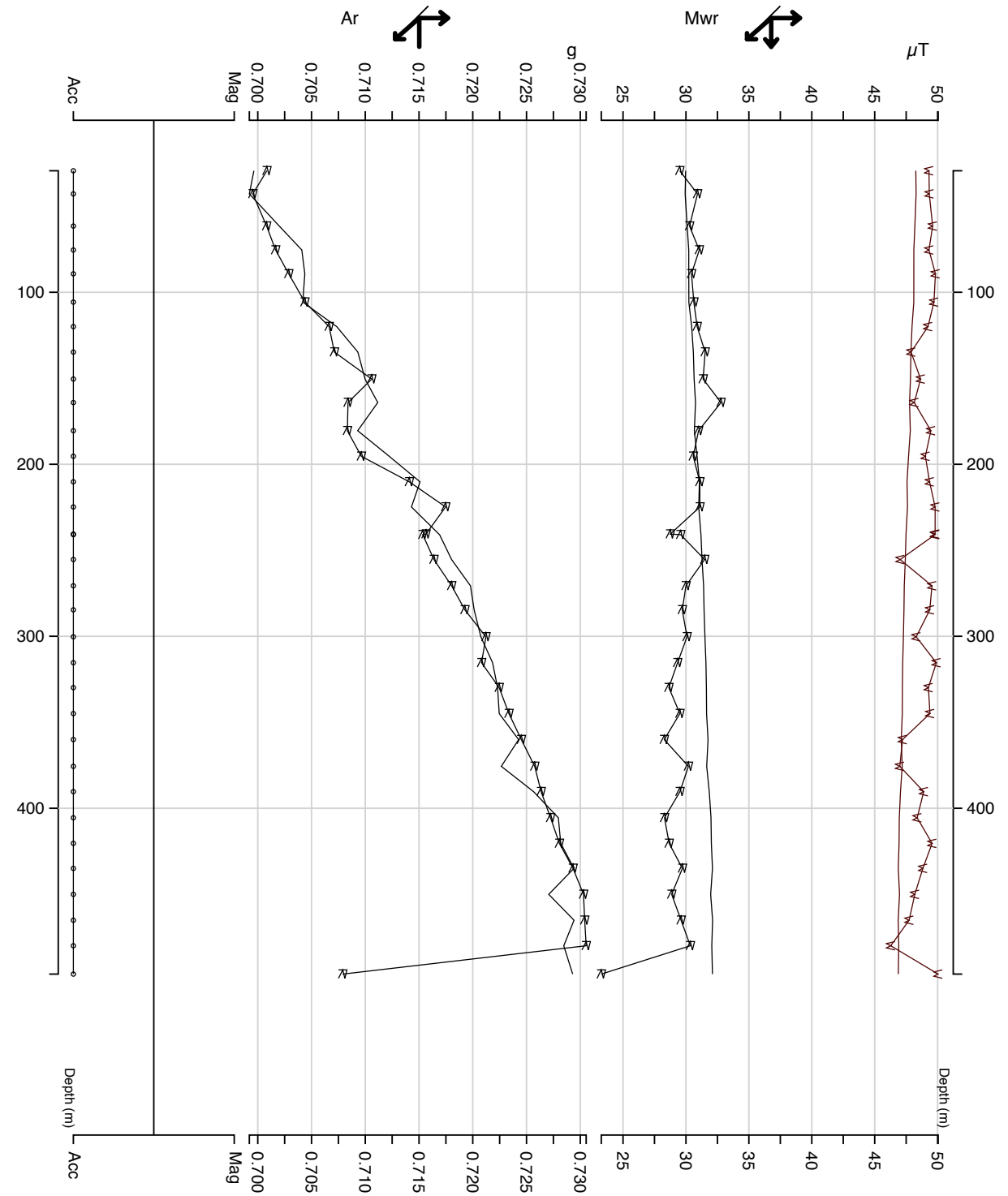
Hole: WIS-174 Loop: 1506 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1506HWIS-174.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 24/3/15 Red: 25/3/15 Plot: 30/9/15



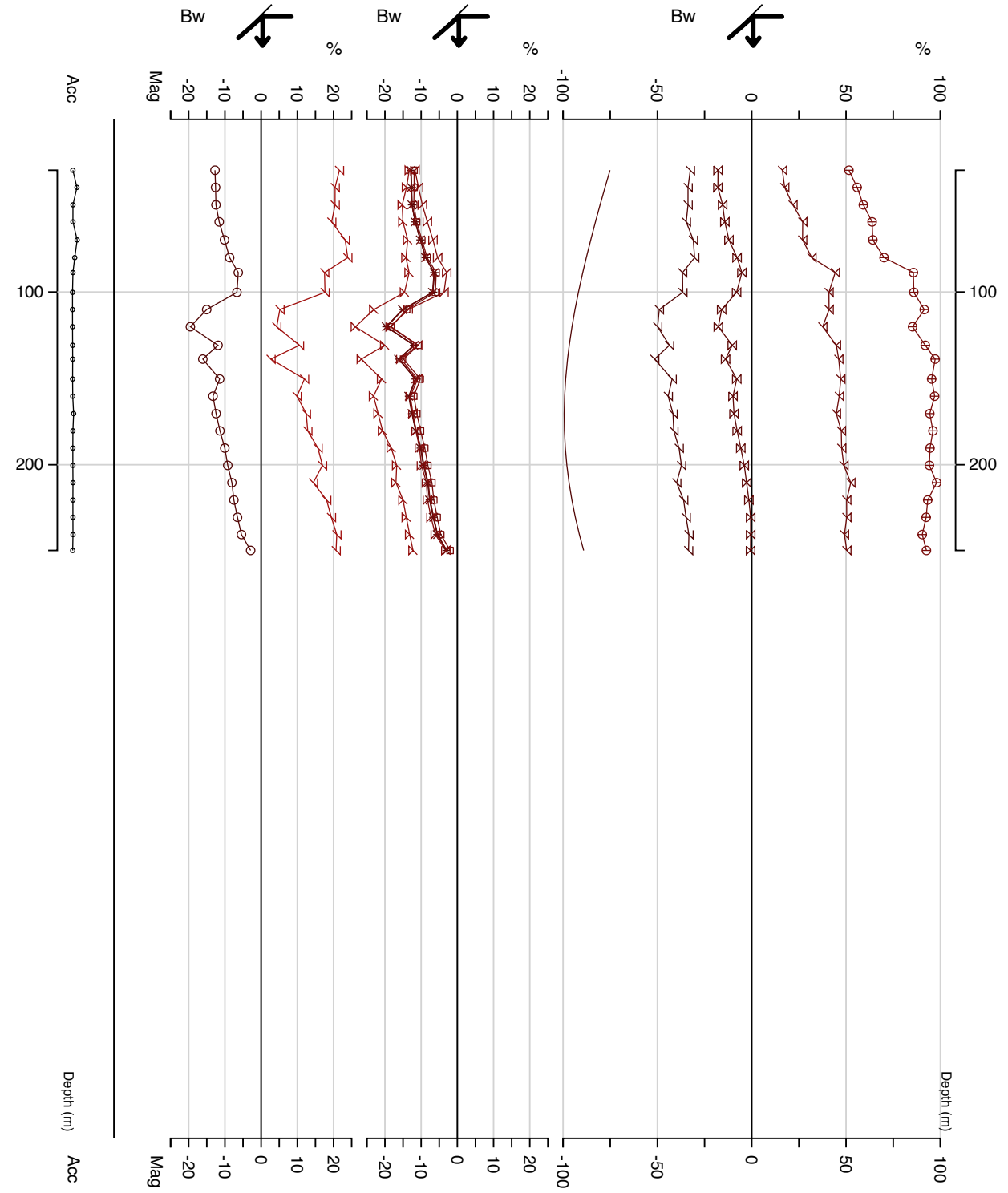
Hole: WIS-174 Loop: 1506 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1506HWIS-174.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 24/3/15 Red: 25/3/15 Plot: 30/9/15



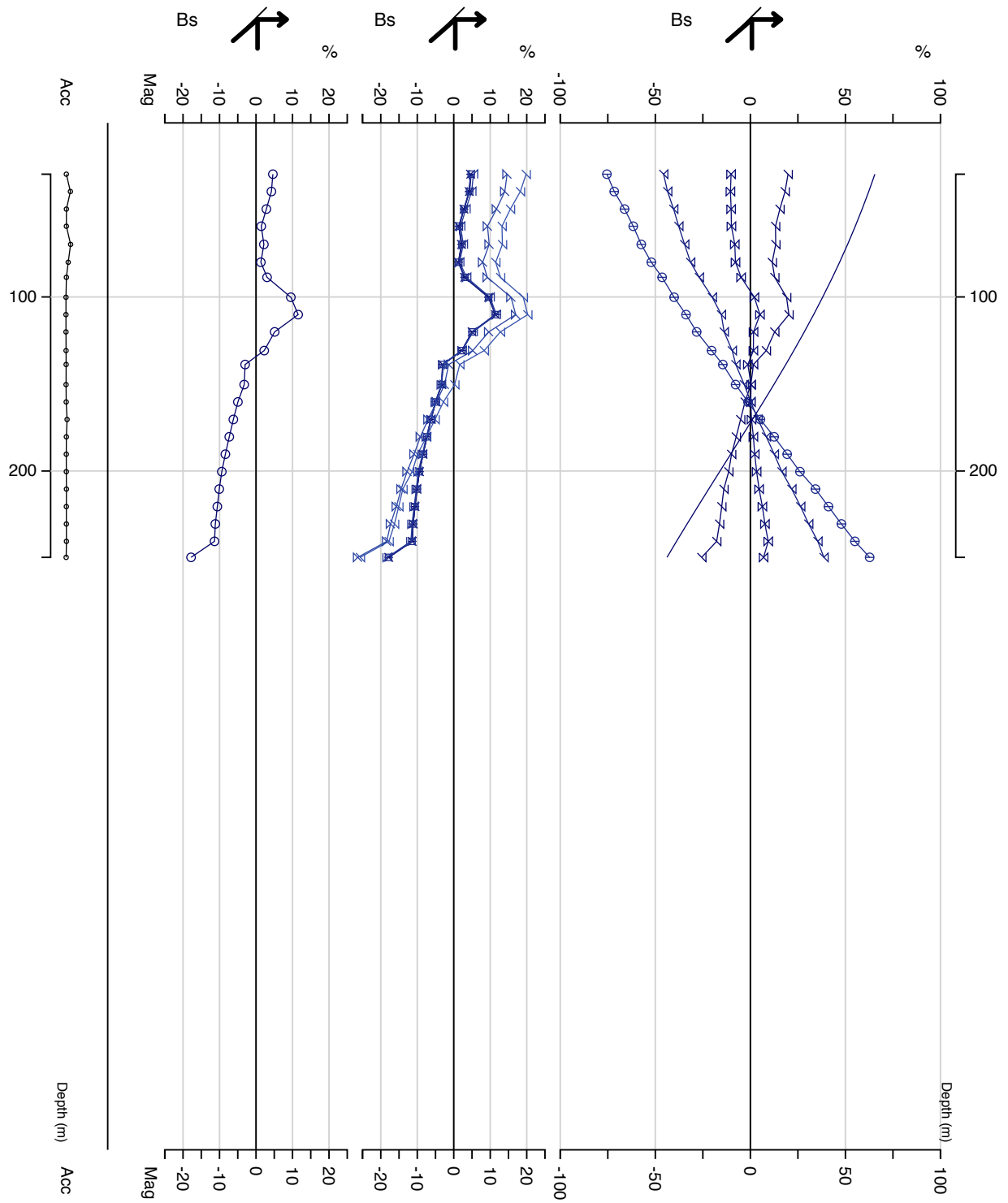
Hole: WIS-174 Loop: 1506 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1506HWIS-174.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 24/3/15 Red: 25/3/15 Plot: 29/9/15



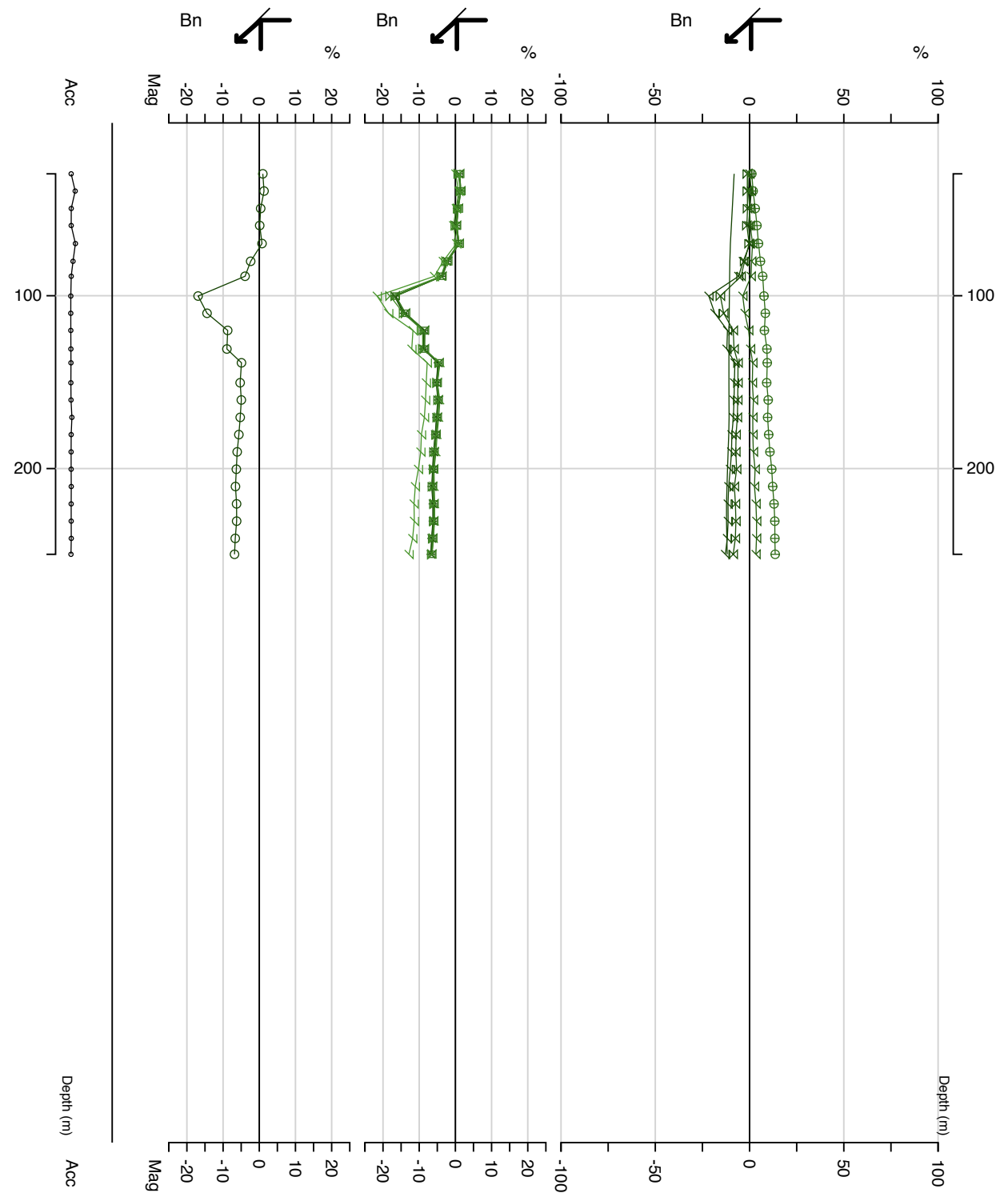
Hole: WIS-174 Loop: 1506 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1506HWIS-174.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 24/3/15 Red: 25/3/15 Plot: 29/9/15



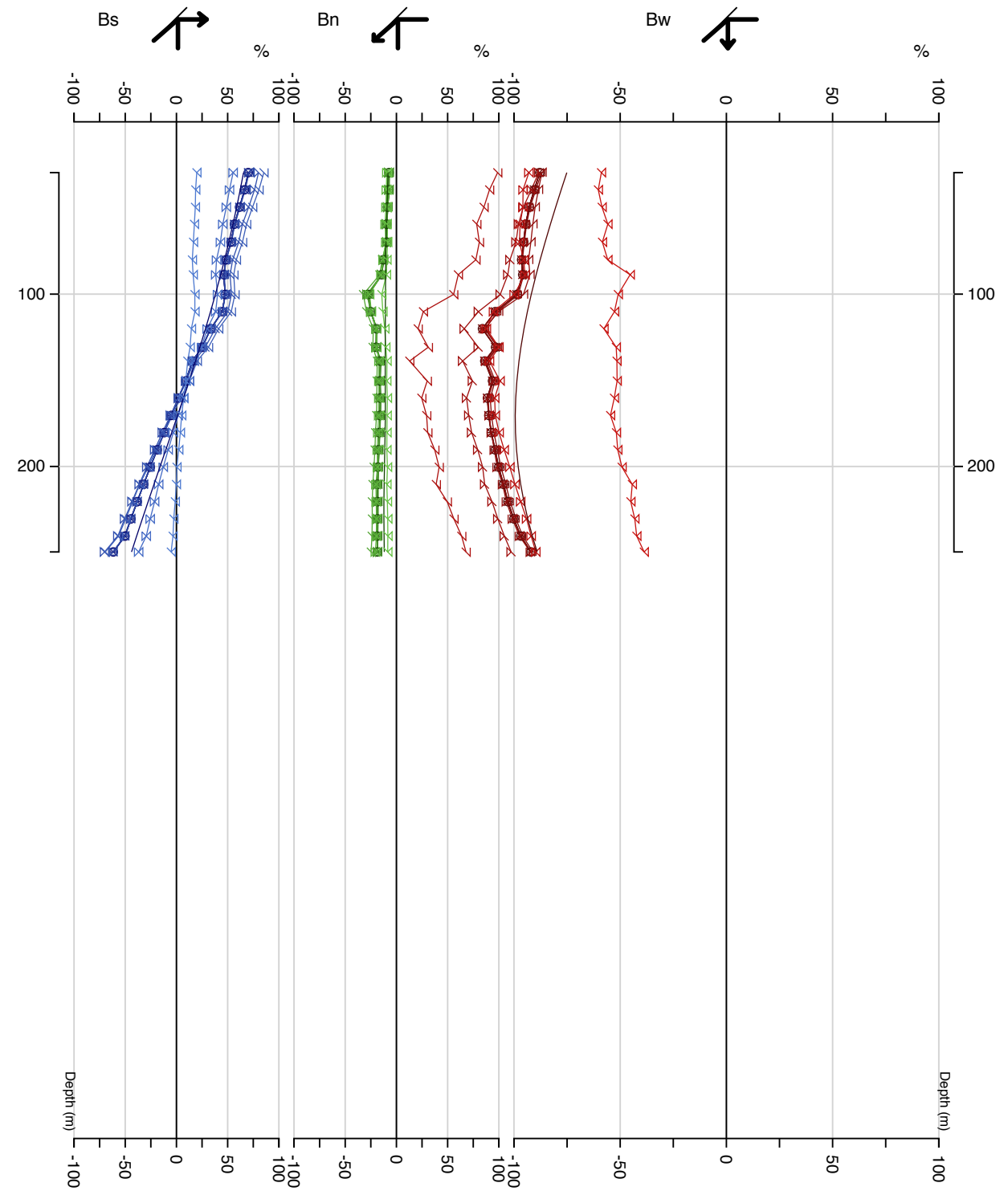
Hole: WIS-175 Loop: 1505 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-175.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 26/3/15 Plot: 30/9/15



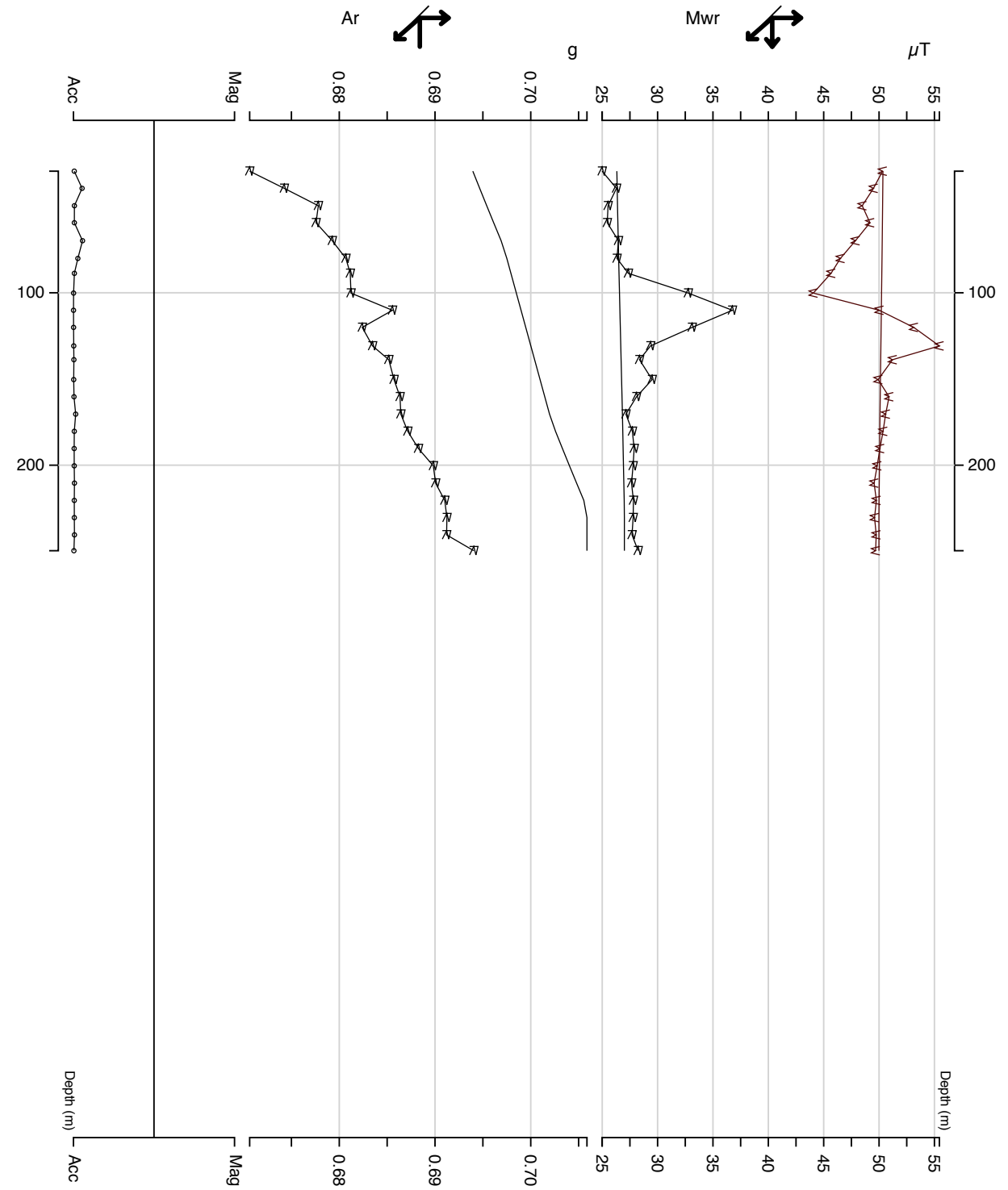
Hole: WIS-175 Loop: 1505 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-175.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 26/3/15 Plot: 30/9/15



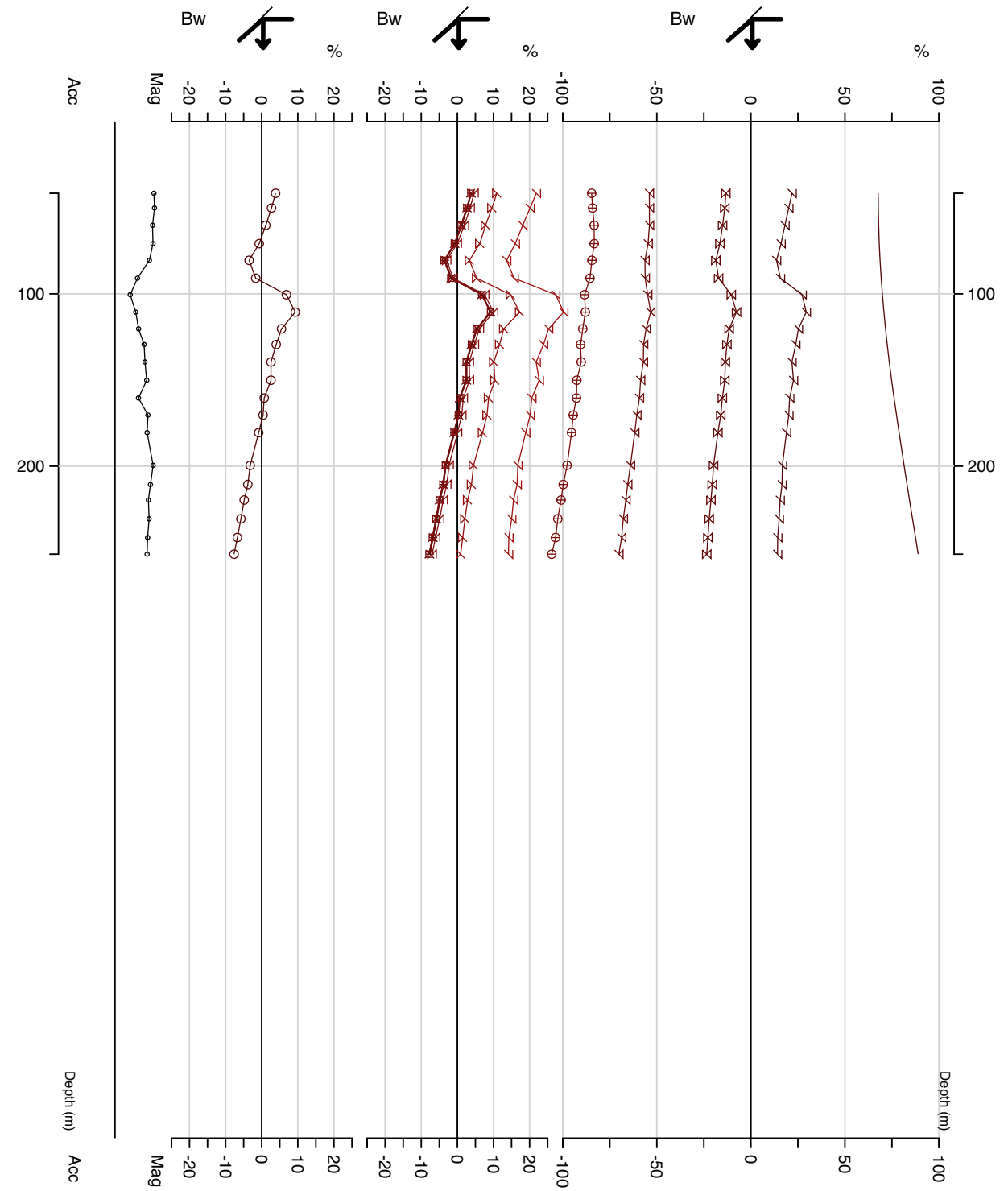
Hole: WIS-175 Loop: 1505 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-175.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 26/3/15 Plot: 30/9/15



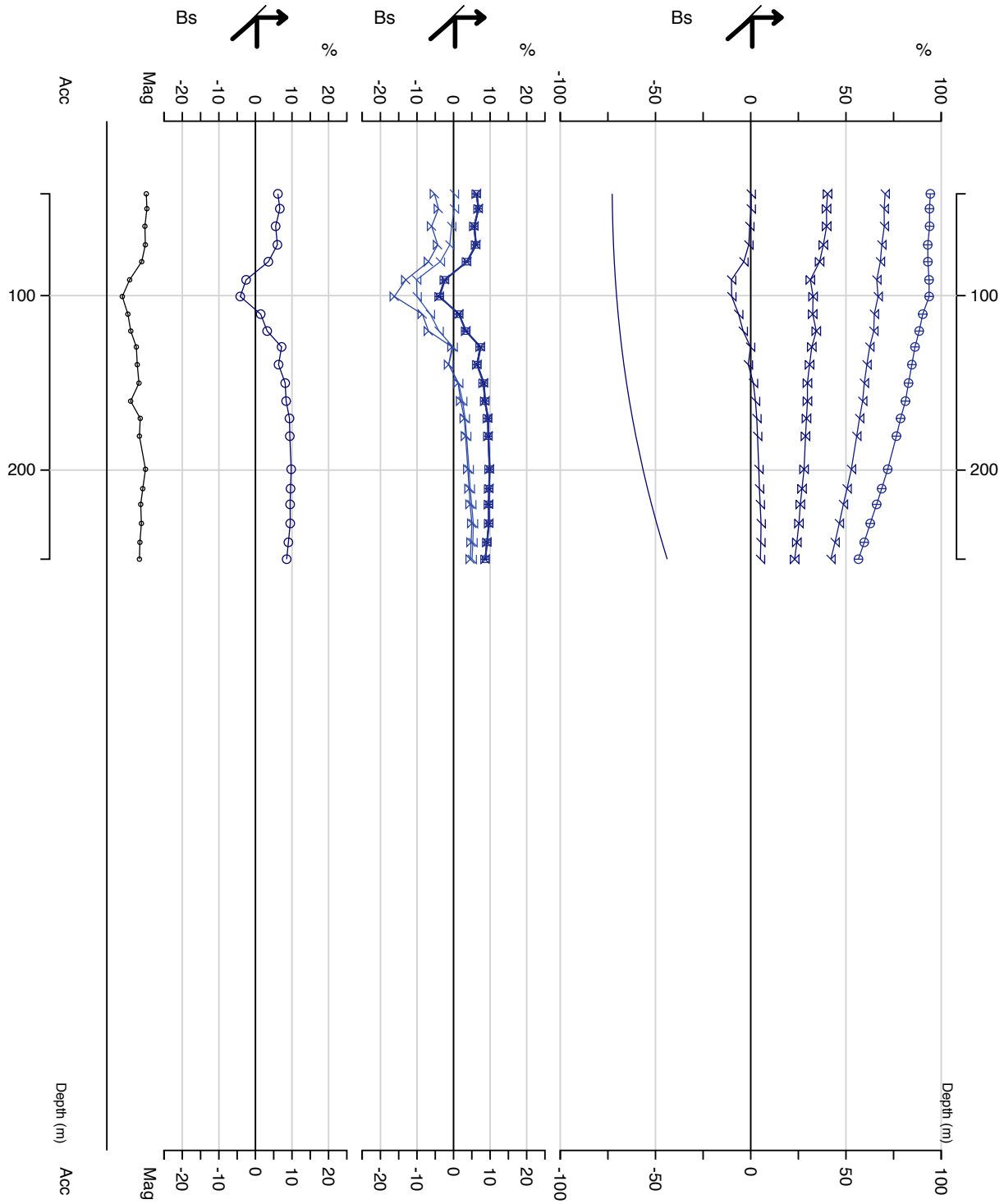
Hole: WIS-175 Loop: 1505 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1505HWIS-175.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 26/3/15 Plot: 29/9/15



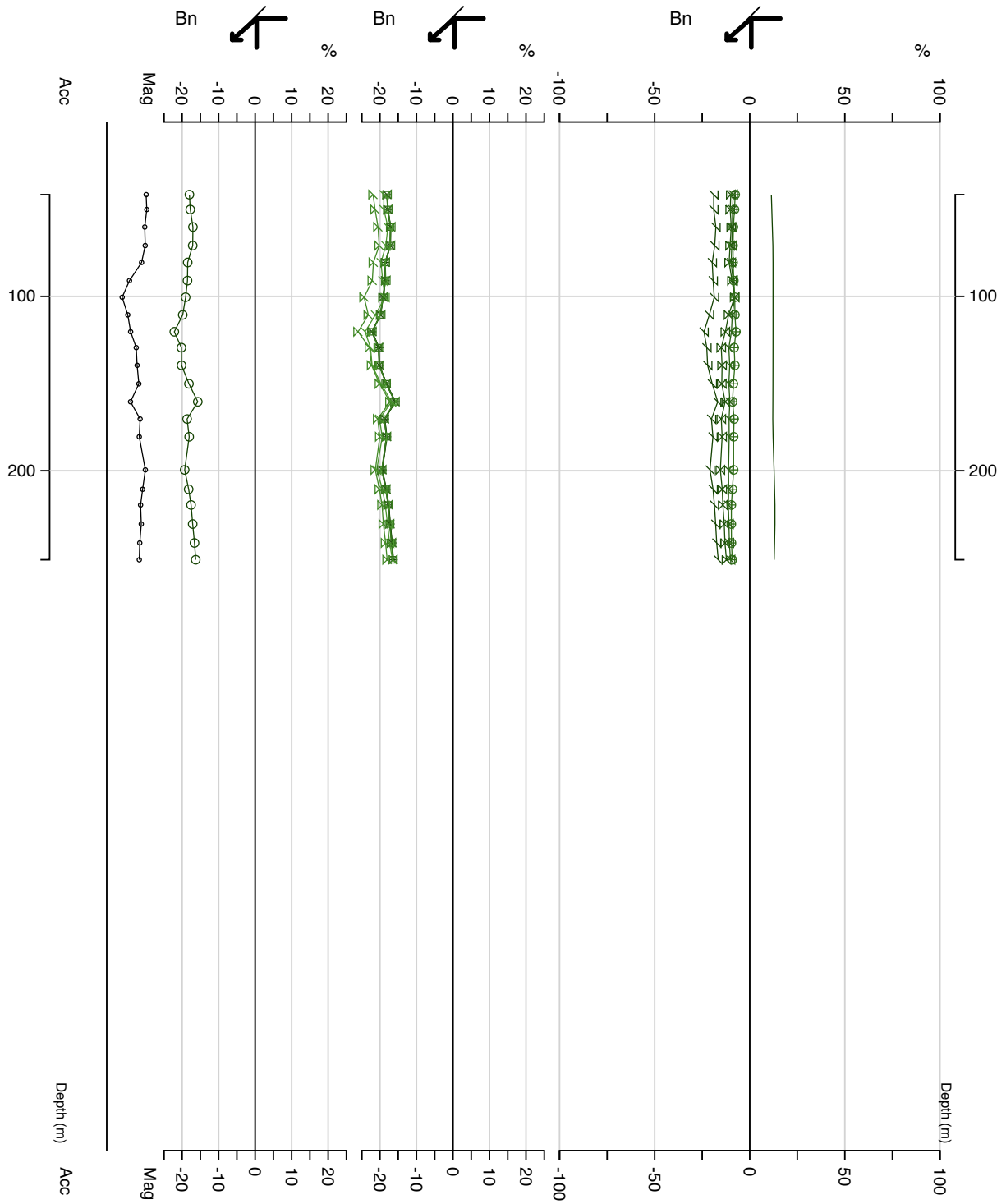
Hole: WIS-175 Loop: 1505 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1505HWIS-175.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 26/3/15 Plot: 29/9/15



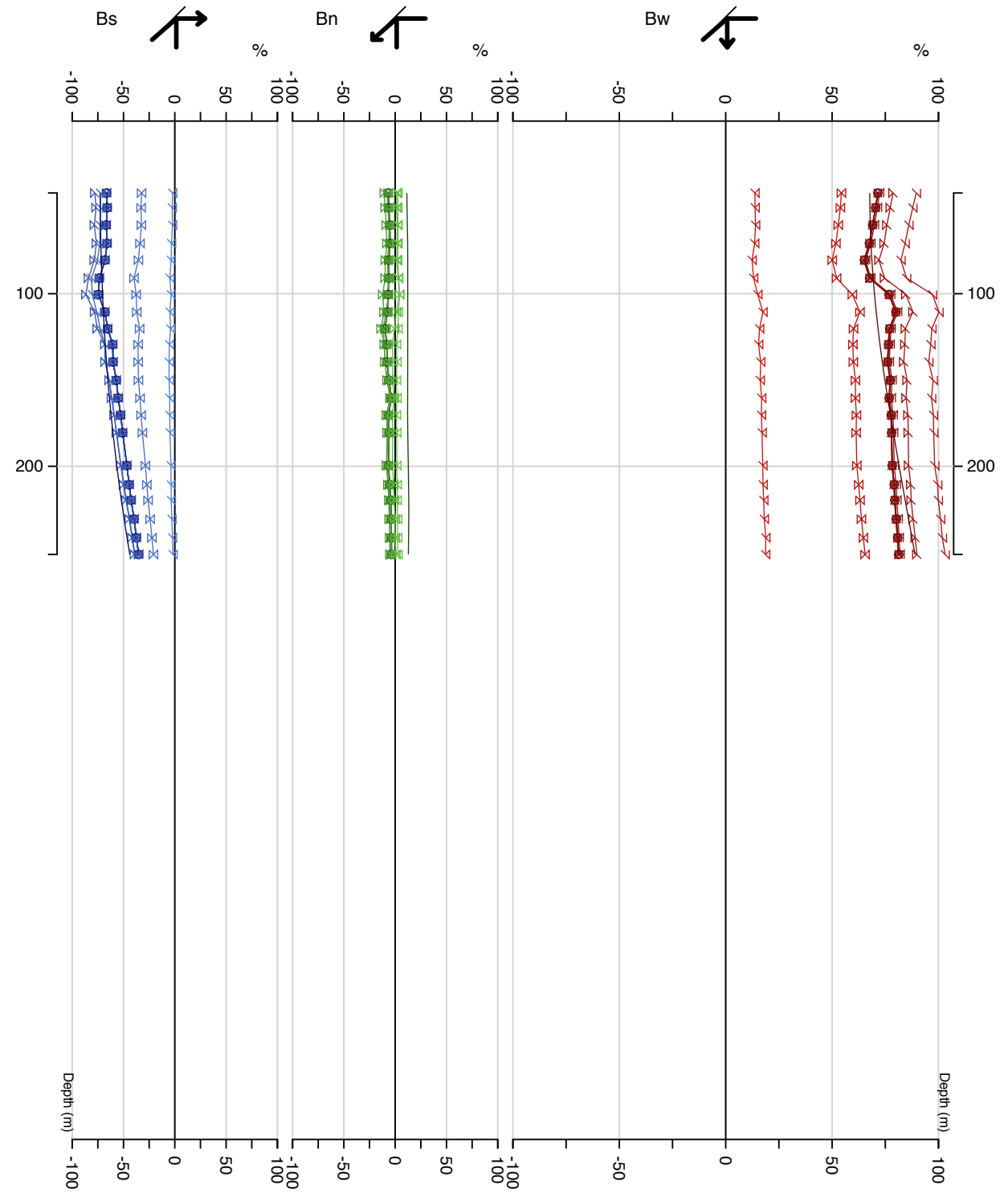
Hole: WIS-175 Loop: 1506 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1506HWIS-175.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 29/9/15



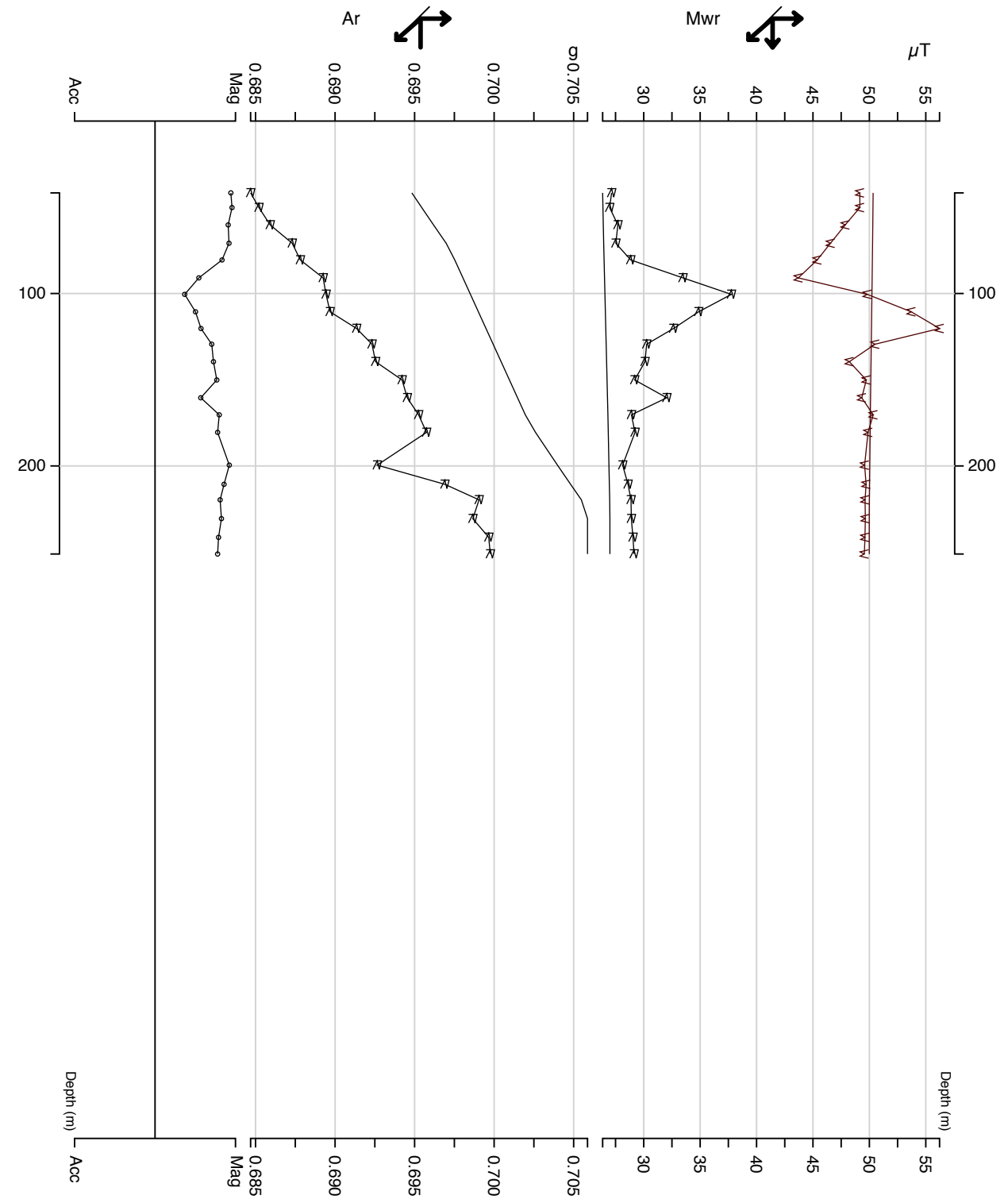
Hole: WIS-175 Loop: 1506 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1506HWIS-175.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 30/9/15



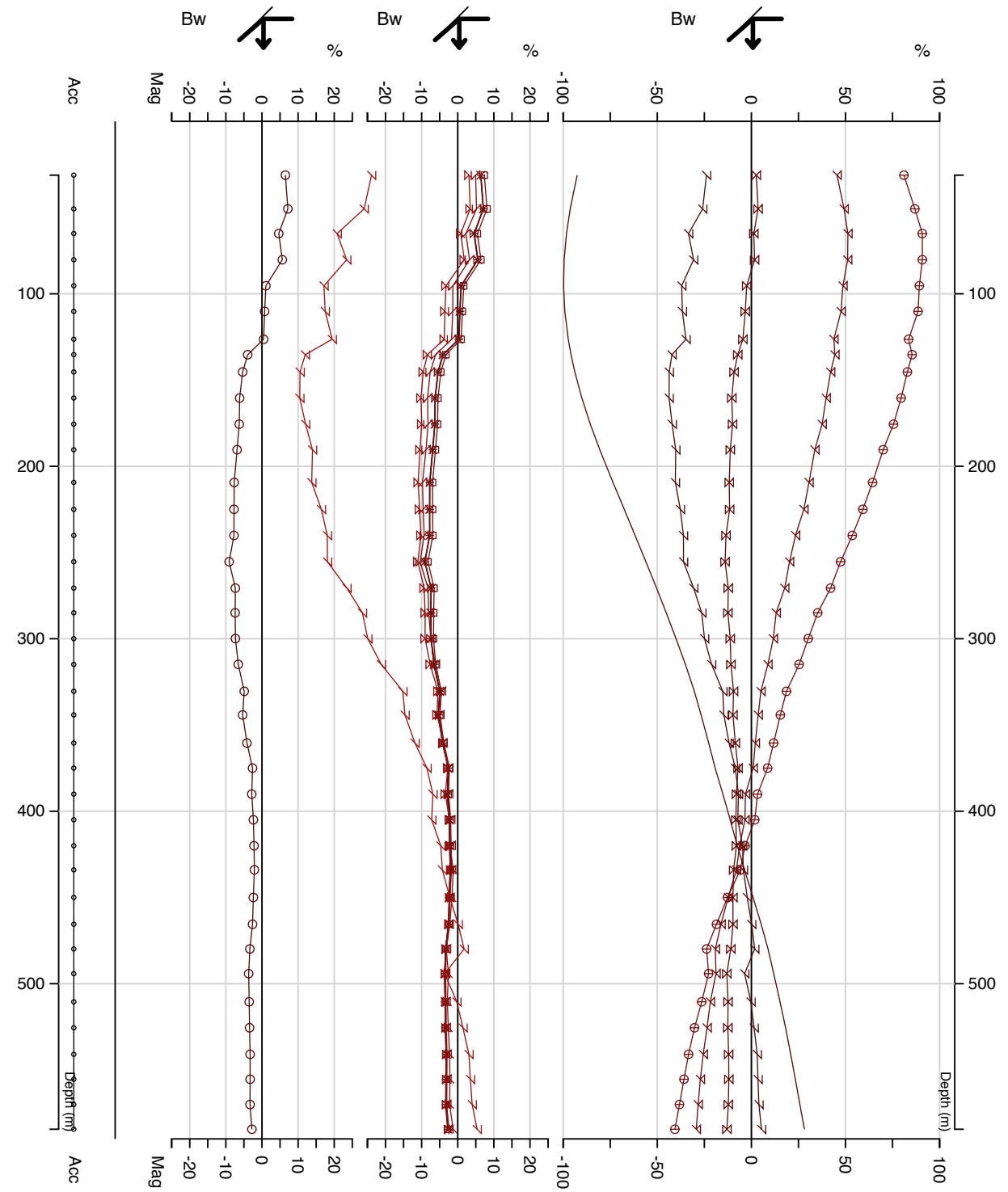
Hole: WIS-175 Loop: 1506 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1506HWIS-175.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 30/9/15



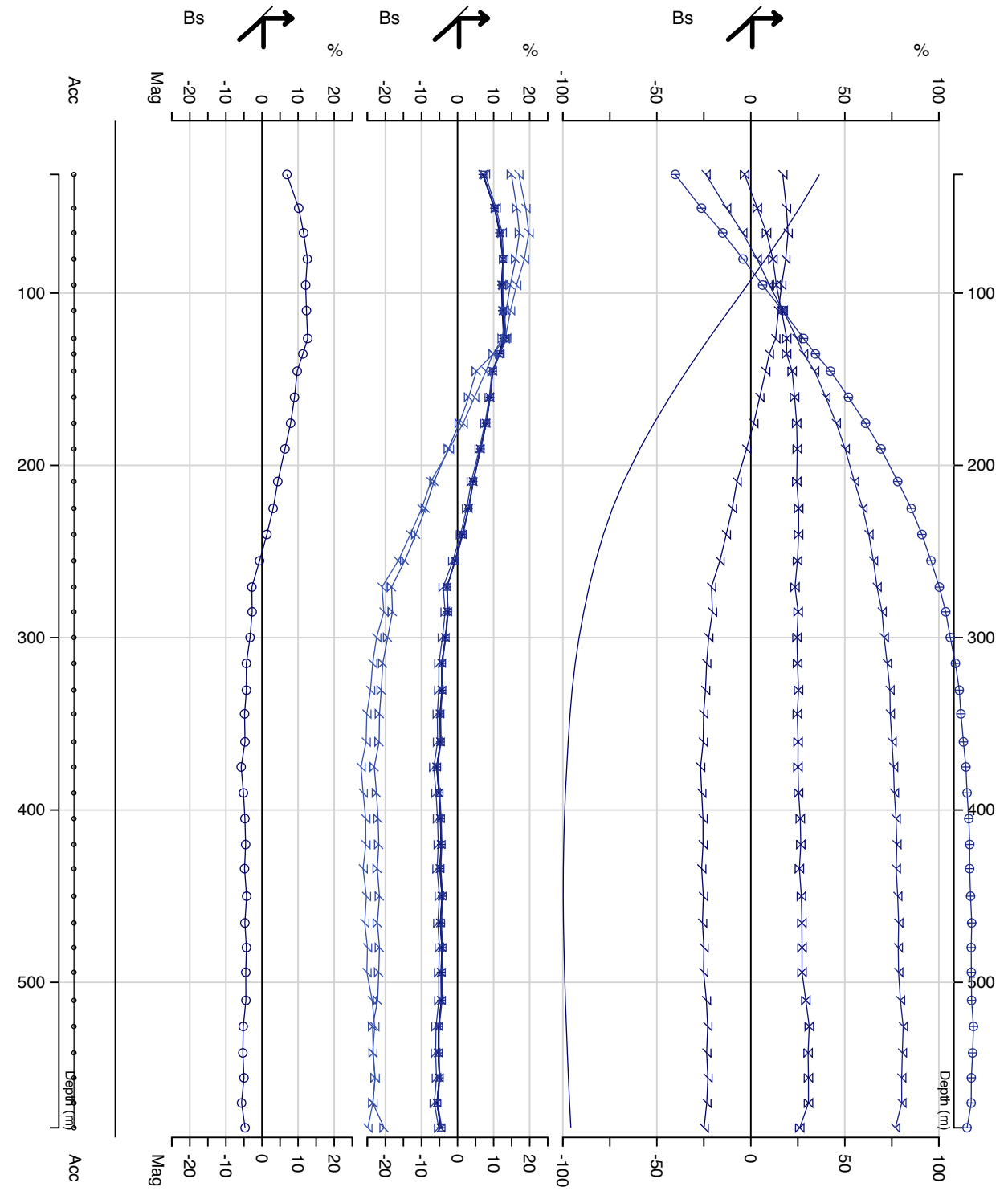
Hole: WIS-175 Loop: 1506 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1506HWIS-175.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 29/9/15



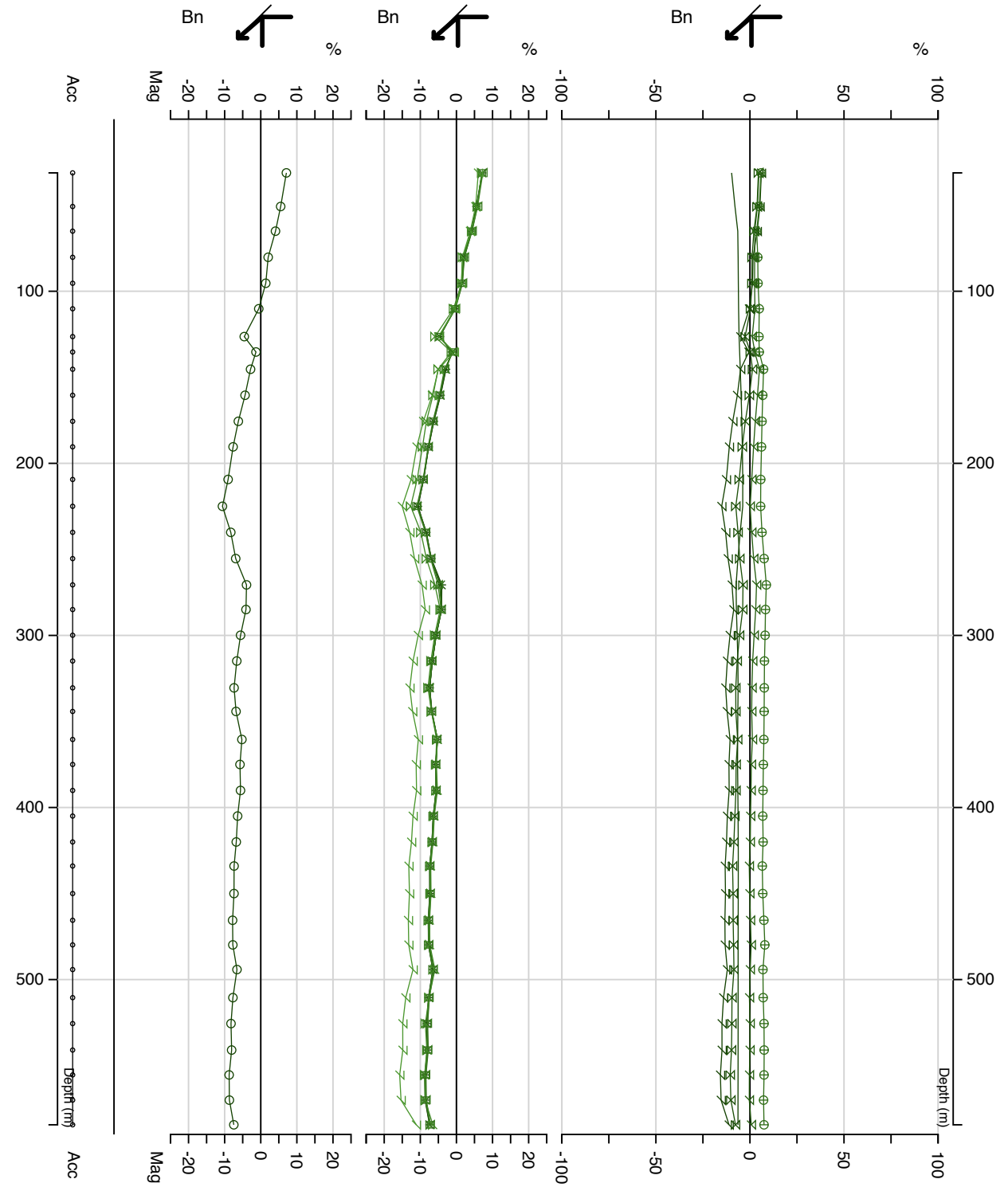
Hole: WIS-175 Loop: 1506 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1506HWIS-175.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/3/15 Red: 25/3/15 Plot: 29/9/15



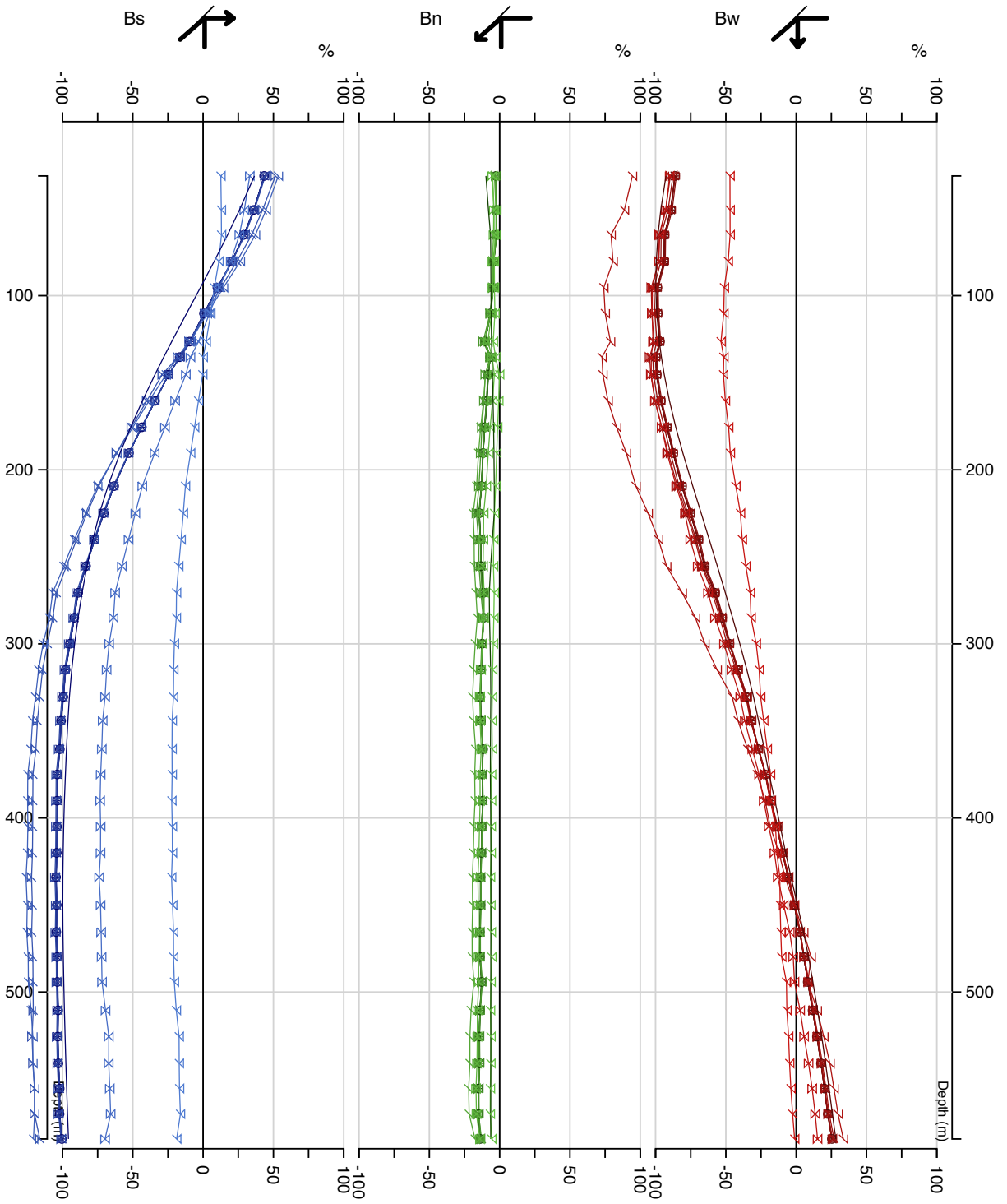
Hole: WIS-191 Loop: 1503A Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-191.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



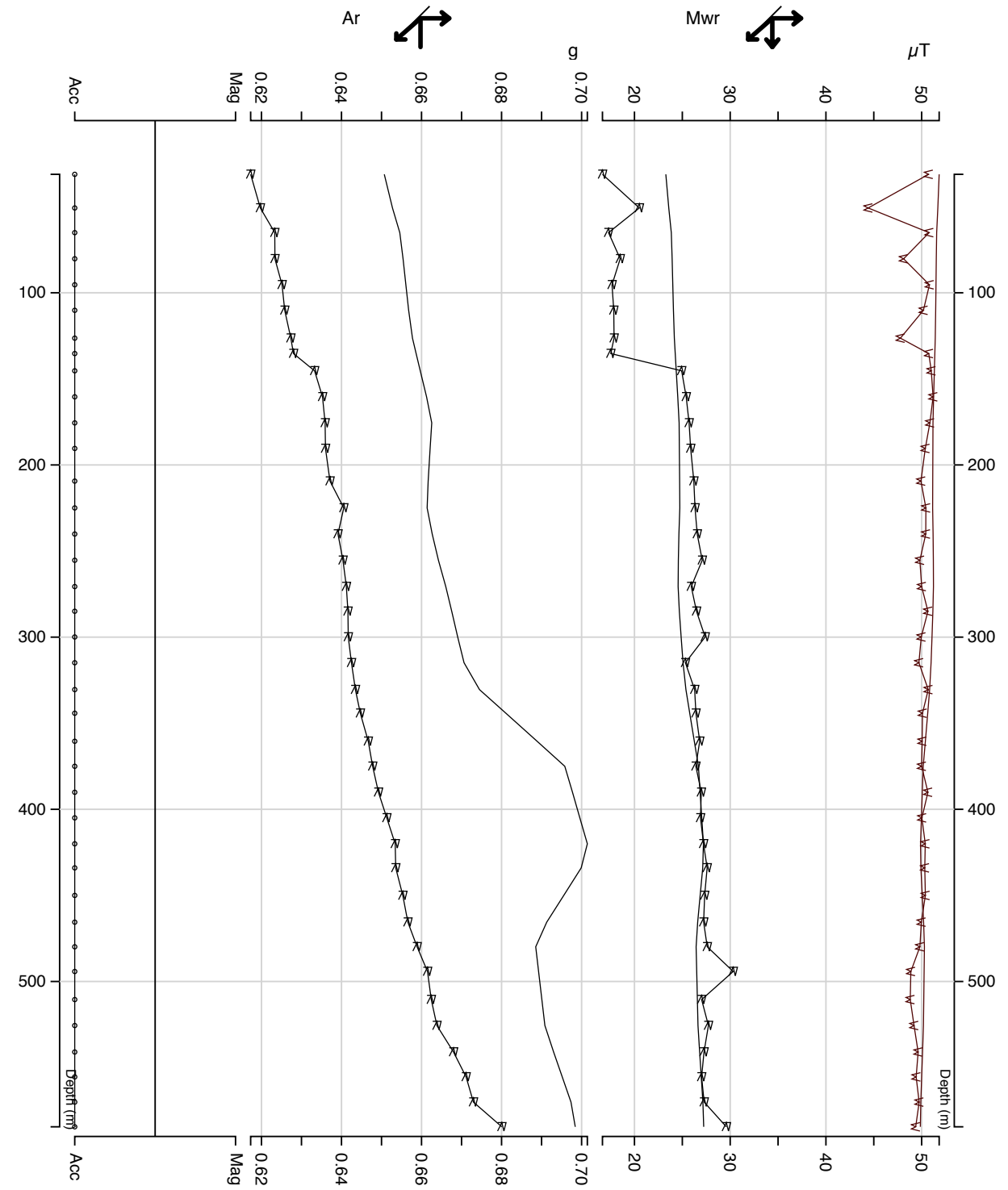
Hole: WIS-191 Loop: 1503A Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-191.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



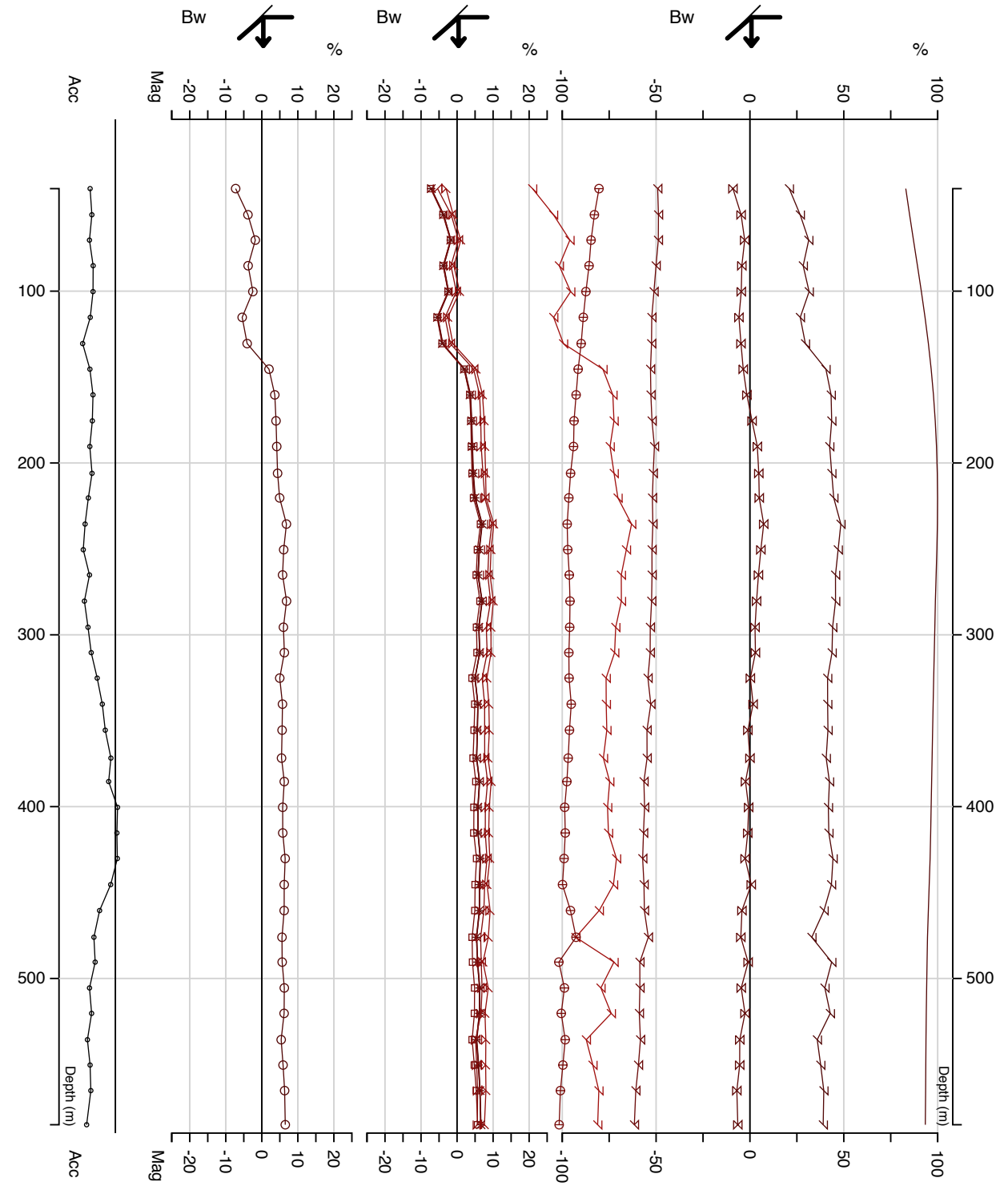
Hole: WIS-191 Loop: 1503A Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-191.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



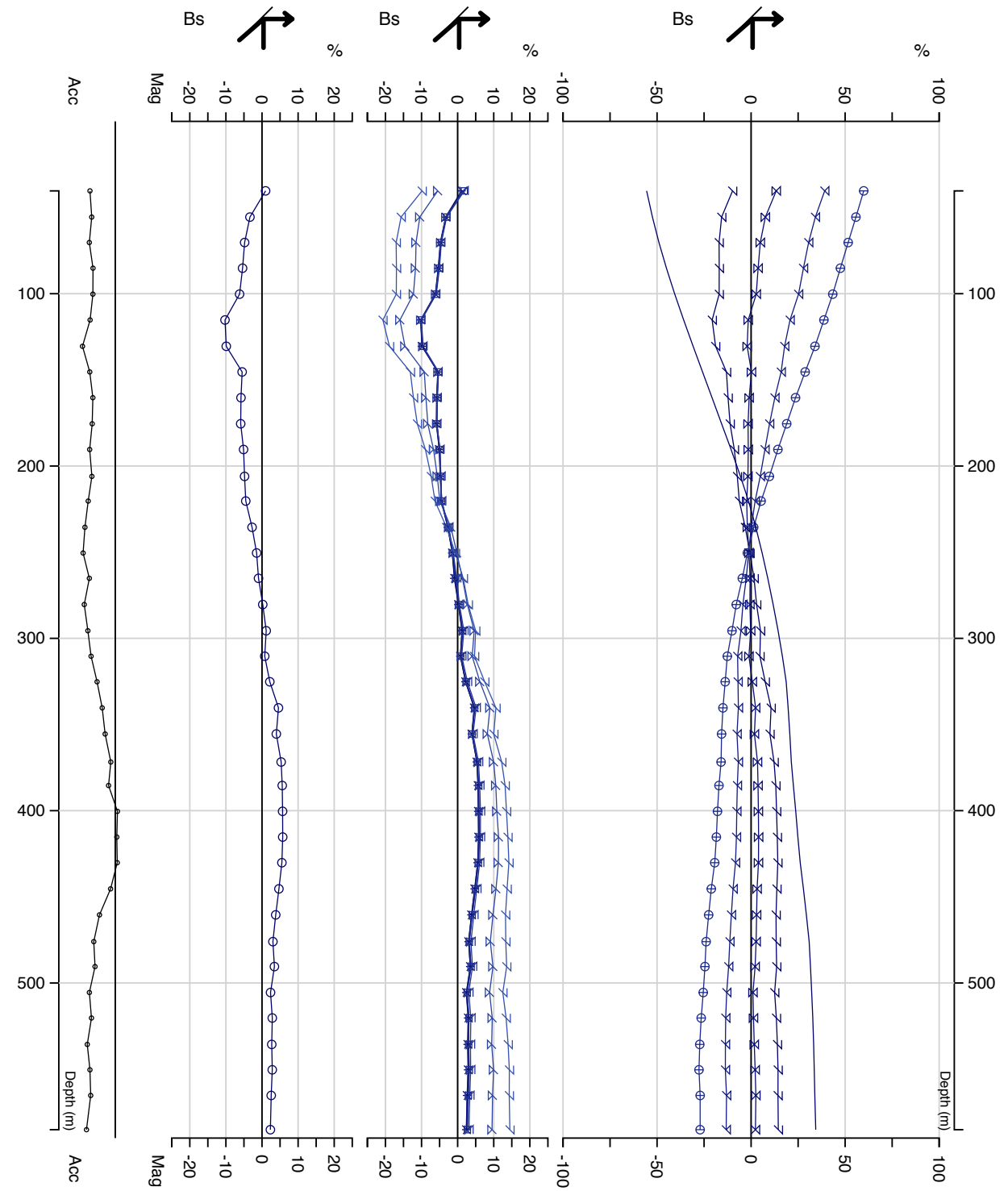
Hole: WIS-191 Loop: 1503A Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-191.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



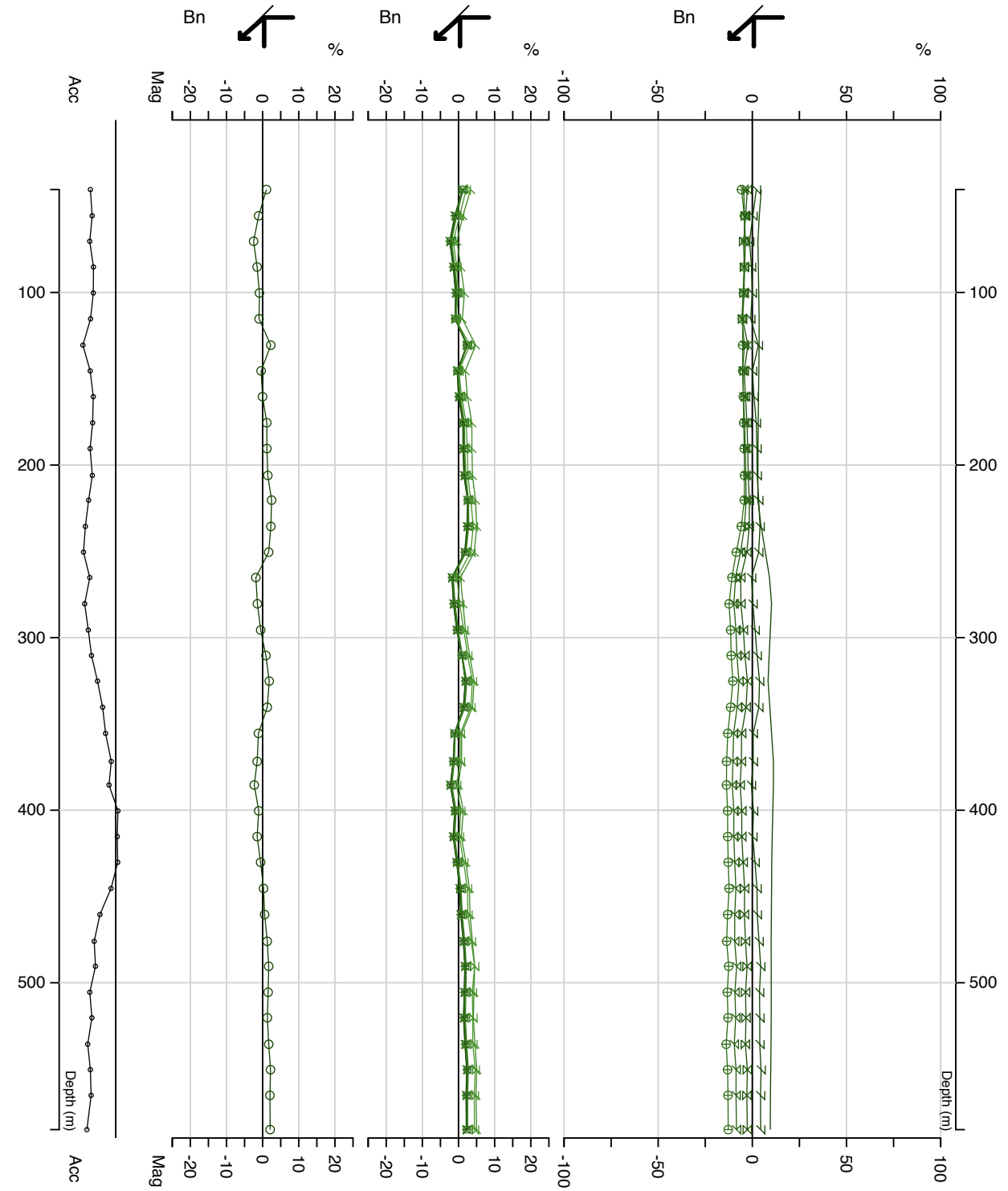
Hole: WIS-191 Loop: 1503A Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1503AHWIS-191.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



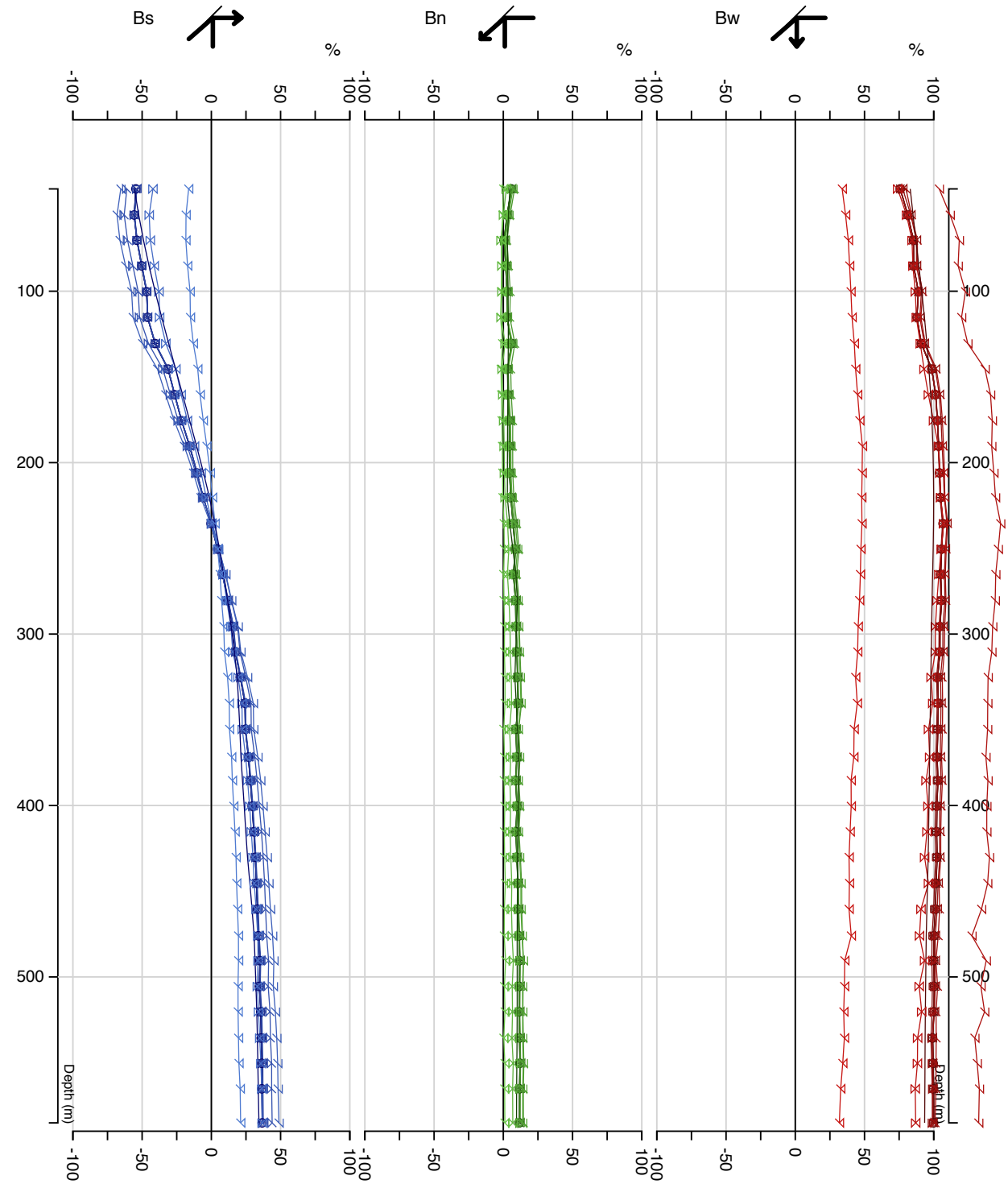
Hole: WIS-191 Loop: 1504 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-191.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



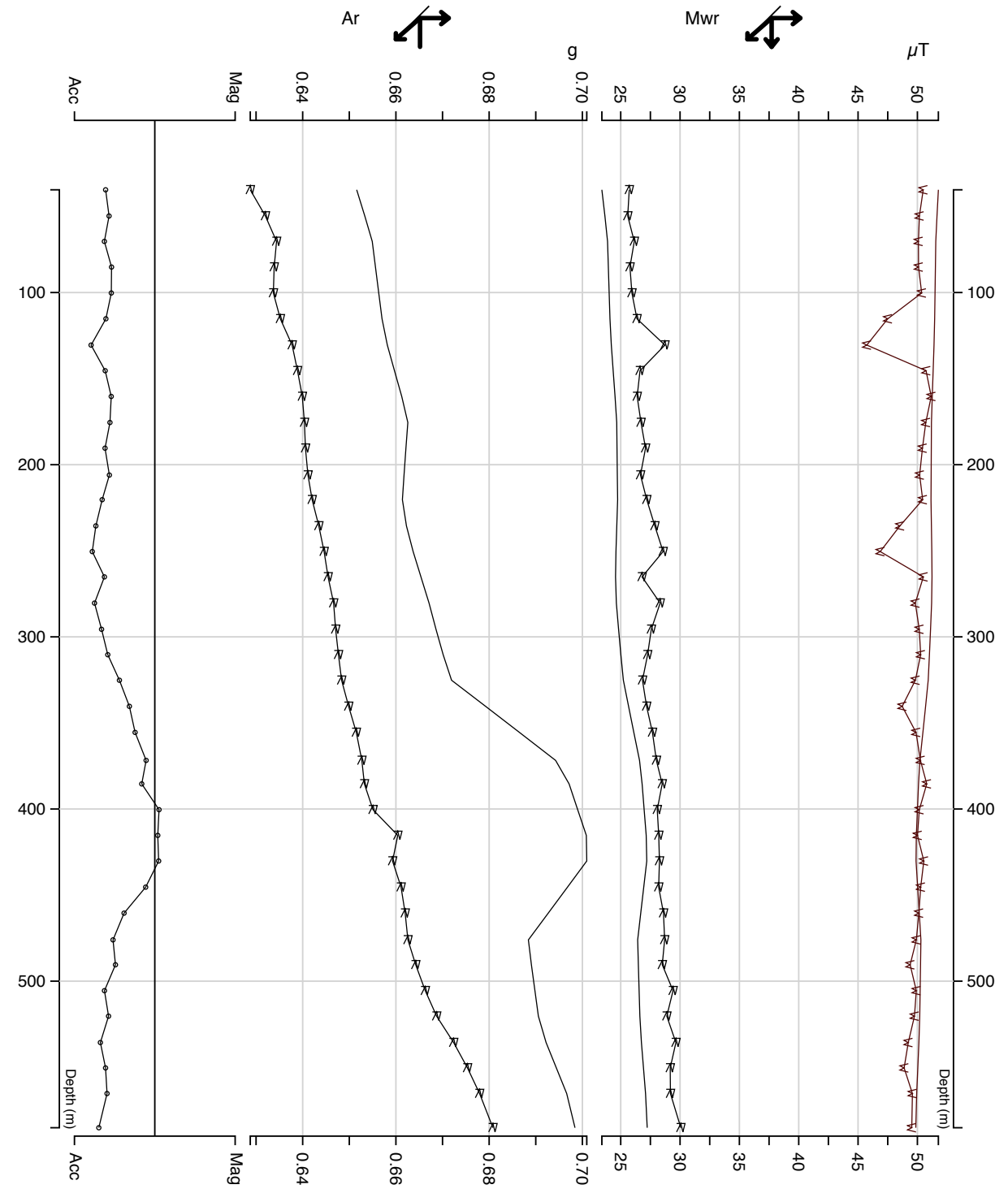
Hole: WIS-191 Loop: 1504 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-191.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



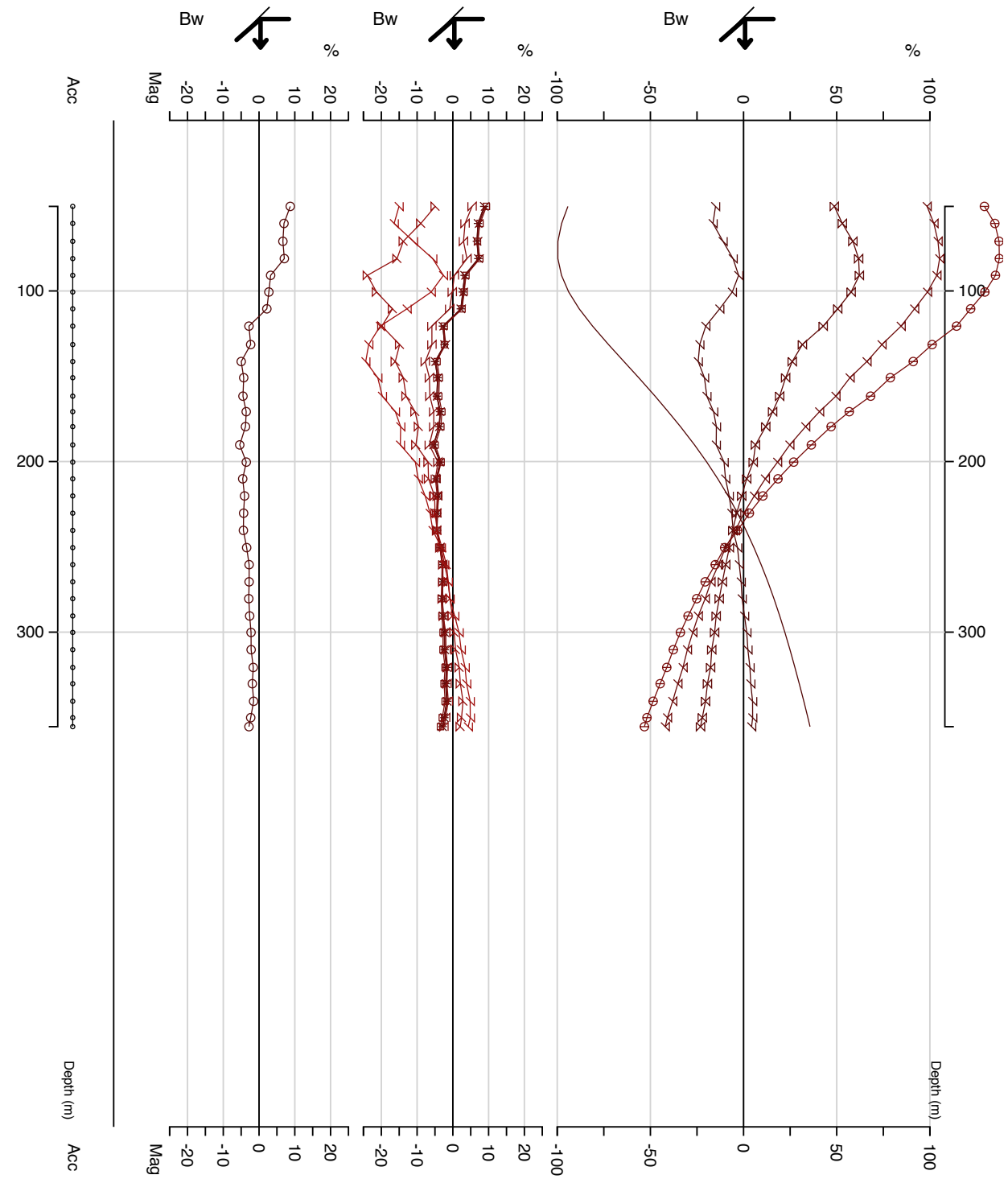
Hole: WIS-191 Loop: 1504 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-191.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



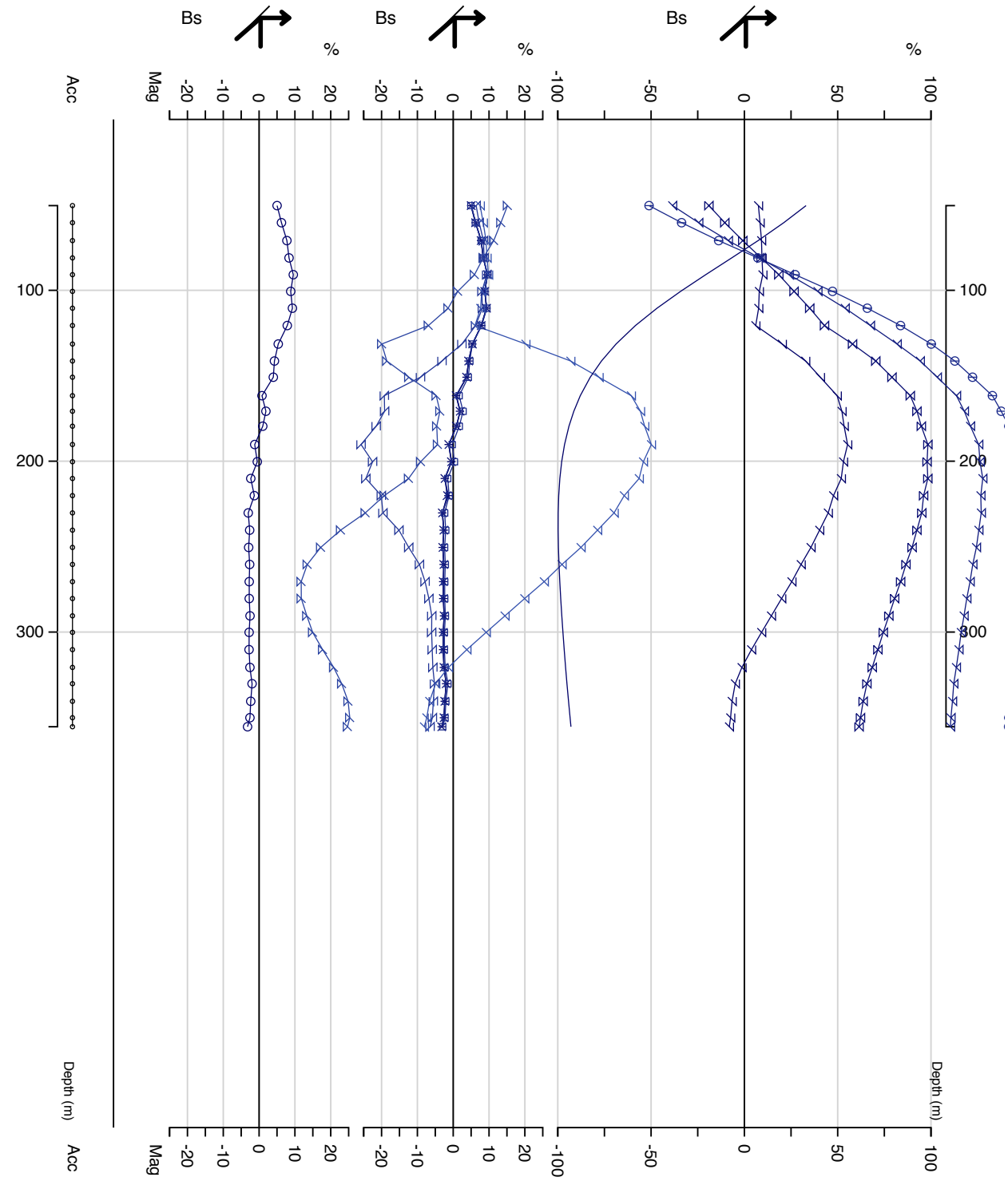
Hole: WIS-191 Loop: 1504 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-191.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



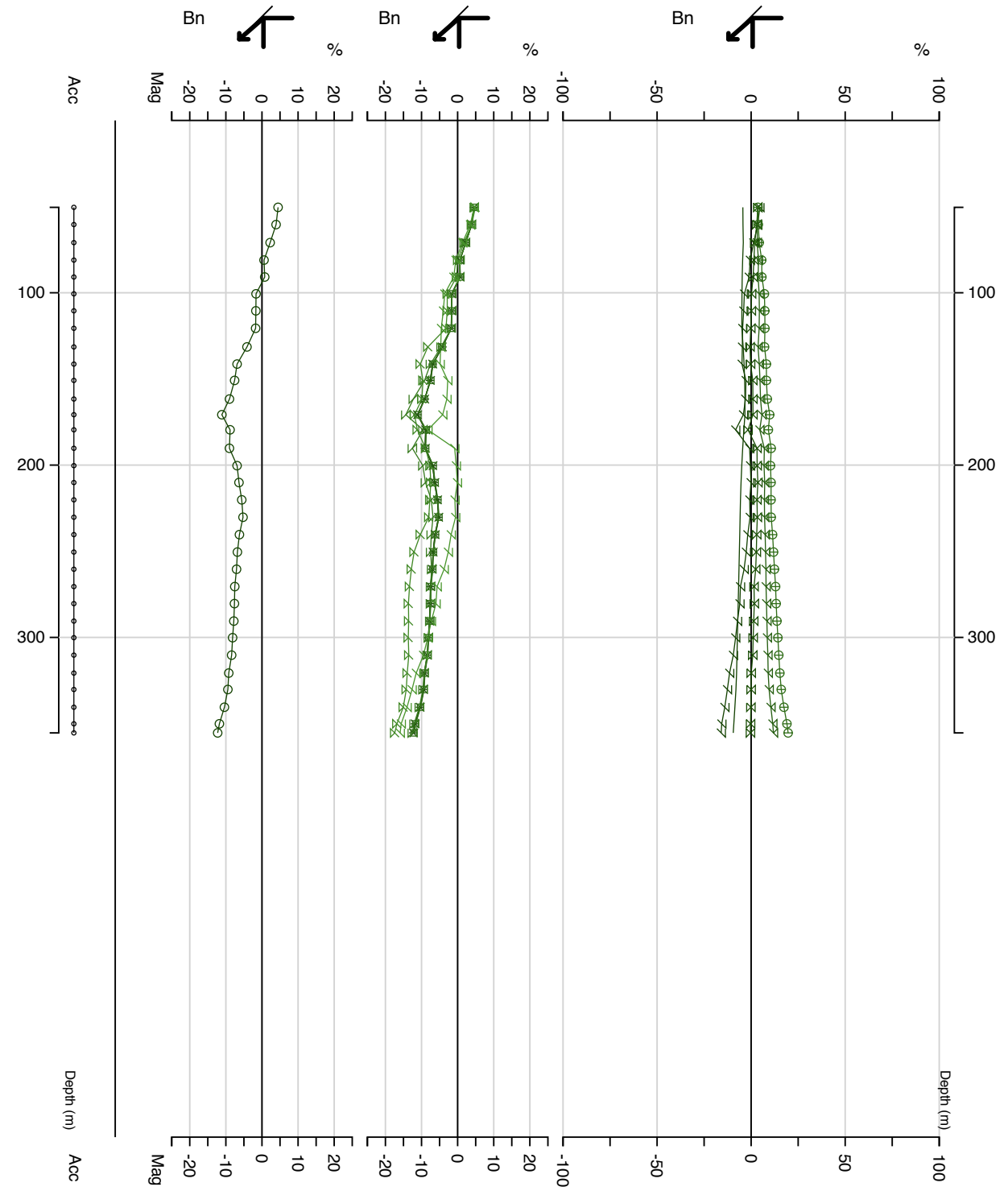
Hole: WIS-191 Loop: 1504 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1504HWIS-191.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 28/4/15 Red: 28/4/15 Plot: 30/9/15



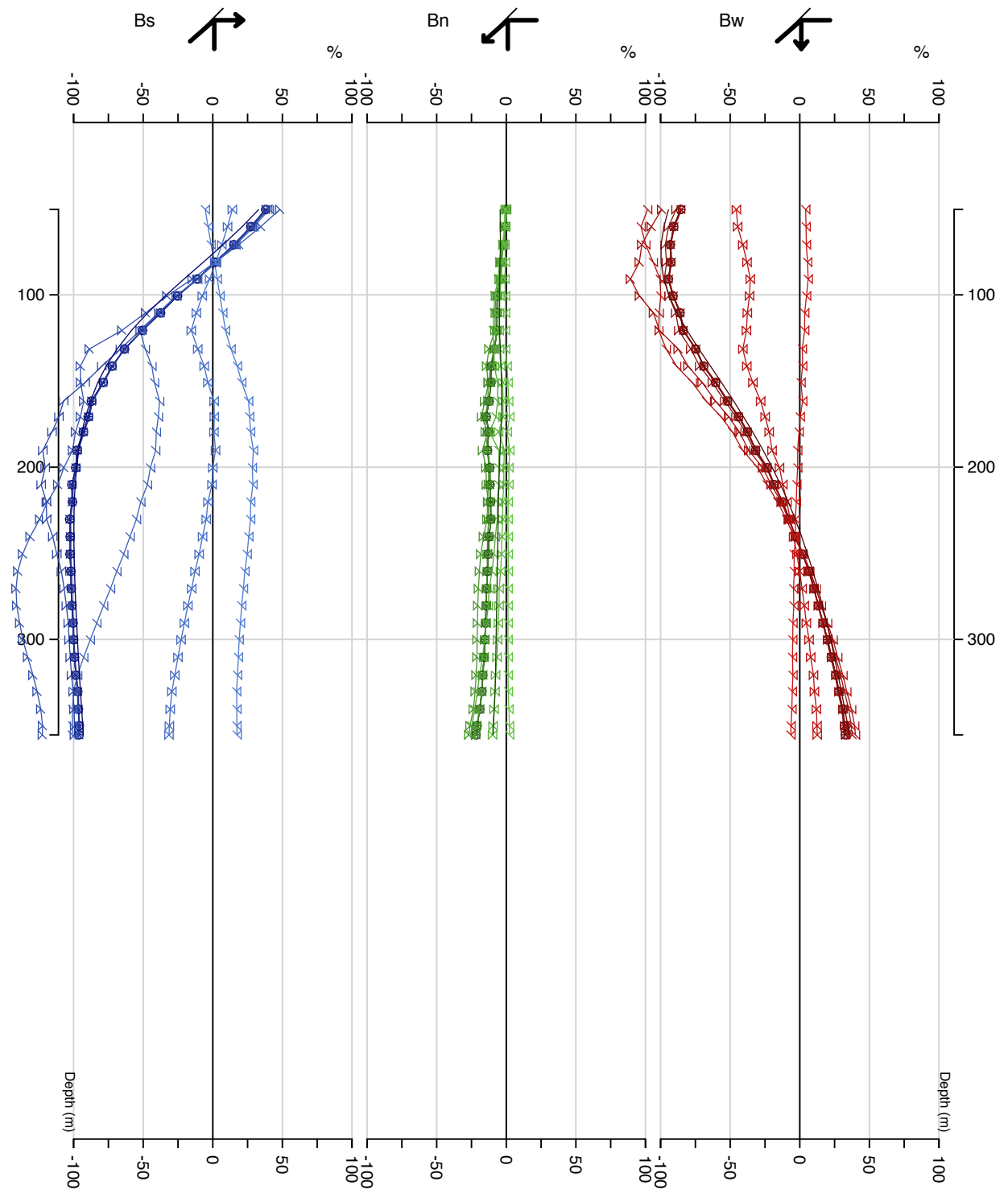
Hole: WIS-194 Loop: 1502 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-194.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/1/15 Red: 24/1/15 Plot: 30/9/15



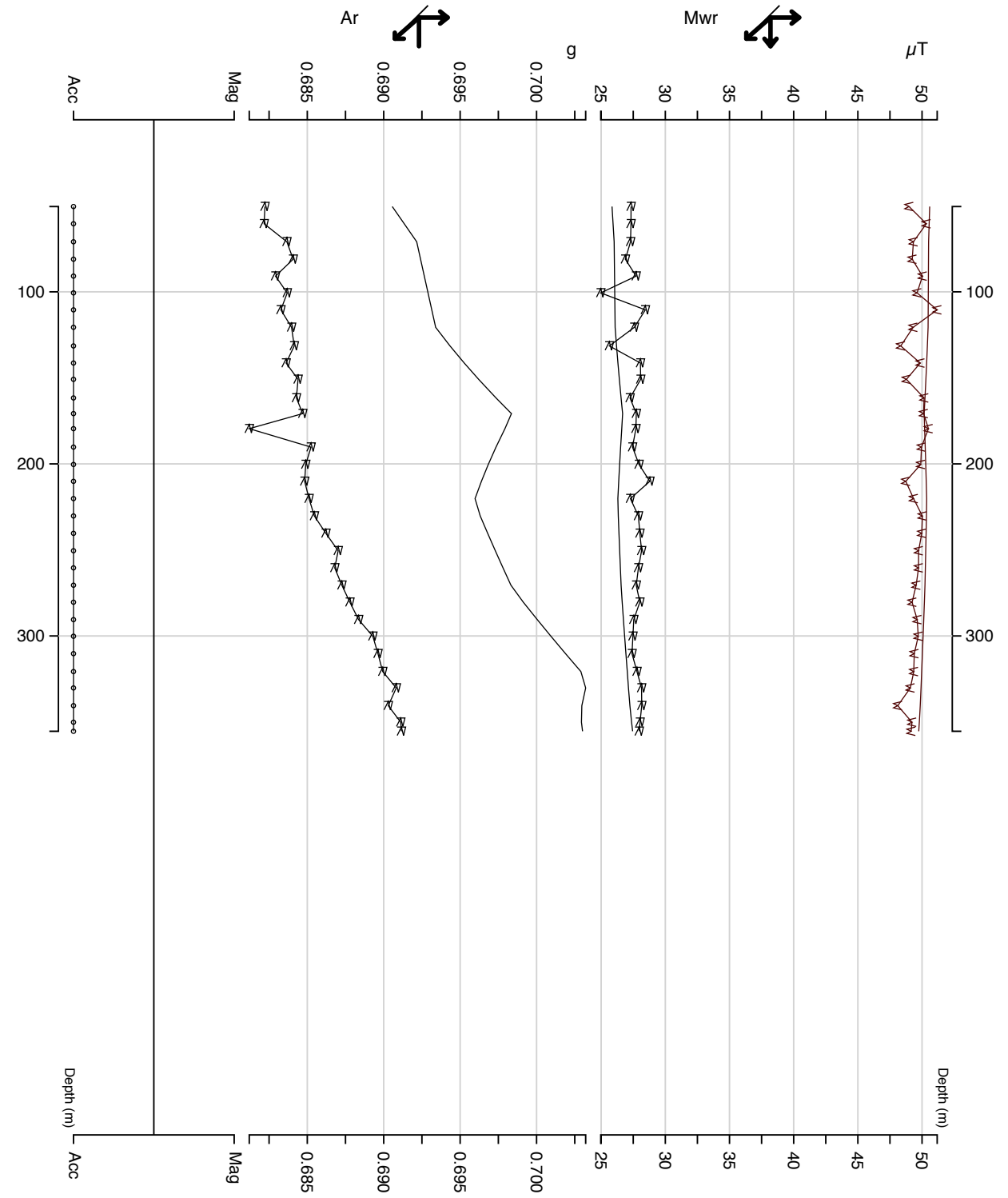
Hole: WIS-194 Loop: 1502 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-194.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 21/1/15 Red: 24/1/15 Plot: 30/9/15



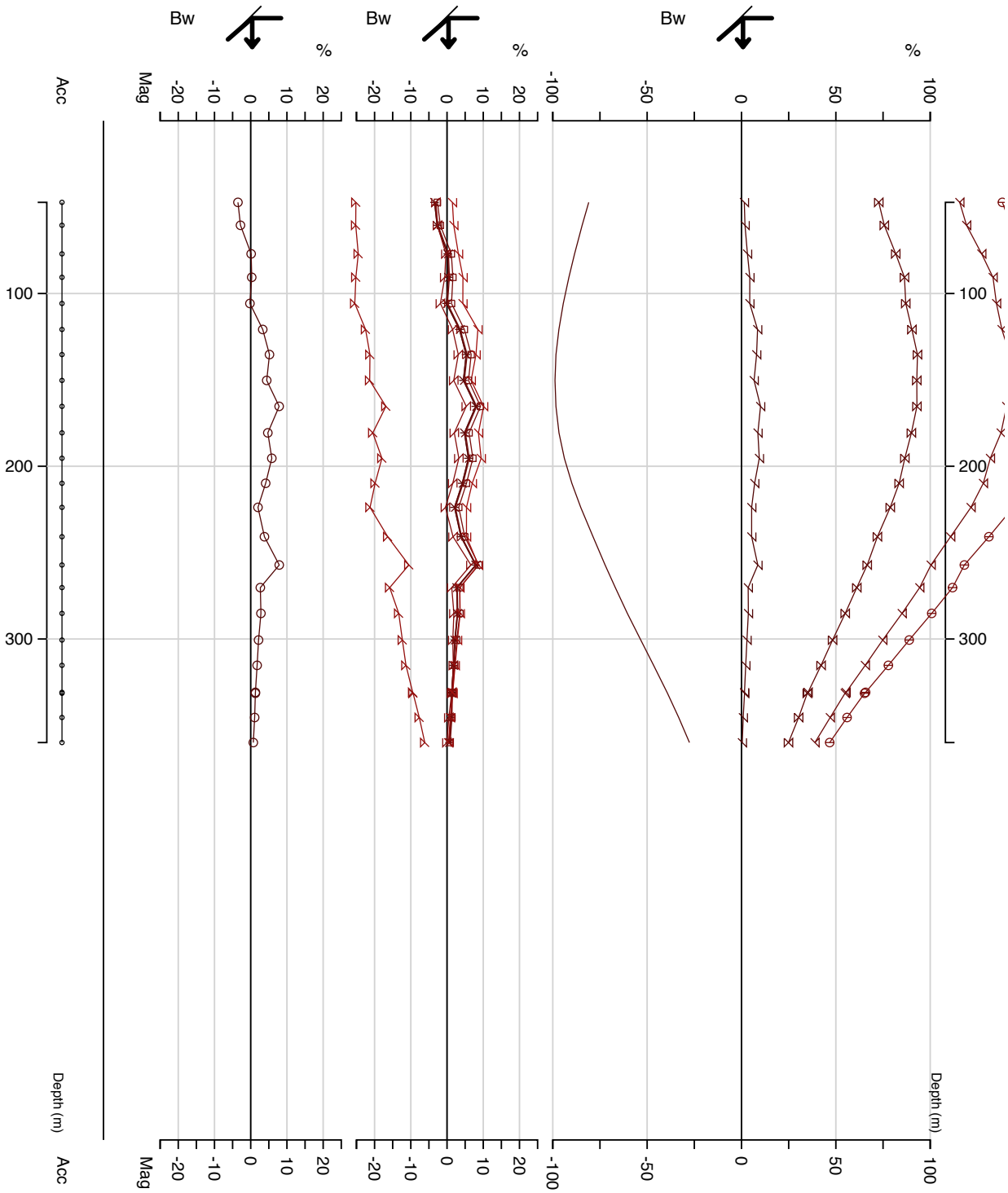
Hole: WIS-194 Loop: 1502 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-194.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 21/1/15 Red: 24/1/15 Plot: 30/9/15



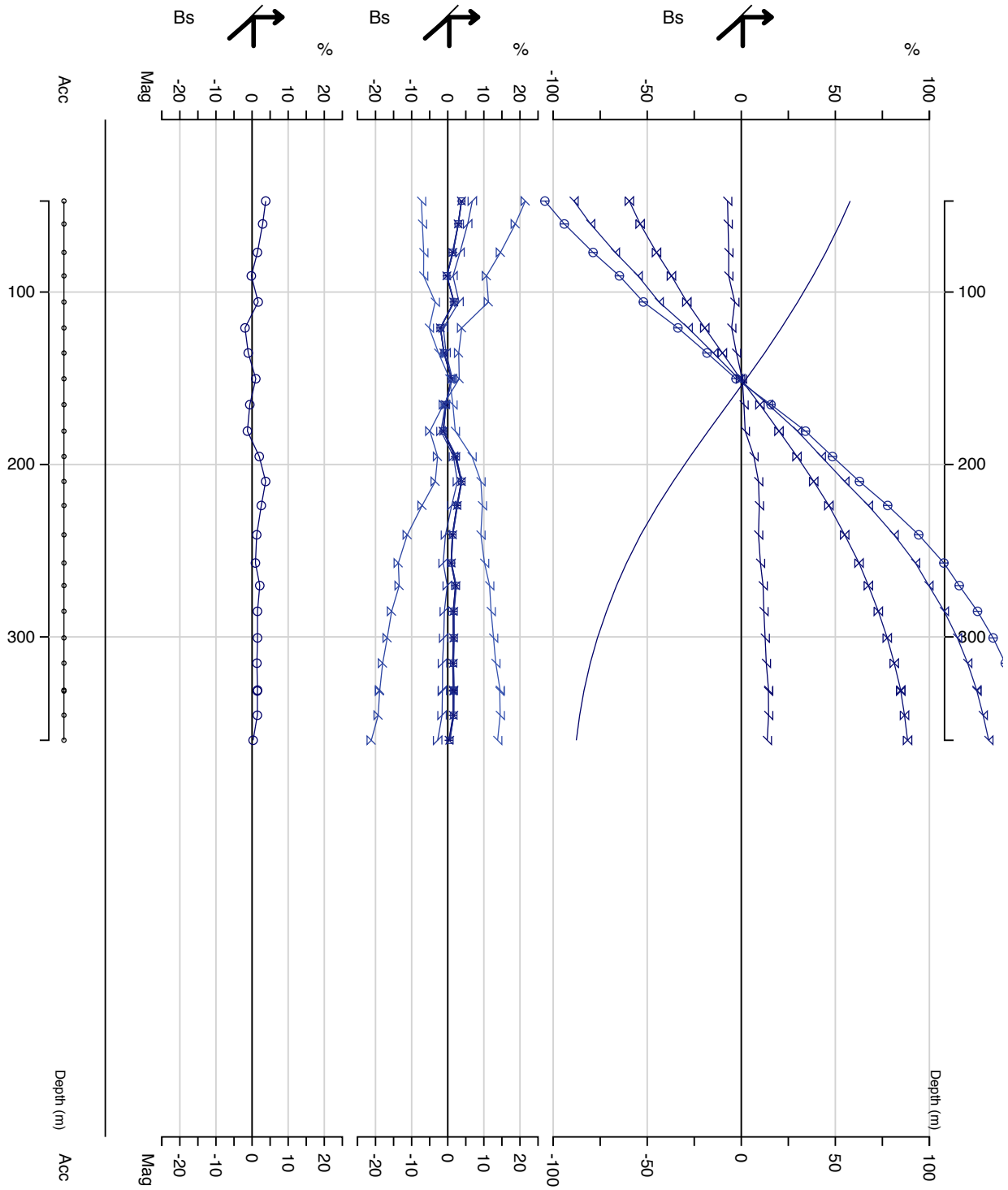
Hole: WIS-194 Loop: 1502 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-194.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/1/15 Red: 24/1/15 Plot: 30/9/15



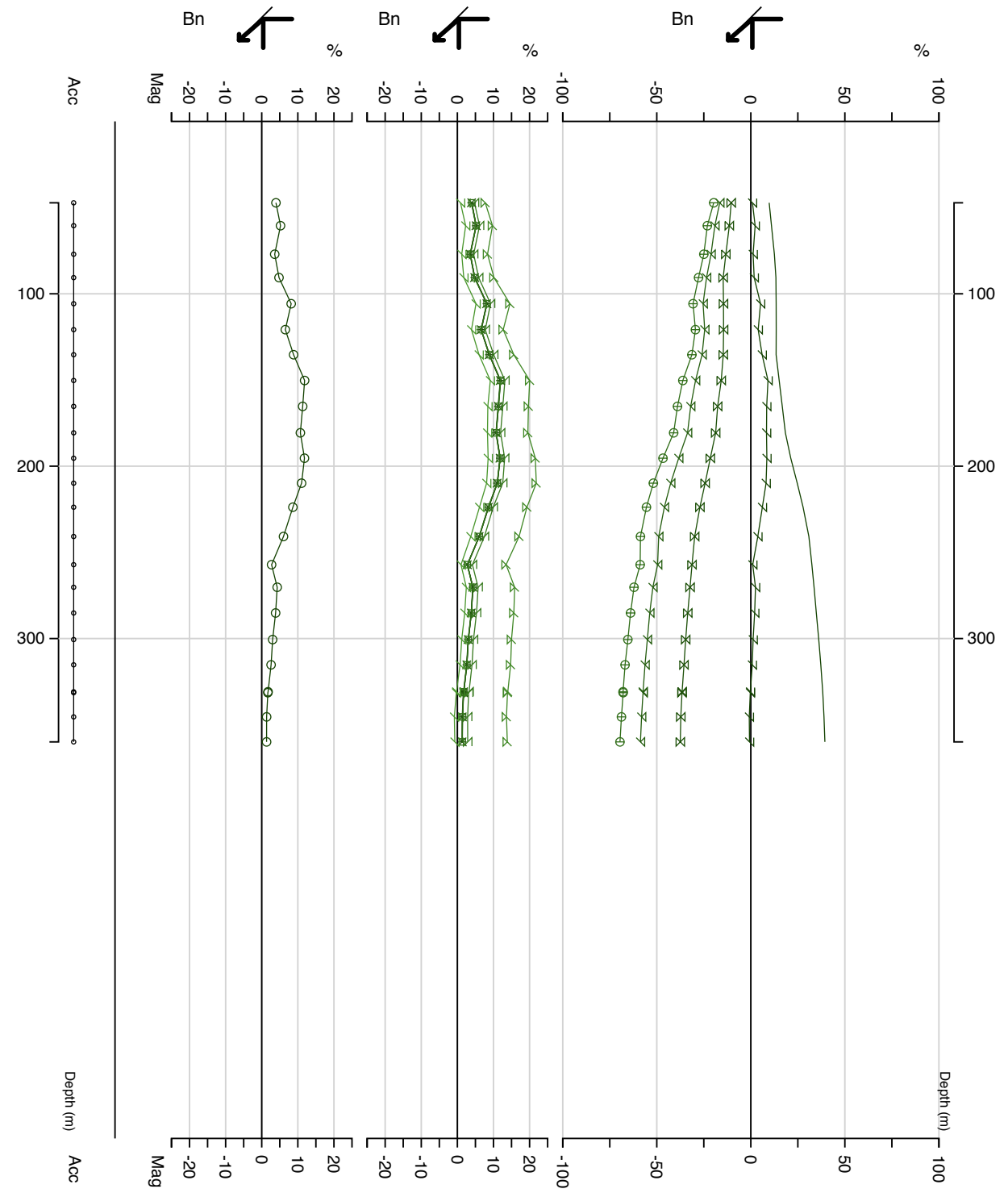
Hole: WIS-194 Loop: 1502 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1502HWIS-194.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/1/15 Red: 24/1/15 Plot: 30/9/15



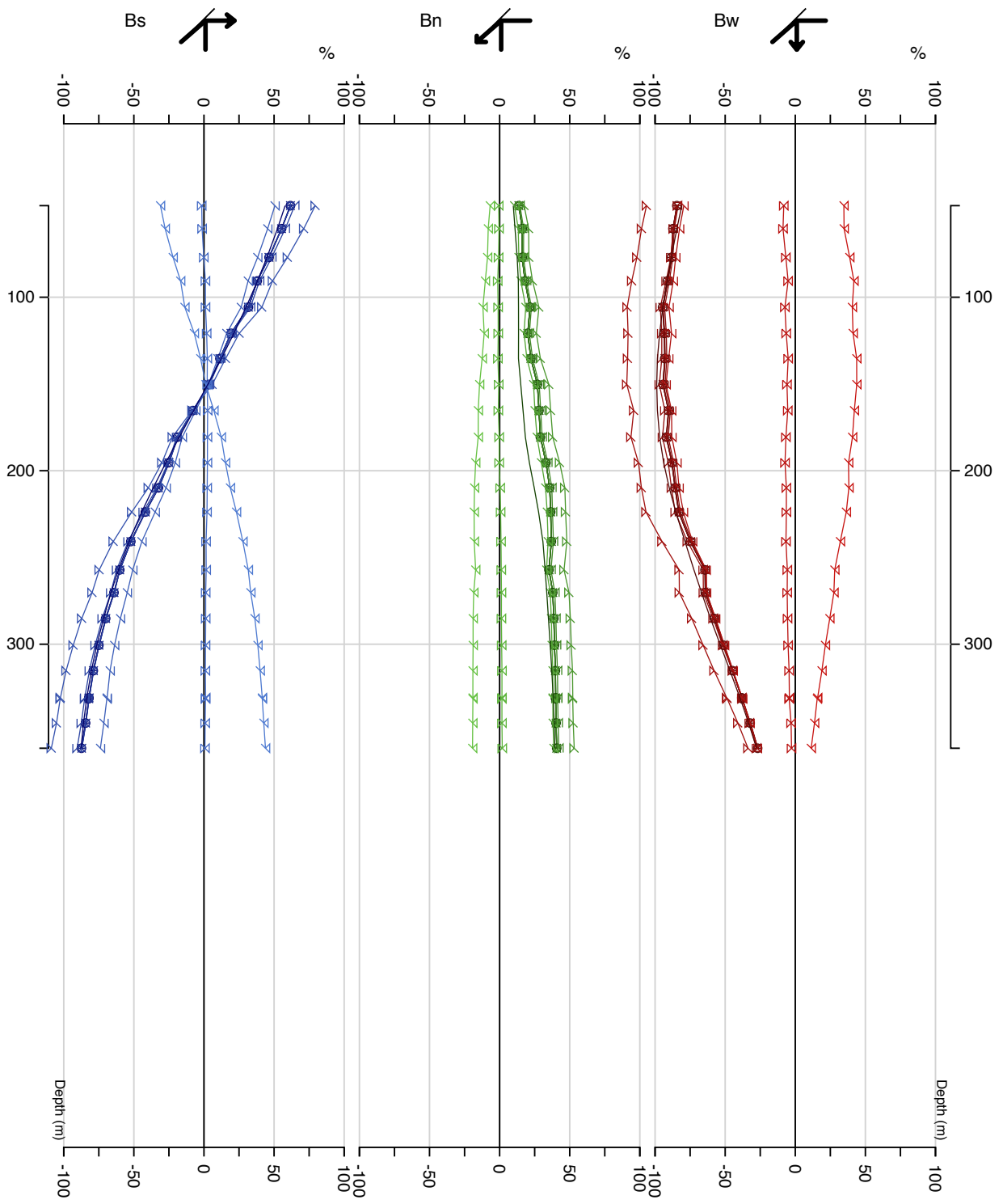
Hole: WIS-195 Loop: 1501 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1501HWIS-195.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



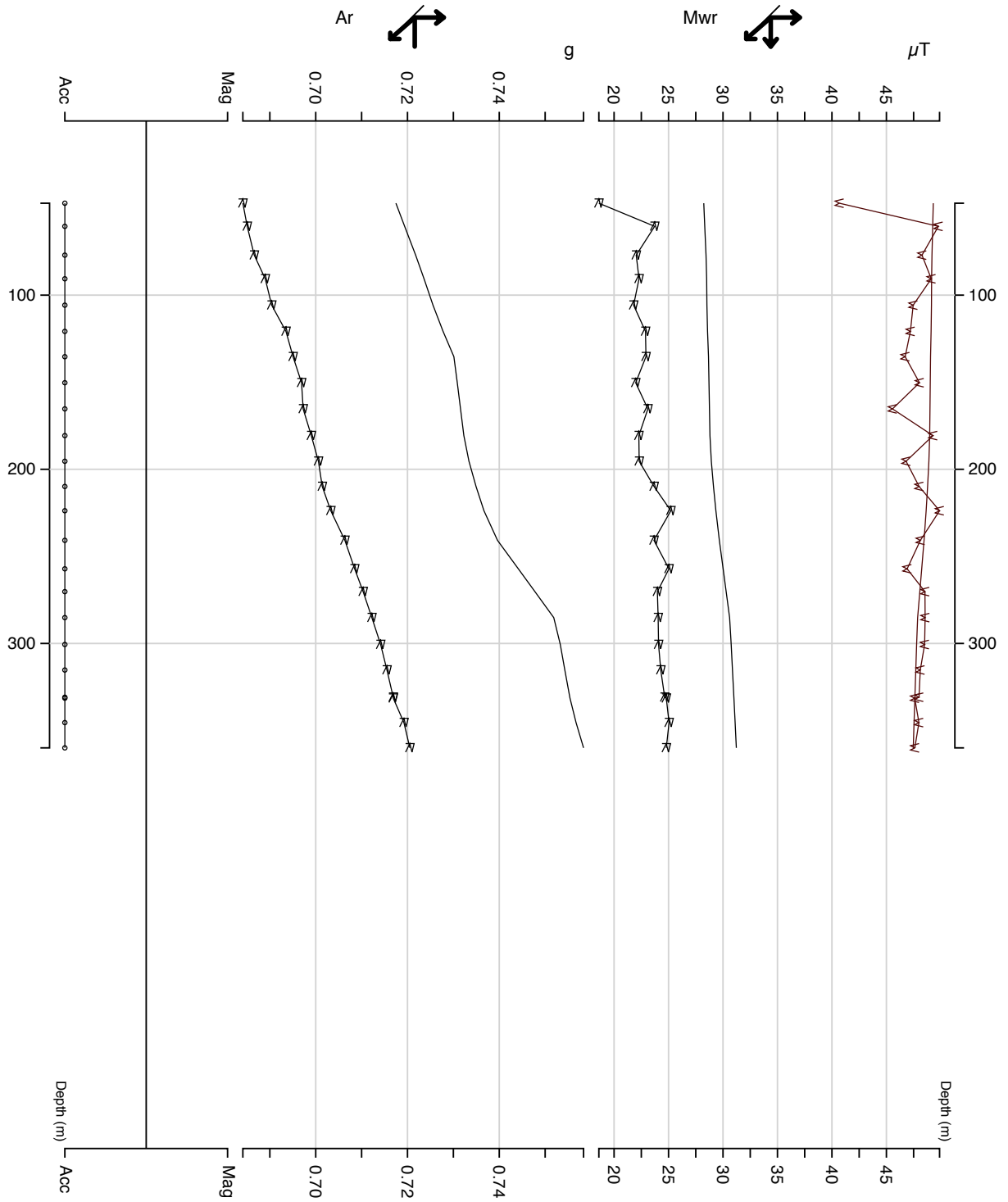
Hole: WIS-195 Loop: 1501 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1501HWIS-195.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



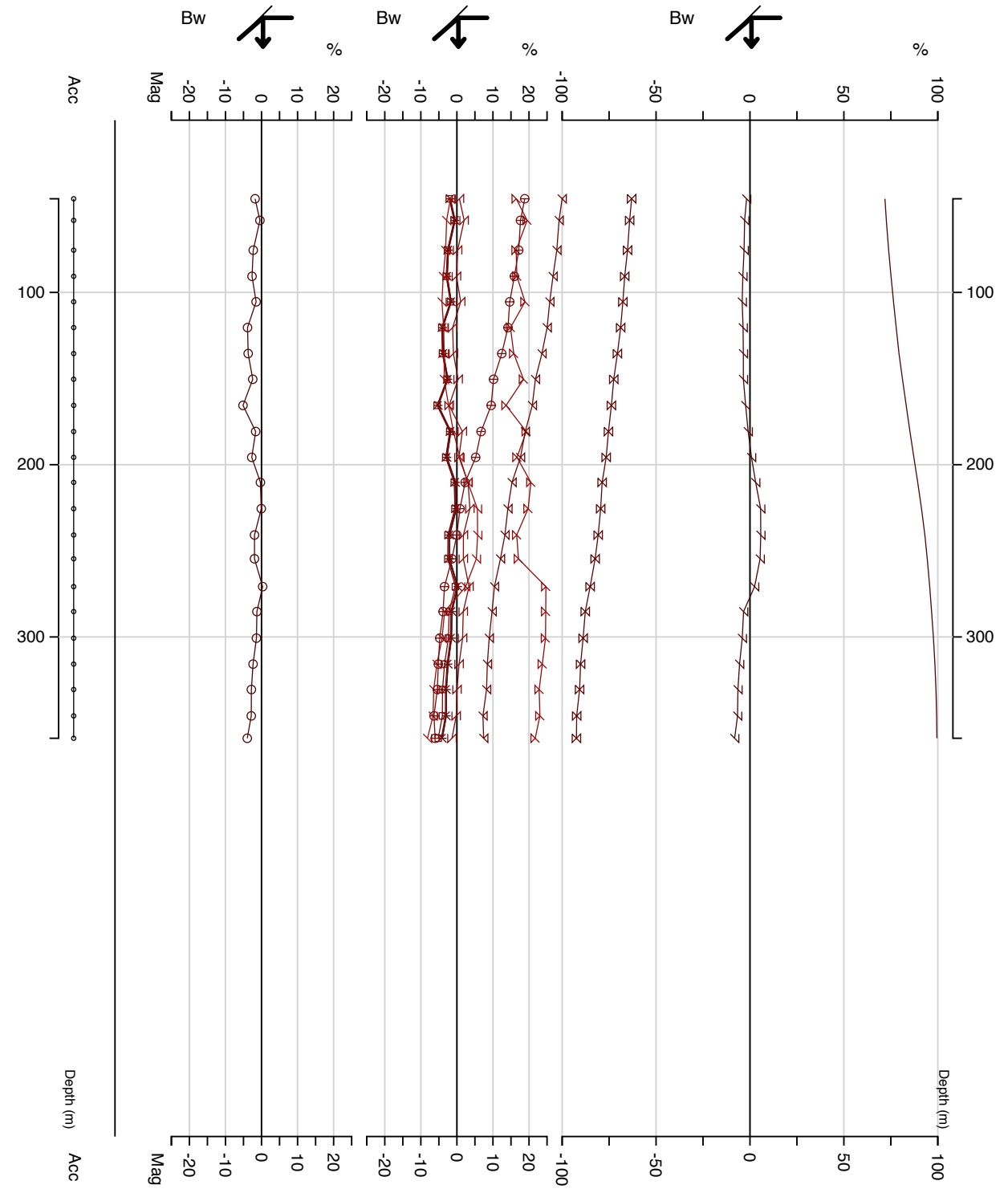
Hole: WIS-195 Loop: 1501 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1501HWIS-195.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



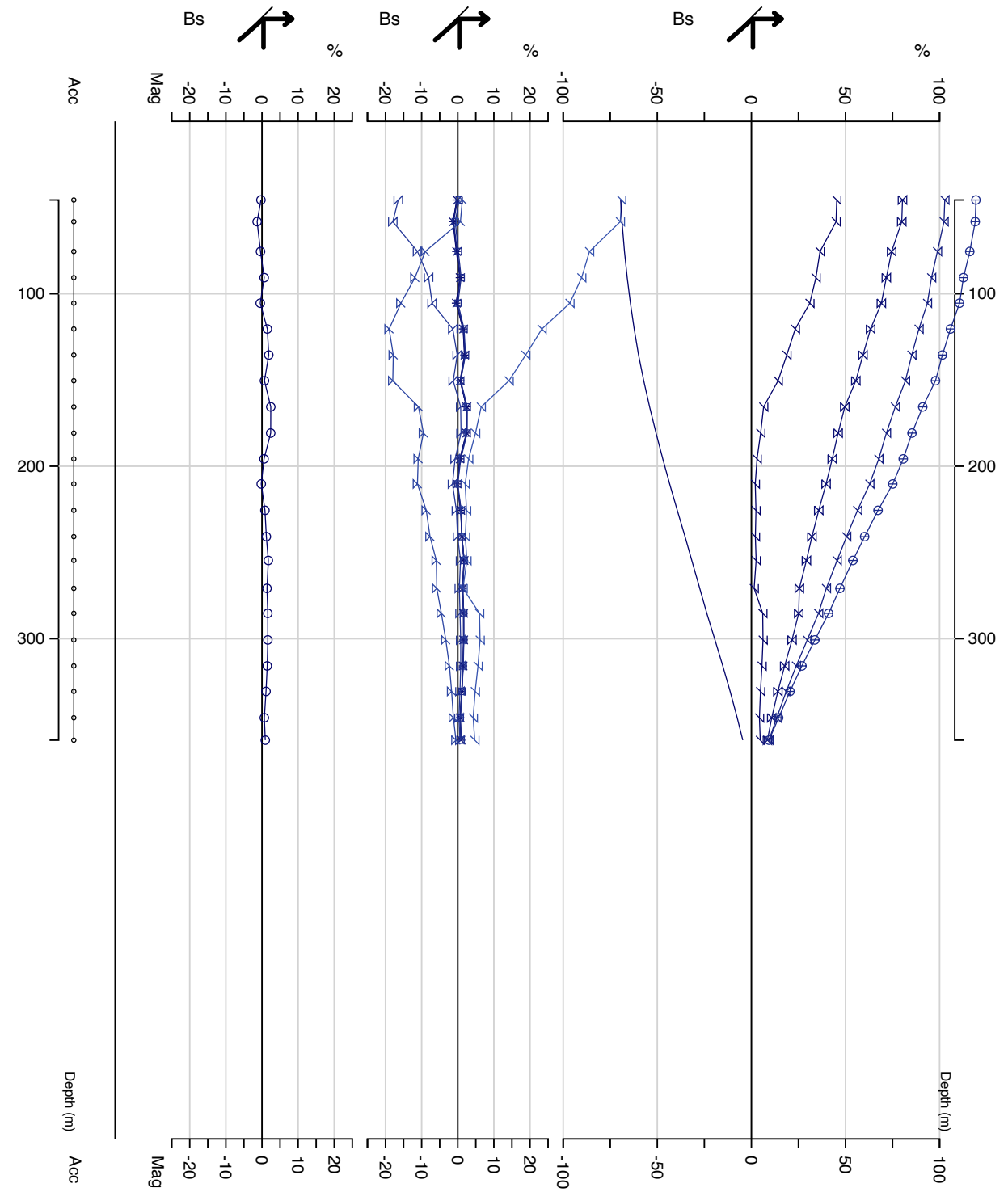
Hole: WIS-195 Loop: 1501 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1501HWIS-195.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



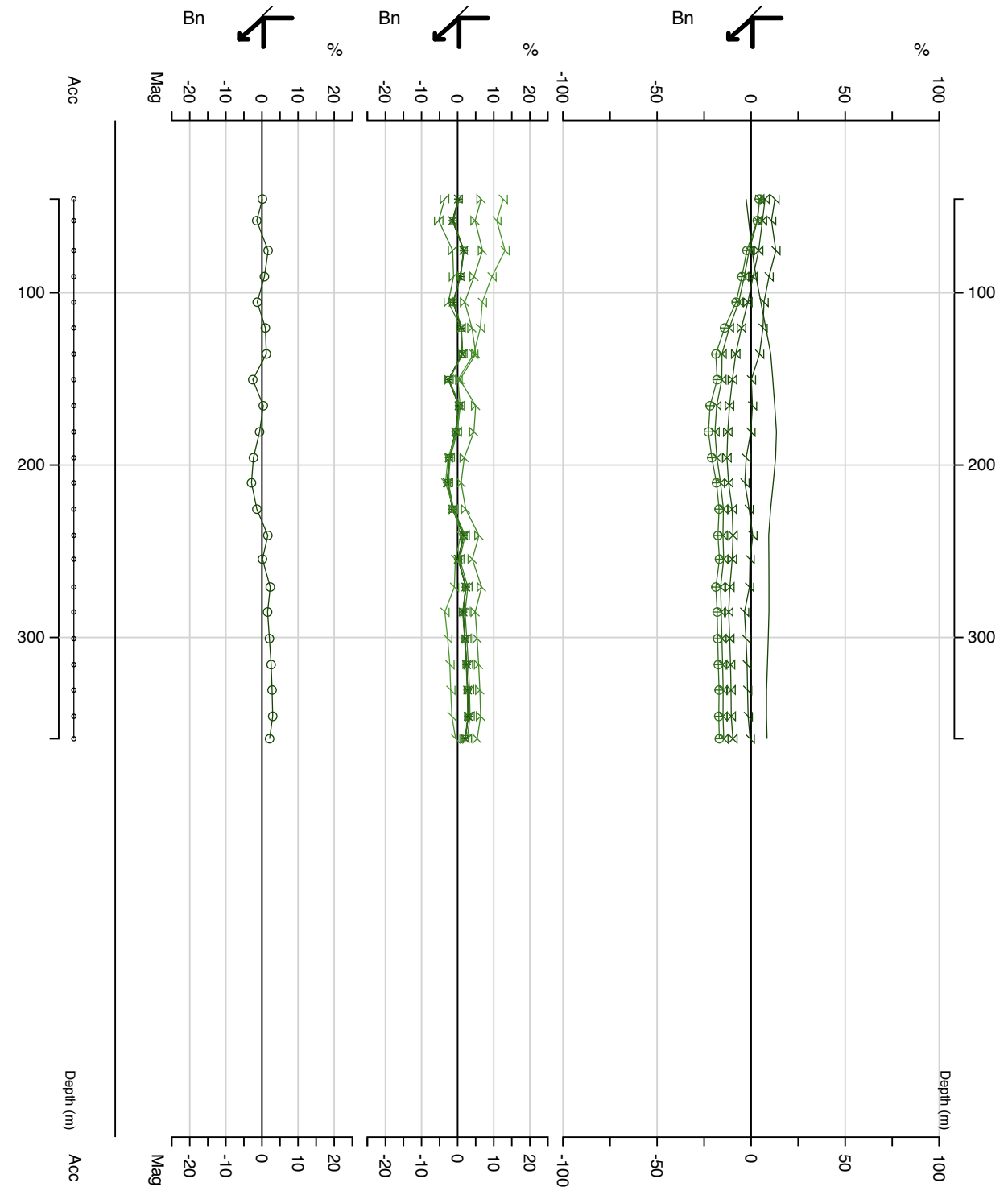
Hole: WIS-195 Loop: 1501 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1501HWIS-195.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



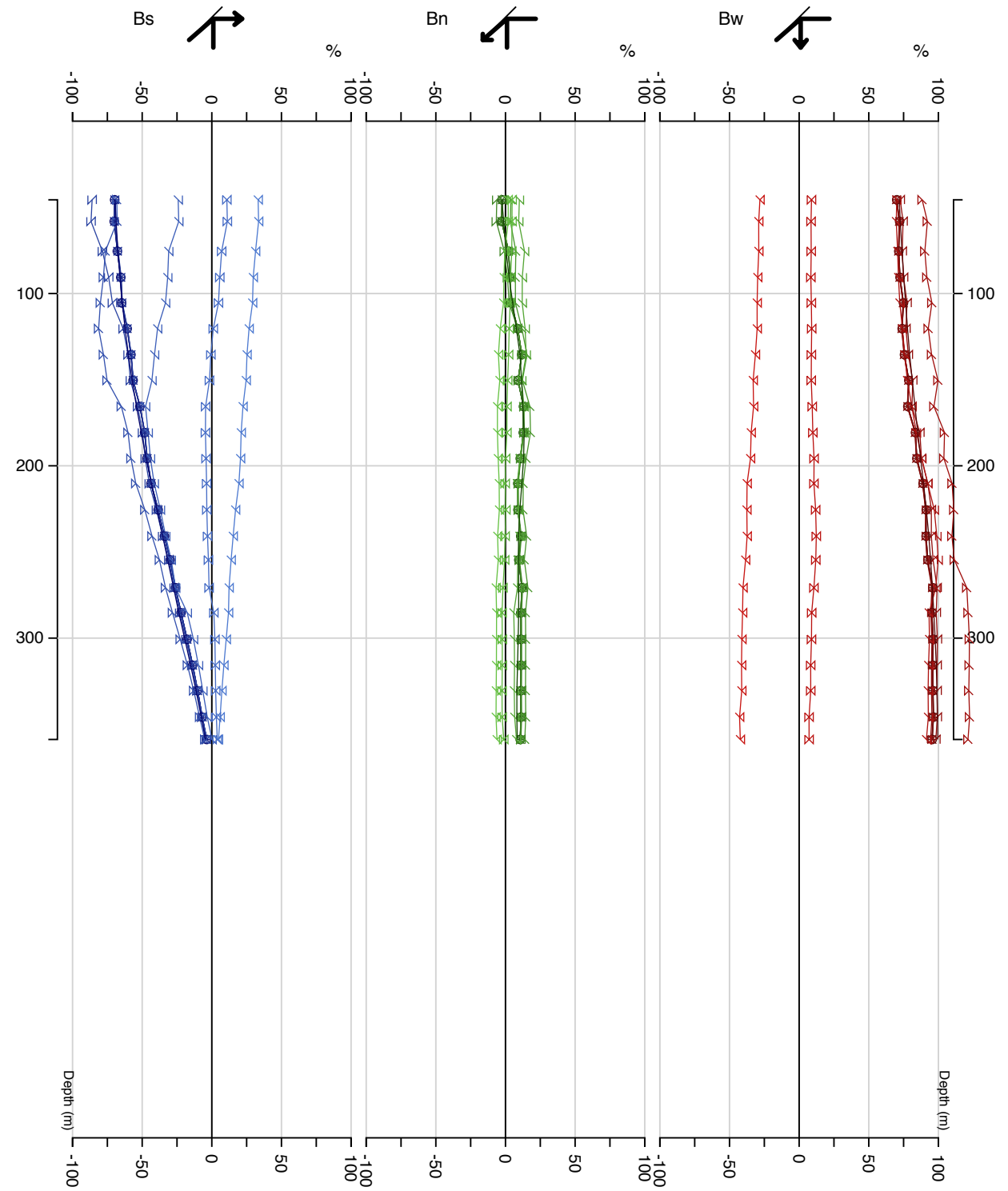
Hole: WIS-195 Loop: 1502 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-195.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



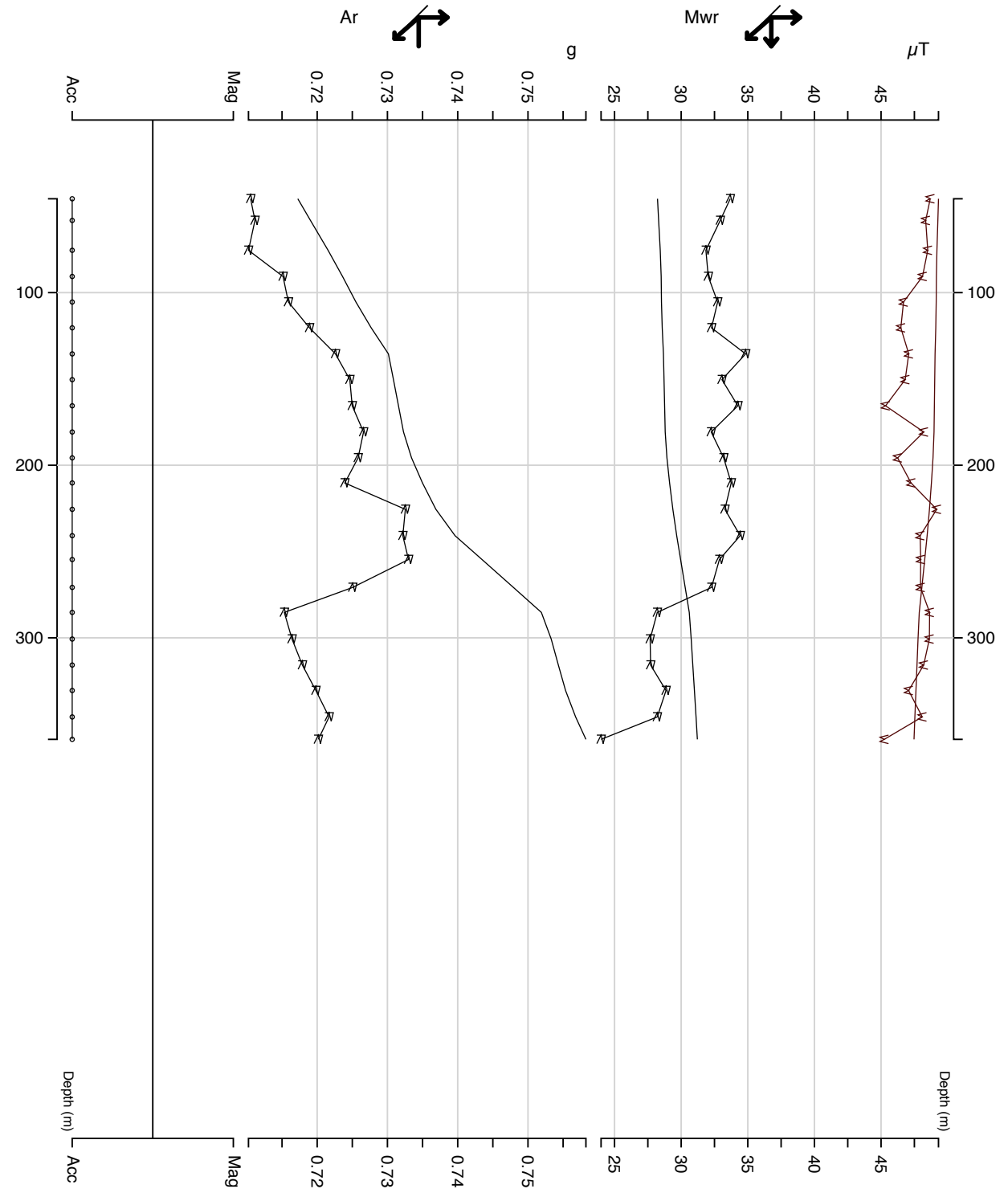
Hole: WIS-195 Loop: 1502 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-195.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



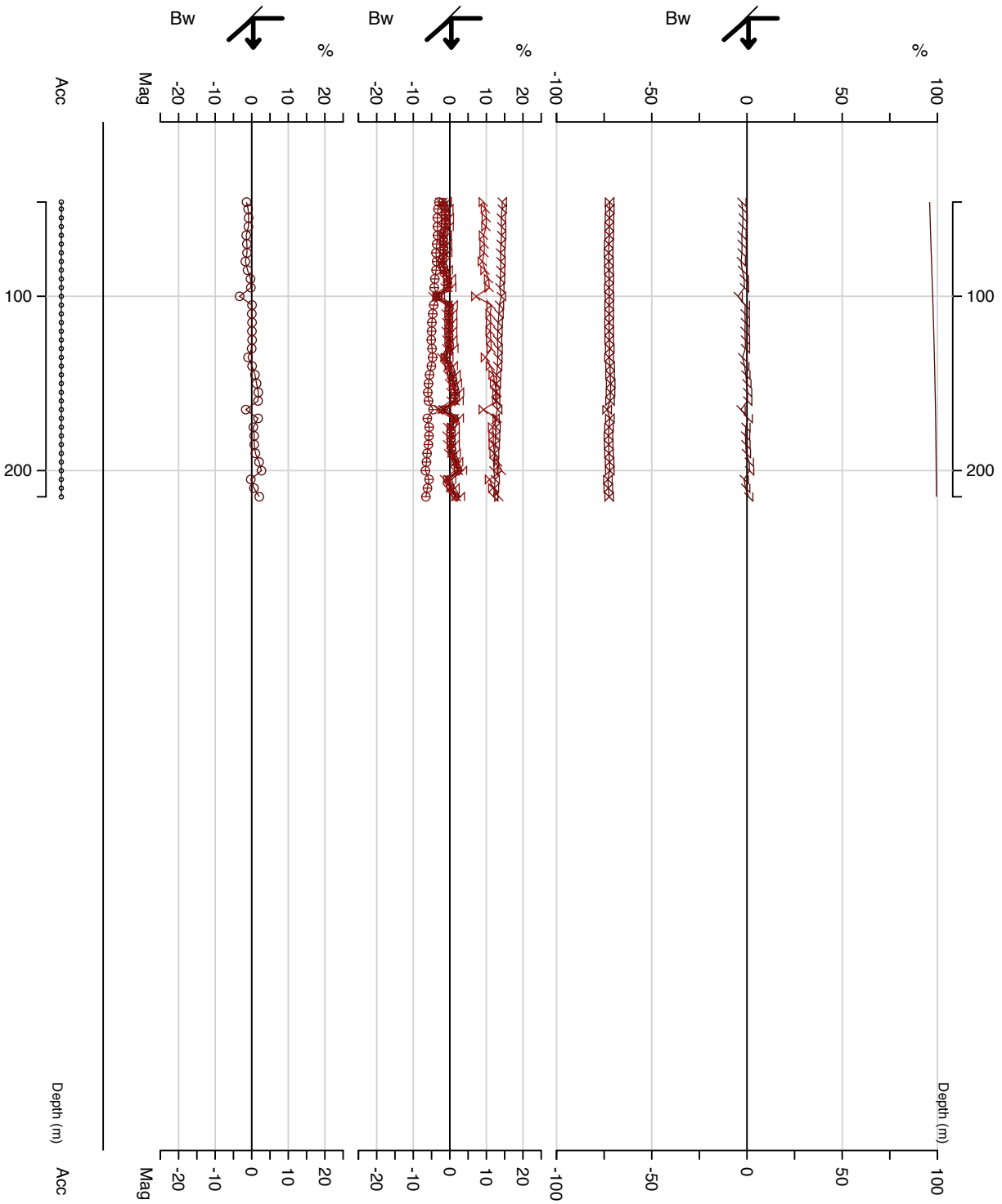
Hole: WIS-195 Loop: 1502 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-195.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



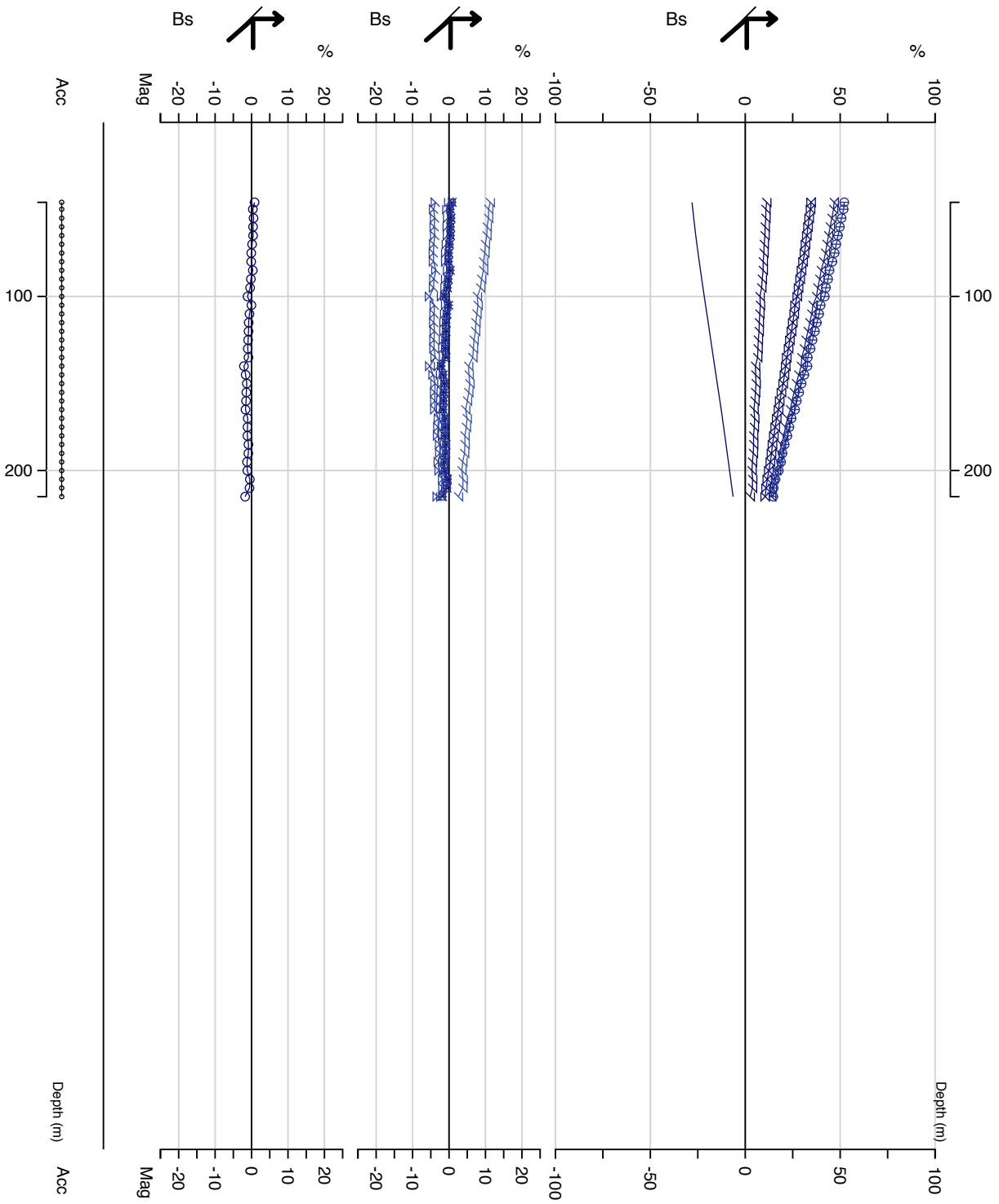
Hole: WIS-195 Loop: 1502 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1502HWIS-195.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



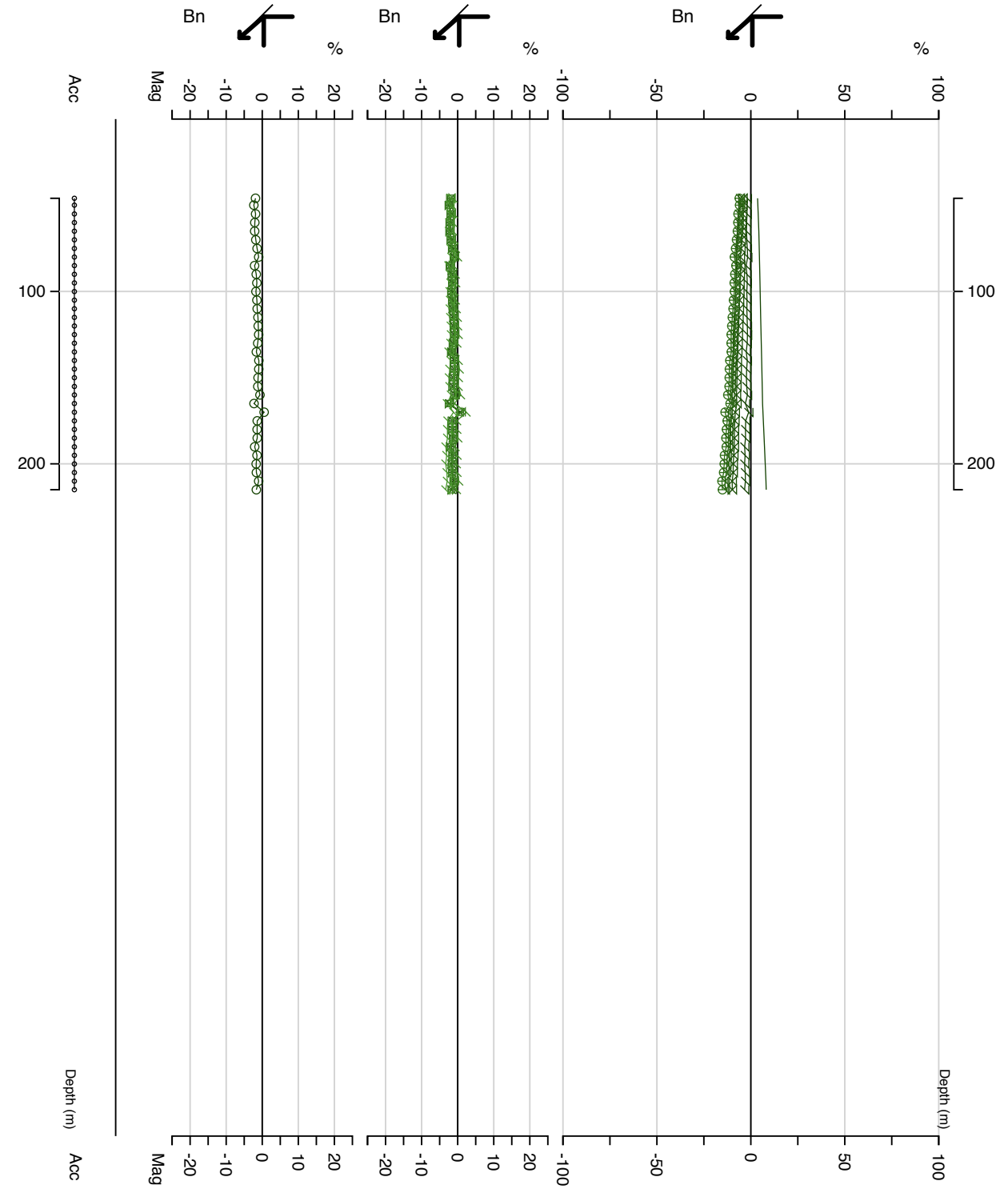
Hole: WIS-195 Loop: 1502 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1502HWIS-195.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 5/2/15 Red: 5/2/15 Plot: 30/9/15



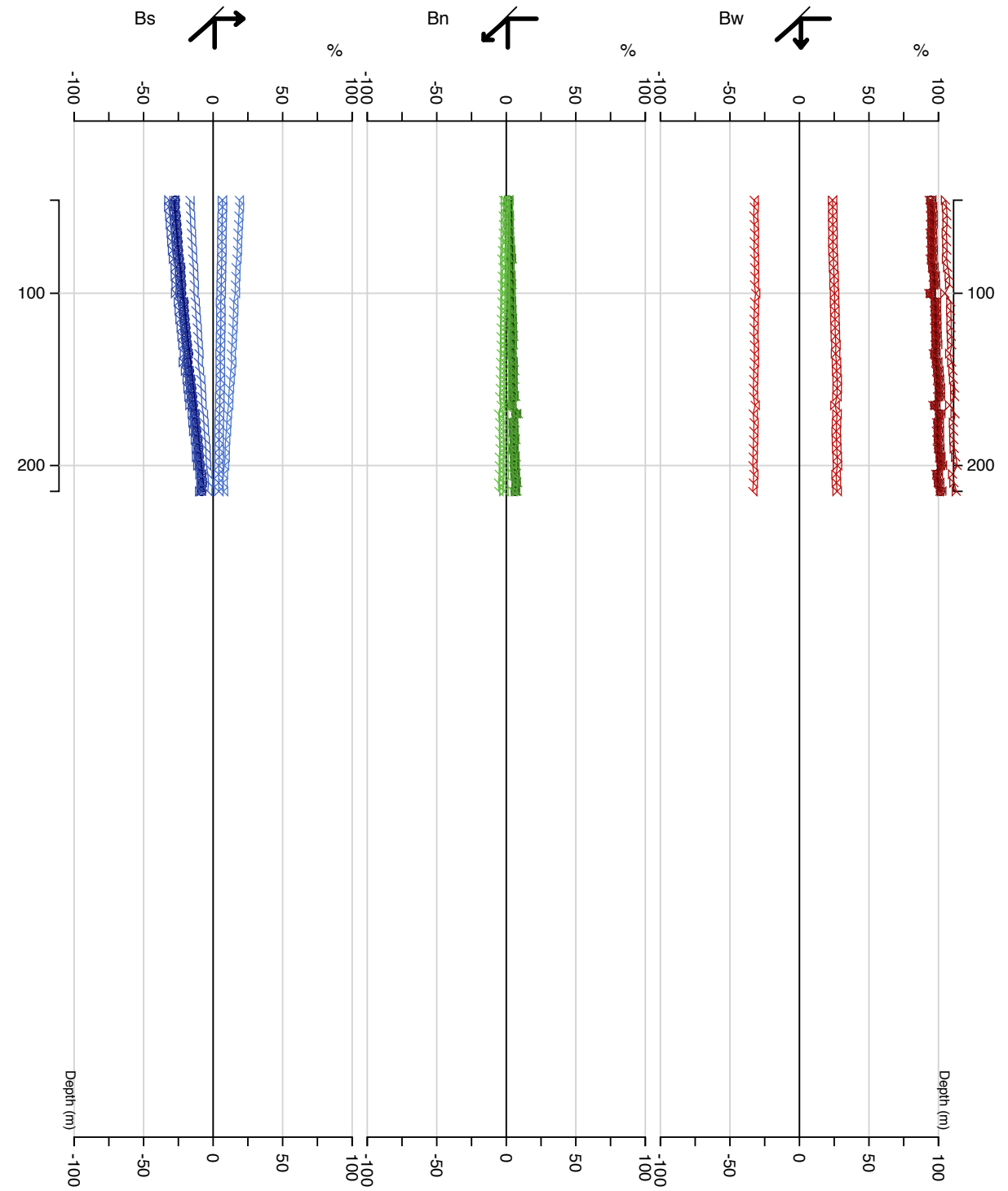
Hole: WIS-200 Loop: 1507 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-200.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 30/9/15



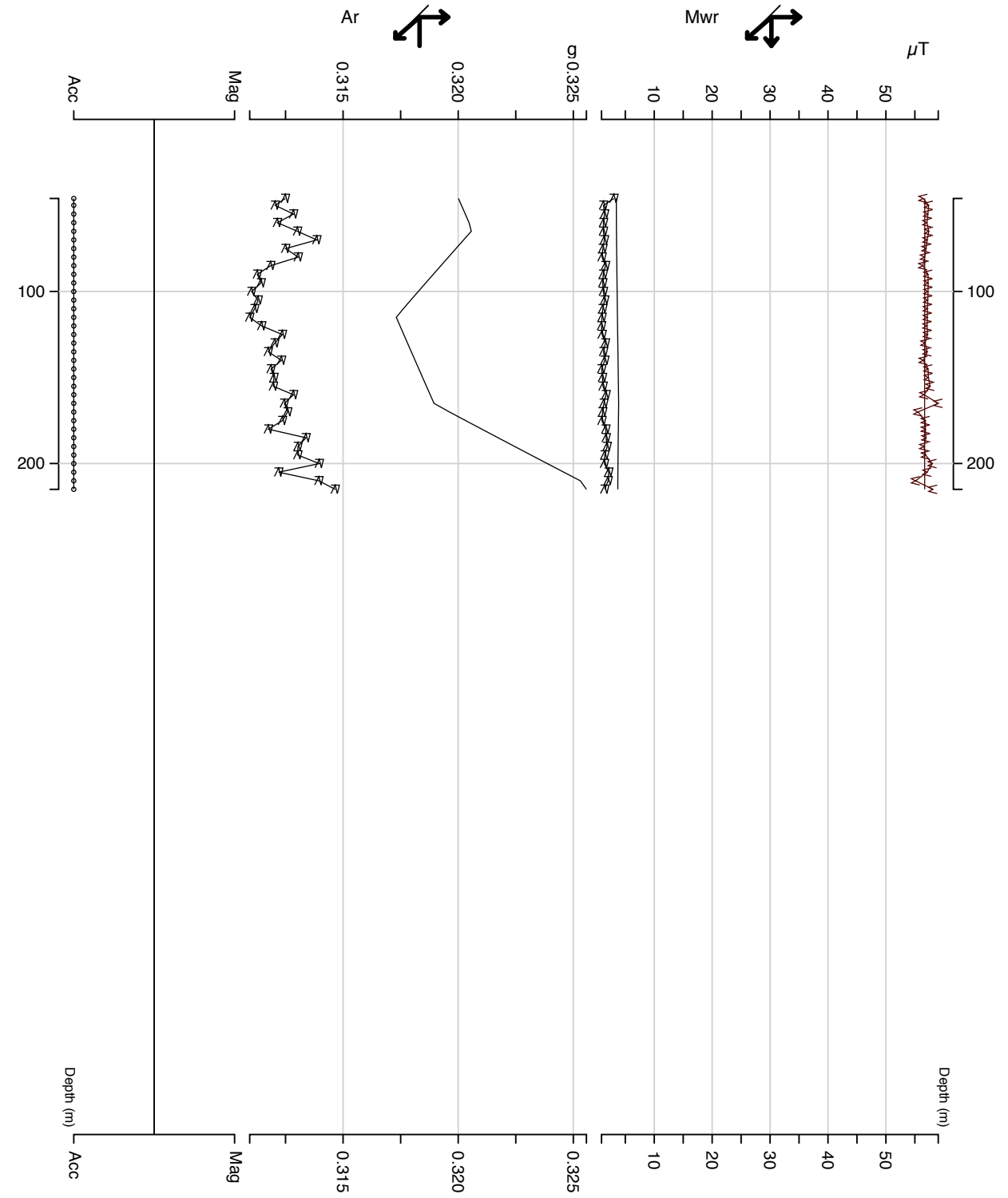
Hole: WIS-200 Loop: 1507 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-200.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 30/9/15



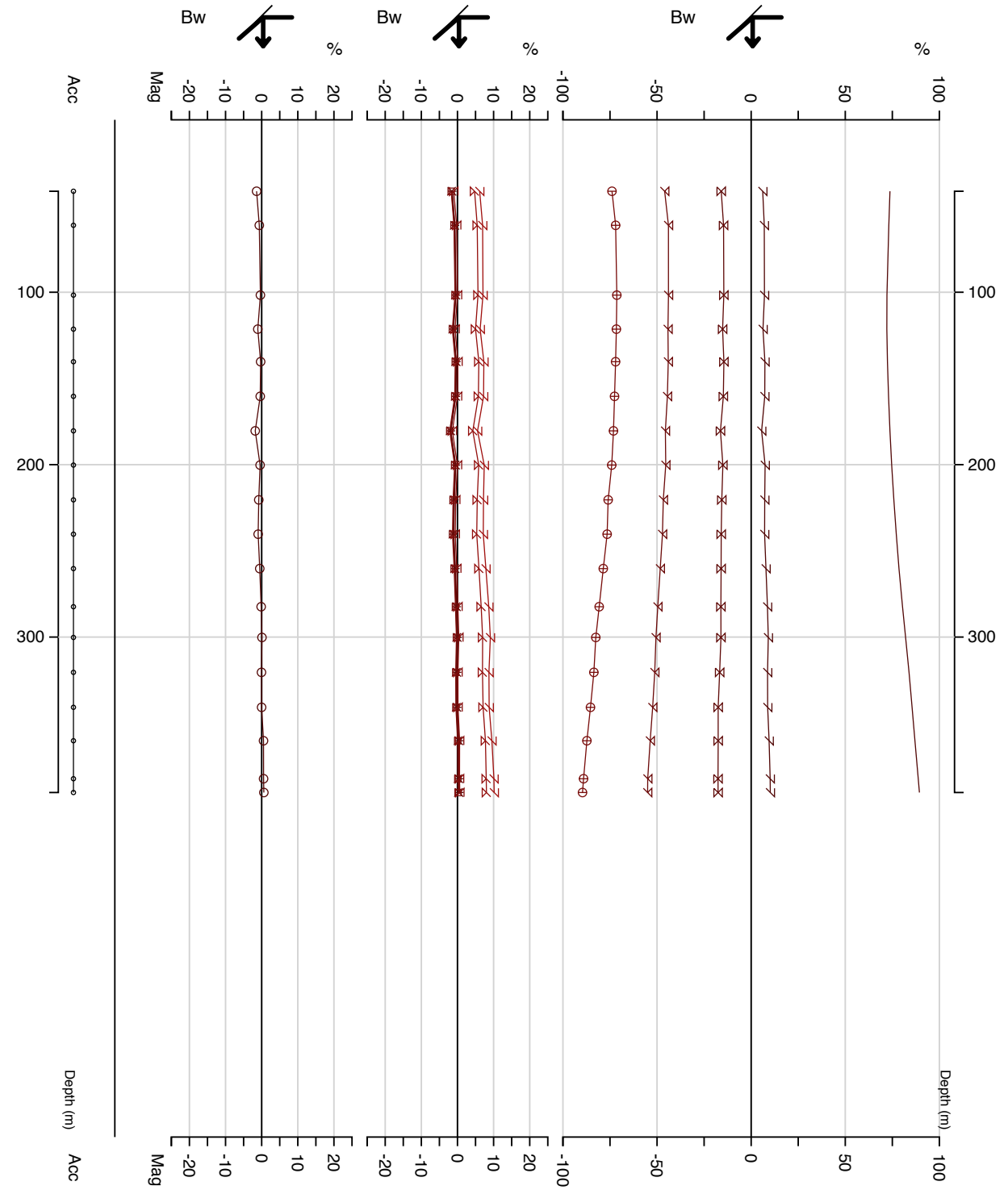
Hole: WIS-200 Loop: 1507 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-200.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 30/9/15



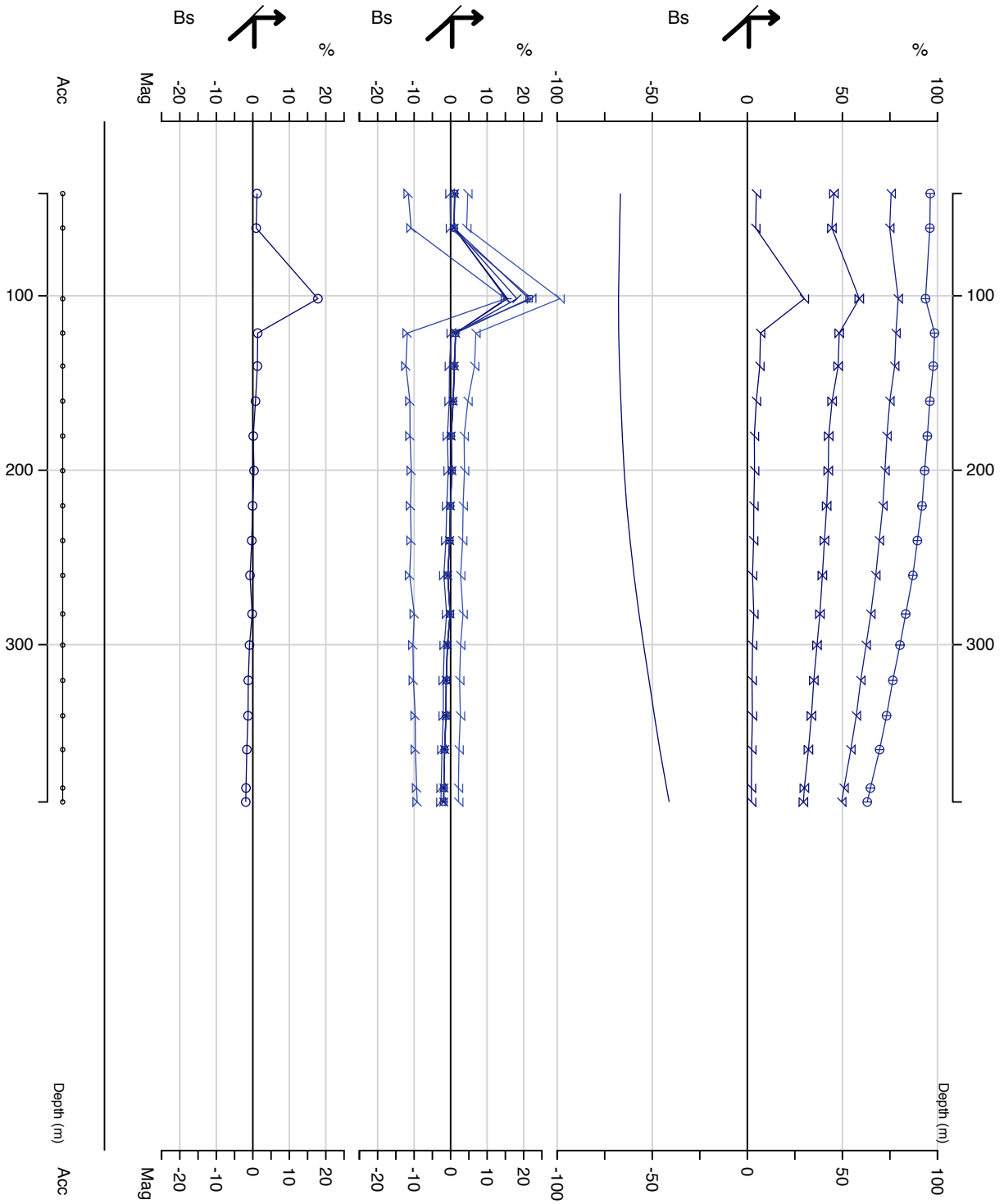
Hole: WIS-200 Loop: 1507 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-200.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 30/9/15



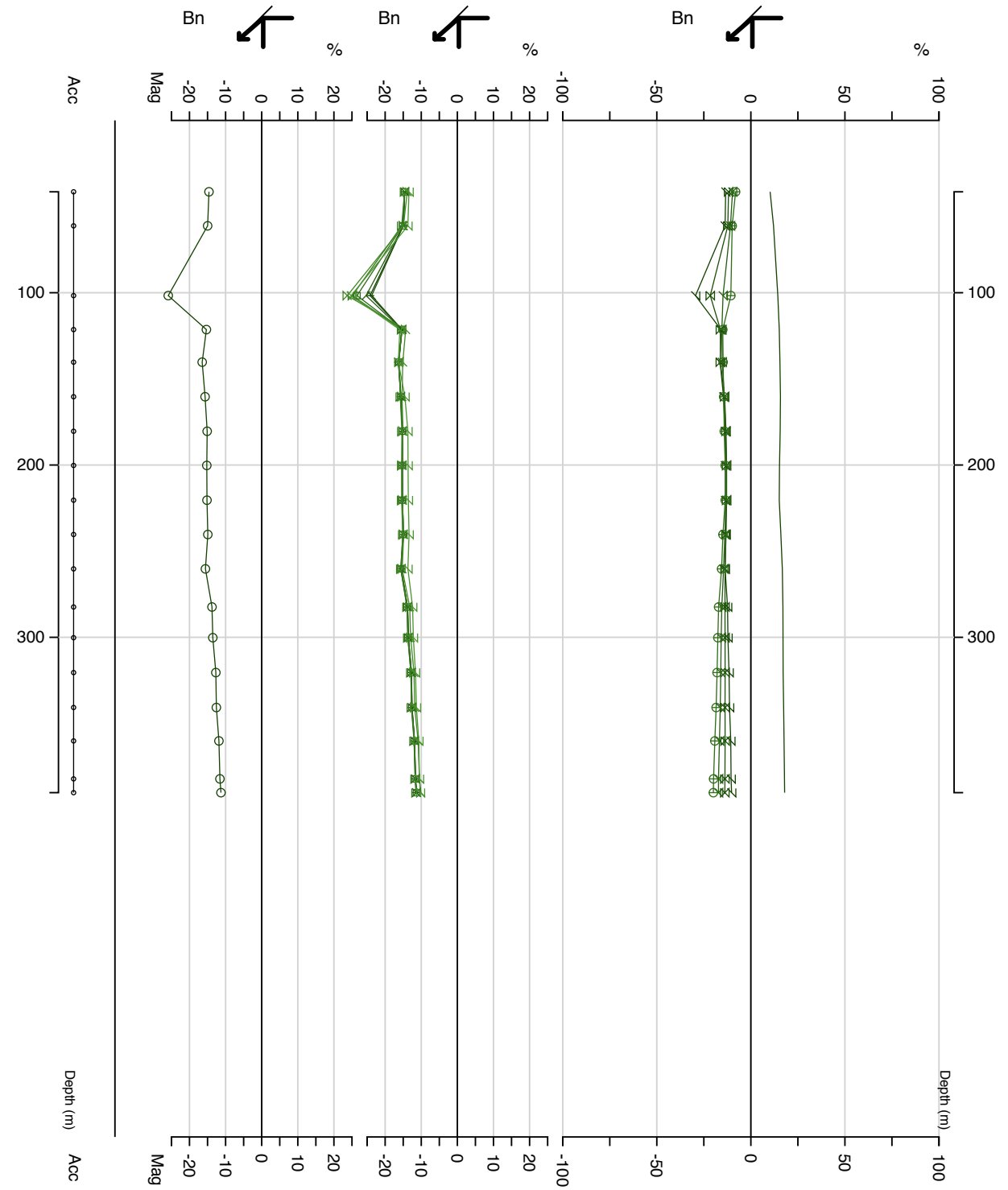
Hole: WIS-200 Loop: 1507 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1507HWIS-200.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 30/9/15



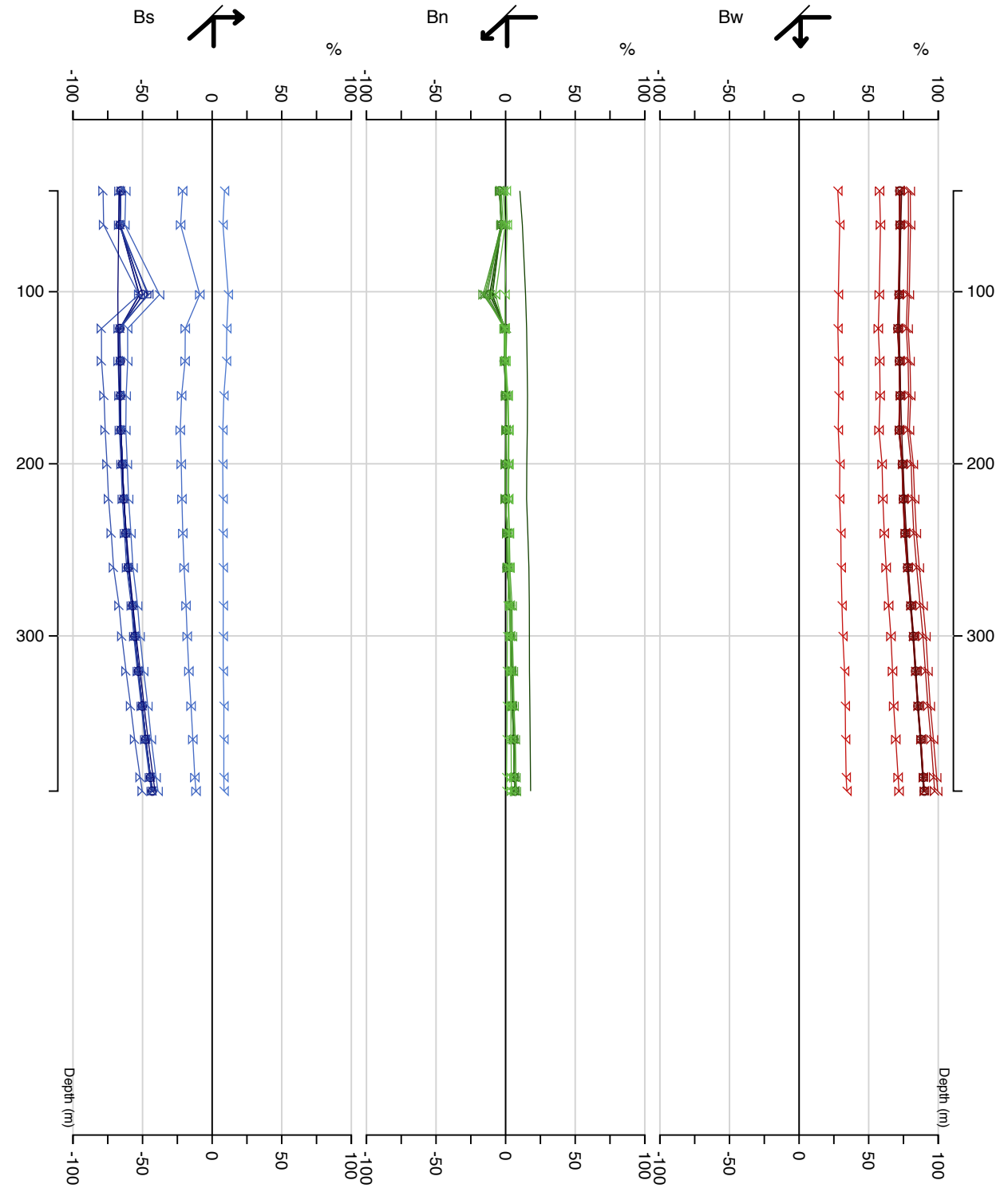
Hole: WIS-201 Loop: 1507 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-201.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 1/10/15



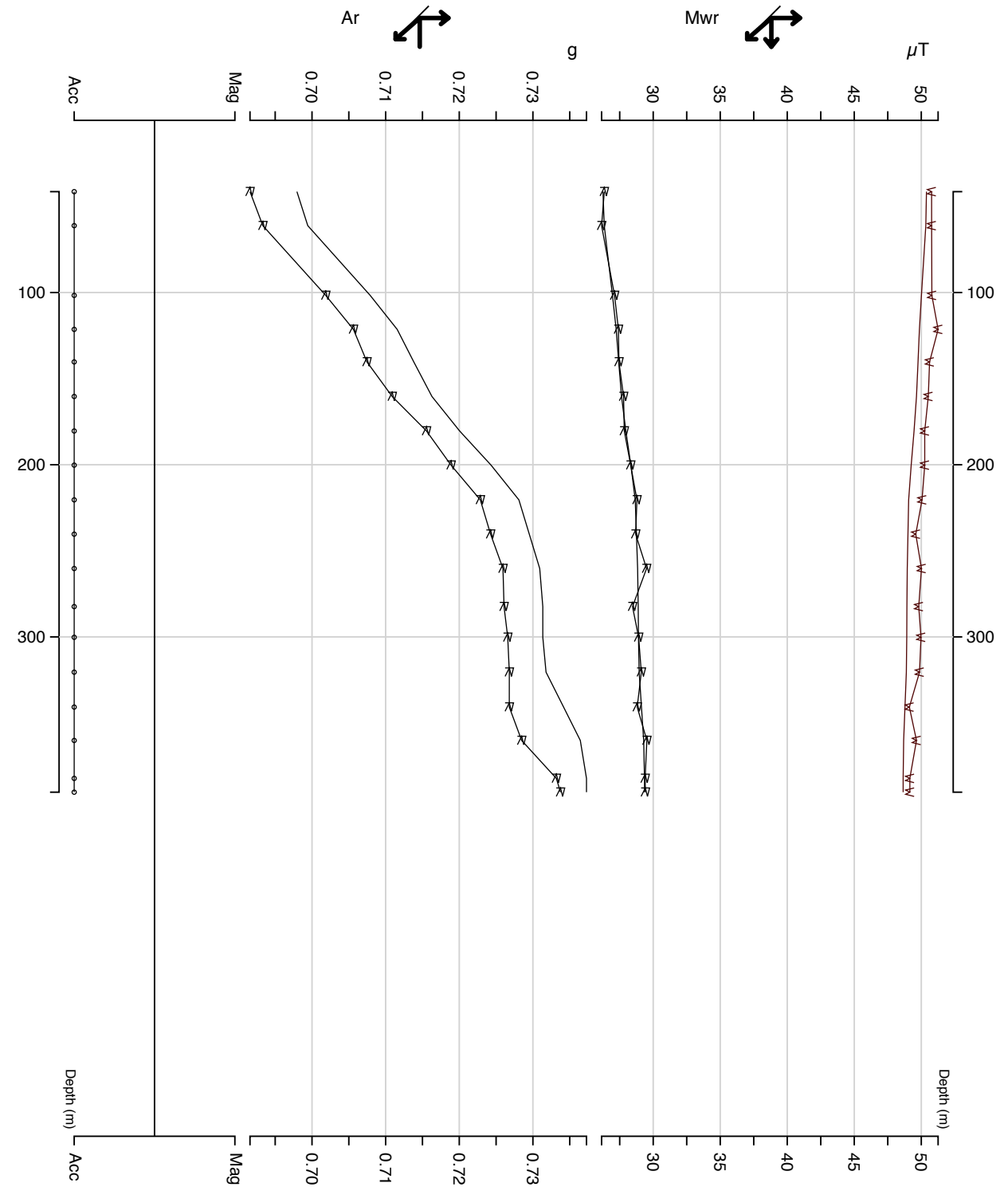
Hole: WIS-201 Loop: 1507 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-201.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 1/10/15



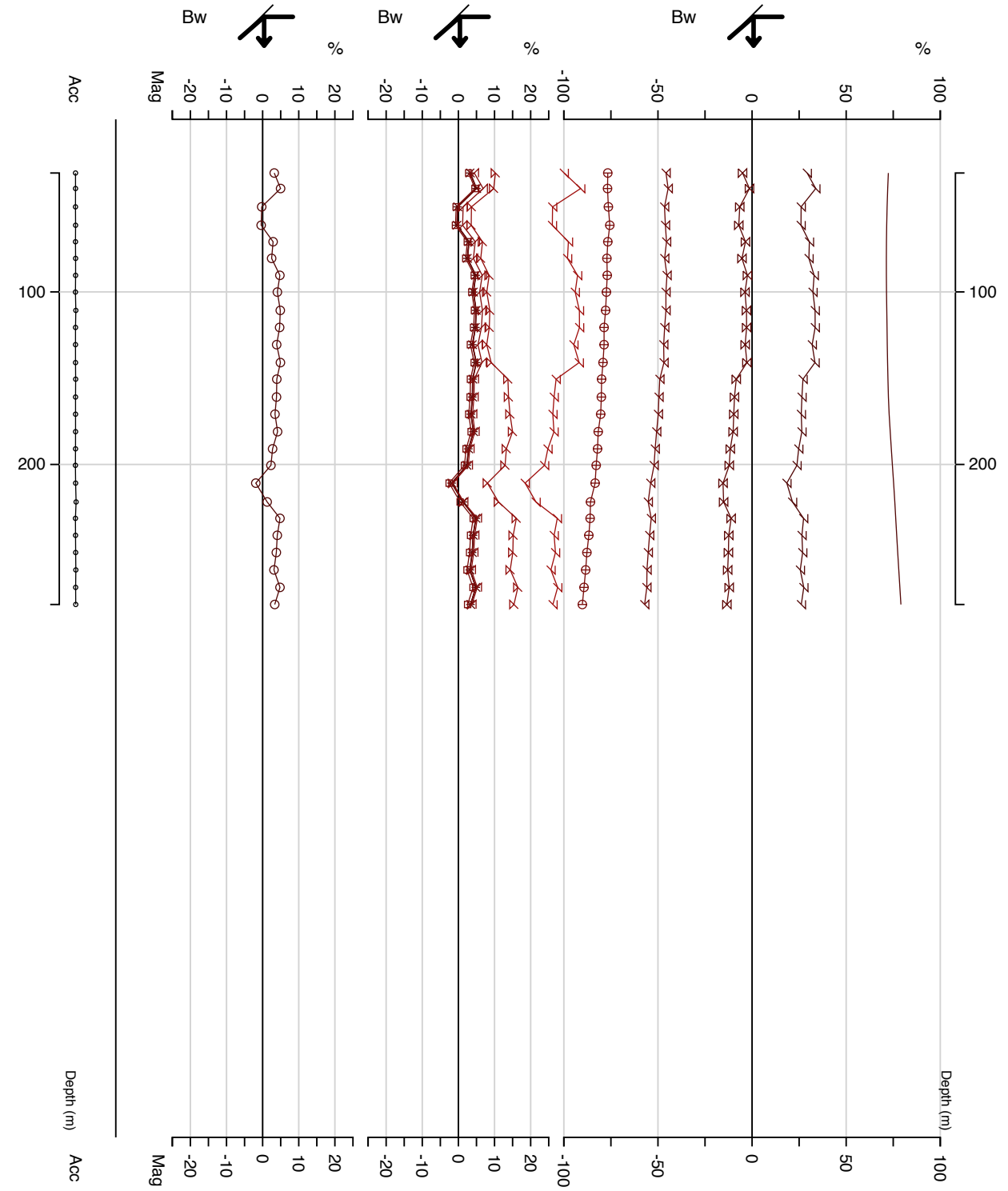
Hole: WIS-201 Loop: 1507 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-201.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 1/10/15



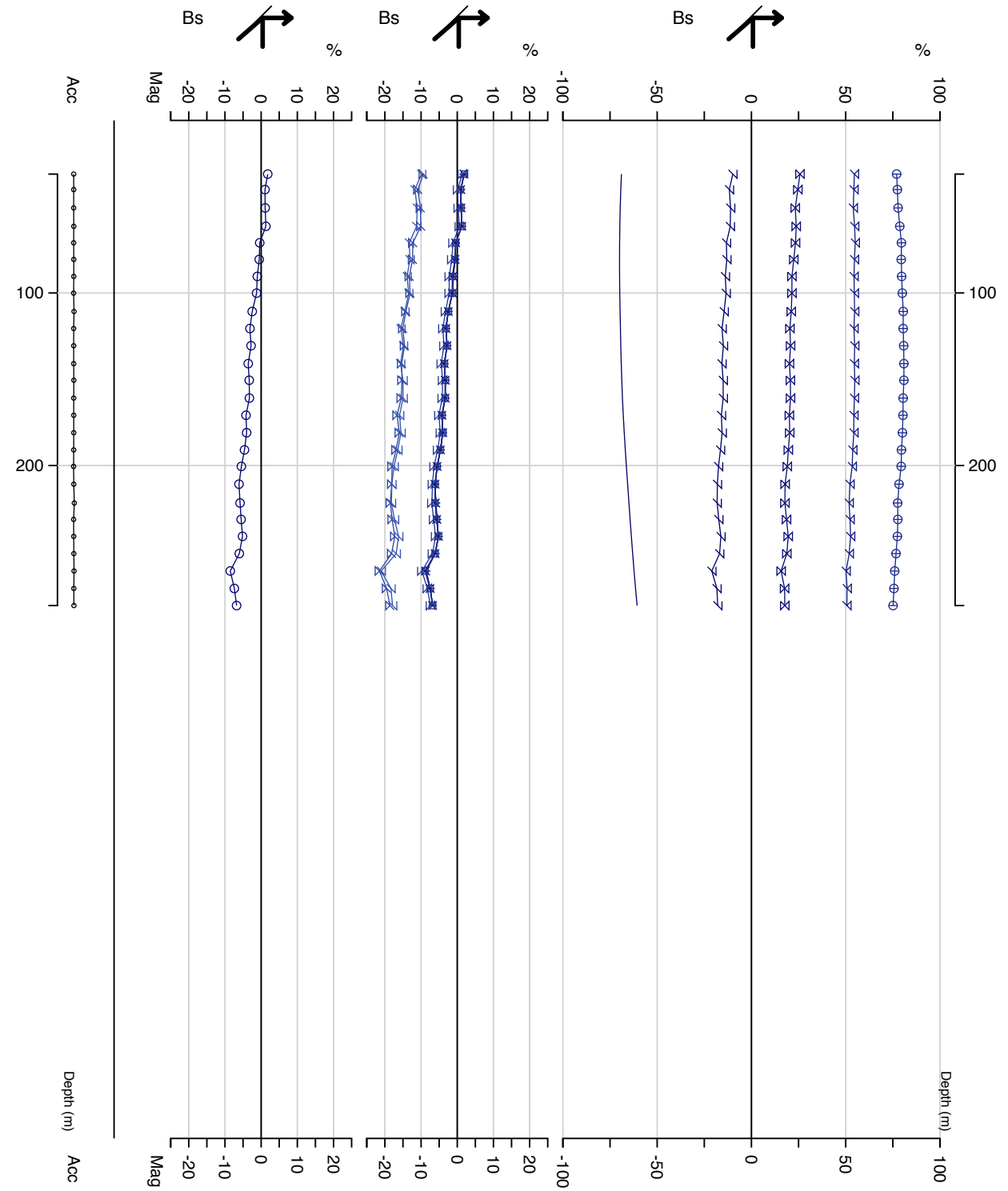
Hole: WIS-201 Loop: 1507 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1507HWIS-201.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 1/10/15



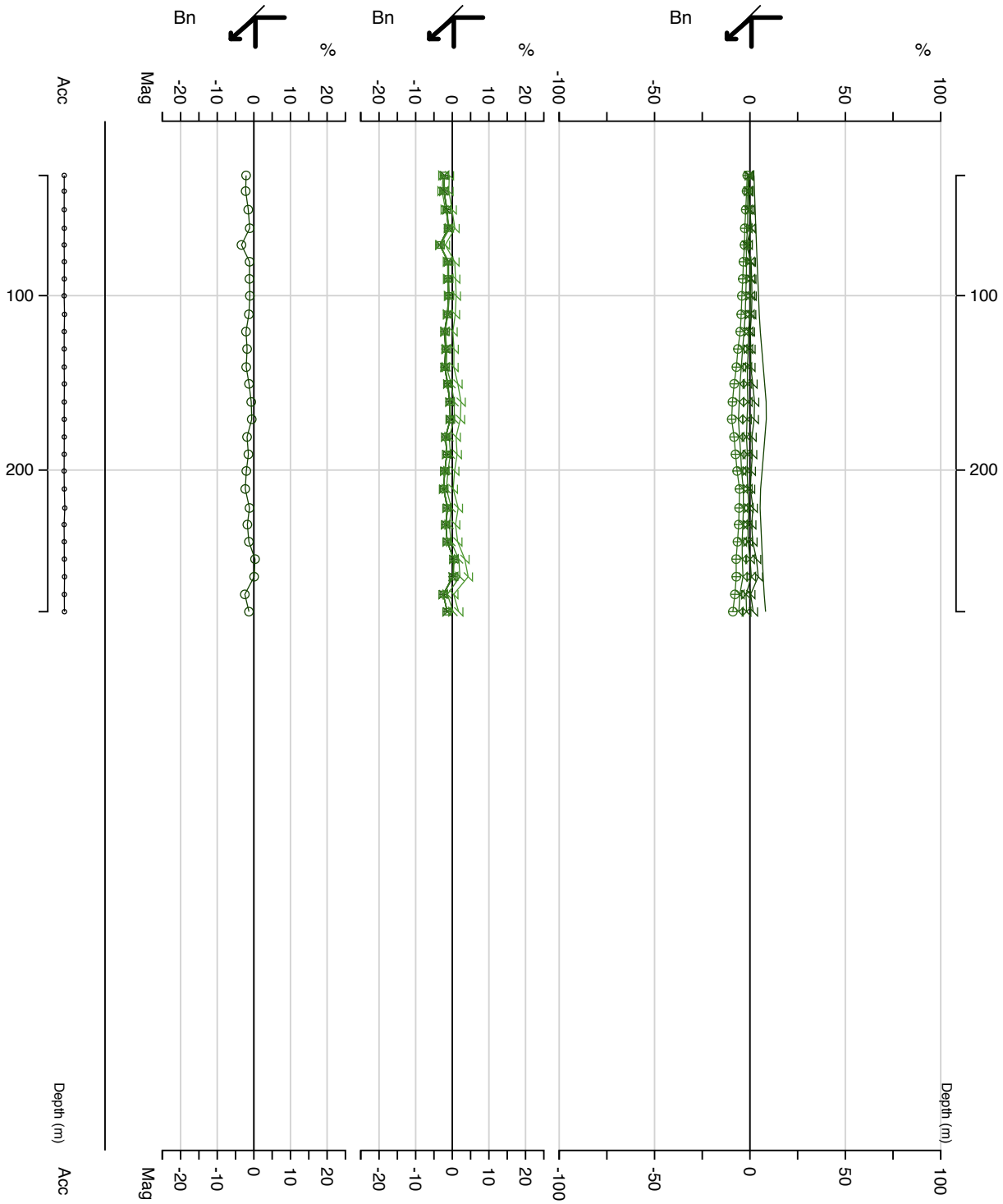
Hole: WIS-201 Loop: 1507 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1507HWIS-201.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 9/4/15 Red: 10/4/15 Plot: 1/10/15



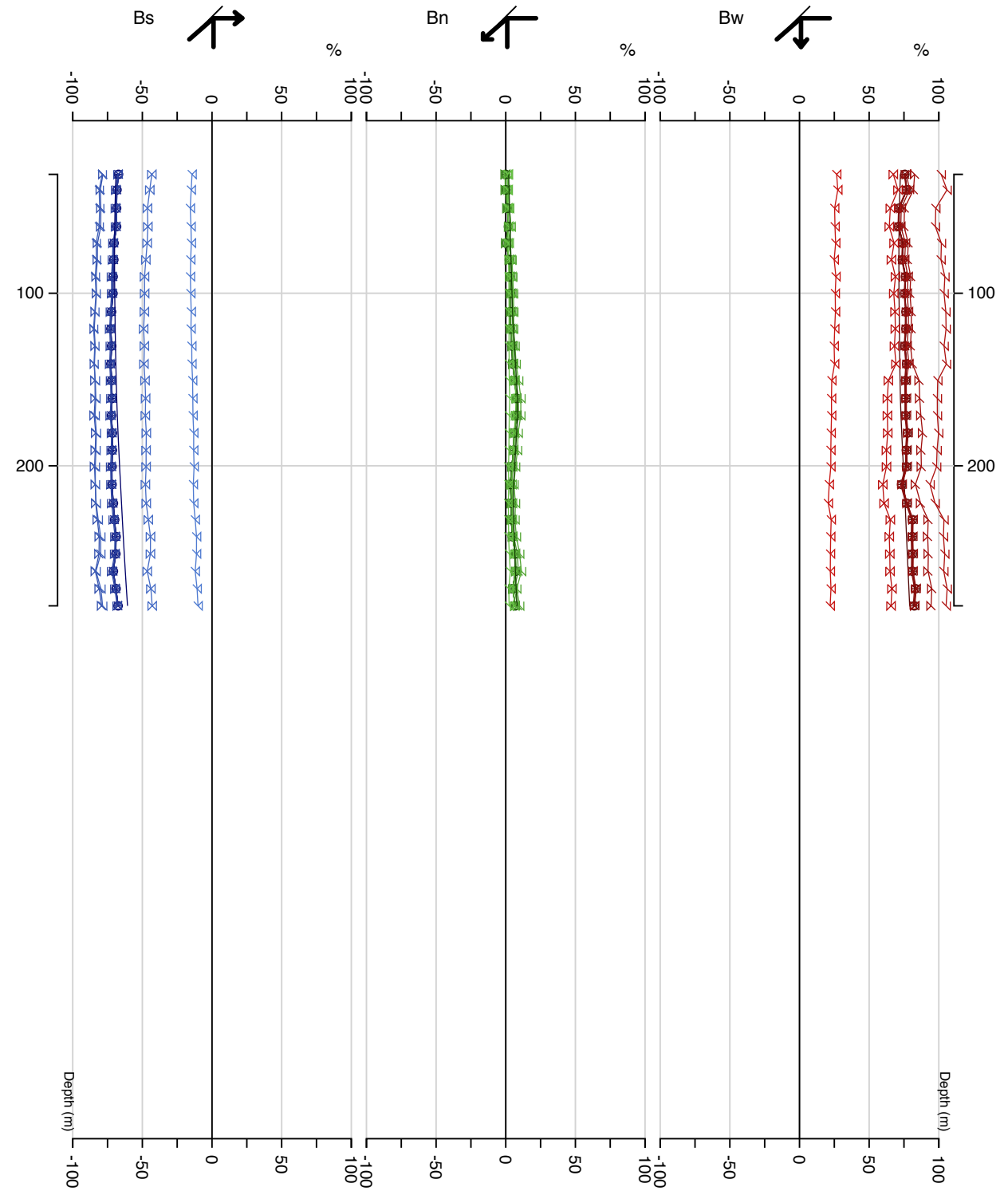
Hole: WIS-202 Loop: 1503A Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-202.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



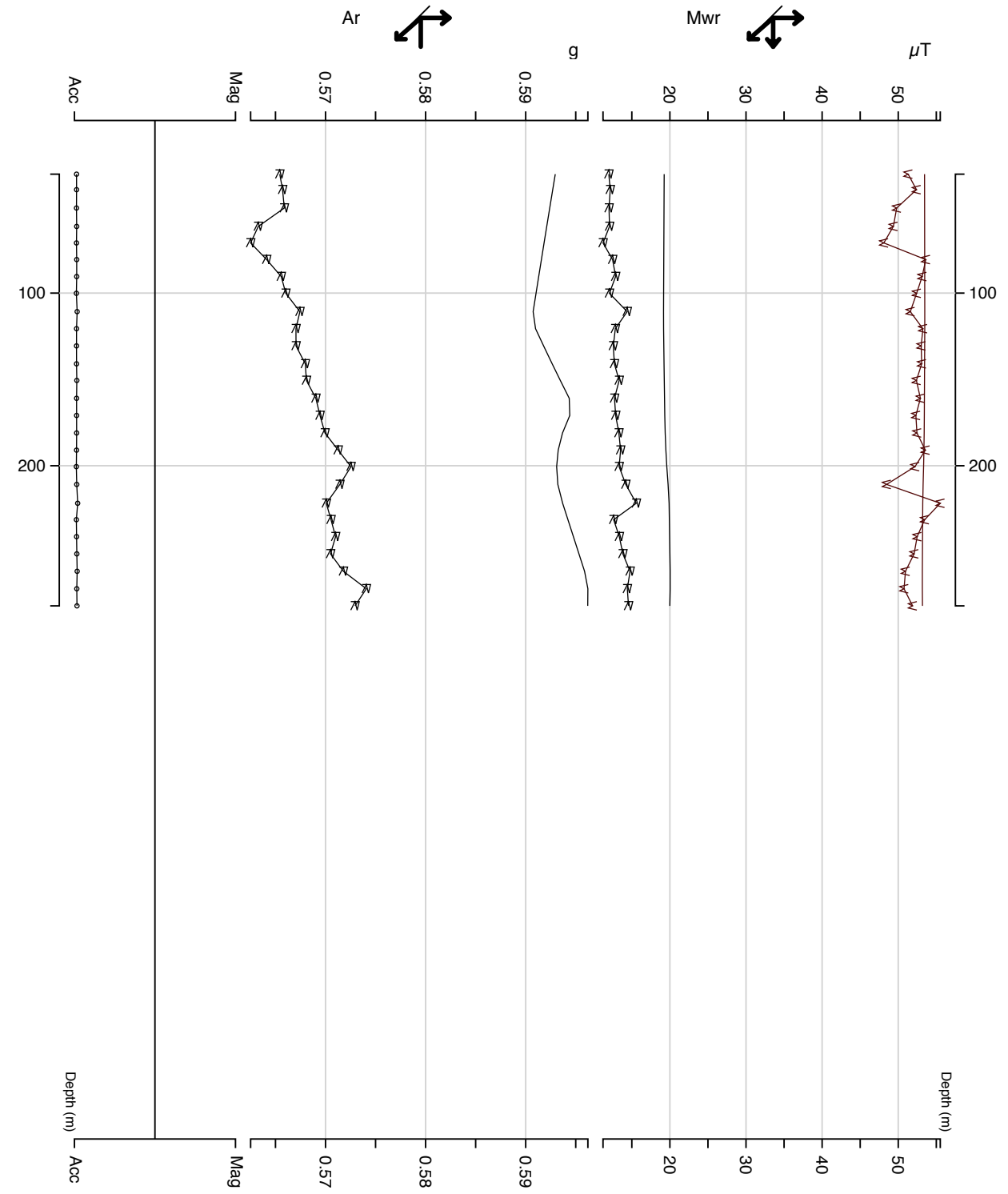
Hole: WIS-202 Loop: 1503A Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-202.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



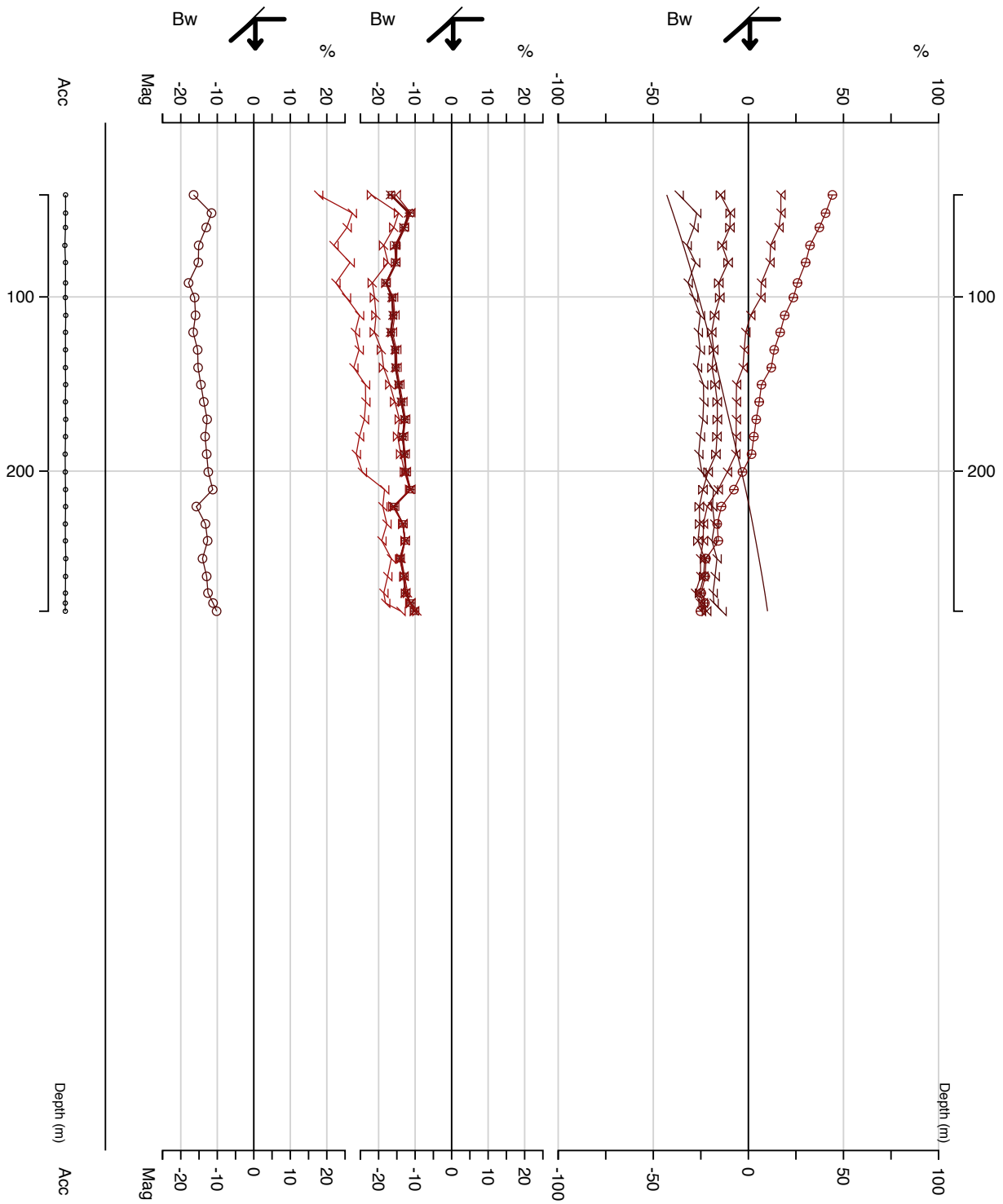
Hole: WIS-202 Loop: 1503A Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-202.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



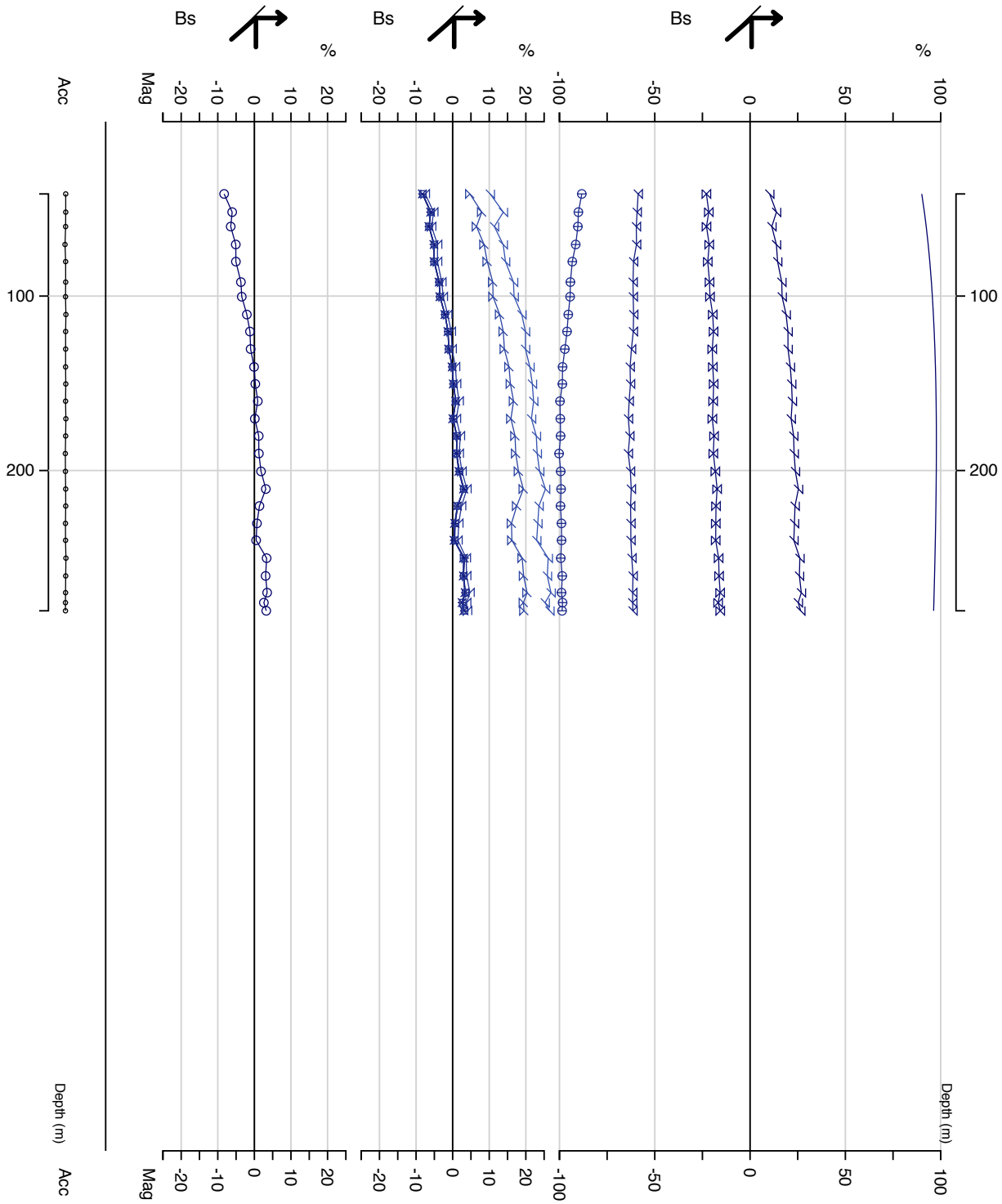
Hole: WIS-202 Loop: 1503A Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-202.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



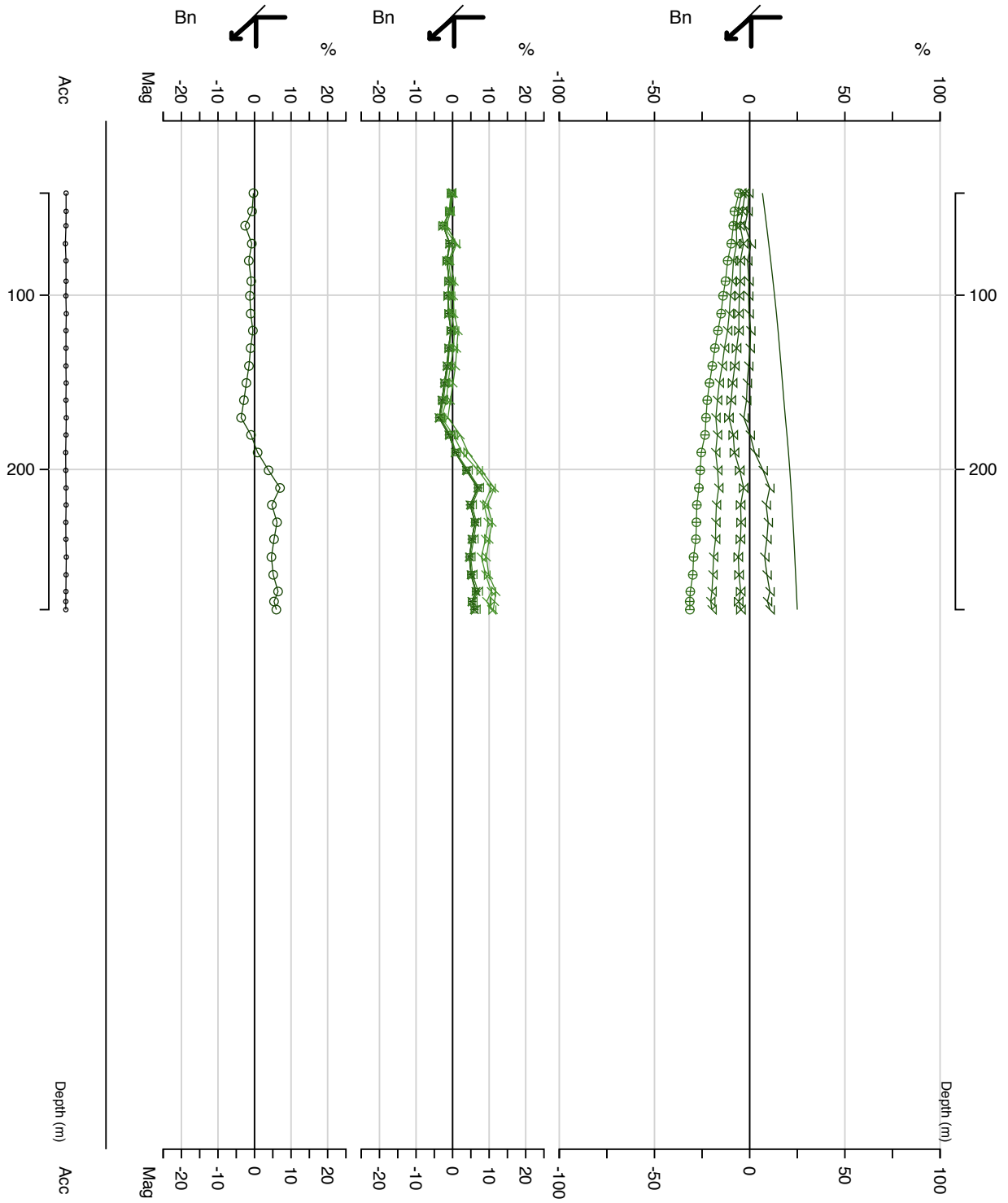
Hole: WIS-202 Loop: 1503A Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1503AHWIS-202.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



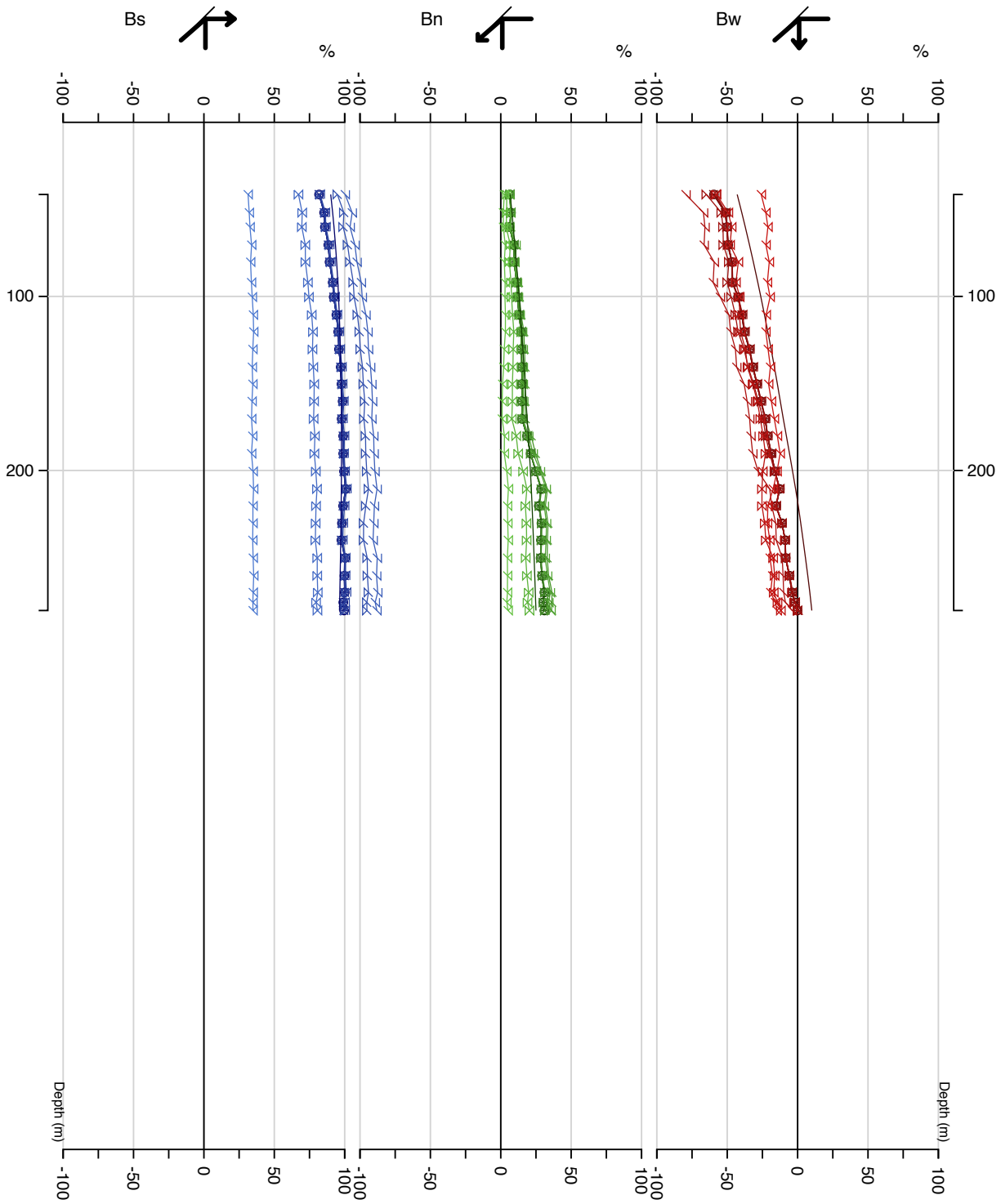
Hole: WIS-202 Loop: 1504 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-202.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



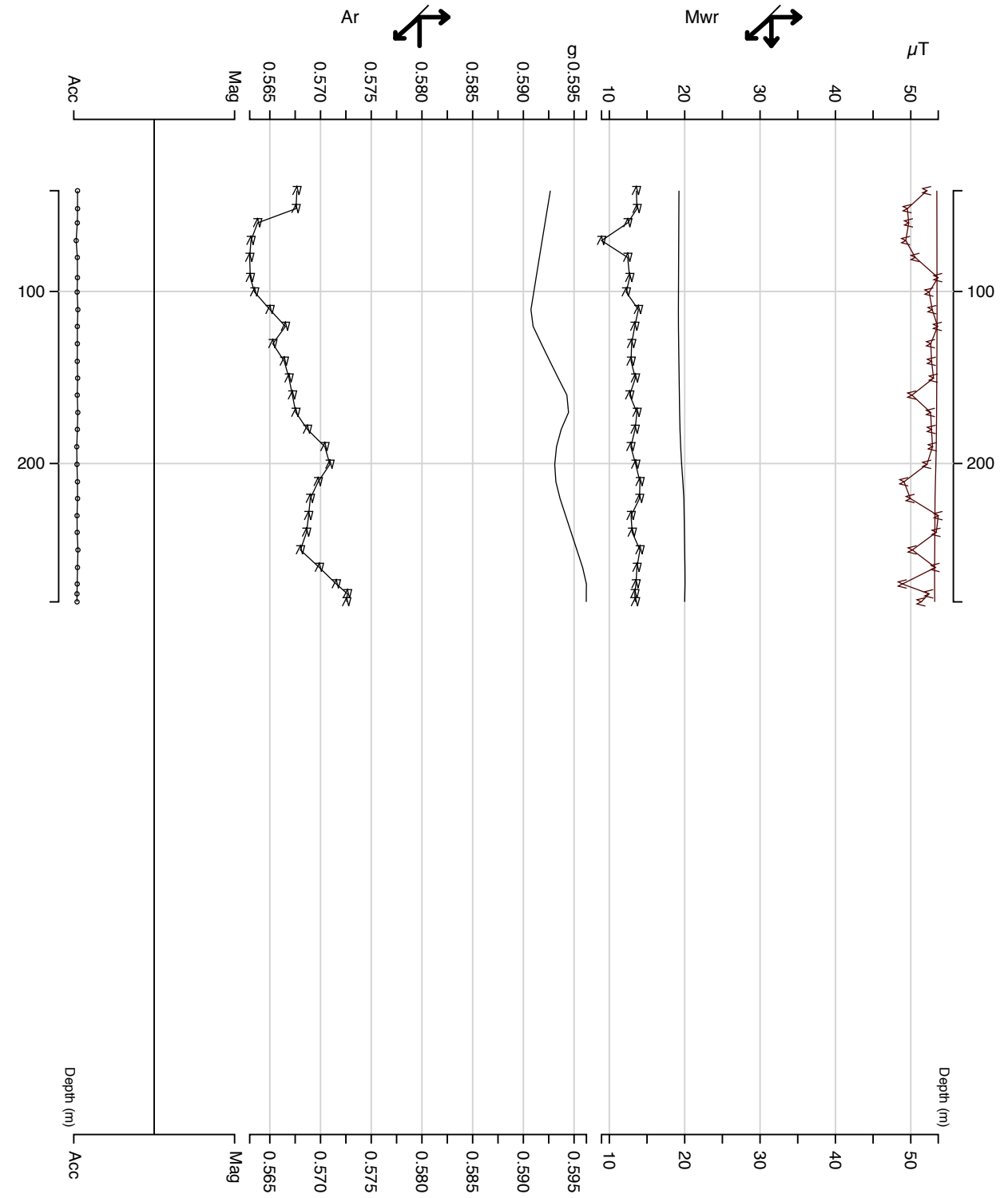
Hole: WIS-202 Loop: 1504 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-202.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



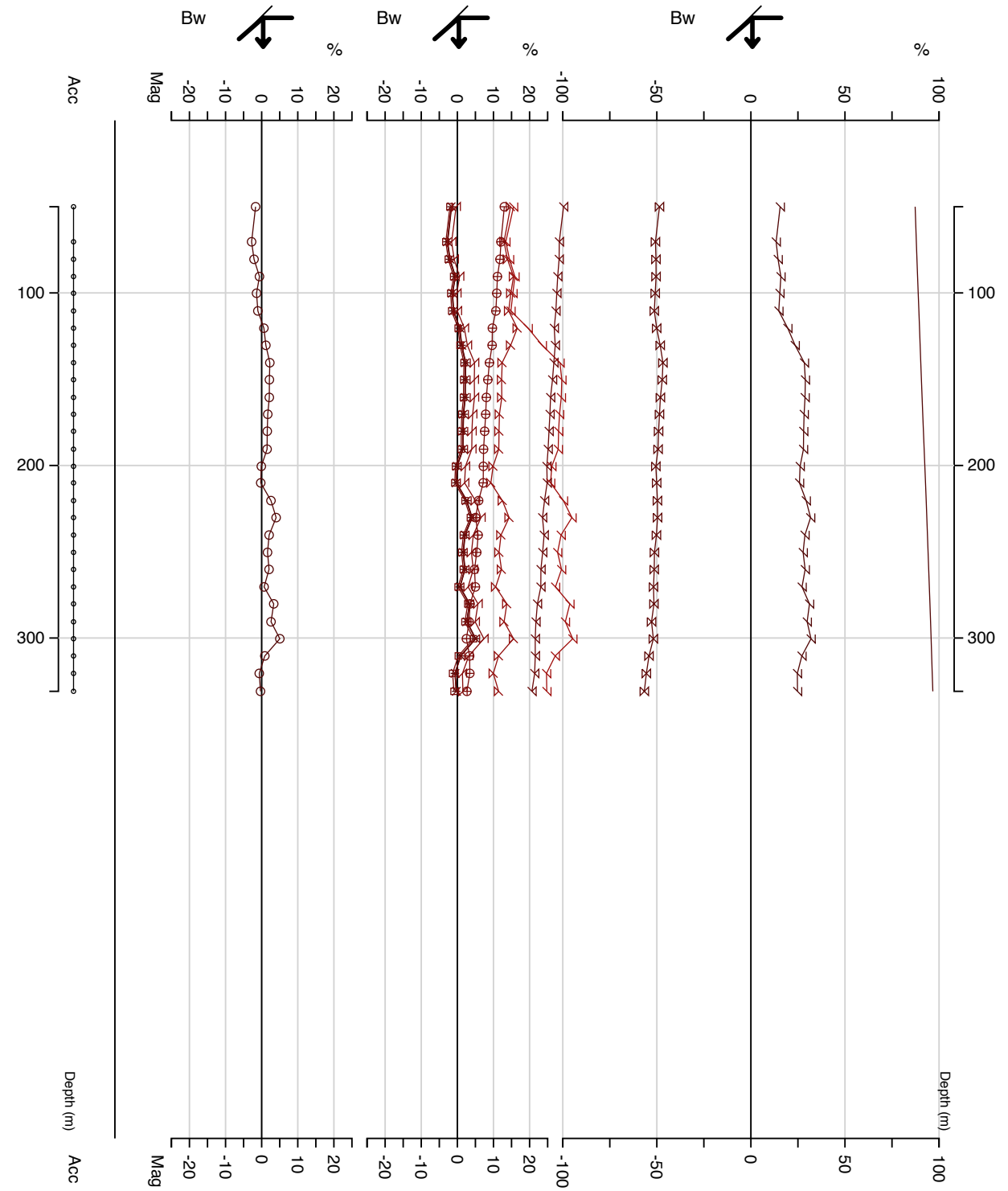
Hole: WIS-202 Loop: 1504 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-202.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



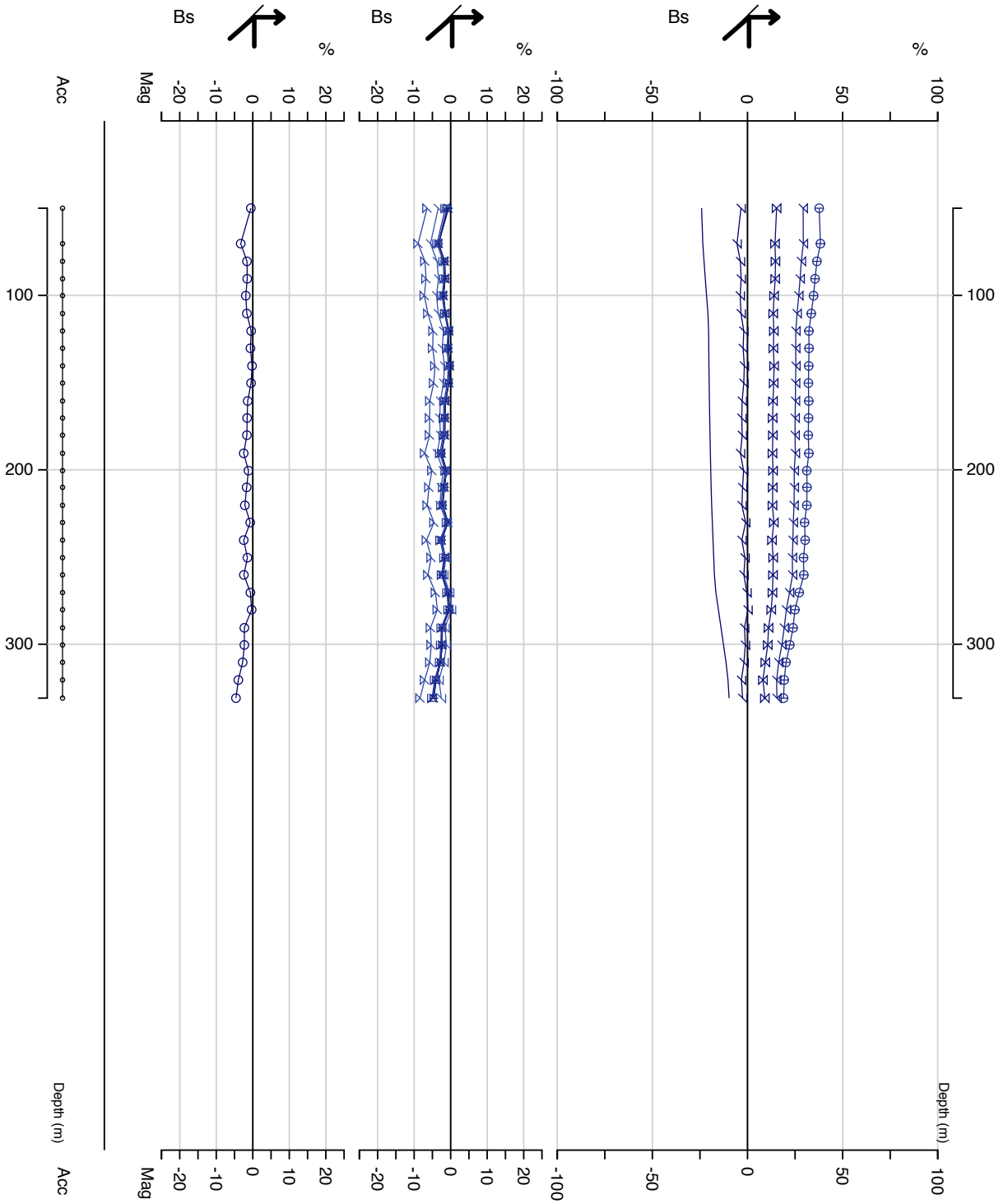
Hole: WIS-202 Loop: 1504 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-202.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



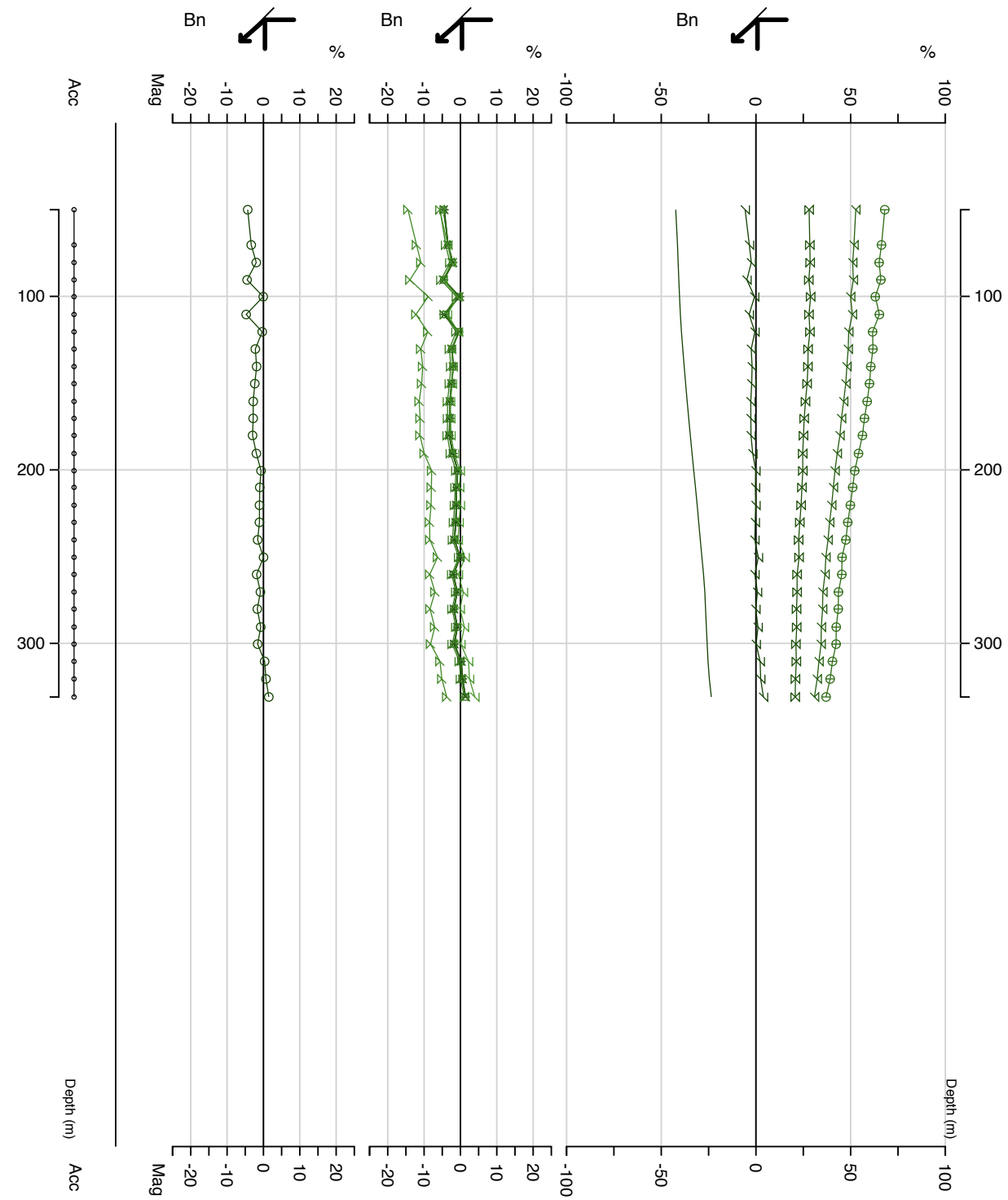
Hole: WIS-202 Loop: 1504 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1504HWIS-202.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 27/4/15 Red: 27/4/15 Plot: 7/10/15



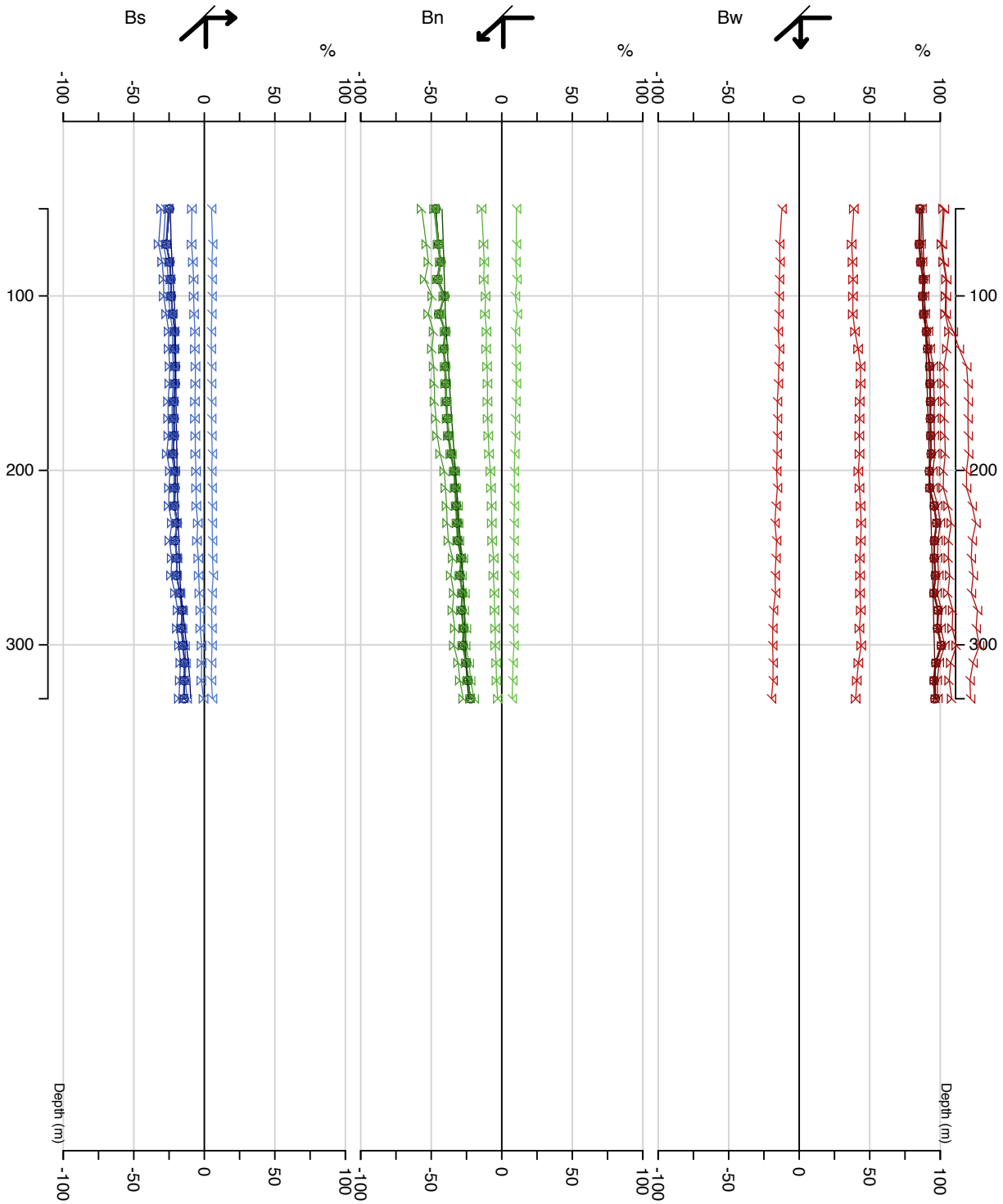
Hole: WIS-204 Loop: 1503A Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-204.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 24/4/15 Plot: 1/10/15



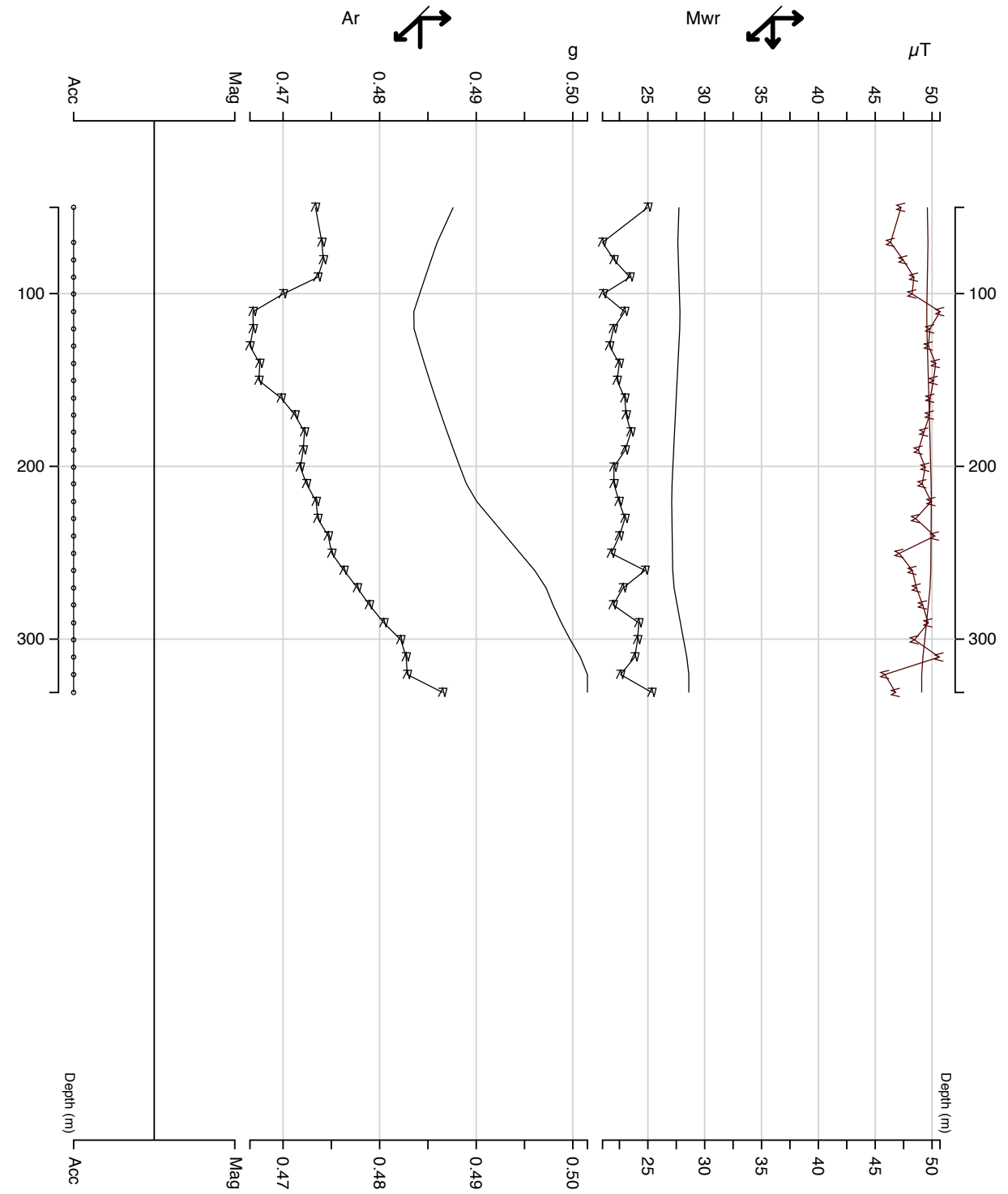
Hole: WIS-204 Loop: 1503A Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-204.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 24/4/15 Plot: 1/10/15



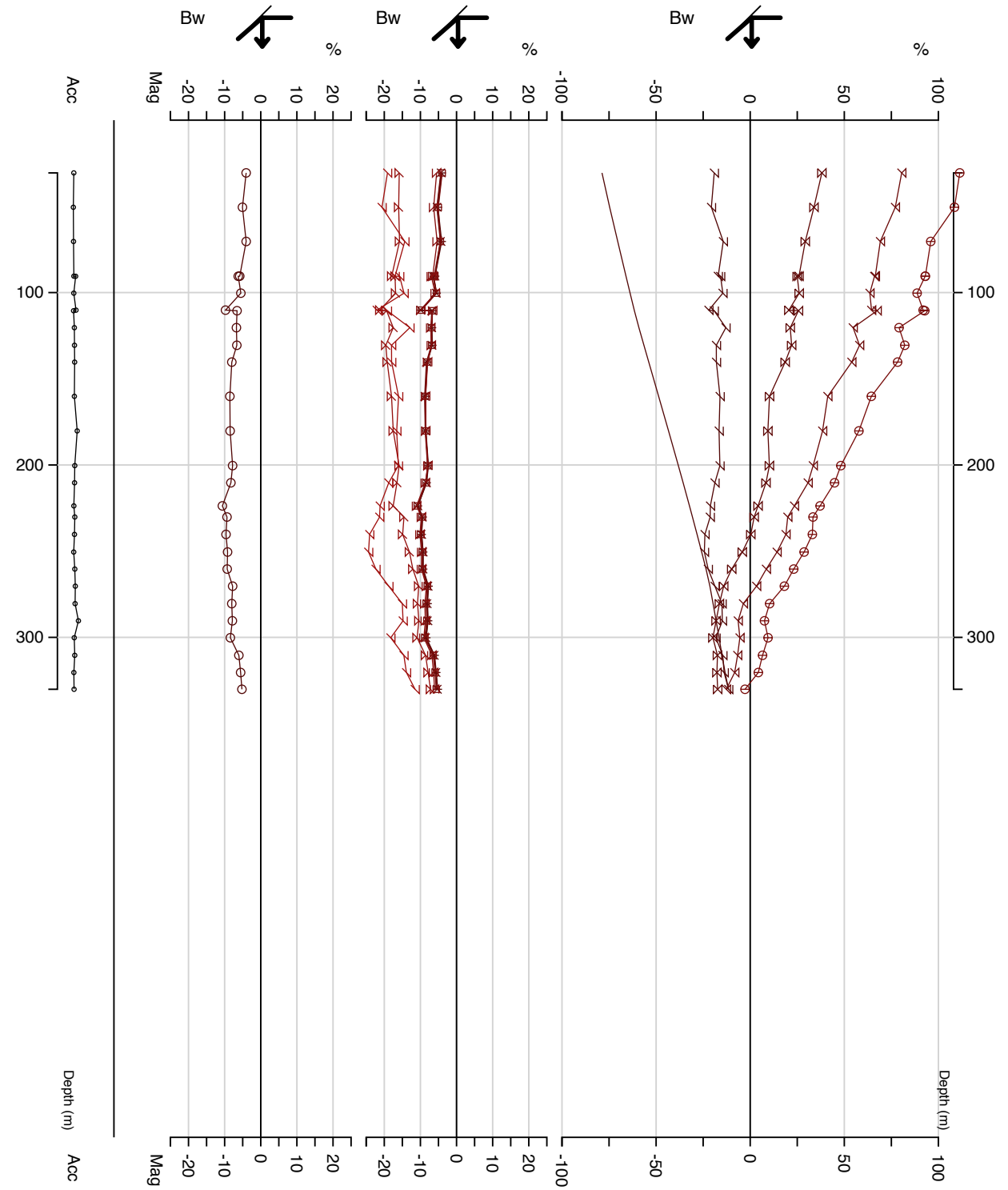
Hole: WIS-204 Loop: 1503A Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-204.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 24/4/15 Plot: 1/10/15



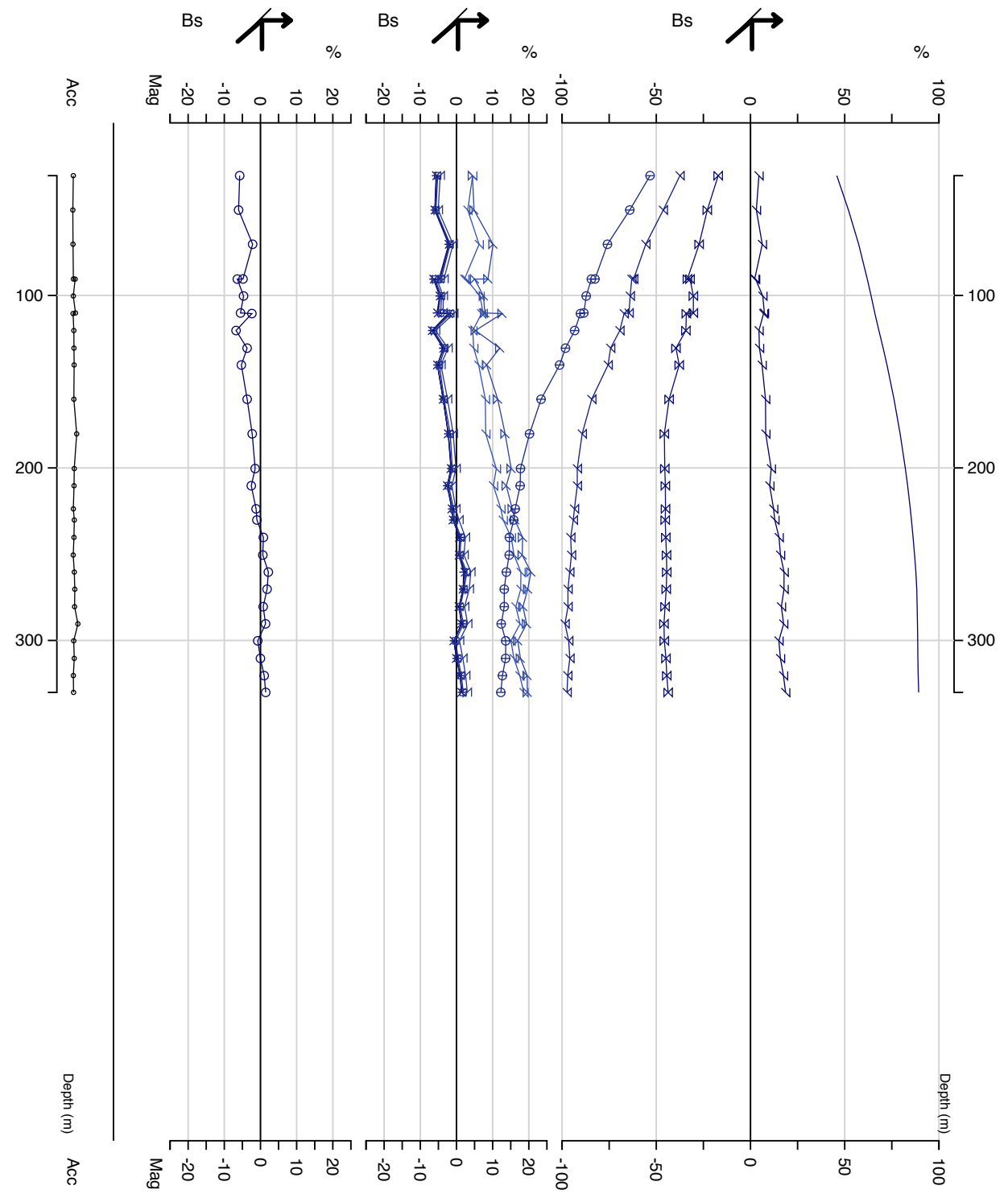
Hole: WIS-204 Loop: 1503A Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / lBpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1503AHWIS-204.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 24/4/15 Plot: 1/10/15



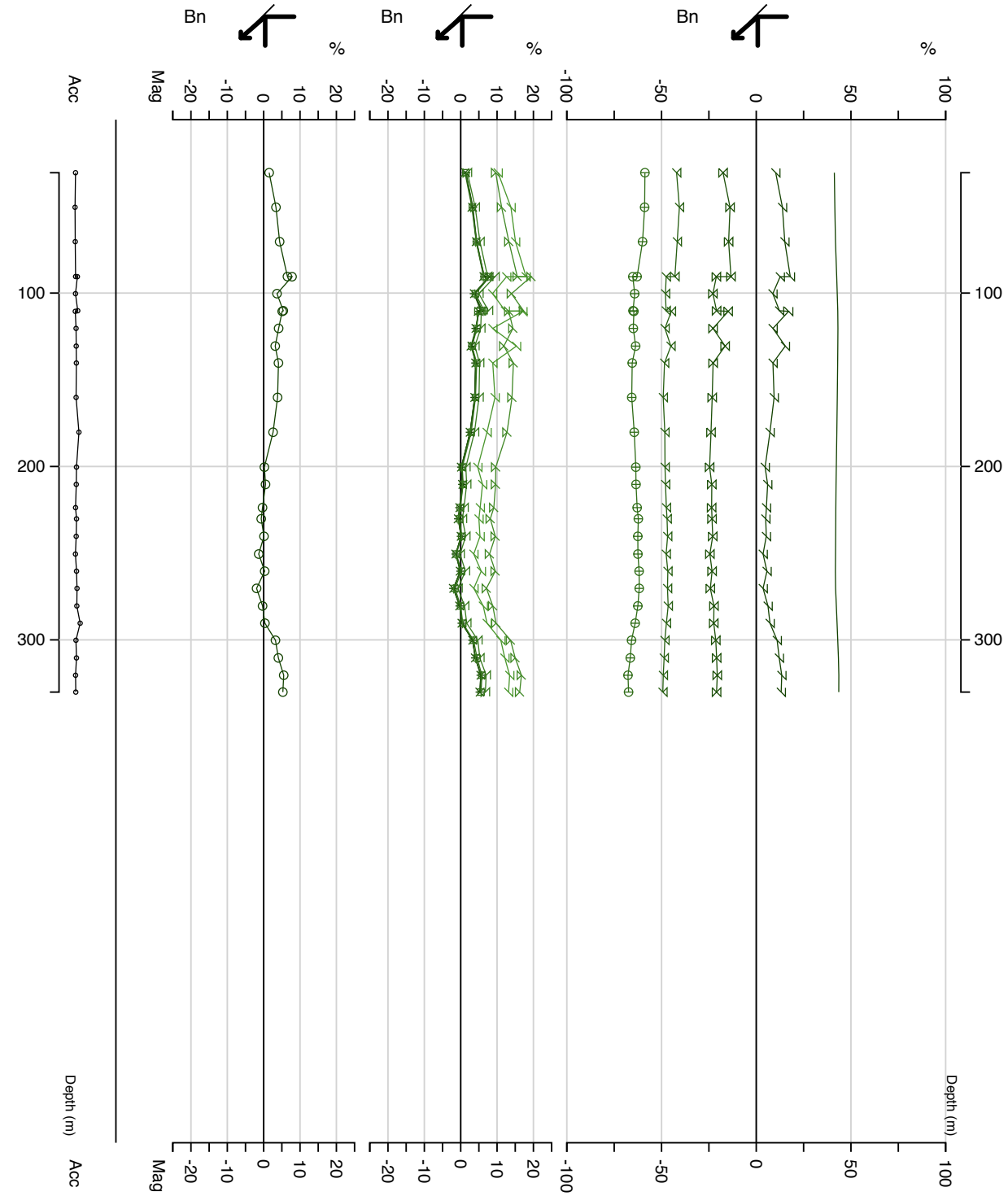
Hole: WIS-204 Loop: 1503A Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1503AHWIS-204.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 24/4/15 Plot: 1/10/15



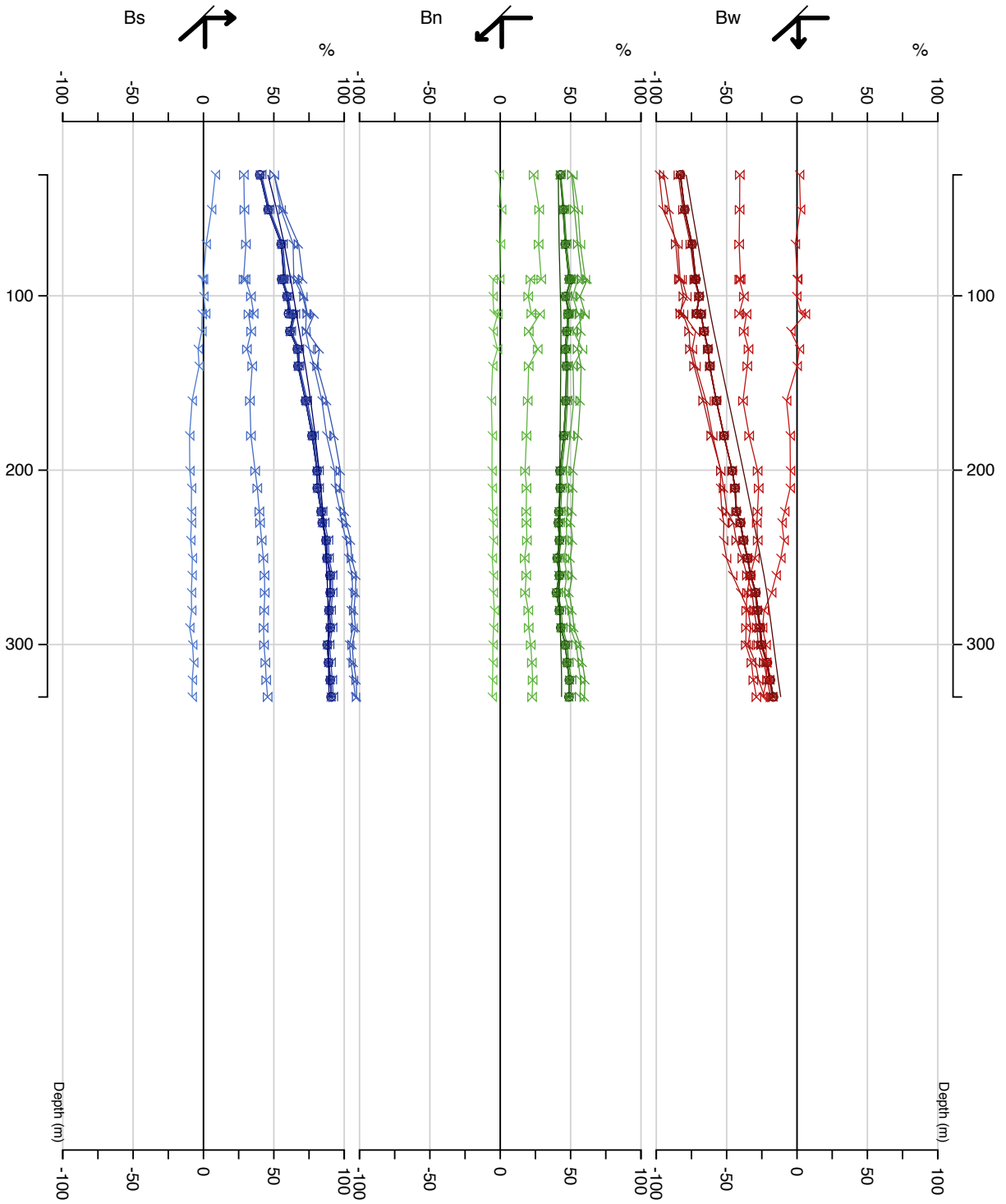
Hole: WIS-204 Loop: 1504 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-204.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 23/4/15 Plot: 1/10/15



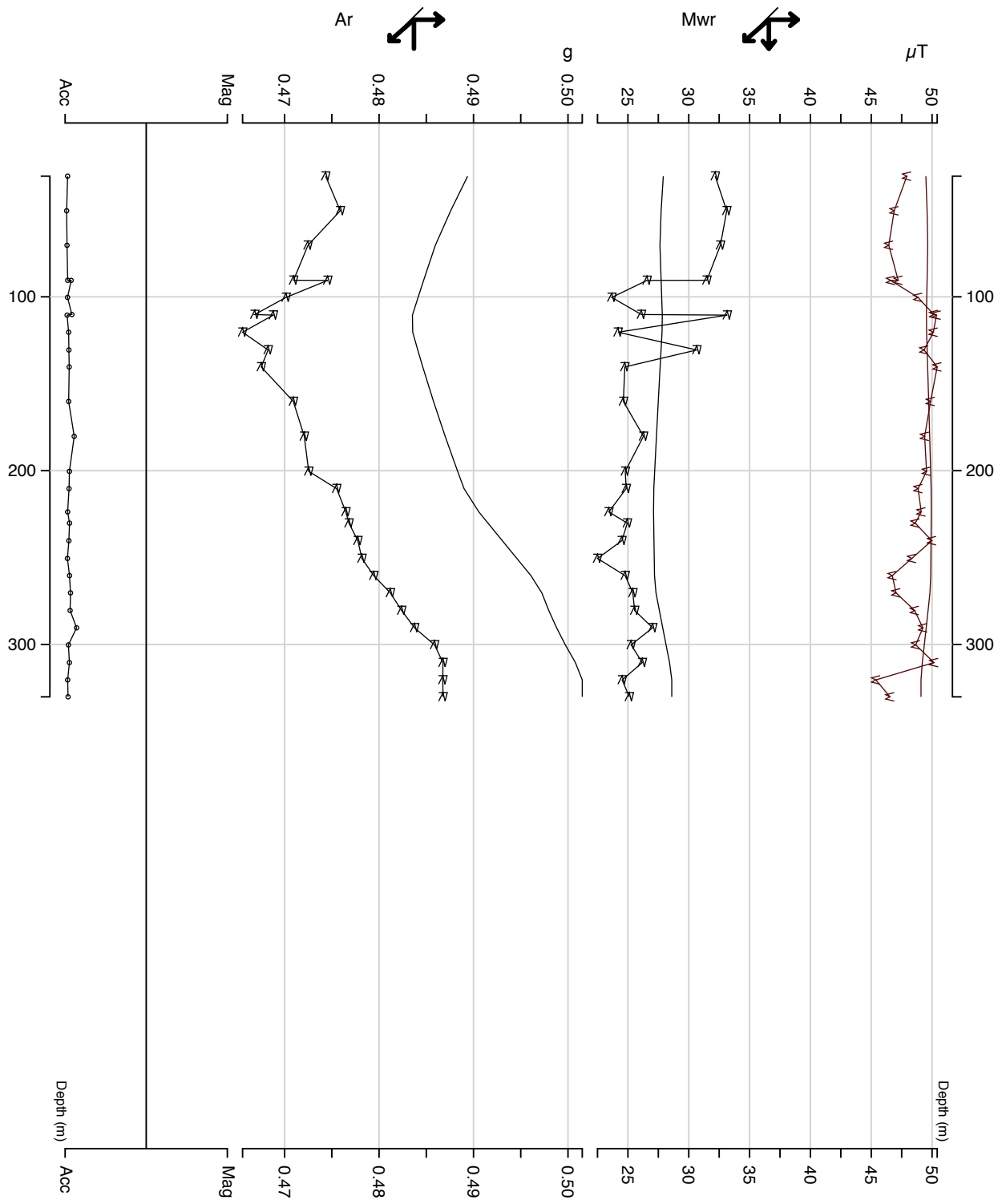
Hole: WIS-204 Loop: 1504 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-204.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 23/4/15 Plot: 1/10/15



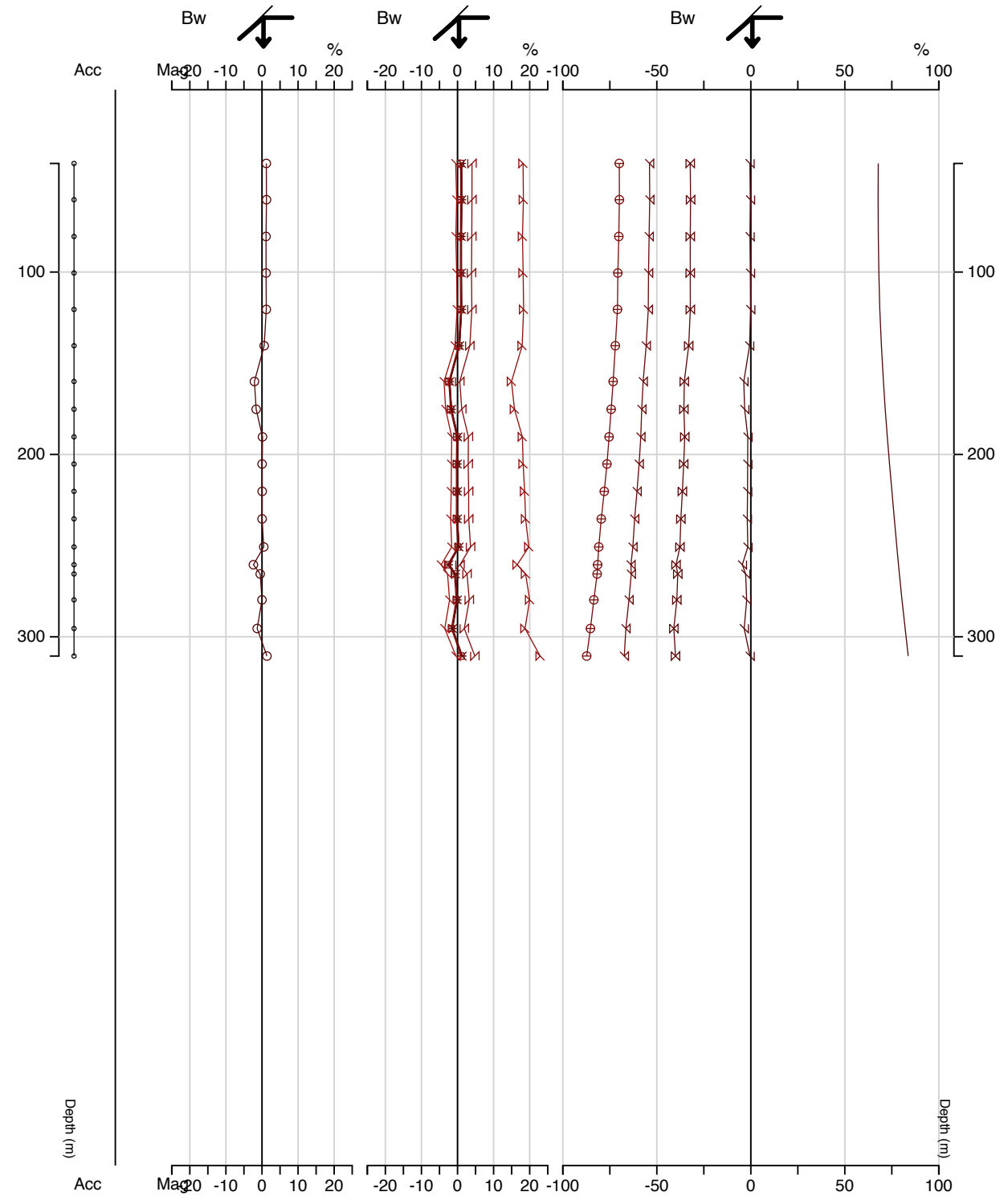
Hole: WIS-204 Loop: 1504 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-204.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 23/4/15 Plot: 1/10/15



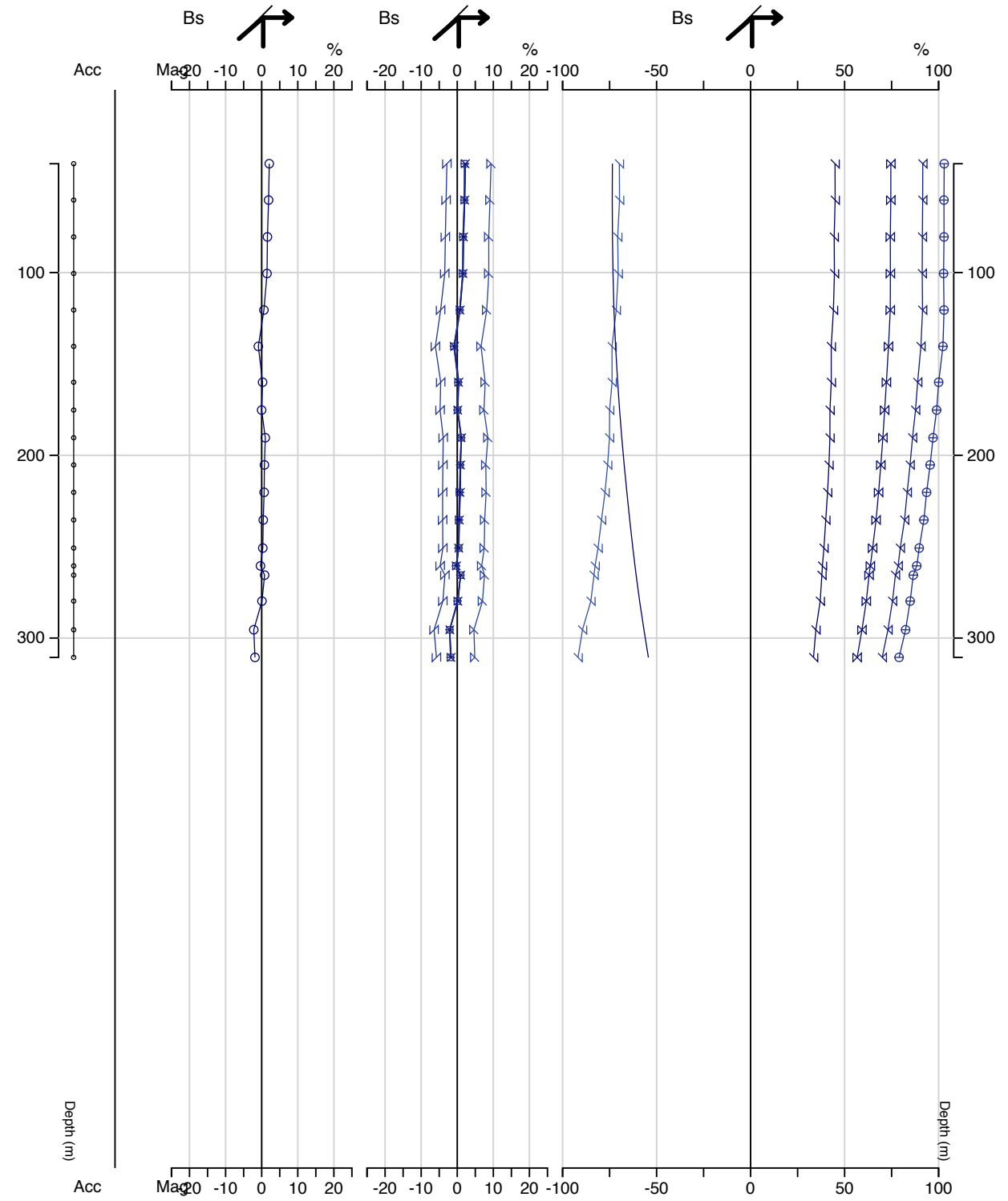
Hole: WIS-204 Loop: 1504 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1504HWIS-204.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 23/4/15 Plot: 1/10/15



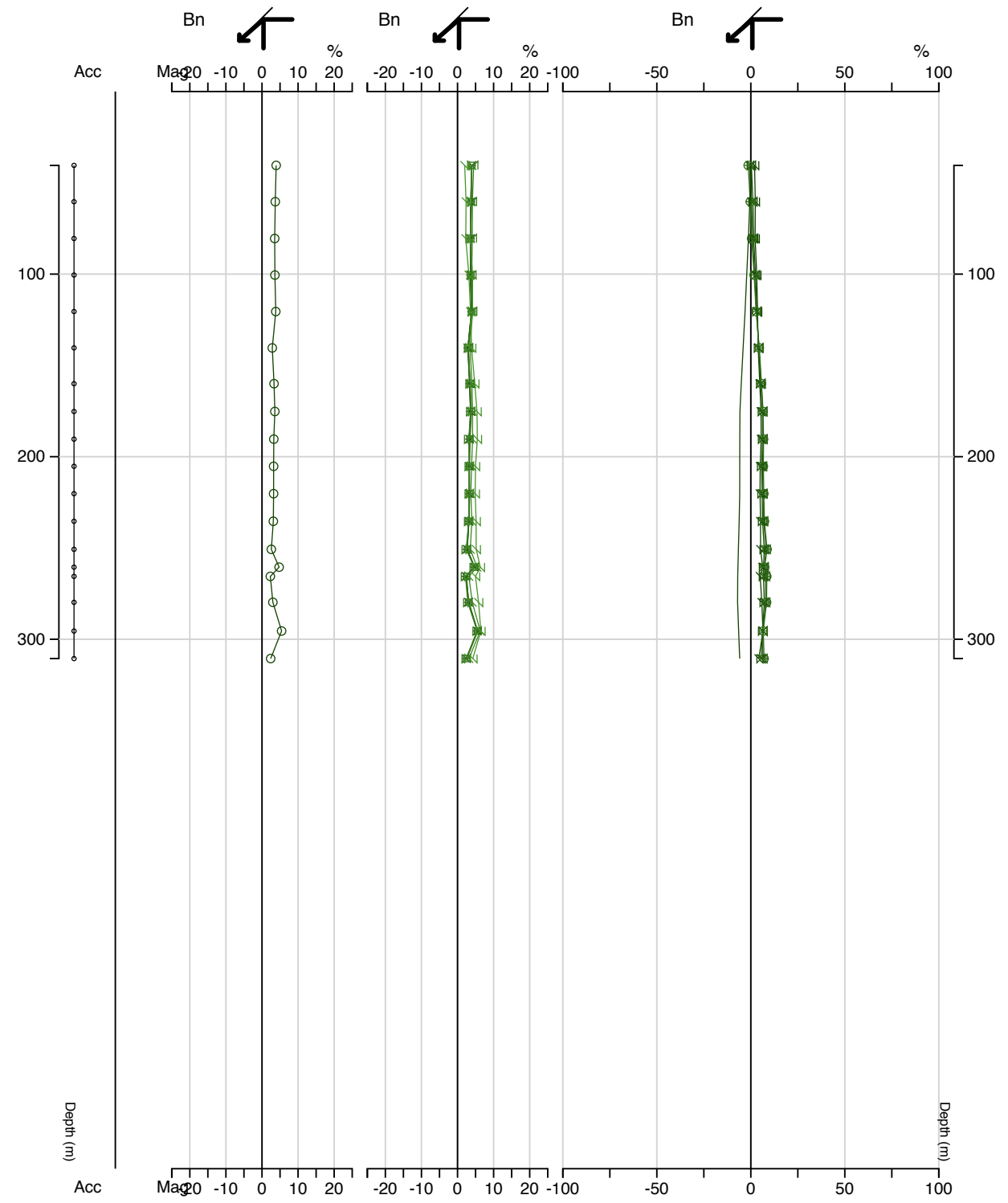
Hole: WIS-204 Loop: 1504 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1504HWIS-204.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 21/4/15 Red: 23/4/15 Plot: 1/10/15



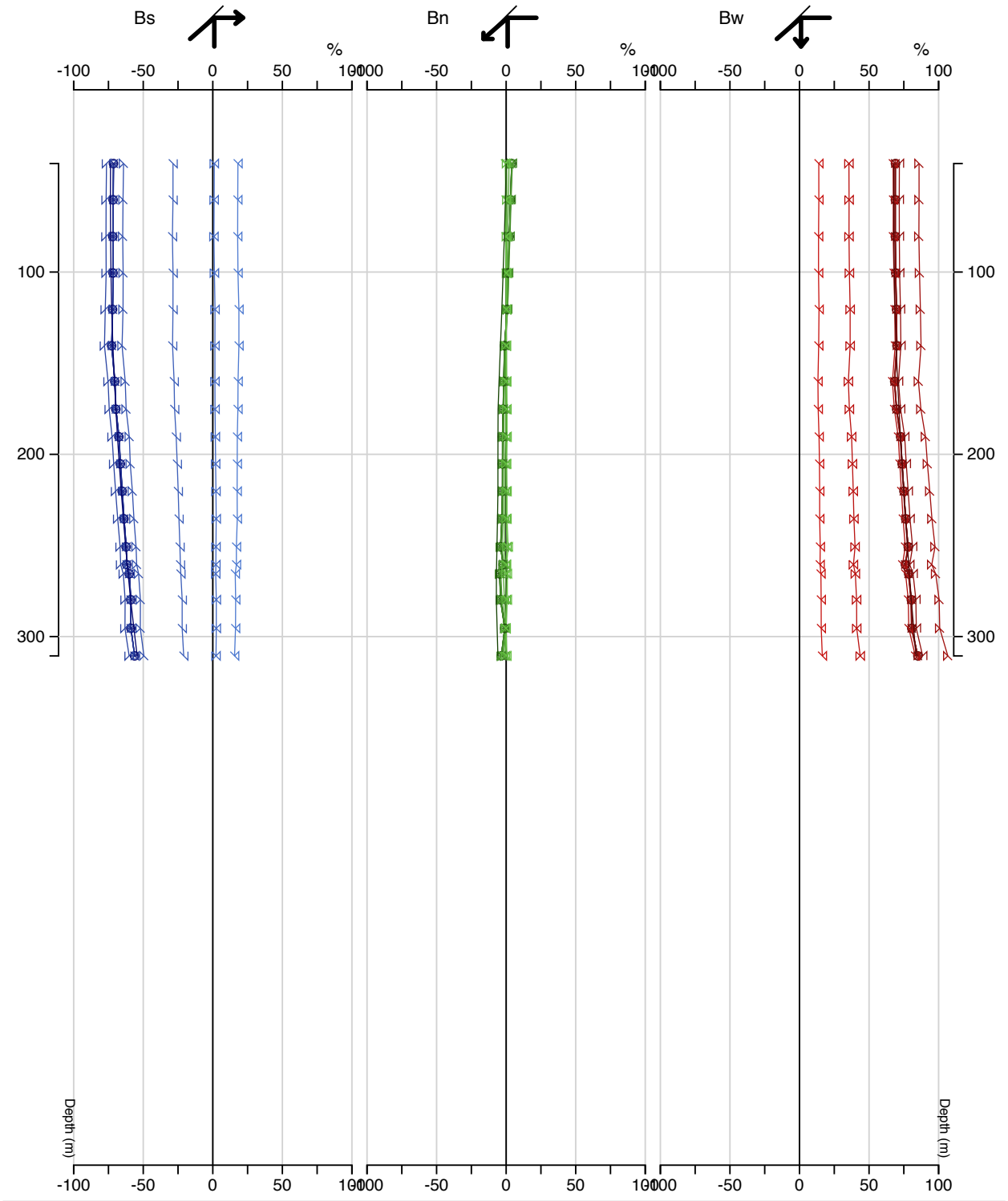
Hole: WIS-208 Loop: 1508 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-208.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



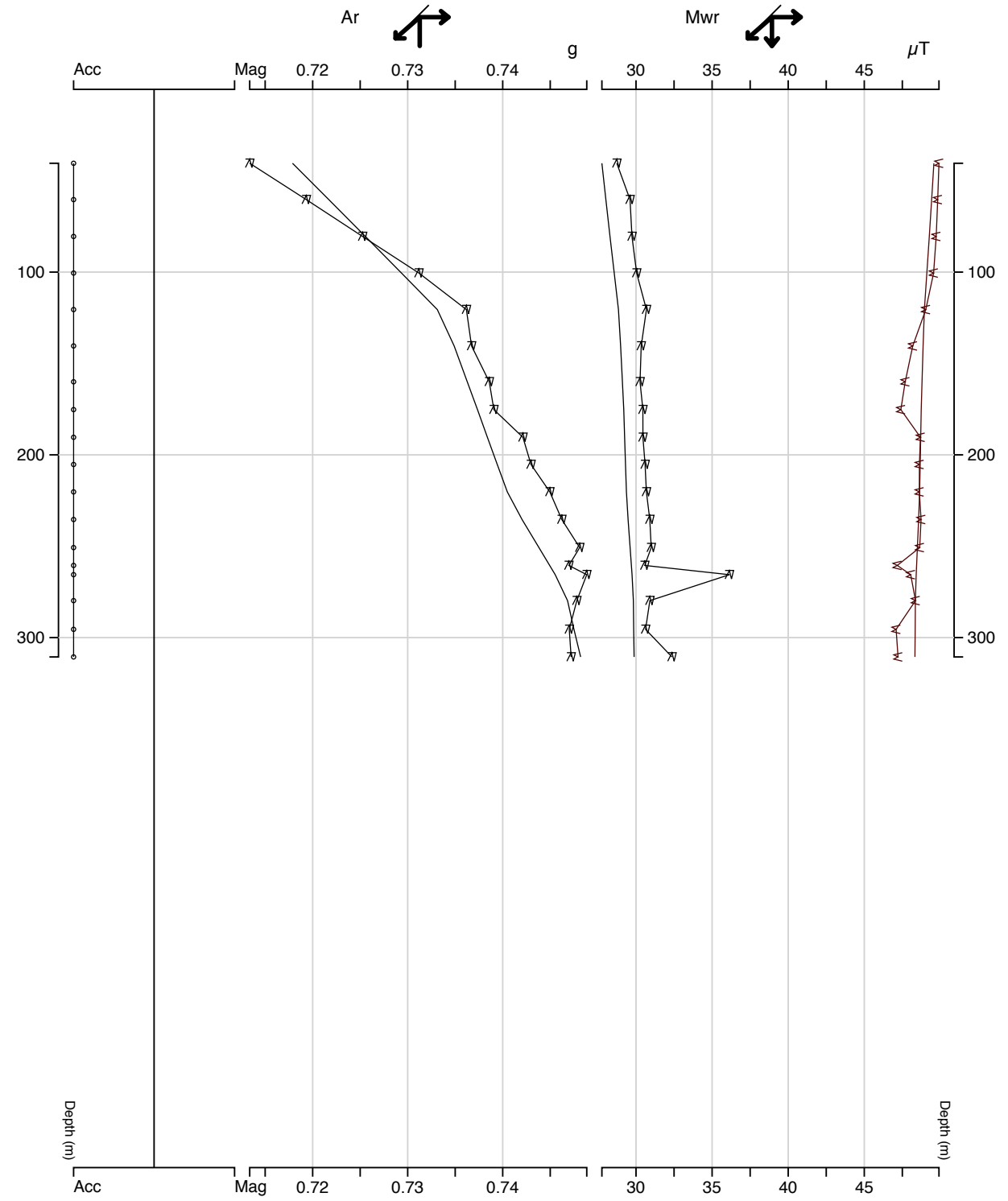
Hole: WIS-208 Loop: 1508 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-208.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



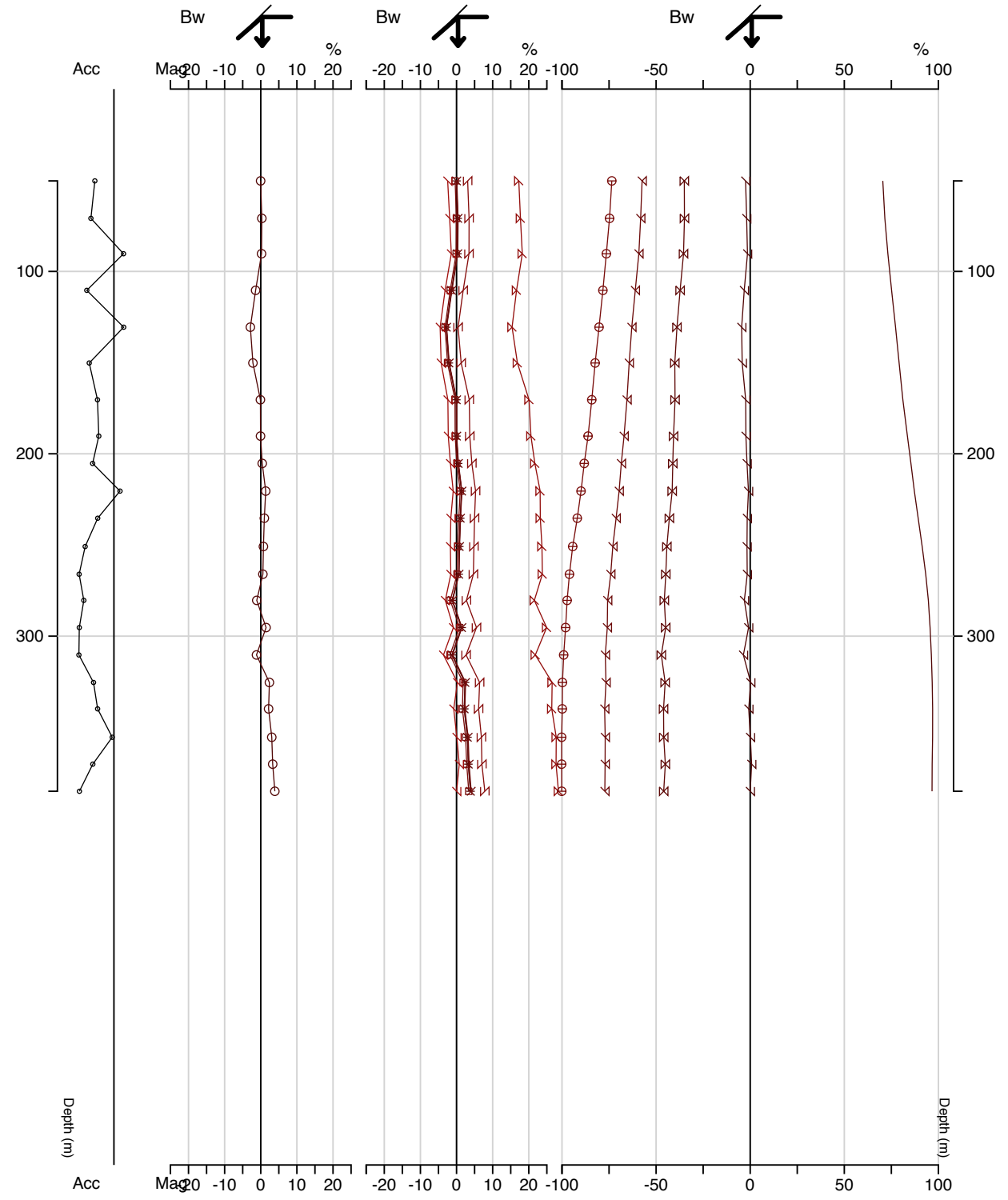
Hole: WIS-208 Loop: 1508 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-208.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



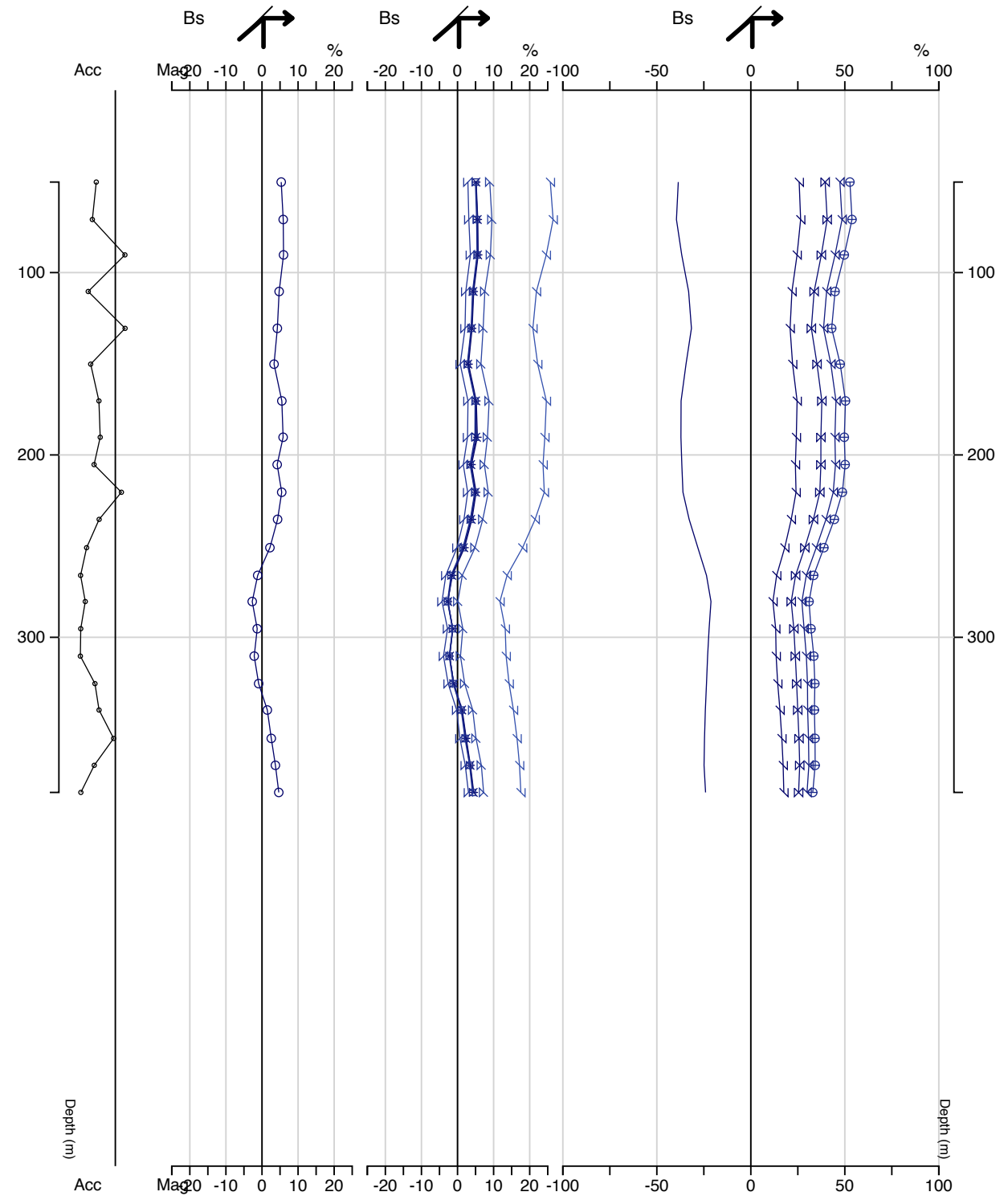
Hole: WIS-208 Loop: 1508 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-208.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



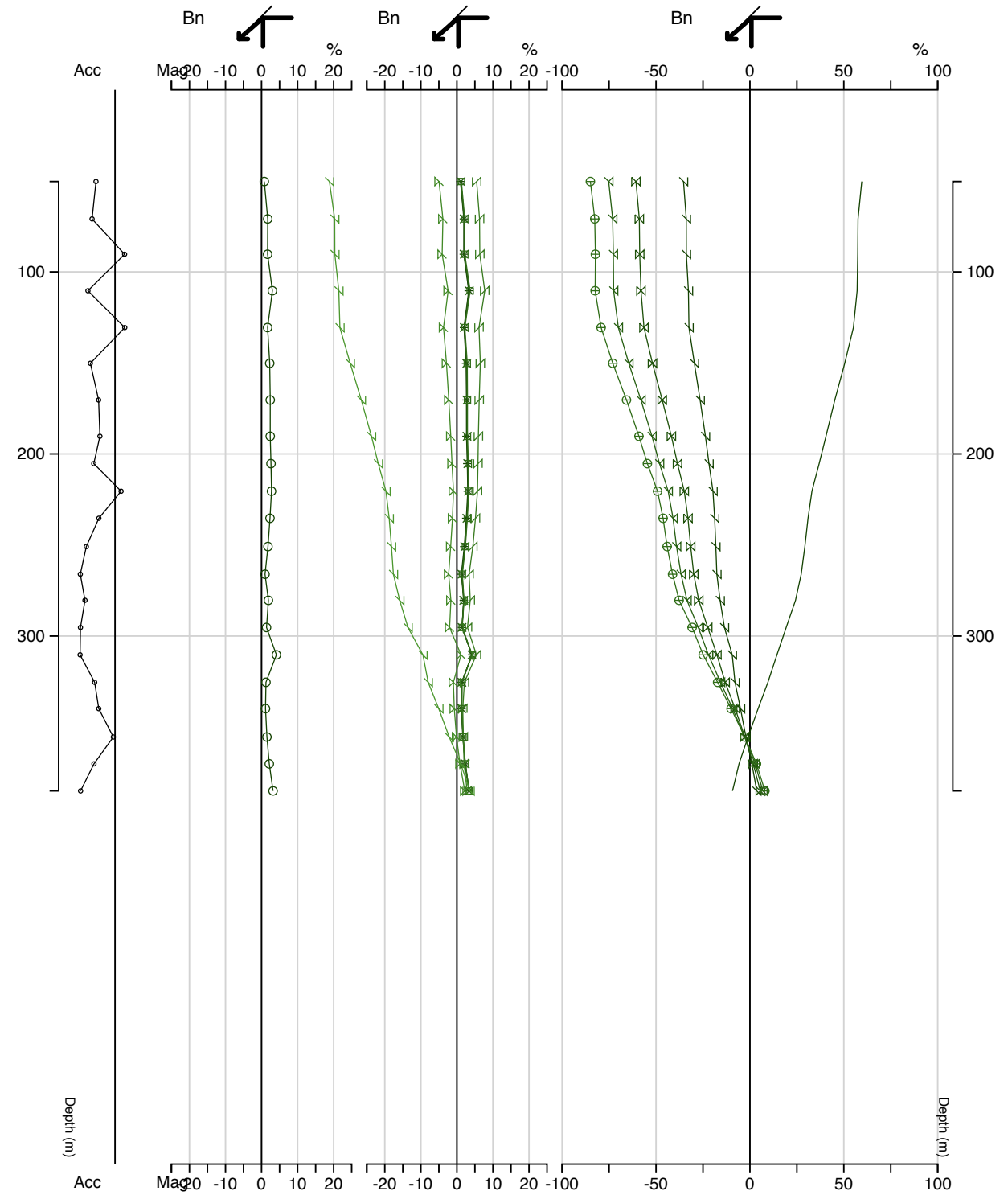
Hole: WIS-208 Loop: 1508 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1508HWIS-208.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



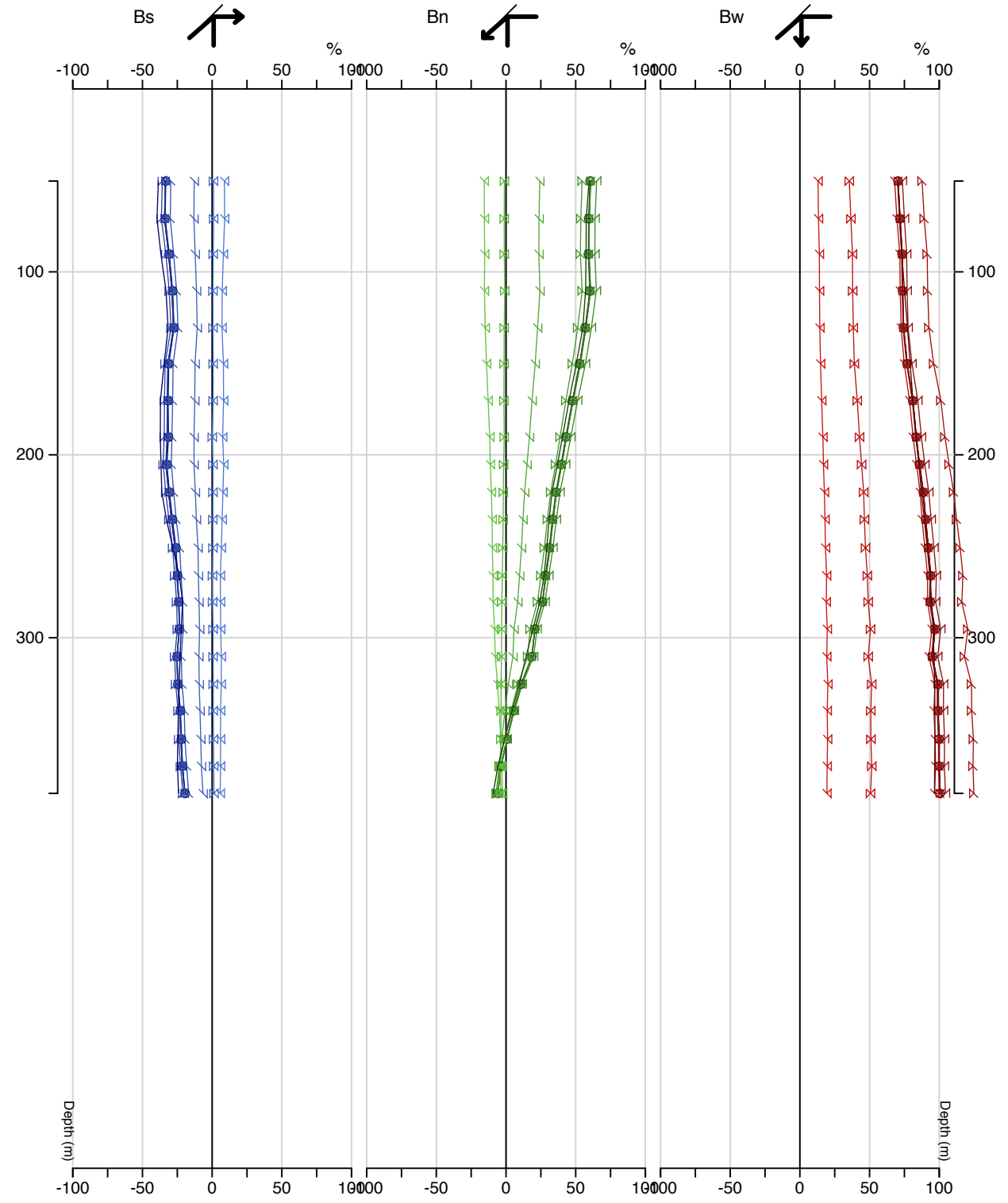
Hole: WIS-209 Loop: 1508 Cpt: Bw S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-209.3C / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



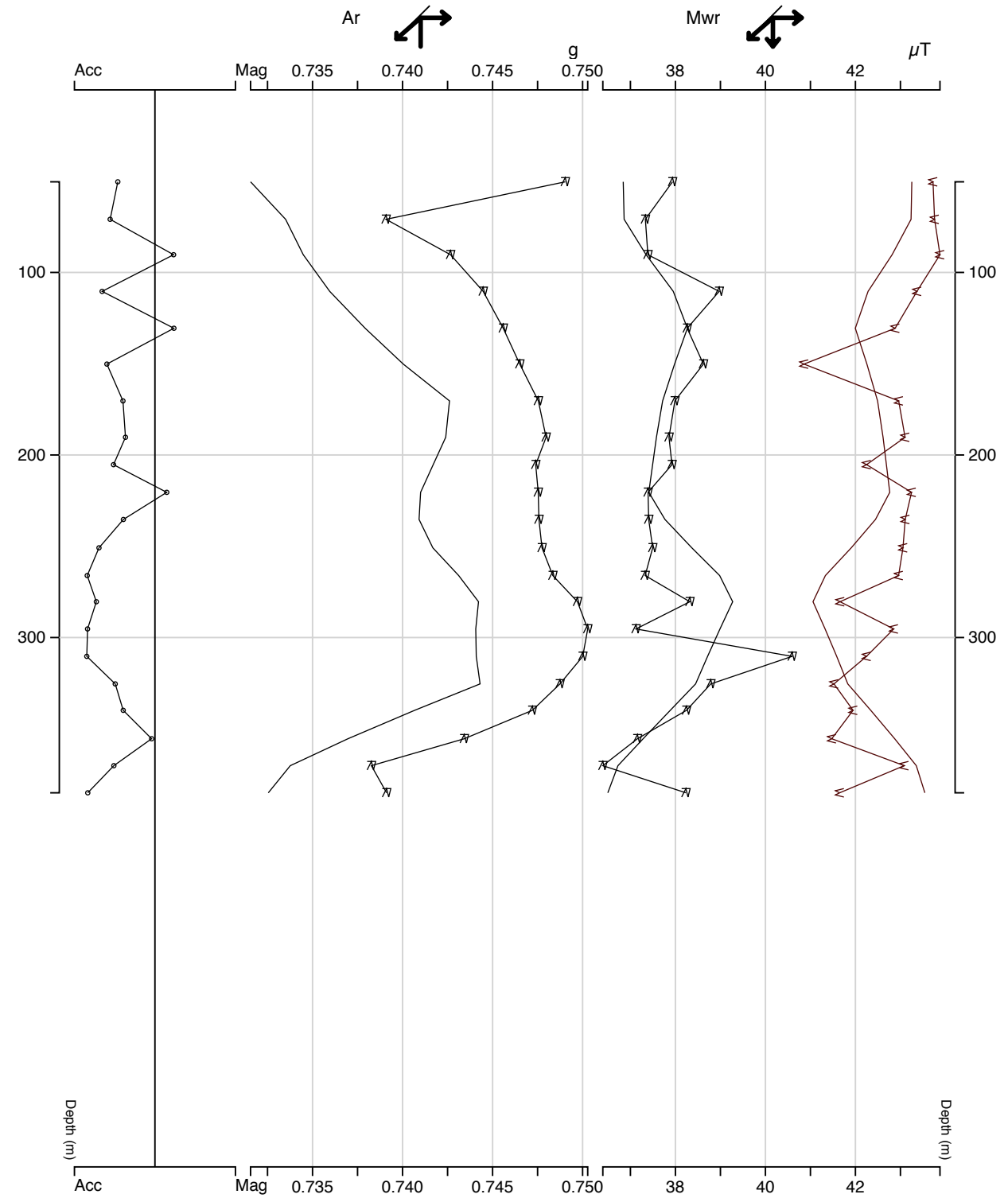
Hole: WIS-209 Loop: 1508 Cpt: Bs S 0.0° Tr 0	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-209.3C / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



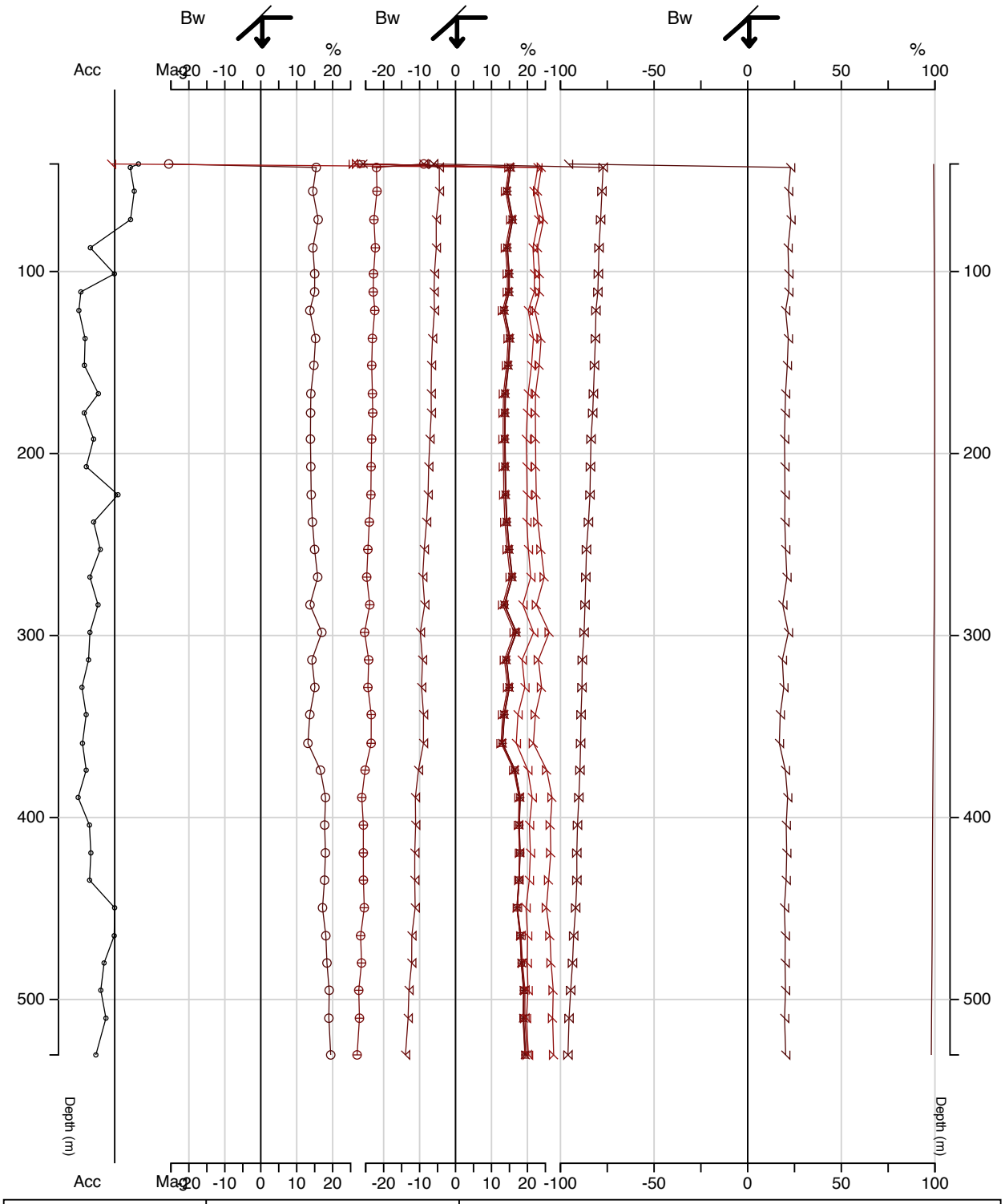
Hole: WIS-209 Loop: 1508 Cpt: Bn S 0.0° Tr 0	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-209.3C / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



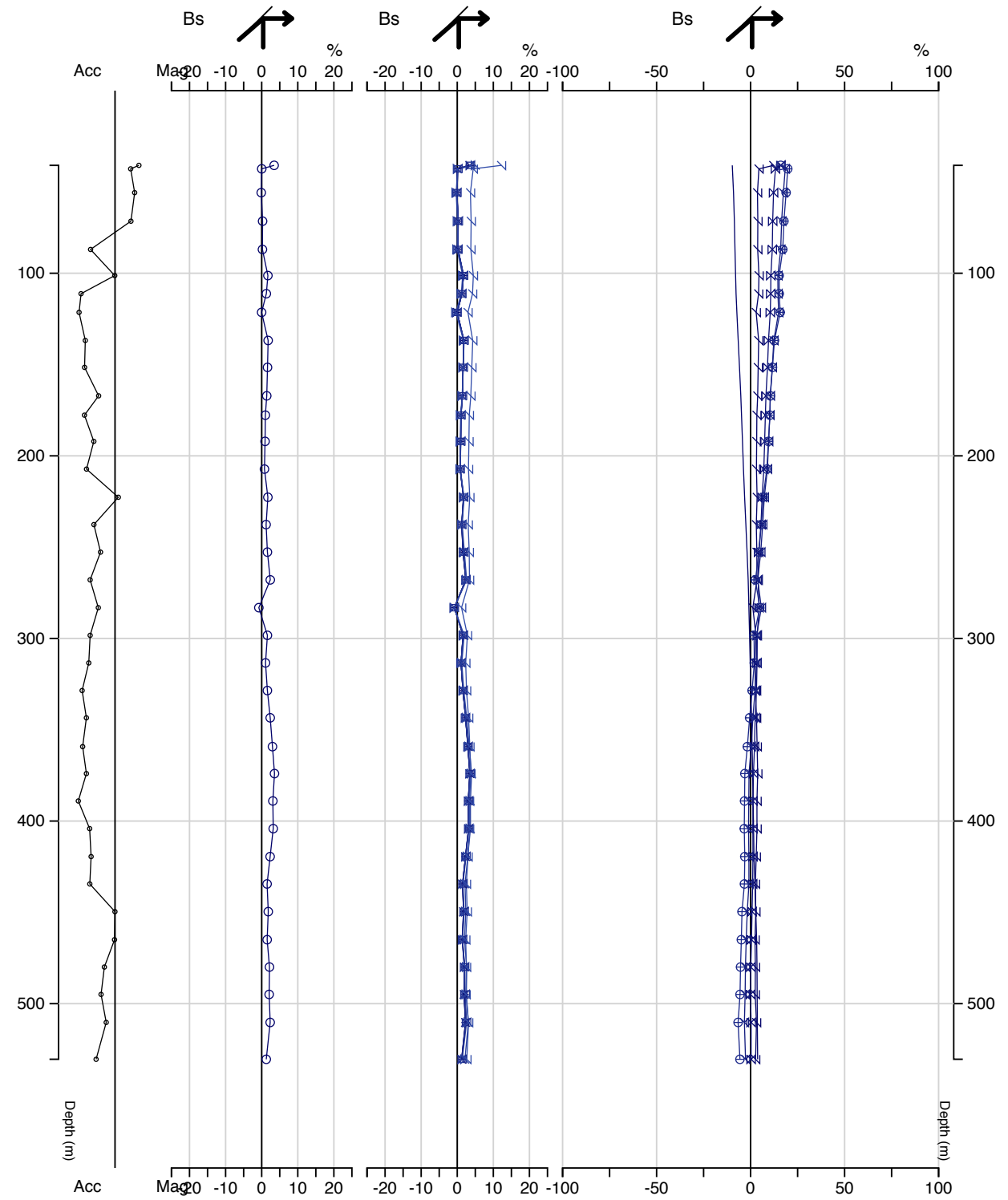
Hole: WIS-209 Loop: 1508 Cpt: Bs, Bn, Bw S 0.0° Tr 0	Chn / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 30.9743Hz L1508HWIS-209.3C / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



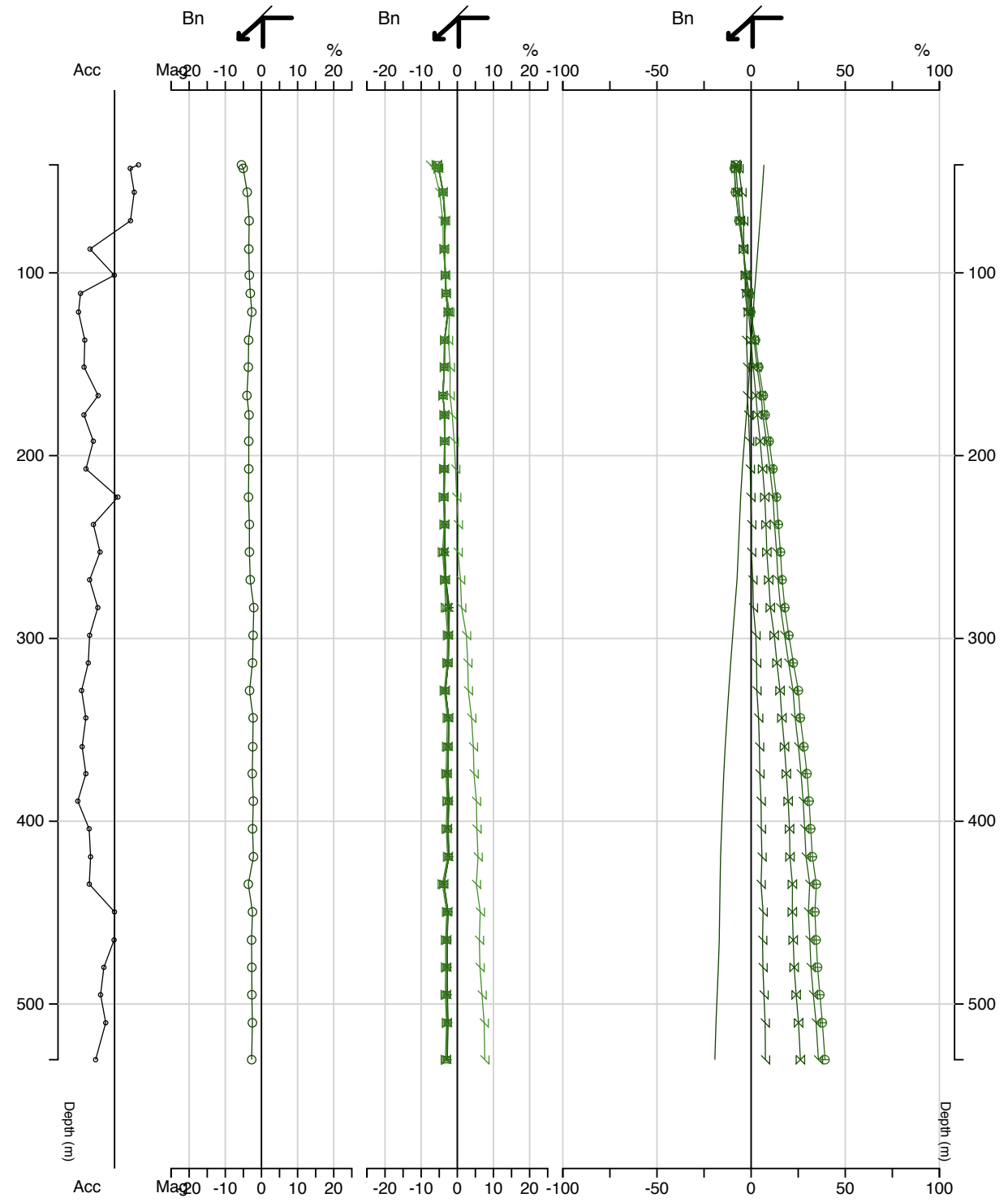
Hole: WIS-209 Loop: 1508 Cpt: (Mag & Acc) S 0.0° Tr 0	Field: n/a Normalization: n/a Base Freq: 30.9743Hz L1508HWIS-209.3C / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 14/5/15 Red: 15/5/15 Plot: 2/10/15



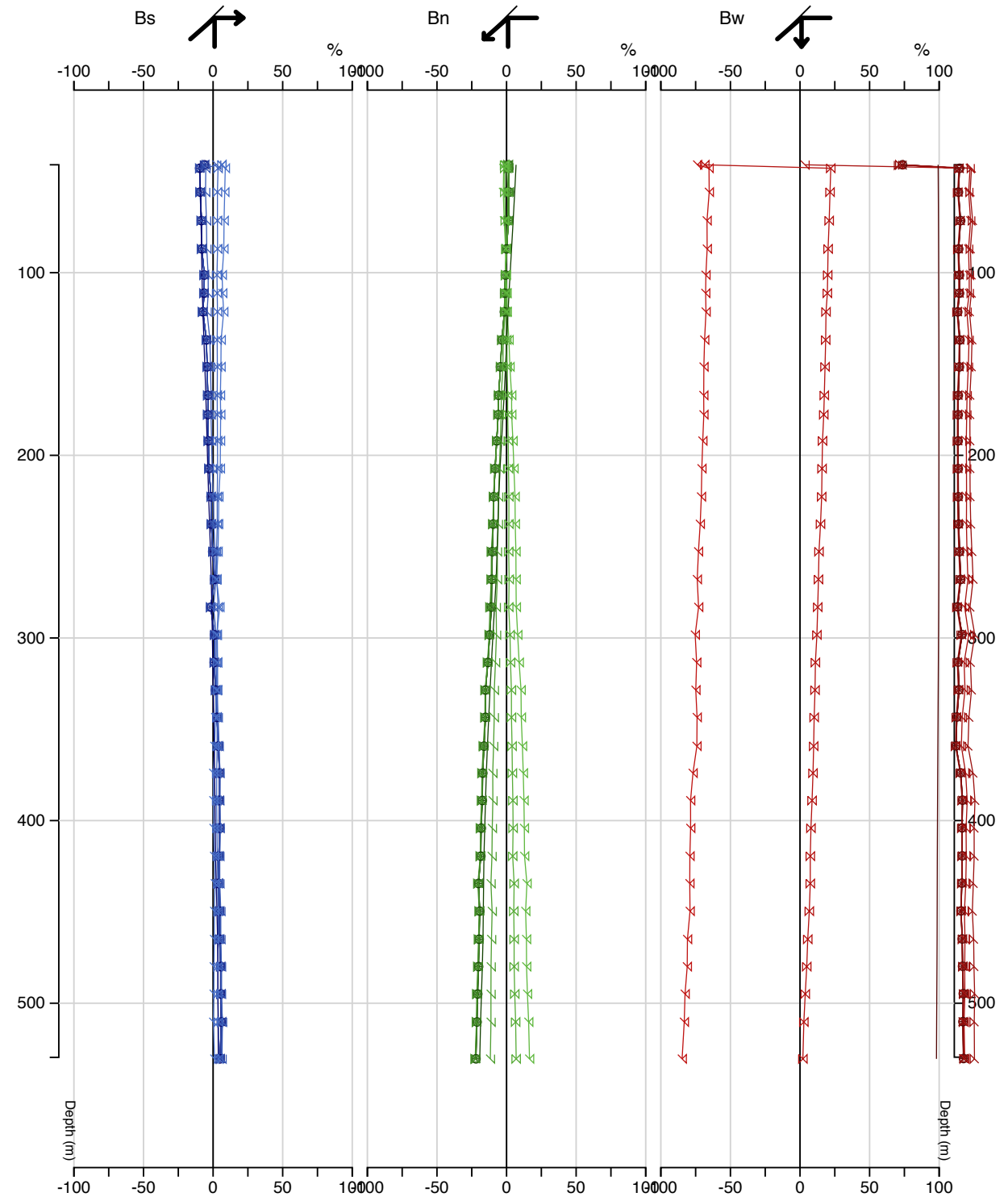
Hole: WIS-210 Loop: 1509 Cpt: Bw S 0.0° Tr 0.00	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1509_HWIS-210.3cH5 / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



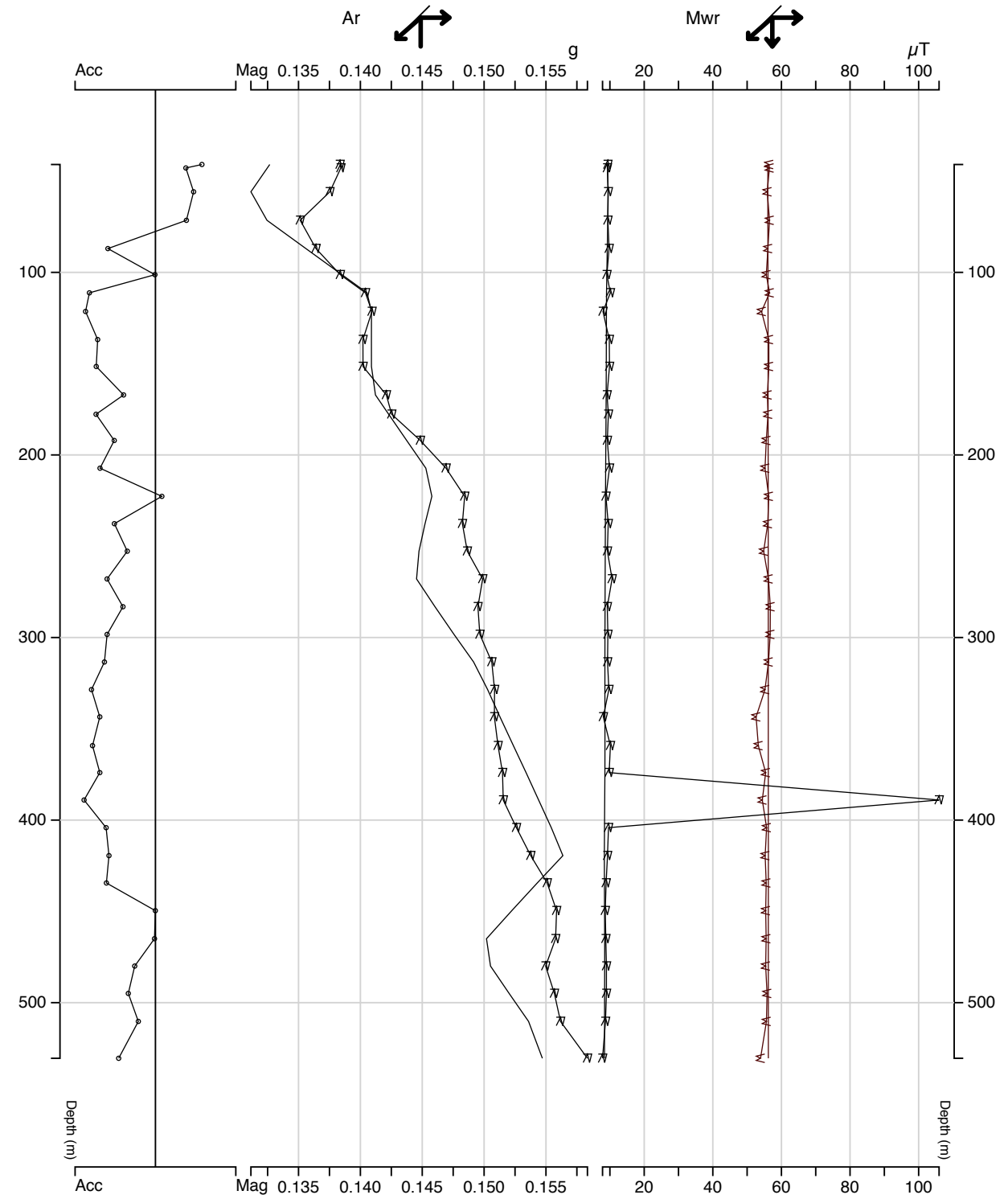
Hole: WIS-210 Loop: 1509 Cpt: Bs S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1509_HWIS-210.3cH5 / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



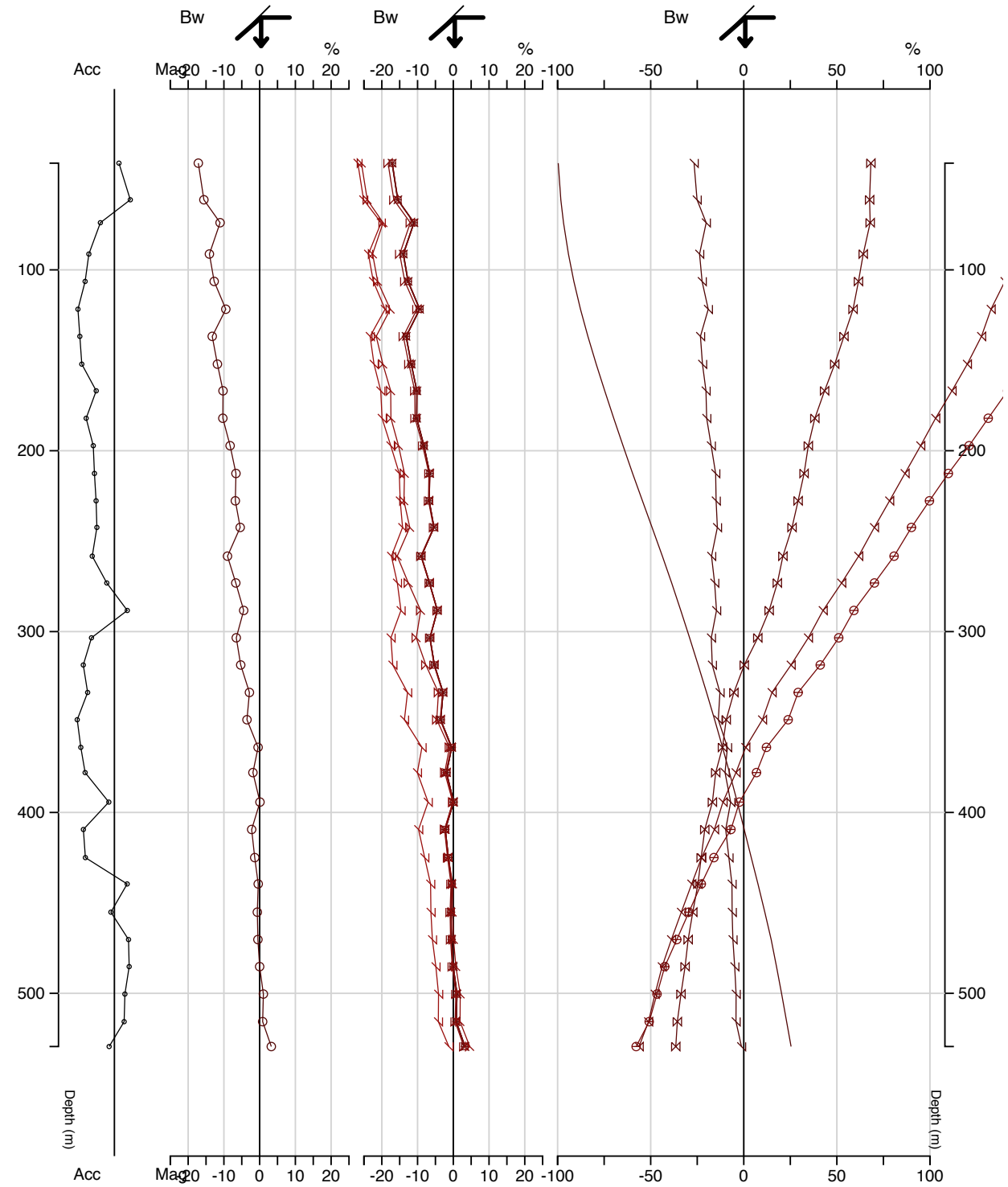
Hole: WIS-210 Loop: 1509 Cpt: Bn S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1509_HWIS-210.3cH5 / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



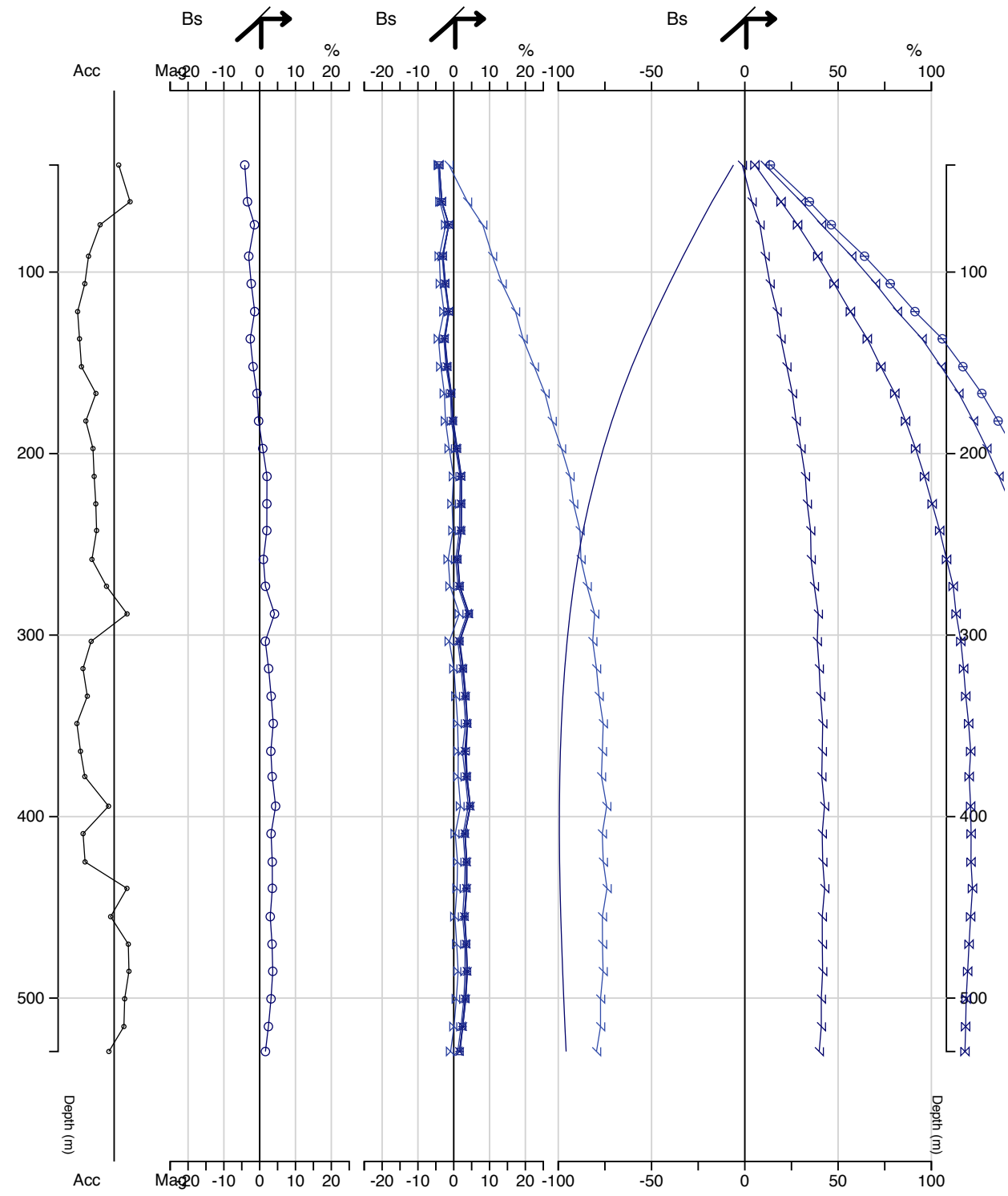
Hole: WIS-210 Loop: 1509 Cpt: Bs, Bn, Bw S 0.0° Tr 0.00	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1509_HWIS-210.3cH5 / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



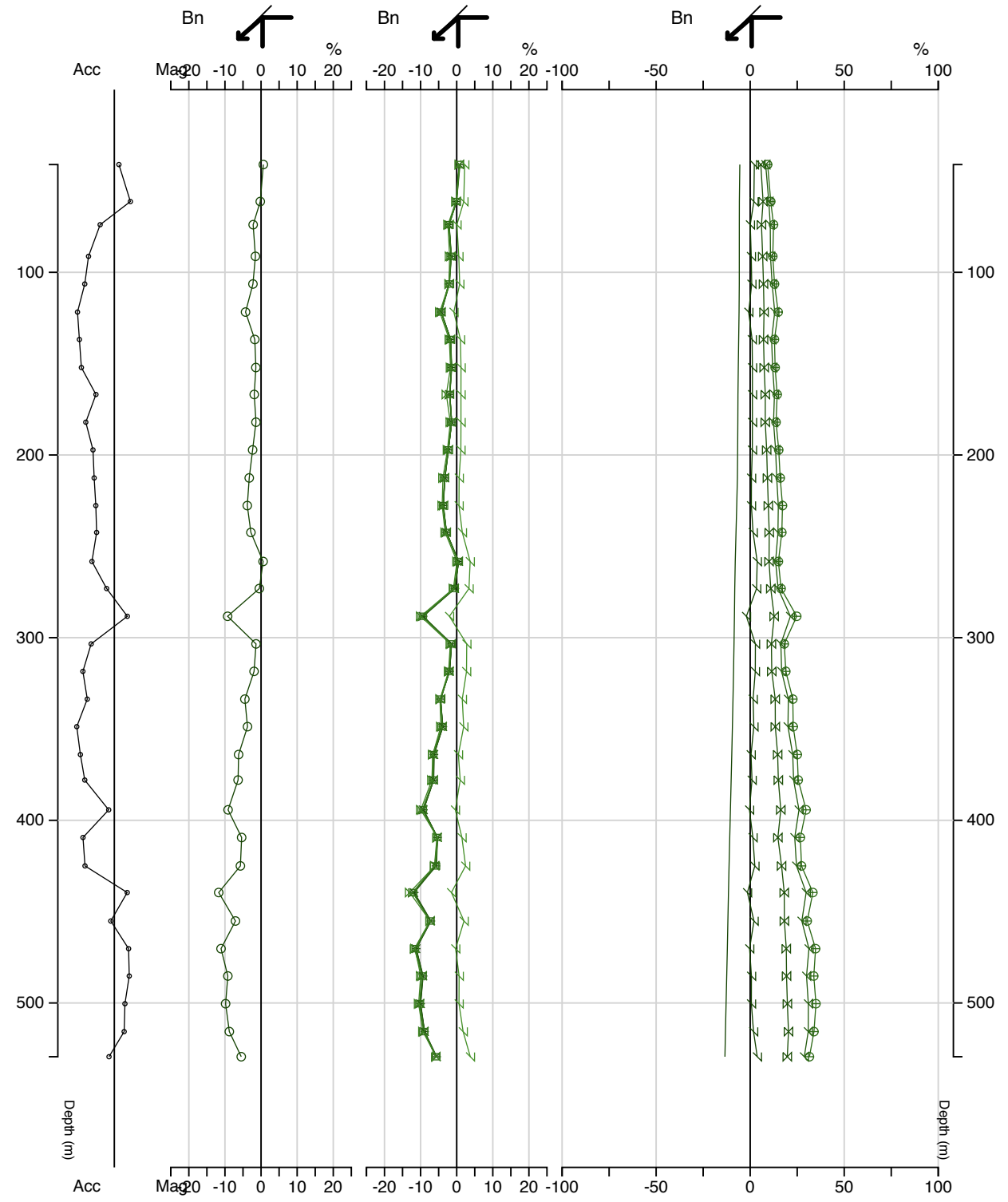
Hole: WIS-210 Loop: 1509 Cpt: (Mag & Acc) S 0.0° Tr 0.00	Field: n/a Normalization: n/a Base Freq: 29Hz aS1Lp1509_HWIS-210.3cH5 / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



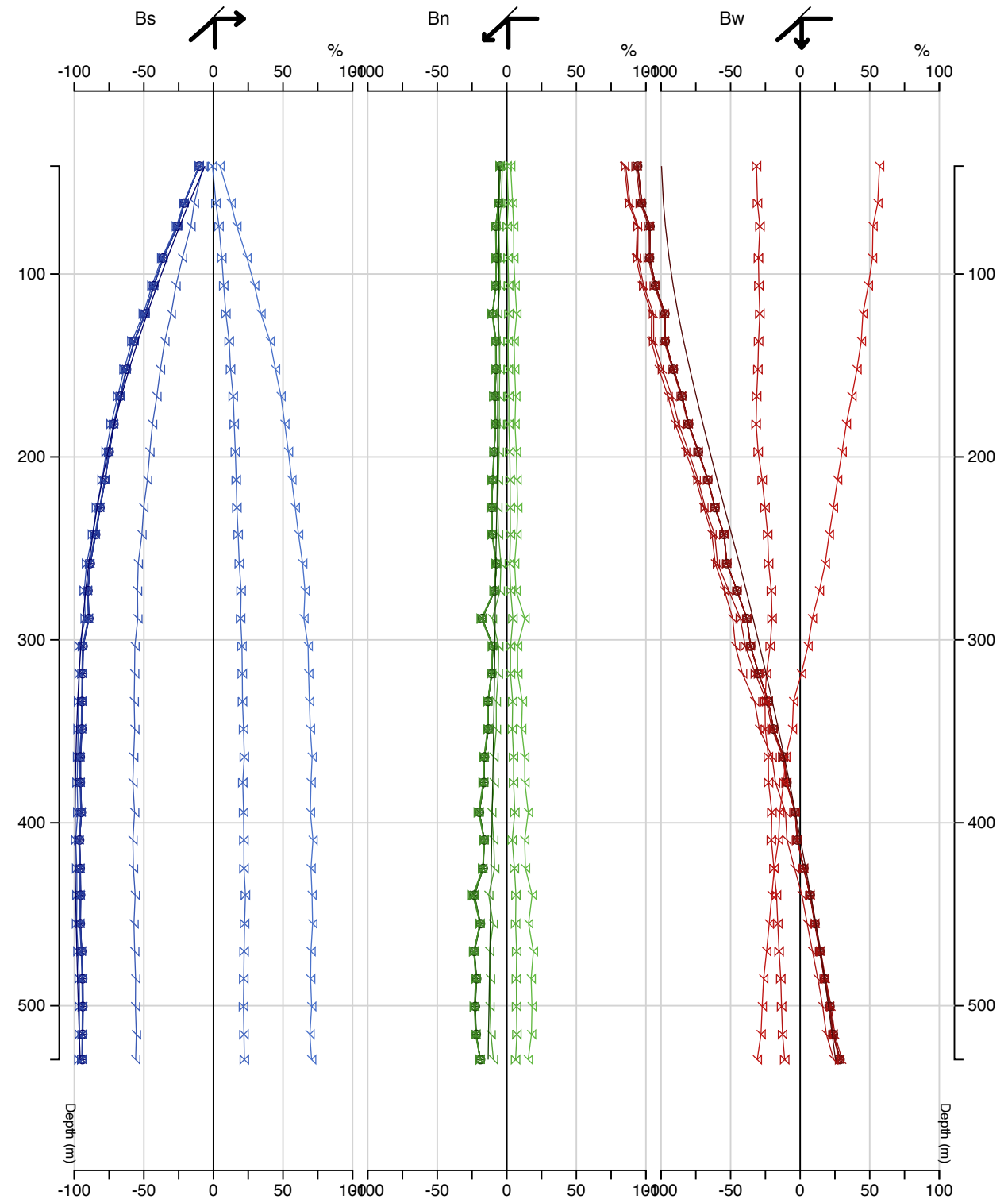
Hole: WIS-210 Loop: 1510 Cpt: Bw S 0.0° Tr 0.00	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz bS1Lp1510_HWis-210.3cH5 / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



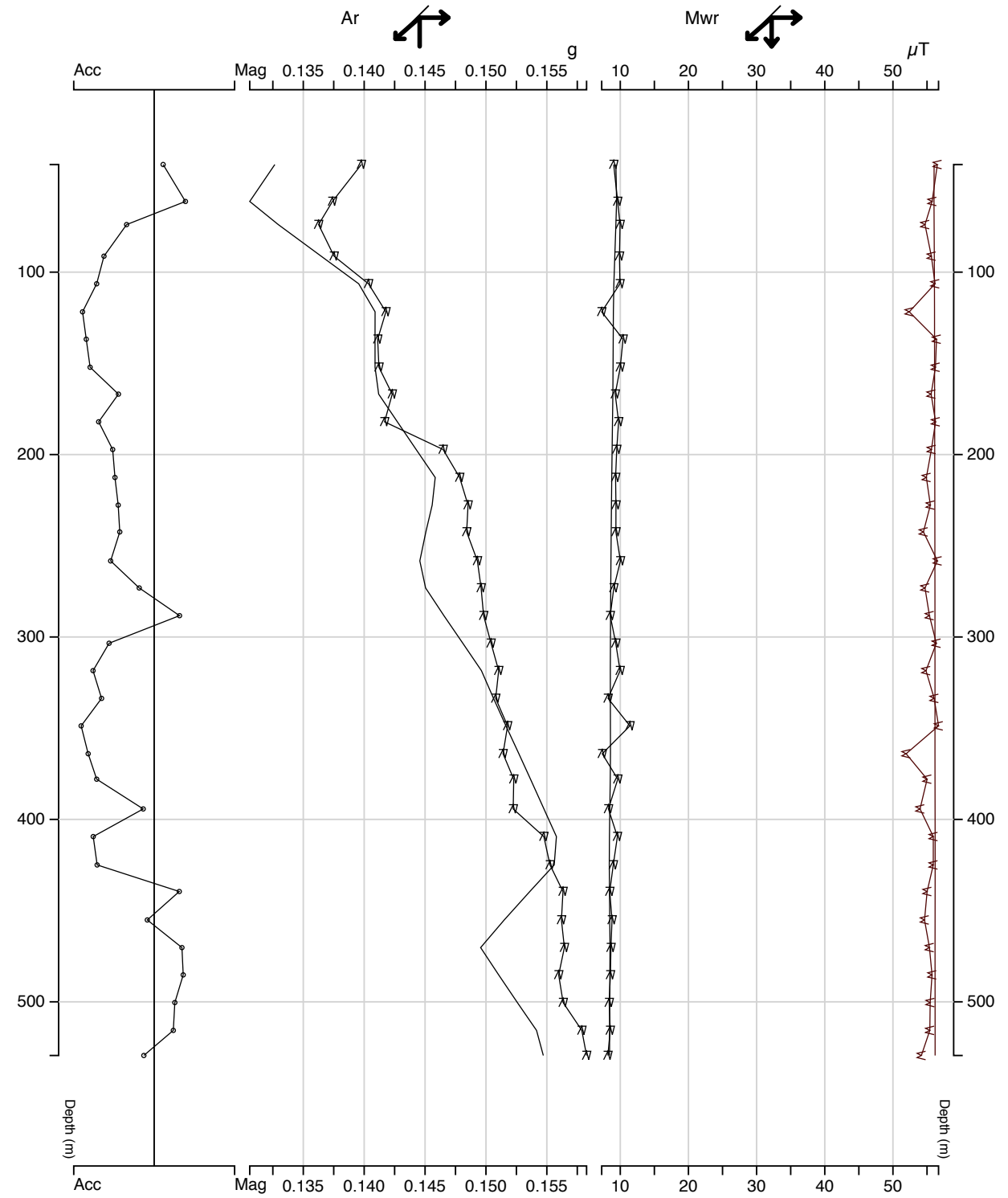
Hole: WIS-210 Loop: 1510 Cpt: Bs S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz bS1Lp1510_HWis-210.3cH5 / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



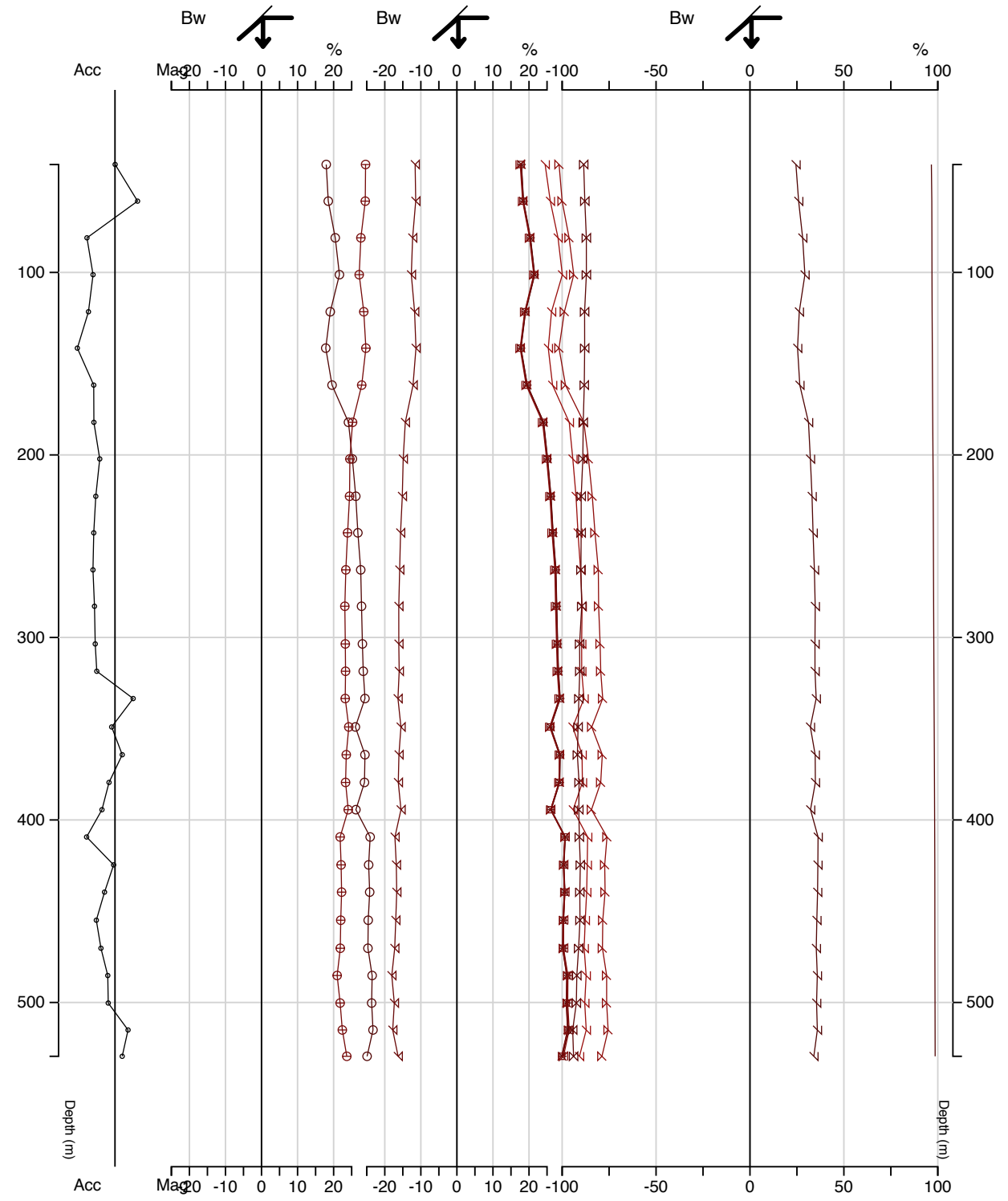
Hole: WIS-210 Loop: 1510 Cpt: Bn S 0.0° Tr 0.00	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz bS1Lp1510_HWis-210.3cH5 / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



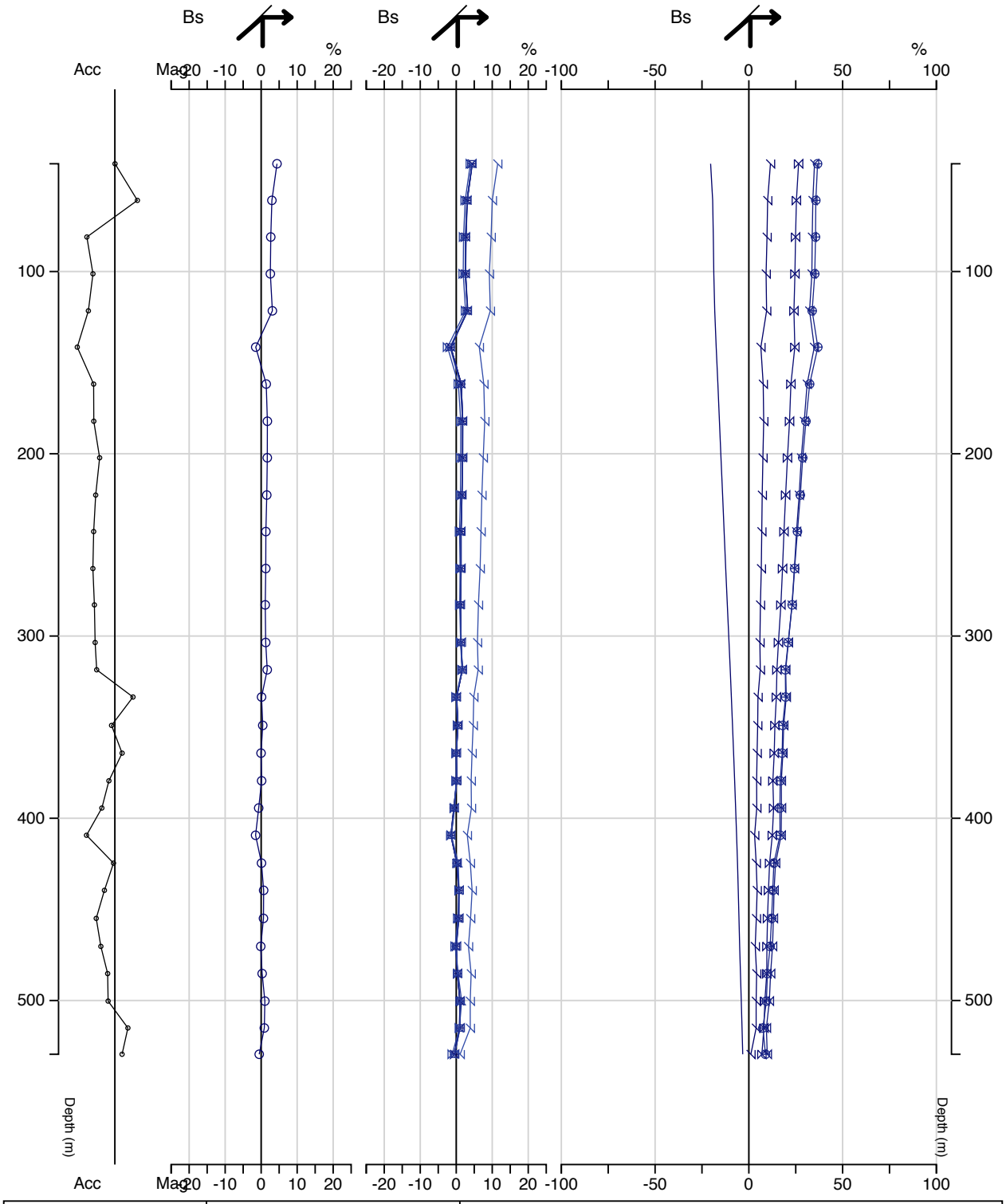
Hole: WIS-210 Loop: 1510 Cpt: Bs, Bn, Bw S 0.0° Tr 0.00	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz bS1Lp1510_HWis-210.3cH5 / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



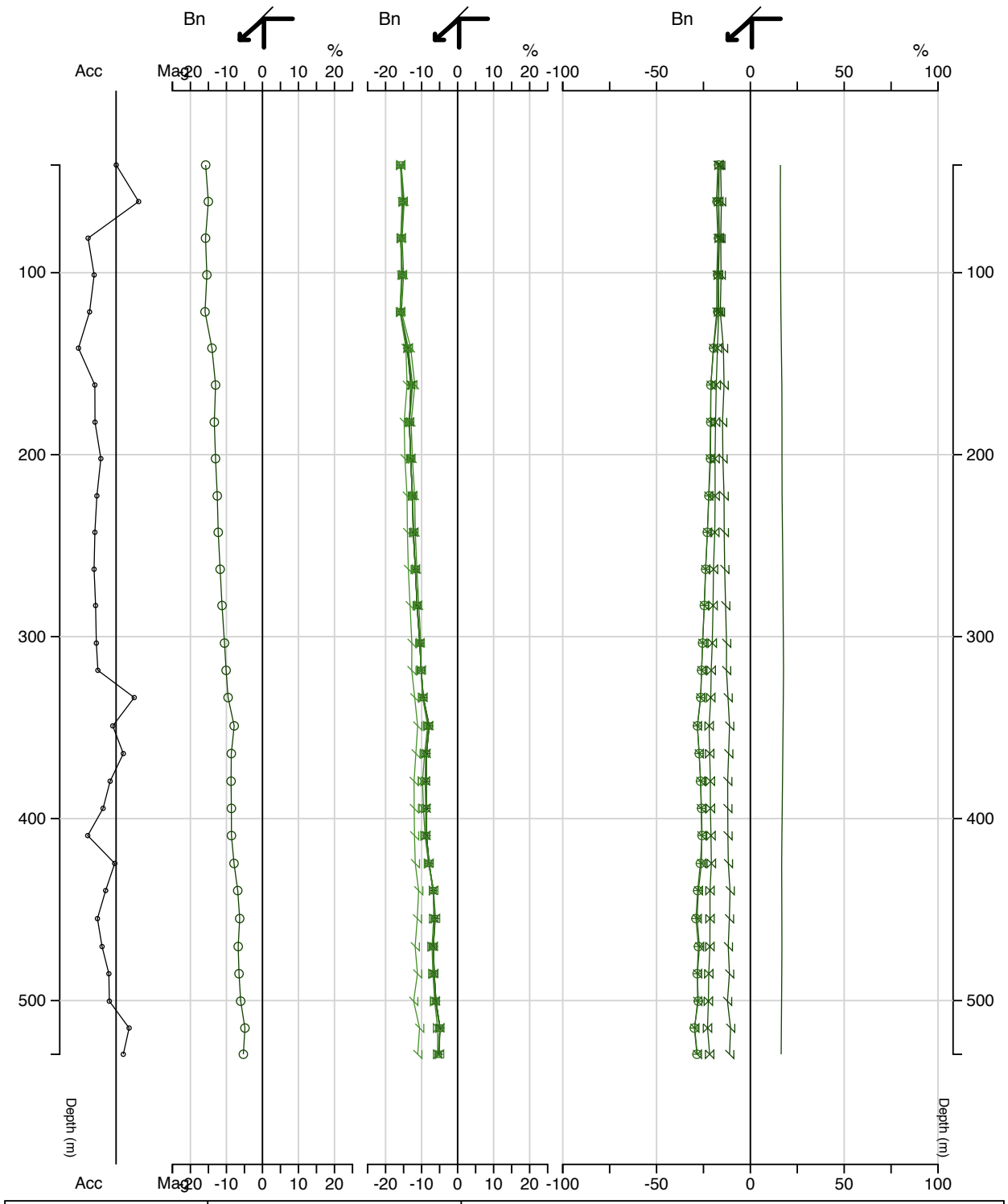
Hole: WIS-210 Loop: 1510 Cpt: (Mag & Acc) S 0.0° Tr 0.00	Field: n/a Normalization: n/a Base Freq: 29Hz bS1Lp1510_HWis-210.3cH5 / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 17/6/15 Red: 17/6/15 Plot: 2/10/15



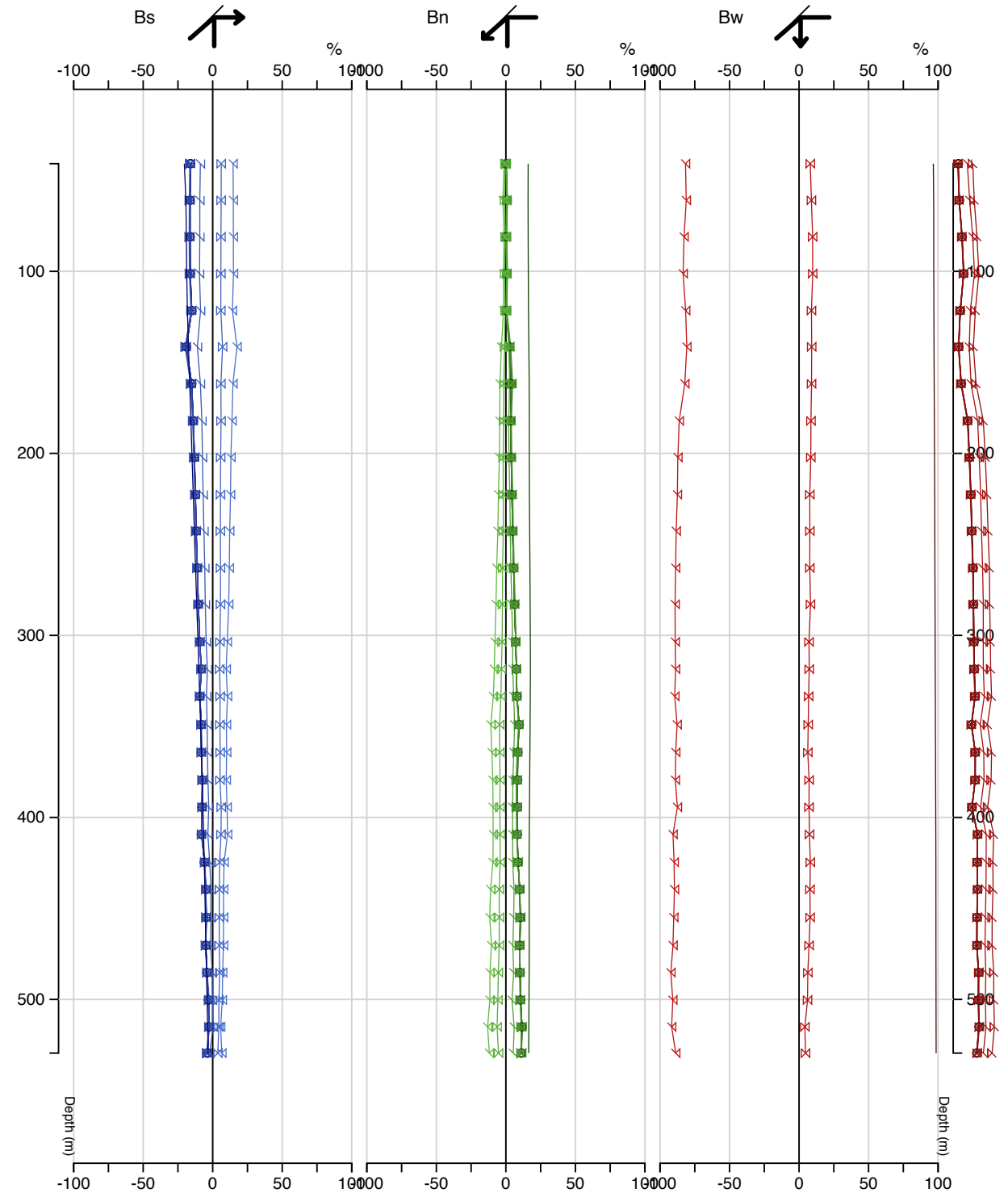
Hole: WIS-211 Loop: 1509 Cpt: Bw S 0.0° Tr 0.00	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz cS1Lp1509_HWIS-211.3cH5 / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



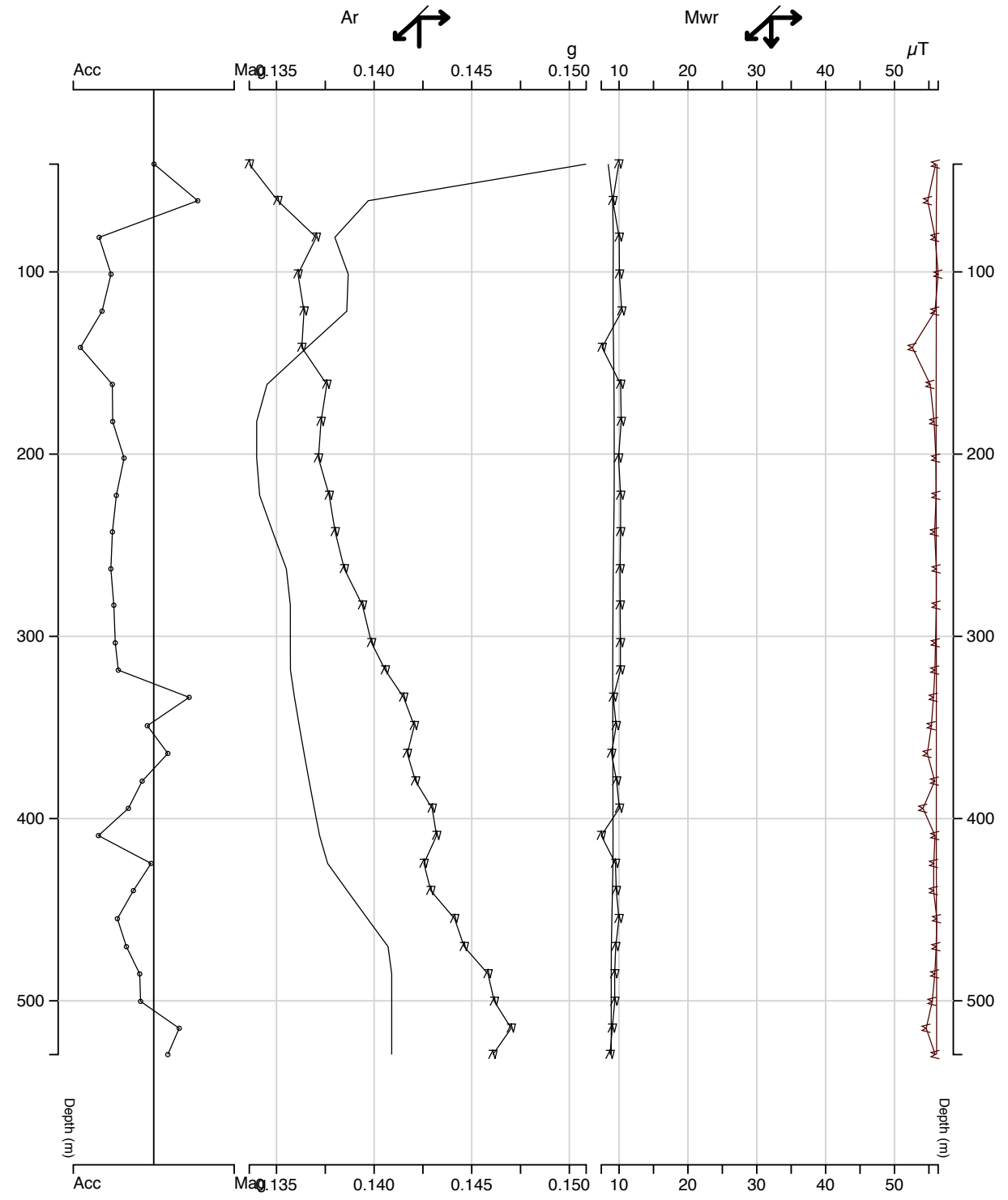
Hole: WIS-211 Loop: 1509 Cpt: Bs S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz cS1Lp1509_HWIS-211.3cH5 / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



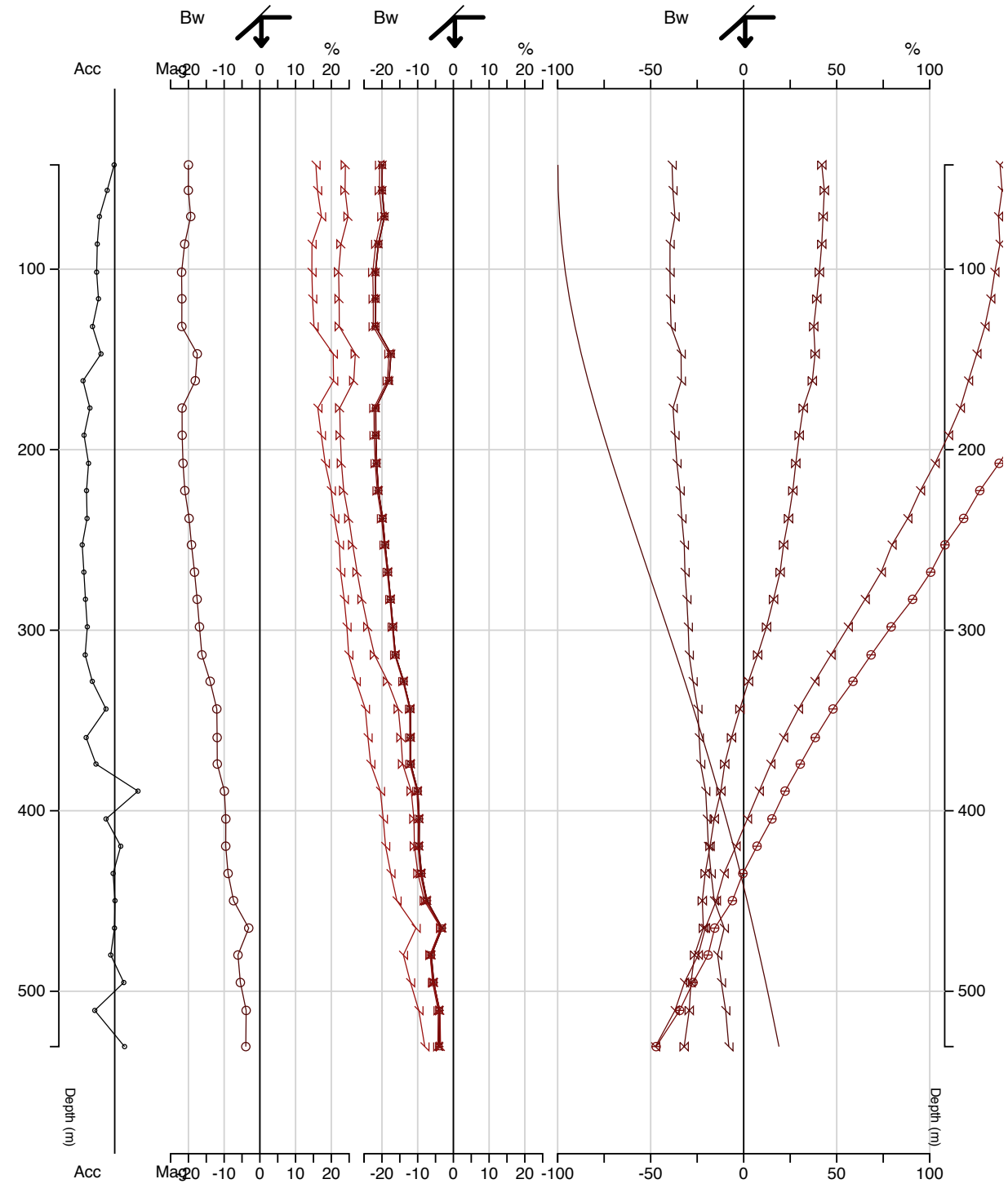
Hole: WIS-211 Loop: 1509 Cpt: Bn S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz cS1Lp1509_HWIS-211.3cH5 / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



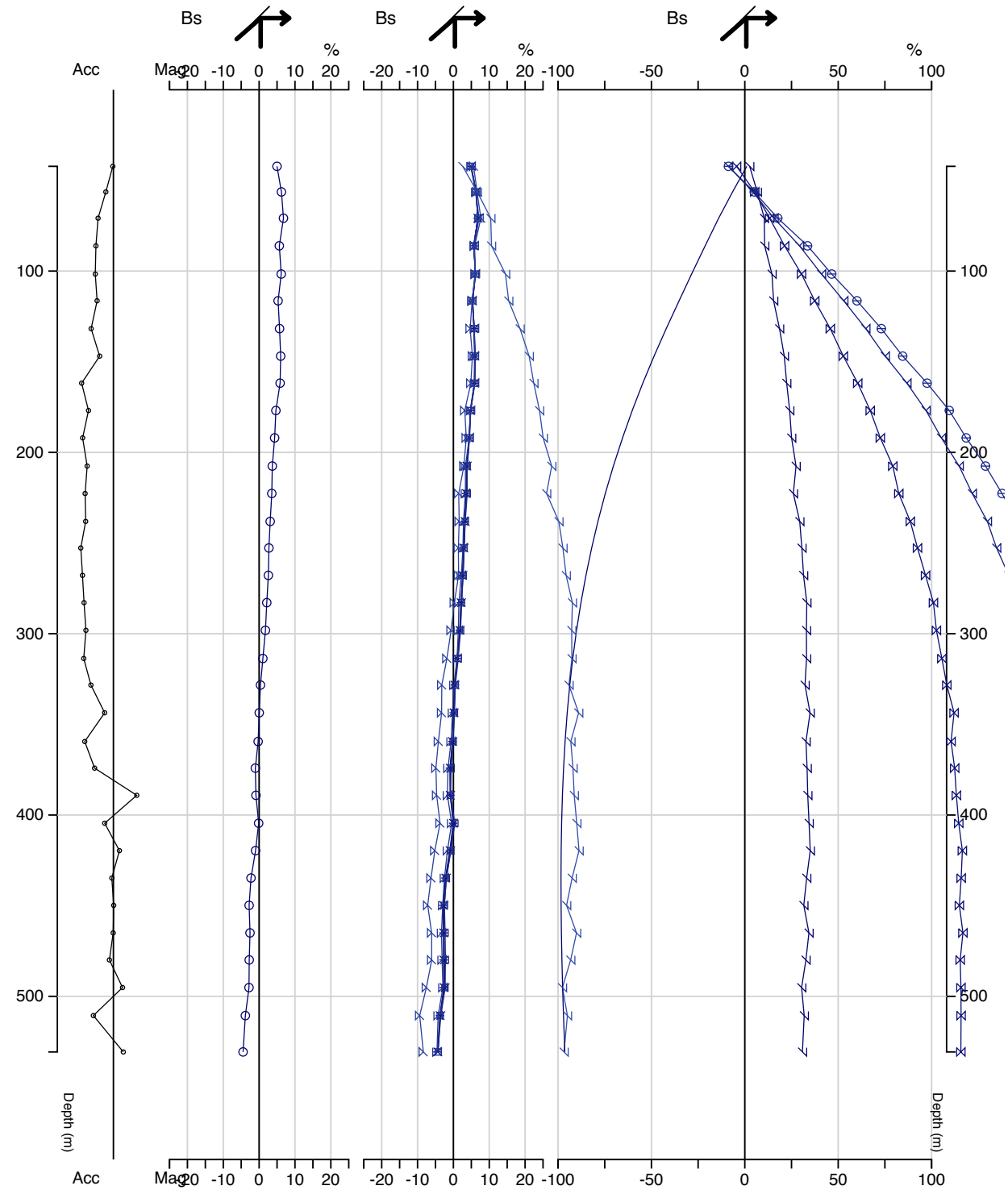
Hole: WIS-211 Loop: 1509 Cpt: Bs, Bn, Bw S 0.0° Tr 0.00	Chn / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz cS1Lp1509_HWIS-211.3cH5 / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



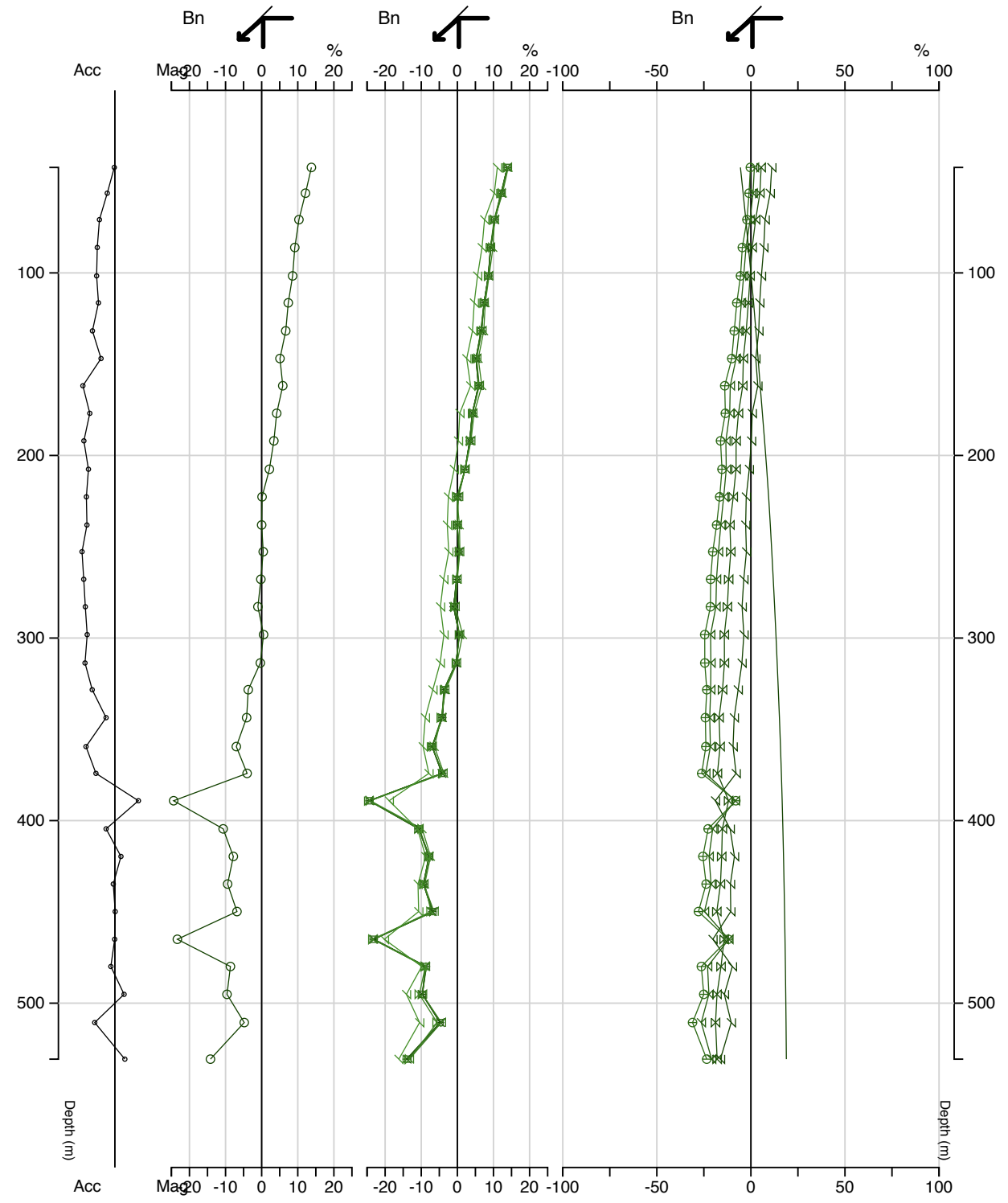
Hole: WIS-211 Loop: 1509 Cpt: (Mag & Acc) S 0.0° Tr 0.00	Field: n/a Normalization: n/a Base Freq: 29Hz cS1Lp1509_HWIS-211.3cH5 / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



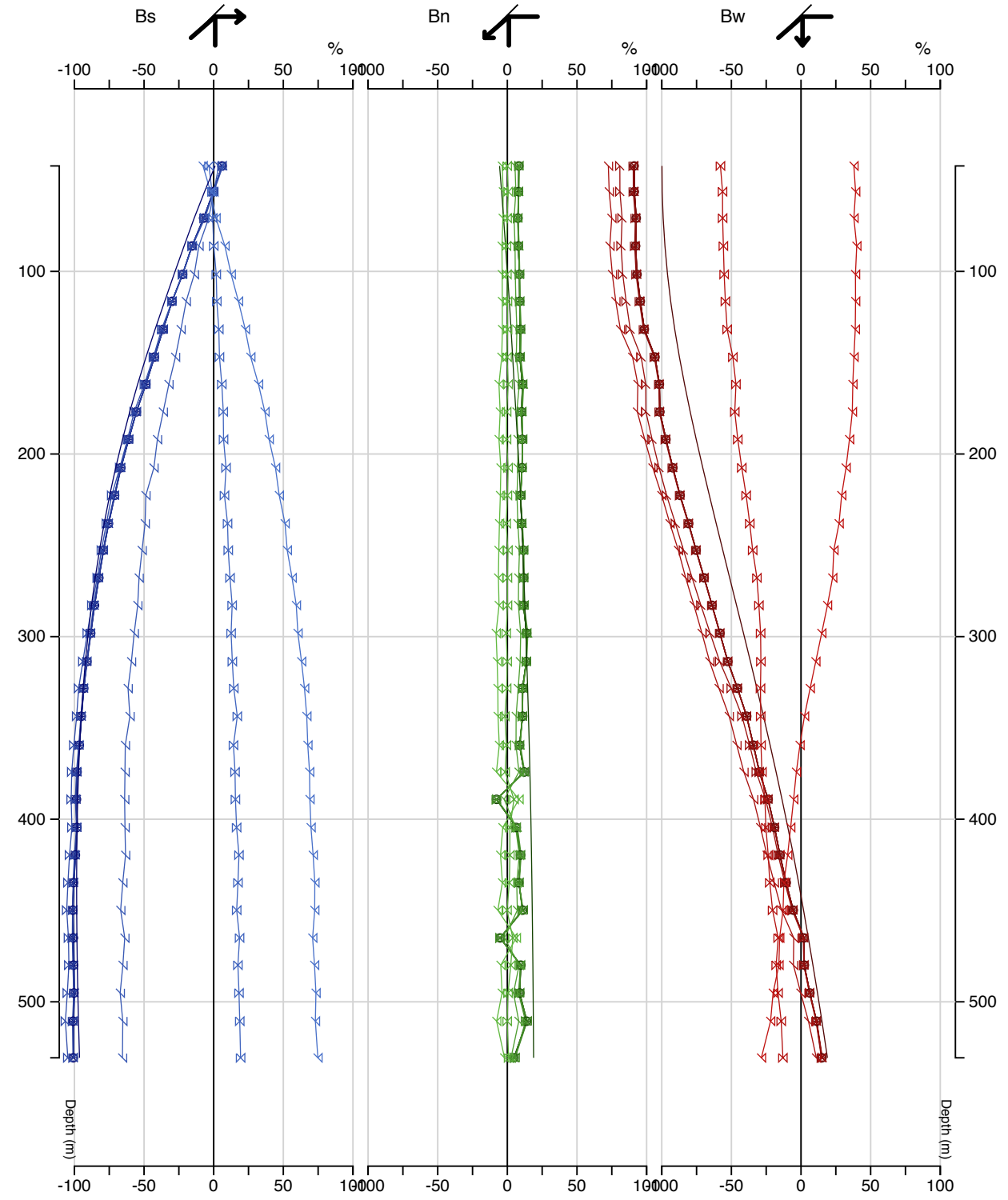
Hole: WIS-211 Loop: 1510 Cpt: Bw S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1510_HWis-211.3cH5 / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



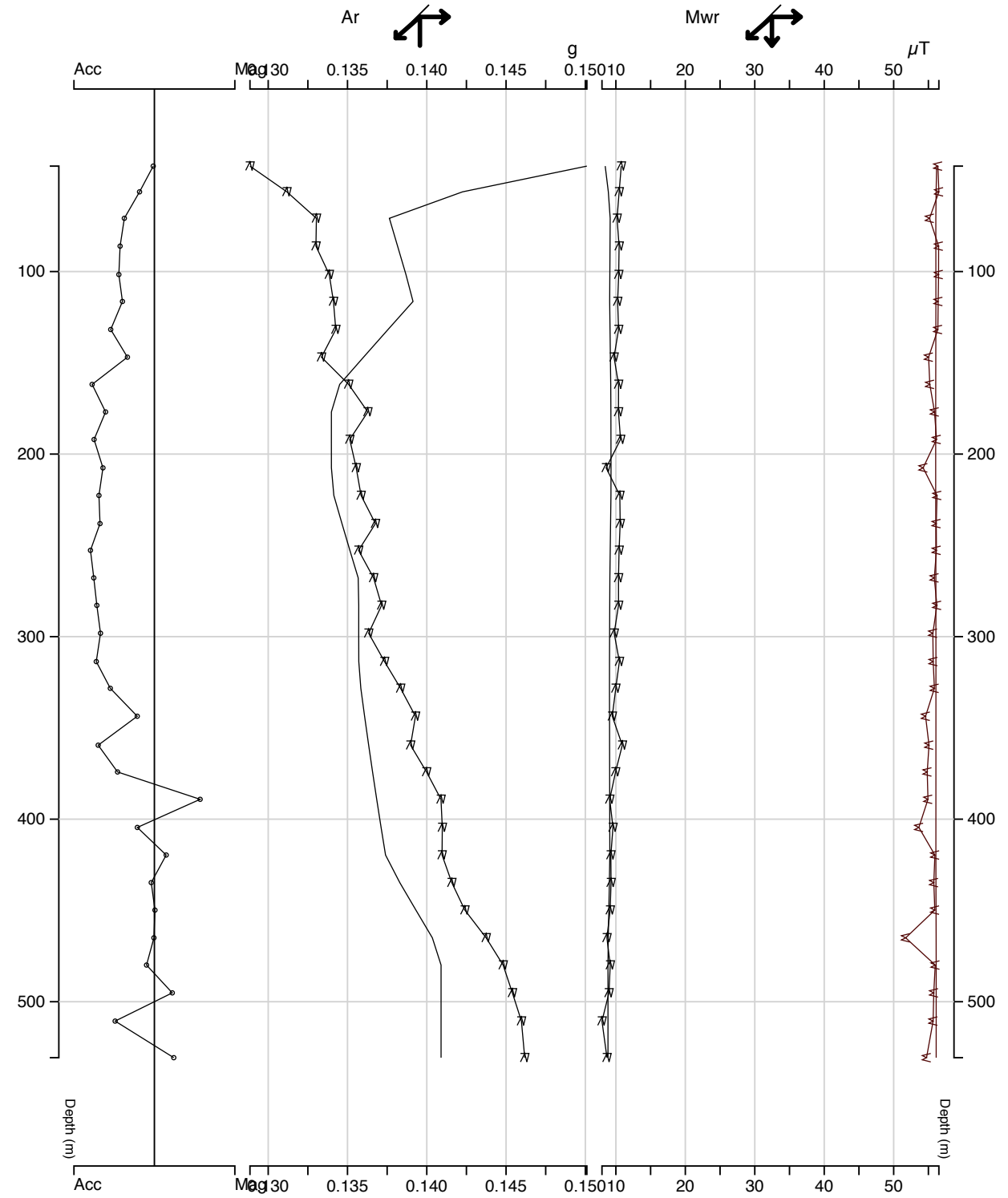
Hole: WIS-211 Loop: 1510 Cpt: Bs S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1510_HWis-211.3cH5 / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



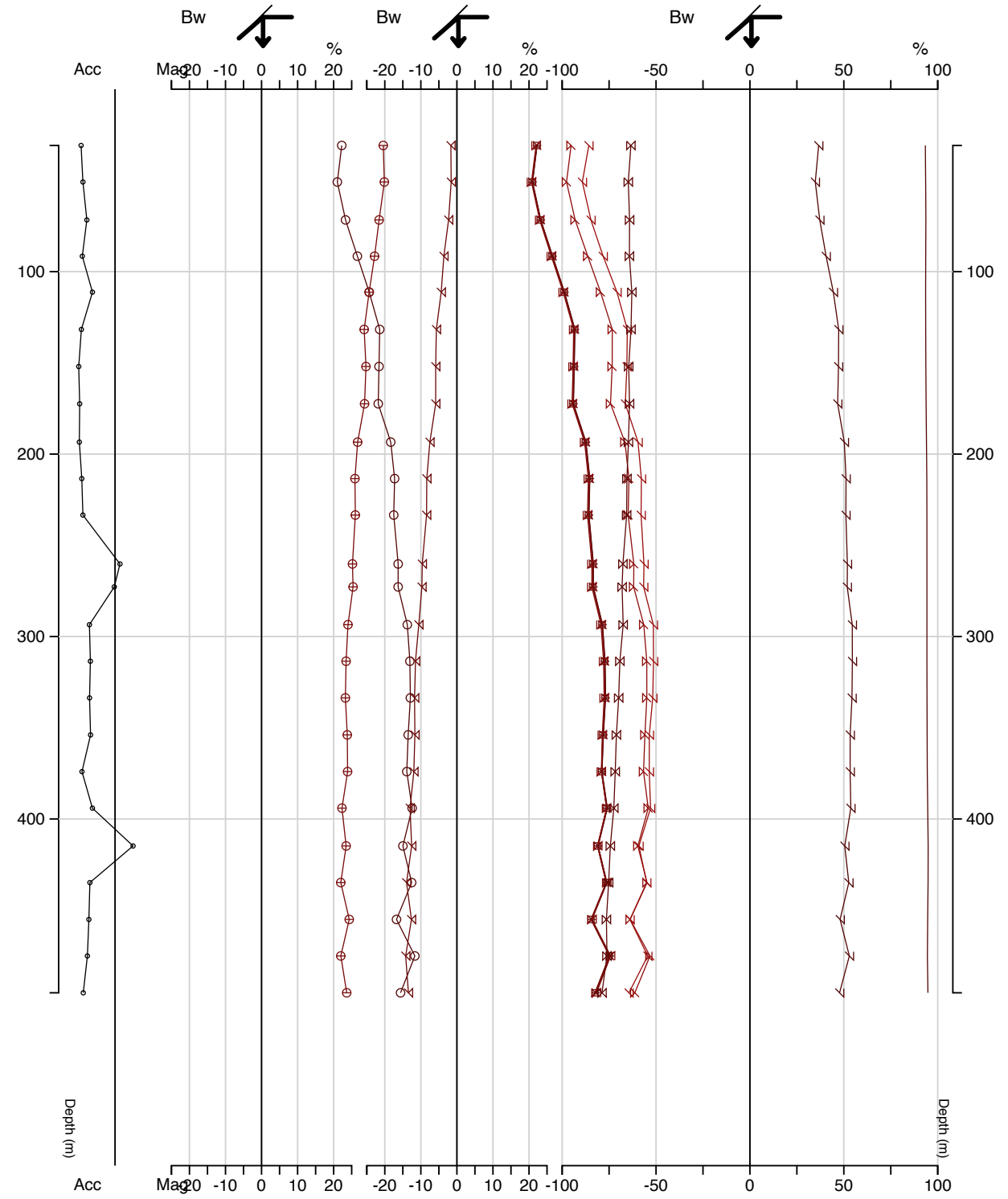
Hole: WIS-211 Loop: 1510 Cpt: Bn S 0.0° Tr 0.00	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1510_HWis-211.3cH5 / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



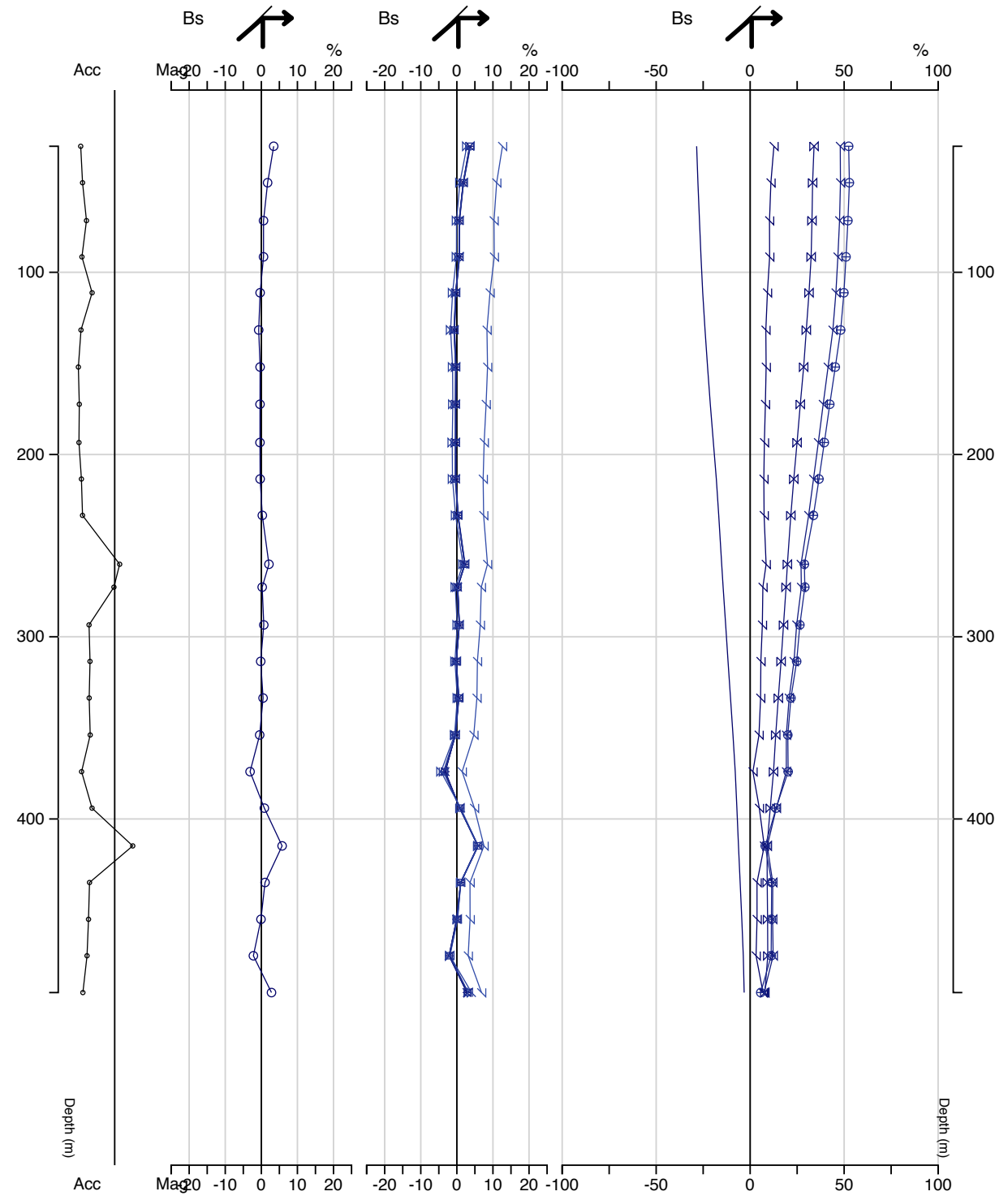
Hole: WIS-211 Loop: 1510 Cpt: Bs, Bn, Bw S 0.0° Tr 0.00	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1510_HWis-211.3cH5 / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15



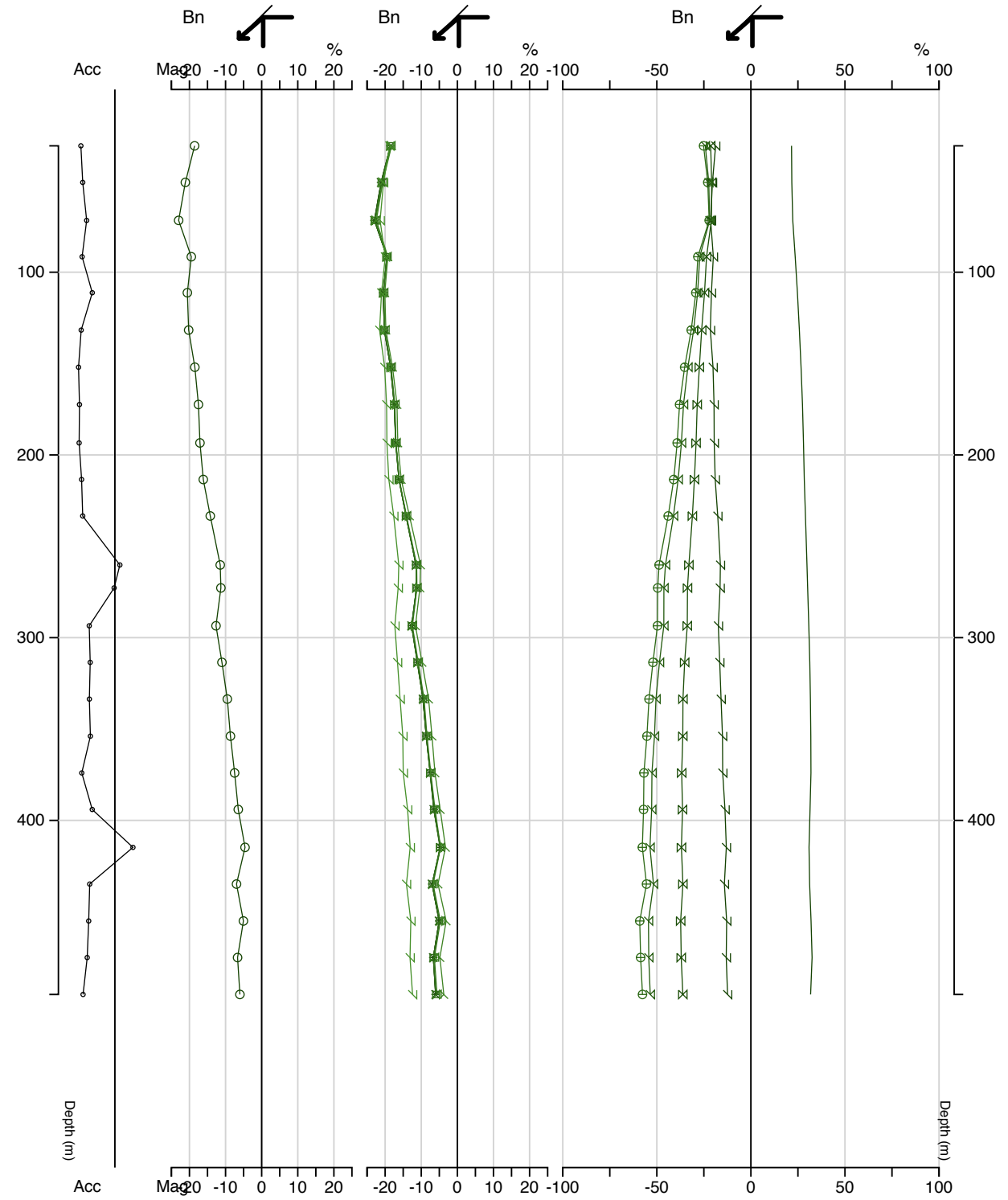
Hole: WIS-211 Loop: 1510 Cpt: (Mag & Acc) S 0.0° Tr 0.00	Field: n/a Normalization: n/a Base Freq: 29Hz aS1Lp1510_HWis-211.3cH5 / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 25/6/15 Red: 26/6/15 Plot: 2/10/15

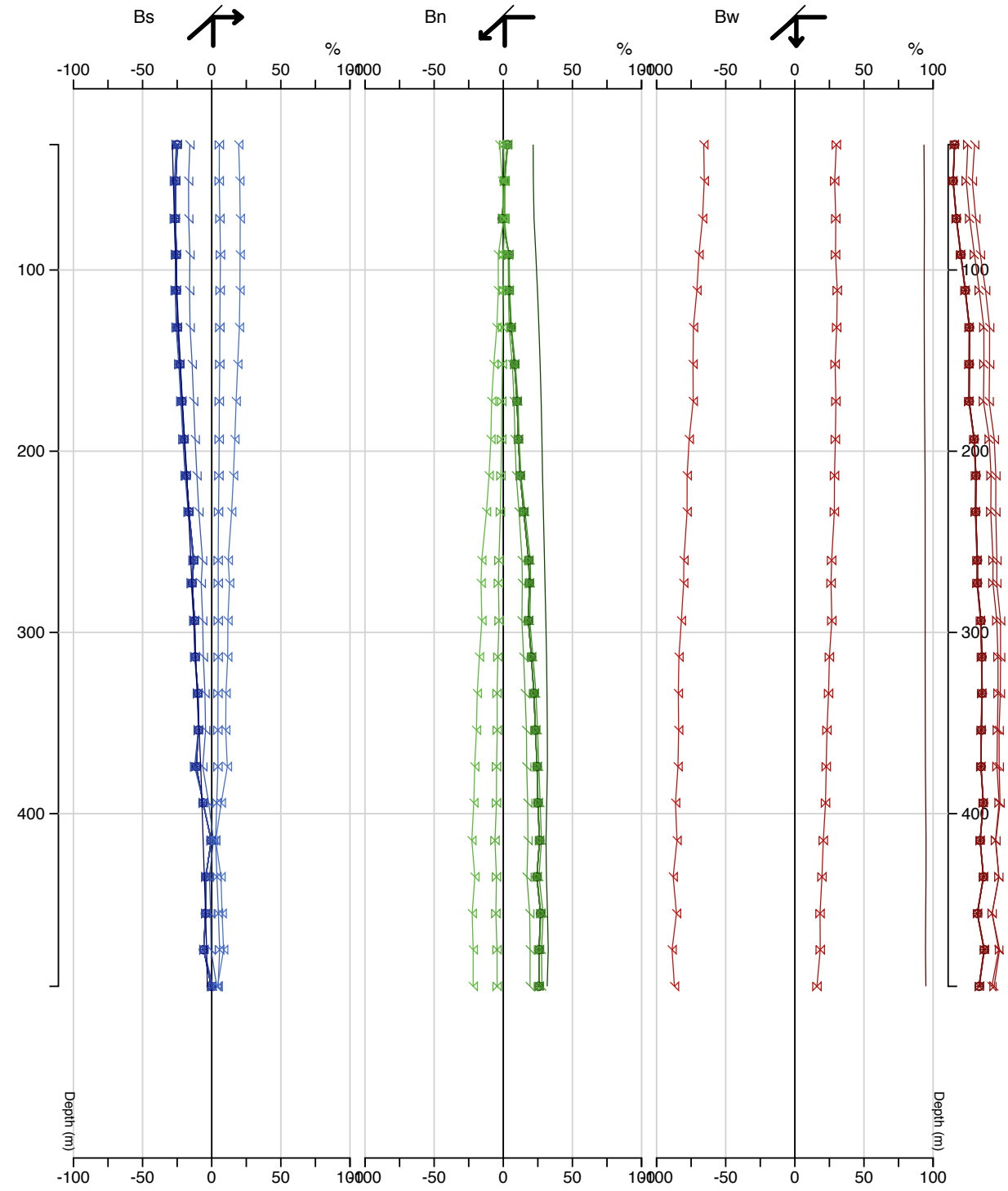


Hole: WIS-212 Loop: 1509 Cpt: Bw S 0.0° Tr 0.00	(Chn - Bcpt) / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1509_HWIS-212.3cH5 / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15

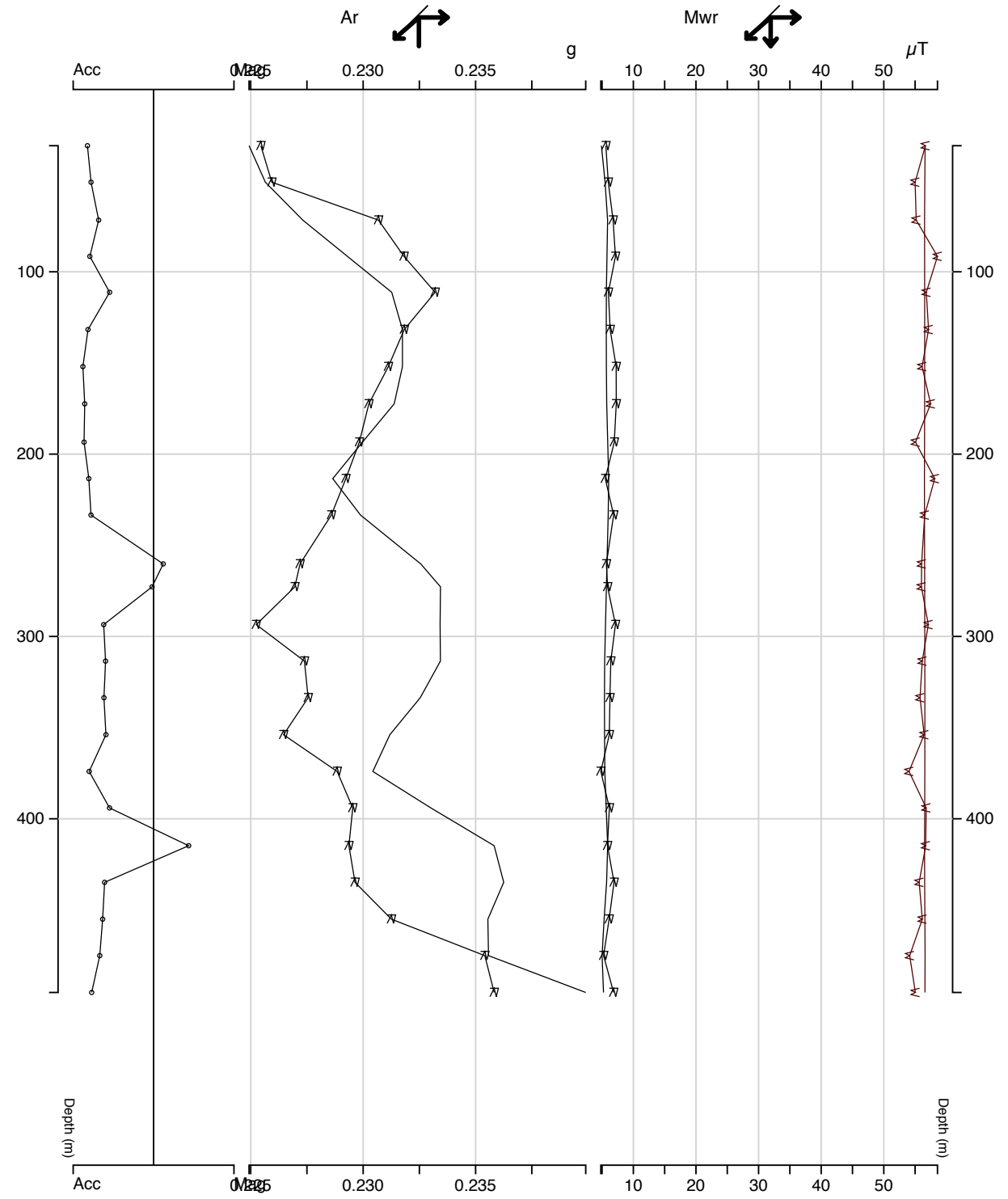


Hole: WIS-212 Loop: 1509 Cpt: Bs S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1509_HWIS-212.3cH5 / Bs Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15

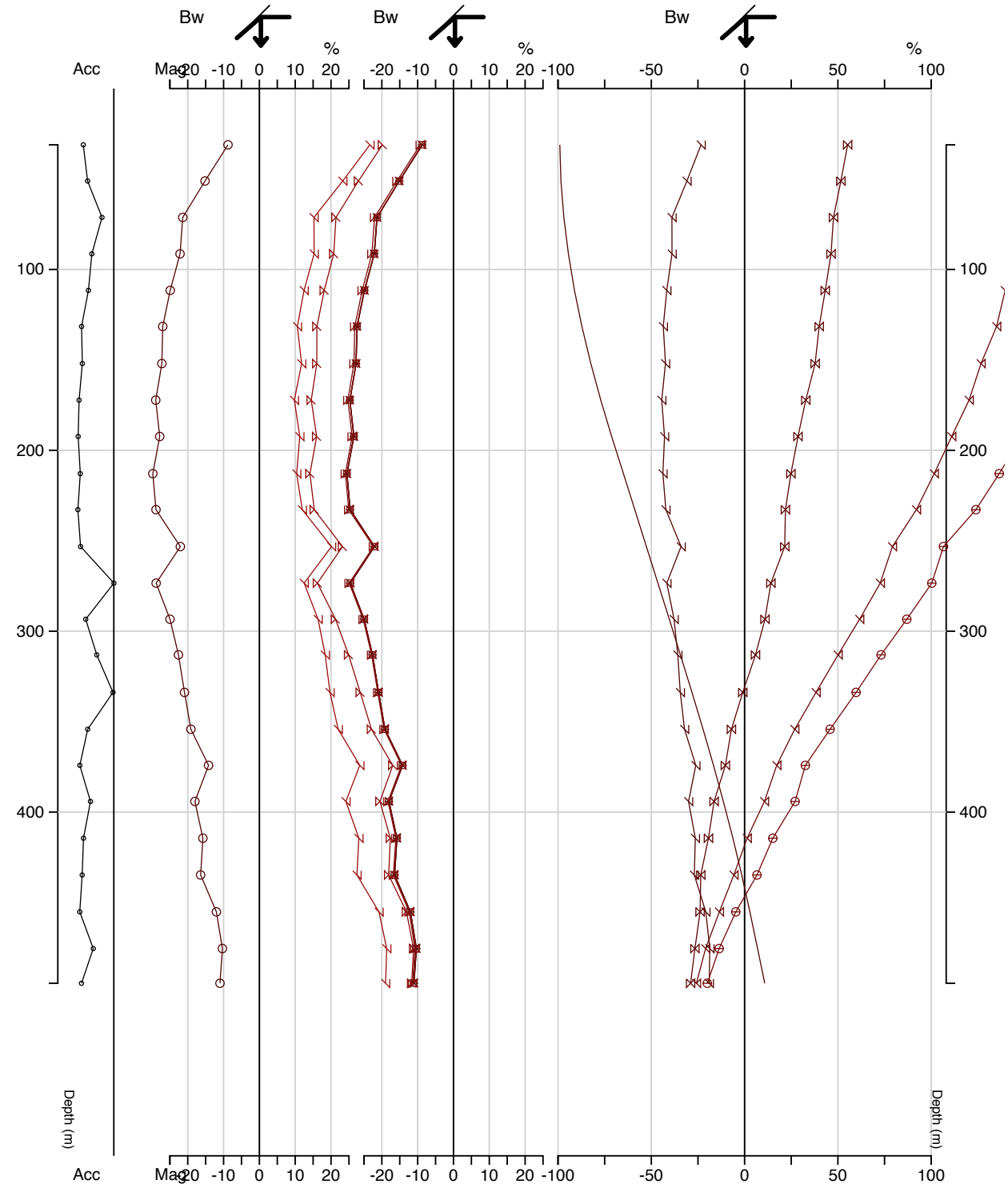

Bn
Bn
Bn
%
%
%
Acc
Mag
-20 -10 0 10 20
-20 -10 0 10 20
-100 -50 0 50 100
100
200
300
400
Depth (m)
Acc
Mag
-20 -10 0 10 20
-20 -10 0 10 20
-100 -50 0 50 100
Hole: WIS-212
Loop: 1509
Cpt: Bn
S 0.0° Tr 0.00
(Chn - Bcpt) / |Bpl (%)
Cont norm @ Δz: 0m
Base Freq: 29Hz
aS1Lp1509_HWIS-212.3cH5 / Bn Tradeoff
BHUTEM-4 Survey at: Wisner
For: Wallbridge Mining Company Ltd.
LAMONTAGNE
GEOPHYSICS LTD
GEOPHYSIQUE LTÉE
Job 1506
Surv: 26/6/15
Red: 26/6/15
Plot: 2/10/15



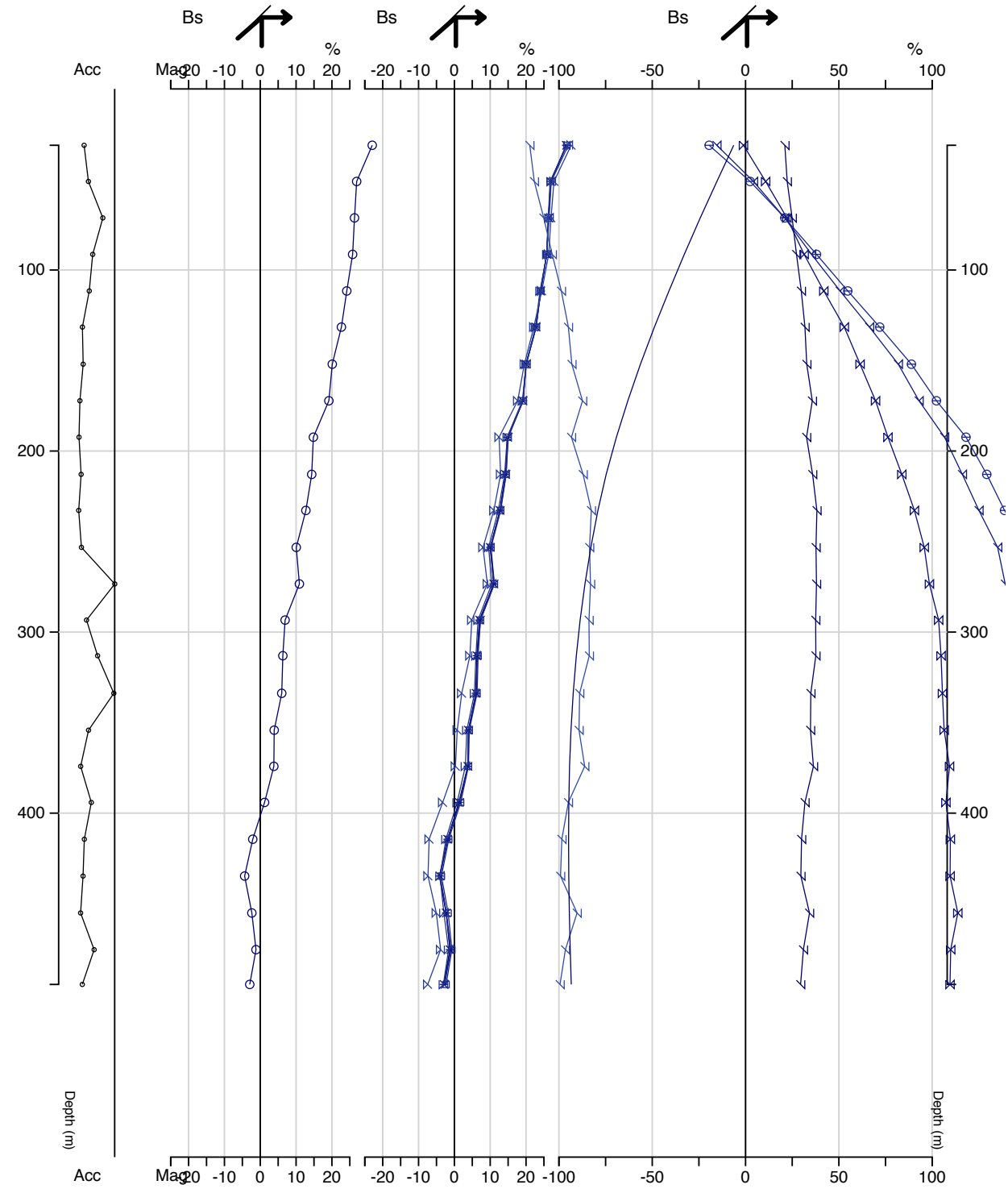
Hole: WIS-212 Loop: 1509 Cpt: Bs, Bn, Bw S 0.0° Tr 0.00	Chn / |Bpl (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1509_HWIS-212.3cH5 / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15

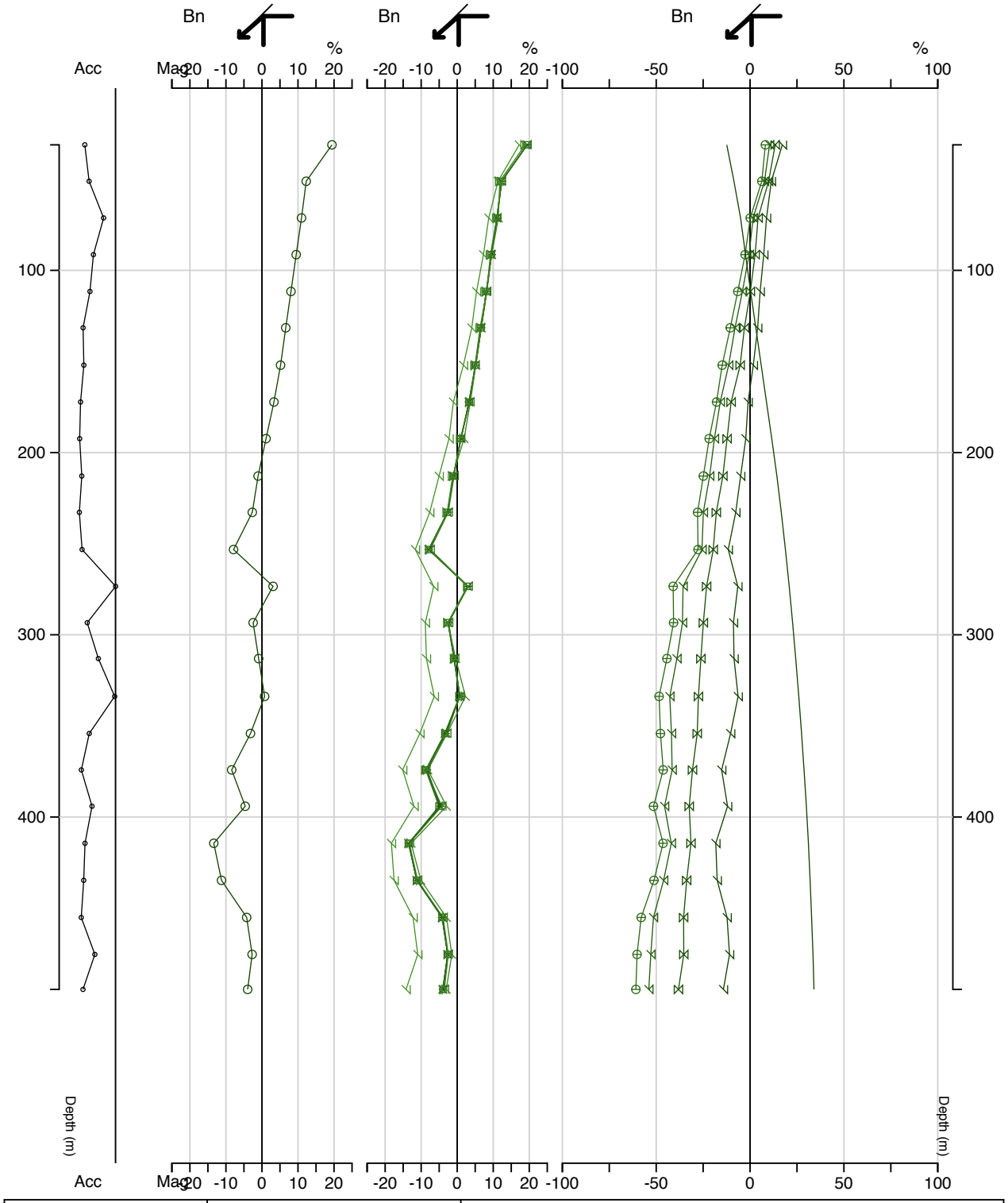


Hole: WIS-212 Loop: 1509 Cpt: (Mag & Acc) S 0.0° Tr 0.00	Field: n/a Normalization: n/a Base Freq: 29Hz aS1Lp1509_HWIS-212.3cH5 / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15

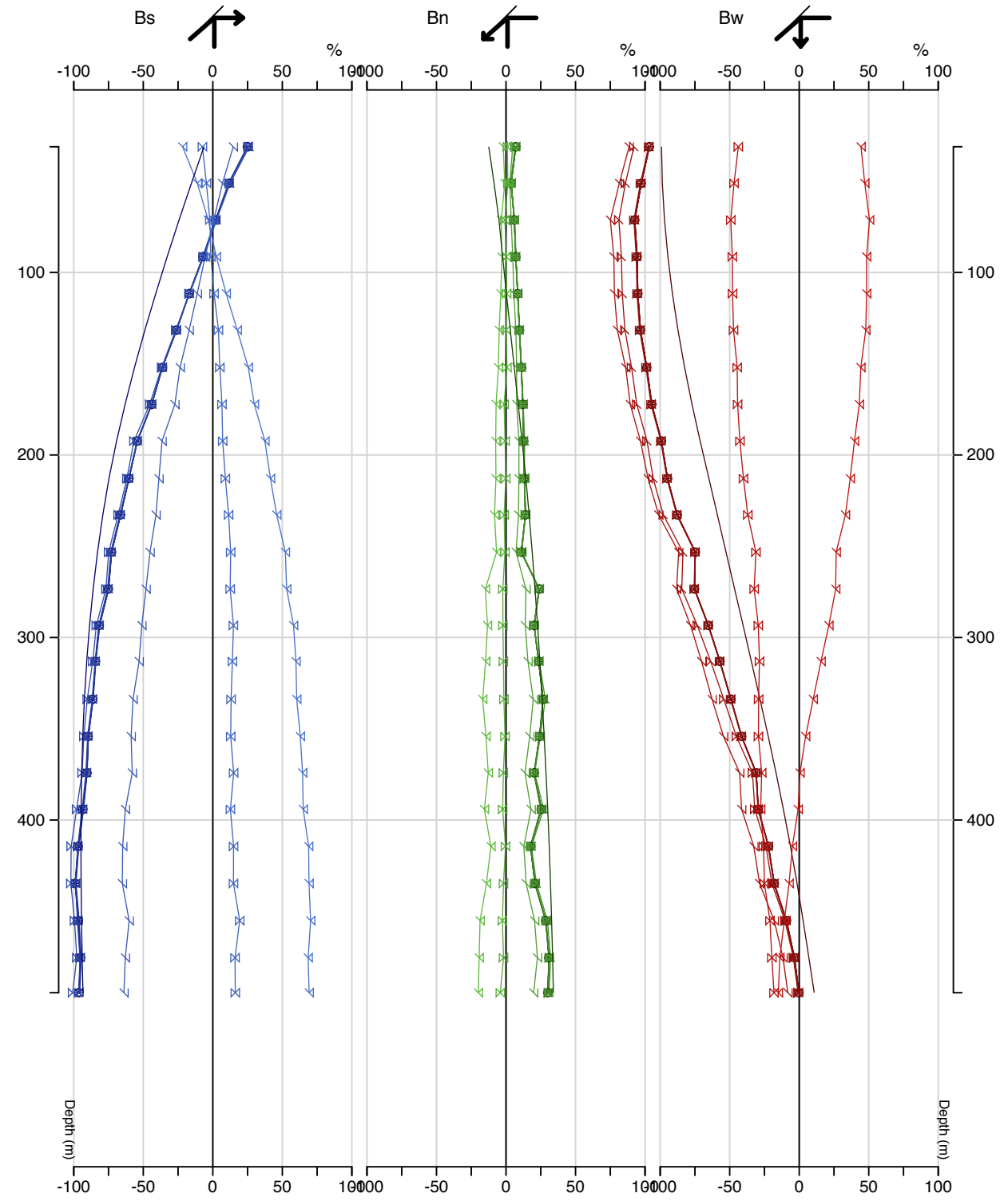


Hole: WIS-212 Loop: 1510 Cpt: Bw S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1510_HWis-212.3cH5 / Bw Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15

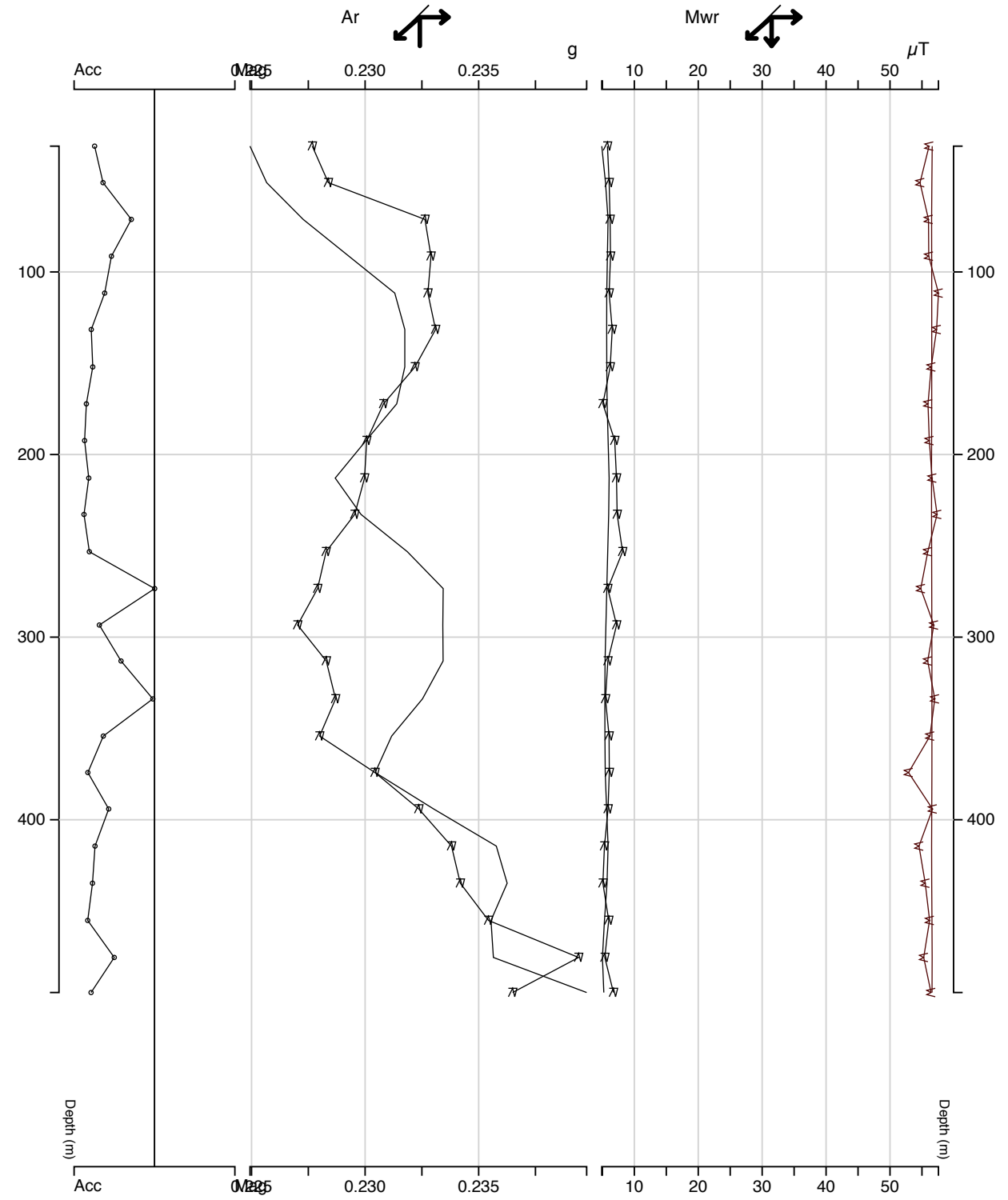

Bs
Bs
Bs
%
%
%
Acc
Mag
-20 -10 0 10 20
-20 -10 0 10 20
-100 -50 0 50 100
100
200
300
400
Depth (m)
Acc
Mag
-20 -10 0 10 20
-20 -10 0 10 20
-100 -50 0 50 100
Hole: WIS-212
Loop: 1510
Cpt: Bs
S 0.0° Tr 0.00
(Chn - Bcpt) / |Bpl (%)
Cont norm @ Δz: 0m
Base Freq: 29Hz
aS1Lp1510_HWis-212.3cH5 / Bs Tradeoff
BHUTEM-4 Survey at: Wisner
For: Wallbridge Mining Company Ltd.
LAMONTAGNE
GEOPHYSICS LTD
GEOPHYSIQUE LTÉE
Job 1506
Surv: 26/6/15
Red: 26/6/15
Plot: 2/10/15



Hole: WIS-212 Loop: 1510 Cpt: Bn S 0.0° Tr 0.00	(Chn - Bcpt) / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1510_HWis-212.3cH5 / Bn Tradeoff	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15



Hole: WIS-212 Loop: 1510 Cpt: Bs, Bn, Bw S 0.0° Tr 0.00	Chn / |Bp| (%) Cont norm @ Δz: 0m Base Freq: 29Hz aS1Lp1510_HWis-212.3cH5 / EM 3-Axis	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15



Hole: WIS-212 Loop: 1510 Cpt: (Mag & Acc) S 0.0° Tr 0.00	Field: n/a Normalization: n/a Base Freq: 29Hz aS1Lp1510_HWis-212.3cH5 / 3-Axis Mag-Acc	BHUTEM-4 Survey at: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD / GEOPHYSIQUE LTÉE Job 1506 Surv: 26/6/15 Red: 26/6/15 Plot: 2/10/15

Appendix C: BH UTEM 4 Vector Plots

BH UTEM 4 Survey

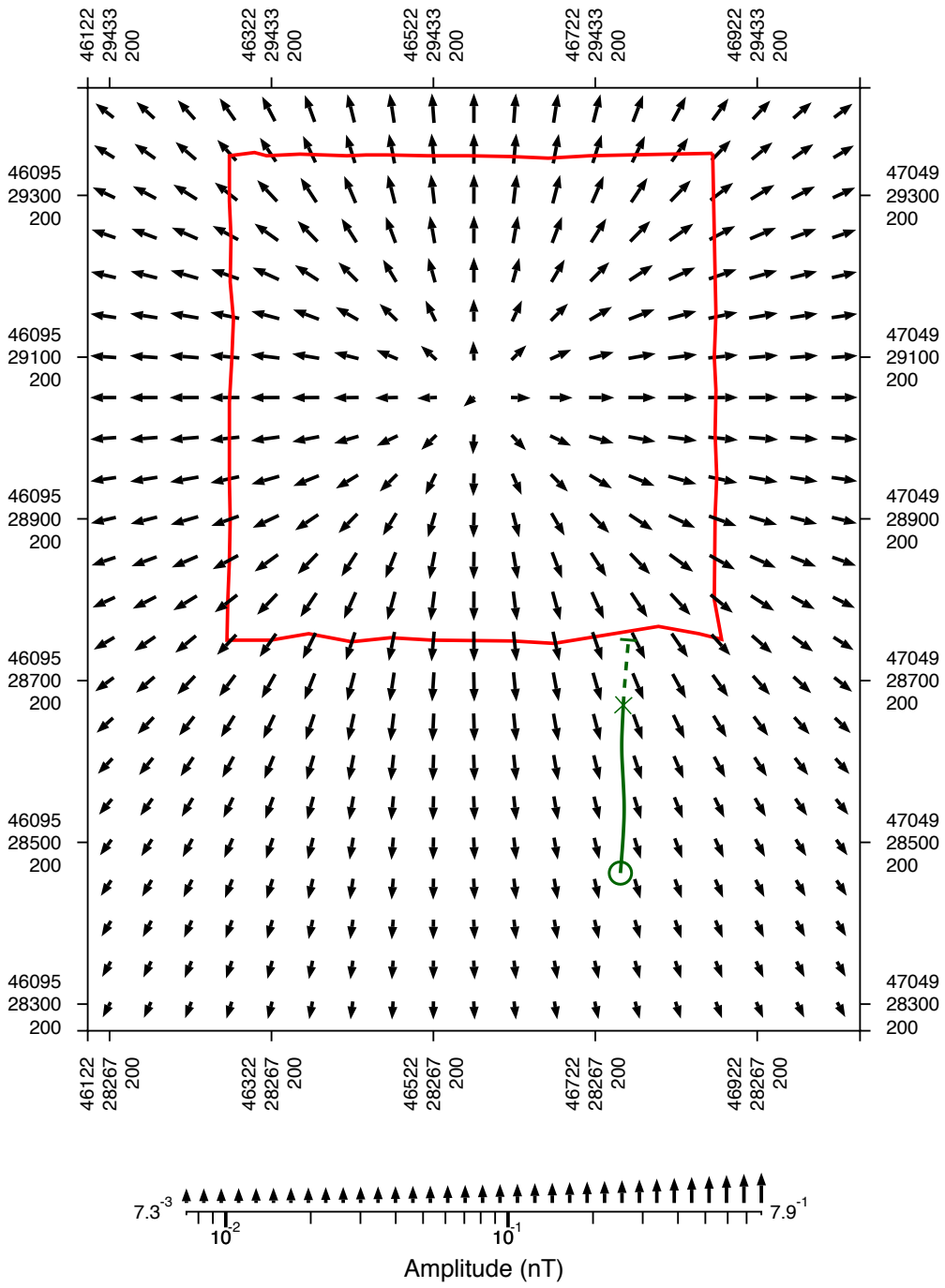
Sudbury area, Ontario, Canada

for

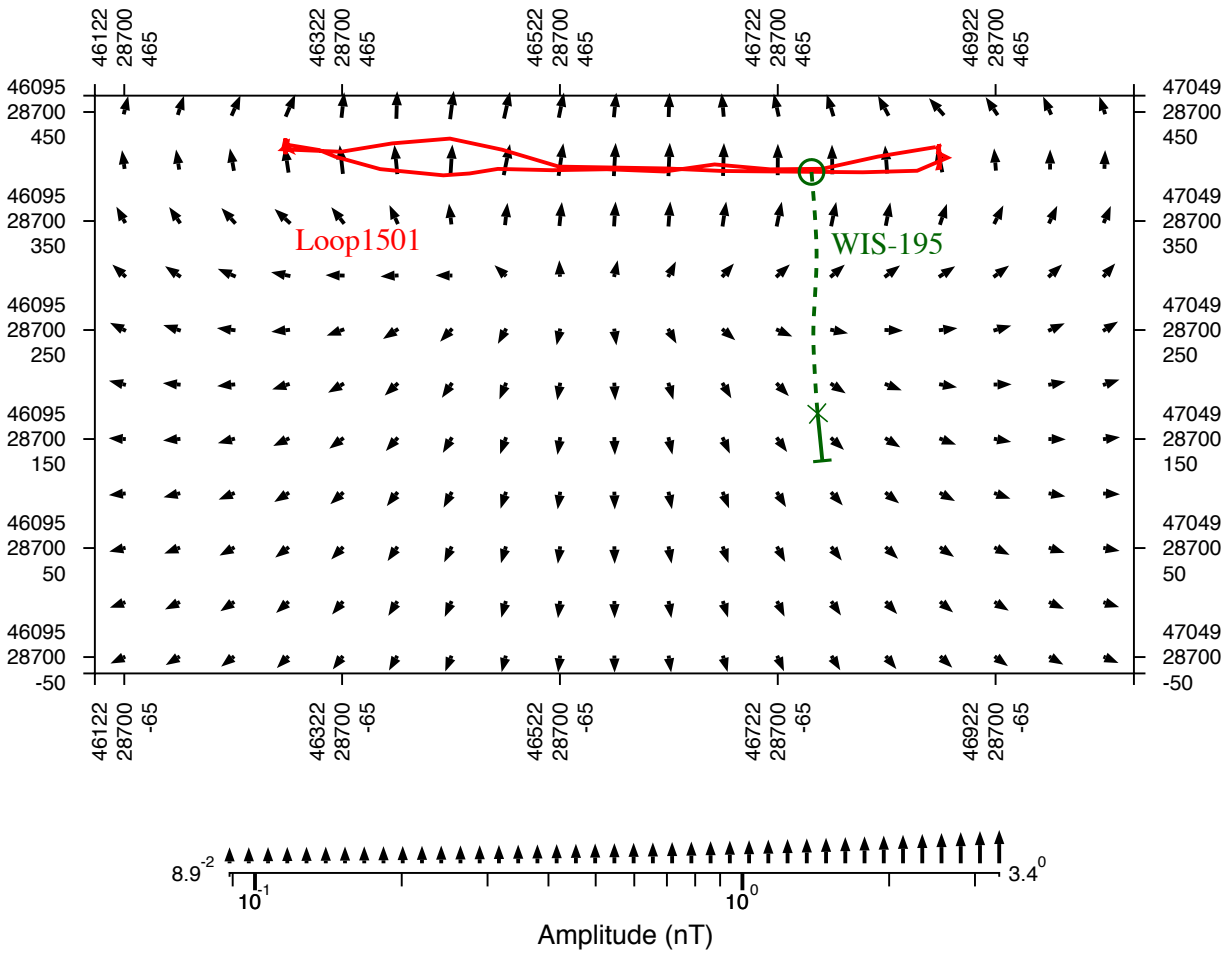
Wallbridge Mining Company Ltd.

BH UTEM 4 Vector Plots—Wisner

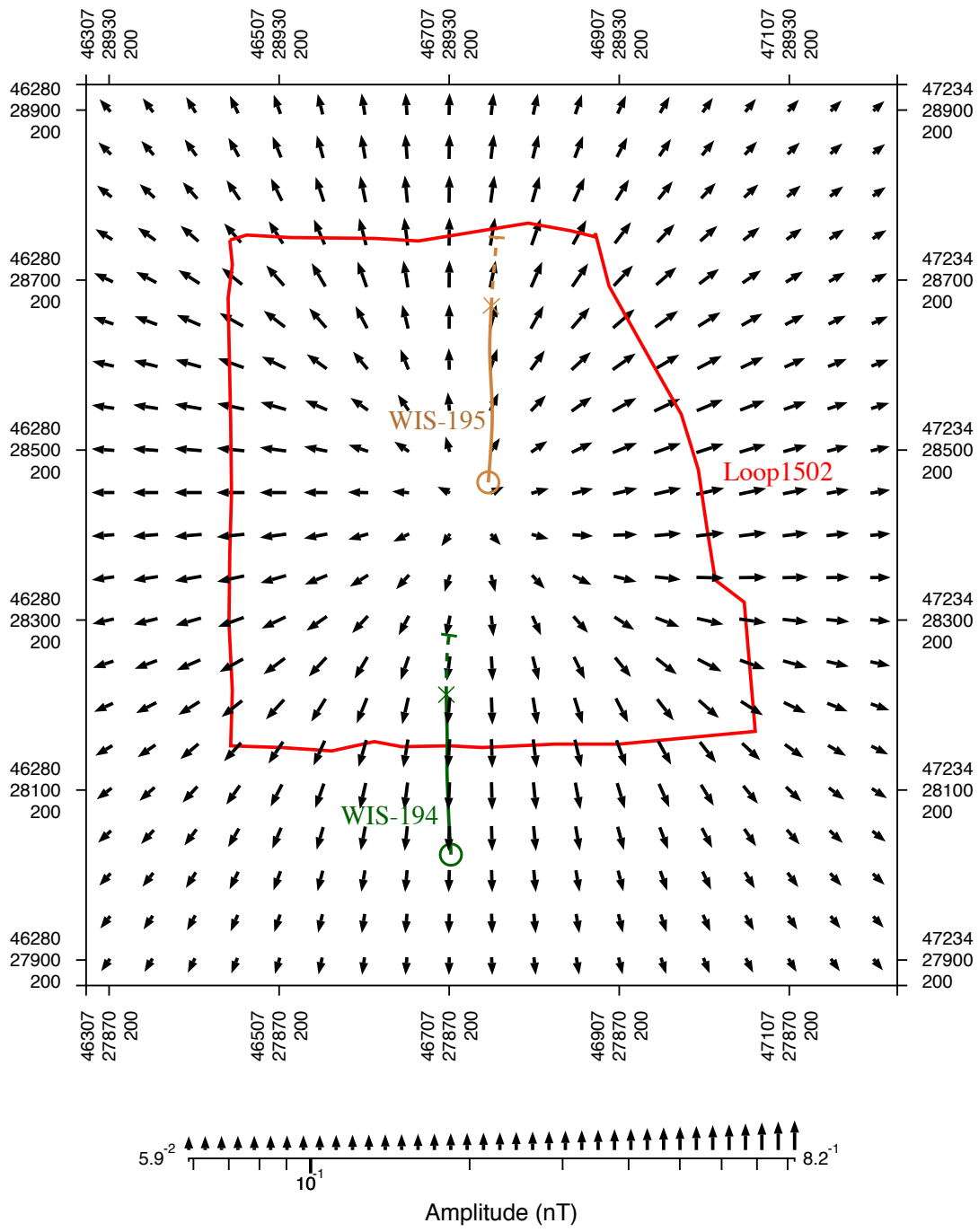
Loop	Boreholes	View
1501	WIS-195	Plan Section
1502	WIS-194, WIS-195	Plan Section
1503A	WIS-191, WIS-202, WIS-204	Plan Section
1504	WIS-191, WIS-202, WIS-204	Plan Section
1505	WIS-174, WIS-175	Plan Section
1506	WIS-174, WIS-175	Plan Section
1507	WIS-200, WIS-201	Plan Section
1508	WIS-208, WIS-209	Plan Section
1509	WIS-210, WIS-211, WIS-212	Plan Section
1510	WIS-210, WIS-211, WIS-212	Plan Section



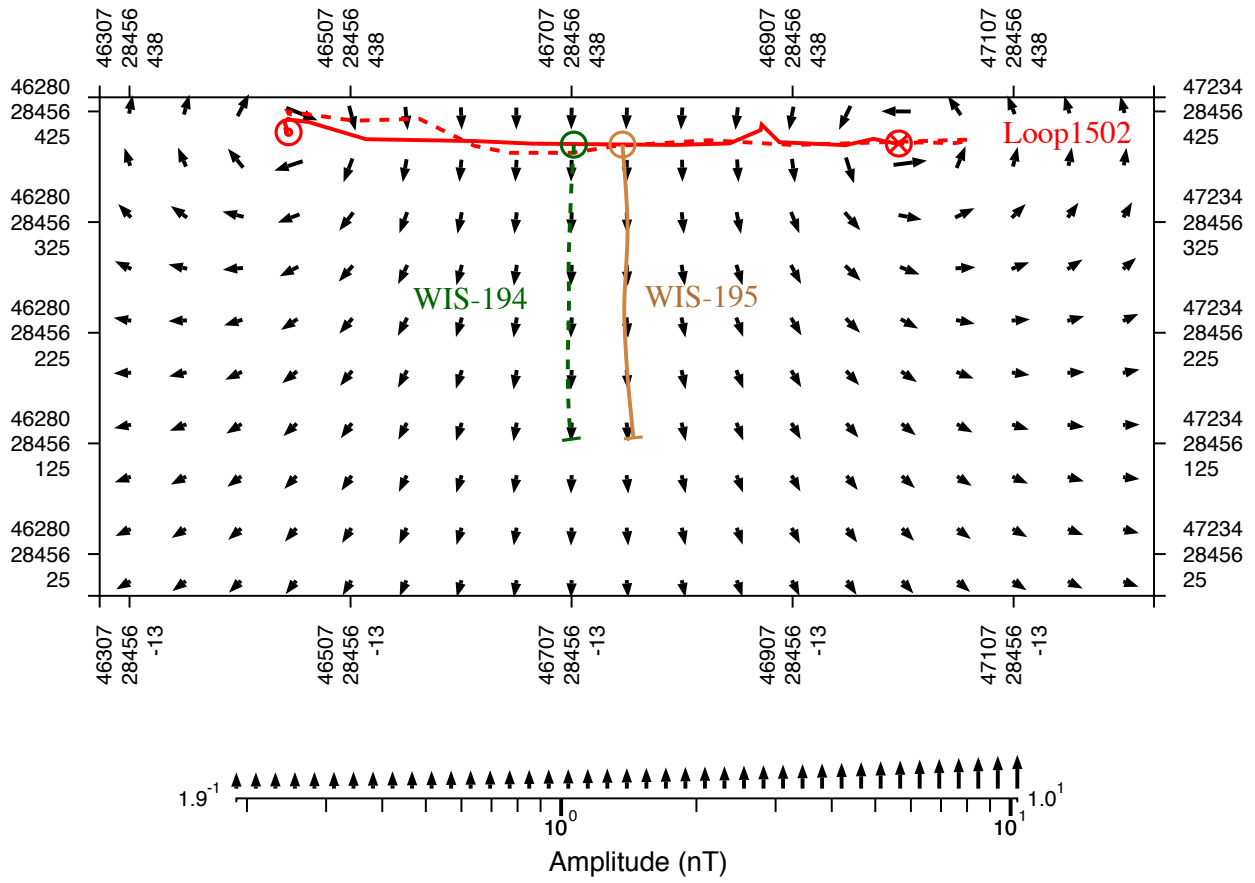
Dir / Dip: 0°/0° Traverse: bhWIS-195	Loop: Loop1501(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1501(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



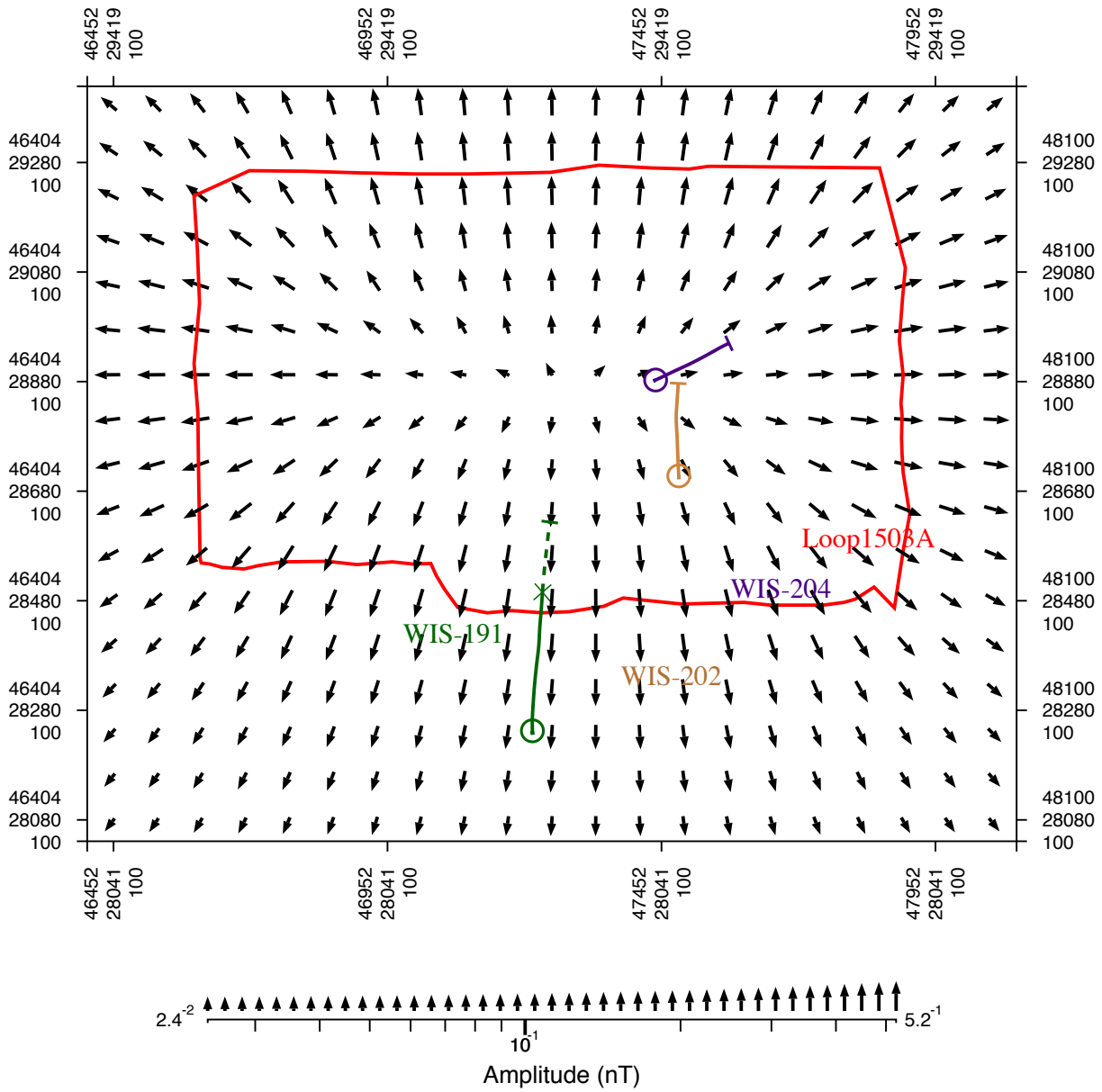
Dir / Dip: 0°/90° Traverse: bhWIS-195	Loop: Loop1501(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1501(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



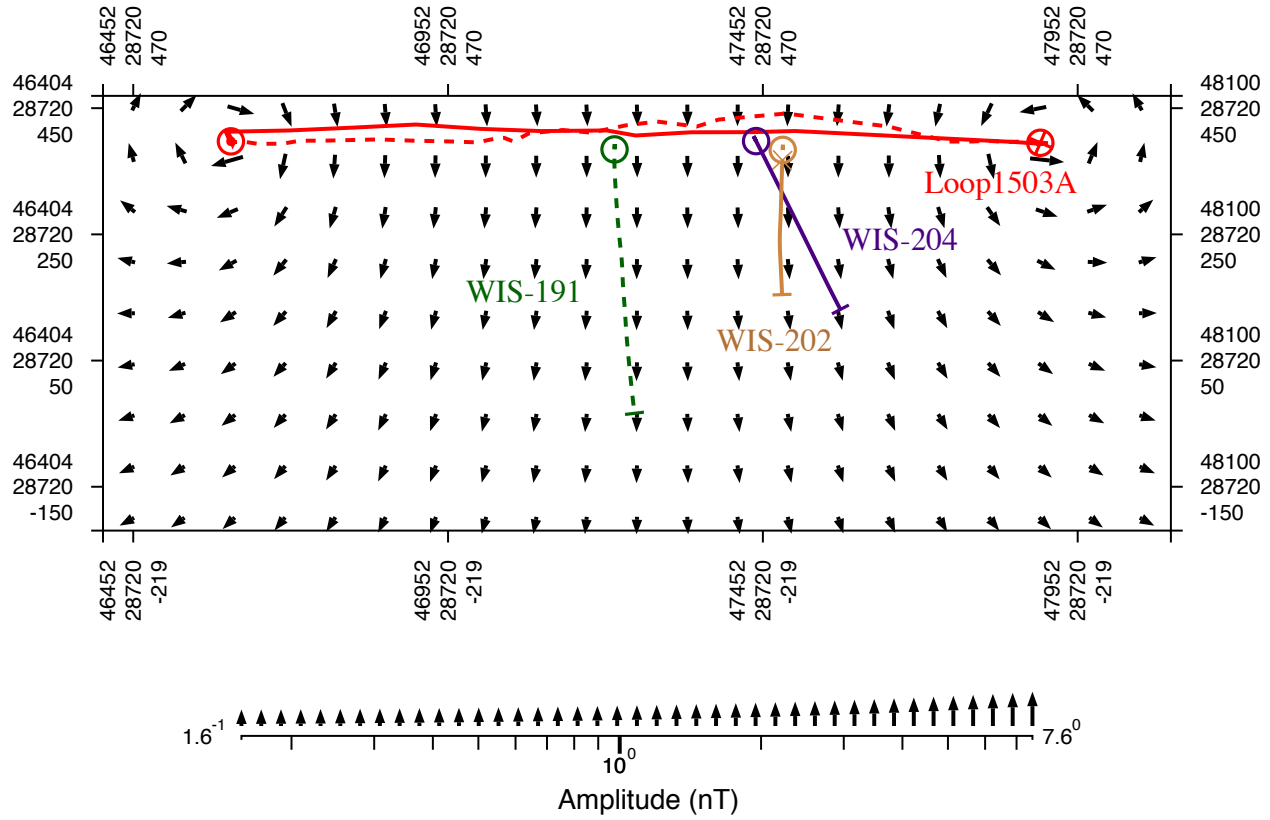
Dir / Dip: 0°/0° Traverse: bhWIS-194 bhWIS-195	Loop: Loop1502(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1502(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



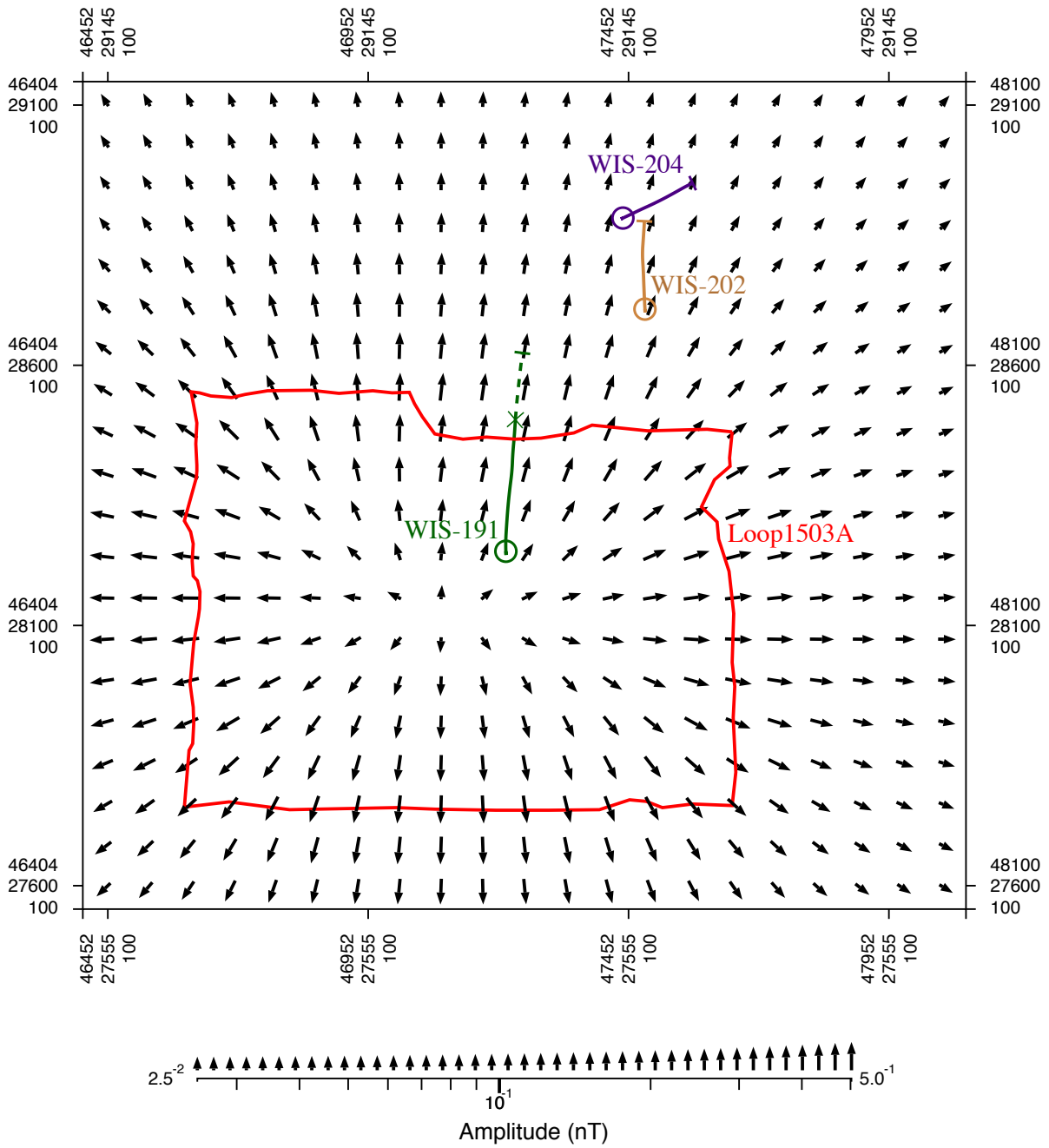
Dir / Dip: 0°/90° Traverse: bhWIS-194 bhWIS-195	Loop: Loop1502(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1502(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



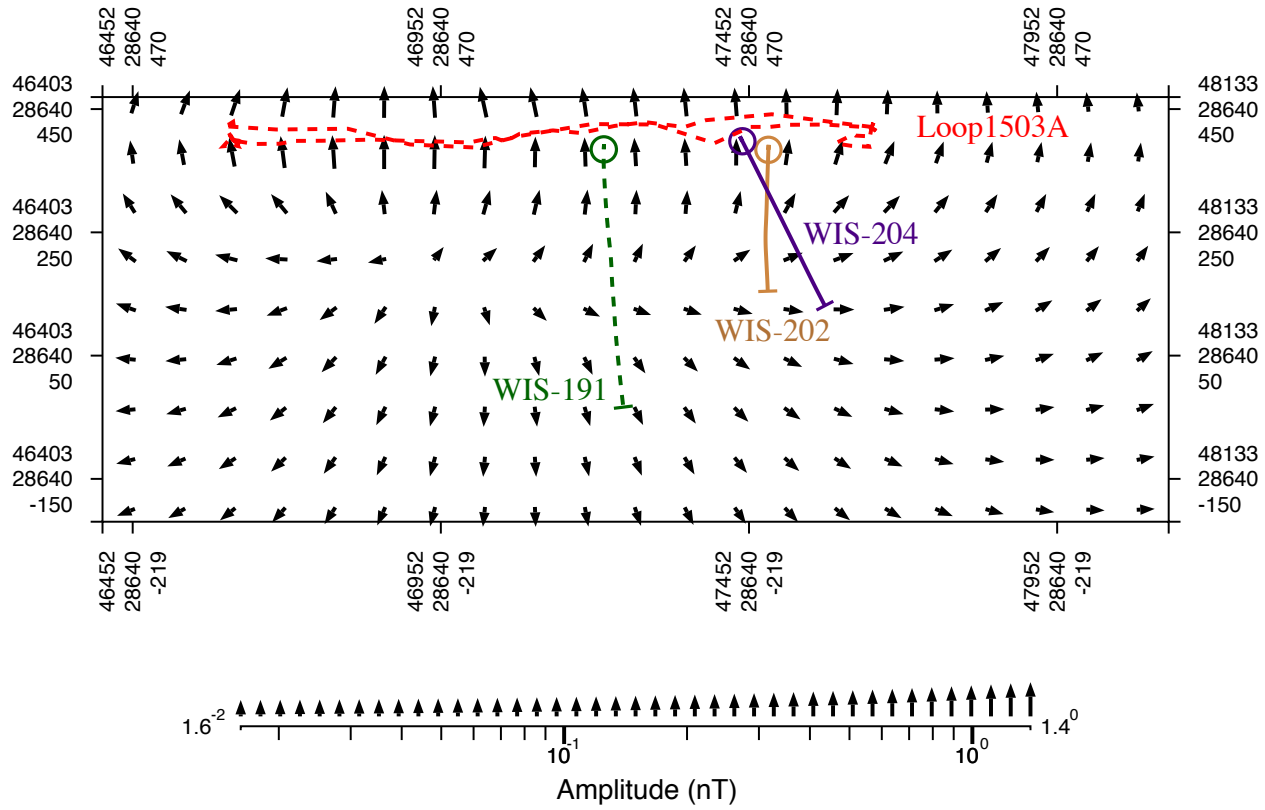
Dir / Dip: 0°/0° Traverse: bhWIS-191 bhWIS-202 bhWIS-204	Loop: Loop1503A(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1503A(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



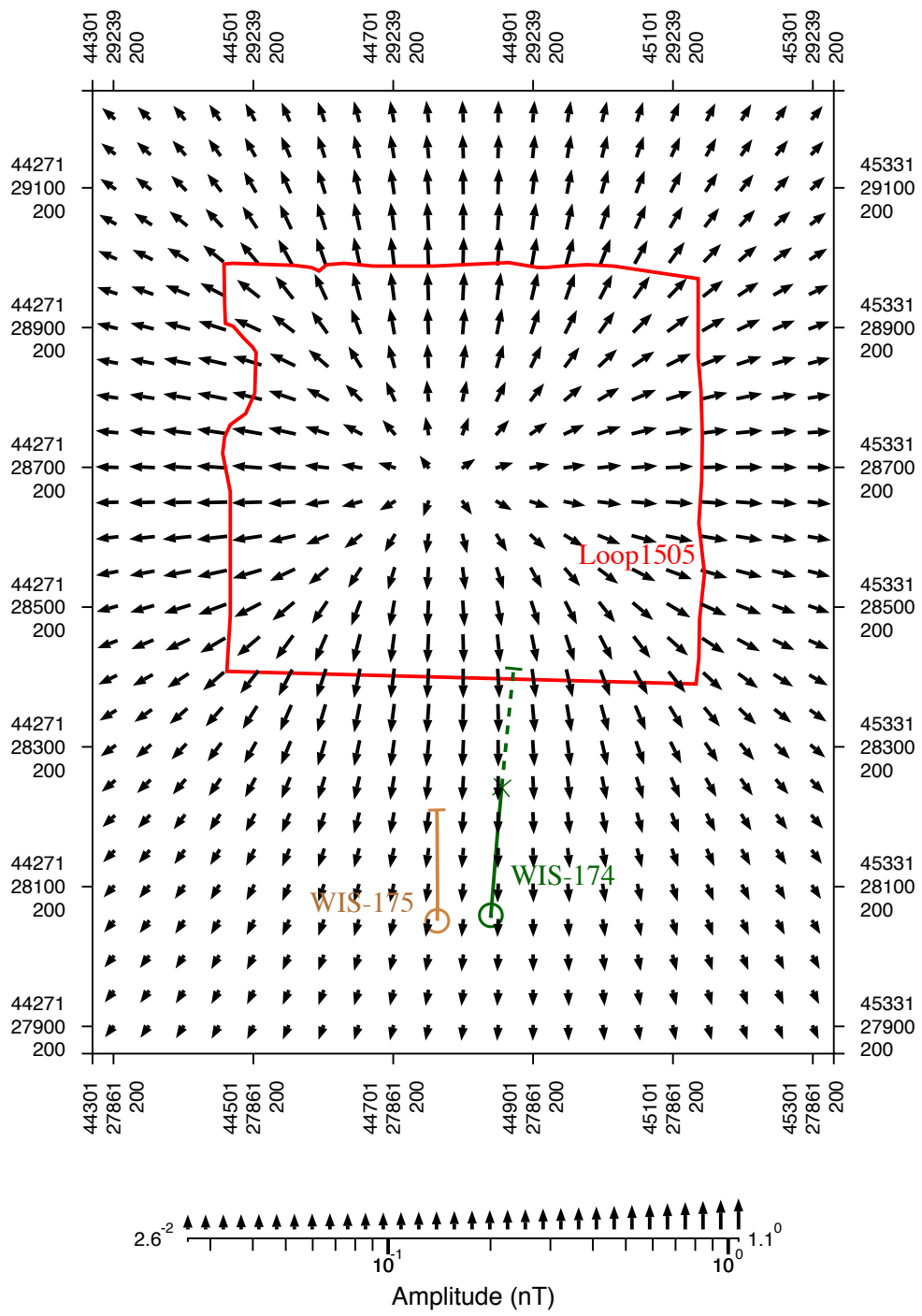
Dir / Dip: 0°/90° Traverse: bhWIS-191 bhWIS-202 bhWIS-204	Loop: Loop1503A(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1503A(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



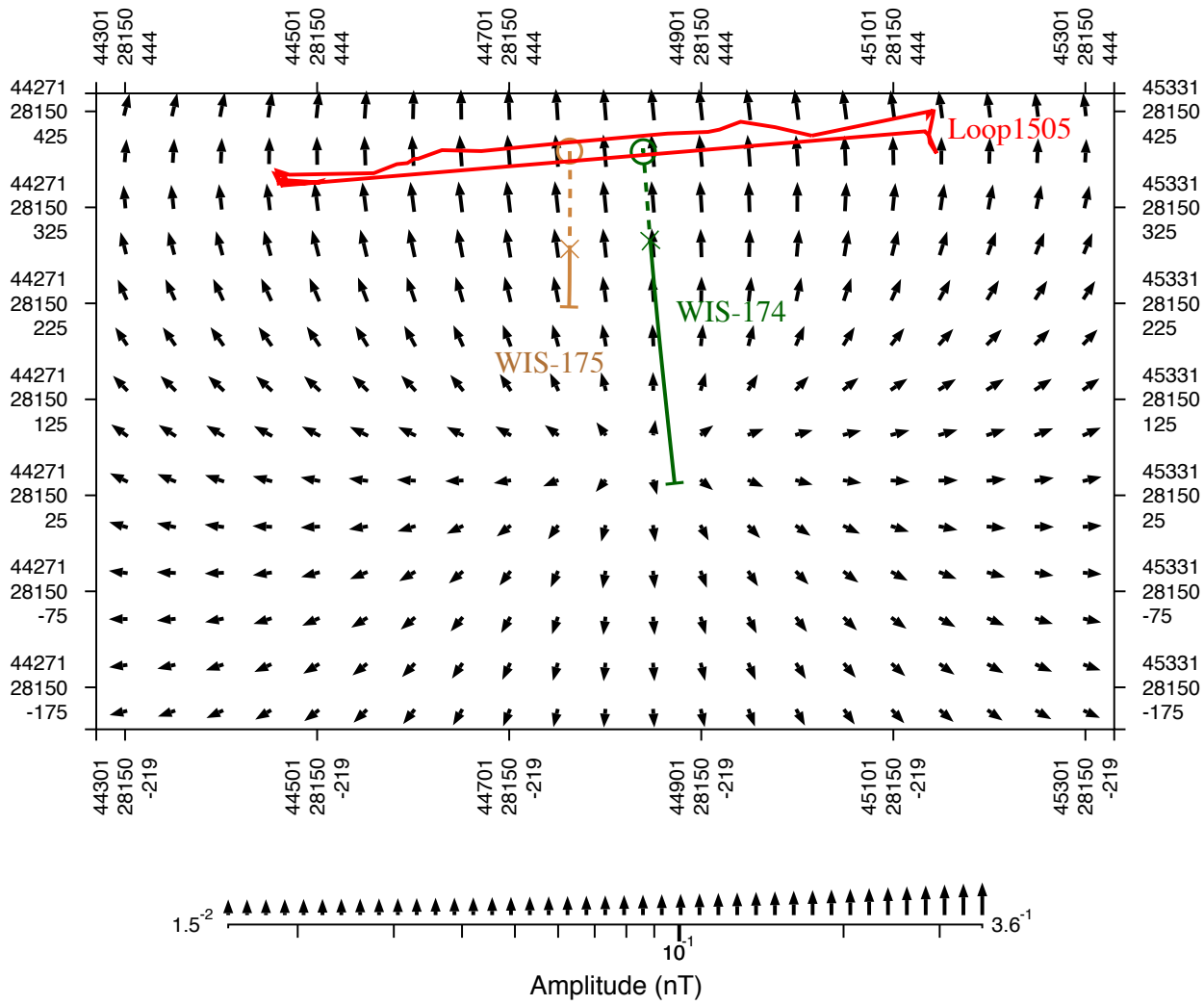
Dir / Dip: 0°/0° Traverse: bhWIS-191 bhWIS-202 bhWIS-204	Loop: Loop1504(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1504(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



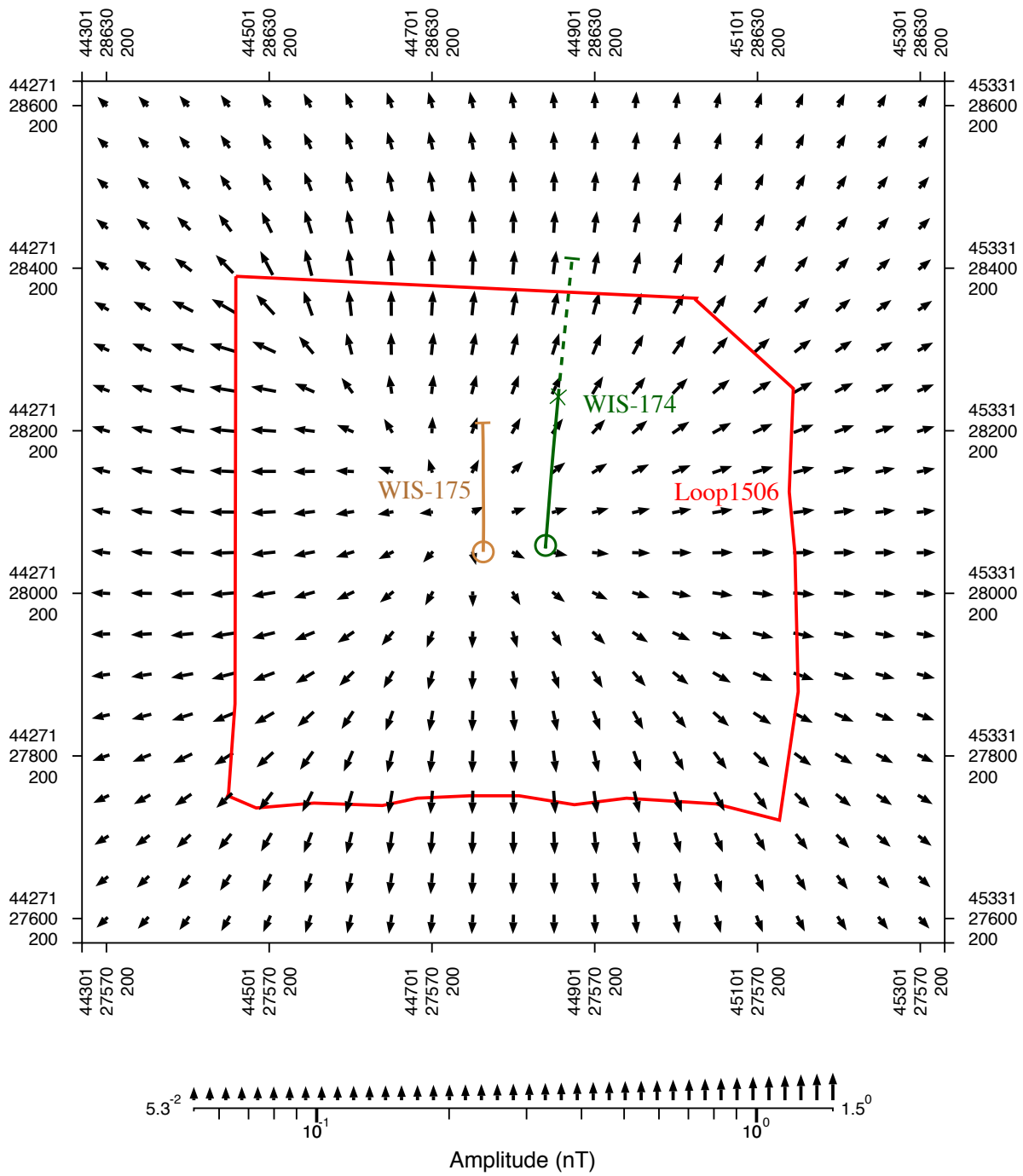
Dir / Dip: 0°/90° Traverse: bhWIS-191 bhWIS-202 bhWIS-204	Loop: Loop1504(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1504(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



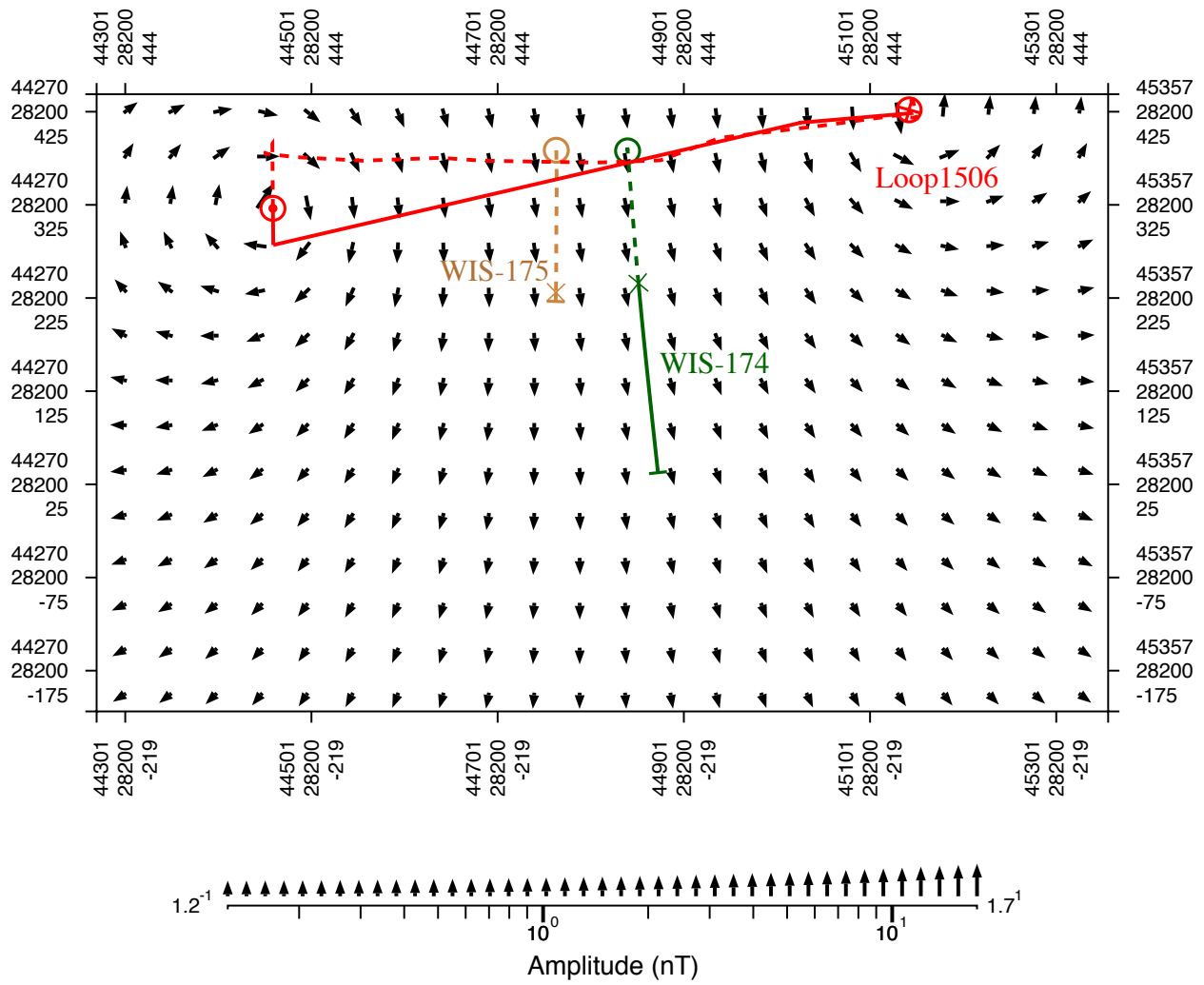
Dir / Dip: 0°/0° Traverse: bhWIS-174 bhWIS-175	Loop: Loop1505(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1506(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



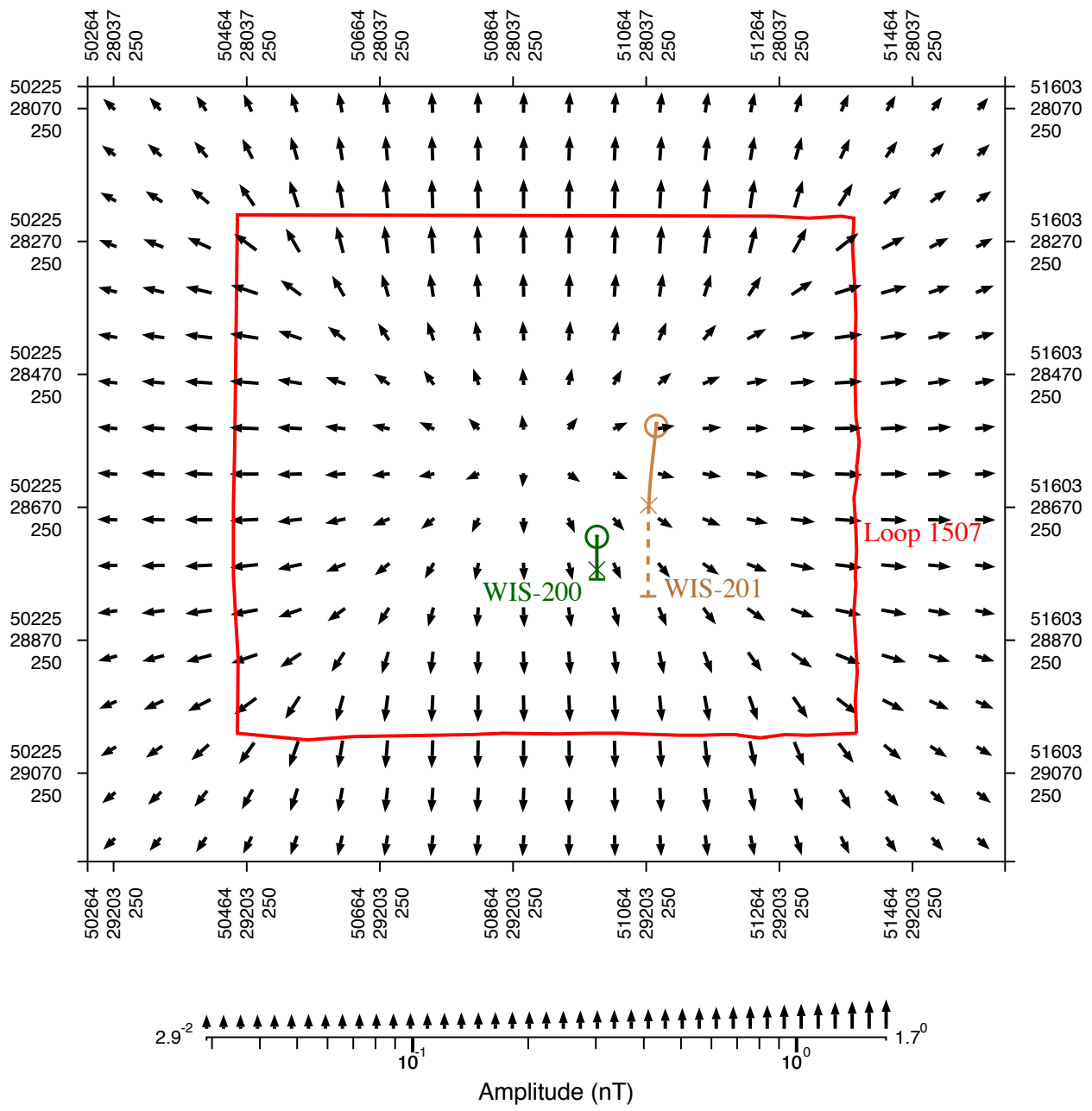
Dir / Dip: 0°/90° Traverse: bhWIS-174 bhWIS-175	Loop: Loop1505(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1506(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



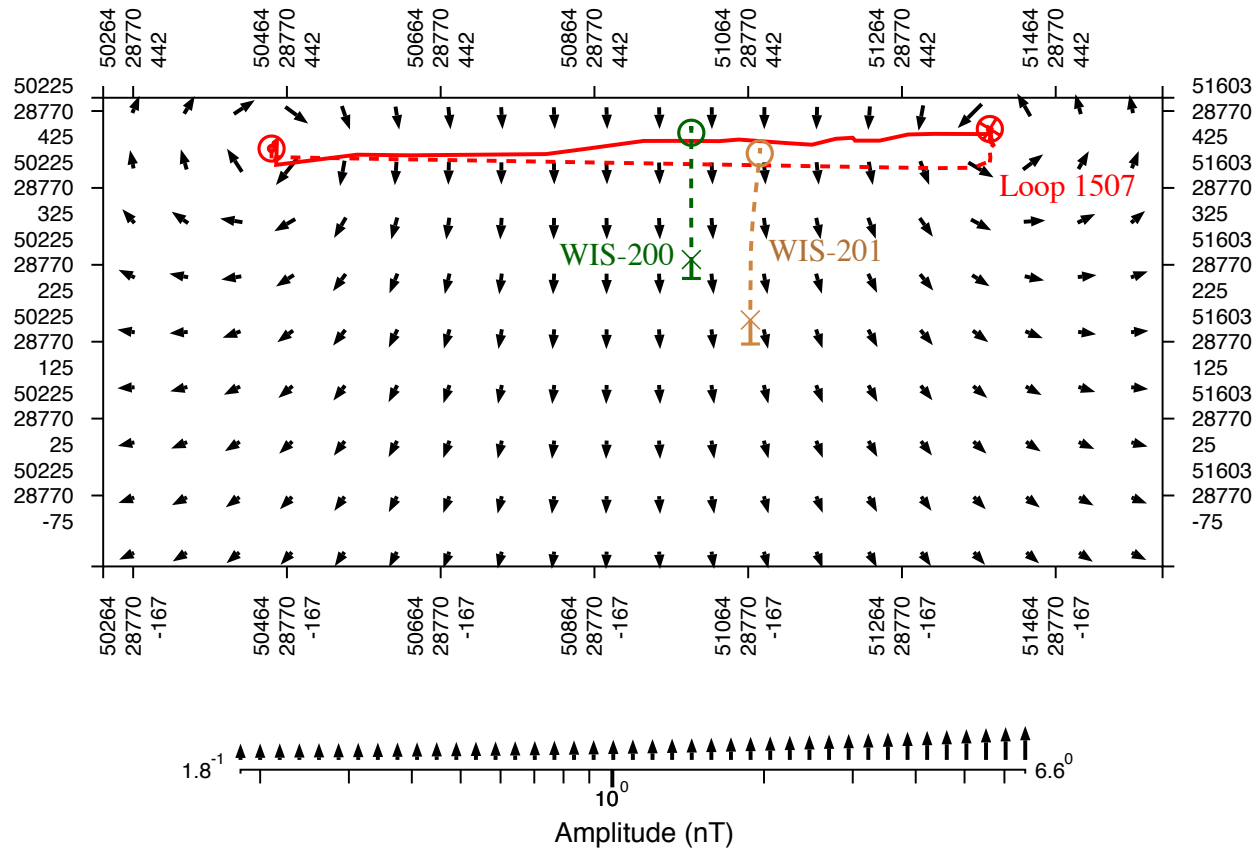
Dir / Dip: 0°/0° Traverse: bhWIS-174 bhWIS-175	Loop: Loop1506(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1506(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



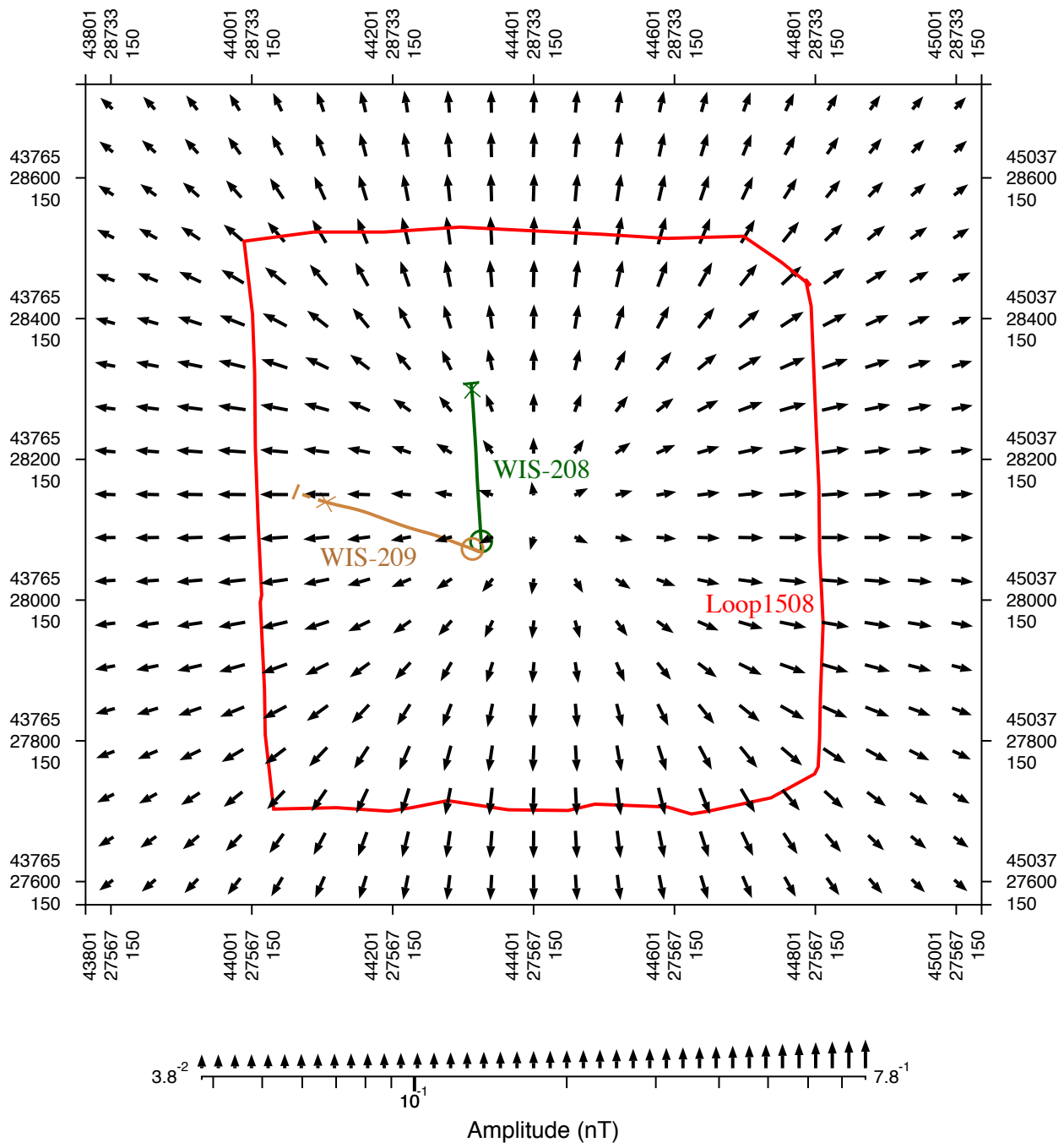
Dir / Dip: 0°/90° Traverse: bhWIS-174 bhWIS-175	Loop: Loop1506(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1506(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



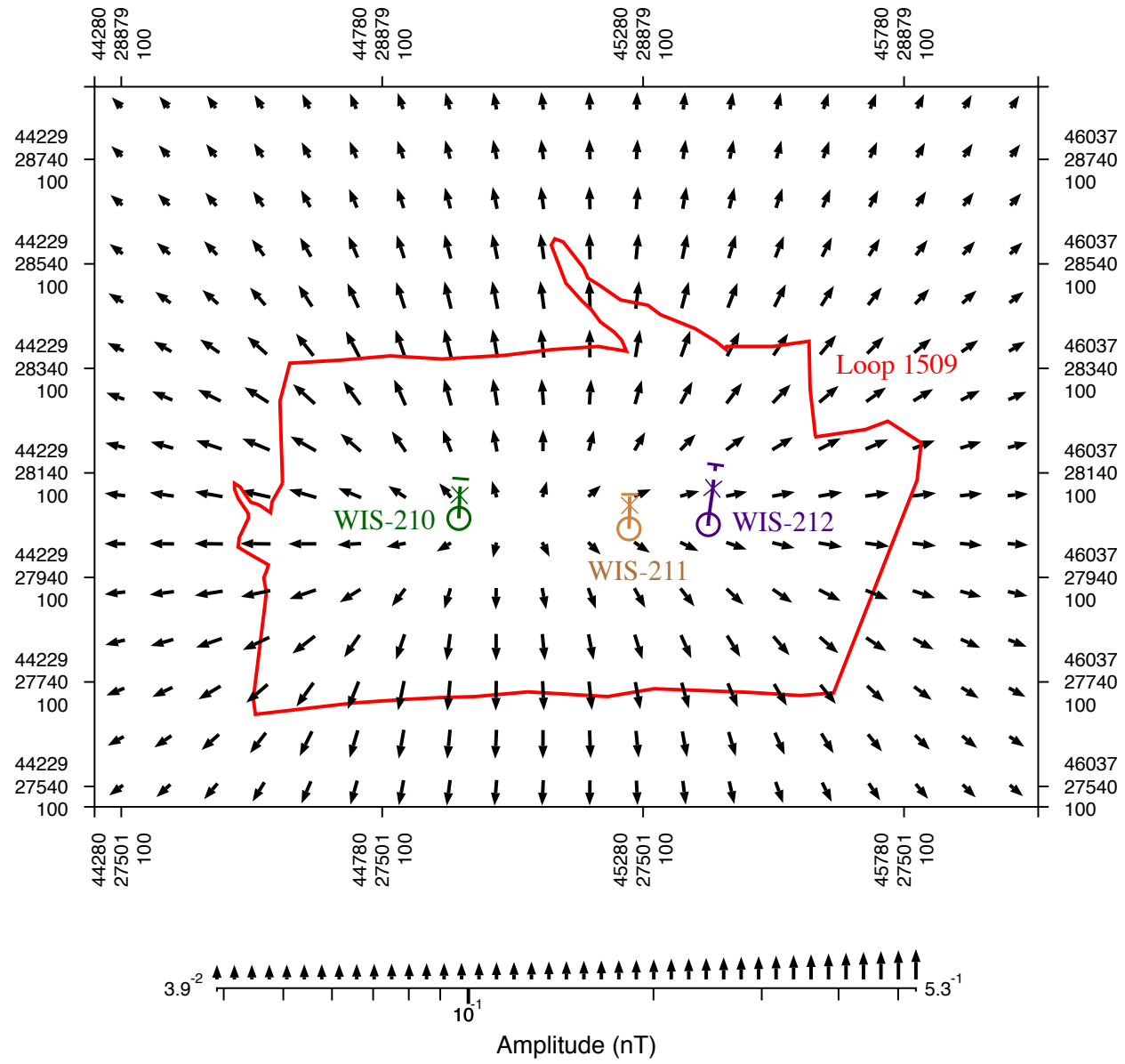
Dir / Dip: 0°/0° Traverse: bhWIS-200 bhWIS-201	Loop: Loop 1507 (Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop 1507 (Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



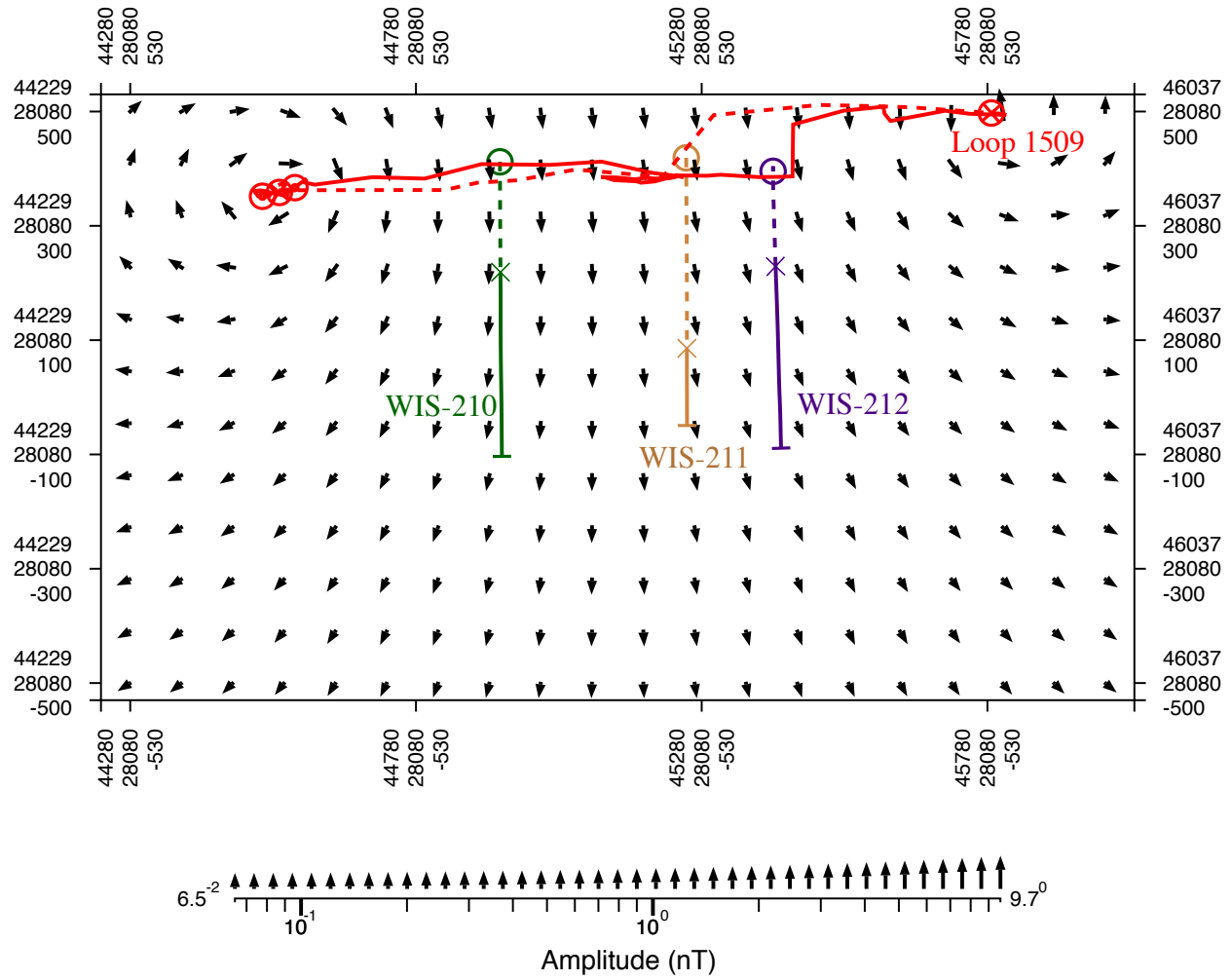
Dir / Dip: 0°/90° Traverse: bhWIS-200 bhWIS-201	Loop: Loop 1507 (Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop 1507 (Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



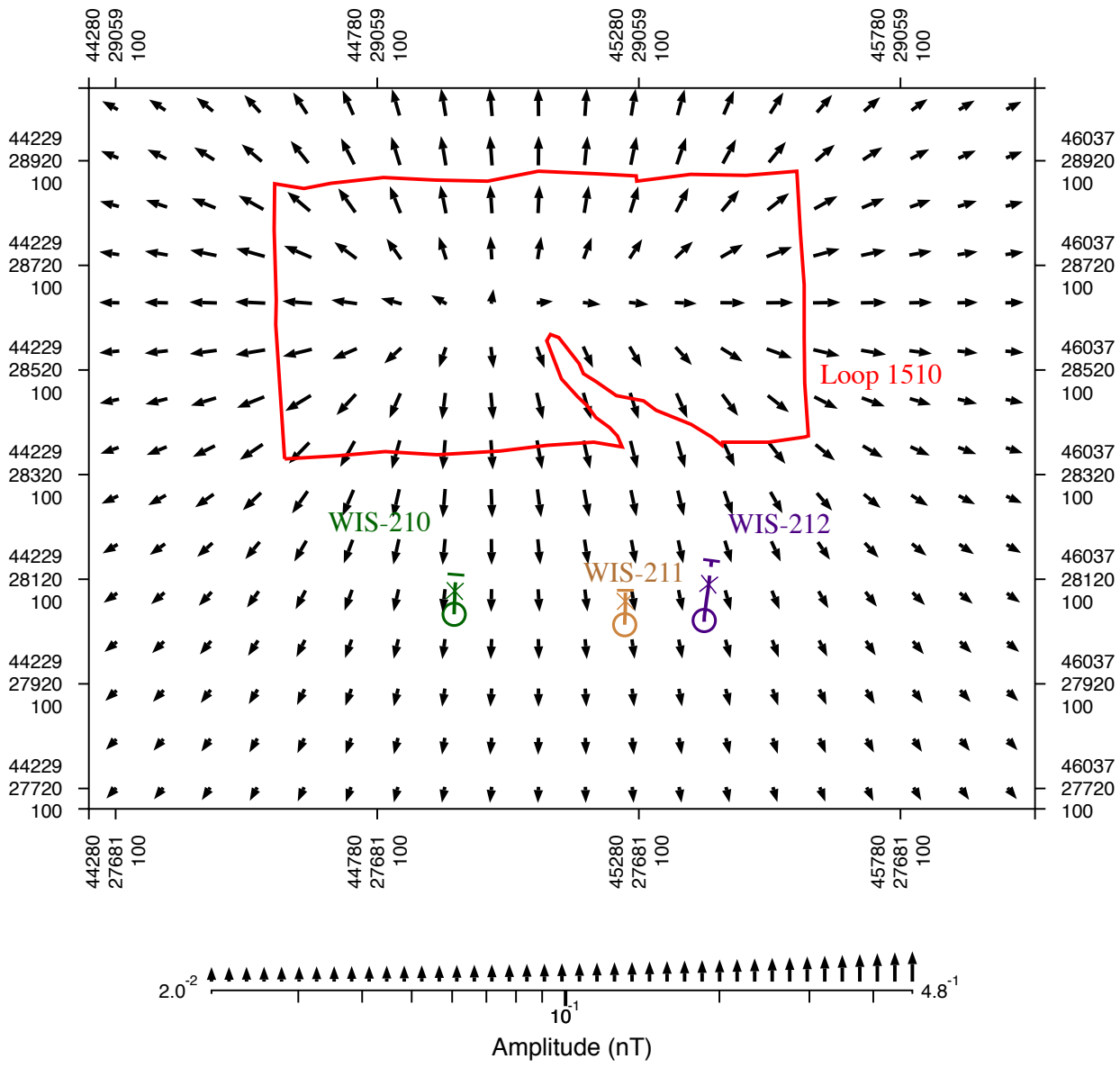
Dir / Dip: 0°/0° Traverse: bhWIS-208 bhWIS-209	Loop: Loop1508(Wisner) I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop1508(Wisner) vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



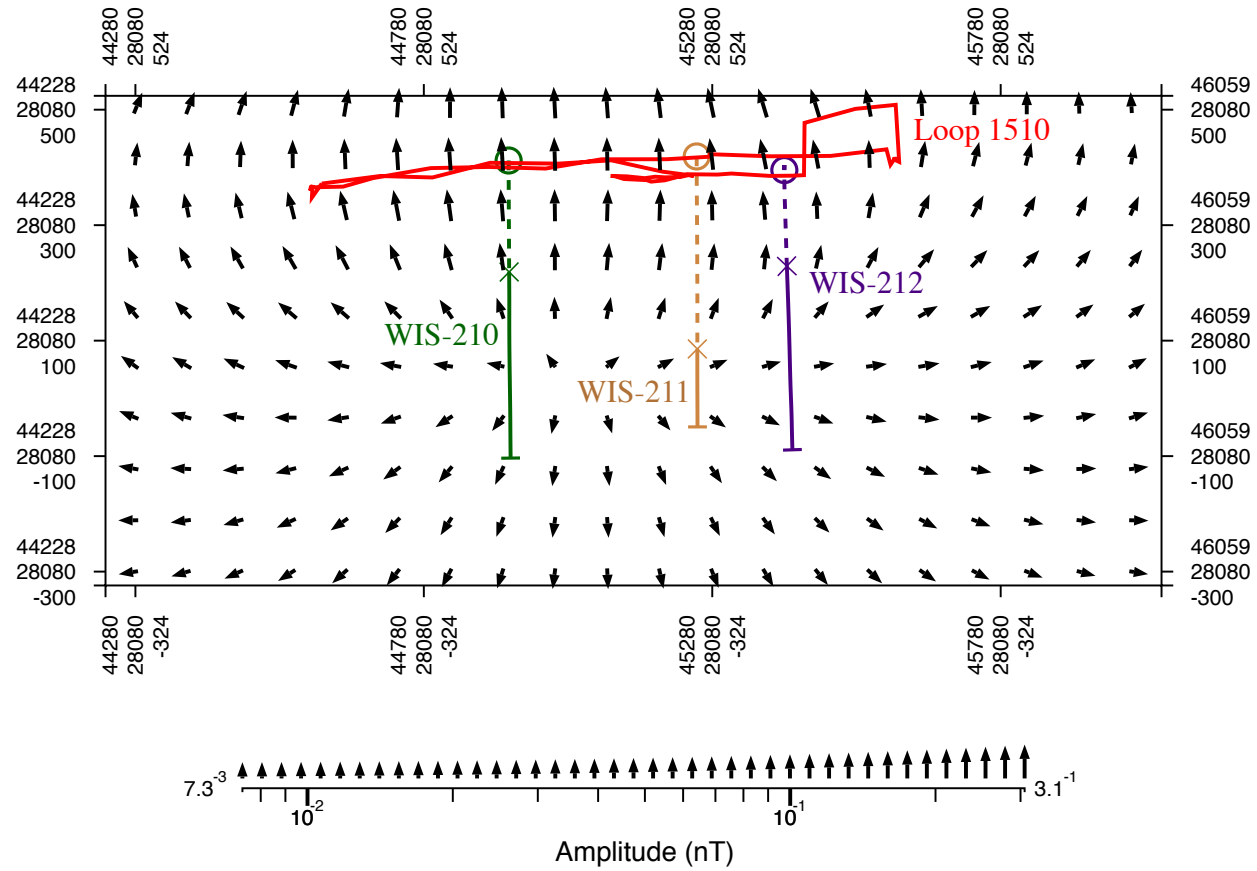
Dir / Dip: 0°/0° Traverse: bhWIS-210 bhWIS-211 bhWIS-212	Loop: Loop 1509 I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop 1510 vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



Dir / Dip: 0°/90° Traverse: bhWIS-210 bhWIS-211 bhWIS-212	Loop: Loop 1509 I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop 1510 vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



Dir / Dip: 0°/0° Traverse: bhWIS-210 bhWIS-211 bhWIS-212	Loop: Loop 1510 I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop 1510 vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15



Dir / Dip: 0°/90° Traverse: bhWIS-210 bhWIS-211 bhWIS-212	Loop: Loop 1510 I = 1 Shift = 0 0 0 Coupling: N/A File Name: Loop 1510 vp	Survey Location: Wisner For: Wallbridge Mining Company Ltd. LAMONTAGNE GEOPHYSICS LTD GEOPHYSIQUE LTÉE Job 1506 Plot: 8/10/15

Appendix D: The BHUTEM 4 SYSTEM

Data Reduction and Plotting Conventions

Data Presentation

BH UTEM 4 Survey

Sudbury area, Ontario, Canada

for

Wallbridge Mining Company Ltd.

UTEM5

The UTEM5 system collects 3-component data from up to 3 transmitter loops -three coupling angles - simultaneously - translating to superior target definition and improved detection of all targets. In addition:

- UTEM5 precision is at least an order of magnitude better than the UTEM3 surface system. Our current estimate is that the UTEM5 surface coil precision will prove to be better by a factor of 10-40 times. Improved sensitivity equals better depth penetration. It also translates to significantly shorter stacking times or alternatively, better precision for the same stacking time. The improvement in precision is greater at lower frequencies (<4Hz).
- UTEM5 surface equipment has a greater advantage at low frequency - <4Hz. The UTEM5 technical advantage is greatest in the search for targets that are deeper and more highly-conductive when (very) large-loops (geometry of the applied field is simpler). UTEM5, however, will be found to be extremely useful in numerous other applications.
- Figure D1 shows the UTEM5 channels when 12Ch sampling is selected. Channels are spaced in a binary, geometric progression across each half-cycle of the received waveform - giving just over 3 channels per decade. Ch12, the earliest channel, is (~)$1/2^{12}$ of the half-cycle wide. Ch1, the latest channel, is (~)$1/2^{1}$ of the half-cycle wide. The use of UTEM4/5 Transmitters and UTEM5 Receivers allows for the implementation of:
    - - Ch0 - a narrow Ch later than Ch1. Making Ch0 normalization an option.
    - - 3 timing channels - Ch13/14/15 (Figure D1) for 12Ch UTEM5 The timing Chs improve the operator's ability to monitor Rx/Tx(s) synchronisation and allow for more precise phase correction/improved deconvolution.
- the UTEM5 rejection of non-survey frequencies including powerline noise is far superior to previous UTEM systems. One of the many features of the UTEM5 system that add up to the improved rejection is the option of tapered channel sampling (Figure D1).

The ability to simultaneously collect higher-precision, 3-component data from multiple transmitters (coupling angles) at low frequency is really what the UTEM5 system is designed for - to be efficient and precise. To date UTEM5 surveys using multiple transmitters operating at base frequencies as low as 0.25Hz have confirmed that both the sensitivity of the system and the rejection of non-survey frequencies (powerline noise etc.) is far superior to previous UTEM systems.

In terms of BH operations, UTEM5 Rx coupled with our existing BHUTEM system allows for the collection of 3-component data from multiple transmitters simultaneously. The precision improvement may not be that noticeable near surface - in high field strengths. But at depth—low field strength—we estimate up to a factor of 5 improvement in precision. That improvement, and the multiple transmitter option, will add up to a considerable increase in the ability to resolve deep, highly-conductive targets - allowing for the detection of smaller targets and targets more distant from the hole.

The UTEM SYSTEM

UTEM uses a large, fixed, horizontal transmitter loop as its source. Loops range in size from 300x300m to 4000x4000m and larger. Smaller loops are generally used over conductive terrain or for shallow sounding work. Larger loops are used over resistive terrain or where the ability of the system to resolve a response can be aided by the simpler geometry of the applied field. The UTEM receiver(s)/transmitter(s) are typically synchronised at the beginning of a survey day and the Rx(s) operates remotely after that point. The Rx/Tx clocks are sufficiently accurate to maintain synchronisation.

Measurements are routinely taken to a distance of twice the loop dimensions and can be continued further depending on the local noise levels. Lines are typically surveyed:

- off-loop: out from an edge of the loop when the target is steeply dipping.
- inside-the-loop: when the target is ~flat-lying

BHUTEM - the borehole version of UTEM -surveys have been carried out to depths up to 3000+ metres.

System Waveform

A UTEM transmitter passes a low-frequency current of a precisely regulated triangular waveform through the transmitter loop. The frequency can be set to any value within the operating range of the transmitter. A target frequency for each UTEM transmitter and the local powerline frequency are entered. The actual frequencies used are selected to be as close to the target frequencies as possible while optimising rejection of the other transmitters and power line noise (60 Hz in North America/generally 50Hz elsewhere). Since the receiver coils responds to the time derivative of the magnetic field, the UTEM system really "sees" the step response of the ground. UTEM is the only time domain system which measures the step response of the ground. All other TDEM systems to date transmit a modified step current and "see" the (im)pulse response of the ground at the receiver. In practice, the UTEM waveform is filtered - pre-whitened - to optimize signal-to-noise. Deconvolution techniques produce the equivalent to the conceptual “step response” at the receiver.

System Sampling

The UTEM receiver measures the time variation of the magnetic field in the direction of the receiver coil at (typically) channels or delay times. UTEM channels are spaced in a binary, geometric progression across each half-cycle of the received waveform. Channel 12 (or Ch10) is the earliest channel and it is $1/2^{12}$ of the half-cycle wide. Channel 1, the latest channel, is $1/2^{1}$ of the half cycle wide (see Figure D1). The measurements obtained for each of channels are accumulated over many half-cycles. The final channel value stored is the average of the measurements. The number of half cycles averaged depends on the signal strength and the ambient noise.

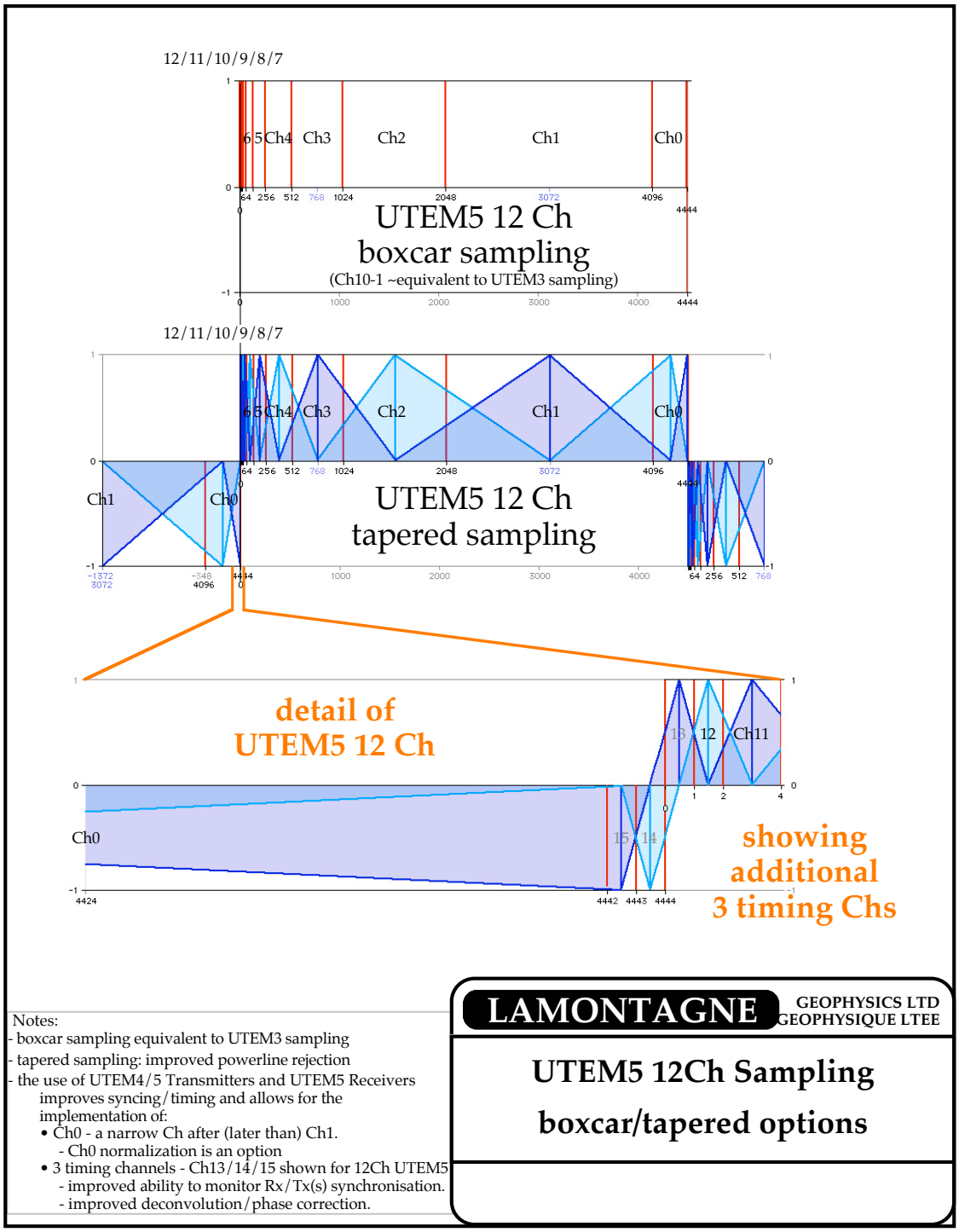


Figure D1: UTEM5 12Ch Sampling boxcar/tapered options.

System Configurations

BHUTEM4 surveys employ a 3-component receiver coil - longer and smaller in diameter than the surface coil. The borehole receiver coil forms part of a downhole receiver package used to measure the axial (along-borehole) and the two transverse components of the magnetic field. Due to the distance between coil and receiver in borehole surveys the signal must be transmitted up to the receiver. In BHUTEM the signal is transmitted to surface digitally using a kevlar-reinforced fibre-optic cable as a data link. Using a fibre-optic link avoids signal degradation problems and allows surveying of boreholes to 3000+m. The cable is also very light - the specific gravity is ~1.0 - making the cable handling hardware quite portable.

The EM Induction Process

Any time-varying transmitted ("primary") field induces current flow in conductive regions of the ground below and around the transmitter loop (i.e. in the earth or "half-space"). This current flow produces a measurable EM field, the secondary field, which has an inherent "inertia" that resists the change in primary field direction. This “inertial” effect is called self-inductance; it limits the rate at which current can change and is only dependent on the shape and size of a conductive path.

It takes a certain amount of time for the transmitted current flow to be redirected (reversed) and re-established to full amplitude after the rate-ofchange of the primary field reverses direction. This measurable reversal time is characteristic for a given conductor. In general, for a good conductor this time is greater than that of a poor conductor. This is because in a good conductor the terminal current level is greater, whereas its rate of change is limited by the inductance of the current path. The time-varying current causes an EMF in the sensor proportional to the time derivative of the current. This EMF decays with time - it vanishes when the reversal is complete - and the characteristic time of the EMF decay as measured by the sensor is referred to as the decay time of the conductor.

The large-scale current which is induced in the half-space by the primary field produces the half-space response as seen in typical UTEM profiles. This background response is influenced by the finite conductivity of the surrounding rock. Other currents may be induced in locally more conductive zones (conductors) that have longer decay times than the half-space response. The responses of these conductors are superimposed upon the background response. The result is that the UTEM receiver detects:

- the primary field waveform, a square-wave
- the half-space (background) response of the surrounding rock
- a slight-to-large response due to any conductors present.

The result is that in the presence of conductors the primary field waveform is substantially (and anomalously) distorted.

Probe Orientation

Because the BH probe is rotating freely in the hole the raw transverse components must be "rotated" to point in a consistent direction along the hole. The rotation process is a mathematical one which is performed after the data are collected but which requires a knowledge of the actual orientation of the probe in the hole at each station. The determination of the probe orientation is achieved using two independent tools; a three-axis magnetometer and a 3-axis accelerometer. Data from these devices are collected before each EM stack. In ideal situations, such as an inclined hole directed well away from magnetic north and away from large magnetic anomalies, either tool is capable of precise orientation of the probe. In a near vertical hole, the accelerometer becomes incapable of determining the probe orientation, while in a hole directed along the earth's magnetic field, the same is true for the magnetometer. The data reduction software uses the best combination of the estimates derived by these two devices.

Coordinate Systems

The three observed components of the transient magnetic field are designated as Hu, Hv and Hw with: Hw being the axial component pointing down the hole and Hu and Hv oriented in a right-handed system with respect to Hw. The coordinate systems used to orient these transverse three-axis data are based on the concept of a drill section. The drill section is a vertical plane perpendicular to the geological strike and is in general the plane in which inclined holes would be drilled. It is specified by the drill section azimuth which is the azimuth of the positive coordinate direction within the plane. For a north-south section plane, for instance, the drill section azimuth would be zero (due north) while for an east west section plane, it would be 090 (east). Usually a section azimuth is adopted for an entire survey area, even if the actual azimuths of individual holes are slightly different. Once the section is determined by the section azimuth, the out of section direction is 90 degrees clockwise from the section azimuth as seen in plan.

UTEM 4 data are presented in one of two coordinate systems. The coordinate system used to express the data is identified by the notation used for the components.

Hole based coordinate system

This is the most commonly used system. In this system the components are designated as Hs, Hn and Hw. Hw is the axial component and as such is independent of the orientation of the probe in the hole. The Hn component lies on the plane perpendicular to the section plane. Hs lies as close as possible to the designated drill section plane while being perpendicular to the other two components. Note that Hs and the designated drill section plane are coincident only if the local hole azimuth is exactly the same as the designated section azimuth.

The hole based coordinate system is useful for several reasons. It is easiest to interpret the orientation of a conductive body relative to the trajectory of the hole, rather than in absolute terms. In this respect a hole-relative coordinate system is much easier to use. A second

important reason is that the axial component has a substantially higher signal/noise than the transverse components. In the hole based system, the axial component is plotted as is and is not required to be combined with the transverse components.

Cartesian coordinate system

This is not a standard presentation. It may, however, be useful from time-to-time to present the data in the Cartesian system. In this system the HS component is in the section direction, the HN component is in the out of section direction, and the HZ direction is down. Note that in the Cartesian system, except in a vertical hole, every component is a linear combination of the three raw observed components.

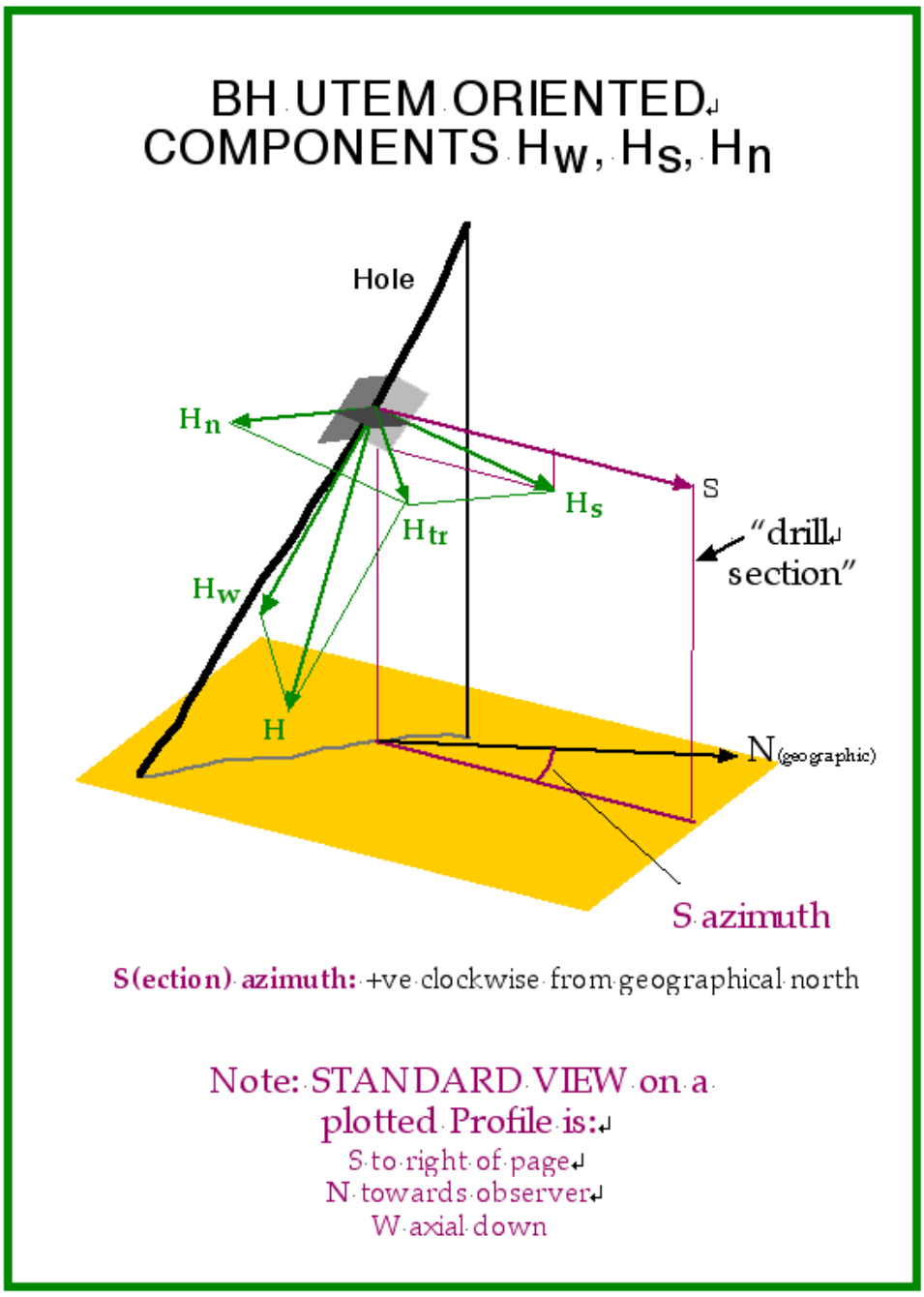


Figure D2: BH UTEM oriented components Hw, Hs, Hn.

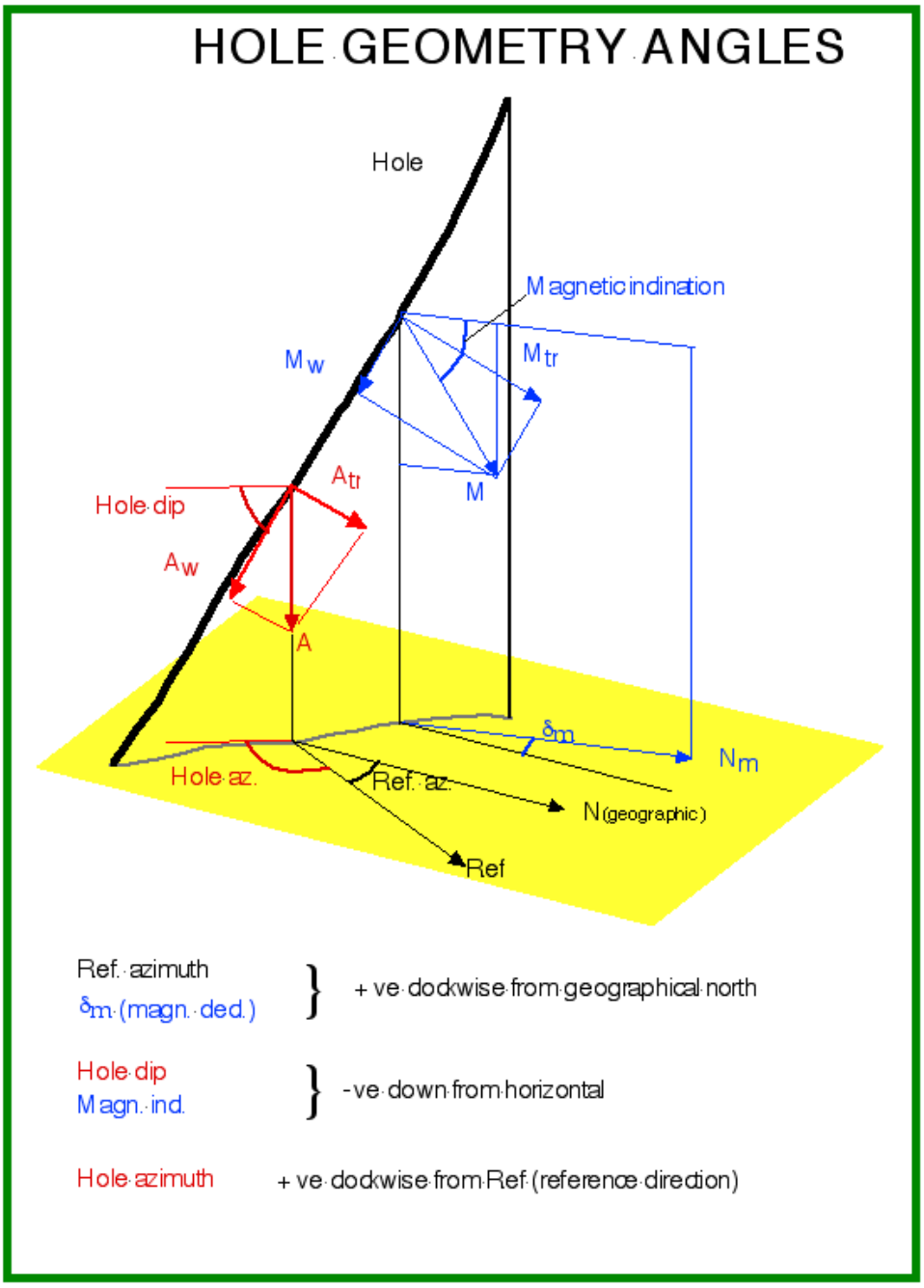


Figure D3: Borehole geometry angles.

Figures D2 and D3 show the main features of the geometry conventions and terminology used. In Figure D2 the transient field vector is designated as H, which is resolved into the axial, Hw, and the transverse, Htr, components. The transverse Htr is resolved into the Hs and Hn components where: Hn lies in the plane perpendicular to the designated drill section clockwise from Hs as seen in plan and Hs is perpendicular to both Hn and Hw Note that the drill hole itself does not lie in the designated drill section. Because of this the Hs component will not be exactly in the designated drill section in this example. The designated drill section itself is specified by the section azimuth, measured clockwise from geographic north.

Figure D3 shows the relationship of the hole geometry to the magnetic and gravitational fields used for orienting the probe. The magnetometer and accelerometer are both resolved into axial (Aw,Mw) and transverse (Atr,Mtr) components. For each device, it is the resolution of the computed transverse field direction with the two observed transverse signals which determines the probe orientation. The precision of orientation is greatest when the transverse field is a large component of the total.

Orientation Device Selection

The factors which limit the precision of the magnetometer and accelerometer devices as orientation tools are:

Magnetometer	Accelerometer
magnetic anomalies	gravitational anomalies (insignificant)
errors in magnetic declination and inclination	orientation of gravitation field is known precisely
errors in surveyed azimuth and dip of hole	errors in surveyed azimuth and dip of hole
no significant temperature dependence	temperature calibration of accelerometer incorrect
magnetic tensor calibration	accelerometer tensor calibration

While these factors cannot be tracked individually on a routine basis, the total transverse magnetic and gravitational fields are independent of the rotation of the probe in the hole and they can be compared to their predicted values. The discrepancy between these is a measure of the "error" of the device as far as its use as an orientation tool and it forms a basis for the *orientation tradeoff parameter, a.* This is a parameter which varies from +1.0 for pure magnetometer, to -1.0 for pure accelerometer. In between, a linear weighted average between the probe orientations as determined by the mag and accelerometer is used.

UTEM DATA REDUCTION and PLOTTING CONVENTIONS

The UTEM data as it appears in the data files is in total field form in nanoTesla (nT). These are total field values - the UTEM system measures during the "ontime" and as such samples both the primary and secondary fields. For plotting purposes, the magnetic field data are transformed to other formats as required. The following is provided as a description of the various plotting formats used for the display of UTEM data. A plot format is defined by choices of choice of the normalization and field type parameters selected for display.

PLOT FORMATS

UTEM results can be expressed as a % of a normalizing field at some point in space. In **continuously normalized** form the normalizing factor (the denominator) is the magnitude of the computed local primary field vector. As the primary exciting field magnitude diminishes with increasing distance from the transmitter loop the response is continuously amplified as a function of offset from the loop. Although this type of normalization considerably distorts the response shape, it permits anomalies to be easily identified at a wide range of distances from the loop.

Note: An optional form of continuous normalization permits the interpreter to normalize the response to the magnitude of the primary field vector at a fixed depth below each station. This is useful for surface profiles which come very close to the loop. Without this adjustment option, the normalizing field is so strong near the loop that the secondary effects become too small in the presence of such a large primary component. In such circumstances interpretation is difficult, however; by "normalizing at some depth" the size of the normalizing field, near the loop in particular, is reduced and the resulting profile can be more effectively interpreted to a very close distance from the transmitter wire. The usual choice for the depth is the estimated target depth.

In **Absolute** profiles the data is presented in picoTesla (pT). Data presented in this format show the non-distorted shape of the field profiles. Unfortunately, the very large range in magnitude of anomalies both near and far from the loop means that small anomalies, particularly those far from the loop, may be overlooked on this type of plot in favour of presenting larger amplitude anomalies.

Note: Selecting the correct plot scales is critical to the recognition of conductors over the entire length of a Absolute profile. This presentation is often used for interpretation where an analysis of the shape of a specific anomaly is required. Absolute profiles are therefore plotted selectively as required during interpretation. An exception to this procedure occurs where surface data has been collected entirely inside a transmitter loop. The primary field does not vary greatly inside the loop, therefore, the benefits of continuous normalization are not required in the display of such results.

FIELD TYPE

The type of field may be either the **Total field** or the **Secondary field**. In general, it is the secondary field that is most useful for the recognition and interpretation of discrete conductors.

UTEM Results as Secondary Fields

Because the UTEM system measures during the transmitter on-time the determination of the secondary field requires that an estimate of the primary signal be subtracted from the observations. Two estimates of the primary signal are available:

1) UTEM Channel 0

One estimate of the primary signal is the value of the latest time channel observed by the UTEM System, Channel 0. When Channel 0 is subtracted from the UTEM data the resulting data display is termed **Channel 0 Reduced**.
This reduction formula is used in situations where it can be assumed that all responses from any target bodies have decayed away by the latest time channel sampled. The Channel 0 value is then a reasonable estimate of the primary signal present during Channels 1....10/12.

In practice the ***Channel 0 Reduced*** form is most useful when the secondary response is very small at the latest delay time. In these cases Channel 0 is indeed a good estimate of the primary field and using it avoids problems due to geometric errors or transmitter loop current/system sensitivity errors.

2) Calculated primary field

An alternate estimate of the primary field is obtained by computing the primary field from the known locations of the transmitter loop and the receiver stations. When the computed primary field is subtracted from the UTEM data the resulting data display is termed ***Primary Field Reduced***.

The calculated primary field will be in error if the geometry is in error - mislocation of the survey stations or the loop vertices - or if the transmitter loop current/system sensitivity is in error. Mislocation errors from loop/station geometry may give rise to very large secondary field errors depending on the accuracy of the loop and station location method used. Transmitter loop current/system sensitivity error is rarely greater than 2%. ***Primary Field Reduced*** is plotted in situations where a large Channel 0 response is observed. In this case the assumption that the Channel 0 value is a reasonable estimate of the primary field effect is not valid.

Note: for UTEM data profiles plotted in Channel 0 Reduced form the secondary field data for Ch0 itself are always presented in Primary Field Reduced form and are plotted on a separate axis. This plotting format serves to show any long time-constant responses, magnetostatic anomalies and/or geometric errors present in the data.

Mathematical Formulations

In the following expressions:

Rn_j	the result plotted for the nth UTEM channel
$R1_j$	the result plotted for the latest-time UTEM channel, Channel 0
Chn_j	the raw component sensor value for the nth channel at station j
$Ch1_j$	the raw component sensor value for Channel 0 at station j
B^P_j	the computed primary field component in the sensor direction
$\|B^P\|$	the magnitude of the computed primary field at: - a fixed station for the entire line (point normalized data) - the local station of observation (continuously normalized data) - a fixed depth below the station (continuously normalized at a depth)

Channel 0 Reduced Secondary Fields:

Here, the latest time channel, Ch0 is used as an "estimate" of the primary signal and other channels are expressed as:

$$\mathbf{Rn_j = (Chn_j - Ch1_j) / |B^P| \times 100\%}$$

Ch0 itself is reduced by subtracting a calculation of the primary field observed in the direction of the coil, $\mathbf{H^P}$ as follows:

$$\mathbf{R1_j = (Ch1_j - H^P_j) / |B^P| \times 100\%}$$

Primary Field Reduced Secondary Fields:
In this form all channels are reduced according to the equation used for Ch0 above:

$$\mathbf{Rn_j = (Chn_j - B^P_j) / |B^P| \times 100\%}$$

This type of reduction is most often used in cases where very good geometric control is available (leading to low error in the calculated primary field, $\mathbf{B^P_j}$) and where very slowly decaying responses result in significant secondary field effects remaining in Ch0 observations.

UTEM Results as a Total Field

In certain cases results are presented as a % of the **Total Field**. This display is particularly useful, in borehole surveys where the probe may actually pass through a very good conductor. In these cases the shielding effect of the conductor will cause the observed (total) field to become very small below the intersection point. This nullification due to shielding effects on the total field is much easier to see on a separate ***Total Field*** plot. In cases where the amplitude

of the anomalies relative to the primary field is small, suggesting the presence of poorly conductive bodies, the ***Total Field*** plot is less useful.

The data contained in the UTEM reduced data files is in ***Total Field***, continuously normalized form if:

$$\mathbf{Rn_j = Chn_j / |B^P| \times 100\%}$$

DATA PRESENTATION

All UTEM5 survey results are presented as profiles in an appendix of this report. For BHUTEM surveys the requisite Vectorplots, presented as plan and section views showing the direction and magnitude of the calculated primary field vectors for each transmitter loop, are presented in a separate appendix.

The symbols used to identify the channels on all plots (Appendix B) as well as the mean delay time for each channel (29Hz/10Ch or 30.974Hz/10Ch) is shown in the following table (for details of frequencies used in this survey see figures in the report):

off loop		frequency	**29.000000** Hz	
		period	0.03 s	
(5MHz clock)		half period	86206 0.2µs cycles	
(narrowest Ch=1unit)		XNP	**1111** /halfperiod	
		width of unit channel	1.55188E-05 s	
		width of unit channel	15.5188 µs	
(symbol) channel		peak of tapered Ch (µs)	tapered Ch begins - unit -	tapered Ch - unit -
timing Ch11	+	7.76	-0.5	1.5
10	Φ	23.28	0.5	3
9	⊁	46.56	1.5	6
8	⧓	93.11	3	12
7	⊿	186.23	6	24
6	⊿	372.45	12	48
5	⧔	744.90	24	96
4	□	1489.80	48	192
3	⟍	2979.61	96	384
2	⟋	5959.22	192	768
1	|	11918.43	384	1066.5
0	○	16550.79	768	1109.5
timing Ch13	⟍	17218.10	1066.5	1110.5
timing Ch12	⟋	17233.62	1109.5	1111+0.5
TSS: sub-stack time =			**1** s	
STACK N: number of substacks =			**50** substacks	
stacking time =			50.00 s	
cycles stacked =			1450 cycles	
half-cycles stacked =			2900 half-cycles	

Note: With UTEM5 there is the option of expanding the 10Ch (+Ch0) sampling to earlier time Chs - routinely to 12Chs. There are tradeoffs involved in measuring additional earlier-time Chs - stacking time can be greatly increased by adding too many narrow(er) Chs. That said, when operating at a frequency of ~4Hz or lower, 2 Chs can be added without incurring significant penalty. 12Ch (+Ch0) sampling @4Hz brings the earliest delay time (Ch12) to 47.08μs - the equivalent of the earliest delay time when operating @15Hz with 10Ch sampling.

Notes on Standard plotting formats:

Channel 0 Reduced form - The data are typically displayed on three separate axes. This permits scale expansion and allows for the accurate determination of signal decay rates. The standard configuration is:

Right axis - early time channels and a repeat of the latest channel from the centre axis for comparison are plotted at a reduced scale.

Centre axis - intermediate-to-late-time channels are plotted on the centre axis using a suitable scale.

Left axis - the latest time channel (Ch0) is plotted alone in Primary Field Reduced form using the same scale as the centre axis.

*UTEM data in **Primary Field Reduced** form:*

All channels are displayed on a single axis. Typically they are plotted using peak-to-peak scale values of up to -200% - 200%.

BHUTEM4 data plotted as total field profiles:

The 3 components are expressed directly as a percentage of the Total Field. Each three-axis data plot shows peak values of up to 100%. Note: the measured total field value is plotted as a polarity-reference tool.

BHUTEM data plotted as secondary field profiles:

Check the title block of the plot to determine if the data is in: Channel 0 Reduced form or in Primary Field Reduced form. Note: the measured total field value is plotted as a polarity-reference tool.

Standard BHUTEM 4 Plot Suite

The UTEM 4 3-axis data are usually presented as a set of five profile plots for each hole and loop surveyed. The data are plotted as a function of the distance down the hole. The depth axes are always labelled in metres but are also labelled in feet on imperial grids. Each axis which displays EM data indicates the component according to the conventions discussed above (Hs, Hn, Hw). As well, the component is indicated graphically by the direction of the

arrow in the small coordinate axis system plotted at the end of each axis. To understand this system, consider that the plot is oriented with the axis down, that the section plane is the plane of the paper and that the section direction is to the right. The out of section component is then out of the page. The value of the geographic section azimuth is indicated in the second field of the title block of each of the plots along with the type of reduction and normalization. All plots include as well a profile on the lowest axis which shows the orientation tradeoff parameter used to derive the probe orientation. The plot set is comprised of:

- 3 plots of channel 0 reduced secondary field: one each for components Hs, Hn and Hw. These plots have the early, intermediate and latest time channels plotted on separate axes. The computed primary field in the direction of the component is also plotted as a solid curve on the upper axis with the early time channels.
- 1 total field plot: with all channels of each of the three components on a different axis. Each axis includes as well a plot of the primary field as a solid curve. In most cases the following of the primary field curve of each of the components by its respective channel 1 indicates that the basic geometry of the hole relative to the loop is correct. This may not be true, however in very conductive environments where a large response persists in channel 1.
- 1 plot comprised of magnetometer data on the right axis, accelerometer data on the middle axis and temperature data on the left axis. For the mag and accelerometer plots, three curves are presented. In black, the observed axial (symbol W) and total transverse (symbol R) are plotted, while in grey, the expected total transverse is plotted. Discrepancies between the expected and the observed total transverse mag and accelerometer components can point to a number of problems including: incorrect hole dip, incorrect hole azimuth, poor mag/acc device calibration, magnetic anomalies and incorrect magnetic declination and/or inclination.

The raw temperature profile taken down the hole is dominated by the geothermal gradient of about 18°C per kilometre of depth. Superimposed on this are small amplitude anomalies which may be beneficial in locating thermally conductive dipping ore bodies. The curve that is plotted is the residual temperature after the removal of a best fitting polynomial. The order of the polynomial used in indicated in the axis label of the plot. For example, "Temp-P(2)", indicates that a second order polynomial has been subtracted.

Appendix E: Note on sources of anomalous Ch0

Note: The data presented in this report are channel 0 normalized -the latest time channel plotted is Ch0. Traditionally in UTEM data the latest time channel plotted has been Ch1.

BH UTEM 4 Survey

Sudbury area, Ontario, Canada

for

Wallbridge Mining Company Ltd.

Note on sources of anomalous Ch0

This section outlines the possible sources of anomalous channel 0 which is not correlated to the Ch1-10/12 profiles on the upper axes of a channel 0 normalized plot.

1. Mislocation of the transmitter loop and/or survey stations

   Mislocating the transmitter loop and/or the survey stations results in an error in the calculated primary field at the station and appears as an anomalous Ch0 value not correlated to channel 0 normalized Ch1-10/12. The effect is amplified near the loop front. This can be seen in the profiles - the error in Ch0 generally increases approaching the loop. As a rule a 1% error in measurement of the distance from the loop will result in, for outside-the-loop surveys, an error in the Hz (vertical component) Ch0 of:

   - 1% near the loop front (long-wire field varies as $1/r$)
   - 3% at a distance from the loop front (dipolar field varies as $1/r^3$)
   - 2% at intermediate distances (intermediate field varies as $\sim 1/r^2$)

   The in-loop survey configuration generally diminishes geometric error since the field gradients are considerably lower. At the centre of the loop the gradient in the vertical field is essentially zero so it is difficult to introduce geometric anomalies near the loop centre. Near the loop sides and at the closest approach of the lines to the wire mislocation of the loop and the station becomes more critical. Typically loop sides are designed to be >200m from any survey stations.

   Errors in elevation result in smaller errors in Hz but they can affect the chainage and accumulate along the line. Errors in elevation have a stronger affect on the two horizontal components, Hx and Hy.

2. Magnetostatic UTEM responses

   Magnetostatic UTEM responses arise over rocks which generate magnetic anomalies. Such magnetic materials will amplify the total (primary + secondary) field of the UTEM transmitter which is sensed by the receiver coil. The secondary field is generated by subtracting a computed primary which does not include magnetic effects. This can give rise to strong and abrupt channel 0 anomalies when the source of the magnetics is at or near surface. This is the case in a number of places on these grids. UTEM magnetostatic anomalies differ from DC magnetic anomalies in the following three major ways:

   1. In the case of DC magnetics the field is dipping N and is very uniform over the scale of the survey area while the UTEM field in-loop is vertical and it is stronger near the loop edges.

2. Most aeromagnetics are collected as total field while with UTEM we measure components - HZ, Hx and Hy..
3. DC magnetic instruments observe the total magnetization of the causative body which is due to its susceptibility as well as any remnant magnetization. An AC method such as UTEM will not respond to the remnant portion of the magnetization.