

GEOLOGICAL AND GEOPHYSICAL

REPORT

for the

**Sphinx Property**

Nelson / Fort Steele Mining Division, Southeastern B.C.

Mapsheets 82F057, 82F067

Latitude 49°38' N, Longitude 116°40' W

Prepared for:

**EAGLE PLAINS RESOURCES LTD.**

#200, 16-11th Avenue South

Cranbrook, B.C. V1C 6Y6

By

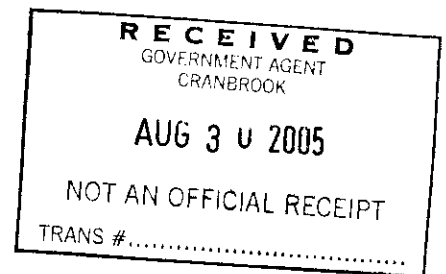
C.C. Downie, P. Geo.

EXPLORATION MANAGER

716 Summit Place

Cranbrook, B.C. V1C 5L

September 2005



## TABLE OF CONTENTS

SUMMARY .....	page 2
LOCATION, ACCESS AND INFRASTRUCTURE .....	page 3
TENURE.....	page 5
HISTORY AND PREVIOUS WORK .....	page 7
GEOLOGY .....	page 8
Regional Geology .....	page 8
Property Geology .....	page 10
2004 WORK PROGRAM .....	page 12
2004 RESULTS .....	page 13
CONCLUSIONS AND RECOMMENDATIONS .....	page 16
REFERENCES .....	page 18

## LIST OF FIGURES

Figure 1: Property Location Map.....	page 4
Figure 2: Tenure .....	page 6
Figure 3: Regional Geology,.....	page 9
Figure 4: Property Geology, Compilation.....	page 11
Figure 5: Geophysical Results Conductivity.....	page 14

## LIST OF APPENDICES

Appendix I: .....	Statement of Qualifications
Appendix II: .....	Statement of Expenditures
Appendix III.....	Analytical Results
Appendix IV.....	Condor Consulting Report
Appendix V.....	Rock Sample Descriptions

## **SUMMARY**

The Sphinx property consists of 3268.161 hectares located in the Grey Creek / Baker Creek area 60 km west of Kimberley, in southeastern British Columbia. The claims are owned 100% by Eagle Plains Resources Ltd, with part of the property carrying an underlying NSR.

The property is underlain by a northerly trending sequence of argillite and quartzite units of the Mount Nelson Formation. This assemblage abuts the older conglomerate unit of the Toby formation to the west.

The Sphinx claims cover four known Minfile occurrences. Three of the occurrences (Five Metals, Grey Creek Iron North and South) are iron formation or specular hematite, probably hosted by schistose conglomerate; the other (Jodi or Sly) is molybdenum mineralization that occurs in a stockwork of thin quartz veins in a shattered white quartzite unit.

A high resolution VTEM geophysical survey was flown over the property in early 2004. A total of 99 line km were completed, and three significant geophysical anomaly areas were outlined. The geophysics was followed up with a three day field program to assess the geology and mineralization, and to attempt to locate the historic Minfile occurrences.

It is believed that the Sphinx property has extremely high potential to host both Iron Oxide Copper Gold (IOCG) mineralization and stockwork style molybdenum mineralization. A follow-up program of fieldwork including mapping and soil geochemistry is recommended to better define mineralization on the property and to locate possible sources for the geophysical anomalies, and to delineate targets for followup diamond drilling.

The total cost of the 2004 work program was \$31,389.32

**LOCATION, ACCESS AND INFRASTRUCTURE (Figure 1)**

The Sphinx property consists of 3268.161 hectares located in the Grey Creek / Baker Creek area 60 km west of Kimberley, 15 km east of Crawford Bay, in southeastern British Columbia. The claims are centered at approximately Latitude 49°38' N, Longitude 116°40'W on NTS Mapsheets 082F057 and 067.

The property area is road-accessible from both the east and west via the Grey Creek Pass, a seasonally maintained secondary road, and a number of logging and historical exploration trails established on the property. Elevations range from 1700 – 2500 meters. Tree cover consists of mature stands of fir, spruce and larch and part of the property has been logged. The property area is subject to moderate precipitation, and the lower parts of the property are free of snow cover from June to October. The Sphinx claims straddle a high-voltage hydro-electric line. Rail facilities are located at Marysville, 60km east of the property, which could be used to ship ore to the Teck-Cominco smelter at Trail, B.C., approximately 100 kilometers west of the Sphinx property.

140°0'0"W

130°0'0"W

120°0'0"W

60°0'0"N

60°0'0"N

50°0'0"N

50°0'0"N

130°0'0"W

120°0'0"W

EPL/TSX-V  
**Eagle Plains Resources Ltd.**  
**Sphinx Property**  
 Figure 1 - Property Location Map  
 August 16, 2005 1:7,500,000 Scale



**Alaska**

**Yukon Territory**

**Northwest Territories**

**British Columbia**

**Alberta**

**Pacific Ocean**

**Sphinx Property**

**Washington**

**Montana**

**Idaho**



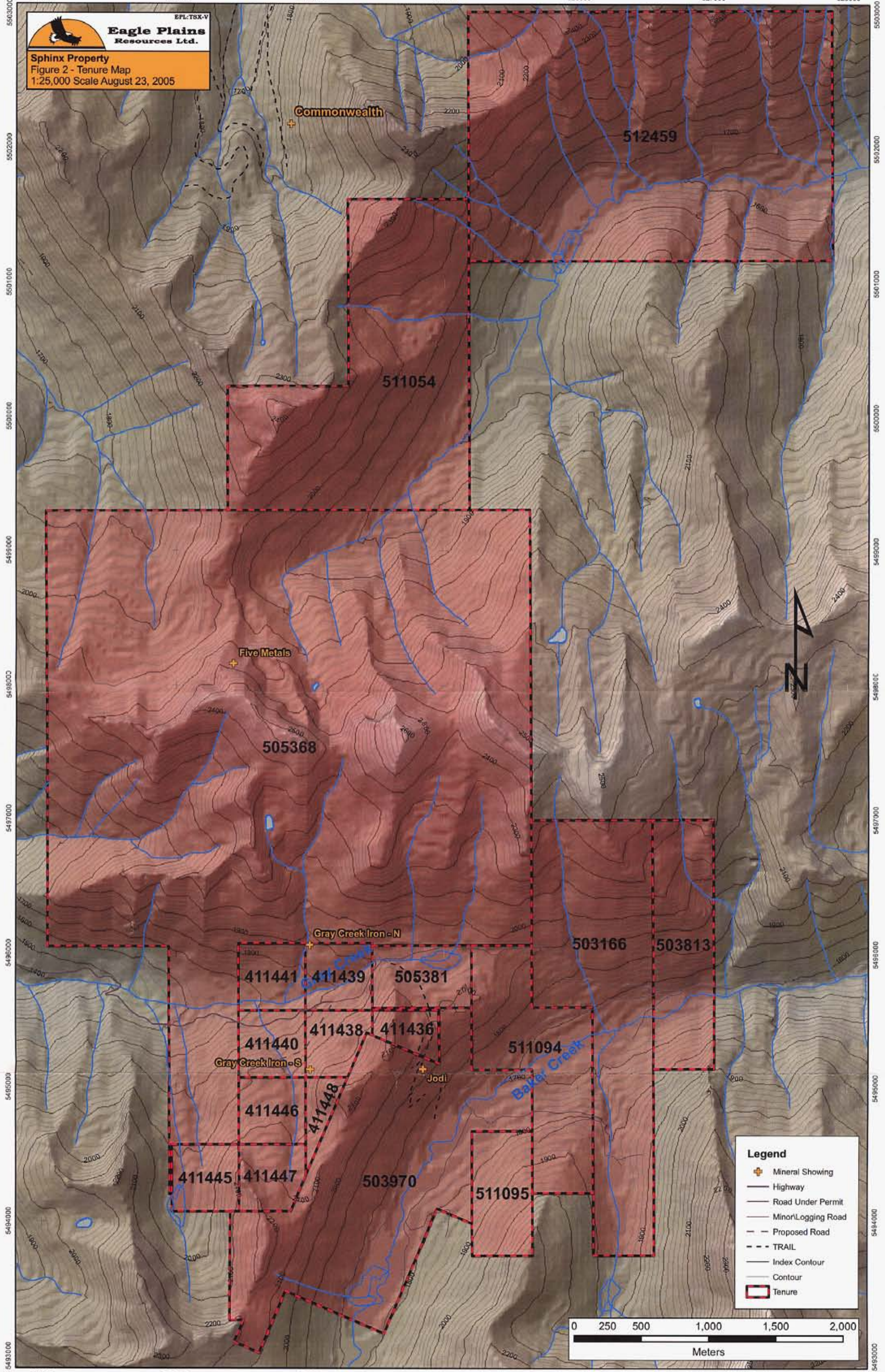
**TENURE (Figure 2)**

The property consists of both 2 post and four post legacy claims and MTO claims located in the Nelson and Fort Steele Mining divisions on NTS Mapsheets 082F057 and 067. Total property area is 3268.161 hectares owned 100% by Eagle Plains Resources Ltd. Part of the property carries a 2% NSR. A list of all pertinent tenure details follows.

TENURE NUMBER	CLAIM NAME	OWNERSHIP	MAPSHEET	ANNIVERSARY DATE	MINING DIVISION	SIZE (hectares)
503970	(no name)	2% Johnston		Aug 6 2015		377.026
412989	JODI NO 11	2% Johnston	82F057	Aug 6 2015	5 Fort Steele	25.000
511095	(C-Jodi 16)	2% Johnston	82F057	Aug 6 2015	5 Fort Steele	41.892
511094	(C-Jodi 10,17&18)	2% Johnston	82F067	Aug 6 2015	5 Fort Steele	104.711
503166	DLP (Pighin claim)	100% EPL	082F	Nov 30 2015	12 Nelson	209.402
503813	JODI 20	2% Johnston	082F	Nov 30 2015	5 Fort Steele	83.753
511054	SPHINX TOP	100% EPL	082F067	Nov 30 2015	12 Nelson	292.946
512459	SPHINX NE	100% EPL	082F067	Nov 30 2015	12 Nelson	501.821
505381	(Sphinx conversion)	100% EPL	082F067	Nov 30 2015	12 Nelson	41.88
505368	(Sphinx conversion)	100% EPL	082F067	Nov 30 2015	12 Nelson	1339.73
411446	SPHINX 15	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411447	SPHINX 16	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411448	SPHINX 17	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411449	SPHINX 18	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411436	SPHINX 5	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411438	SPHINX 7	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411439	SPHINX 8	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411440	SPHINX 9	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411441	SPHINX 10	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
411445	SPHINX 14	100% EPL	082F067	Nov 30 2015	12 Nelson	25.000
						<b>3268.161</b>

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**Eagle Plains Resources Ltd.**  
 Sphinx Property  
 Figure 2 - Tenure Map  
 1:25,000 Scale August 23, 2005



**Legend**

- Mineral Showing
- Highway
- Road Under Permit
- Minor/Logging Road
- Proposed Road
- TRAIL
- Index Contour
- Contour
- Tenure



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## HISTORY AND PREVIOUS WORK

The original Sphinx claims were staked by Eagle Plains Resources in 2002 to cover the Five Metals (Minfile 082FNE132) occurrence. Subsequently, more claims have been acquired to cover the Grey Creek Iron North and South (Minfile 082FNE094, 095) and Jodi-Sly (Minfile 082FNE004) occurrences.

Most of the current Sphinx claims have seen very limited work in the past. The Grey Creek Iron showings have seen a small amount of trenching, with a shallow adit developed at the Grey Creek North occurrence. This work is believed to have been carried out in the early 1900's.

At the Five Metals occurrence, iron ore with values in silver, lead and copper was reported to occur at the head of Houghton Creek (EMPR AR 1902-163). By 1905, over \$10,000 was spent in development by the Five Metals Company. At this time, men were still engaged in "running a deep level to tap the main ledge". This "ledge" was reported to be 30 metres wide. A furnace with 40 tonnes/day capacity was planned. This occurrence has been created based on its given location at the head of Houghton Creek and on the north side of Sphinx Mountain (The Nelson Miner, 1905). Although in the same vicinity, the Gray Creek occurrences are well defined by J.T. Fyles in a 1956 report (Property File) as being to the south of Sphinx Mountain. Three Crown grants exist near the location at which the Five Metals should occur: Palouser (Lot 8797), Spokane (Lot 8796) and Tekoa (Lot 8798).

Mineralization in the area of the Jodi-Sly occurrence was first identified by Cominco Ltd. in 1978, which carried out surface work and limited diamond drilling from 1978 to 1984. Cominco completed a soil geochemical survey which resulted in the delineation of a 1700m x 500m tungsten-moly anomaly. 4-6 drill holes were completed, but no results were released. In 1997, Barkhor Resources drilled 10 holes into the soil anomaly and encountered significant mineralization over a 1000m x 300m area. Results from only one hole were ever released (DDH JI97-06), but a private consultant reported that "typical drill intersections are averaging 0.03-0.038% Mo over core lengths ranging from 90 to 230m".



## GEOLOGY

### Regional Geology (Figure 3)

Regionally the area is underlain by rocks of the Middle Proterozoic Purcell Supergroup and by Upper Paleozoic rocks of the Windermere Supergroup. The area is located on the western flank of the Purcell Anticlinorium, a broad, north-plunging arch-like structure in Helikian and Hadrynian aged rocks. The anticlinorium is allocthonous, carried eastward and onto the underlying cratonic basement by generally north trending thrusts throughout the Laramide orogeny during late Mesozoic and early Tertiary time.

The oldest rocks exposed in the area are greenish, rusty weathering thin bedded siltites and quartzites of the greater than 4000m thick Lower Aldridge Formation, along with the facies-related, dominantly fluvial Fort Steele Formation (the base of which is unexposed). The Sullivan deposit is located some 20-30m below the upper contact of the Lower Aldridge Formation. Overlying the Lower Aldridge is a continuous section of Middle Aldridge quartz wackes, subwackes and argillites some 3000+ m thick. Within the Middle Aldridge formation, fourteen varied marker horizons can be correlated over hundreds of kilometres. These represent the only accurate stratigraphic control. A number of aerial extensive, locally thick gabbroic sills are present within the Lower and Middle Aldridge Formations. These sills and dykes; the "Moyie Sills", locally were intruded into wet, unconsolidated sediments, and have been dated to 1445 Ma, providing a minimum age for Aldridge sedimentation and formation of the Sullivan deposit. The Middle Aldridge is overlain conformably by the Upper Aldridge, 300 to 400 meters of thin, fissile, rusty weathering siltite/argillite.

Conformably overlying the Aldridge Formation is the Creston Formation, comprising approximately 1800 meters of grey, green and maroon, cross-bedded and ripple marked platformal quartzites and mudstones. The Kitchener-Siyeh Formation, which includes 1200 to 1600 meters of grey-green and buff coloured dolomitic mudstone are shallow water sediments overlying the Creston Formation.

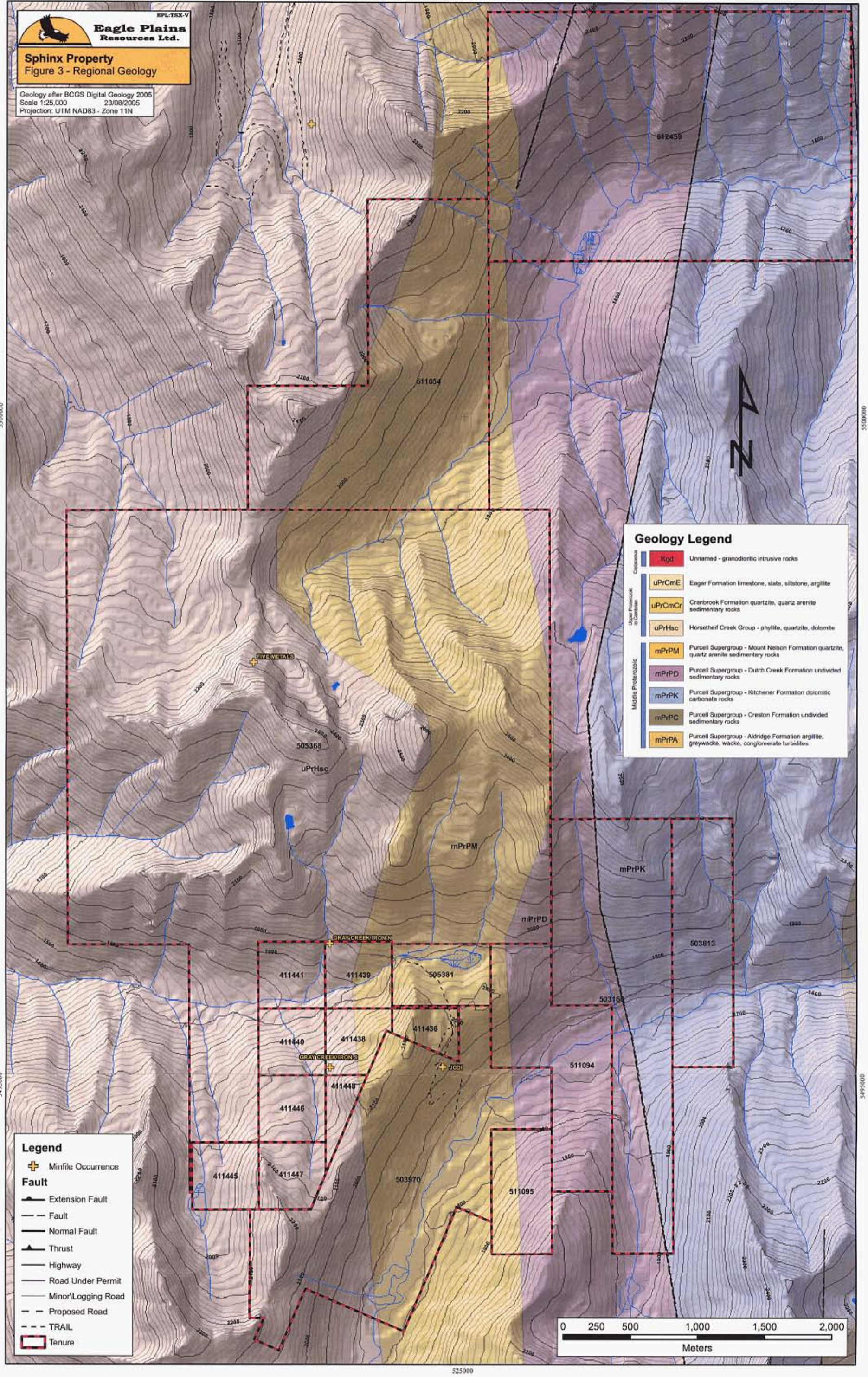
The upper portion of the Purcell Supergroup consists of the Dutch Creek and Mount Nelson Formations. The Dutch Creek formation consists of approximately 1200 meters of dark grey, calcareous dolomitic mudstones. Overlying the Dutch Creek formation is the Mount Nelson formation, 1000 meters of grey-green and maroon mudstone and calcareous mudstones. This unit marks the top of the Purcell Supergroup.

Overlying the Purcell Supergroup is the Windermere Supergroup. Regionally, the Windermere Supergroup varies in thickness from 80 metres to over 3 kilometres and is in sharp contact with the underlying Belt-Purcell Supergroup across an unconformity with considerable topography, interpreted as a result of a local basement high, the "Windermere High" (Reesor 1973). The Windermere Supergroup was deposited above this unconformity and consists of a basal conglomeratic unit, the Toby Formation, and the overlying argillite and pebble conglomerate dominated Horsethief Creek Formation.

Geology after BCGS Digital Geology 2005  
 Scale 1:25,000 23/08/2005  
 Projection: UTM NAD83 - Zone 11N

Geology Legend	
<b>Crinoid</b>	<b>kgd</b> Unnamed - granodioritic intrusive rocks
<b>Upper Proterozoic to Cambrian</b>	<b>uPrCmE</b> Eager Formation limestone, slate, siltstone, argillite
	<b>uPrCmCr</b> Cranbrook Formation quartzite, quartz arenite sedimentary rocks
	<b>uPrHsc</b> Horseshoe Creek Group - phyllite, quartzite, dolomite
<b>Middle Proterozoic</b>	<b>mPrPM</b> Purcell Supergroup - Mount Nelson Formation quartzite, quartz arenite sedimentary rocks
	<b>mPrPD</b> Purcell Supergroup - Dutch Creek Formation undivided sedimentary rocks
	<b>mPrPK</b> Purcell Supergroup - Kitchener Formation dolomitic carbonate rocks
	<b>mPrPC</b> Purcell Supergroup - Creston Formation undivided sedimentary rocks
	<b>mPrPA</b> Purcell Supergroup - Aldridge Formation argillite, greywacke, wacke, conglomerate turbidites

Legend	
	Minifile Occurrence
<b>Fault</b>	
	Extension Fault
	Fault
	Normal Fault
	Thrust
	Highway
	Road Under Permit
	Minor/Logging Road
	Proposed Road
	TRAIL
	Tenure



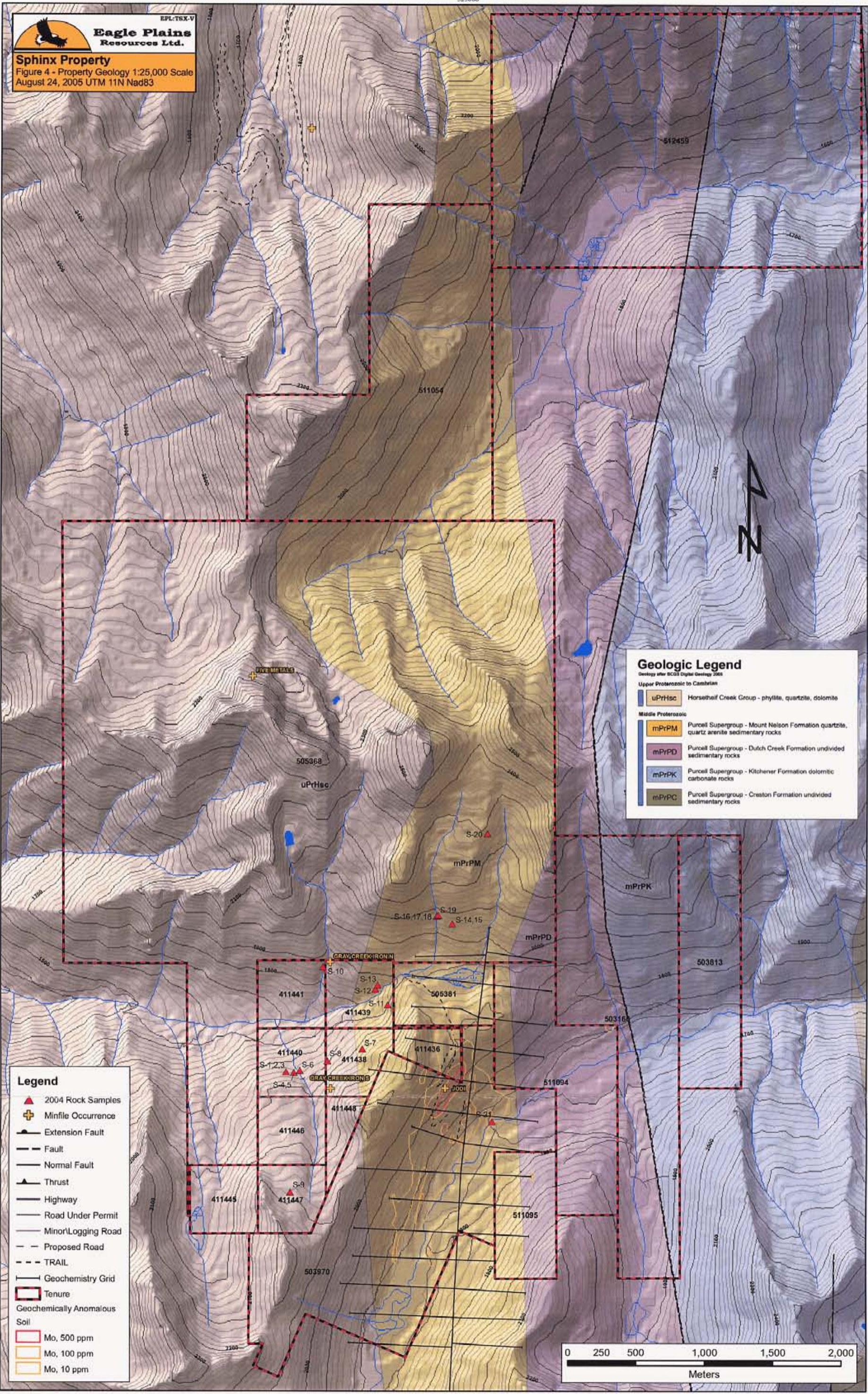
**Property Geology (Figure 4)**

The property is underlain by Middle Proterozoic rocks of the Purcell Supergroup and by Upper Paleozoic rocks of the Windermere Supergroup. A homoclinal north-south trending sequence of sediments, including Kitchener-Siyeh, Dutch Creek and Mount Nelson Formations of Purcell age are unconformably overlain to the west by Toby and Horsethief Creek Formations of Windermere age.

Windermere rocks include conglomerate of the Toby Formation and quartzite, limestone, arkose and pebble conglomerate of the Horsethief Creek Group. Purcell rocks include laminated argillite, phyllite, quartzite, dolomite and minor amphibolite. These rocks are difficult to correlate over more than a few hundred meters due to structural complications, sedimentary facies variations and metamorphic contact effects. A small plug of quartz monzonite outcrops near the Jodi-Sly Minfile occurrence.

525000

EPL-T&X-V  
**Eagle Plains Resources Ltd.**  
**Sphinx Property**  
 Figure 4 - Property Geology 1:25,000 Scale  
 August 24, 2005 UTM 11N Nad83



**Geologic Legend**  
 Geology after BCOS Digital Geology 2005

**Upper Proterozoic to Cambrian**

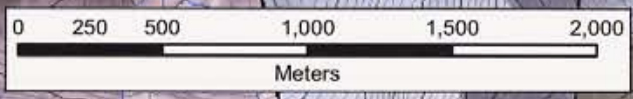
- uPrHsc Horseshoe Creek Group - phyllite, quartzite, dolomite

**Middle Proterozoic**

- mPrPM Purcell Supergroup - Mount Nelson Formation quartzite, quartz arenite sedimentary rocks
- mPrPD Purcell Supergroup - Dutch Creek Formation undivided sedimentary rocks
- mPrPK Purcell Supergroup - Kitchener Formation dolomitic carbonate rocks
- mPrPC Purcell Supergroup - Creston Formation undivided sedimentary rocks

**Legend**

- ▲ 2004 Rock Samples
- ⊕ Minfile Occurrence
- Extension Fault
- - - Fault
- Normal Fault
- ▲ Thrust
- Highway
- Road Under Permit
- Minor Logging Road
- - - Proposed Road
- - - TRAIL
- Geochemistry Grid
- ▭ Tenure
- Geochemically Anomalous Soil
- Mo, 500 ppm
- Mo, 100 ppm
- Mo, 10 ppm



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**2004 WORK PROGRAM** (Figure 4, 5)

The 2004 work program consisted of an airborne, high resolution Time Domain Electro Magnetic geophysical survey, followed by a short field program. Geophysical data collection was done by Geotech Ltd. and data processing and interpretation was contracted to SJ Geophysics and Condor Consulting. The survey area covered 8.12 square kilometers and comprised 26 lines and 8 tie lines, for a total of 99 line kilometers. The survey was flown in early March 2004 with helicopter support provided by Bighorn Helicopters using an AStar 350B2.

The field program was carried out over a period of three days from June 22 – 24 2004. Two field technicians collected a total of 21 rock samples. The rock samples were shipped to Eco-Tech Laboratories in Kamloops, B.C. for analysis. The samples were analyzed for 30 element ICP using aqua-regia digestion. All samples were collected, handled, catalogued and prepared for shipment by Bootleg Exploration Inc. The crew was moved to site using an AStar 350B from a staging area in the Grey Creek Pass.

Overall project supervision was by C.C. (Chuck) Downie, P.Geo Exploration Manager, Bootleg Exploration.

All exploration and reclamation work was carried out in accordance to Ministry of Environment, Ministry of Mines and WCB regulations.

Total expenditures by Eagle Plains Resources on the property in 2004 were \$31,389.32

## 2004 RESULTS (Fig. 4, 5, Appendix III, IV, V)

### Geophysics

The Geotech VTEM EM and magnetic data was sent to Condor Consulting, Inc. (Condor) to produce conductivity depth images (CDI), together with a number of image enhancements of the EM and magnetic data. (Appendix IV). The inversions to produce CDIs were carried out using EM Flow software. Details are provided in Appendix IV.

The AdTau value is a measure of the conductivity and size (volume) of a conductive body and so is often the most appropriate data for selecting targets for further follow up. There are three obvious local areas of AdTau enhancement, that have been indicated by boxes and are labeled Targets A, B and C on Figure 5 and Appendix IV Figure 8.

Appendix IV Figure 9 shows the image of the first supplied channel of VTEM (Ch 6 or 190 us after the end of the transmitter pulse). While the three targets have enhanced early channel responses, other parts of the survey area have similar or even greater amplitudes – these are likely due to conductive overburden. This illustrates the advantages of using AdTau rather than channel amplitudes in picking conductors. The Analytic Signal image is shown in Appendix IV Figure 10. Target A partly correlates with a local AS high, but Targets B and C do not have a direct correlation, indicating that they are basically non-magnetic. However, the MultiPlot<sup>TM</sup> of tie line 7010 which crosses Target C shows a low-amplitude, local magnetic high that correlates with the conductor.

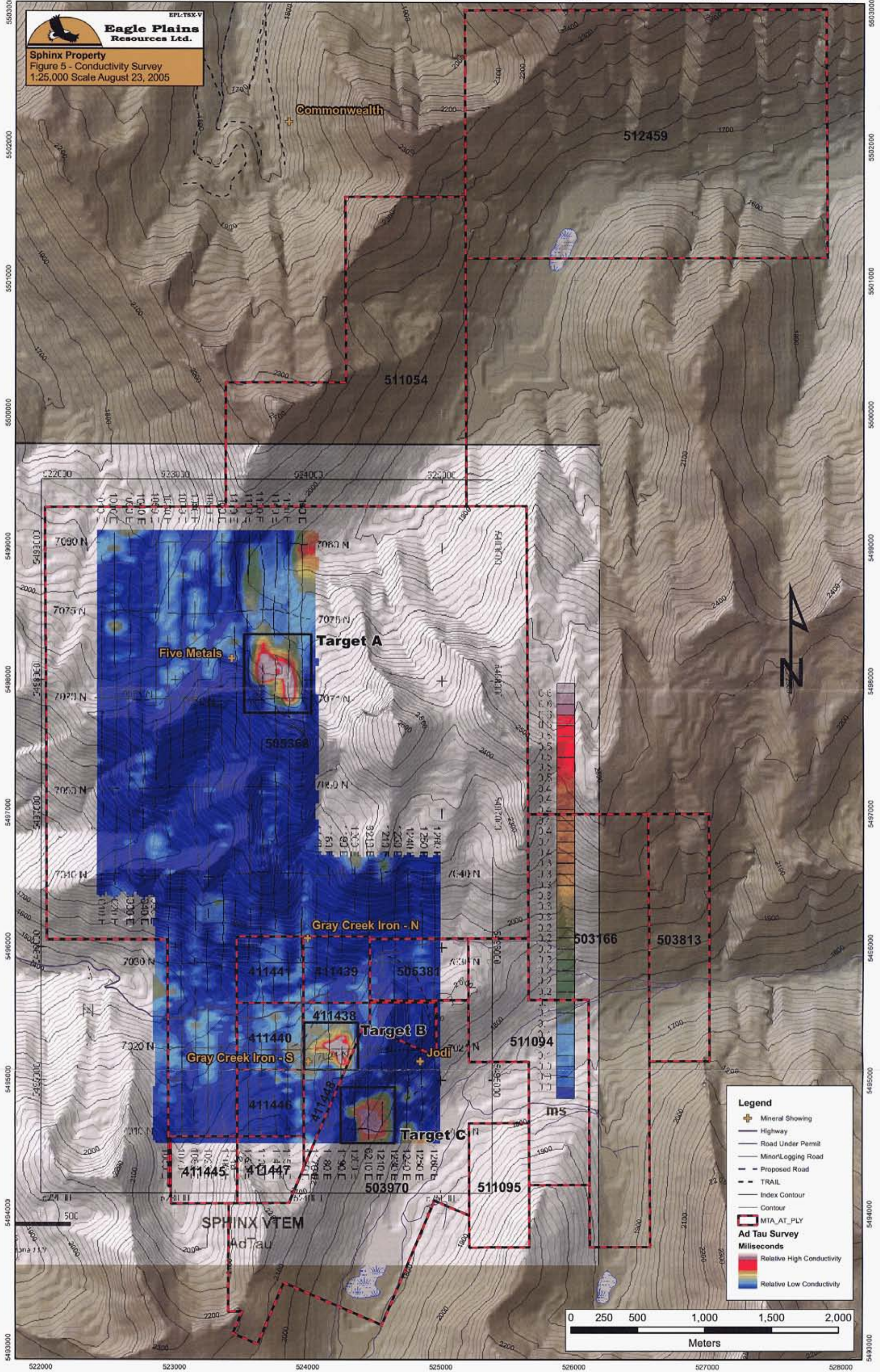
Target A is evident on VTEM lines 1130, 1140 and 1150 and also has some response on tie line 7071, which may be due to conductivity sideways from the survey line. The anomalous response extends for approximately 300 m east-west and 400 m north-south. Peak AdTau is almost 1 ms on line 1130. The CDIs suggest that the depth to the top of the conductor is approximately 20-40 m. The character of the response of Target A varies on each line, and it appears that the conductor geometry may be somewhat complex, but the CDI responses suggest that the conductor is depth limited. The full set of MultiPlots<sup>TM</sup> is included in Appendix IV Appendix B, but an example (for line 1150, on the east side of the target) is shown in Appendix IV Figure 11. Only line 1140 shows indications of a steep-dipping conductor on the CDI, with two separate “comet-shaped” responses which may represent a DPR anomaly.

Target B is evident on lines 1180 and 1190 and also on tie line 7020. Peak AdTau is 1.1 ms on tie line 7020. The dimensions of the anomalous response are approximately 300 m east-west and 250 m north-south. On all three lines, the CDI suggests a depth-limited conductor. The response for line 1190 is shown in Figure Appendix IV 12. The CDIs suggest that the depth to top of the conductor is less than 40 m.

Target C is evident on lines 6210, 1210 and tie line 7010. Peak AdTau response is 1.1 ms on tie line 7010. The dimensions of the anomalous response are approximately 200 m east-west (400 m if the tie lines response is included) and 250 m north-south. On the two flight lines, the CDI suggests a depth-limited, flat-lying conductor, but on tie line 7010 the anomaly looks more like a DPR response with steep dip to the east. The depth to the top of conductor appears to be less than 30 m. The MultiPlot<sup>TM</sup> for line 6210 is shown in Appendix IV Figure 13.

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**Eagle Plains Resources Ltd.**  
 Sphinx Property  
 Figure 5 - Conductivity Survey  
 1:25,000 Scale August 23, 2005

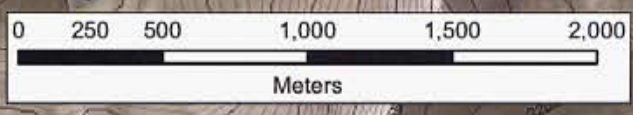


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**Legend**

- Mineral Showing
- Highway
- Road Under Permit
- Minor Logging Road
- Proposed Road
- TRAIL
- Index Contour
- Contour
- MTA\_AT\_PLY
- Ad Tau Survey**
- Milliseconds**
- Relative High Conductivity
- Relative Low Conductivity



### Geochemistry and Prospecting

Of the 21 rock samples collected, six returned anomalous values. Sample S-12, dolomitic float with fractures containing galena and sphalerite returned values of 2180 ppm Zn. Sample S-13,, a 45 cm wide zone of quartz veins, returned 1836 ppm Zn. Sample S-14, a 30 cm wide quartz shear, returned 112 g/T Ag, 240 ppm Bi, and 1.23 % Pb and S-15, from the same location returned 1198 ppm Pb. Sample S-17, a 1 meter wide quartzite band, returned 1.28% Cu and S-16, from the same location, returned 2458 ppm Pb.

None of the Minfile occurrences were located in the field.



## CONCLUSIONS AND RECOMMENDATIONS

The Sphinx property area has seen very little geological work with the exception of the Jodi – Sly area. Four Minfile occurrences are located within the property boundaries, three related to iron oxide or hematite mineralization, and one molybdenum-tungsten showing. Although 2004 work failed to locate any of the documented iron oxide occurrences, geochemical analyses of a suite of rocks collected from the Sphinx property indicates that the property hosts lead-zinc-copper-silver mineralization. No attempt was made to locate the Jodi-Sly occurrence.

A 2004 high resolution VTEM airborne geophysical survey located three areas of interest. Inversion of the VTEM data to produce CDIs has provided valuable information about the conductivity distribution with depth. Three conductive targets have been defined that justify follow up and possible drilling. Targets A and C have some magnetic association, but Target B appears to be non-magnetic. Target B appears to be relatively broad and flat-lying, and to have limited depth extent. Targets A and C exhibit a mixture of responses – on some lines the conductors appear to be relatively broad and flat-lying while on other lines the profiles are consistent with a steepdipping plate conductor. Detailed ground EM follow up is recommended to more precisely define the geometry of these conductors before any drilling is carried out.

A review of historical work by Cominco (1978-1984) and Barkhor (1997) in the area of the Jodi-Sly showing indicates that there may be potential for a large, economic grade molybdenum deposit on the north side of Baker Creek. A Cominco geochemical survey delineated a 1700m x 500m tungsten-molybdenum anomaly. Drill testing of this anomaly by Barkhor intersected significant mineralization over a 1000m x 300m area, with a private consultants report indicating that “typical drill intersections are averaging 0.03-0.038% Mo over core lengths ranging from 90 to 230m” (Kimura, 1997).

The Sphinx property has potential to host a wide spectrum of deposit types including iron oxide copper gold (IOCG), porphyry and skarn type molybdenum tungsten, and vein type silver-lead-zinc. Further work is recommended to evaluate the geology and mineralization, and to locate possible targets for diamond drill testing. Recommendations include:

- GIS type compilation of all historic work on the property including drill hole data, mapping and geochemistry
- Review and reinterpretation of 1995 BC Government, Geological Survey Branch, Geological Survey of Canada Dighem High Resolution airborne geophysical survey in the area of the sphinx claims
- Ground followup of three conductivity targets defined by Condor Consulting
- Soil geochemical, prospecting and mapping coverage should be extended throughout the property
- Accurately locate the three iron oxide mineral occurrences

Based on favorable results from this work, priority targets for followup diamond drill testing should be defined. A budget for the proposed work follows:

PERSONNEL: 60 man days @ \$250.00/day.....	\$15000.00
DIAMOND DRILLING: 1000 meters @ \$150/meter (all-in) .....	\$150000.00
ANALYTICAL: 300 drill core samples @ \$10.00/sample .....	\$3000.00
1000 soil/silt samples @ \$10.00/sample.....	\$10000.00
TRANSPORTATION:	
4WD Vehicle: 30 days x \$50.00/day x 2 vehicles.....	\$3000.00
Mileage: 3000 km x \$.20/km .....	\$600.00
5 ton trailer: 6 days @ \$50.00/day .....	\$300.00
EQUIPMENT RENTAL AND SUPPLIES .....	\$2500.00
MEALS AND ACCOMMODATION .....	\$5000.00
CAMP EQUIPMENT RENTAL: 1.0 mo. @ \$500.00/mo .....	\$500.00
HELICOPTER CHARTER: 10hours @ \$1500/hr .....	\$15000.00
GEOPHYSICS PROCESSING/INTERPRETATION .....	\$5000.00
MISCELLANEOUS: .....	<u>\$1000.00</u>
	SUBTOTAL: \$210900.00
	10 % contingency: \$21090.00
	<b>TOTAL: \$231990.00</b>

**REFERENCES**

Cooke, David L.(1983) : Geological, Geochemical Report Baker Mineral Claims; Cominco Ltd; MEMPR AR # 11604

Kimura, E. (1997) : personnel communication to Barkhor Resources;

Wright, R.L (1978) : Geological, Geochemical Report Baker Mineral Claims; Cominco Ltd.; MEMPR AR # 7416

Wright, R.L (1980) : Diamond Drilling Report Baker Mineral Claims; Cominco Ltd. MEMPR AR # 8628

Wright, R.L (1984) : Reverse Circulation Drilling Report Baker Mineral Claims; Cominco Ltd. MEMPR AR # 12935

EMPR AR 1902-163

EMPR PF (\*Article in The Nelson Miner, January 28, 1905; Report by J.T. Fyles, Oct.5, 1956 (in 082FNE094 file))

MEMPR Minfile # 082FNE004, 094, 095, 132,

**Appendix I**  
**Statements of Qualifications**

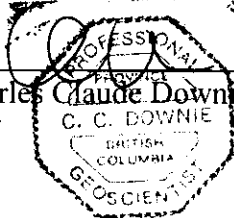
## CERTIFICATE OF QUALIFICATION

I, Charles Claude Downie, P.Geo. do hereby certify that:

1. I am currently employed as Exploration Manager for Eagle Plains Resources Ltd. with business address: 200-16, 11 Ave.S., Cranbrook, BC V1C 2P5
2. I graduated with a Bachelor of Science Degree from the University of Alberta in 1988.
3. I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (ID 20137).
4. I have worked as a geologist for a total of 17 years since my graduation from university.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I have authored this technical report titled GEOLOGICAL AND GEOPHYSICAL REPORT FOR THE SPHINX PROPERTY, based on data collected through research and on observations and results from physical work on the property. Data sources include British Columbia Ministry of Energy and Mines Map Place, British Columbia Ministry of Energy and Mines Microfiche, and Condor Consulting Ltd.
7. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
8. I am a director of Eagle Plains Resources Ltd. since 2002 and currently hold 421,345 shares of that company. I further hold options to purchase 600,000 shares of the company at \$0.10 - \$0.75 per share.

Dated this 23th day of August, 2005

Charles Claude Downie, P.Geo,



**Appendix II**  
**Statement of Expenditures**

## STATEMENT OF EXPENDITURES

The following expenses were incurred on the **Sphinx** Property, Nelson and Fort Steele Mining Division, for the purpose of mineral exploration between the dates of January 15 2004 and March 01 2005.

**geological personnel: Bootleg Exploration Inc.**

Chas Downie, P.Geo;Project Supervisor	3 days @ \$500/day	
Tim Termuende, P.Geo	2 days @ \$500/day	
Chris Gallagher, P.Geo;GIS specialist;	3 days @ \$500/day	
Total Bootleg Personnel:		\$4,000.00

**analytical:** EcoTech Laboratories rock, 30 element ICP plus Au \$383.25

**helicopter charter:**

Bighorn (geophysical survey) \$11,840.23

**equipment rental:**

4WD vehicle : 3 days @ \$60.00/day \$180.00  
mileage : (500km x \$0.20/km) \$100.00

**geophysical surveys:** Geotech (data acquisition), SJ Geophysics, Condor (interpretation) \$10,899.05

**consultants/subcontractors:** Sean Kennedy, prospector and assistant \$1,605.00

**meals/groceries:** \$150.00

**shipping:** \$21.79

**field supply:** 3 mandays x 2 people x \$35.00/day \$210.00

**report writing :** (estimate) \$2,000.00

**TOTAL:** \$31,389.32

**Appendix III**  
**Analytical Results**



ECO TECH LABORATORY LTD.  
10041 Dallas Drive  
KAMLOOPS, B.C.  
V2C 6T4

## ICP CERTIFICATE OF ANALYSIS AK 2004-1218

BOOTLEG EXPLORATION INC.  
#200, 16-11TH Ave S.  
Cranbrook, BC  
V1C 2P1

Phone: 250-573-5700  
Fax : 250-573-4557

No. of samples received: 21

Sample type: Rock

Project #: Sphinx

Shipment #: 1

Samples submitted by: T. Termuende

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	S-1	<5	0.3	0.56	<5	25	<5	>10	<1	10	79	86	1.78	<10	0.54	1564	<1	<0.01	31	250	8	<5	<20	74	0.05	<10	30	<10	2	22
2	S-2	<5	5.9	0.15	<5	5	15	0.04	<1	2	198	27	0.76	<10	0.07	42	2	<0.01	7	80	548	<5	<20	<1	<0.01	<10	<1	<10	<1	27
3	S-3	5	<0.2	0.60	<5	5	<5	0.12	<1	5	250	16	1.90	<10	0.35	169	1	<0.01	13	10	26	<5	<20	<1	<0.01	<10	3	<10	<1	100
4	S-4	5	0.3	0.05	<5	10	<5	0.34	<1	36	208	227	1.62	<10	0.04	279	4	<0.01	78	30	24	<5	<20	3	<0.01	<10	2	<10	<1	20
5	S-5	<5	<0.2	0.04	<5	5	<5	0.13	<1	17	246	75	3.17	<10	0.10	226	1	<0.01	39	<10	6	<5	<20	<1	<0.01	<10	2	<10	2	15
6	S-6	5	0.3	0.43	<5	35	<5	3.16	<1	43	97	465	9.97	30	1.43	1667	<1	0.04	57	2320	<2	<5	<20	24	0.08	<10	180	<10	12	176
7	S-7	<5	0.2	0.40	<5	15	<5	0.14	<1	15	327	53	1.52	<10	0.21	131	4	<0.01	31	600	26	<5	<20	2	<0.01	<10	2	<10	3	163
8	S-8	<5	0.2	0.06	<5	20	<5	0.59	<1	11	237	86	1.46	<10	0.27	273	2	<0.01	26	80	14	<5	<20	24	<0.01	<10	2	<10	<1	9
9	S-9	<5	<0.2	0.09	<5	10	<5	0.09	<1	4	192	7	0.66	<10	0.06	65	2	<0.01	7	360	2	<5	<20	4	<0.01	<10	1	<10	2	7
10	S-10	<5	0.5	1.28	10	60	<5	0.84	<1	32	192	749	6.30	20	1.16	1247	<1	<0.01	51	480	12	<5	<20	14	0.01	<10	73	<10	6	62
11	S-11	10	0.8	0.04	<5	<5	<5	0.05	<1	2	262	27	0.60	<10	0.03	122	4	<0.01	11	130	594	<5	<20	<1	<0.01	<10	<1	<10	1	19
12	S-12	<5	0.4	0.04	5	80	<5	>10	5	5	58	24	1.66	<10	>10	1157	<1	0.01	90	260	84	<5	<20	<1	<0.01	<10	10	<10	17	2180
13	S-13	<5	0.2	0.04	<5	15	5	>10	4	2	56	8	1.23	<10	>10	610	<1	<0.01	70	130	18	<5	<20	<1	<0.01	<10	7	<10	14	1836
14	S-14	10	>30	0.07	5	25	240	0.09	22	2	167	20	1.30	<10	0.06	20	9	<0.01	6	50	>10000	20	<20	<1	<0.01	<10	<1	<10	<1	983
15	S-15	<5	13.4	0.15	5	30	40	0.09	2	3	197	15	2.52	10	0.08	12	13	<0.01	5	120	1198	<5	<20	<1	<0.01	<10	2	<10	3	149
16	S-16	10	13.0	0.05	<5	20	35	0.08	<1	8	203	264	1.37	<10	0.03	502	<1	<0.01	9	120	2458	<5	<20	<1	<0.01	<10	<1	<10	1	15
17	S-17	85	14.8	0.06	<5	10	<5	0.01	<1	29	244	>10000	3.44	<10	0.05	20	<1	<0.01	15	540	239	<5	<20	<1	0.01	<10	1	<10	<1	128
18	S-18	25	1.4	0.06	<5	10	<5	0.26	<1	3	195	1186	0.66	<10	0.06	208	1	<0.01	10	120	34	<5	<20	<1	<0.01	<10	1	<10	<1	39
19	S-19	40	3.9	0.25	35	30	50	0.02	<1	7	266	99	3.80	30	0.06	24	<1	<0.01	10	220	22	<5	<20	2	<0.01	<10	4	<10	2	32
20	S-20	25	15.8	0.11	265	10	<5	<0.01	<1	4	156	277	3.14	10	0.05	5	<1	<0.01	7	130	34	370	<20	<1	<0.01	<10	1	<10	<1	273
21	S-21	25	1.6	0.21	1025	30	<5	0.01	<1	15	197	68	8.78	30	0.13	338	<1	0.01	16	140	38	<5	<20	2	<0.01	<10	4	<10	2	68

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn	
<b>QC DATA:</b>																															
<b>Resplit:</b>																															
1	S-1	<5	0.2	0.51	<5	20	<5	>10	<1	10	81	92	1.74	<10	0.50	1598	<1	<0.01	34	260	8	<5	<20	78	0.05	<10	27	<10	2	21	
<b>Repeat:</b>																															
1	S-1	<5	0.3	0.55	<5	20	<5	9.95	<1	10	78	82	1.77	<10	0.54	1540	<1	<0.01	31	250	8	<5	<20	68	0.05	<10	30	<10	2	22	
10	S-10	<5	0.5	1.32	15	65	<5	0.82	<1	32	197	781	6.33	20	1.19	1254	<1	<0.01	52	490	12	<5	<20	14	0.01	<10	74	<10	6	63	
<b>Standard:</b>																															
GEO '04		135	1.6	1.98	65	160	<5	1.88	1	23	61	88	4.05	<10	1.02	712	<1	0.03	35	770	22	<5	<20	55	0.15	<10	65	<10	12	73	

JJ/jm  
df/1208  
XLS/04

**ECO TECH LABORATORY LTD.**  
Jutta Jealous  
B.C. Certified Assayer

## CERTIFICATE OF ASSAY AK 2004-1218

**BOOTLEG EXPLORATION INC.**

#200, 16-11TH Ave S.

**Cranbrook, BC**

V1C 2P1

21-Sep-04

*No. of samples received: 21*

*Sample type: Rock*

**Project #:Sphinx**

**Shipment #: 1**

*Samples submitted by: T. Termuende*

<u>ET #.</u>	<u>Tag #</u>	<u>Ag (g/t)</u>	<u>Ag (oz/t)</u>	<u>Cu (%)</u>	<u>Pb (%)</u>
14	S-14	112	3.266		1.23
17	S-17			1.28	

**QC DATA:**

**Repeat:**

14	S-14	110	3.208		1.22
----	------	-----	-------	--	------

**Standard:**

Pb106		56.0	1.633	0.62	0.52
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JJ/jm  
XLS/04

**ECO TECH LABORATORY LTD.**

Jutta Jealouse

B.C. Certified Assayer

**Appendix IV**  
**Condor Consulting Report**

**REPORT ON REPROCESSING AND INTERPRETATION**

**of**

**SPHINX VTEM DATA**

**for**

**EAGLE PLAINS RESOURCES INC.**

February 2005



Condor Consulting  
Lakewood Colorado  
USA

## 1. INTRODUCTION

At the request of Mr. Chris Gallagher of Eagle Plains Resources Ltd. (Eagle Plains), VTEM EM and magnetic data over the Sphinx area have been reprocessed by Condor Consulting, Inc. (Condor) to produce conductivity depth images (CDI), together with a number of image enhancements of the EM and magnetic data. Sphinx is located 15 km east of Crawford Bay, BC, Canada.

The inversions to produce CDIs were carried out using EM Flow software. Details are provided in Section 3 below.

Correlation of these CDI sections and images with known geology will assist Eagle Plains in further exploration. The survey area is prospective for copper-gold mineralization associated with iron oxide breccias.

Detailed interpretation of the data by Condor was not part of the processing contract, but some general comments about the significance of the data are included below.

## 2. CLIENT PROVIDED DATA

The VTEM survey was carried out by Geotech Ltd. in March-April 2004.

Eagle Plains provided the VTEM database for the project. A map showing the distribution of the flight lines is shown in Fig.1. The survey area covered 8.12 km<sup>2</sup> and comprised 26 lines and eight tie lines, totaling 99 line km.

The nominal flight line spacing was 100 m. The nominal EM bird terrain clearance was 35 m, but as the terrain is rugged with a total elevation difference of approximately 950 m the pilot could not maintain a close drape and the average bird altitude was 78 m (with a range of 35-226 m).

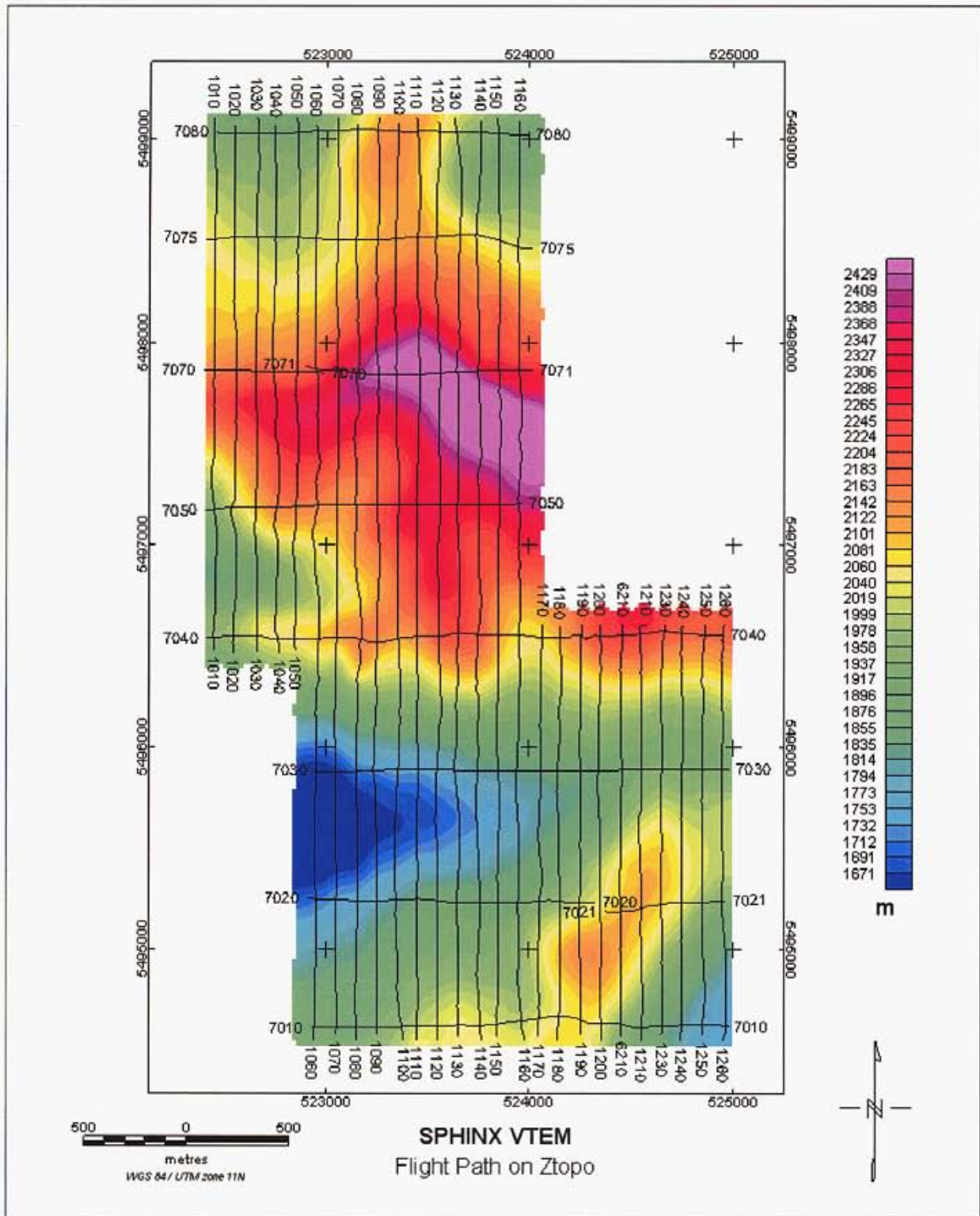


Figure 1 Sphinx VTEM. Flight path superimposed on DEM image.

The data is generally of good quality. However, on portions of some lines the magnetic data exhibits some periodic noise (e.g. tie line 7040) which may be due to bird swing. This is highlighted on the 1<sup>st</sup> vertical derivative profiles, but fortunately has not significantly affected the magnetic images.

### 3. EM PROCESSING

**3.1 EM Flow.** This method was developed by Macnae et al (1998) and is commercially available through Encom technology. Data is transformed to time-constant tau space, which has the effect of removing the waveform dependence of the AEM response. The distribution of conductivity with depth is calculated, using layers of uniform thickness, at each fiducial along the line. In the present study, the layers were 5 m thick from the surface to a depth of 400 m. The individual inversions are 1D (i.e. assume uniform layering) but these are “stitched” together to form a continuous CDI along the length of the line.

Due to the nature of the algorithm, flat lying conductors are more likely to be imaged at their proper depth whereas steeply dipping conductors tend to be imaged deeper than their actual depth. Whenever possible, conductor depths on CDI images should be calibrated with local geological control.

**3.2 AdTau Time Constant.** The AdTau program that calculates the time constant (tau) from time domain decay data. The program is termed **AdTau** since rather than using a fixed suite of channels is commonly done, the user sets a noise level and depending on the local characteristics of the data, the program will then select the suite of channels that fits these noise criteria. In resistive areas, earlier channels tend to be used where as in conductive terrains; the latest channels available can generally be used.

Figure 2 shows a typical decay fit; in this case, the last five channels are used.



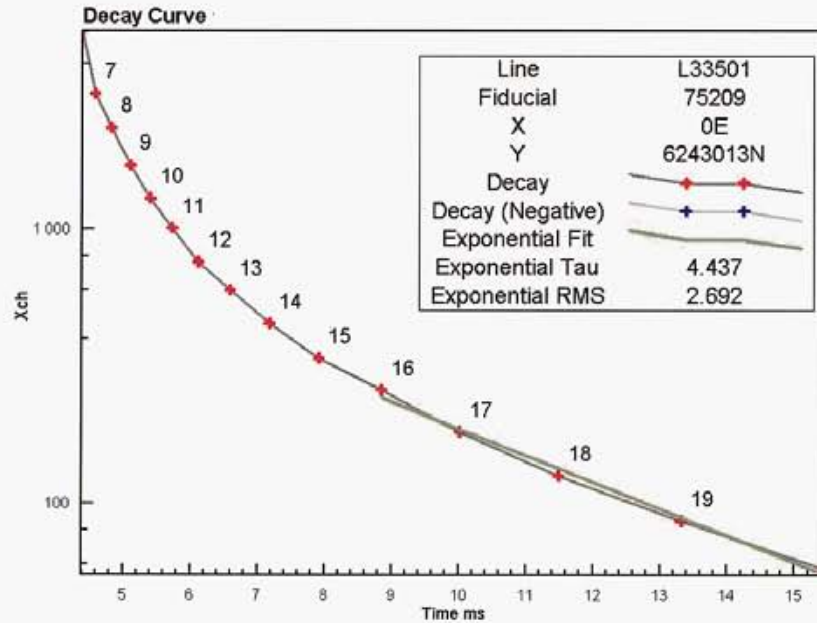


Figure 2. Calculation of AdTau time constant

The AdTau value is a measure of the conductivity and size (volume) of the conductive body.

## 4. PRODUCTS

### 4.1 MultiPlots™.

MultiPlots™ (produced using Encom's Profile Analyst (PA) application) were produced for each survey line at a scale of 1:20,000 and are included in Appendix C. These display a variety of primary and derived data from the survey:

Each MultiPlot™ displays the following information:

- VTEM profiles for channels 6-27 (190-6340 us after the end of the pulse)
- AdTau profiles using threshold 0.02 pV/Am<sup>4</sup> (unsmoothed and smoothed)
- TMI magnetics and 1<sup>st</sup> vertical derivative
- Power line monitor
- EM Flow CDI inversion (including EM bird track above topography)

## 4.2 Plan Products

Maps showing images of the following survey parameters were produced, each showing the VTEM flight path. These are included in Appendix B.

- Ztopo (DEM)
- ZCh 6 (190 us) amplitude
- AdTau time constant, using threshold of 0.02 pV/Am<sup>4</sup>
- TMI magnetics
- Analytic Signal

## 5. VTEM ANOMALY RESPONSES

The basic anomaly shapes for the VTEM concentric loop geometry (for both the Z and X components) are shown in the Figure 3 below. (Note, however, that only the Z component is acquired by the present VTEM system.) For the Z-component, two major response styles are observed from bedrock conductors - these are termed the inductively thin and thick responses.

In geophysical terms, the major difference between these two categories of responses is that in the thin case, the dominant induced current flow is along the sides of the body whereas for the thick response (& the horizontal conductor case) the currents are primarily constrained to the top of the body.

The thin response produces a double-peaked or "M"-shaped response with the low centered over the top of the body - Condor refers to this as a Double Peak Response or **DPR**. The thick conductor shows a single peak directly over the top of the conductor - Condor refers to this as a Single Peak Response or **SPR**. The third category of primary response, that derived from sources that are primarily horizontal to the surface are termed a Horizontal Conductive

Response or **HCR**. Note that the anomaly shape of the HCR response and SPR are similar, although the HCR shows broader flanks.

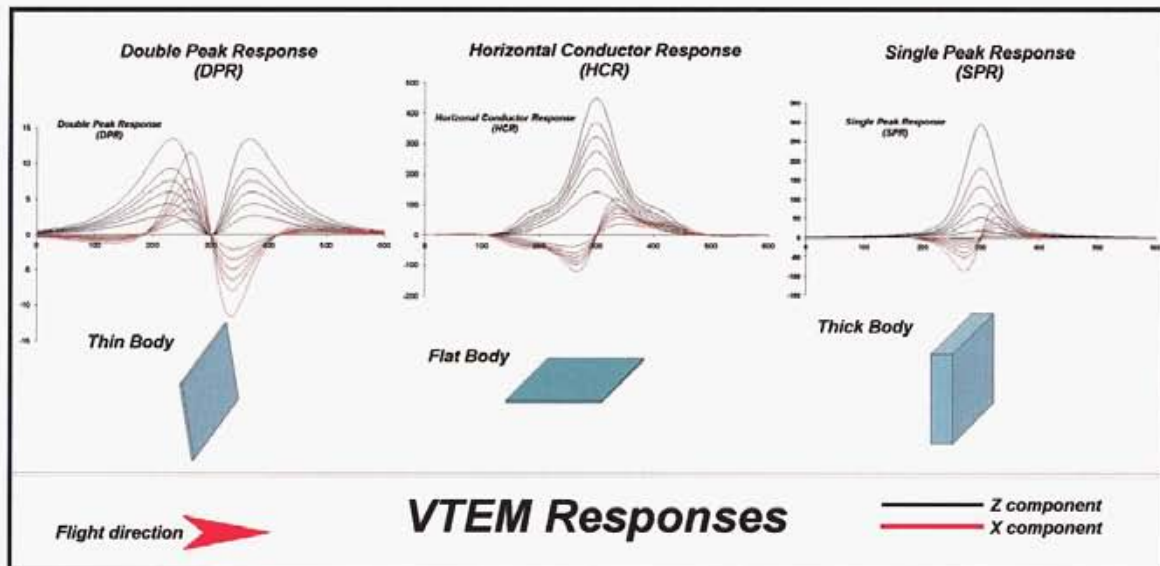


Figure 3. VTEM response characteristics.

The two lobes of DPR will show a symmetric response for a vertically dipping conductor. This will become asymmetric as the conductor starts to dip. This effect is shown in Figure 4, for a conductor at 30 and 60 degrees.

A more comprehensive set of model VTEM anomaly responses for thin-plate conductors, showing the effects of both dip and depth, is included in Appendix A.

If the X-component is available, the anomaly shape for all three cases discussed above is a cross-over. Diagnostic information is obtained in this case from the polarity and slope of the cross-over.

Field data can typically be a mixture of all the major response types. Experience, CDI processing and sometimes an assessment of magnetic survey results are usually required to arrive at a satisfactory interpretation, especially in complex situations.

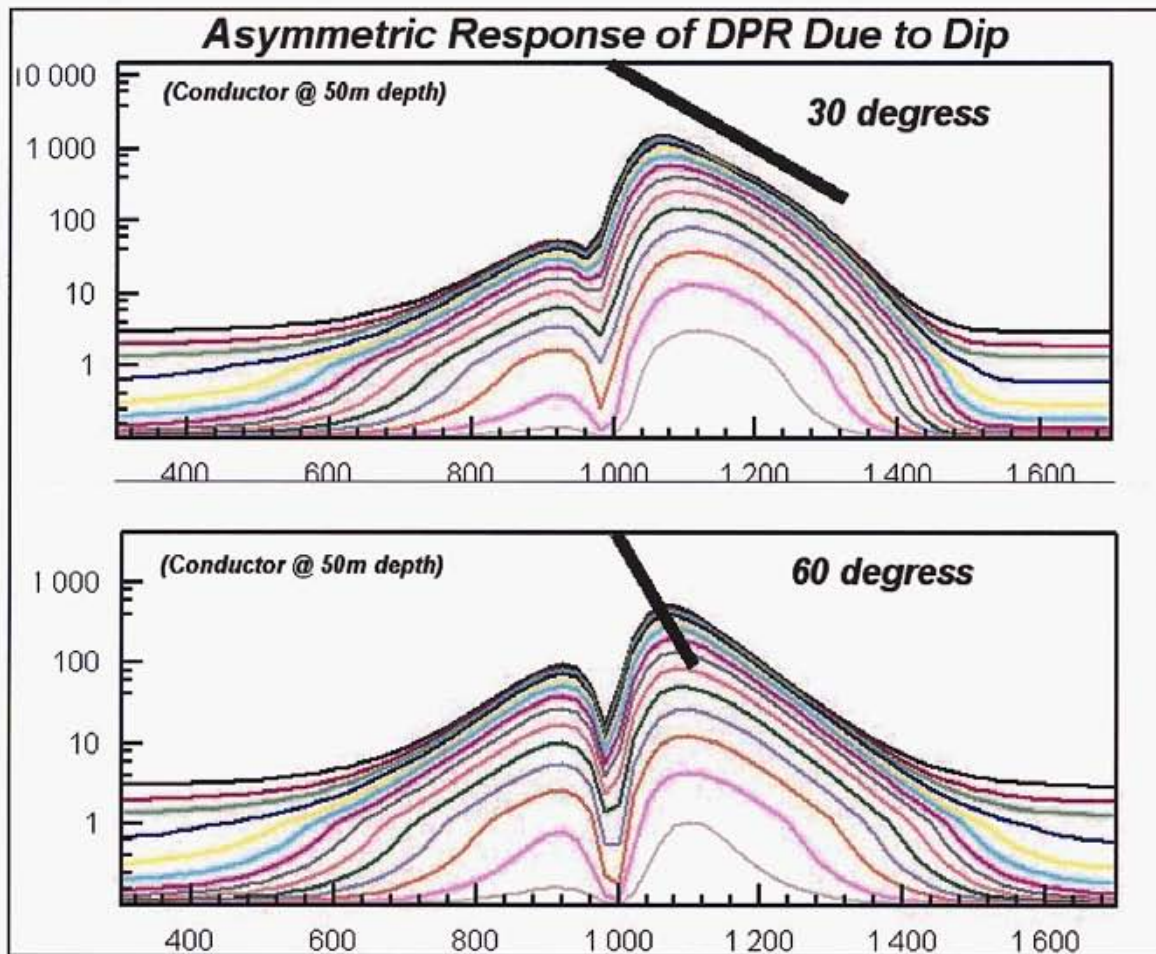


Figure 4. Effect of conductor dip on VTEM response

Examples of field VTEM profiles and corresponding CDIs for three different conductor types are shown in Figures 5, 6 and 7. Figure 5 shows a DPR response due to an inductively thin, vertically-dipping conductor. Figure 6 shows the responses of two, similar, DPR responses due to thin conductors dipping to the right of the section. Figure 7 shows an SPR response on the left, due to an inductively thick steep-dipping conductor, while on the right a wide conductor response is displayed. In the latter, note that the conductivity extends to depth on the CDI, indicating that the conductor has considerable depth extent.

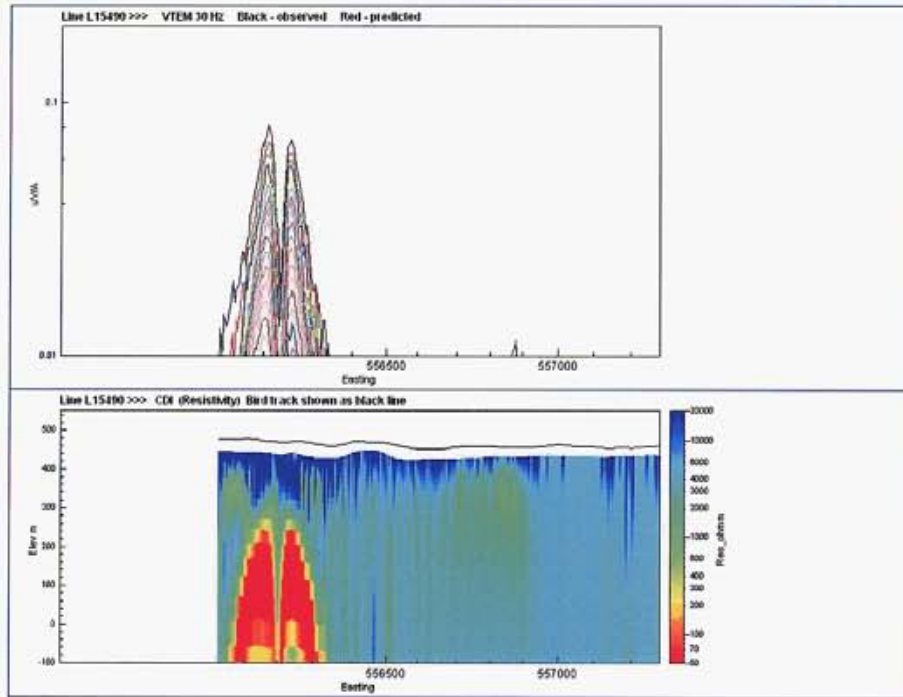


Figure 5. Example of VTEM vertical DPR response

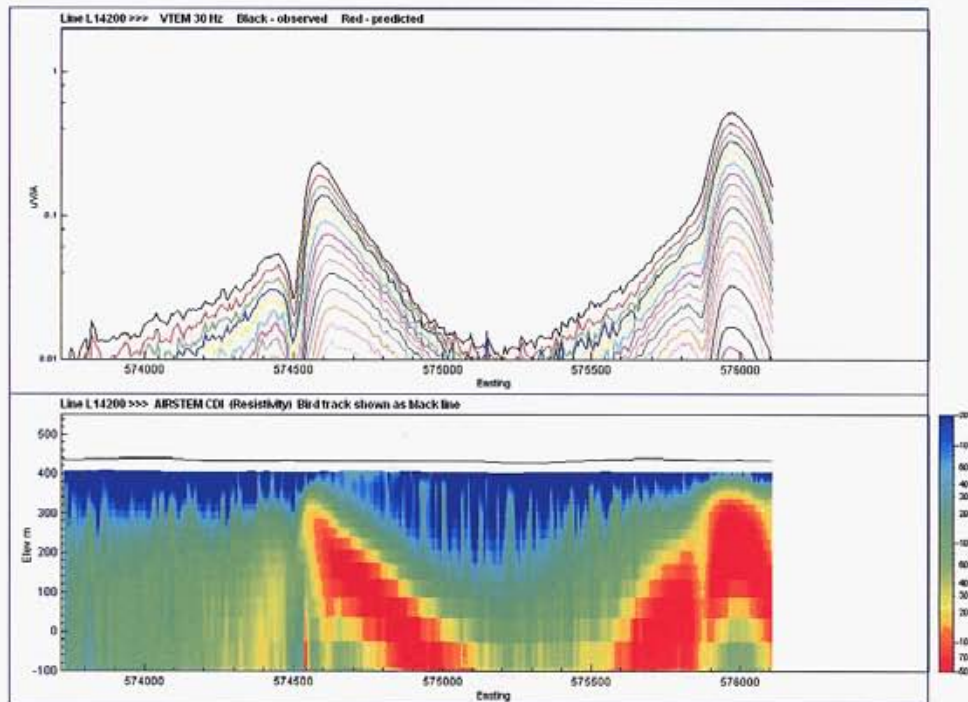


Figure 6. Examples of VTEM dipping DPR responses (dip is to the right)

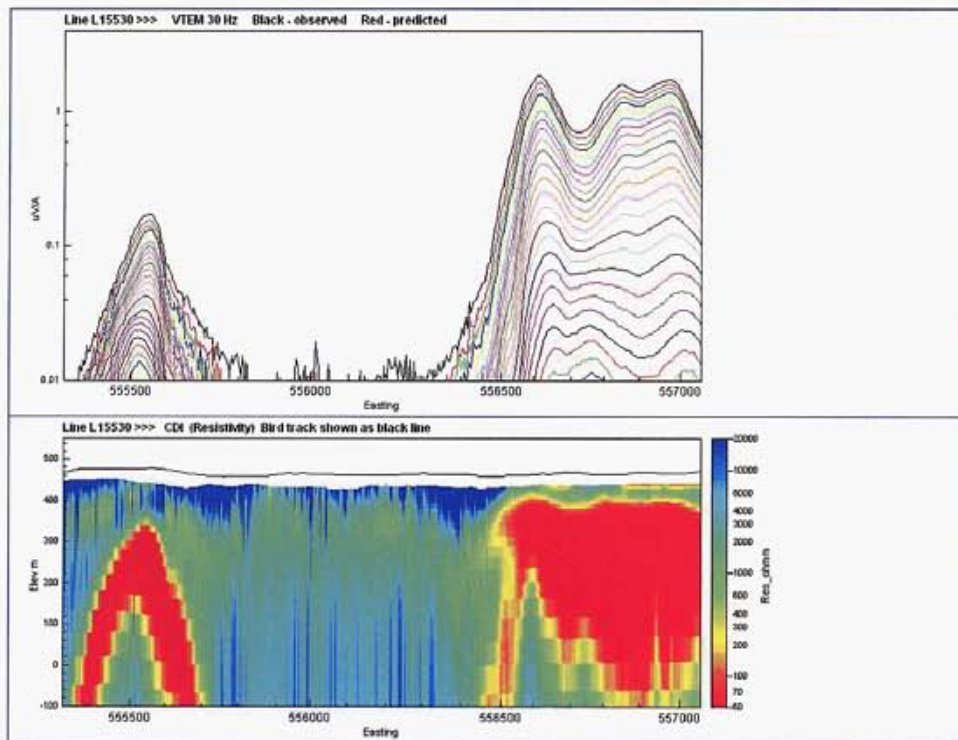


Figure 7. Examples of VTEM SPR and wide conductor responses

## 6. DISCUSSION

As mentioned previously, the AdTau value is a measure of the conductivity and size (volume) of a conductive body and so is often the most appropriate data for selecting targets for further follow up. Figure 8 shows the AdTau images for the survey. There are three obvious local areas of AdTau enhancement, that have been indicated by boxes and are labeled Targets A, B and C.

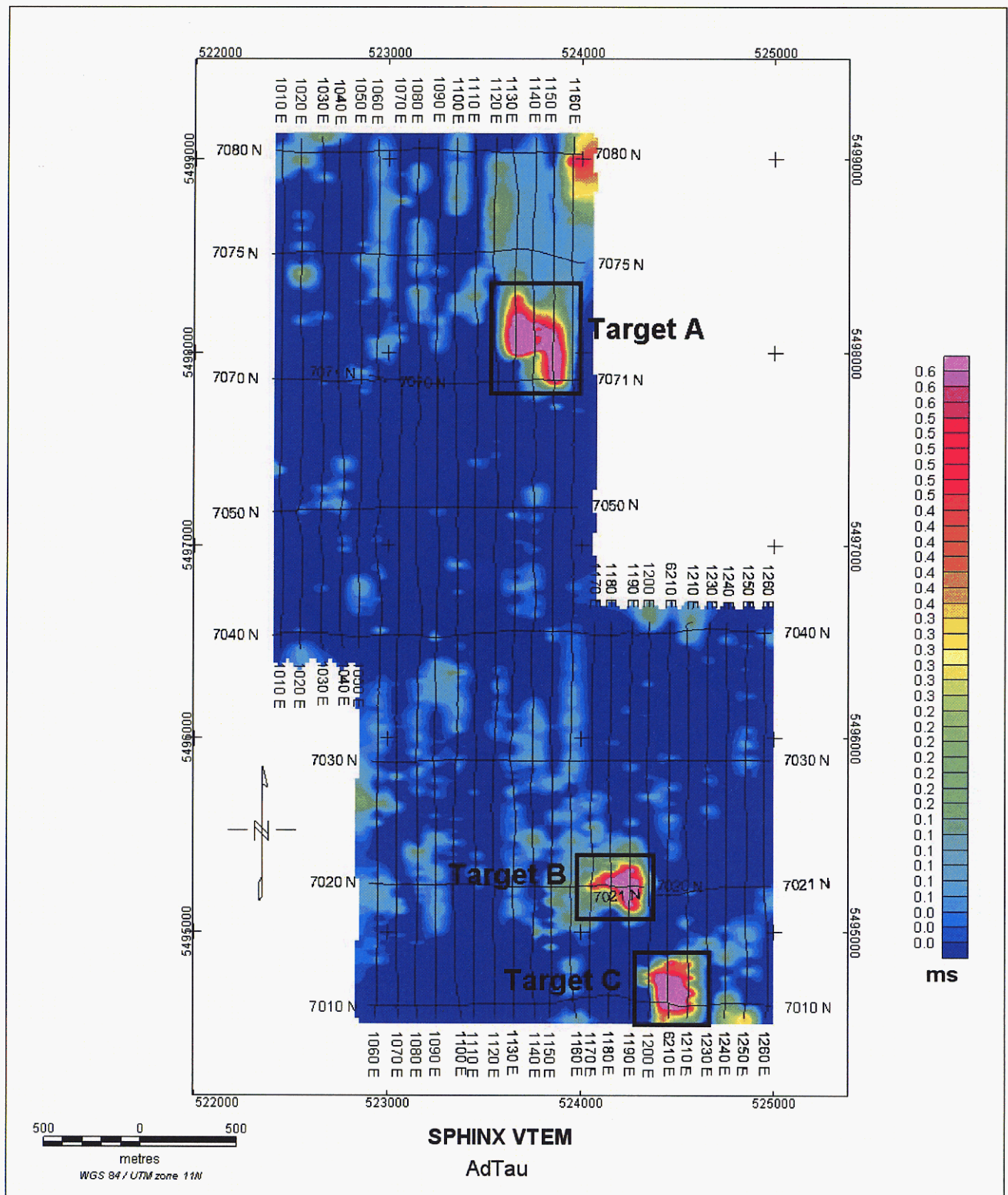


Figure 8. AdTau time constant image (threshold 0.02 pV/Am<sup>4</sup>)

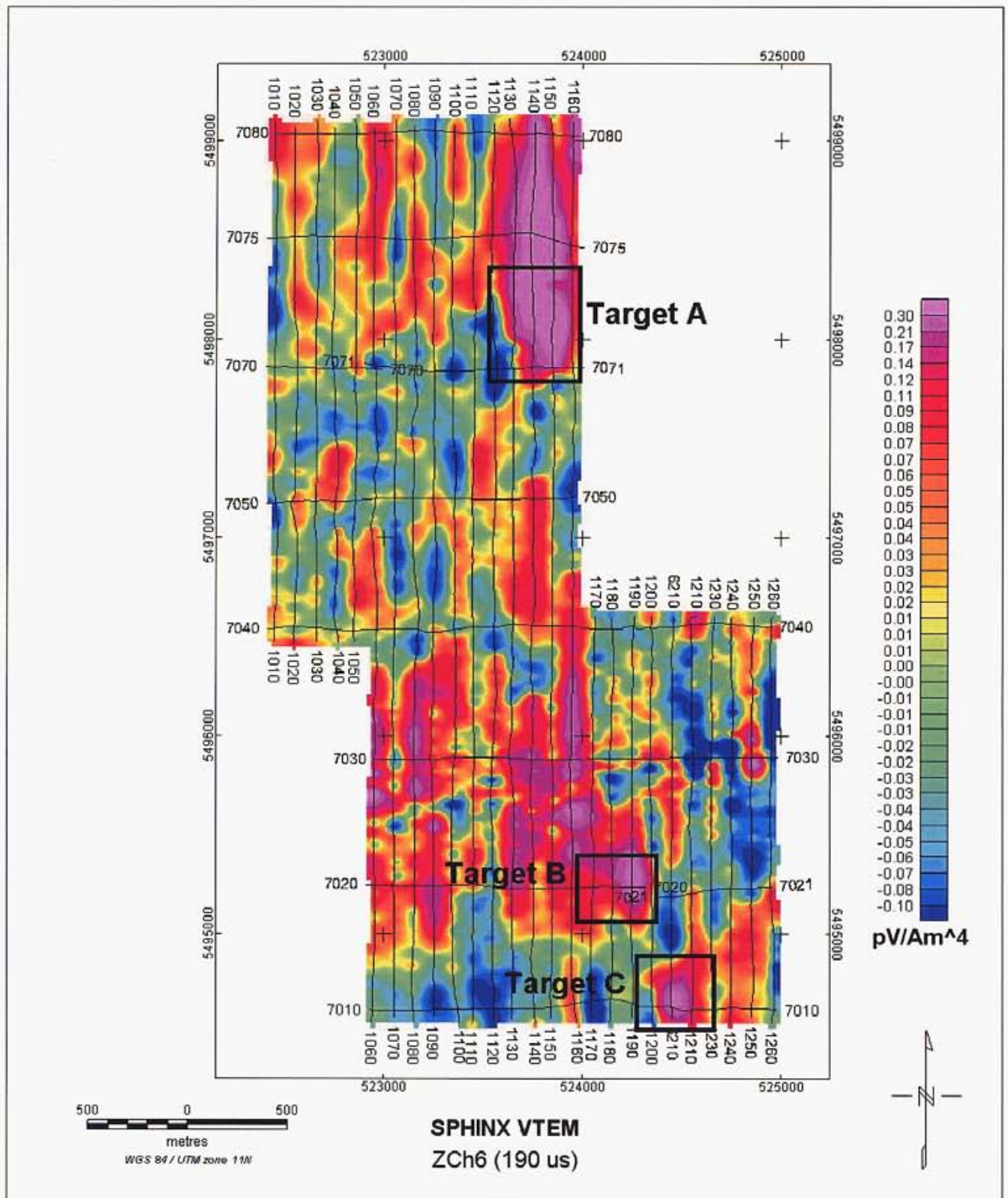


Figure 9 ZCh 6 (190 us) amplitude image



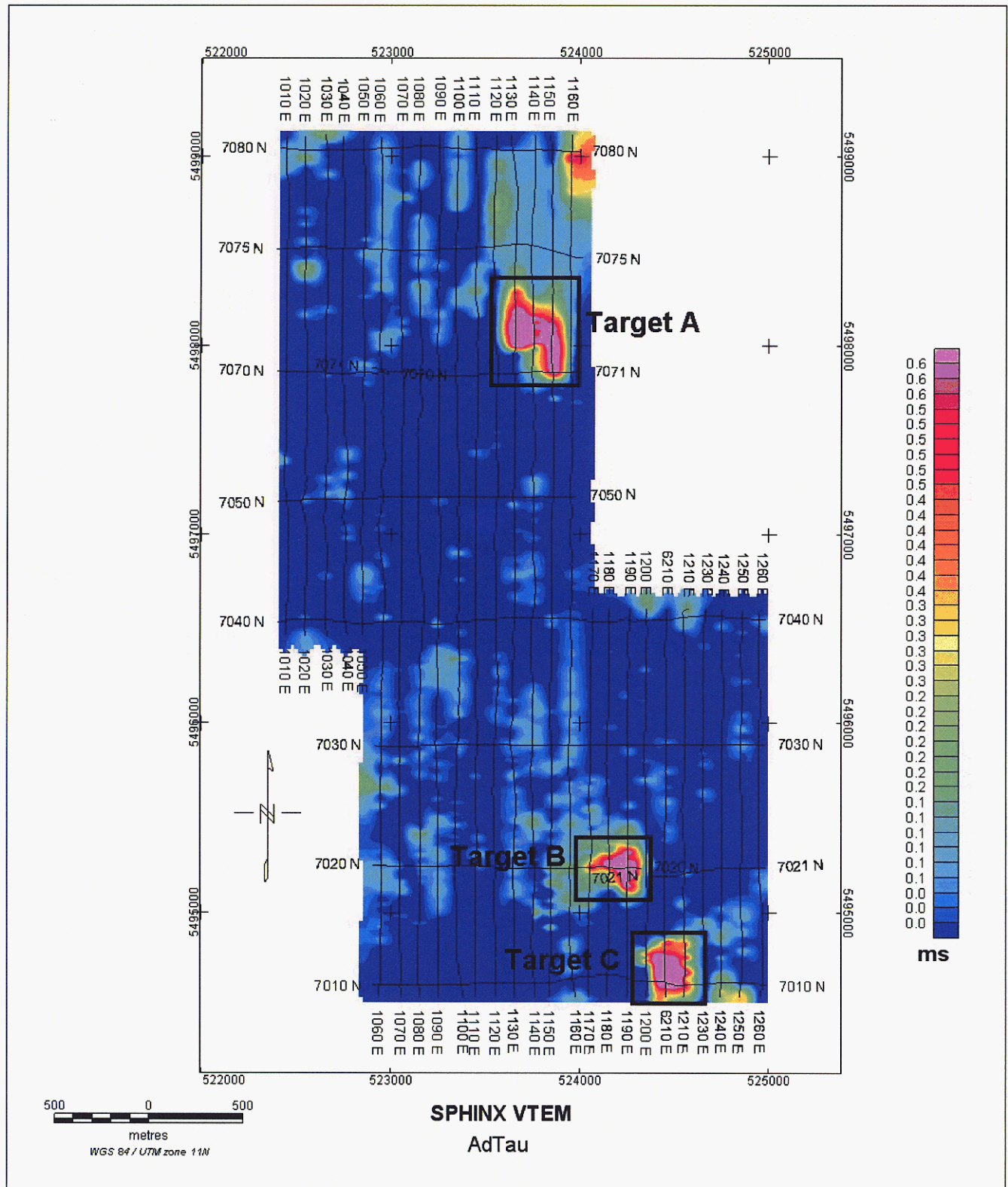


Figure 10 Analytic Signal image

Figure 9 shows the image of the first supplied channel of VTEM (Ch 6 or 190 us after the end of the transmitter pulse). While the three targets have enhanced early channel responses, other parts of the survey area have similar or even greater amplitudes – these are likely due to conductive overburden. This illustrates the advantages of using AdTau rather than channel amplitudes in picking conductors.

The Analytic Signal image is shown in Figure 10. Target A partly correlates with a local AS high, but Targets B and C do not have a direct correlation, indicating that they are basically non-magnetic. However, the MultiPlot™ of tie line 7010 which crosses Target C shows a low-amplitude, local magnetic high that correlates with the conductor.

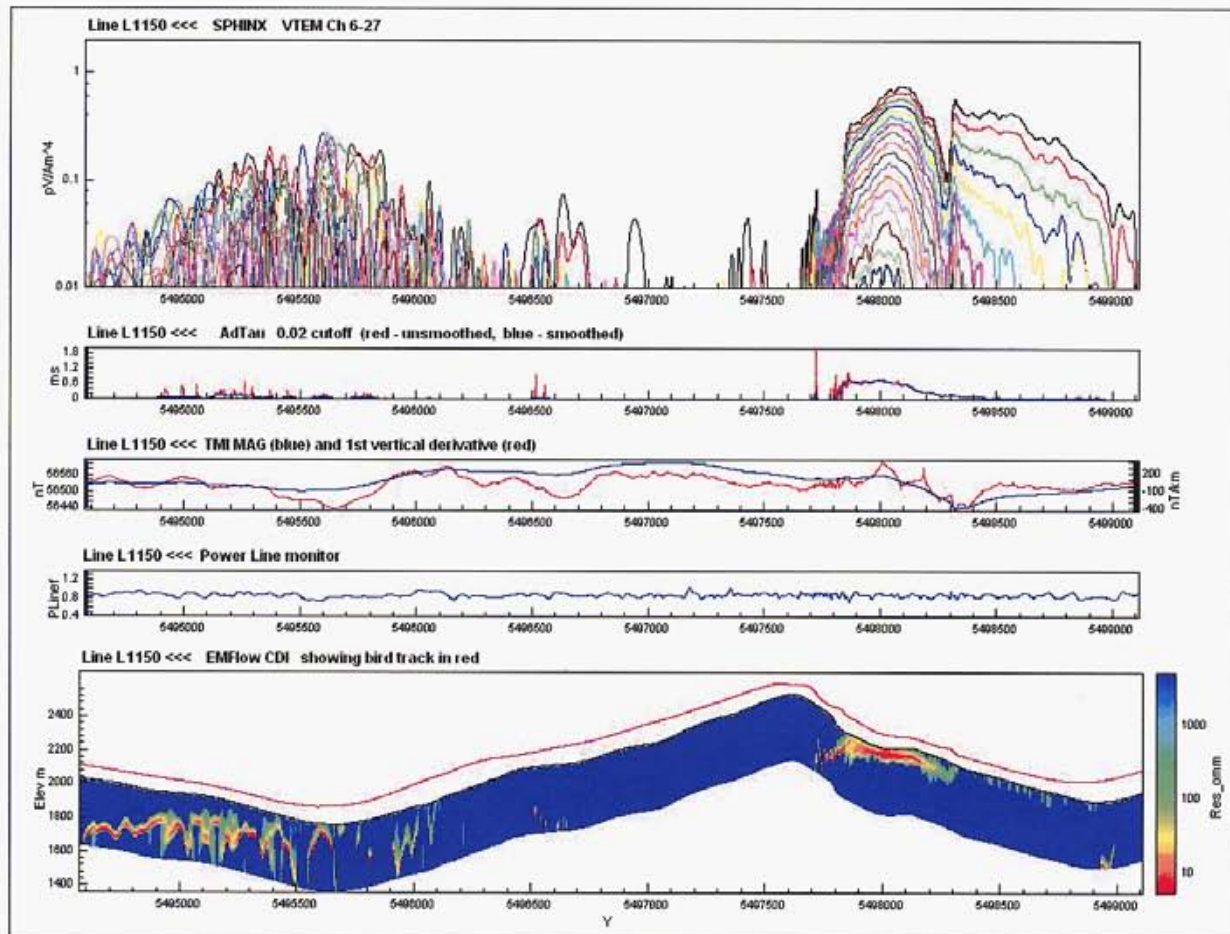


Fig. 11 MultiPlot™ of line 1150

Target A is evident on VTEM lines 1130, 1140 and 1150 and also has some response on tie line 7071, which may be due to conductivity sideways from the survey line. The anomalous response extends for approximately 300 m east-west and 400 m north-south. Peak AdTau is almost 1 ms on line 1130. The CDIs suggest that the depth to the top of the conductor is approximately 20-40 m.

The character of the response of Target A varies on each line, and it appears that the conductor geometry may be somewhat complex, but the CDI responses suggest that the conductor is depth limited. The full set of MultiPlots™ is included in Appendix B, but an example (for line 1150, on the east side of the target) is shown in Figure 11. Only line 1140 shows indications of a steep-dipping conductor on the CDI, with two separate “comet-shaped”

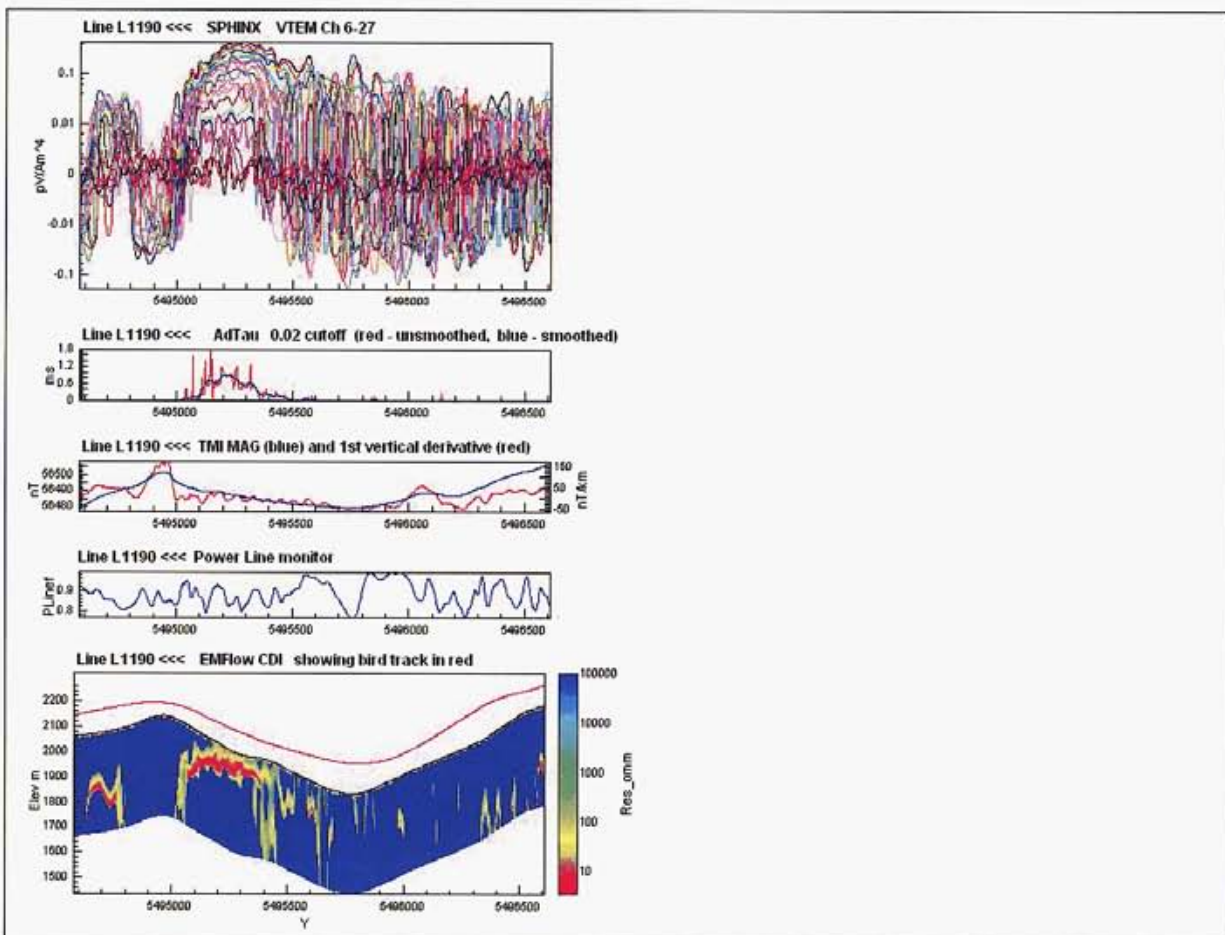


Figure 12. MultiPlot™ of line 1190

responses which may represent a DPR anomaly.

Target B is evident on lines 1180 and 1190 and also on tie line 7020. Peak AdTau is 1.1 ms on tie line 7020. The dimensions of the anomalous response are approximately 300 m east-west and 250 m north-south. On all three lines, the CDI suggests a depth-limited conductor. The response for line 1190 is shown in Figure 12. The CDIs suggest that the depth to top of the conductor is less than 40 m.

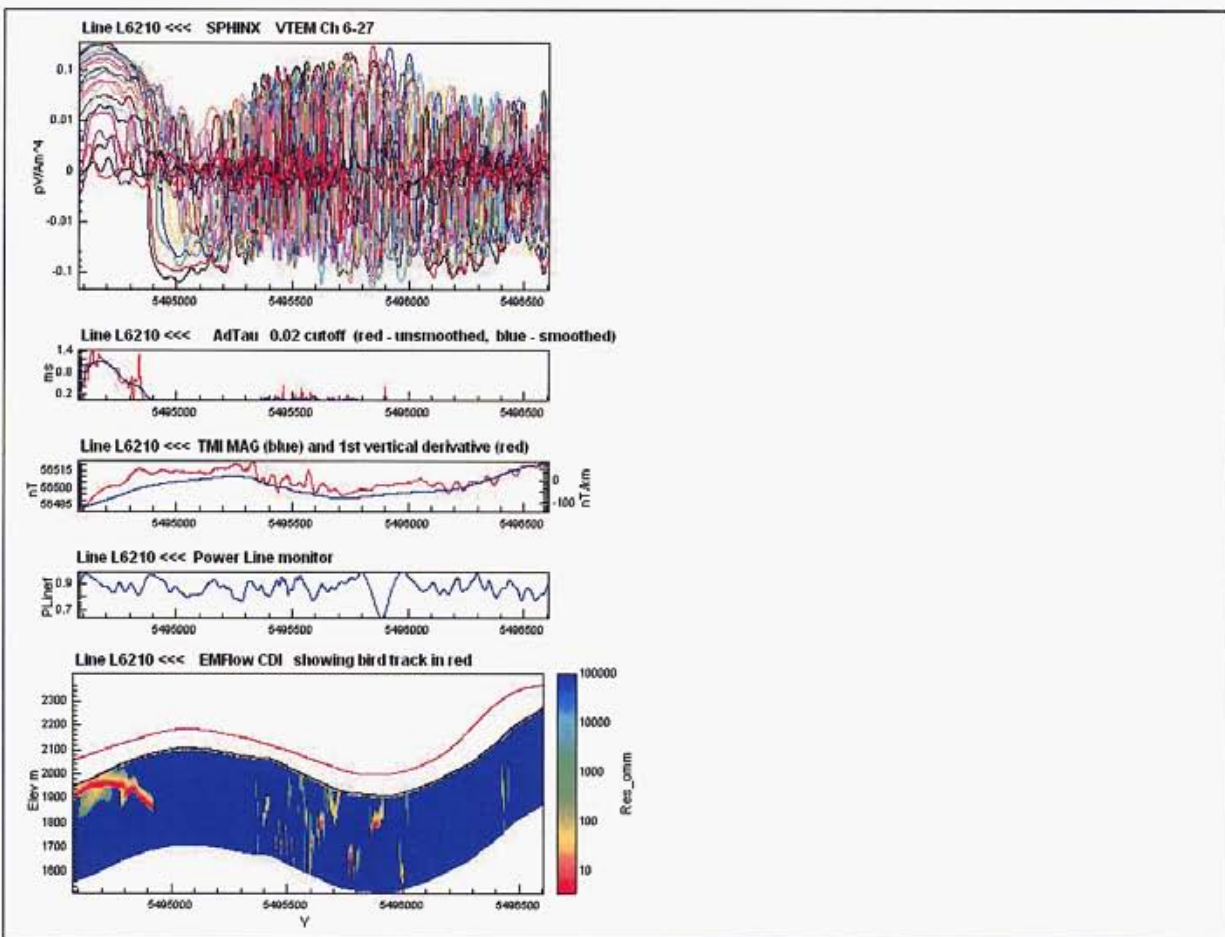


Figure 13. MultiPlot™ of line 6210

Target C is evident on lines 6210, 1210 and tie line 7010. Peak AdTau response is 1.1 ms on tie line 7010. The dimensions of the anomalous response are approximately 200 m

east-west (400 m if the tie lines response is included) and 250 m north-south. On the two flight lines, the CDI suggests a depth-limited, flat-lying conductor, but on tie line 7010 the anomaly looks more like a DPR response with steep dip to the east. The depth to the top of conductor appears to be less than 30 m. The MultiPlot™ for line 6210 is shown in Figure 13.

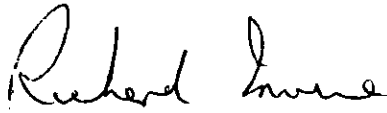
## 7. CONCLUSIONS

Inversion of the VTEM data to produce CDIs has provided valuable information about the conductivity distribution with depth.

Three conductive targets have been defined that justify follow up and possible drilling. Targets A and C have some magnetic association, but Target B appears to be non-magnetic.

Target B appears to be relatively broad and flat-lying, and to have limited depth extent. Targets A and C exhibit a mixture of responses – on some lines the conductors appear to be relatively broad and flat-lying while on other lines the profiles are consistent with a steep-dipping plate conductor. Detailed ground EM follow up is recommended to more precisely define the geometry of these conductors before any drilling is carried out.

Respectfully submitted

A handwritten signature in black ink that reads "Richard Innes". The signature is written in a cursive style with a large initial 'R'.

Condor Consulting, Inc.

March 1, 2005

## 8. REFERENCES

Macnae, J., King, A., Stolz, N., Osmakoff. and Blaha, A. (1998) Fast AEM data processing and inversion. Exploration Geophysics, Vol 29, pp163-169.

**APPENDIX A**  
**VTEM GEOMETRIC MODELING**

In order to better understand how the co-incident loop geometry used by the VersaTEM system responds to typical targets, a series of models have been generated using the Raiche AMIRA 223 codes. These are preliminary results and further work should be done to model both more varied geometric shapes as well as incorporate the details of the new waveform once established along with the corresponding noise levels<sup>1</sup>.

### **Modeling Suite**

For the study, only plates in a very resistive host (10,000  $\Omega$ -m) were modeled using Le-roi\_Air. The study is broken up into four parts. The key attributes of each suite are summarized below.

#### **Part 1: Target Size- 300 m depth extent; 600 m strike length; Conductance 20 S**

- Plate 1: Dip 30°; depths 5, 50, 100 & 200 m
- Plate 2: Dip 60°; depths 5, 50, 100 & 200 m
- Plate 3: Dip 90°; depths 5, 50, 100 & 200 m

#### **Part 2: Target Size- 300 m depth extent; 600 m strike length; Conductance 20 S**

- Plate 4: Depth = 5 m, dip = 30°, 60° & 90°
- Plate 5: Depth = 200 m, dip = 30°, 60° & 90°

#### **Part 3: Target Size- 300 m by 300 m; dip 0° (horizontal); Conductance 50 S**

- Plate 6: Depth = 50, 100, 150, 200, 250 m

#### **Part 4: Depth = 50 m, Conductance 20 S**

- Plate 7a: Dip = 90°; Target: 600 m by 300 m, 400 m by 200 m, 200 m by 100 m and 100 m by 50 m
- Plate 7b: Dip = 45°; Target: 600 m by 300 m, 400 m by 200 m, 200 m by 100 m and 100 m by 50 m

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<sup>1</sup> The initial Tx design experienced higher than optimal noise at early times due to small current flows in the Tx circuit FETs.

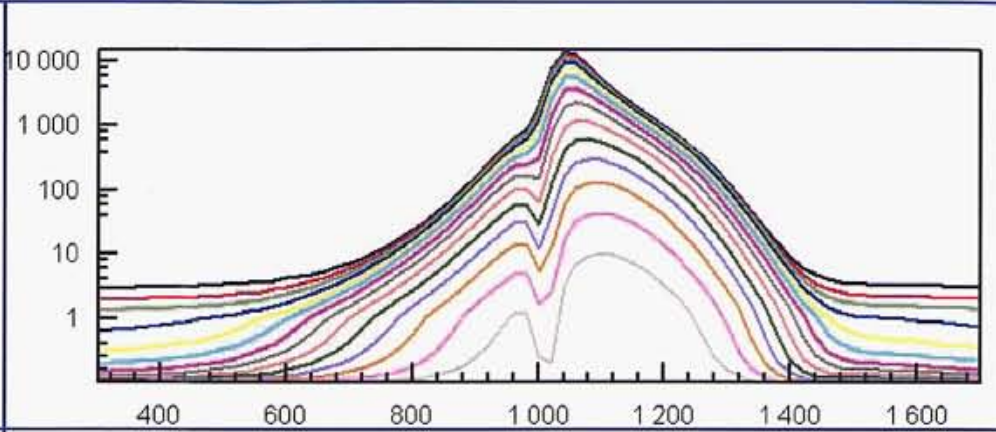
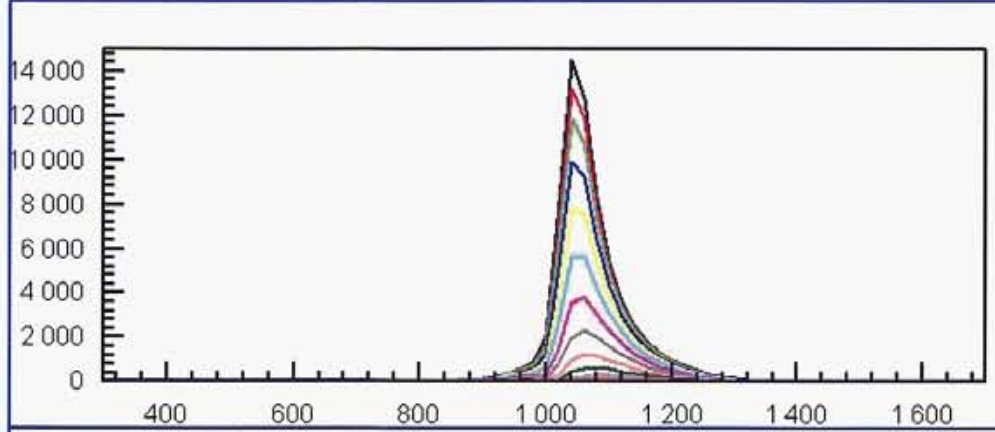


**VERSATEM PLATE MODEL (Top of plate at 1000E)  
EFFECT OF DEPTH**

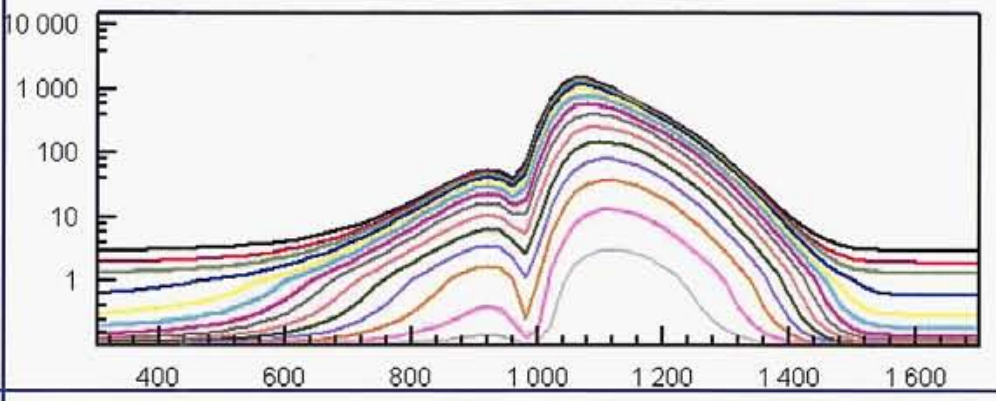
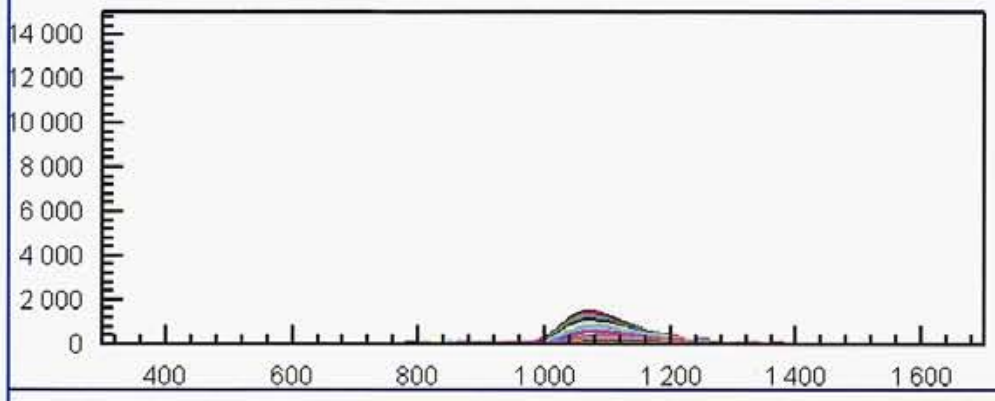
**COND=20S**  
**DIP=30 deg**

**LINEAR SCALE**

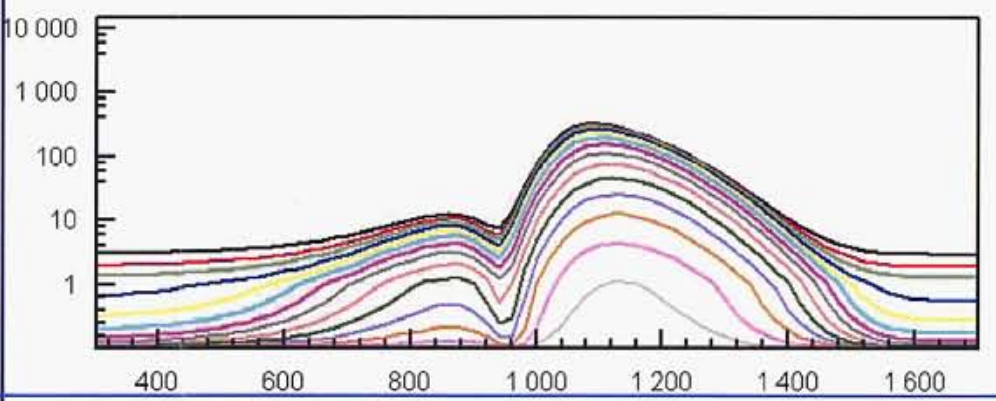
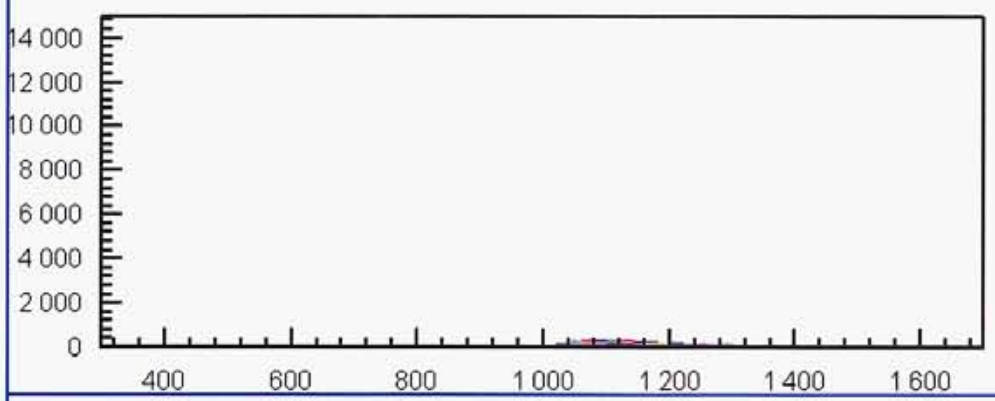
**LOG SCALE**



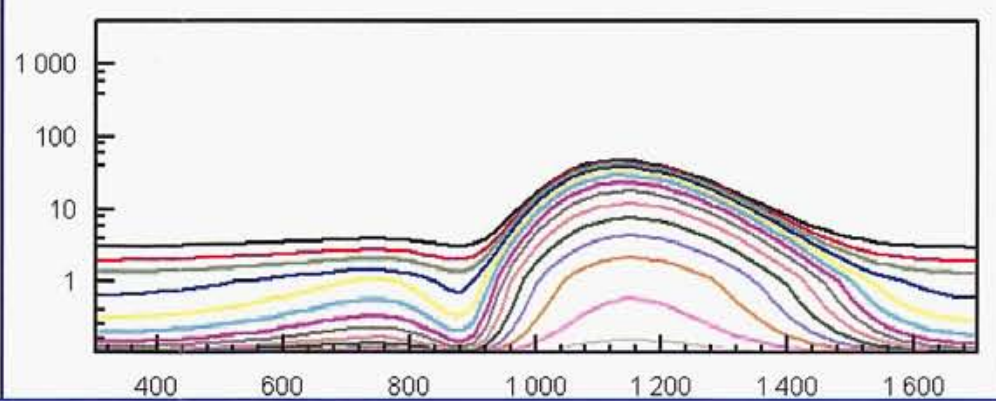
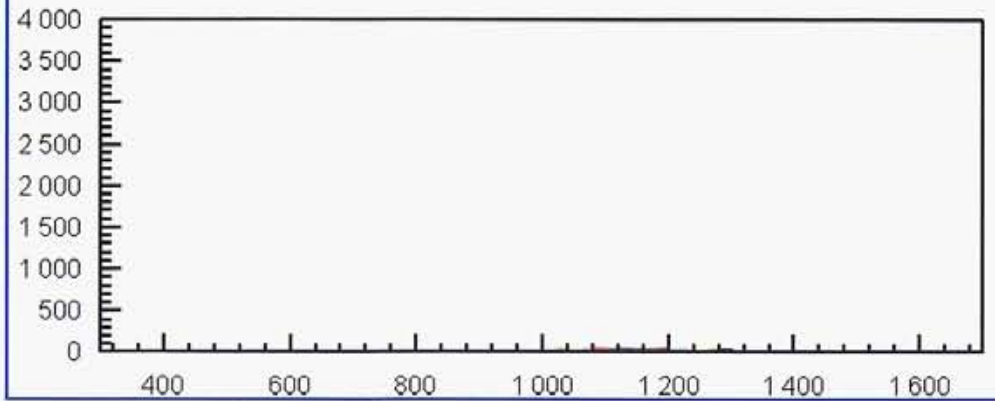
**DEPTH=5m**



**DEPTH=50m**



**DEPTH=100m**



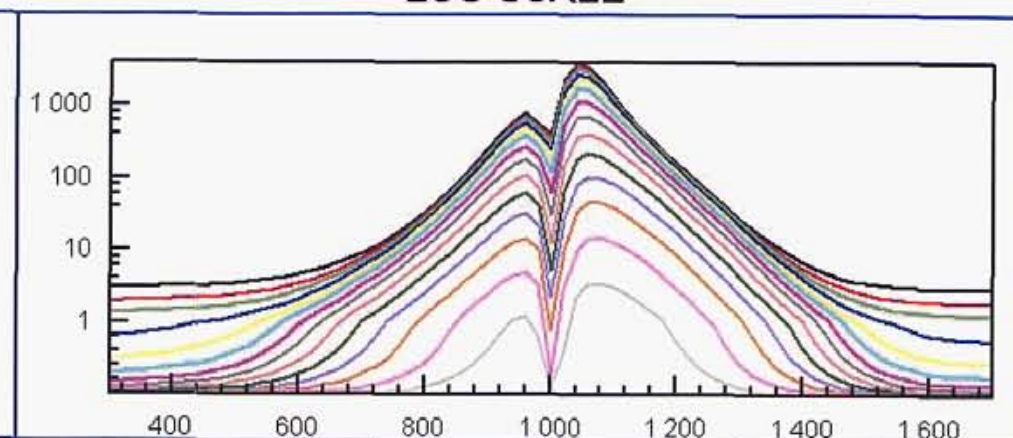
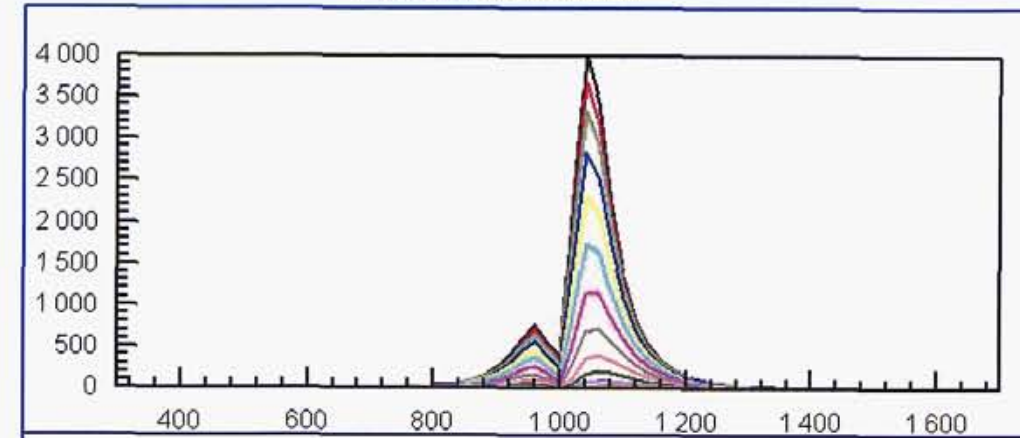
**DEPTH=200m**

**VERSATEM PLATE MODEL (Top of plate at 1000E)  
EFFECT OF DEPTH**

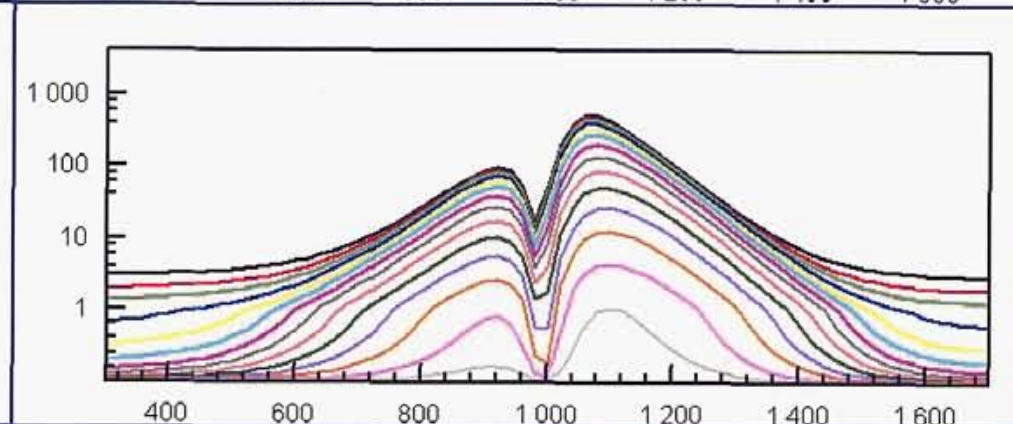
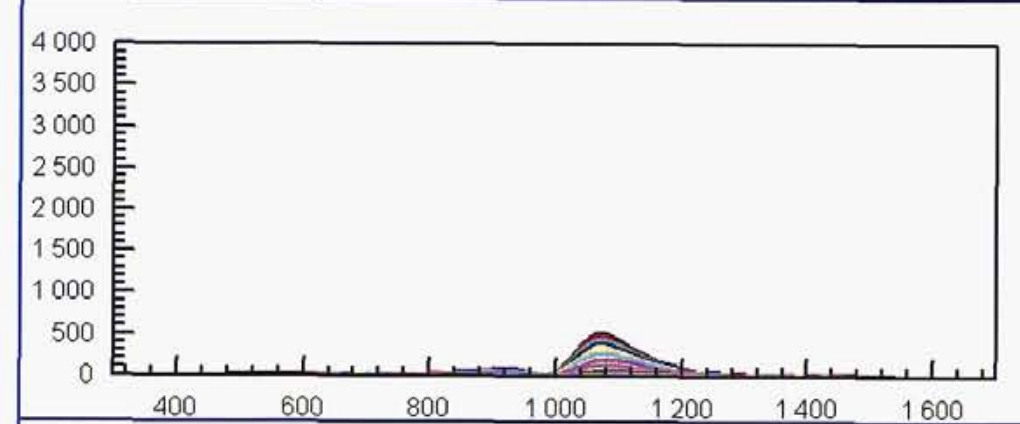
**COND=20S**  
**DIP=60 deg**

**LINEAR SCALE**

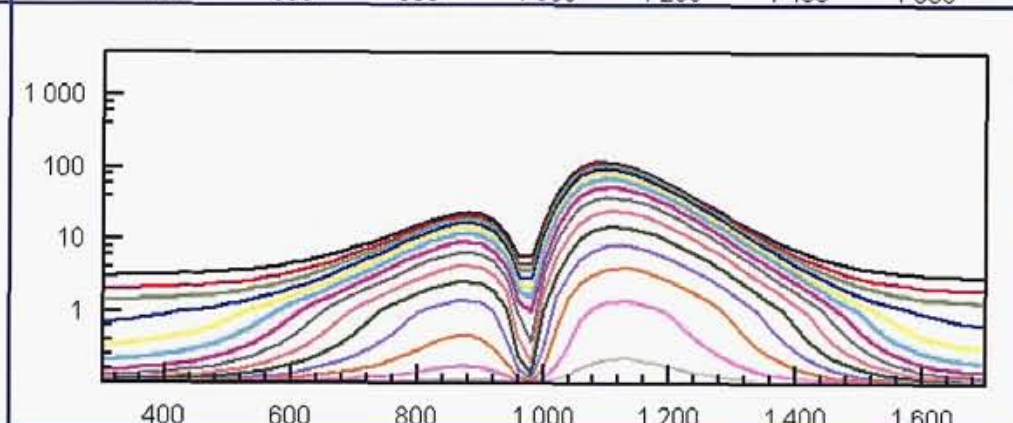
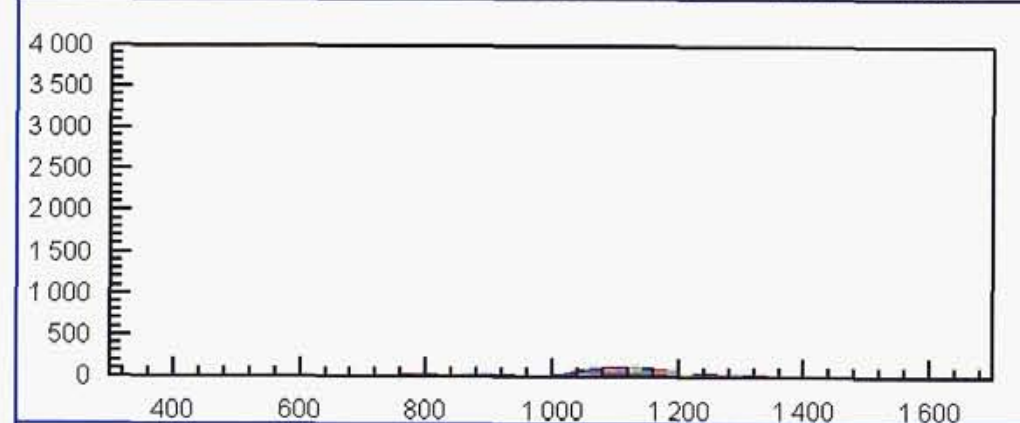
**LOG SCALE**



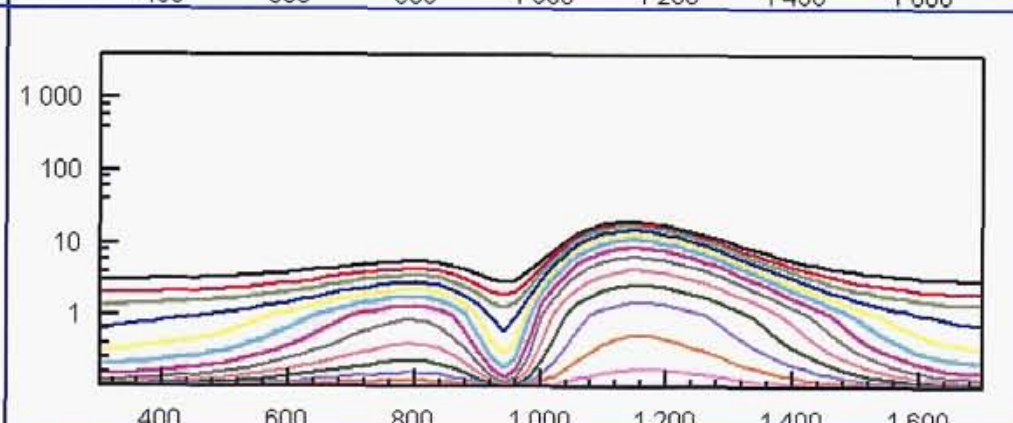
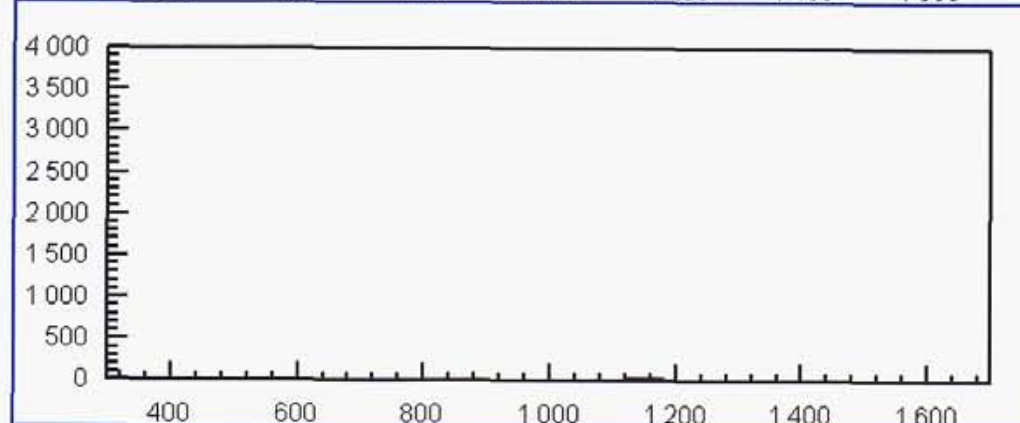
**DEPTH=5m**



**DEPTH=50m**



**DEPTH=100m**



**DEPTH=200m**

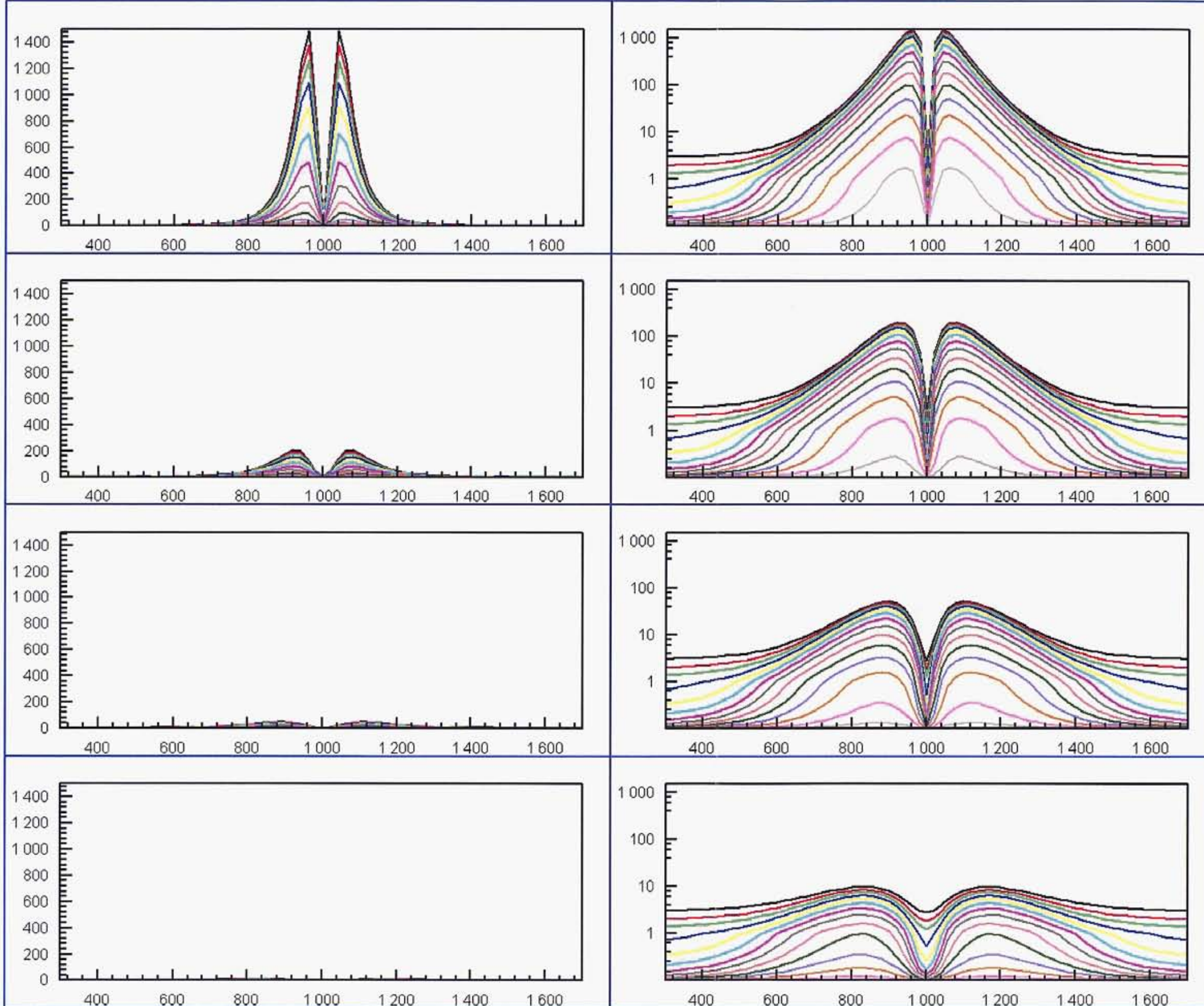
**VERSATEM PLATE MODEL (Top of plate at 1000E)  
EFFECT OF DEPTH**

**COND=20S**

**DIP=90 deg**

**LINEAR SCALE**

**LOG SCALE**



**DEPTH=5m**

**DEPTH=50m**

**DEPTH=100m**

**DEPTH=200m**

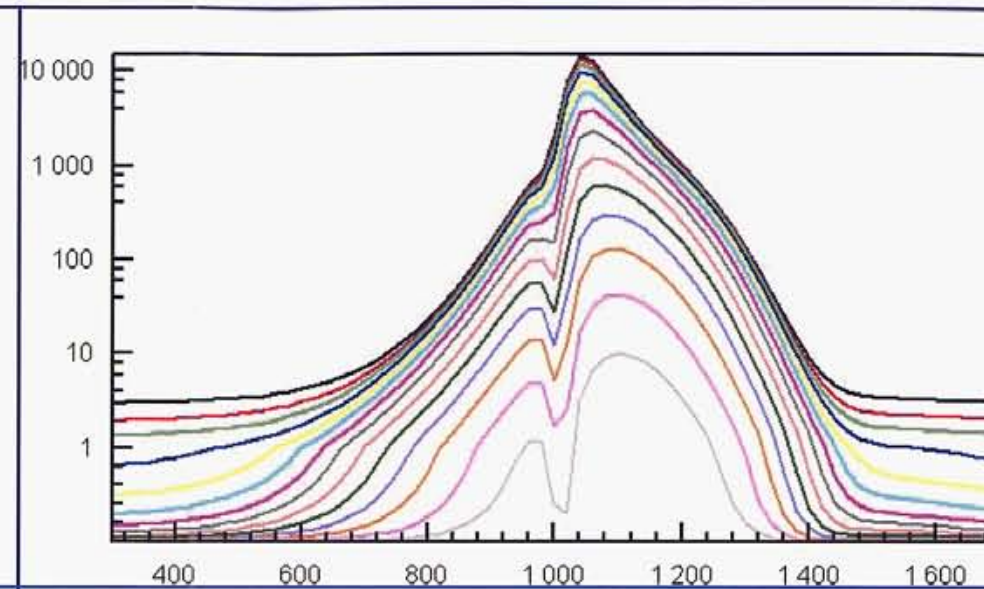
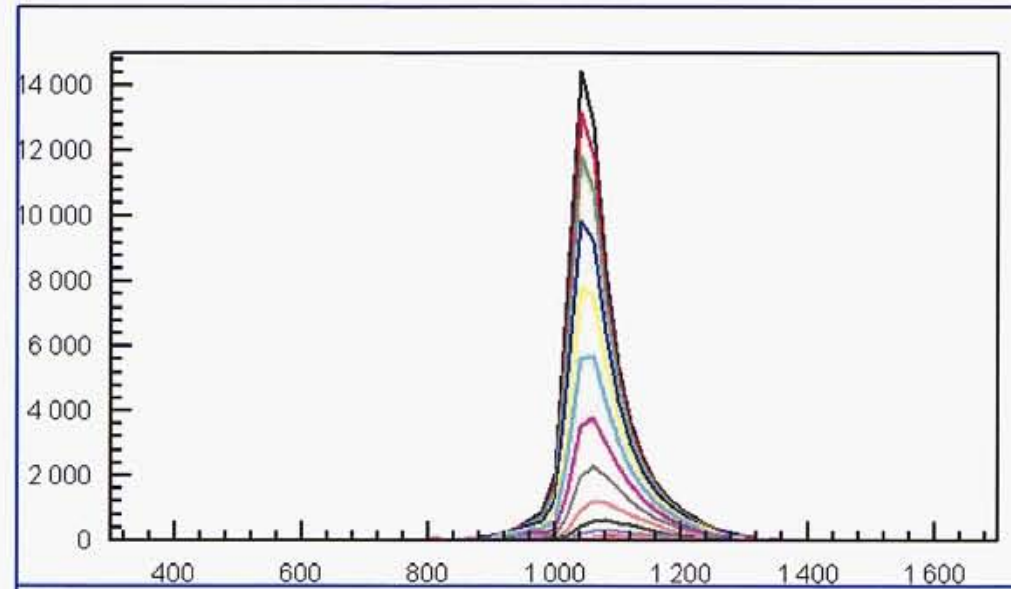
**VERSATEM PLATE MODEL (Top of plate at 1000E)  
EFFECT OF DIP**

**COND=20S**

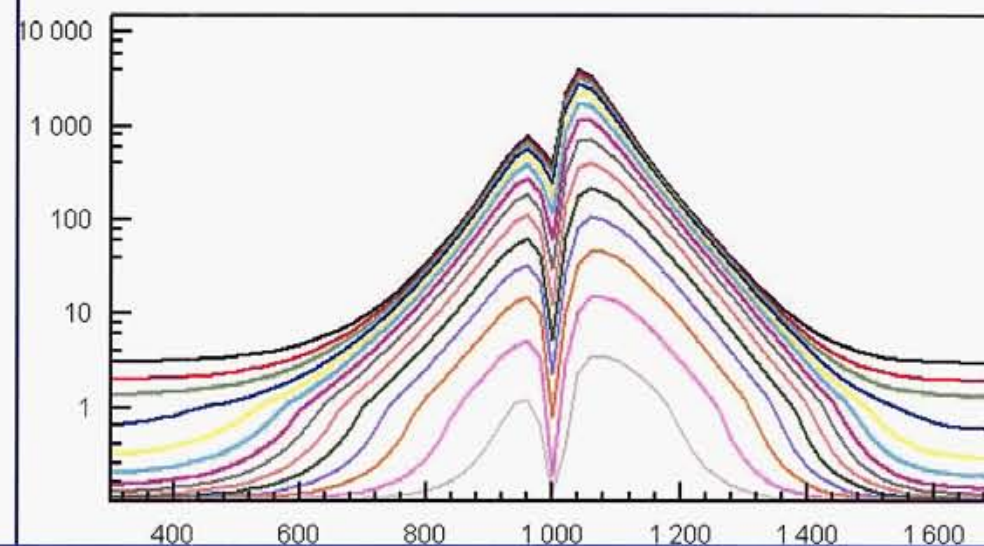
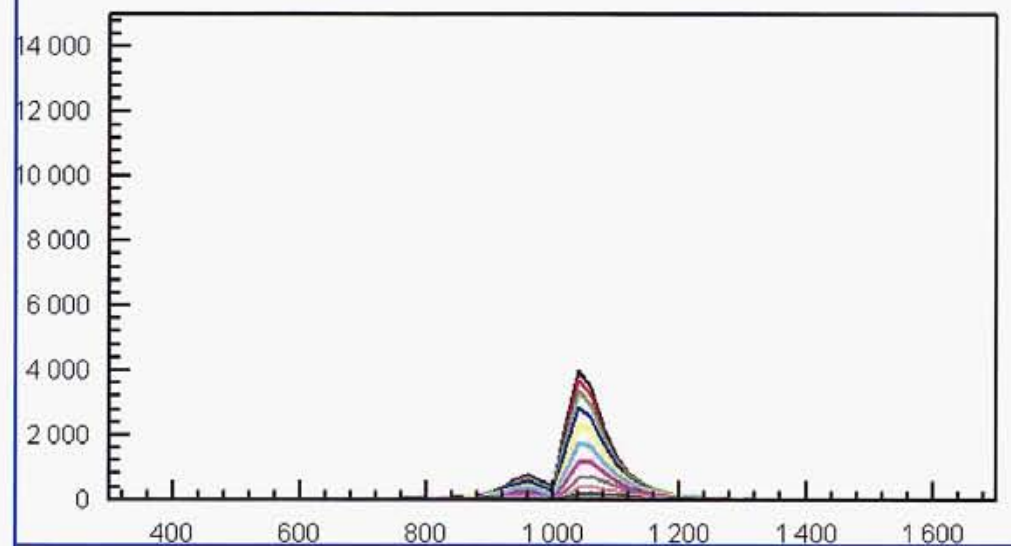
**DEPTH=5m**

**LINEAR SCALE**

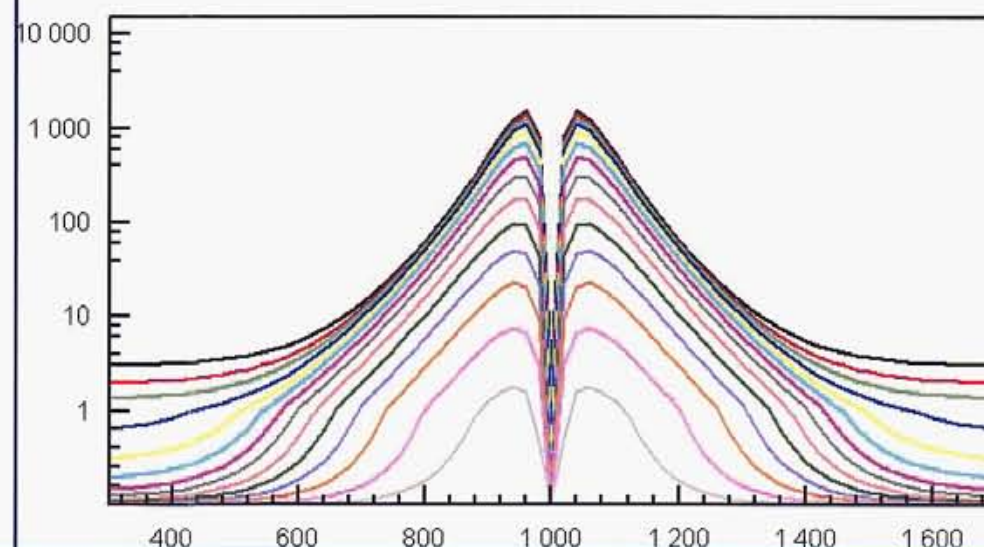
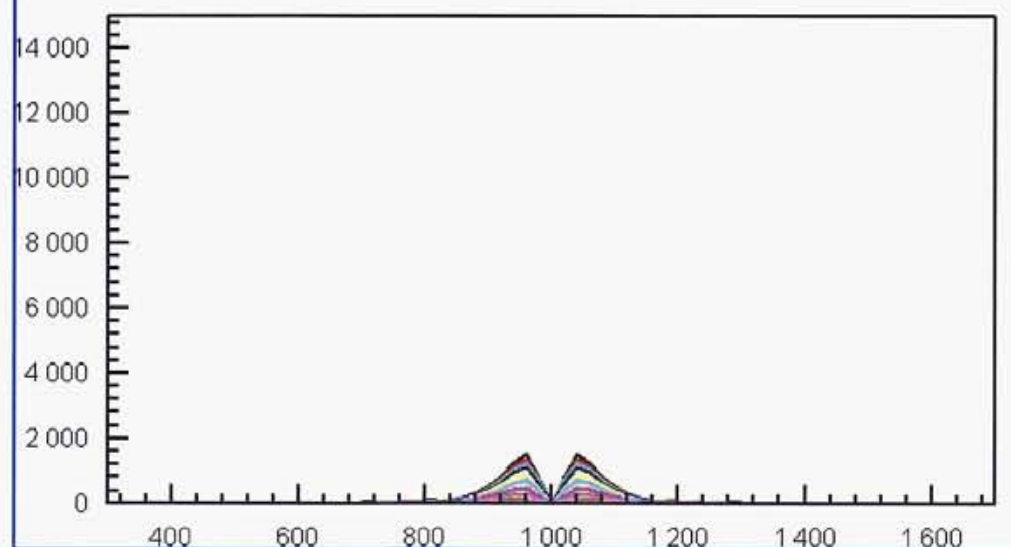
**LOG SCALE**



**DIP=30 deg E**



**DIP=60 deg E**



**DIP=90 deg**

VERSATEM PLATE MODEL (Top of plate at 1000E)  
EFFECT OF DIP

COND=20S

DEPTH=200m

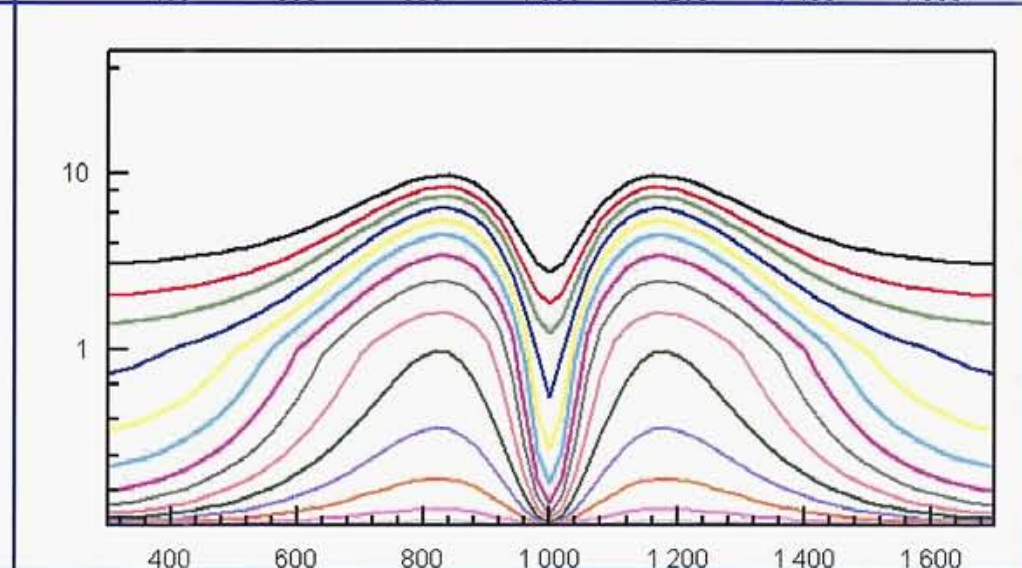
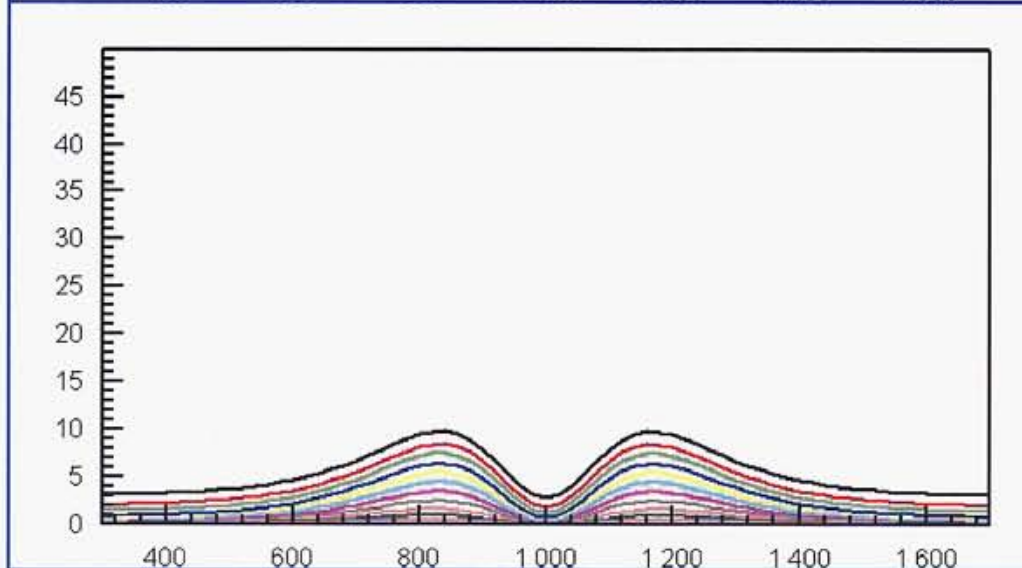
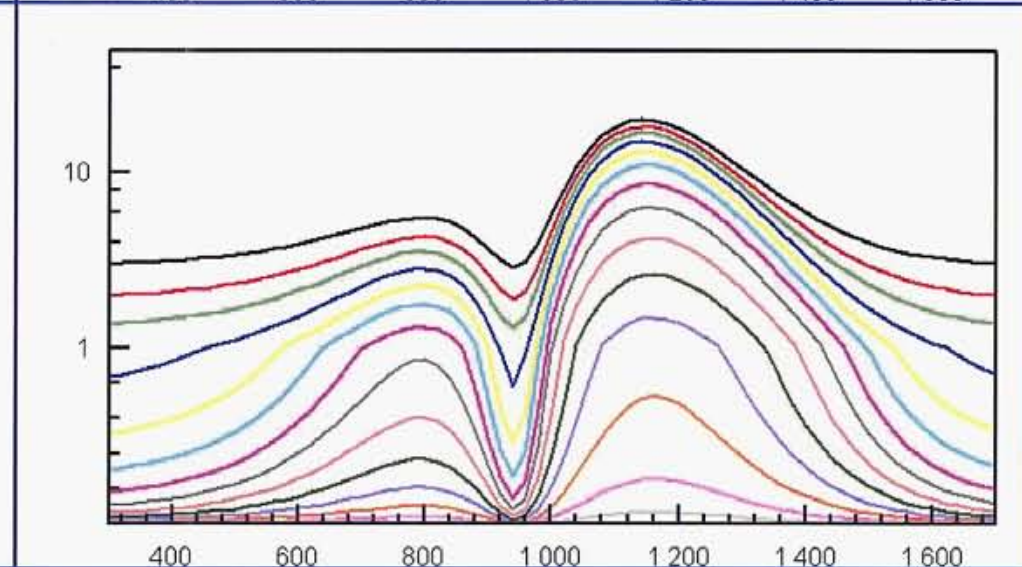
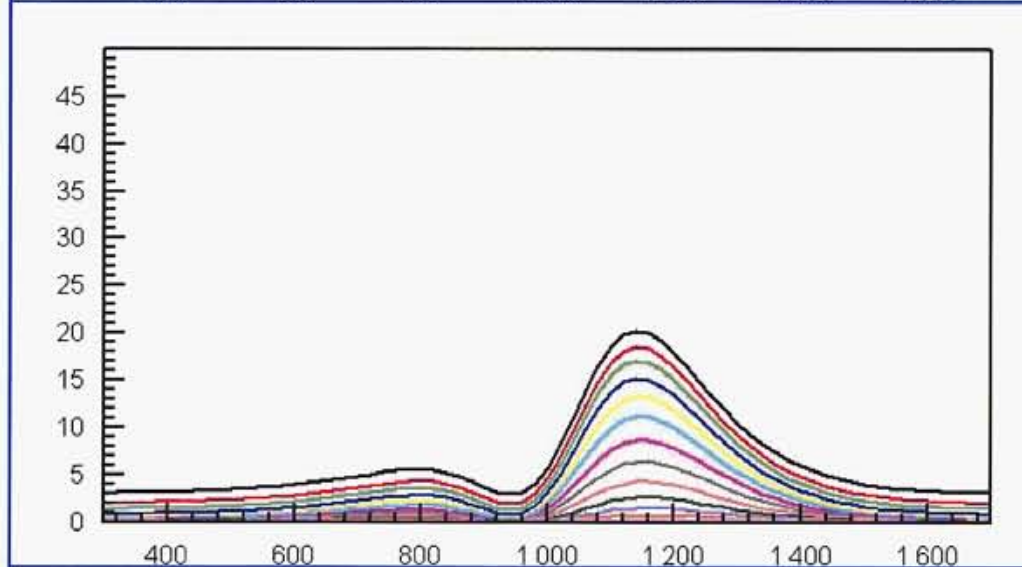
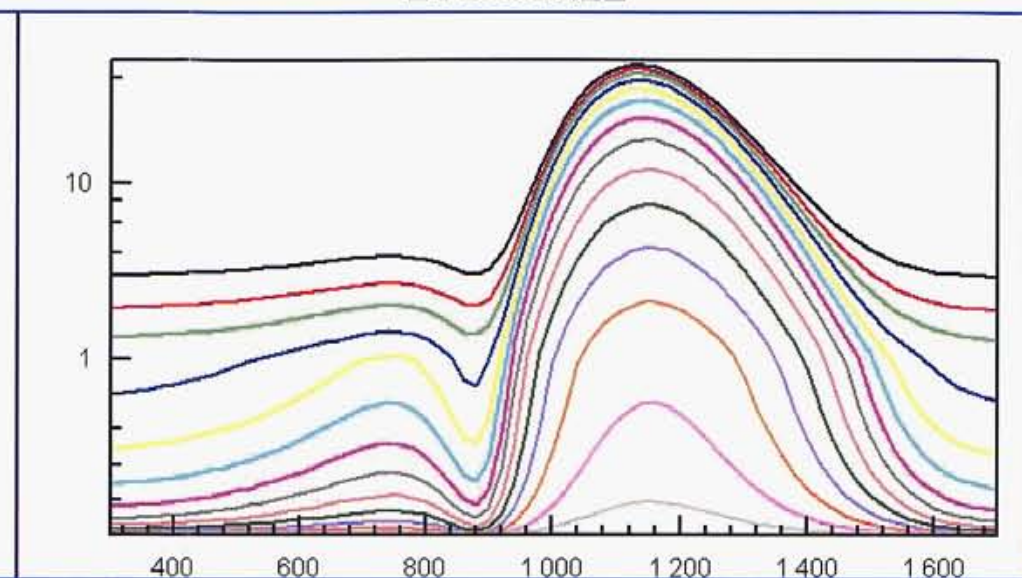
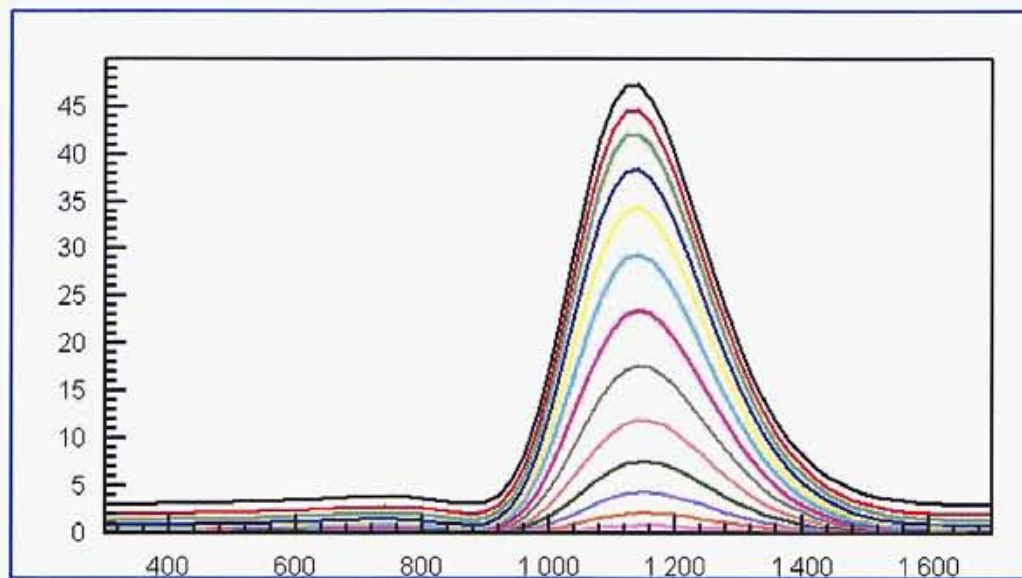
LINEAR SCALE

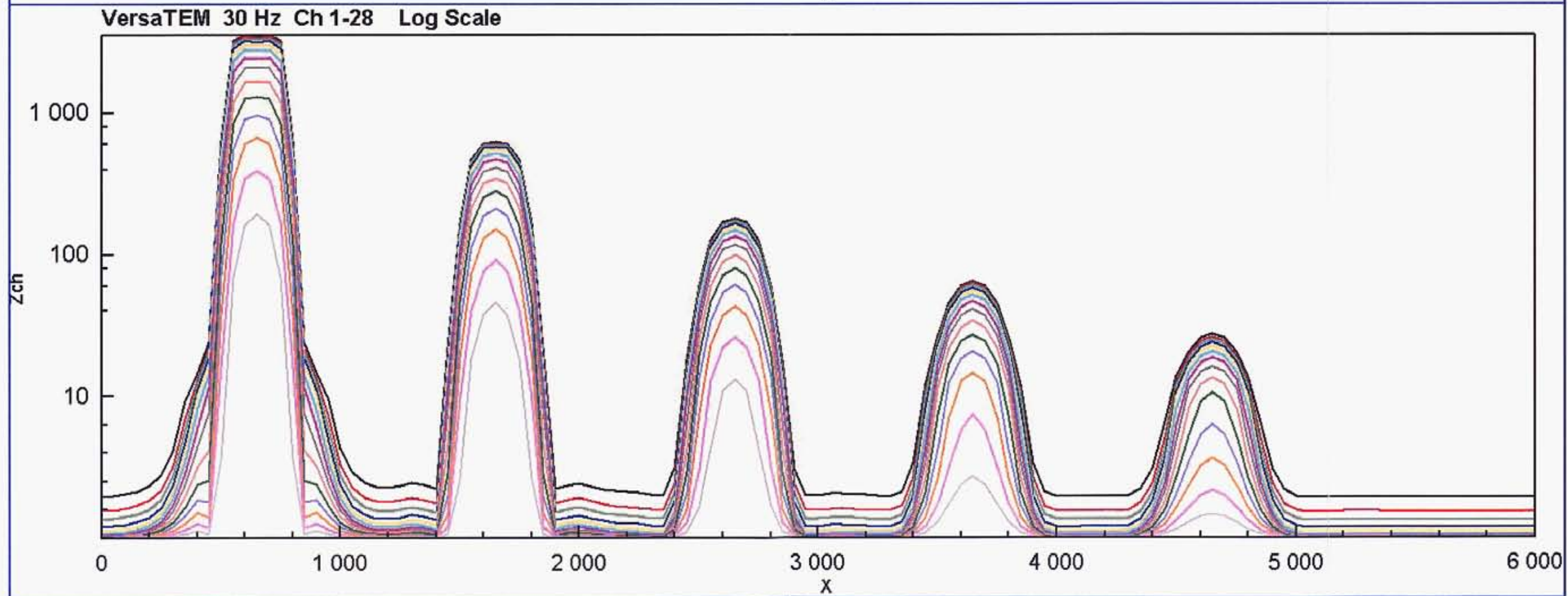
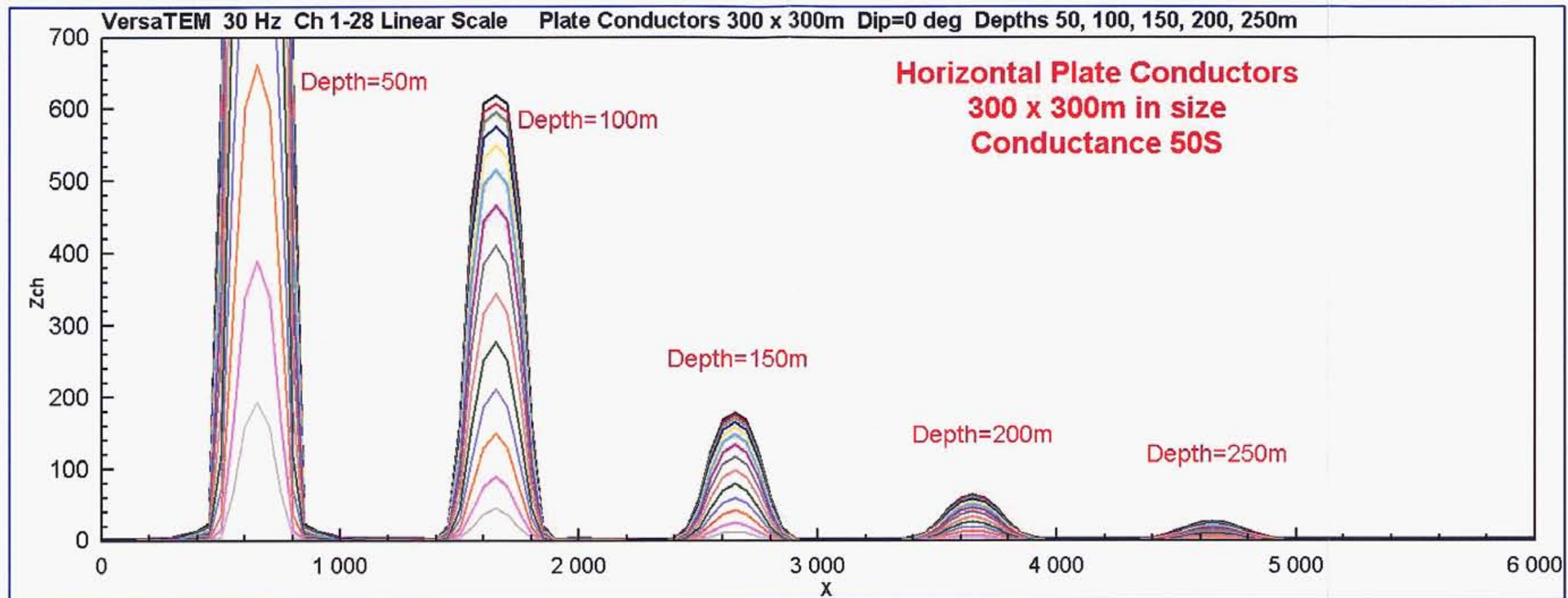
LOG SCALE

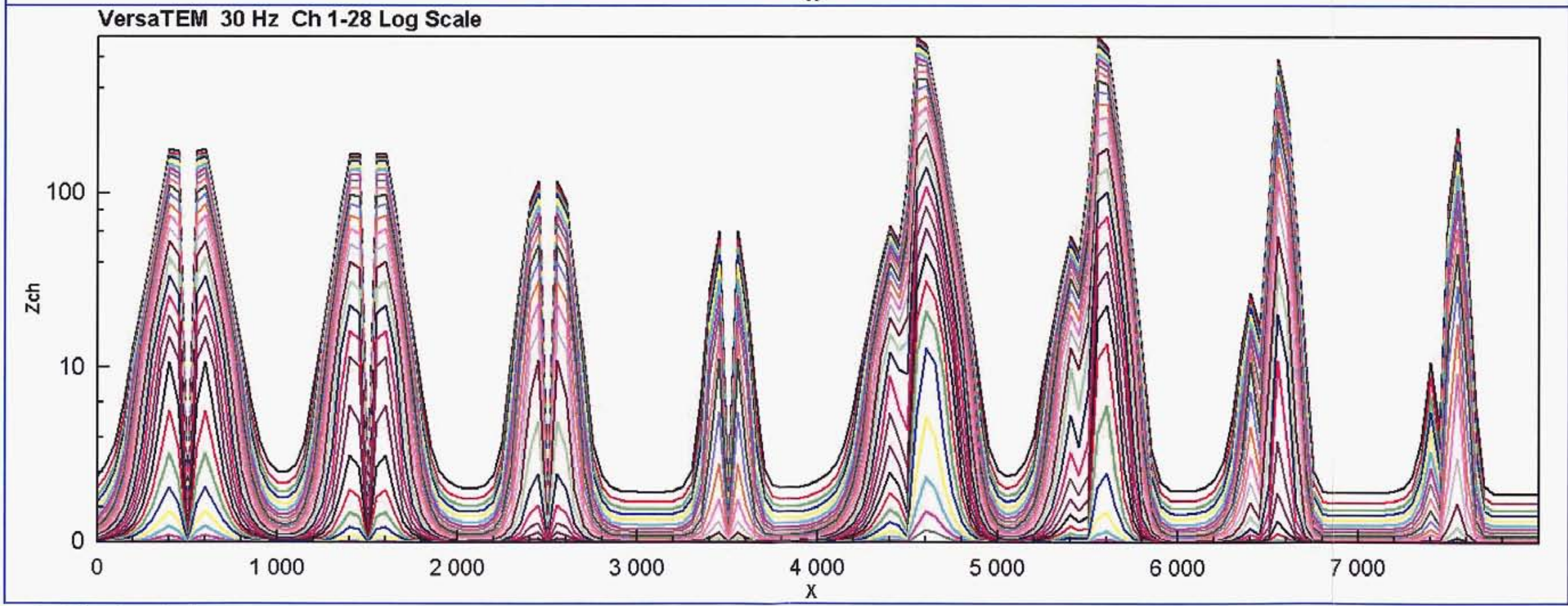
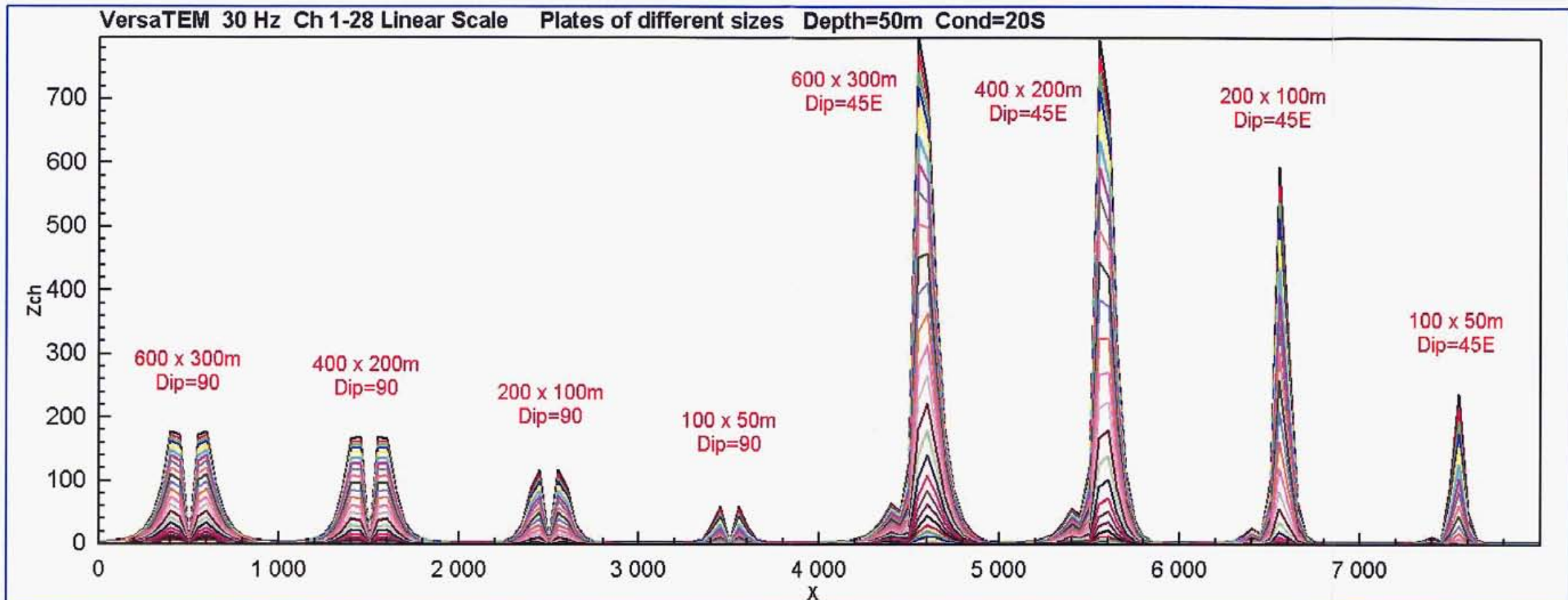
DIP=30 deg E

DIP=60 deg E

DIP=90 deg





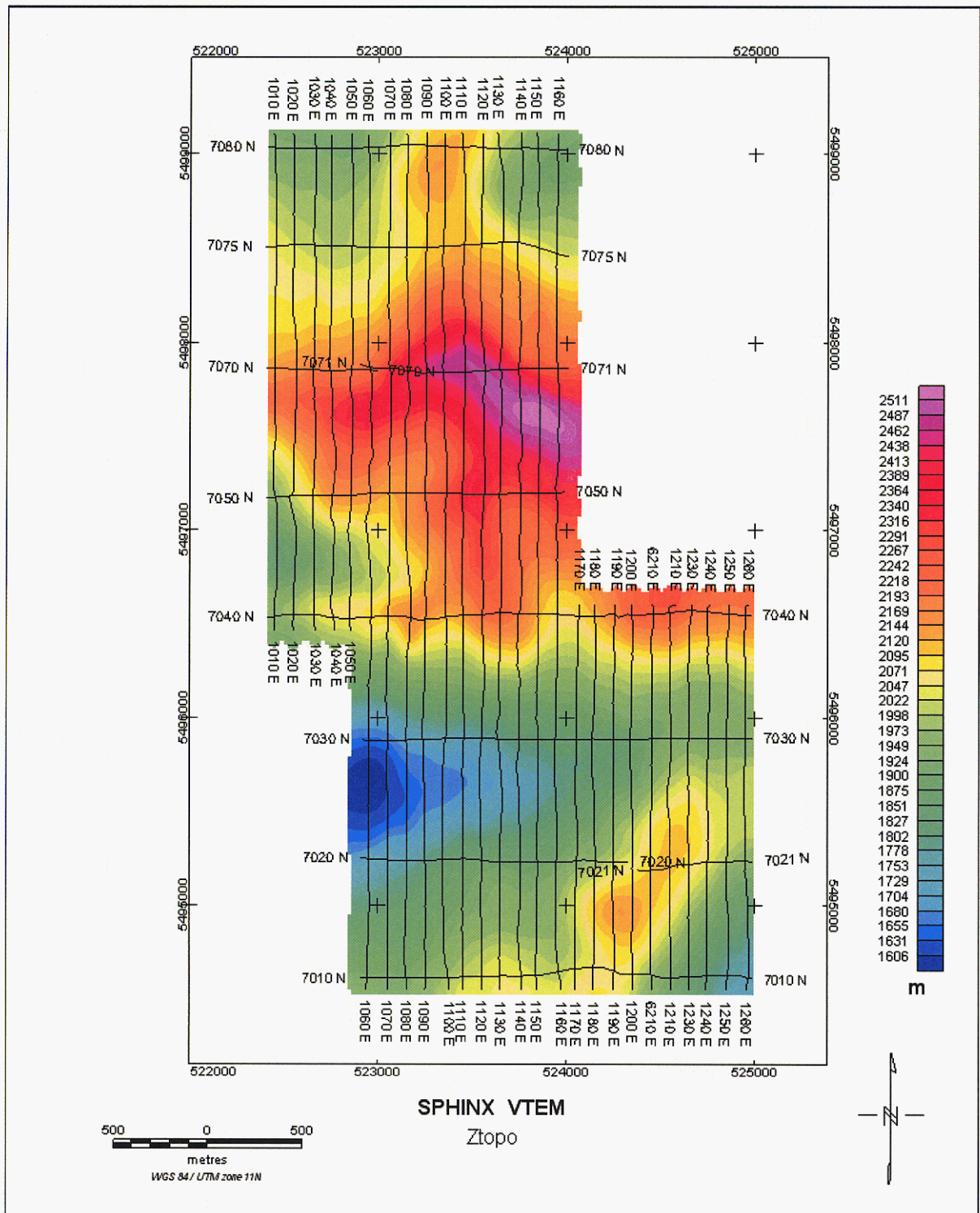


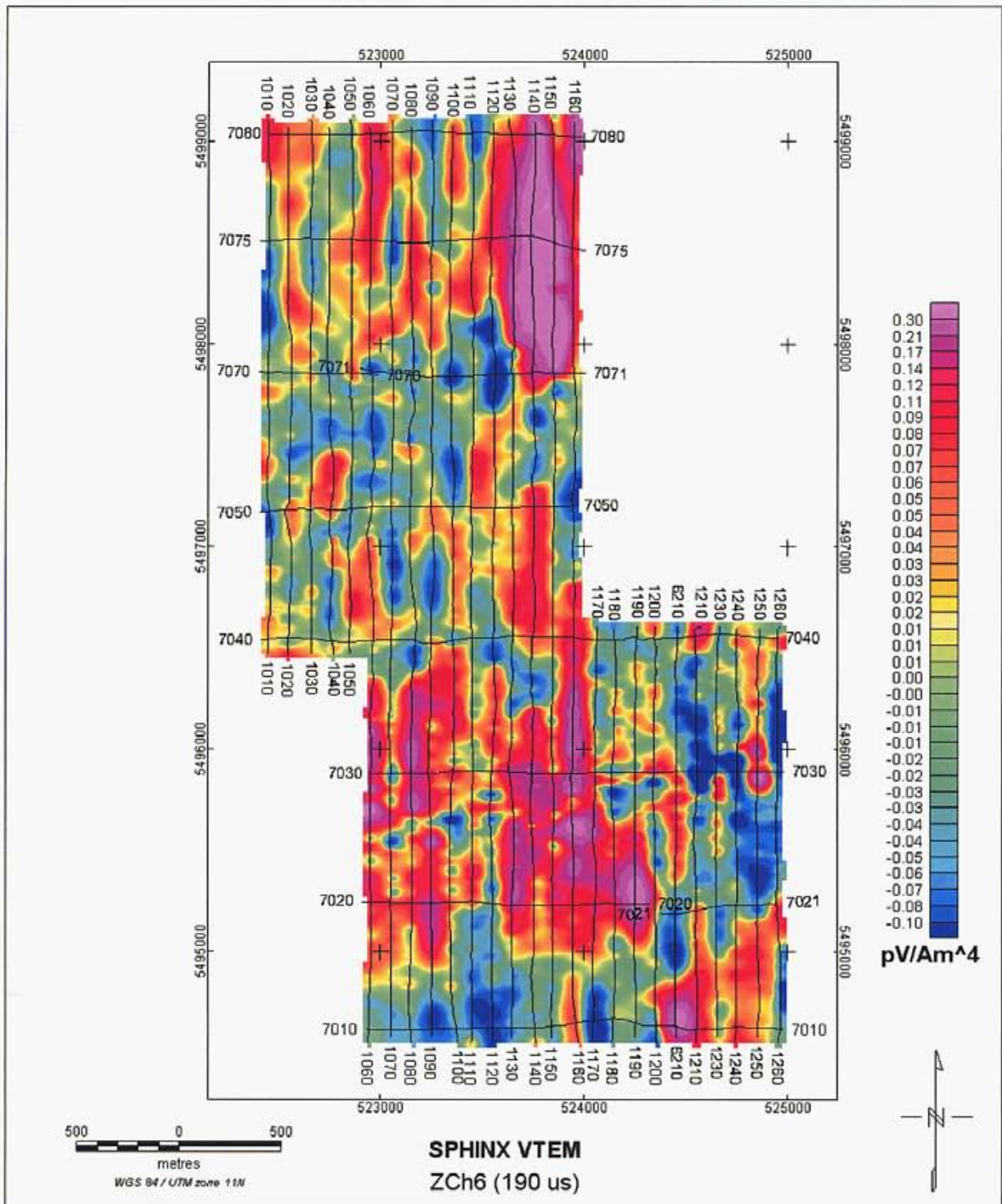
**Plate 7a**

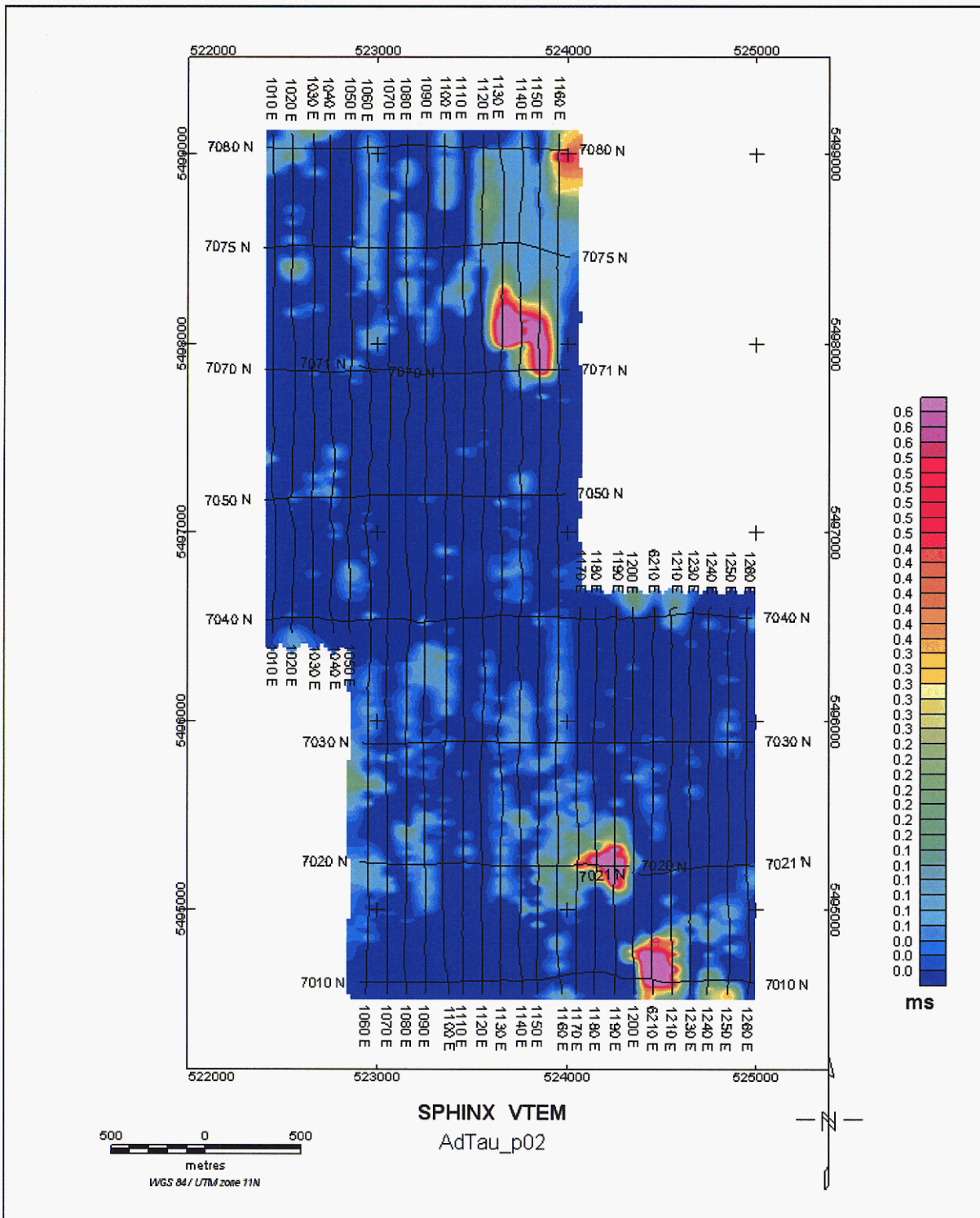
**Plate 7b**

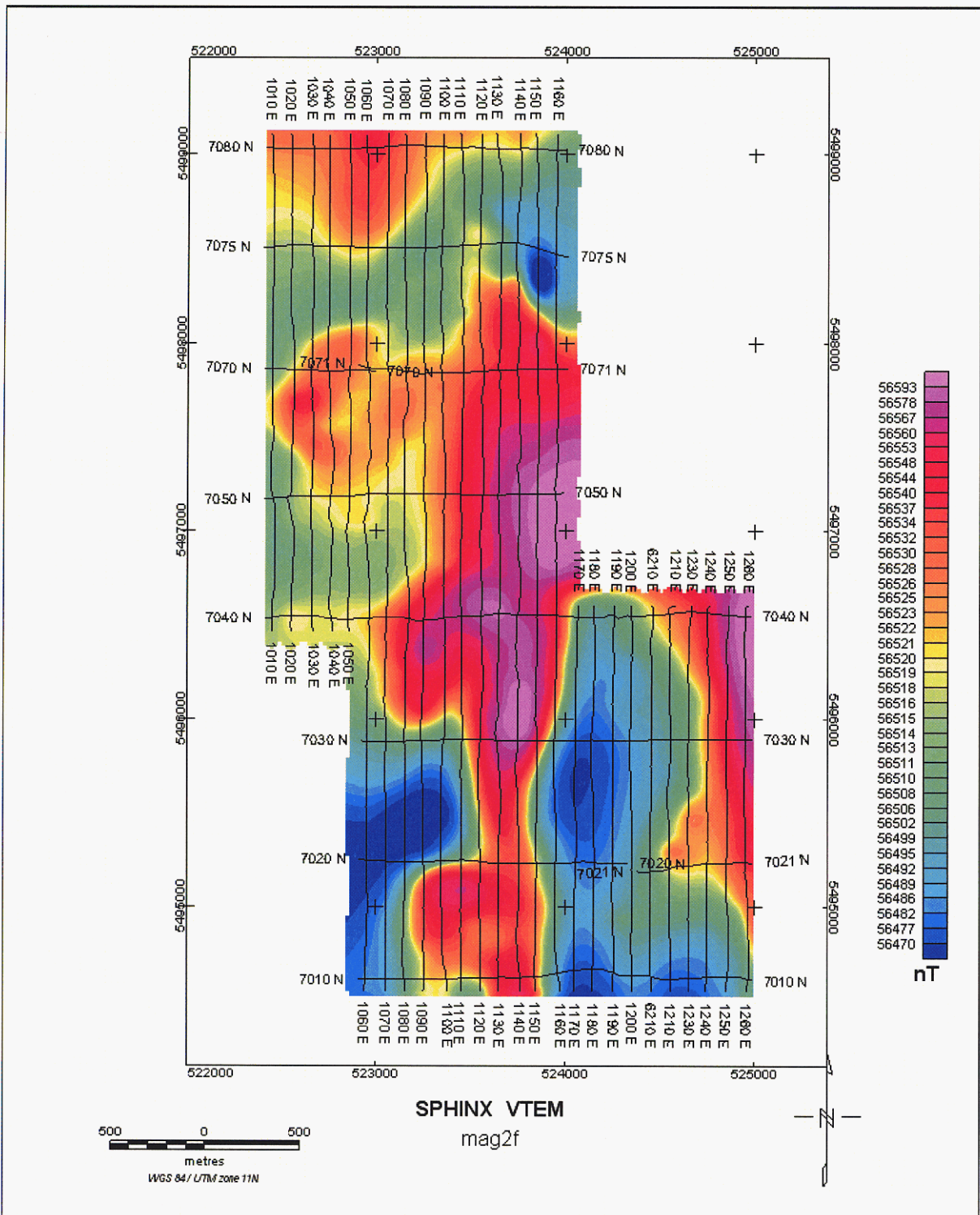
**APPENDIX B**  
**Plan Products**

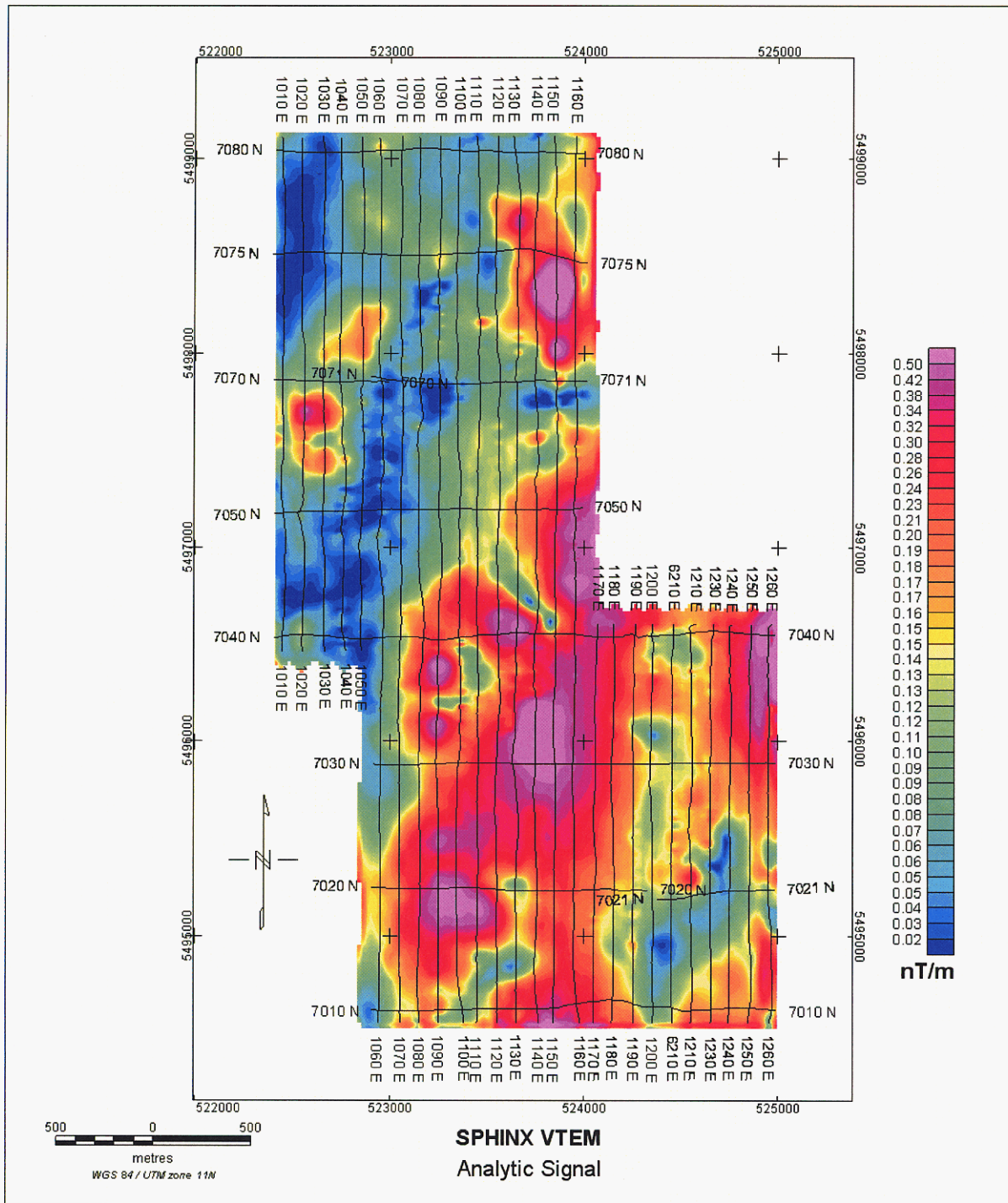




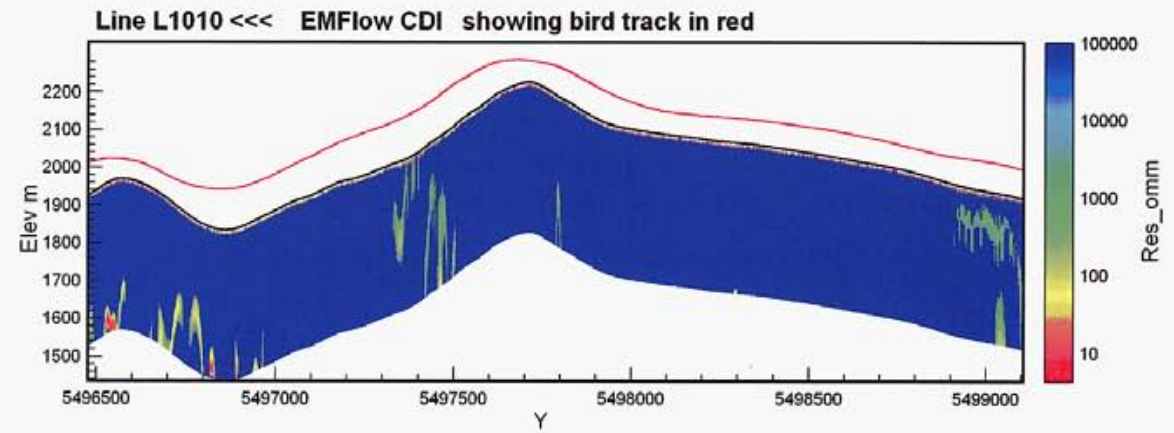
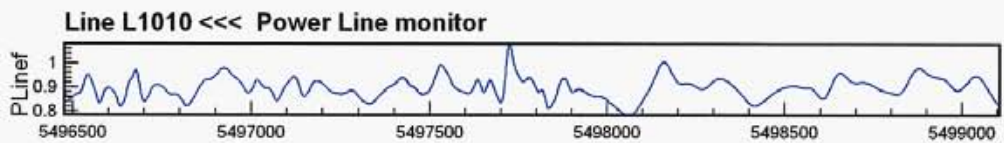
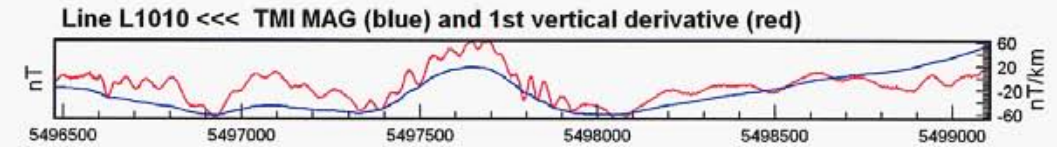
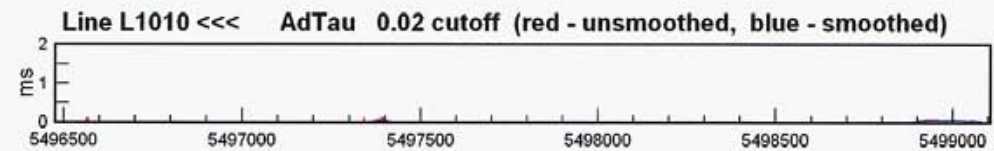
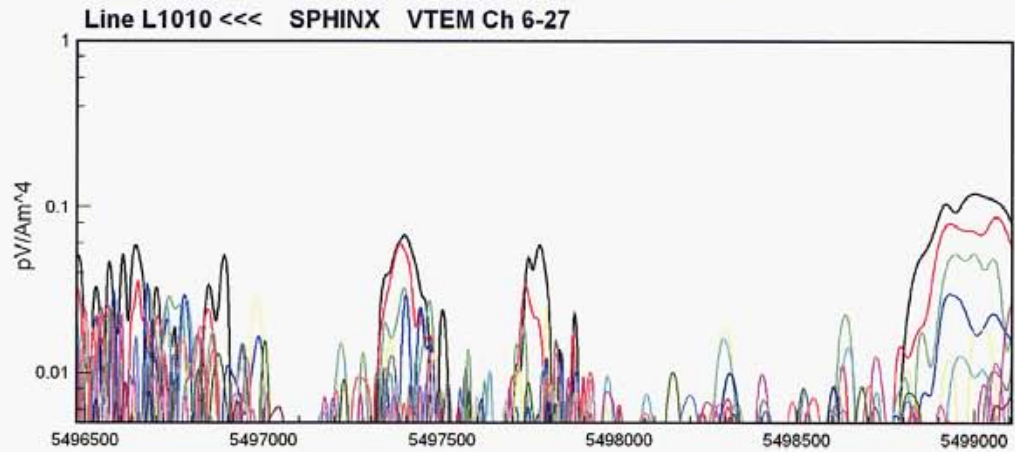


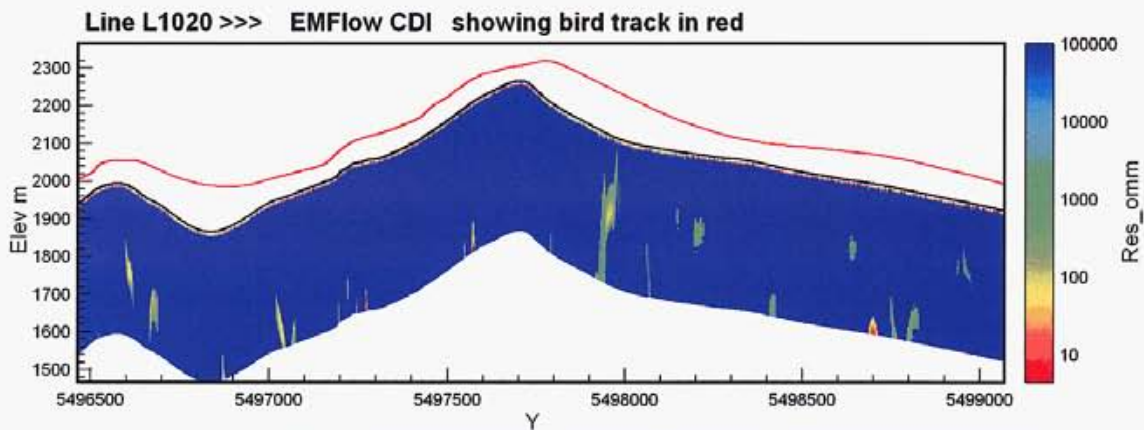
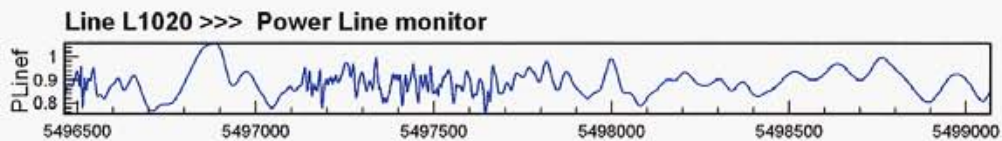
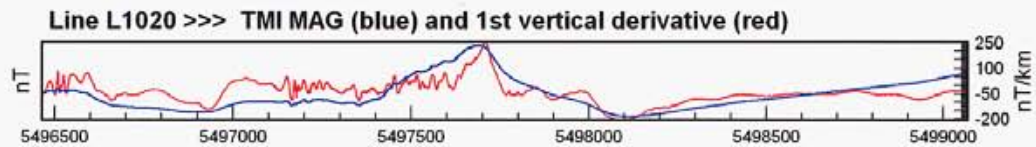
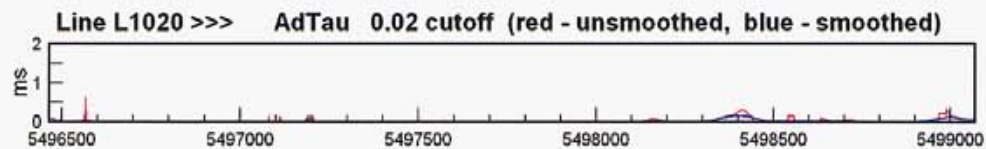
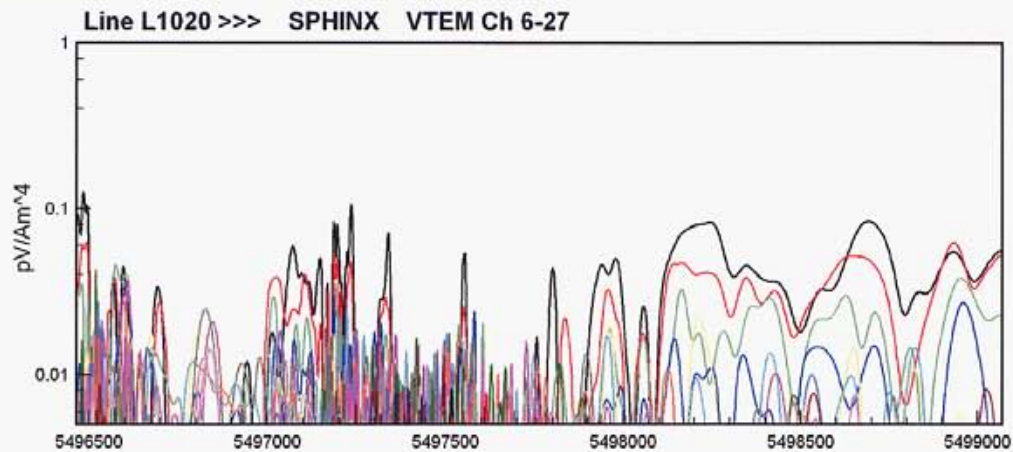




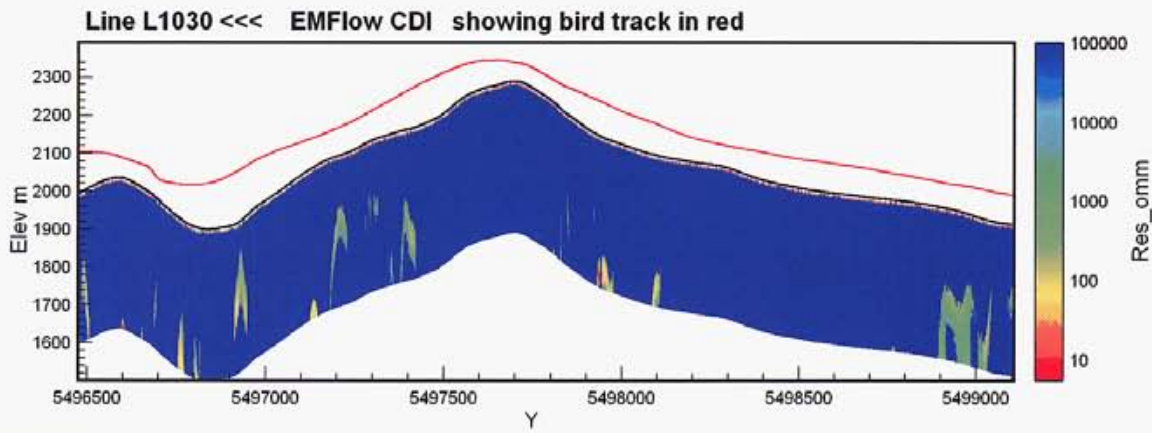
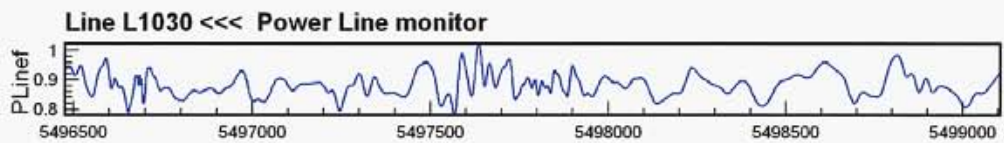
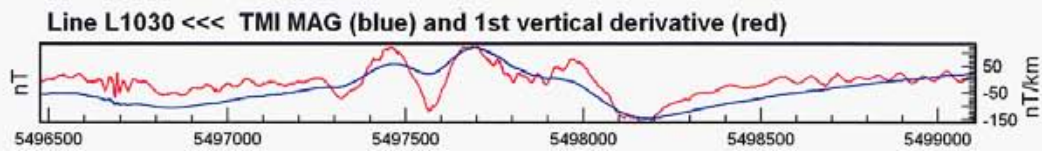
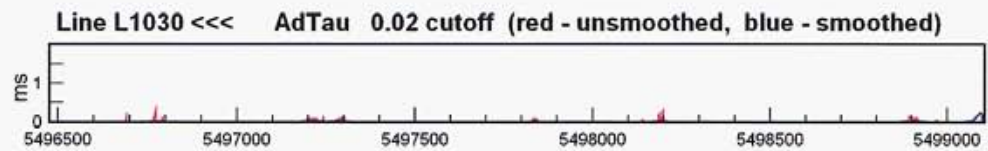
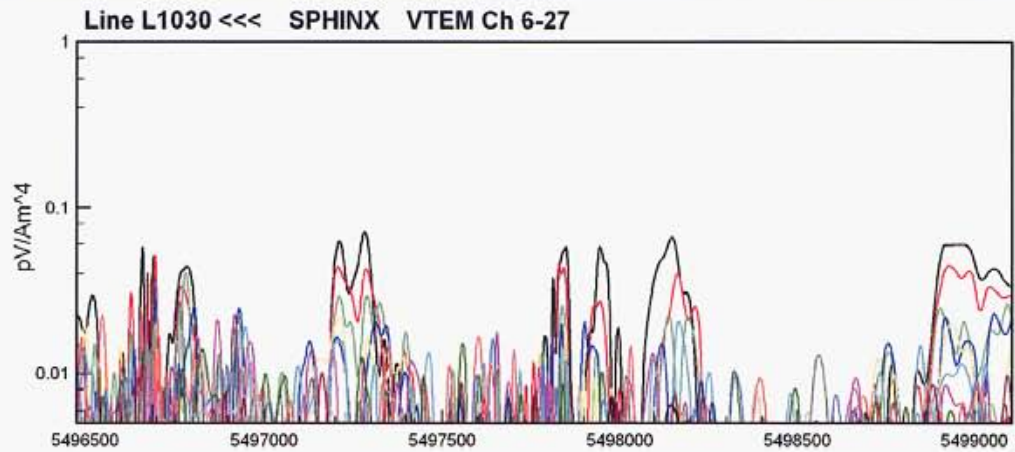


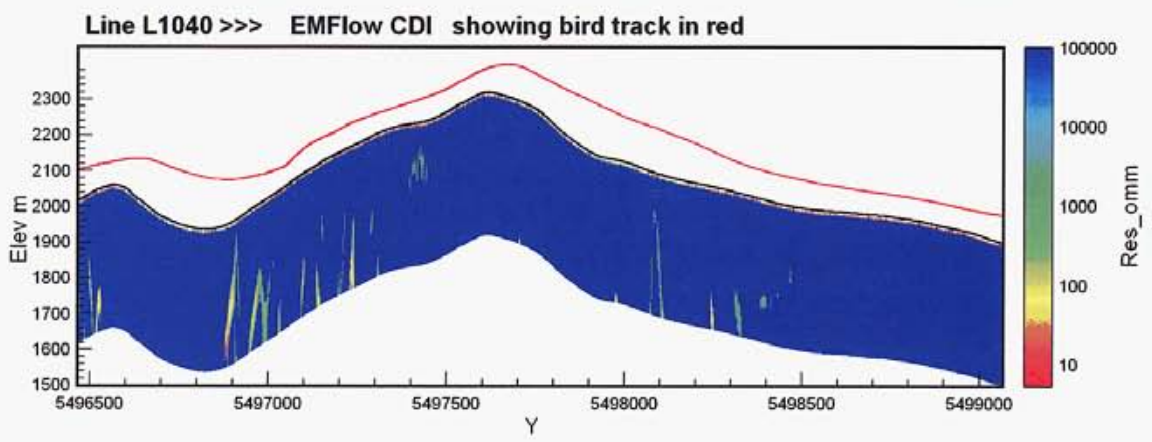
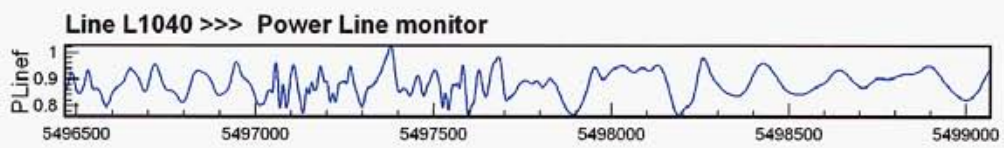
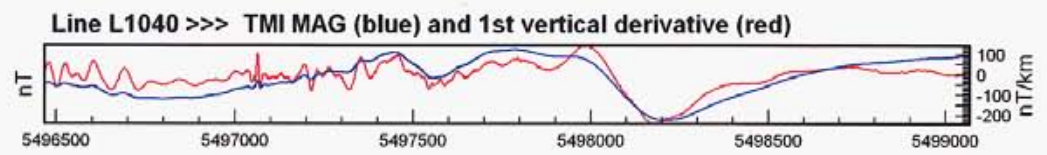
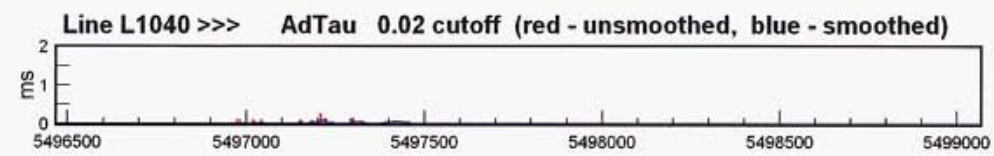
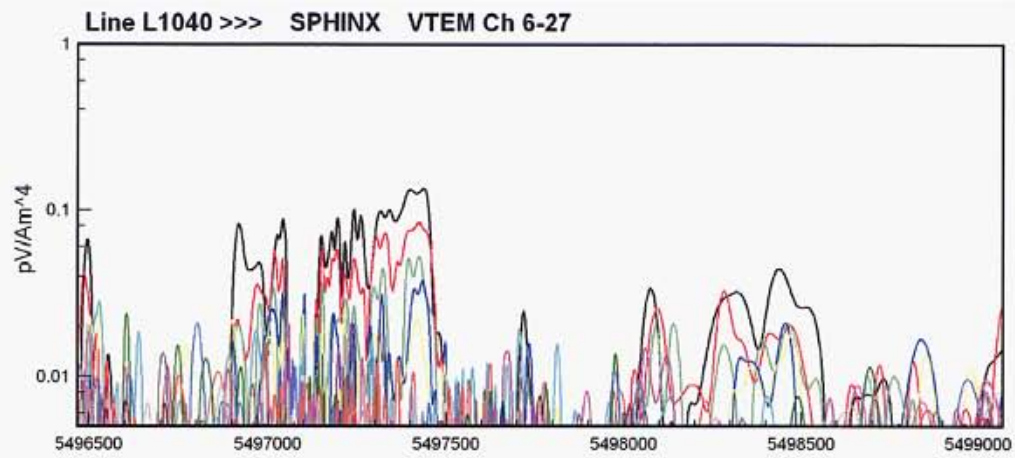
**APPENDIX C**  
**MultiPlots™**



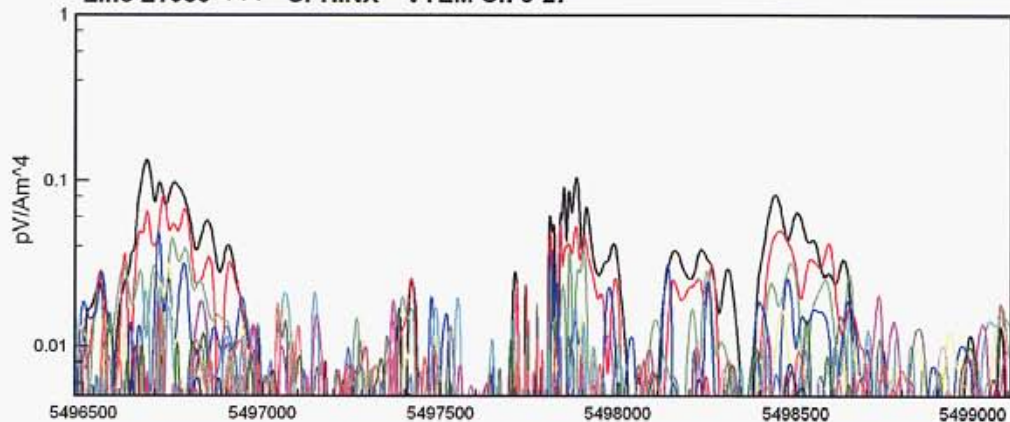




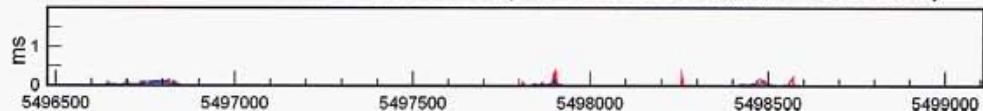




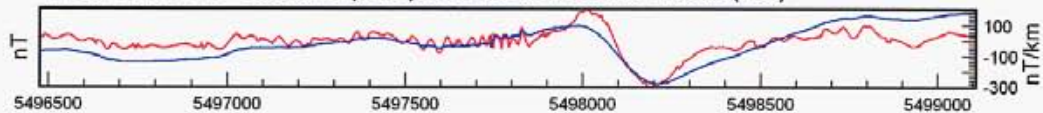
Line L1050 <<< SPHINX VTEM Ch 6-27



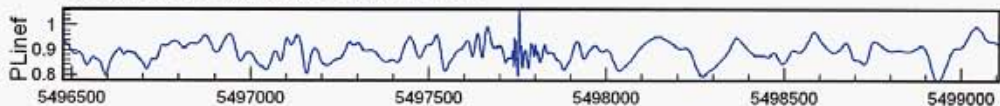
Line L1050 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



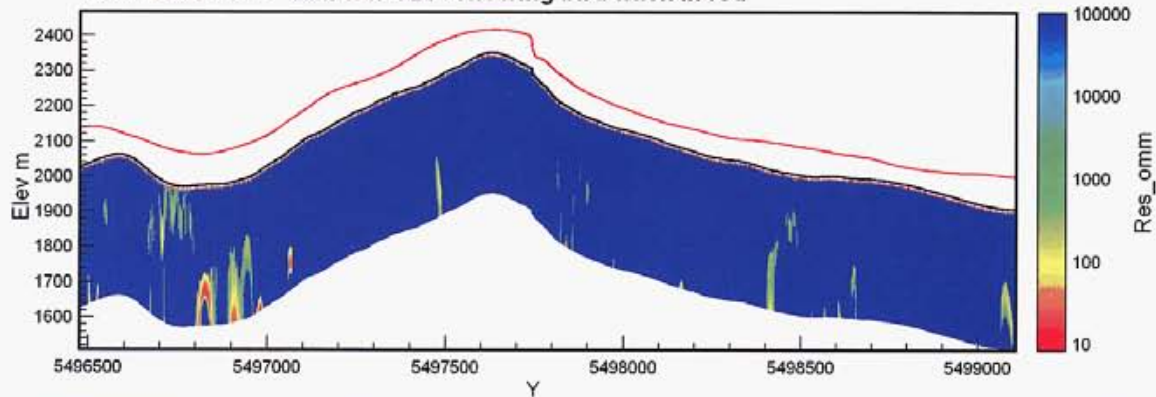
Line L1050 <<< TMI MAG (blue) and 1st vertical derivative (red)



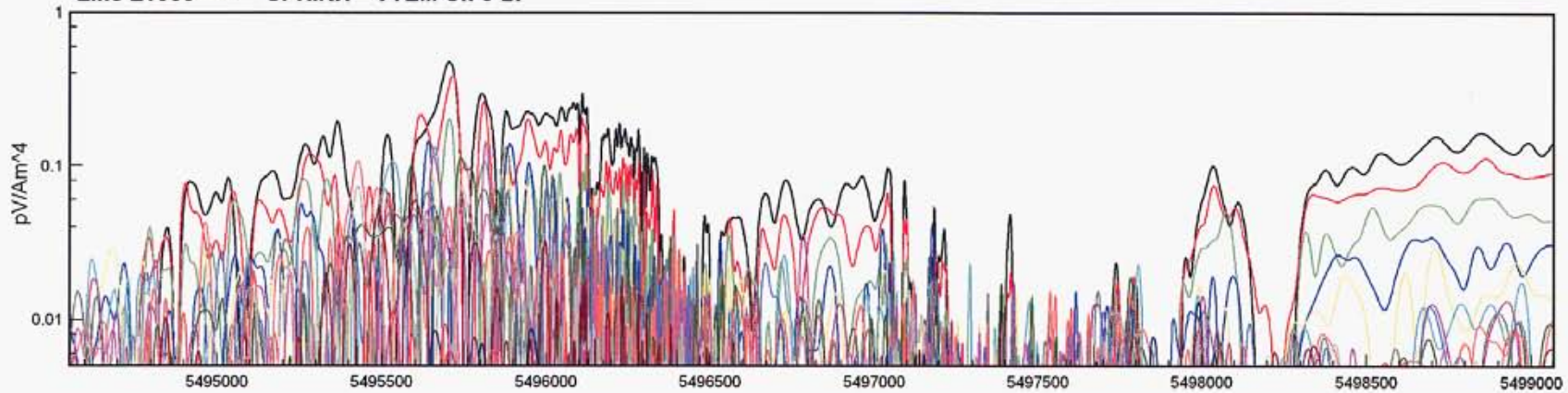
Line L1050 <<< Power Line monitor



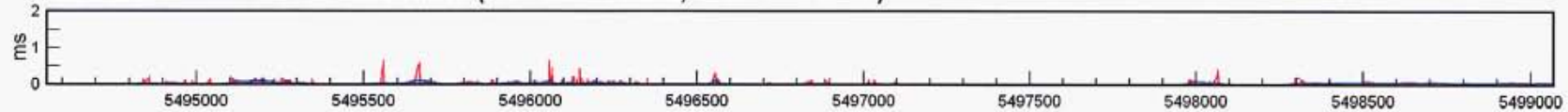
Line L1050 <<< EMFlow CDI showing bird track in red



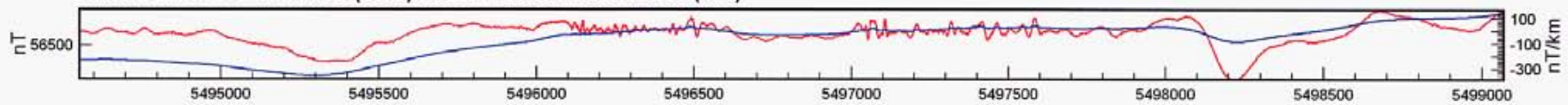
Line L1060 >>> SPHINX VTEM Ch 6-27



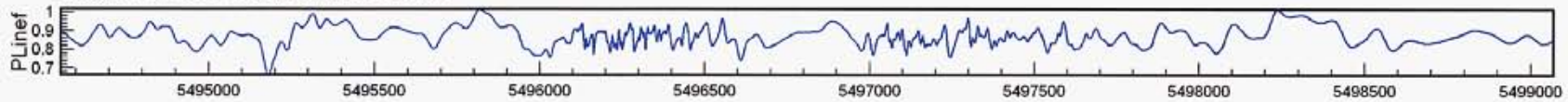
Line L1060 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



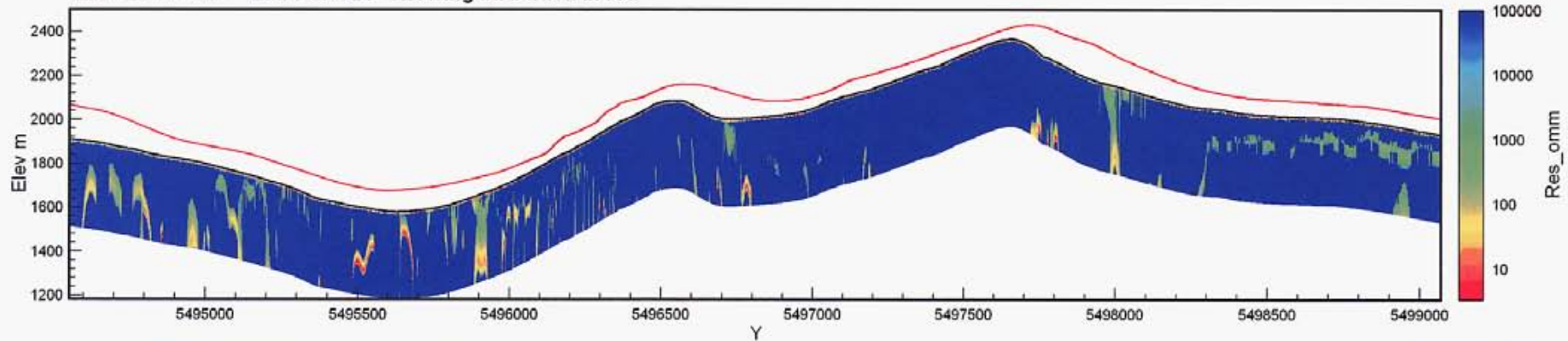
Line L1060 >>> TMI MAG (blue) and 1st vertical derivative (red)

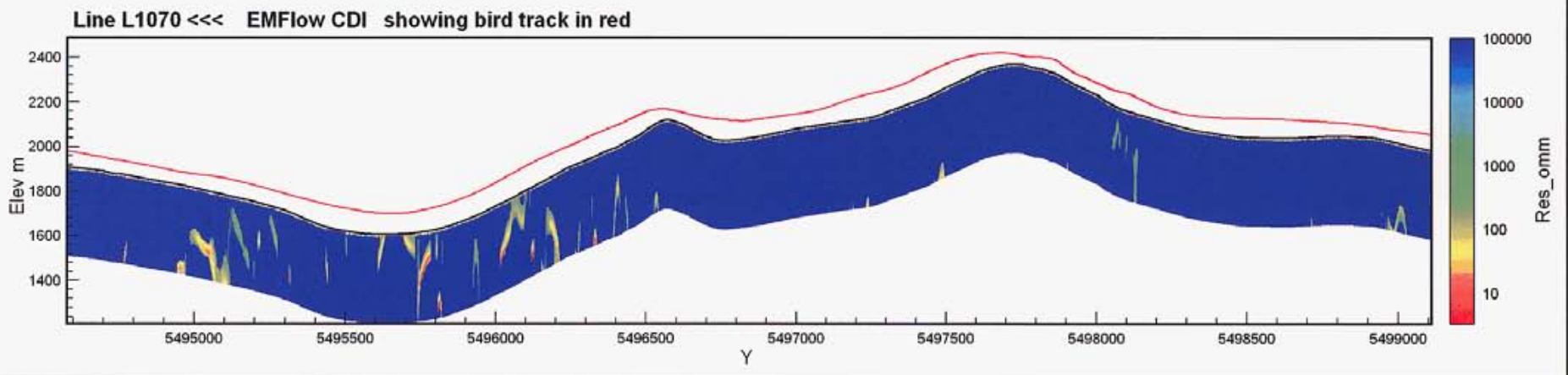
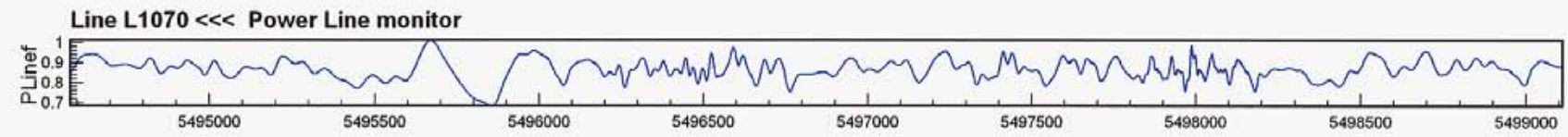
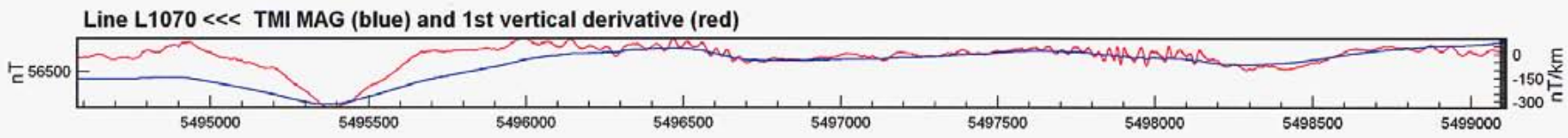
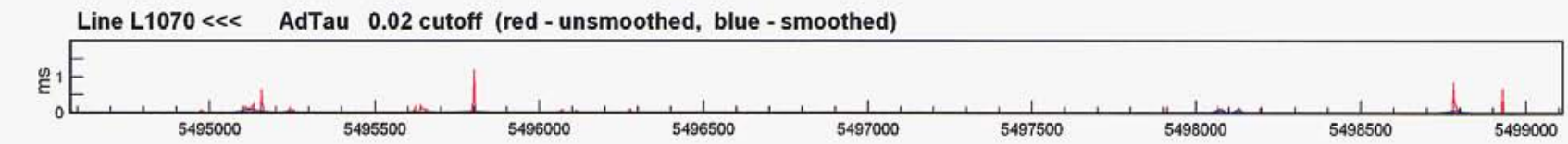
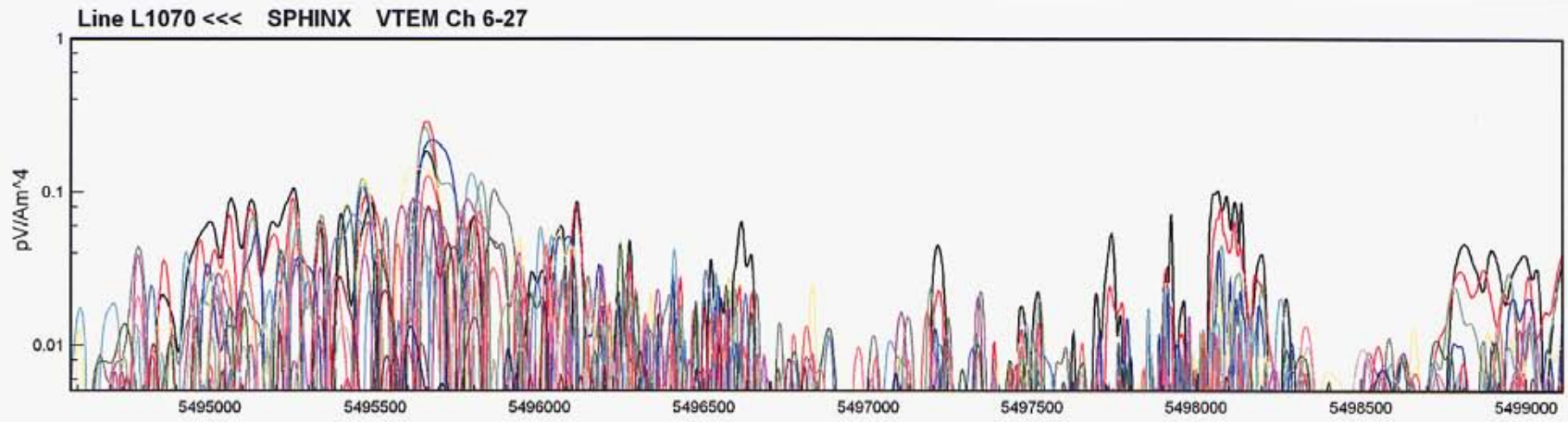


Line L1060 >>> Power Line monitor

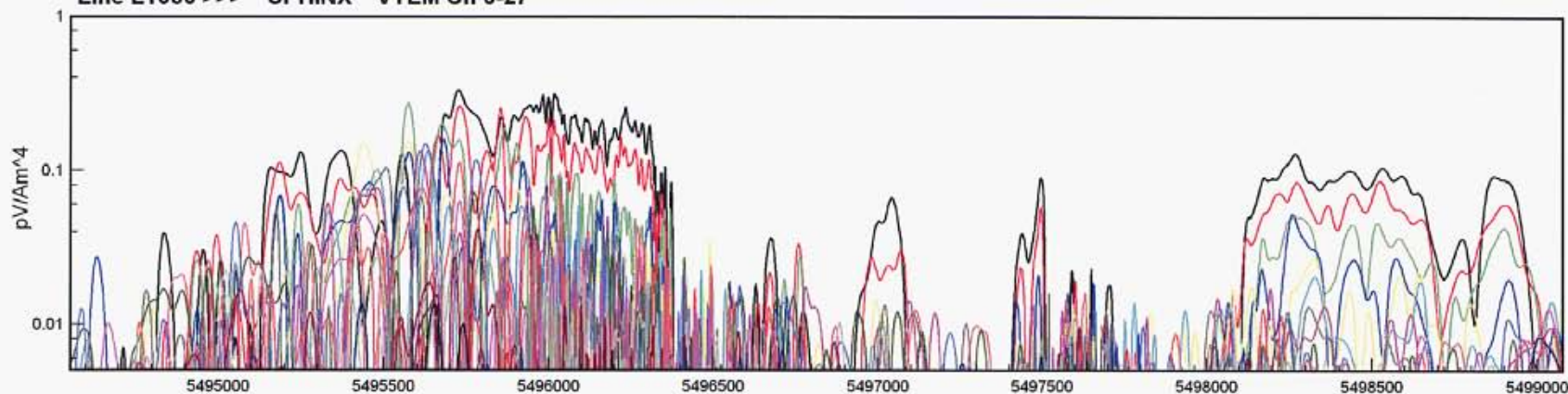


Line L1060 >>> EMFlow CDI showing bird track in red

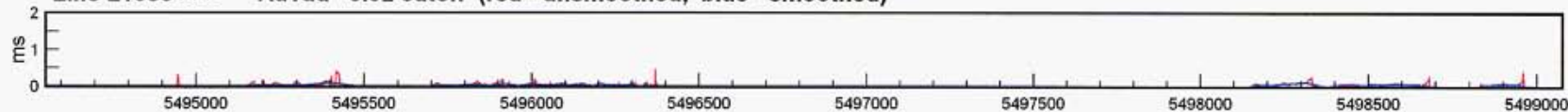




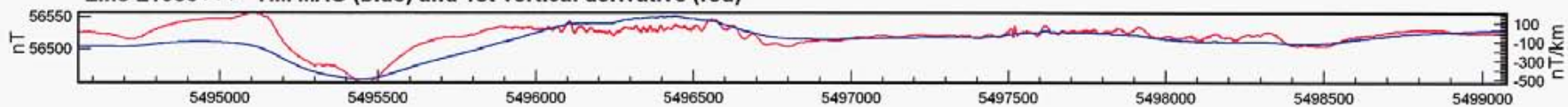
Line L1080 >>> SPHINX VTEM Ch 6-27



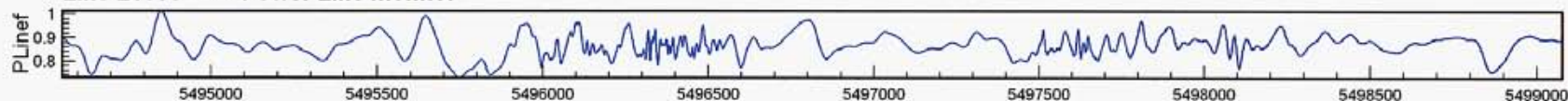
Line L1080 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



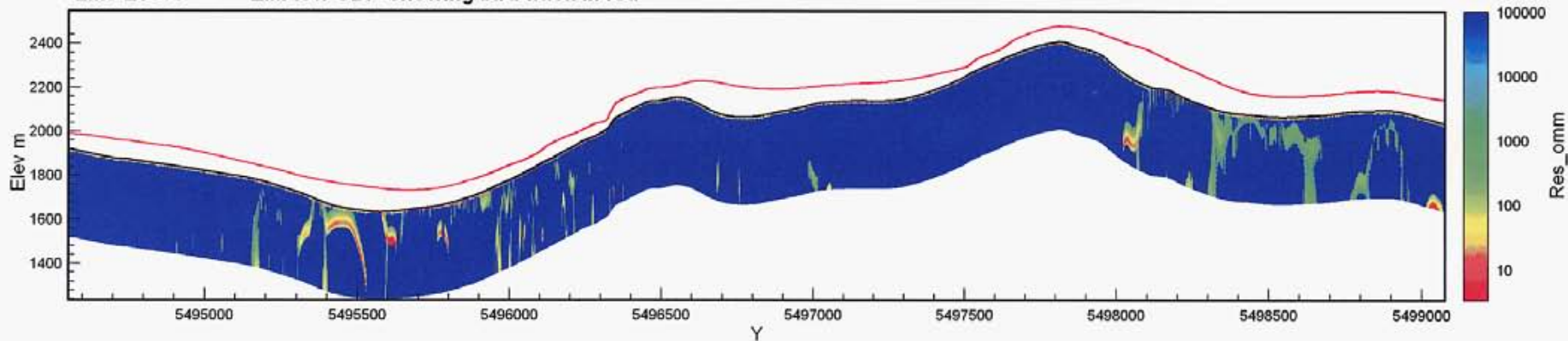
Line L1080 >>> TMI MAG (blue) and 1st vertical derivative (red)



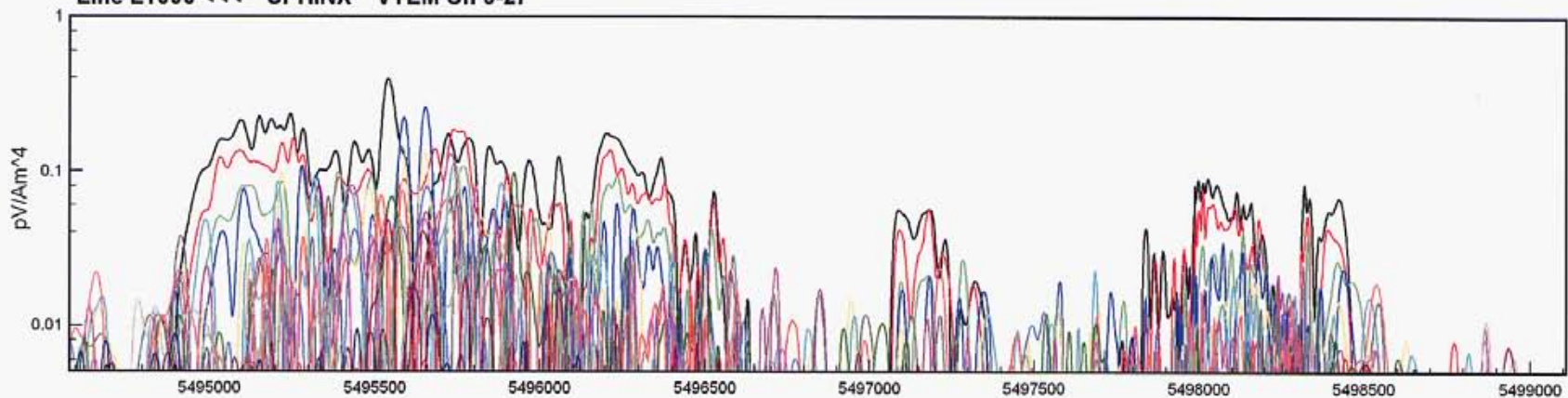
Line L1080 >>> Power Line monitor



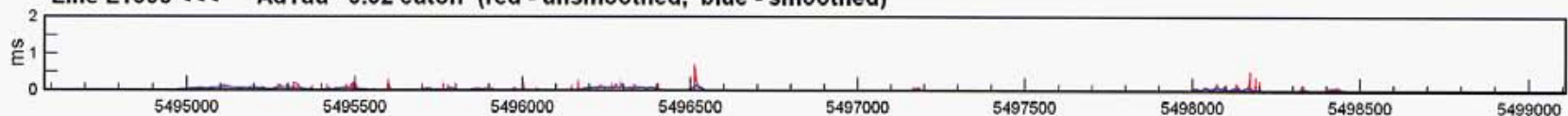
Line L1080 >>> EMFlow CDI showing bird track in red



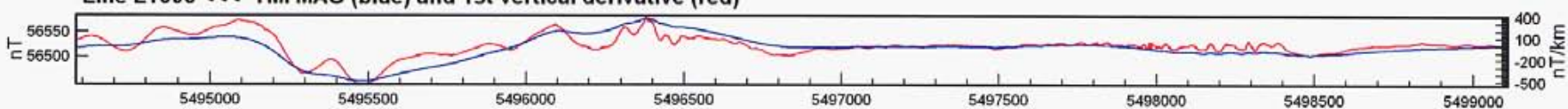
Line L1090 <<< SPHINX VTEM Ch 6-27



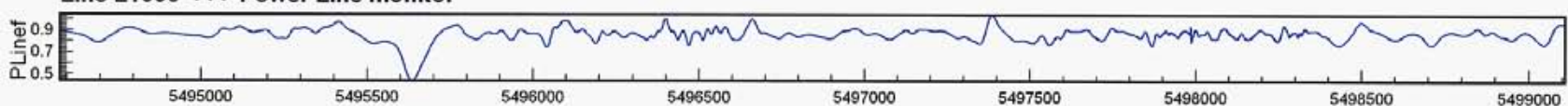
Line L1090 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



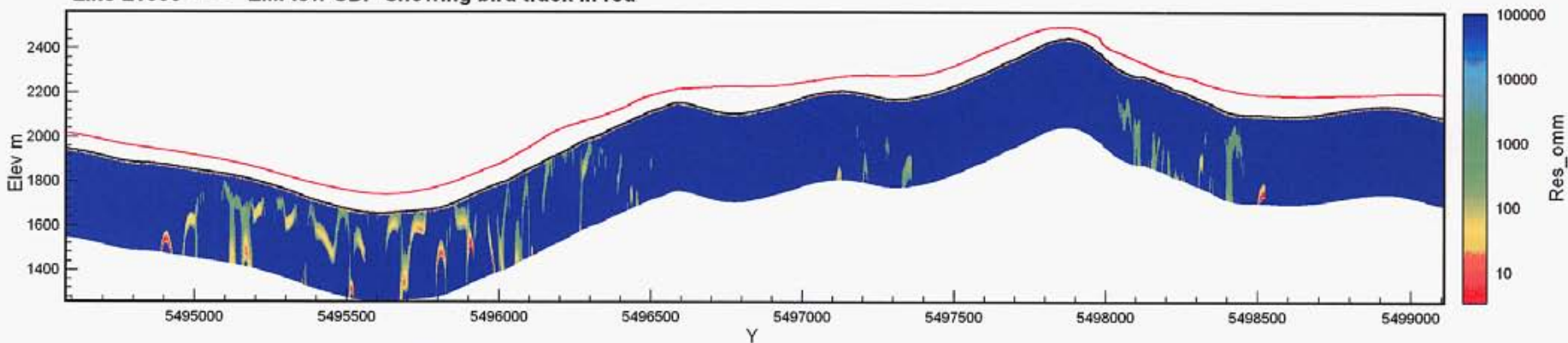
Line L1090 <<< TMI MAG (blue) and 1st vertical derivative (red)



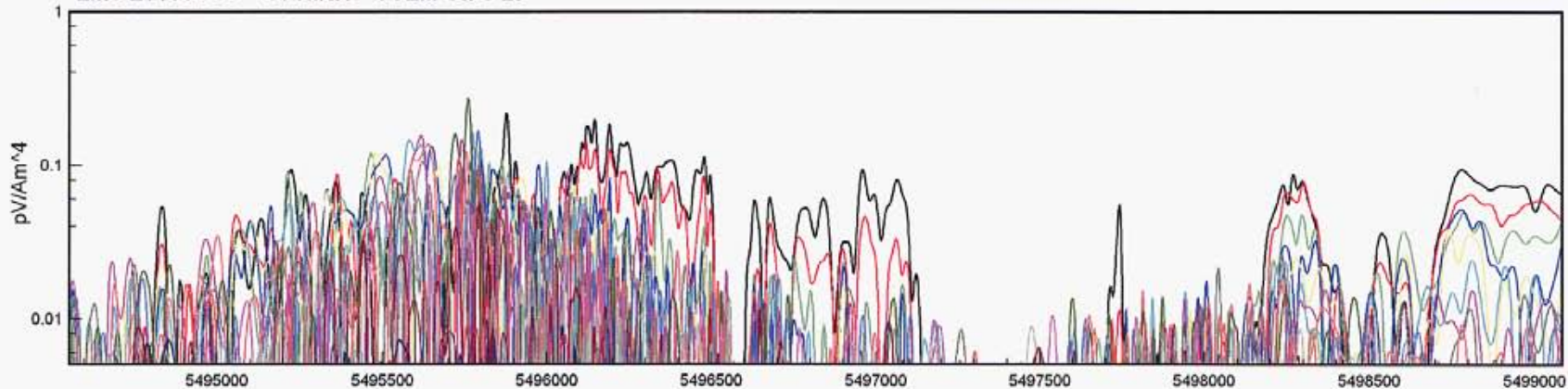
Line L1090 <<< Power Line monitor



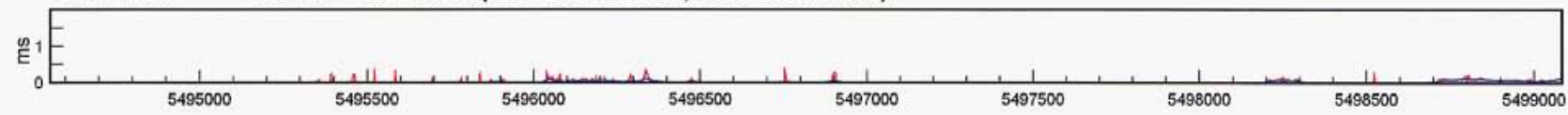
Line L1090 <<< EMFlow CDI showing bird track in red



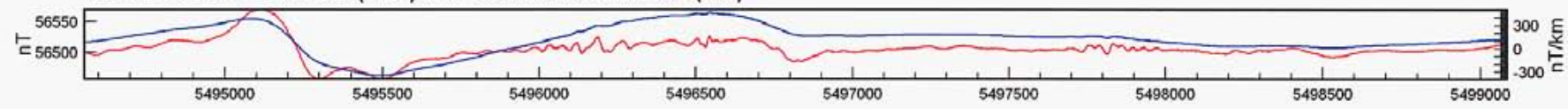
Line L1100 >>> SPHINX VTEM Ch 6-27



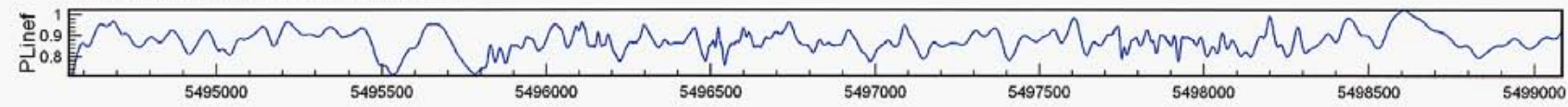
Line L1100 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



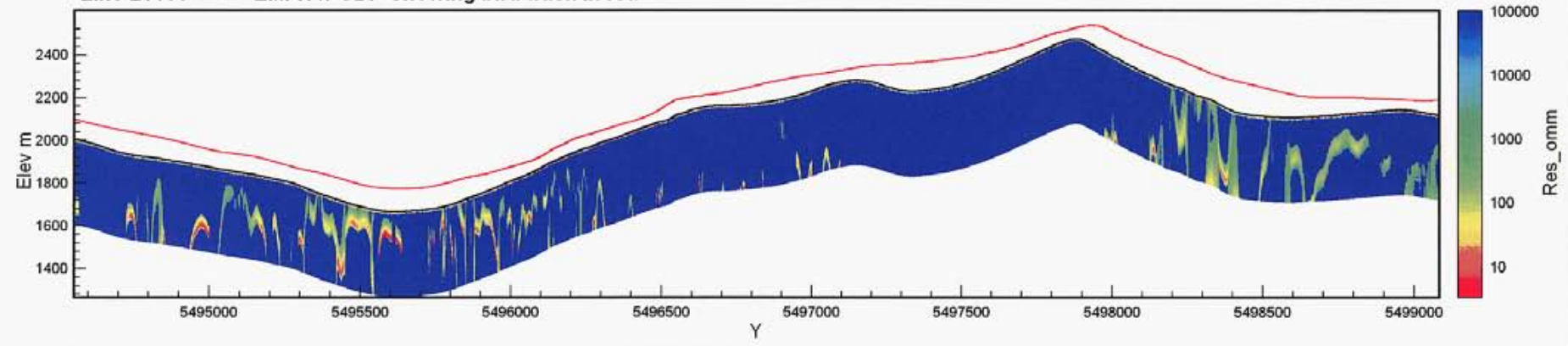
Line L1100 >>> TMI MAG (blue) and 1st vertical derivative (red)



Line L1100 >>> Power Line monitor

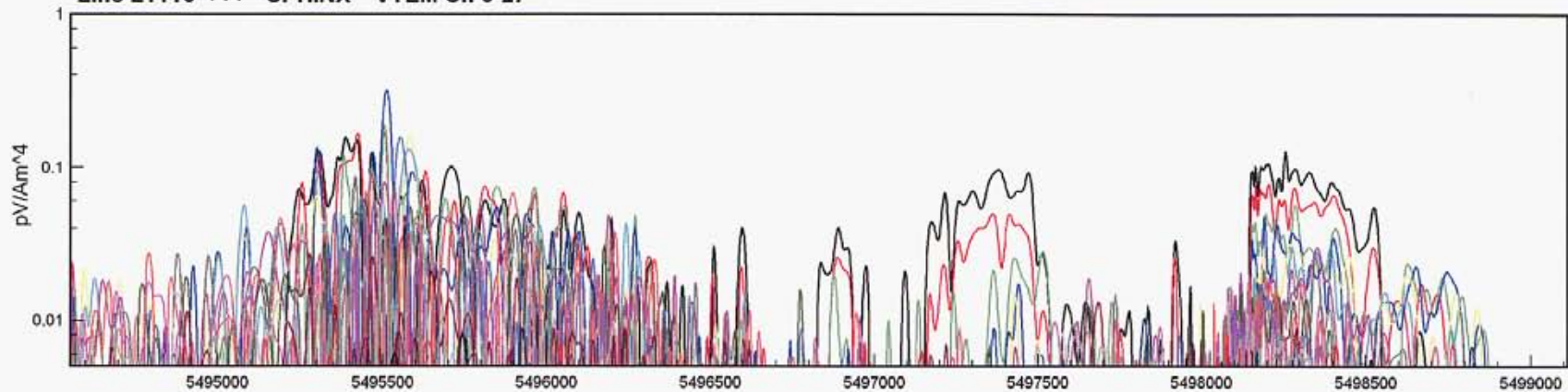


Line L1100 >>> EMFlow CDI showing bird track in red

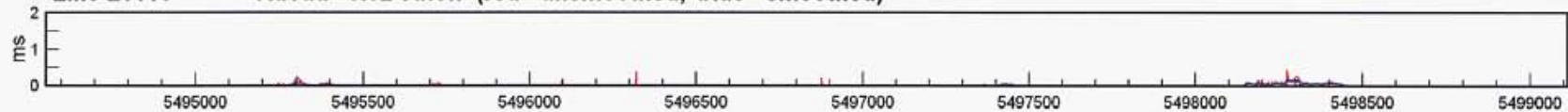




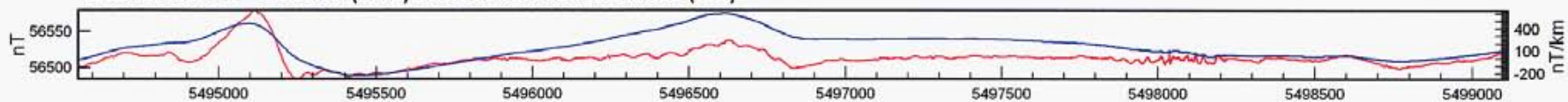
Line L1110 <<< SPHINX VTEM Ch 6-27



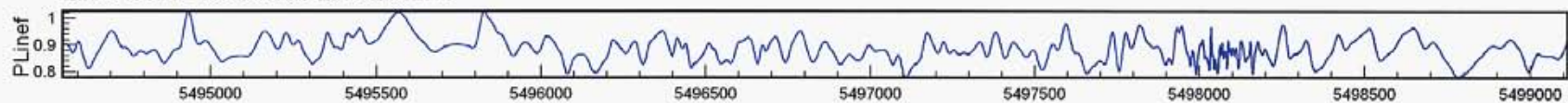
Line L1110 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



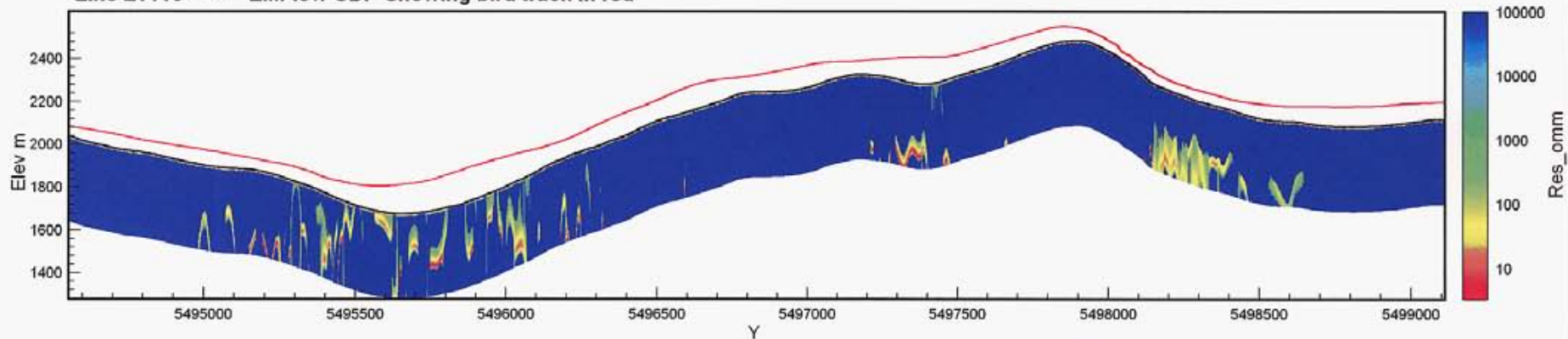
Line L1110 <<< TMI MAG (blue) and 1st vertical derivative (red)



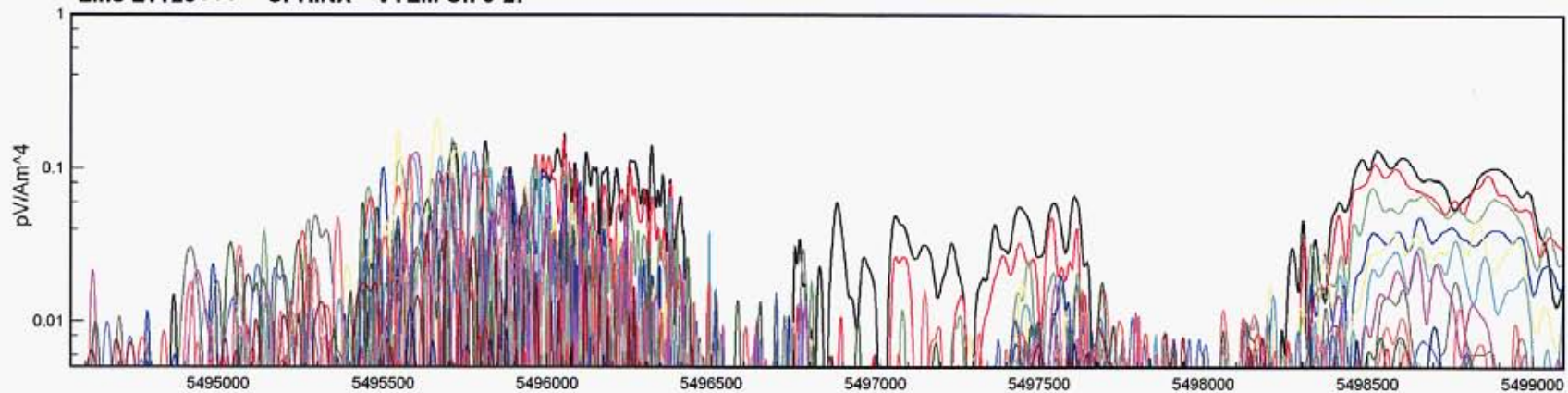
Line L1110 <<< Power Line monitor



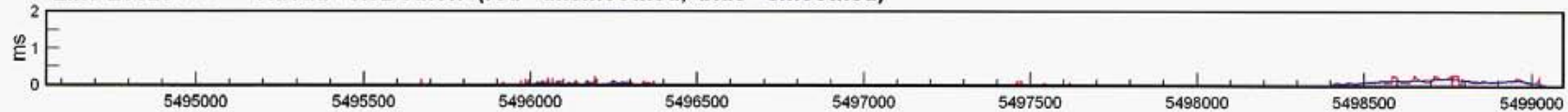
Line L1110 <<< EMFlow CDI showing bird track in red



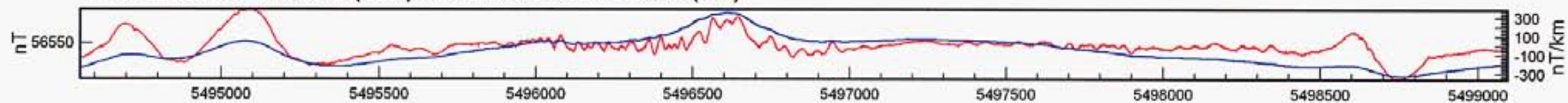
Line L1120 >>> SPHINX VTEM Ch 6-27



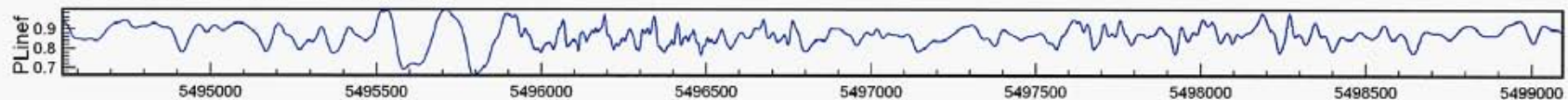
Line L1120 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



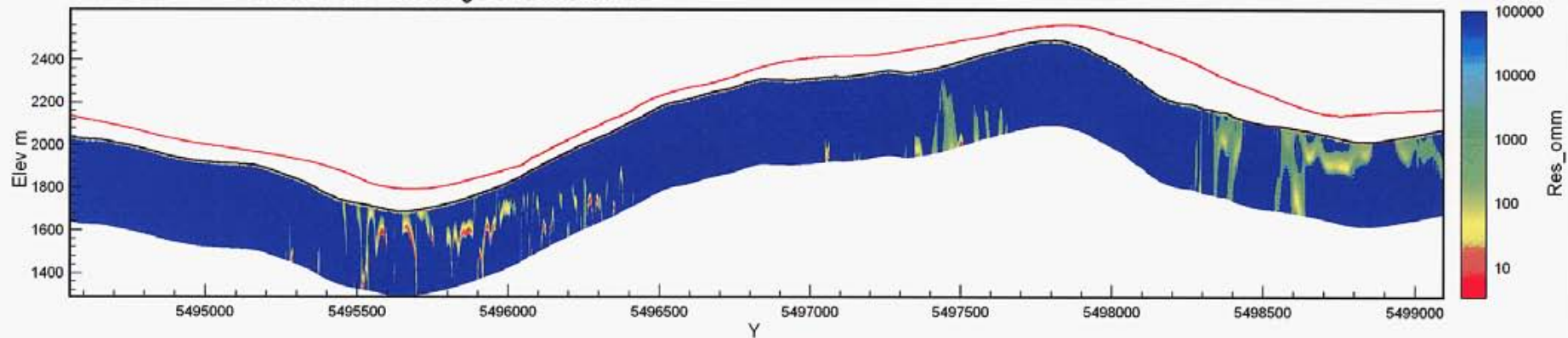
Line L1120 >>> TMI MAG (blue) and 1st vertical derivative (red)



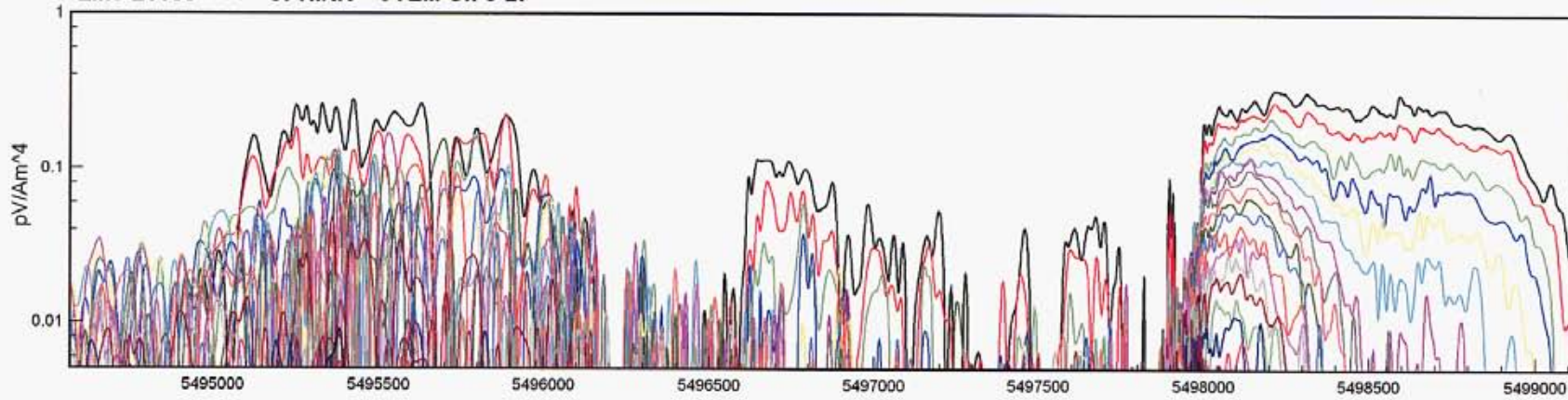
Line L1120 >>> Power Line monitor



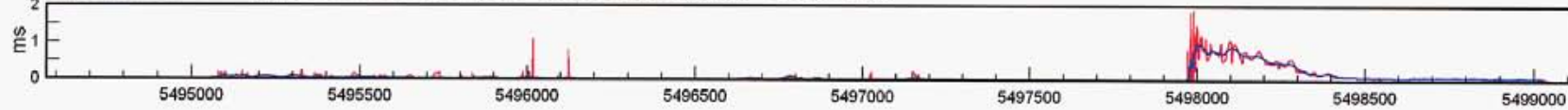
Line L1120 >>> EMFlow CDI showing bird track in red



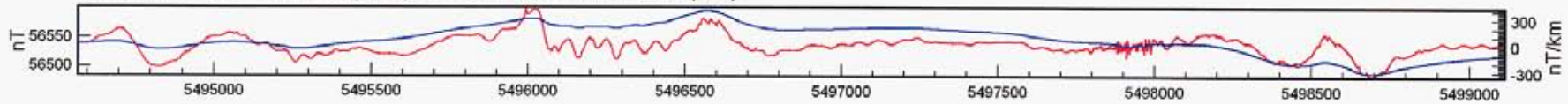
Line L1130 <<< SPHINX VTEM Ch 6-27



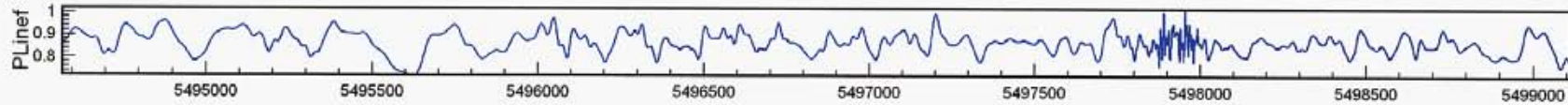
Line L1130 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



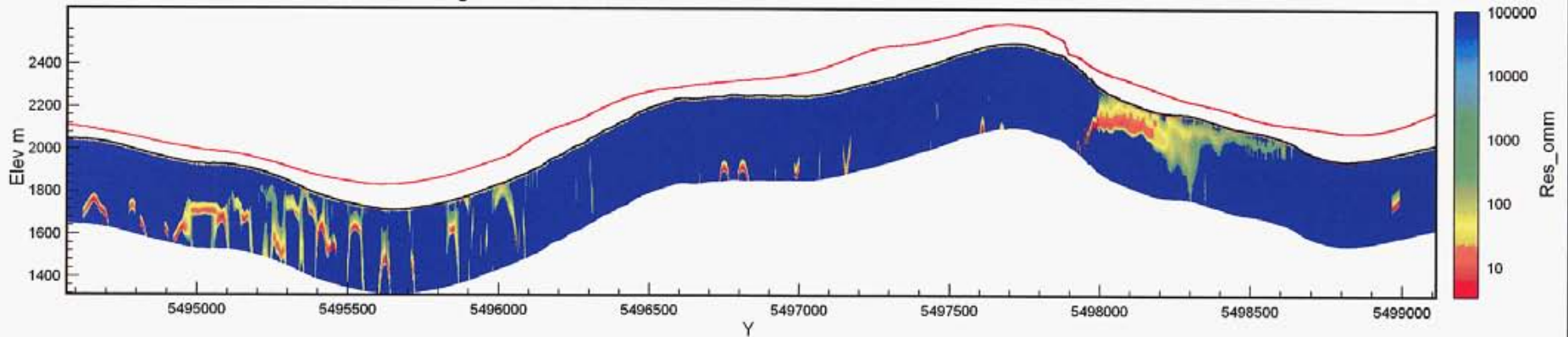
Line L1130 <<< TMI MAG (blue) and 1st vertical derivative (red)



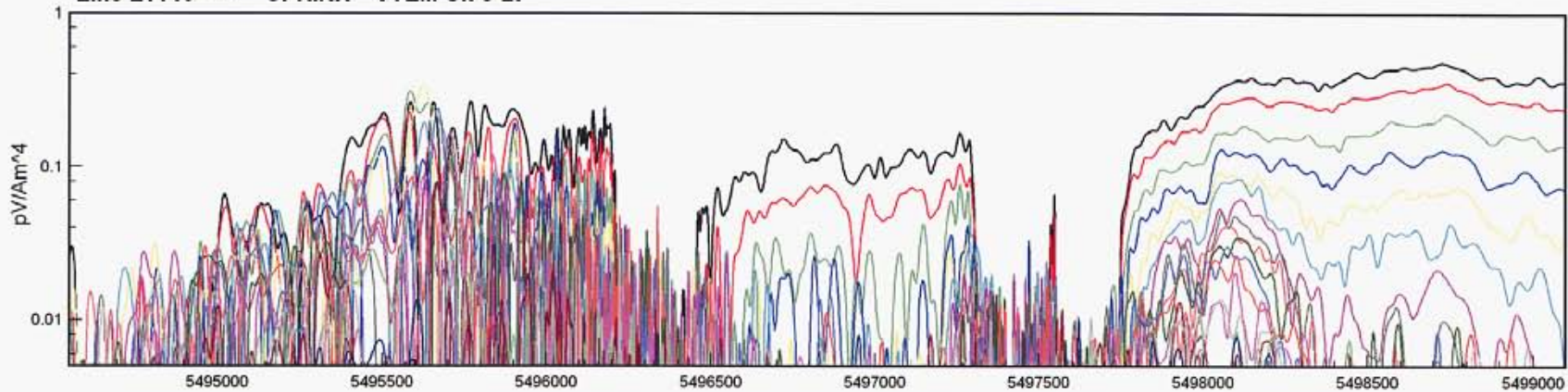
Line L1130 <<< Power Line monitor



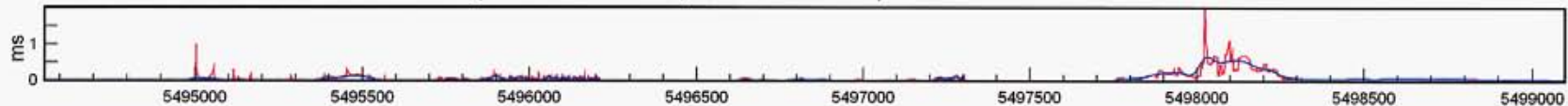
Line L1130 <<< EMFlow CDI showing bird track in red



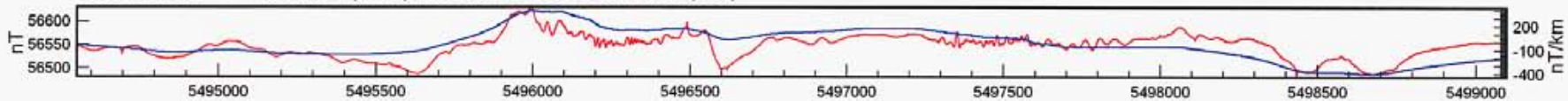
Line L1140 >>> SPHINX VTEM Ch 6-27



Line L1140 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



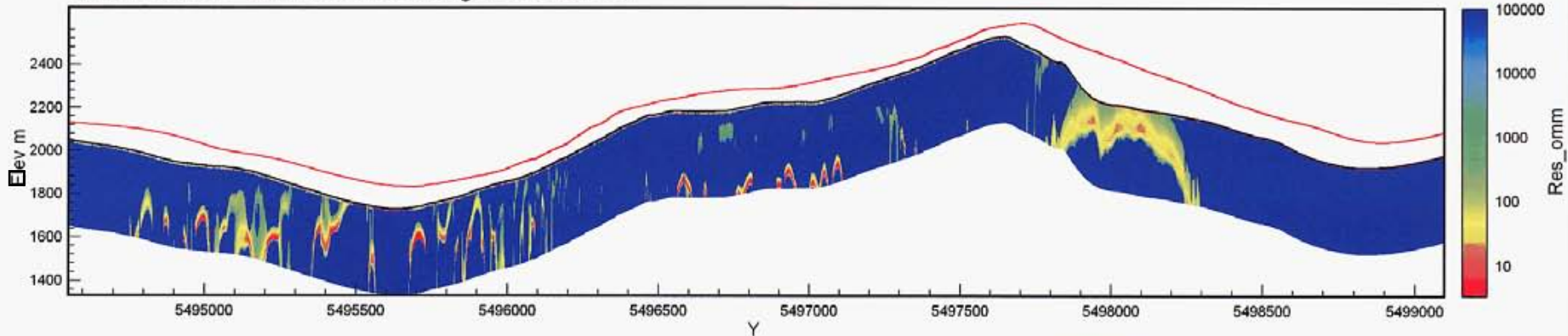
Line L1140 >>> TMI MAG (blue) and 1st vertical derivative (red)



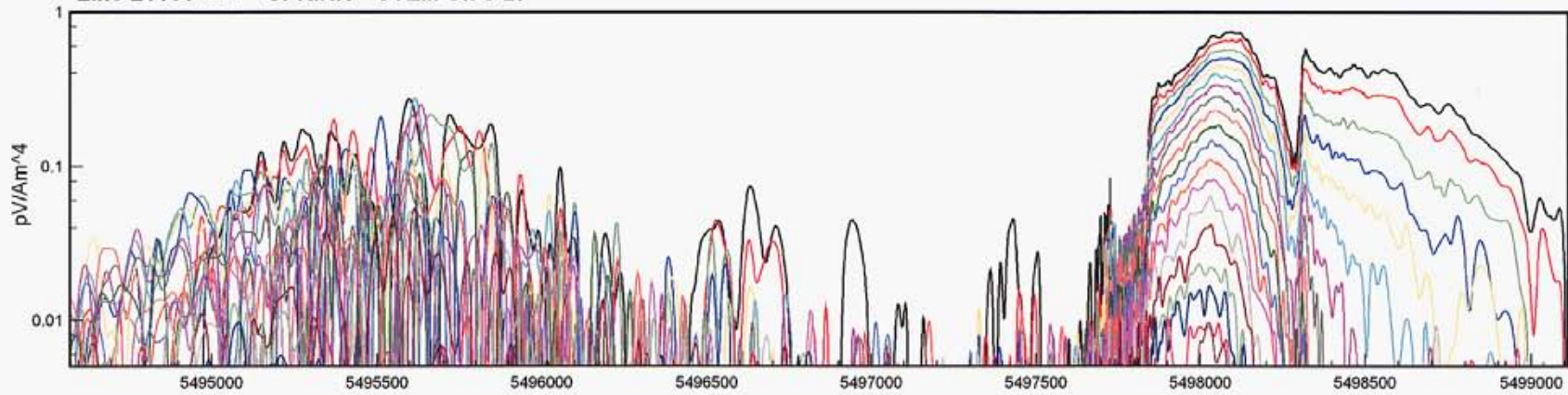
Line L1140 >>> Power Line monitor



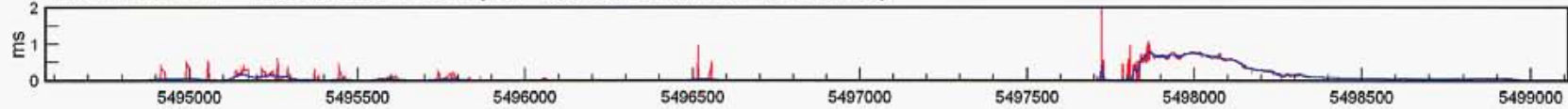
Line L1140 >>> EMFlow CDI showing bird track in red



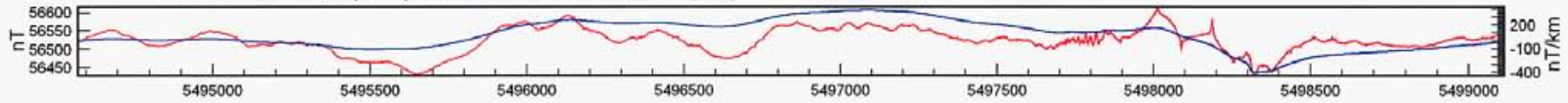
Line L1150 <<< SPHINX VTEM Ch 6-27



Line L1150 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



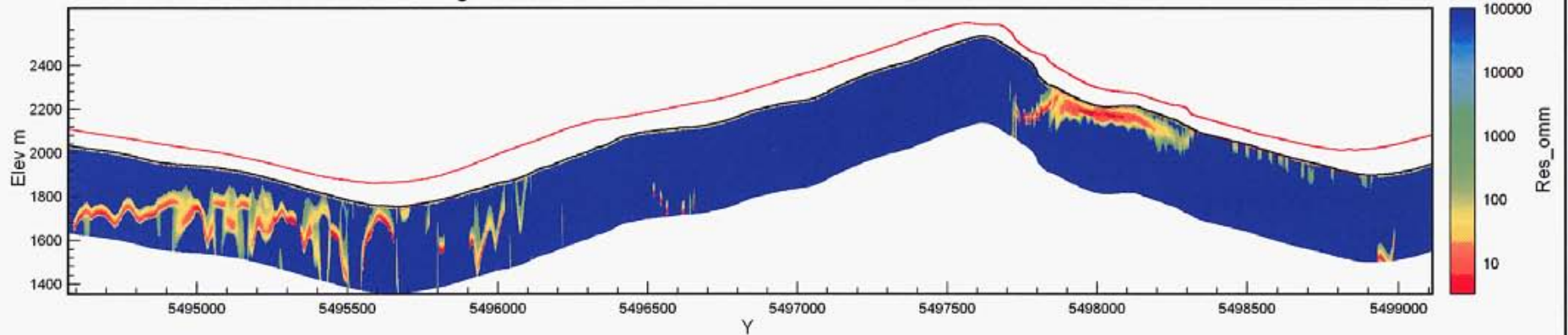
Line L1150 <<< TMI MAG (blue) and 1st vertical derivative (red)

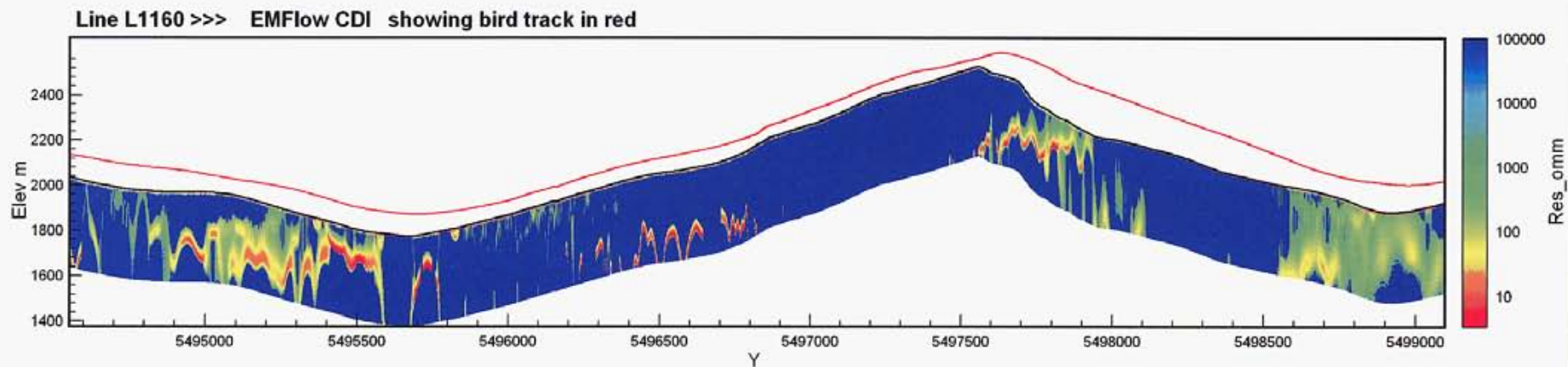
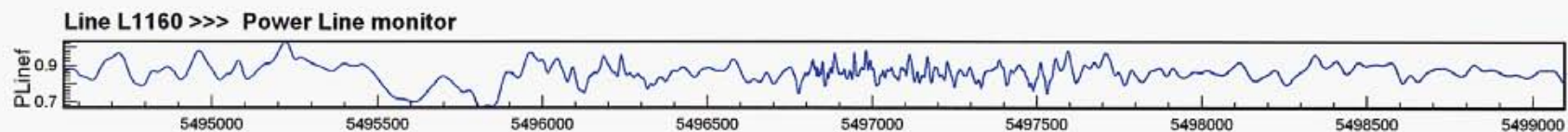
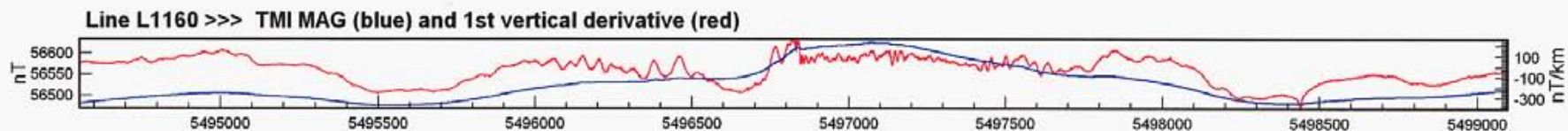
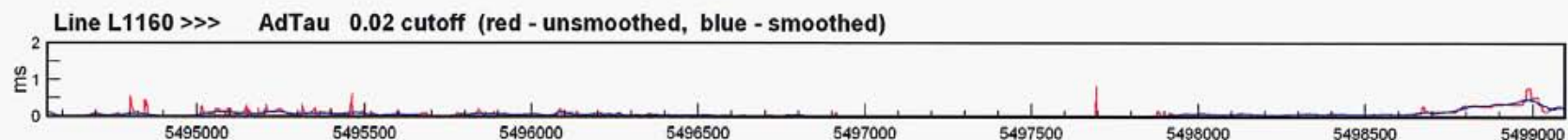
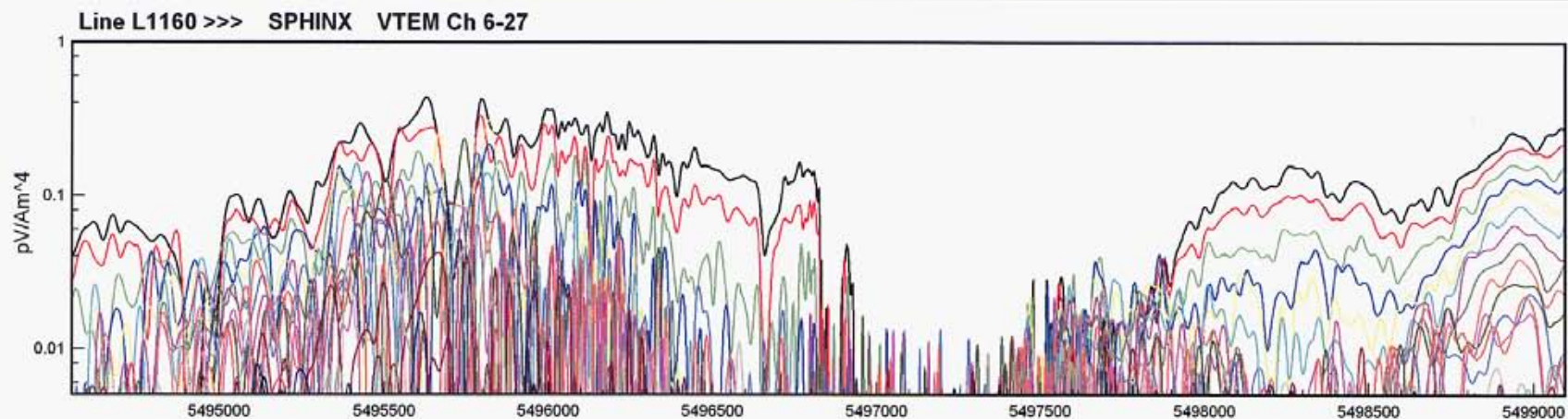


Line L1150 <<< Power Line monitor

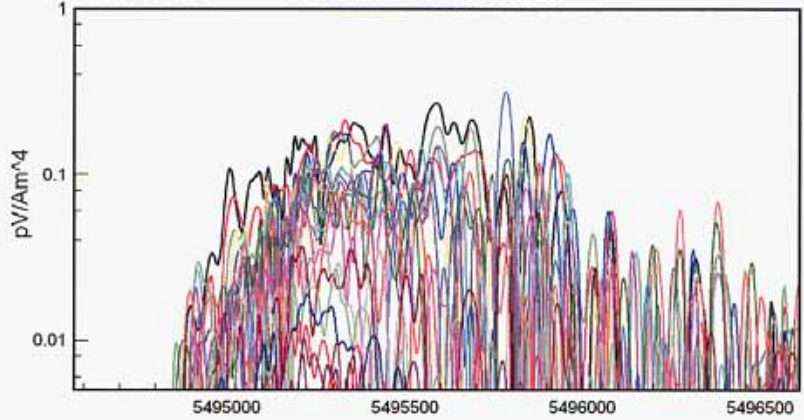


Line L1150 <<< EMFlow CDI showing bird track in red

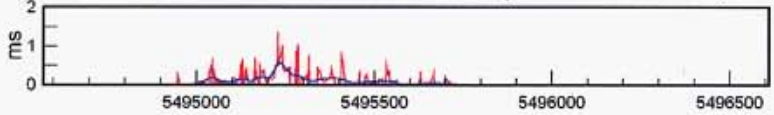




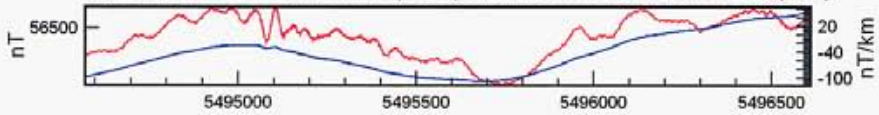
Line L1170 <<< SPHINX VTEM Ch 6-27



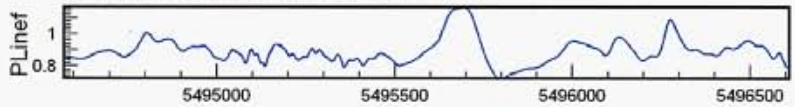
Line L1170 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



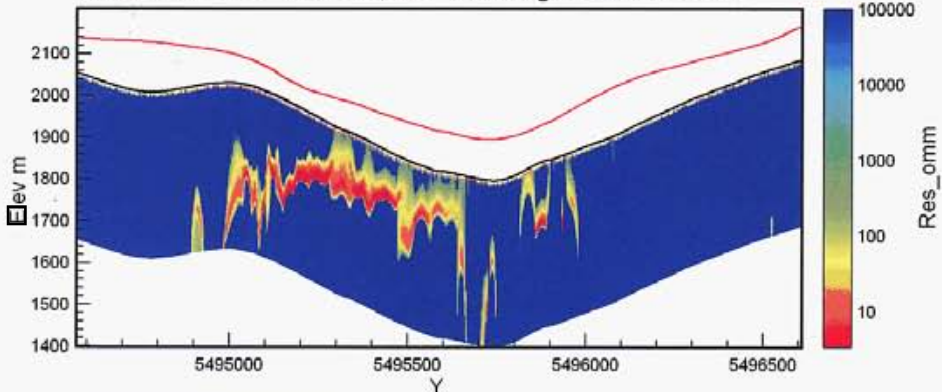
Line L1170 <<< TMI MAG (blue) and 1st vertical derivative (red)

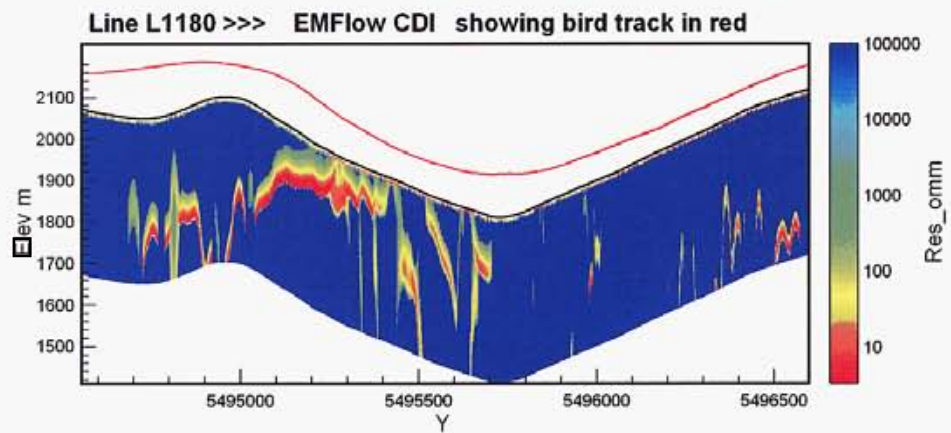
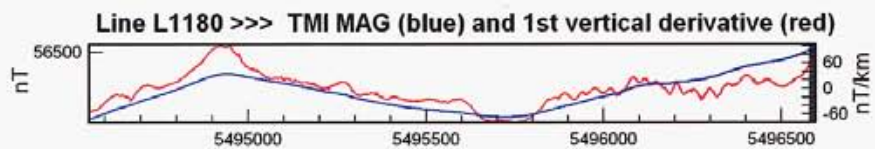
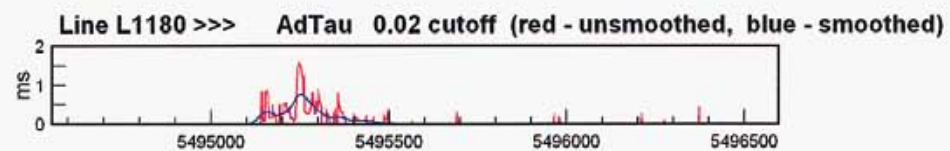
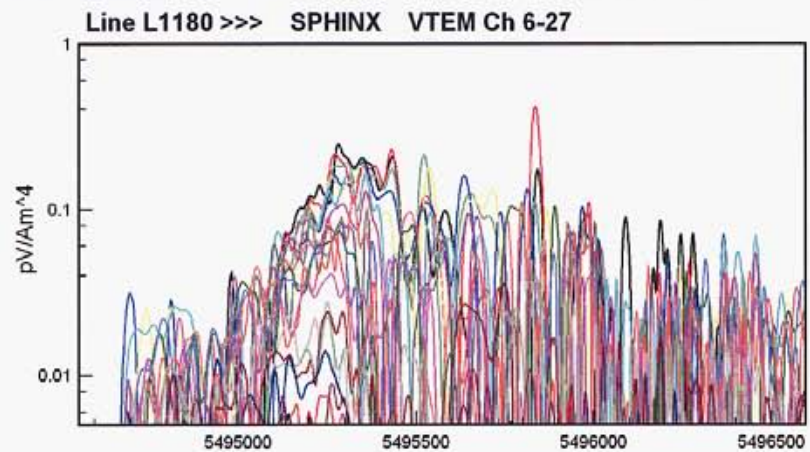


Line L1170 <<< Power Line monitor

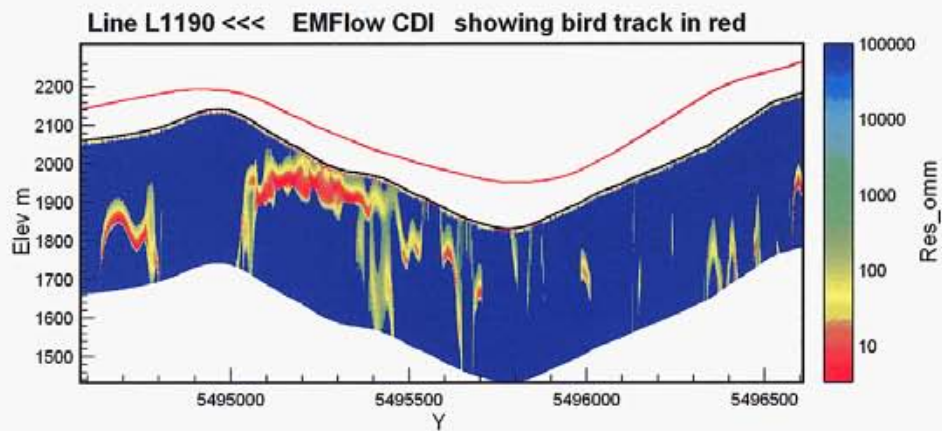
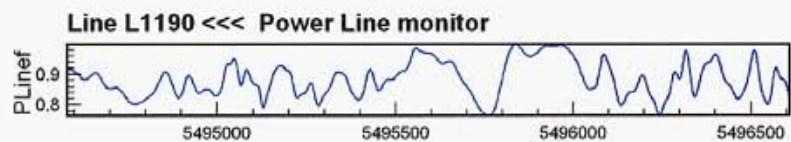
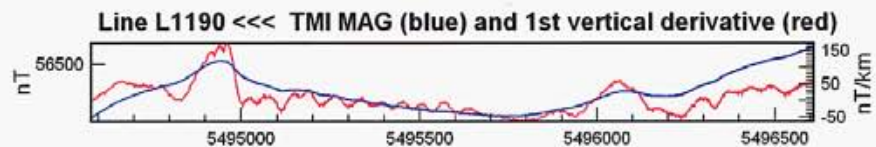
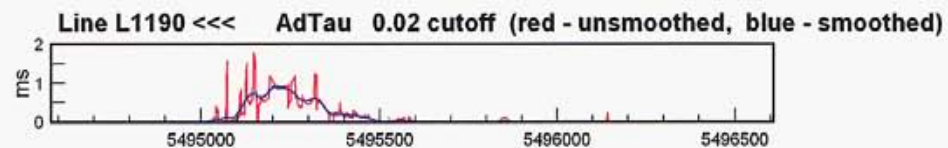
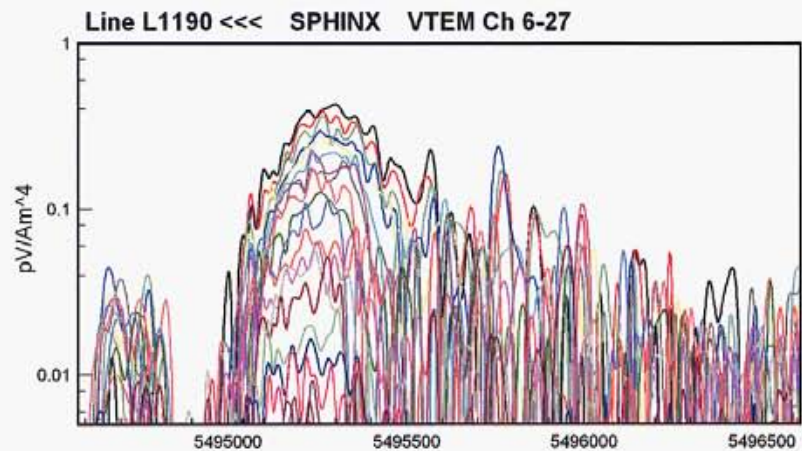


Line L1170 <<< EMFlow CDI showing bird track in red

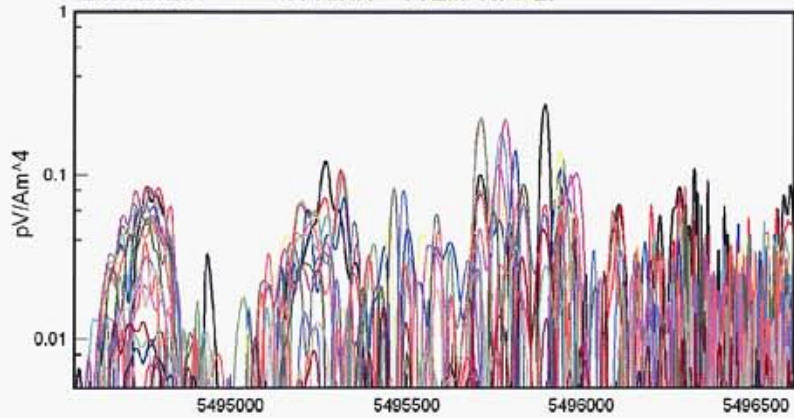




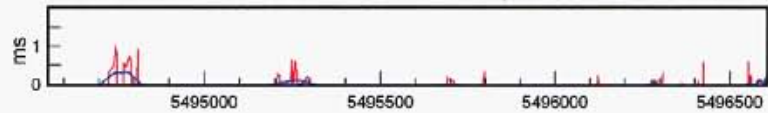




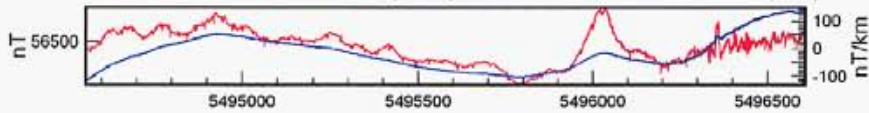
Line L1200 >>> SPHINX VTEM Ch 6-27



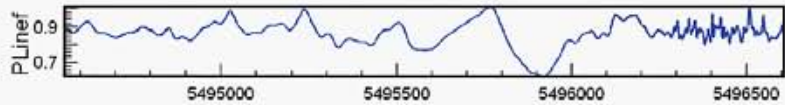
Line L1200 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



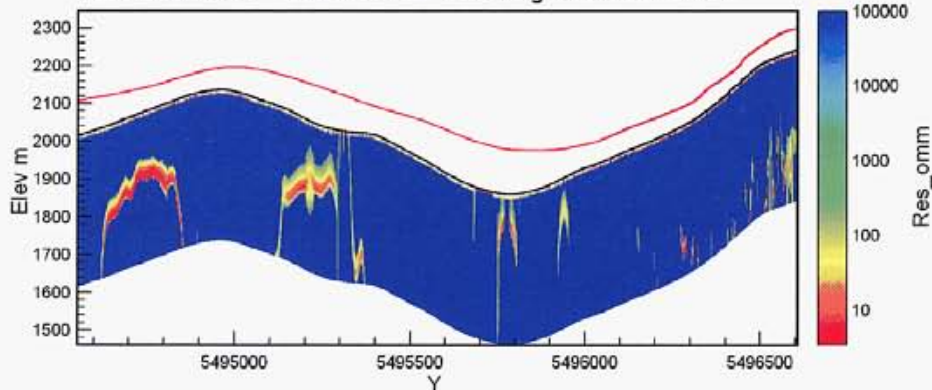
Line L1200 >>> TMI MAG (blue) and 1st vertical derivative (red)



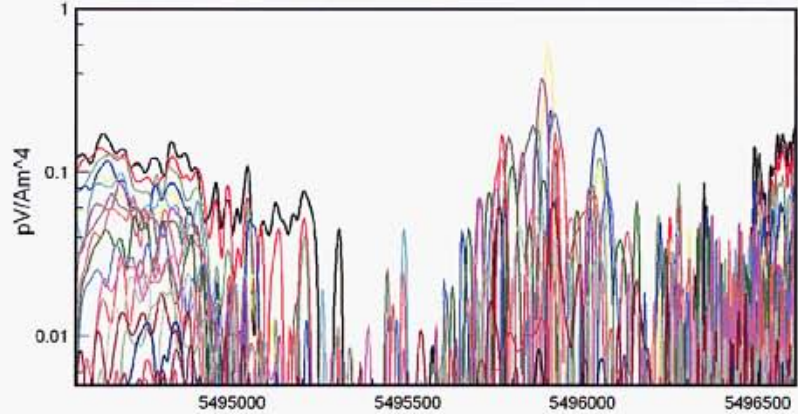
Line L1200 >>> Power Line monitor



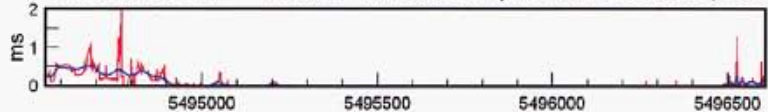
Line L1200 >>> EMFlow CDI showing bird track in red



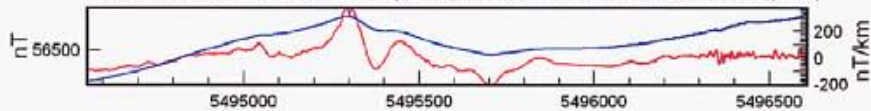
Line L1210 >>> SPHINX VTEM Ch 6-27



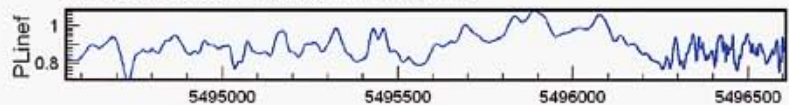
Line L1210 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



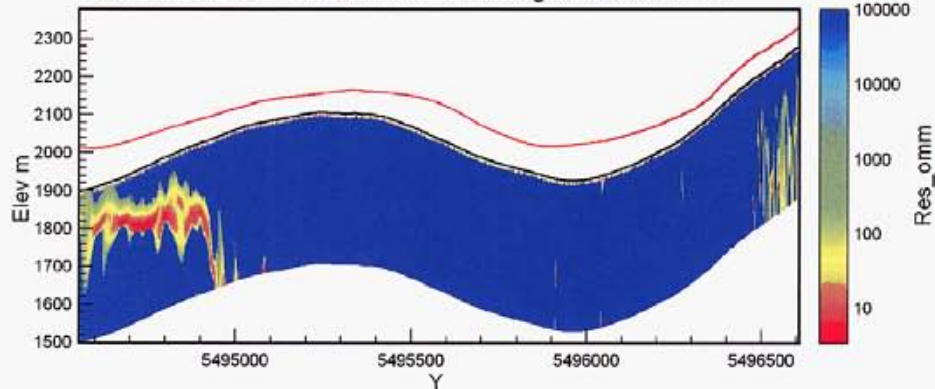
Line L1210 >>> TMI MAG (blue) and 1st vertical derivative (red)



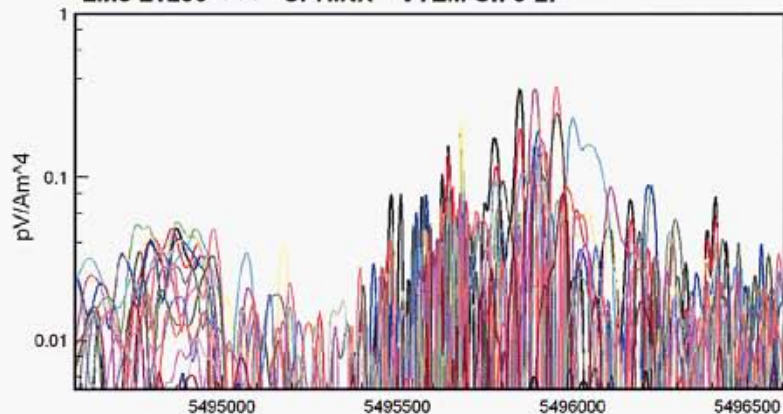
Line L1210 >>> Power Line monitor



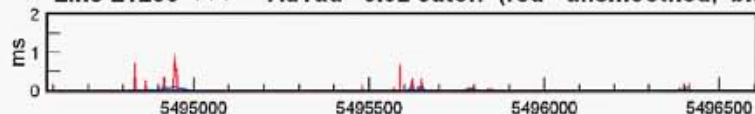
Line L1210 >>> EMFlow CDI showing bird track in red



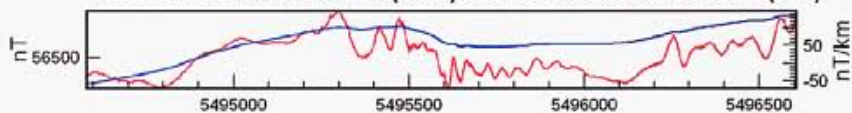
Line L1230 <<< SPHINX VTEM Ch 6-27



Line L1230 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



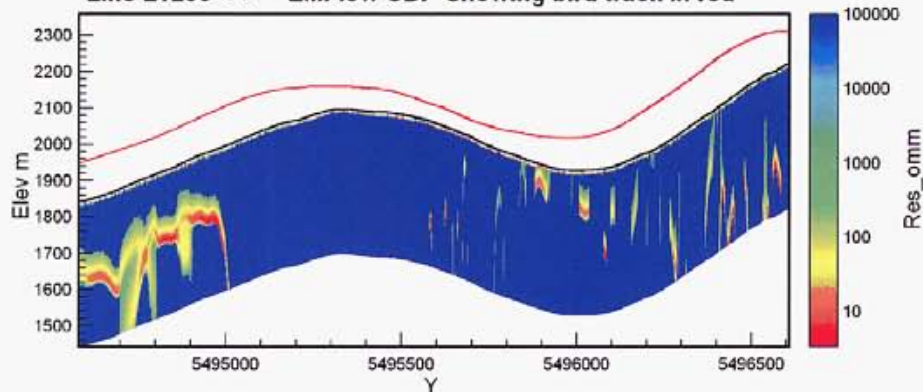
Line L1230 <<< TMI MAG (blue) and 1st vertical derivative (red)



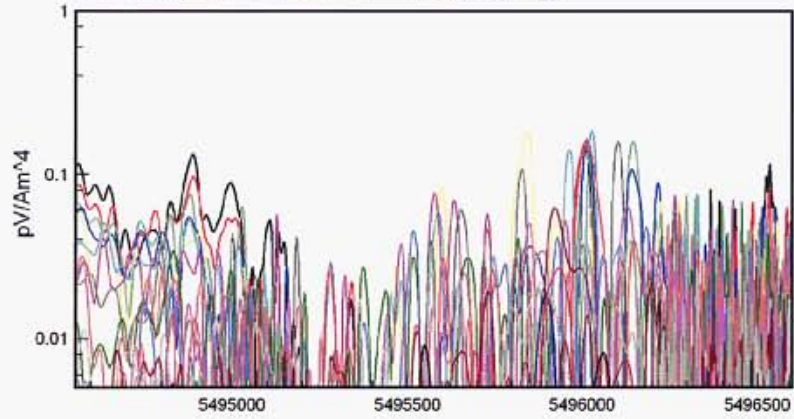
Line L1230 <<< Power Line monitor



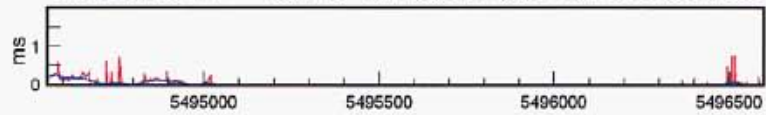
Line L1230 <<< EMFlow CDI showing bird track in red



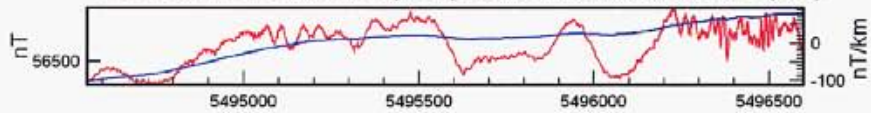
Line L1240 >>> SPHINX VTEM Ch 6-27



Line L1240 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



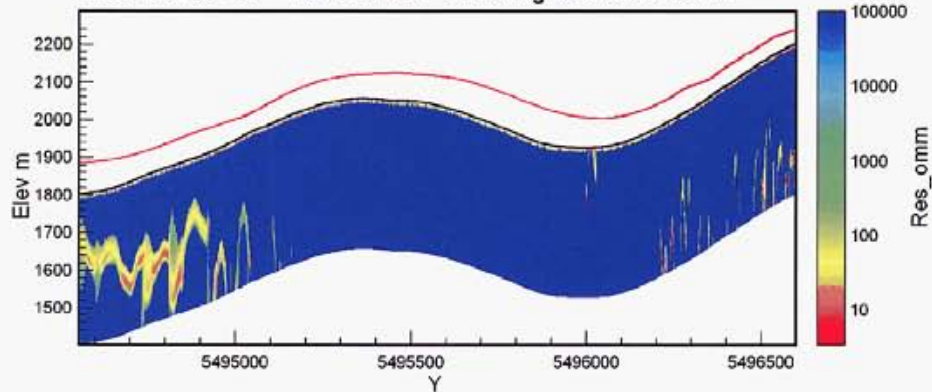
Line L1240 >>> TMI MAG (blue) and 1st vertical derivative (red)



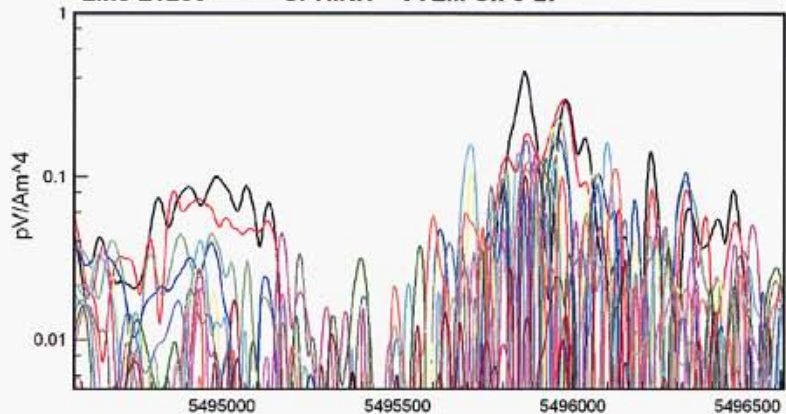
Line L1240 >>> Power Line monitor



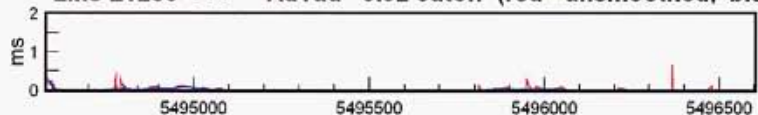
Line L1240 >>> EMFlow CDI showing bird track in red



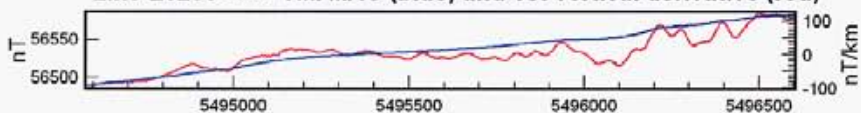
Line L1250 <<< SPHINX VTEM Ch 6-27



Line L1250 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



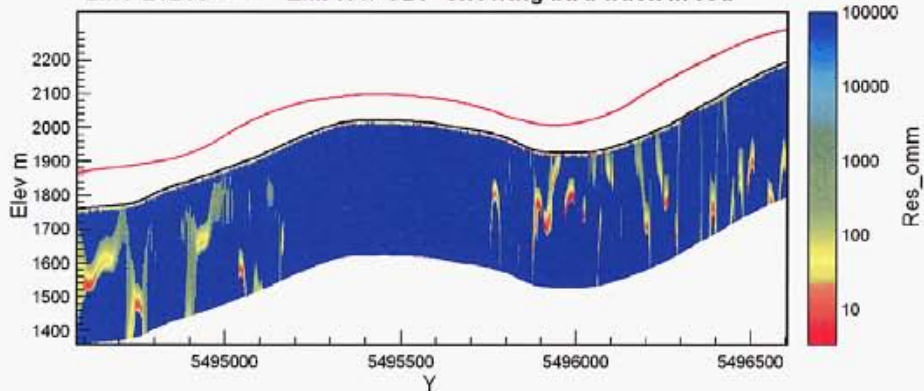
Line L1250 <<< TMI MAG (blue) and 1st vertical derivative (red)



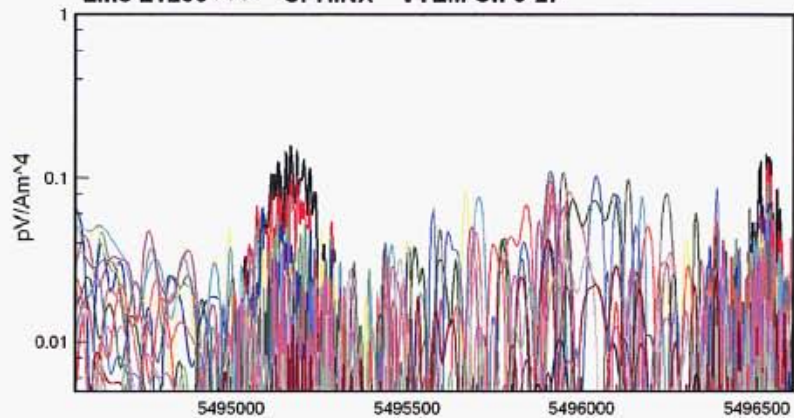
Line L1250 <<< Power Line monitor



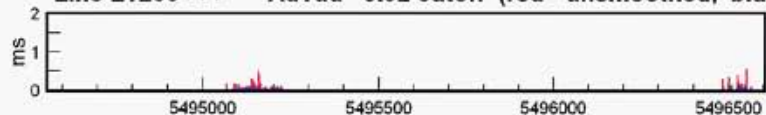
Line L1250 <<< EMFlow CDI showing bird track in red



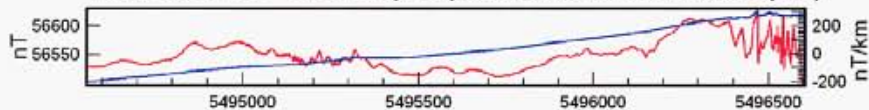
Line L1260 >>> SPHINX VTEM Ch 6-27



Line L1260 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



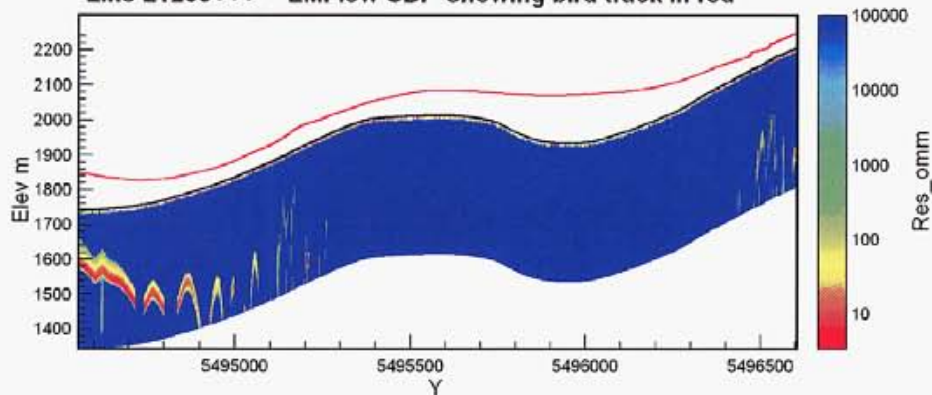
Line L1260 >>> TMI MAG (blue) and 1st vertical derivative (red)



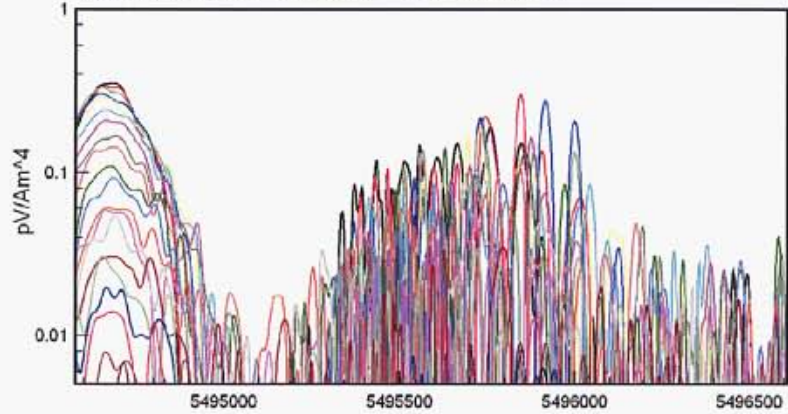
Line L1260 >>> Power Line monitor



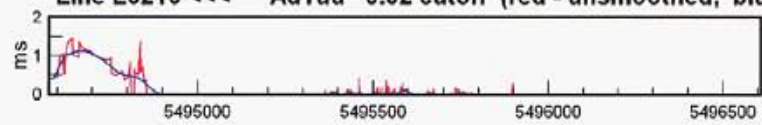
Line L1260 >>> EMFlow CDI showing bird track in red



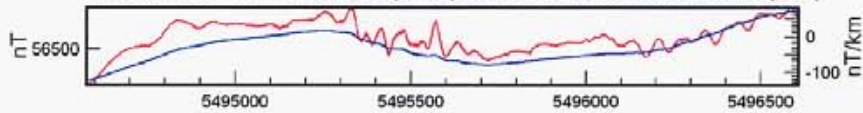
Line L6210 <<< SPHINX VTEM Ch 6-27



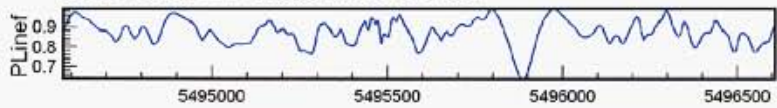
Line L6210 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



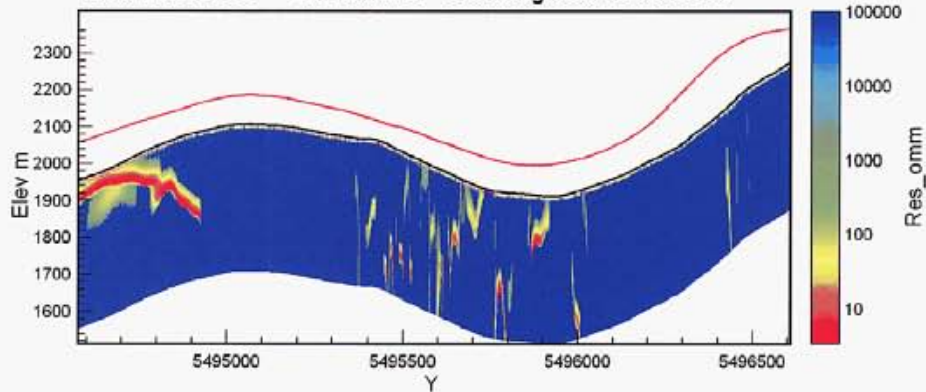
Line L6210 <<< TMI MAG (blue) and 1st vertical derivative (red)



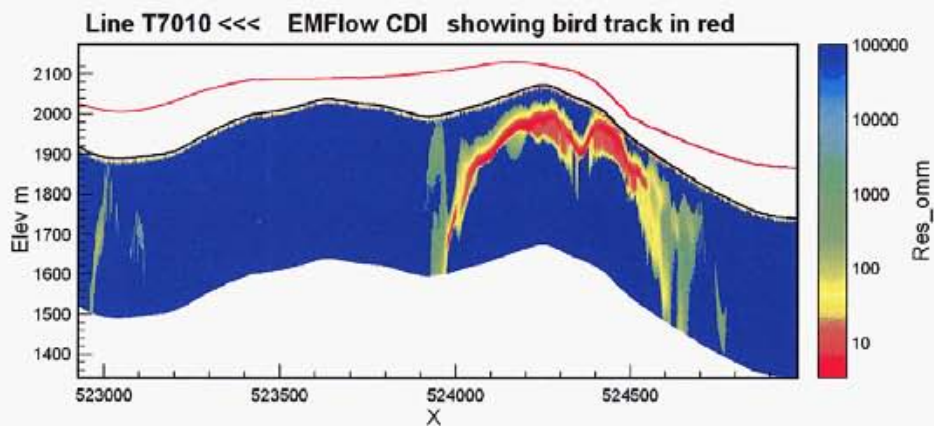
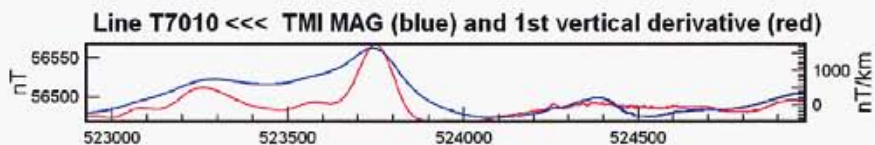
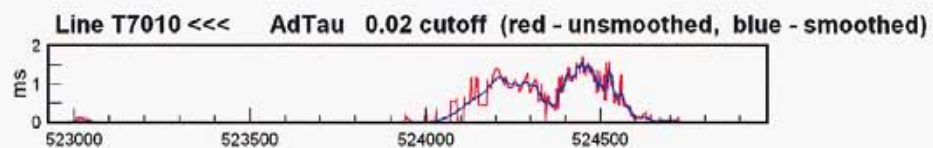
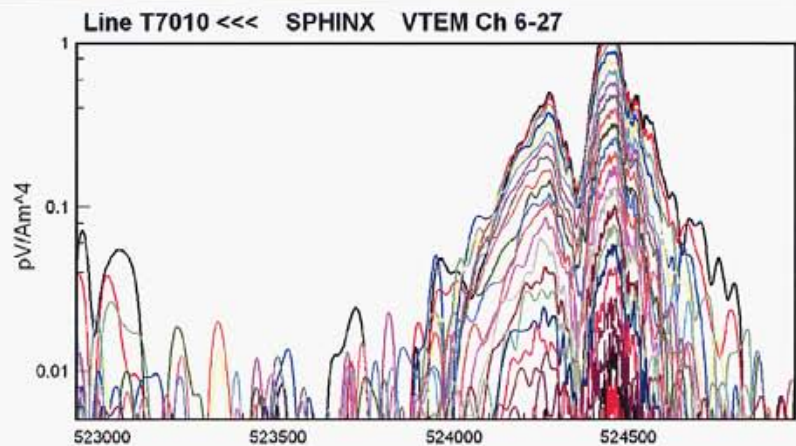
Line L6210 <<< Power Line monitor



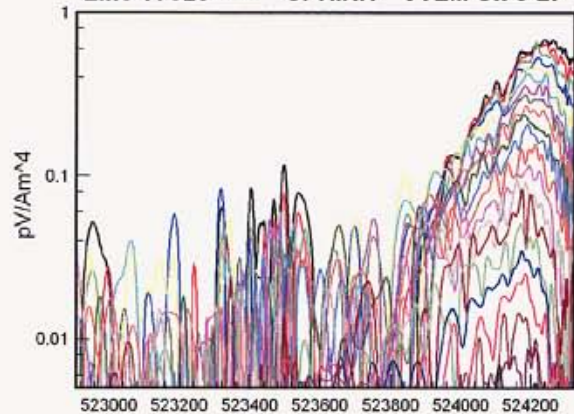
Line L6210 <<< EMFlow CDI showing bird track in red



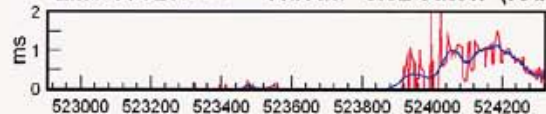




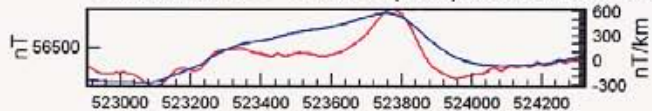
Line T7020 >>> SPHINX VTEM Ch 6-27



Line T7020 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



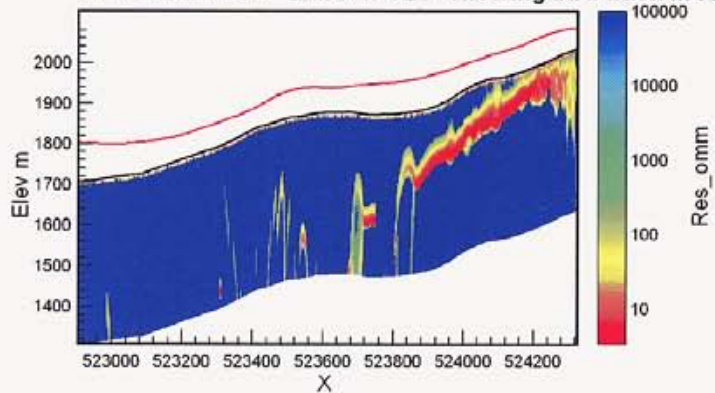
Line T7020 >>> TMI MAG (blue) and 1st vertical derivative (red)



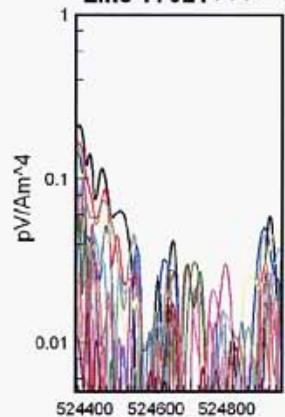
Line T7020 >>> Power Line monitor



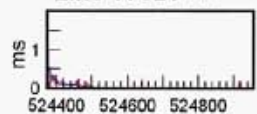
Line T7020 >>> EMFlow CDI showing bird track in red



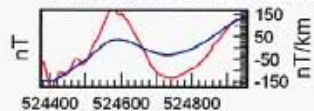
Line T7021 >>> SPHINX VTEM Ch 6-27



Line T7021 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



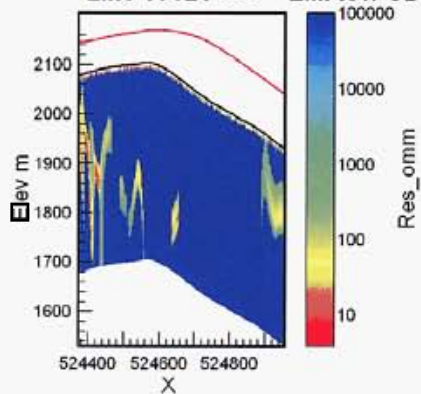
Line T7021 >>> TMI MAG (blue) and 1st vertical derivative (red)



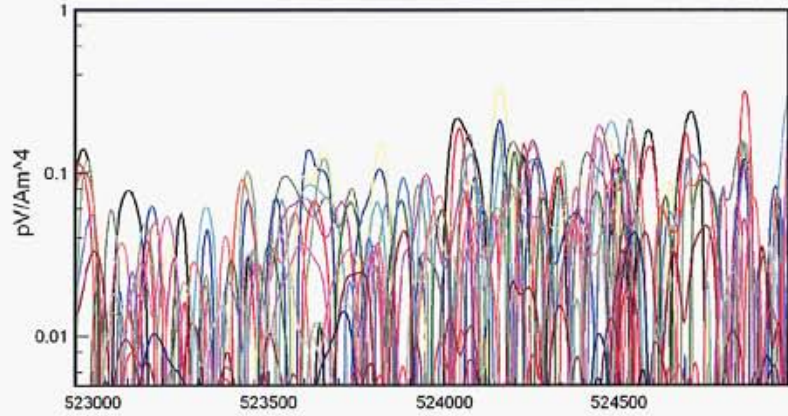
Line T7021 >>> Power Line monitor



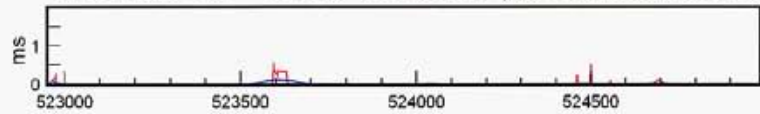
Line T7021 >>> EMFlow CDI showing bird track in red



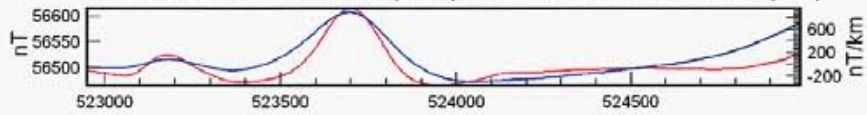
Line T7030 <<< SPHINX VTEM Ch 6-27



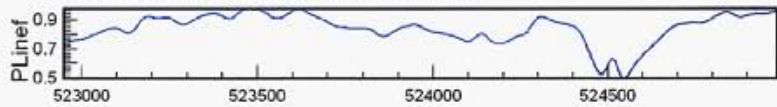
Line T7030 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



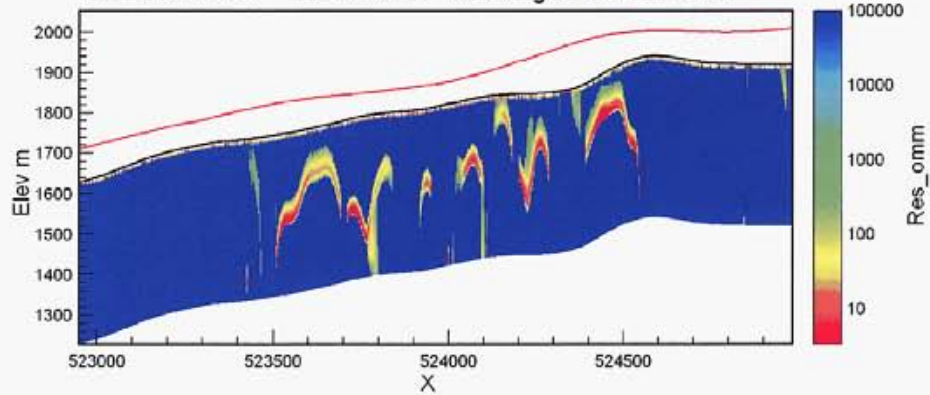
Line T7030 <<< TMI MAG (blue) and 1st vertical derivative (red)



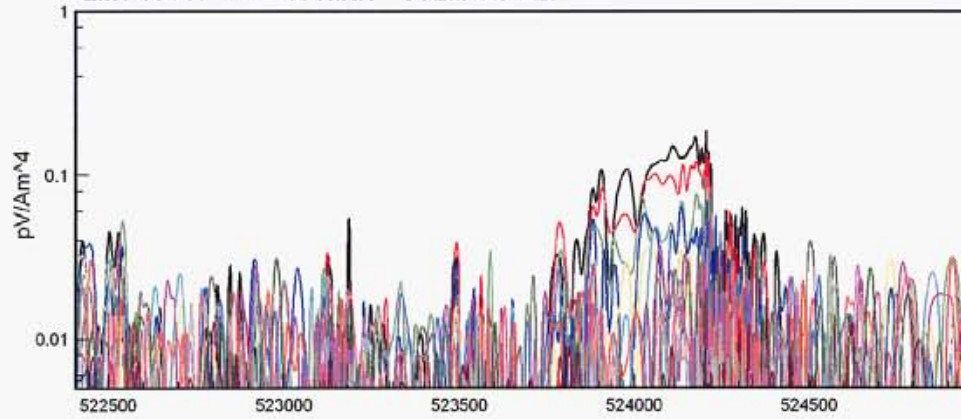
Line T7030 <<< Power Line monitor



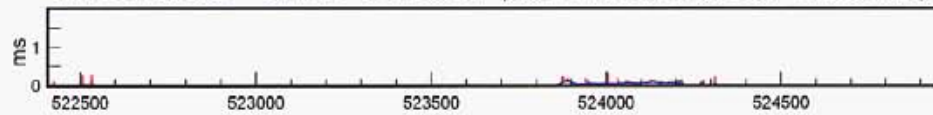
Line T7030 <<< EMFlow CDI showing bird track in red



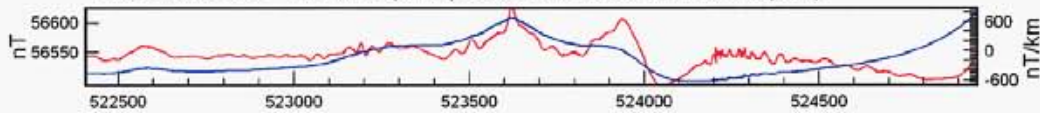
Line T7040 >>> SPHINX VTEM Ch 6-27



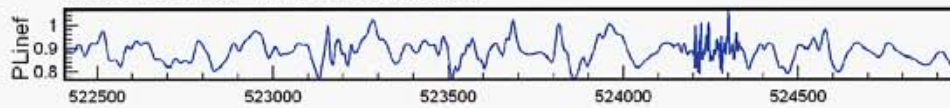
Line T7040 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



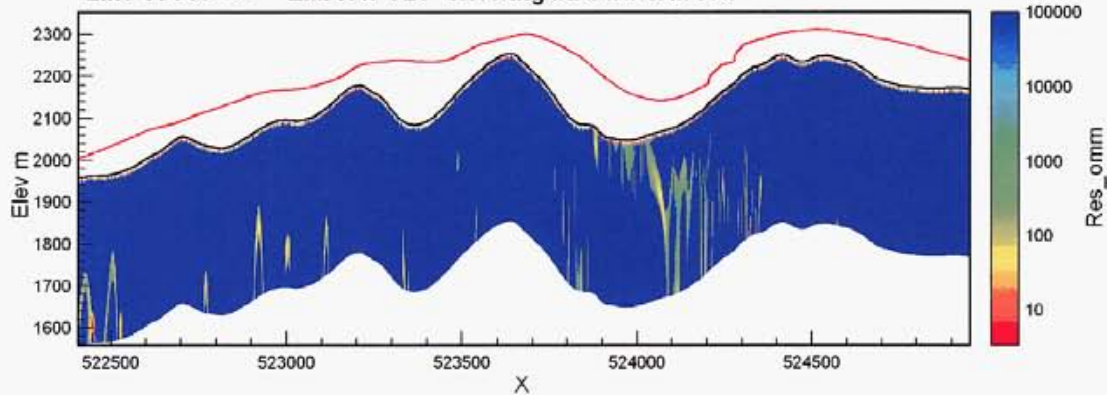
Line T7040 >>> TMI MAG (blue) and 1st vertical derivative (red)



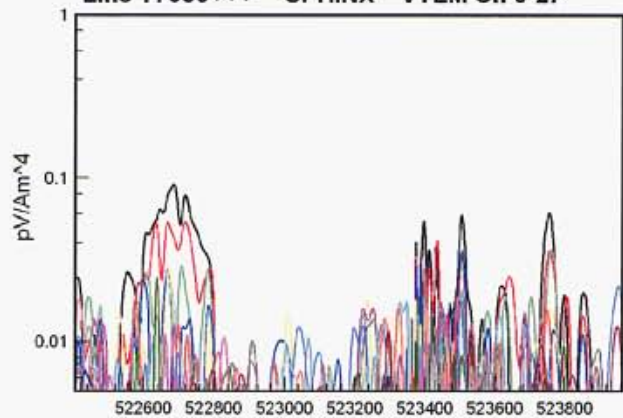
Line T7040 >>> Power Line monitor



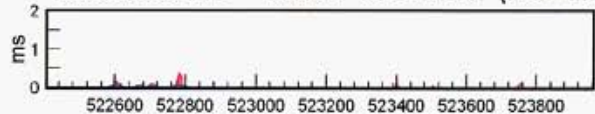
Line T7040 >>> EMFlow CDI showing bird track in red



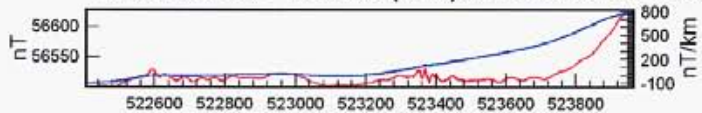
Line T7050 >>> SPHINX VTEM Ch 6-27



Line T7050 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



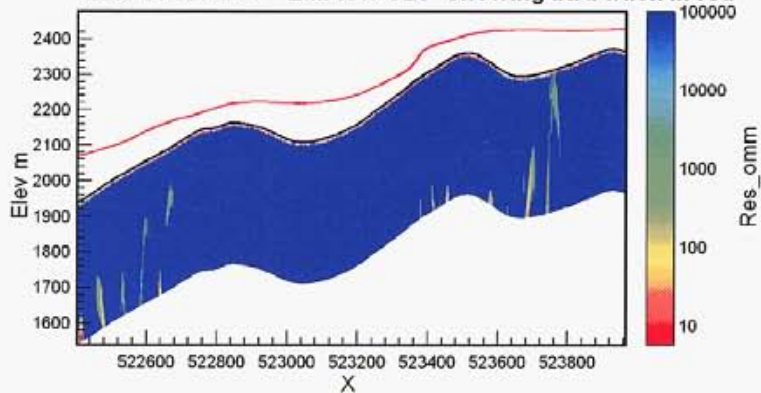
Line T7050 >>> TMI MAG (blue) and 1st vertical derivative (red)



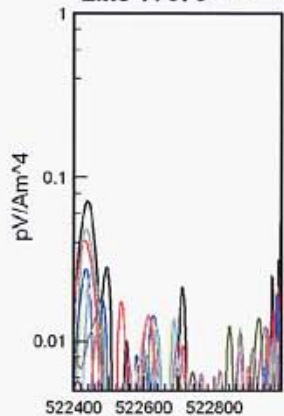
Line T7050 >>> Power Line monitor



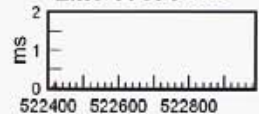
Line T7050 >>> EMFlow CDI showing bird track in red



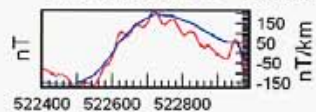
Line T7070 >>> SPHINX VTEM Ch 6-27



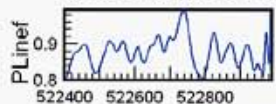
Line T7070 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



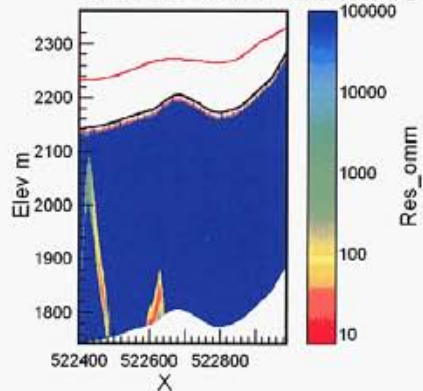
Line T7070 >>> TMI MAG (blue) and 1st vertical derivative (red)



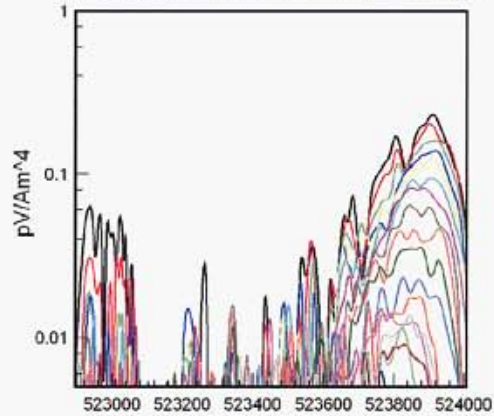
Line T7070 >>> Power Line monitor



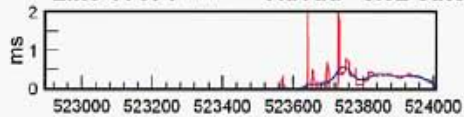
Line T7070 >>> EMFlow CDI showing bird track in red



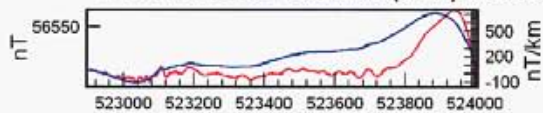
Line T7071 >>> SPHINX VTEM Ch 6-27



Line T7071 >>> AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



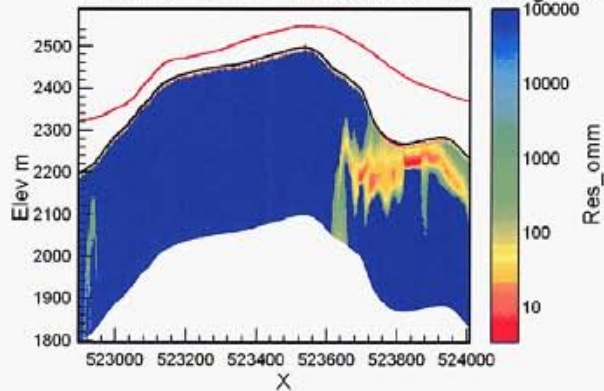
Line T7071 >>> TMI MAG (blue) and 1st vertical derivative (red)



Line T7071 >>> Power Line monitor

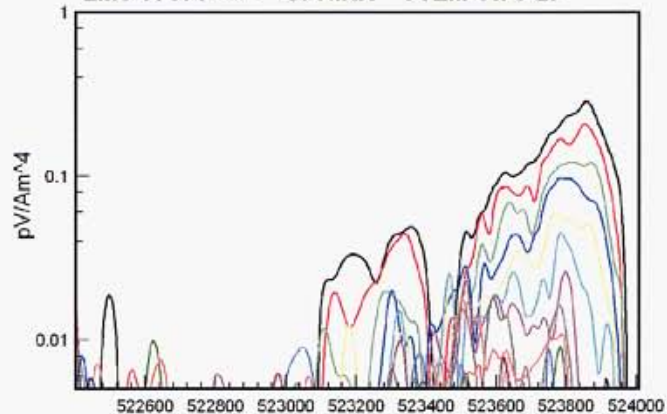


Line T7071 >>> EMFlow CDI showing bird track in red

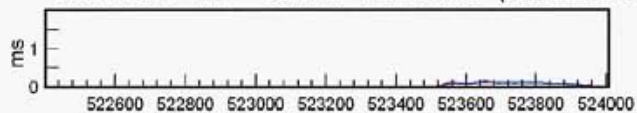




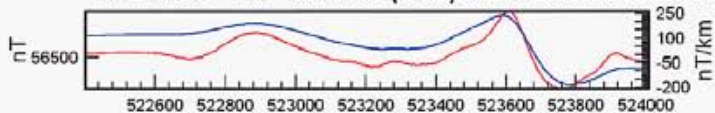
Line T7075 <<< SPHINX VTEM Ch 6-27



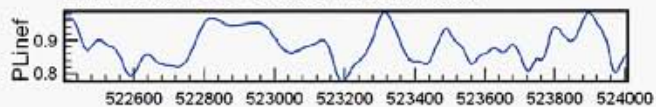
Line T7075 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



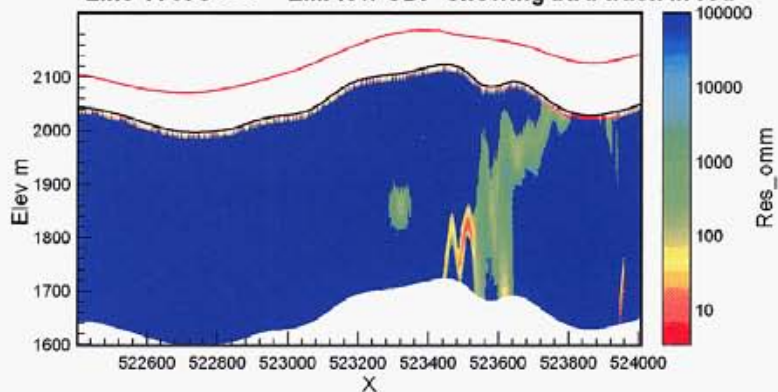
Line T7075 <<< TMI MAG (blue) and 1st vertical derivative (red)



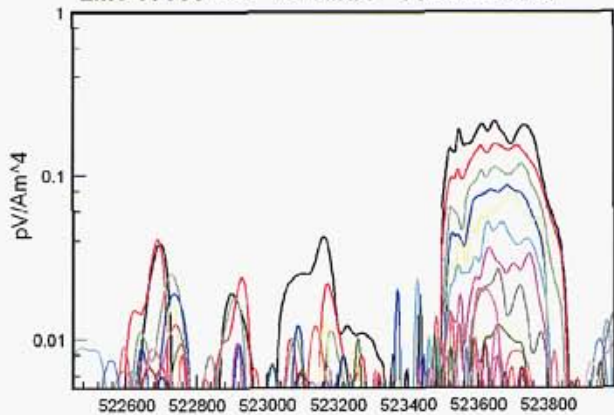
Line T7075 <<< Power Line monitor



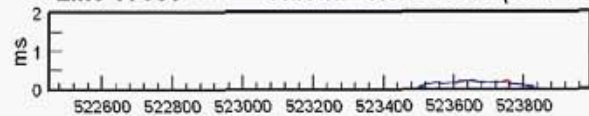
Line T7075 <<< EMFlow CDI showing bird track in red



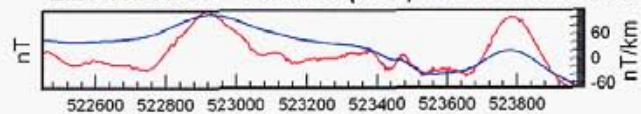
Line T7080 <<< SPHINX VTEM Ch 6-27



Line T7080 <<< AdTau 0.02 cutoff (red - unsmoothed, blue - smoothed)



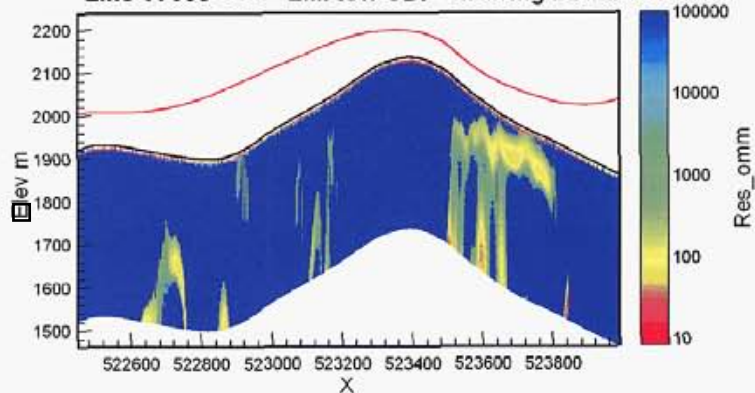
Line T7080 <<< TMI MAG (blue) and 1st vertical derivative (red)



Line T7080 <<< Power Line monitor



Line T7080 <<< EMFlow CDI showing bird track in red



**Appendix V**  
**Rock Sample Descriptions**

## Mount Sphinx Sample Numbers Locations and Descriptions - June 2004

Mike Kennedy

S-1,2,3

523675 / 5495258

Quartz vein material with rare pyrite, limonite, associated with a green mafic dyke? with abundant magnetite

S-4,5

523732 / 5495255

Quartz vein material, micaceous, with pyrite, in float

S-6

523777 / 5495270

Carbonate altered float with magnetite, pyrite, Po

S-7

524235 / 5495429

Quartz vein with chlorite, pyrite, limonite, vugs, in float

S-8

523980 / 5495340

Quartz vein material pyrite, limonite

S-9

523706 / 5494379

Narrow quartz vein, limonite, in outcrop

S-10

523945 / 5496032

Small quartz breccia zone in magnetic greenstone, in outcrop

Nad change to 83

S-11

524422 / 5495751

Quartz vein with mica, sphalerite and galena, in outcrop

S-12

524331 / 5495867

Dolomitic float with fractures containing ZnS and PbS.

S-13

524347 / 5495898

45 cm wide bedding parallel zone with quartz veins and disseminations of Pb and Zn, striking 355 degrees, vertical dip

S-14,15

524895 / 5496348

Shear zone, 30 cm wide with quartz veins, crystalline, vuggy, with lime green sphalerite, PbS, Py, striking N8, dipping  
Degrees W

S-16,17,18

524781 / 5496405

Quartzite band, 1 meter wide zone with quartz veins, PbS, CuPy, Py, Zn bound by phyllitic seds, striking N8, dipping 7  
degrees W

S-19

524792 / 5496410

2M thick greenstone, sample of quartz veins with pyrite and limonite in phyllites

S-20

525153 / 5497010

Narrow quartz veins with abundant limonite, within a weakly calcitic quartzite

S-21

525191 / 5496526

Numerous narrow limonitic quartz veins