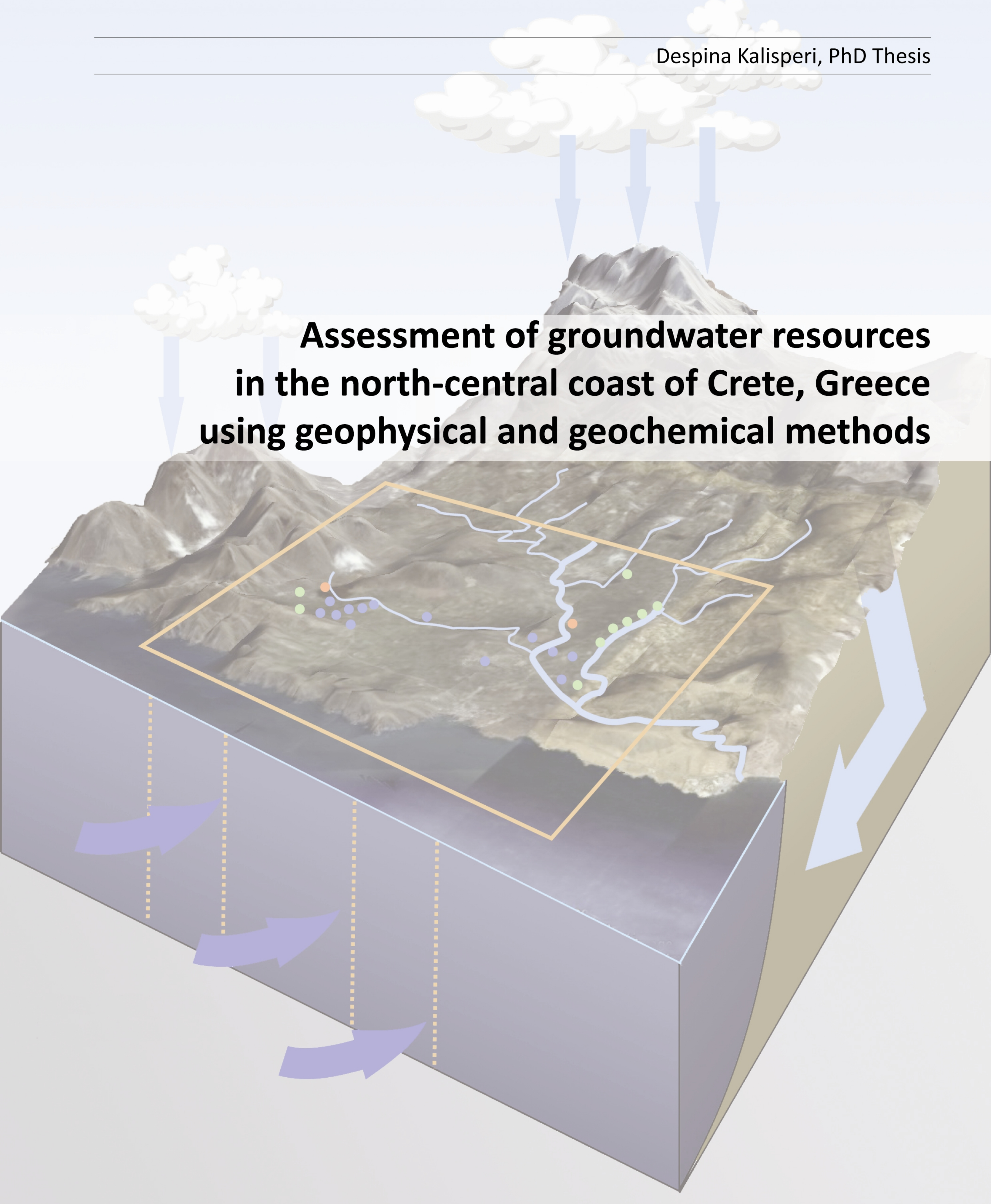
Despina Kalisperi, PhD Thesis

Assessment of groundwater resources in the north-central coast of Crete, Greece using geophysical and geochemical methods



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[ABSTRACT]

The Geropotamos aquifer on the north-central coast of Crete, Greece, is invaded in some places by salt water from the Aegean Sea, with impact on freshwater supplies for domestic and business uses, including agriculture. The geological setting of the study area is considered complex, as Miocene biogenic limestones, marls, clays and conglomerates crop out in the central and the western part and clastic limestones and dolomites of the Tripolis and Plattenkalk nappe (the bedrock) in the eastern part of the study area. The phyllite-quartzite nappe (which forms the oldest rock of the study area) lays on the northern part of Geropotamos basin. The local tectonic regime of the study area is characterized by faults of NW-SE and NE-SW directions. Investigation of the aquifer using Transient ElectroMagnetic method (TEM) and Vertical Electrical Resistivity (VES) measurement technique has resulted in 1D models and 2D/3D imaging of geoelectric structures, depicting the zones of salination of groundwater in the aquifer. 1179 TEM soundings in 372 sites have been carried out in a detailed survey grid (about 200m in X and Y dimension) and 3 VES soundings were acquired in three different sites (different geological conditions). For the 2 of them, multidirectional measurements were also acquired since the structure is more complex than a 1D model that VES technique is able to model. Moreover, 3 water samplings carried out. At each sampling, samples from 22 boreholes and 2 springs were analysed and 16 chemical parameters were determined. Detailed geochemical analysis, including Piper, Durov, Ternary, Stiff, Wilcox, Dispersion diagrams and Factors controlling the groundwater quality, was accomplished showing very good results and the relationship with the geophysical methods. All data were inserted in GIS environment and Groundwater Quality Maps were produced. Furthermore, Remote Sensing application, geological mapping and hydro-lithological data showed that the physical characteristics of geomorphology and geology are in great relationship with the chemical and geophysical properties as well. Suggestions that Miocene evaporites led to groundwater salination are unconfirmed, and seawater intrusion is the most probable cause, supported by the results of this research. It is indicated that saline intrusion is likely to occur along fractures in a fault zone through otherwise low-permeability phyllite-quartzite bedrock, and it is emphasized the critical role of fracture pathways in salination problems of coastal aquifers.

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This thesis is dedicated to the memory of my sister and my father.

Chapter 1

[INTRODUCTION]

Chapter Contents

- ***Preface: the background of this thesis***
- ***Aim and objectives of this study***
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1.1 Preface: the background of this thesis

The recent changes in climate patterns, caused naturally and by human activities, highlight the need to secure reliable water supplies especially in areas where water is scarce. The Mediterranean and particularly its islands are mostly affected due to their geographical isolation and climate. A particular problem is seawater intrusion into near-shore aquifers (Donta, 2005).

A place where this issue is of great importance is the island of Crete, Greece. Crete has undergone a rapid and substantial economic development over the last 35 years. This is due not only to the long-established tourist industry but also to changes in the pattern of agriculture. This research combines geophysical and geochemical analyses to investigate the extent of seawater intrusion in the Geropotamos aquifer, on the coast of north-central Crete where water demand has increased notably the last decades. The main source of water in the Geropotamos area (and in the whole island) is from groundwater, which is ultimately derived from the (predominantly winter) rainfall; the economy of the region depends to a large extent on the availability of water of sufficient quality.

1.2 Aim and objectives of this study

Overall purpose of thesis *- apply geophysical and geochemical methods to a poorly understood area of limited groundwater resources, in order to determine the status of those resources used by an increasing local population.*

The primary questions of this study are:

- **What is the relationship between the geomorphology, rock types and structure?**
- **What is the relationship between the water quality and the physical characteristics of geomorphology and geology?**
- **What is the relationship between the physical and geochemical characters of the area, and the results of geophysical surveys?**

1.3 Choice of study area

This work is a development from a European Project, INTERREG III B ARCHIMED, sub-project A1.020 entitled "Methodology integration of EO techniques as operative tool for land degradation management and planning in Mediterranean areas - MILDMAP", accomplished partly by the group of the Seismology and Geophysics laboratory of the Technological Educational Institute of Crete (branch of Chania). One of the objectives of that project was to investigate the salt-water problem in the Bali area (**Fig.1.1**), a very touristic and developing area, in Rethymnon Prefecture, lying a few kilometers east of the Geropotamos basin (AMRA, 2007).

The Geropotamos River catchment and its underlying aquifer system is an important component of the water resources of the general area; the relationship between the Geropotamos catchment and the Bali area is not clearly known, so in order to enhance and inform the Bali project, as well as increase understanding of water resource management in this zone of increasing economic and touristic development, this research was designed to carry out a detailed geophysical and geochemical study of Geropotamos area. The expected outcome is that this work will provide some key answers to the hydrogeologic problems of this region.

In the poorly-understood Geropotamos catchment, two main factors affecting water resources were believed to be prevalent: salt water from the sea intruding into the aquifer and/or Miocene evaporates leading to groundwater salination. Increasing withdrawal of water from aquifers due to tourism (particularly new-build accommodation along coast), and agriculture (primarily olive crops) and sheep/goat farming puts considerable stress on water resources and a detailed scientific investigation was essential.

1.4 General information about the study area

1.4.1 Geographical information and population

The municipality of Geropotamos is located on the north-central coastline of Crete. The study area is in the northern part of the municipality, about 30 km eastern of Rethymnon city, after Geropotamos River to some km before Bali village, covering about 40 km^2 (**Fig. 1.1**).

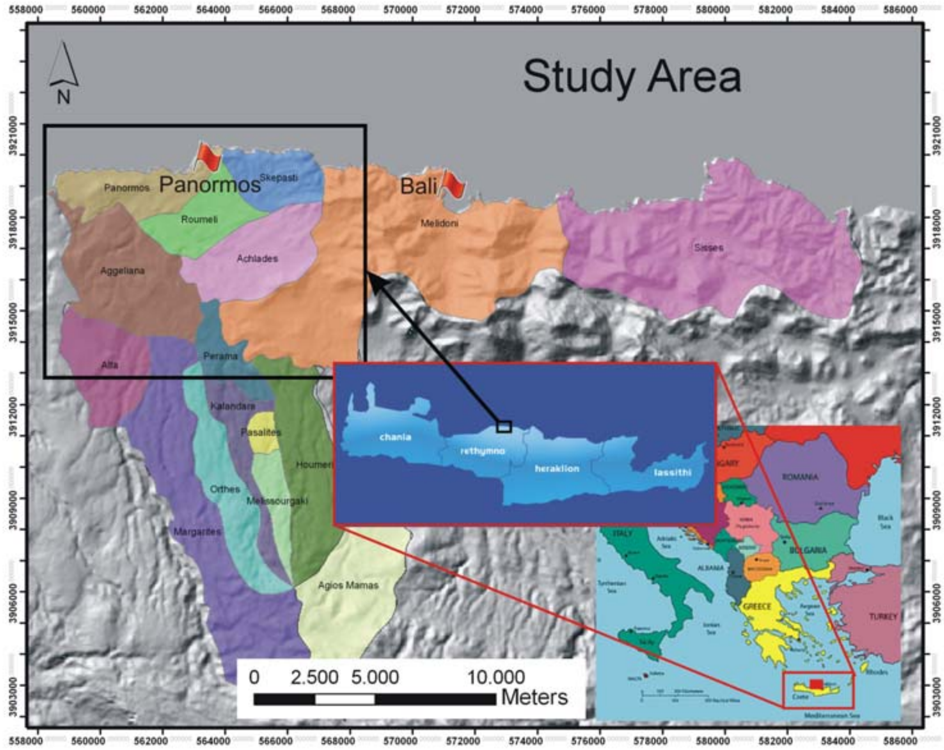


Fig. 1.1: The black box specifies the study area which is situated on the north-central coast of Crete Island covering about 40 km^2.

The study area covers 7 municipal districts (Perama, Aggeliana, Achlades, Melidoni, Panormos, Roumeli, Skepasti) including 14 villages: Perama, Dafni, Aggeliana, Alexandrou Hani, Hanothiana, Achlades, Siripidiana, Solochiana, Melidoni, Exadis, Panormos, Lavris, Roumeli, and Skepasti (**Table 1.1**) (Prefecture of Rethymnon, 2008). The most recent census in Greece came about in 2001 by the General Secretariat of National Statistical Service of Greece (General Secretariat of National Statistical Service of Greece, 2008) and the population data for each village are displayed in **Table 1.1**. This showed that 4,665 people live in the study area. Perama village is the most highly populated (1,650 inhabitants) as it is the capital of the Municipality of Geropotamos.

1.4.2 Local economy

Occupations of the local population are mainly agriculture, stock farming, light industry and tourism.

Table 1.1: Population of study area (General Secretariat of National Statistical Service of Greece, 2008).

Municipal District	Village	Population	Sum
Perama	Perama	1,598	1,650
	Dafni	52	
Aggeliana	Aggeliana	604	691
	Alexandrou Hani	76	
	Hanothiana	11	
Achlades	Achlades	113	193
	Siripidiana	66	
	Solochiana	14	
Melidoni	Melidoni	391	470
	Exadis	79	
Panormos	Panormos	887	992
	Lavris	105	
Roumeli	Roumeli	427	427
Skepasti	Skepasti	242	242
Total SUM			**4,665**

Olive trees are the most usual plants that someone sees throughout the whole municipality of Geropotamos. In fact, data from the General Secretariat of National Statistical Service of Greece, concerning the whole municipality of Geropotamos (16 municipal districts, 8,323 inhabitants), show that 70% of the agriculture (24 km^2) belongs to olive crops and the 30% to other crops (vegetables, vines, and fruits). The farming consists mainly of sheep and goats (about 65,000 animals). It is estimated that the water demand for both agriculture and sheep/goat farming for the municipality of Geropotamos for the year 2005 is 18,000,000 m^3 per year (General Secretariat of National Statistical Service of Greece, 2008).

The study area has a small industry concern, comprising 9 small olive oil factories, 2 small cement plants and 1 small local factory producing prepared feed and feed ingredients for animals.

Tourism is an important part of the local economy. A popular place is Panormos village (the northern part of the study area lying near the sea) where a lot of Greek and foreign people choose to holiday during summer season (**Fig. 1.1**). More than five deluxe hotels (4 or 5-star hotels) have been built next to the seaside (beyond Panormos village) and several apartments and villas are located in the village.

Another place, where a lot of tourists visit, is the Melidoni Cave at the south-eastern part of the area. The cave is about 2 km NW of Melidoni village and is of big significance because of the archaeological findings which are displayed in the Archaeological Museum of Rethymnon. The cave is also considered to be the mythical home of Talos - the giant bronze protector of Crete (Psilakis, 1996).

1.4.3 Water Demand

There is not a lot of information about the needs for water of the local people. The most recent reliable data from the Municipality of Geropotamos concern the years 1999 and 2000 (**Tables 1.2** & **1.3**). So, the water demand was calculated about 2,000,000 m^3 per year. Of course those data do not depict the true situation i.e. the real water consumption. In actual fact, the volume of water that was consumed for irrigation and water supply, according to employees of the Municipality, was much more than the cubic meter values that are displayed at the tables below. This is due to damage to the pipes or other kind of leaks, or even because of malfunctioning water-meters and illegal use of the water from the public wells. Hence, the values should be considered to be much higher according to the General Secretariat of National Statistical Service of Greece estimates (**section 1.4.2** of this chapter).

Table 1.2: Water Consumption of the study area for **1999**.

Municipal District	**Water Supply**		**Irrigation**	
	Number of Water-meters	**Water consumption (m^3)**	**Number of Water-meters**	**Water consumption (m^3)**
Aggeliana	445	76,000	391	280,000
Achlades	152	35,000	479	310,000
Melidoni	508	250,000	349	320,000
Panormos	367	90,000	148	90,000
Perama	896	125,000	135	35,000
Roumeli	250	37,000	191	110,000
Skepasti	165	30,000	217	155,000
SUM		**643,000**		**1,300,000**
TOTAL SUM 1,943,000				

Table 1.3: Water Consumption of the study area for **2000**.

Municipal District	Water Supply		Irrigation	
	Number of Water-meters	Water consumption (m^3)	Number of Water-meters	Water consumption (m^3)
Aggeliana	445	70,500	391	284,500
Achlades	152	27,500	479	352,500
Melidoni	508	175,000	349	355,000
Panormos	367	81,000	148	89,000
Perama	896	124,500	135	45,500
Roumeli	250	35,000	191	105,000
Skepasti	165	32,000	217	163,000
SUM		**545,500**		**1,393,500**
TOTAL SUM 1,939,000				

1.5 Geomorphological, Geological and Hydrological setting of the study area

1.5.1 Geomorphology

The Geropotamos basin has an estimated area of 375 km^2 and an elevation range of 0-2,456 m, with average elevation of 664.8 m (**Fig. 1.2**).

The study area lies in the northern part of the basin and covers 66.4 km^2. The overall study area is characterized as lowland and semi-mountainous, as the elevation range is 0-502m, with an average elevation 106.4 m (**Figs. 1.2** & **1.3**).

1.5.2 Hydro-meteorological and Hydrological data

Crete's climate is influenced by the Mediterranean weather systems. Dry, hot summers, and humid, mild winters are typical characteristics of weather in Crete. The rainfall, which mainly takes place in winter, ranges from 300 to 700 mm annually in the coastal zone, and from 700 to 1,000 mm in the plains of the mainland, whereas in the mountains it reaches up to 2,000 mm. July and August are the hottest months and rainfall is at its lowest during this time. Apart from the differences due to the elevation, there are significant differences between the western and eastern part too. The eastern part of Crete is drier and warmer than the western part, which is obvious in the vegetation. In addition, the temperature of

Crete shows a big variation. The annual temperature generally ranges between 17-20˚C and during the summer period temperatures higher than 40˚C may occur in the coastal zone (Chartzoulakis et al., 2001).

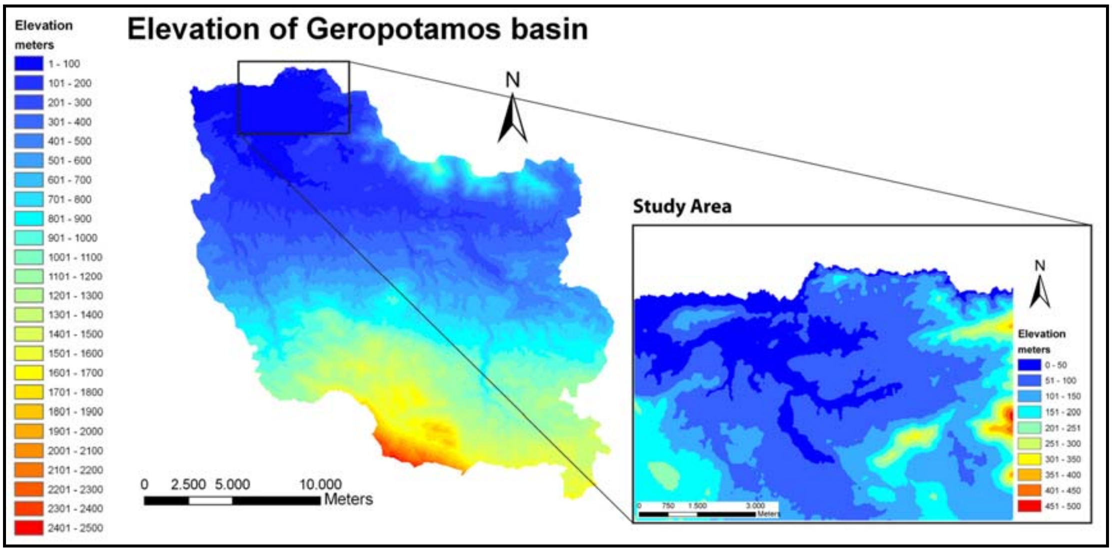


Fig. 1.2: Elevation of Geropotamos basin and study area classified into equal elevation zones (100 m and 50 m respectively).

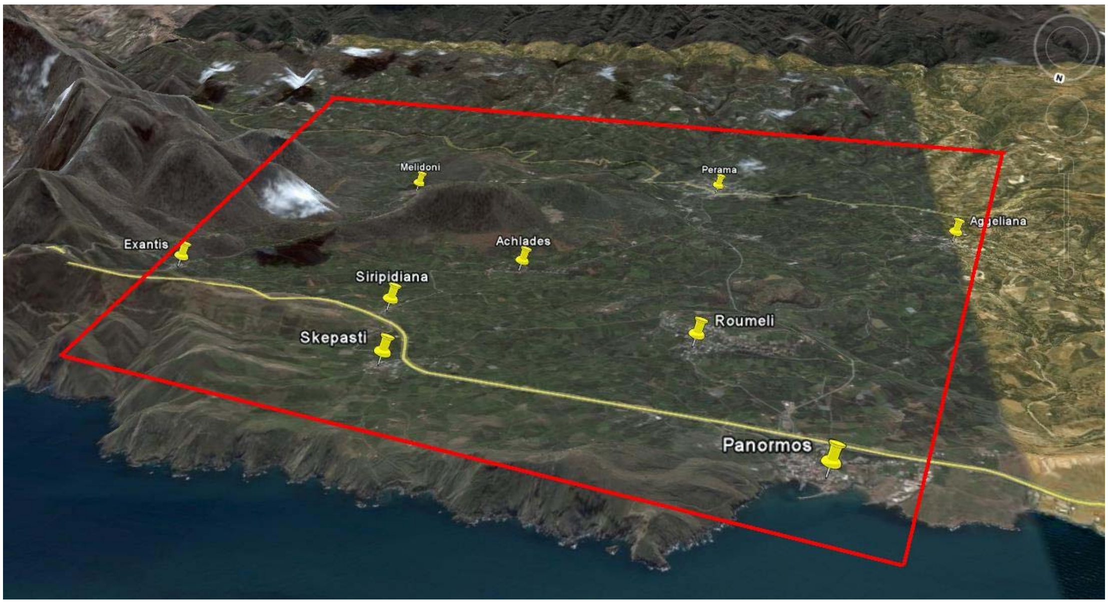


Fig. 1.3: Google Earth image defining the area of interest with a red line. The 9 large villages are located with yellow pins (satellite image date: March 7th, 2003) (from Google Earth©2009).

Although a number of different local authorities installed meteorological stations in Crete (Water Management Authority of Crete (WMAC), Hellenic National Meteorological Service (HNMS), Institute of Geology and Mineral Exploration (IGME), Hellenic Ministry for the Environment (HME) the study area is not well covered. There are 6 stations whose data can be used for hydrological investigation (3 in the basin and 3 nearby the basin to the west) (**Table 1.4**). Due to limit of availability of meteorological data, it is very hard to find data from different stations for the same periods, especially for the recent past (Zarris, 2008).

Table 1.4: Meteorological stations at the broad area of Geropotamos basin (Zarris, 2008).

	Station Name	Authority	Elevation (m)	Data Period
1	Garazo station	WMAC	260	1996-2005
2	Anogia station	HME	740	1967-2000
3	Perama station	HME	90	1963-2006
4	Vizari station	WMAC	310	1969-2004
5	Kavousi station	WMAC	580	1969-1996 & 2006-2007
6	Rethymnon station	MNMS	5.1	1967-1996

Geropotamos basin consists of 3 sub-basins: Peramatianos, Anogianos and Zonianos. The study area is situated at the northern part of the Peramatianos sub-basin (**Fig. 1.4**). More details about the hydrology of the study area are given in section **4.3** of ***Chapter 4***.

1.5.3 **Geology: lithology** (rock types) **and Structure** (nappes, thrusts and normal faults)

The surficial geology of the area is composed of Pliocene/Pleistocene marine deposits laid down on the older bedrock. Miocene biogenic limestones, marls, clays and conglomerates crop out in the central and the western part of the study area and clastic limestones and dolomites of the Tripolis and Plattenkalk nappe (the bedrock) in the eastern part of the study area. The phyllite-quartzite nappe (which forms the oldest rock of the study area) lays on the northern part of Geropotamos basin (Kalisperi et al., 2008).

The local tectonic regime of the study area is characterized by faults of NW-SE and NE-SW directions, which cut across geological formations as well as the groundwater flow direction and possible contamination from seawater intrusion. In some cases, these tectonic structures may act as underground barriers to groundwater movement. Worth noting that tectonic features will not start at the coast, they will continue below the seabed for many kilometers into the Cretan Sea. However, geological mapping shows that major faults run from the coastline and continue inland for about 5 Km; later in this thesis it is shown how these faults may facilitate water flow inland into the aquifers from the sea.

More details about the geological status of the broad area are given in **section 2.2** of the next chapter.

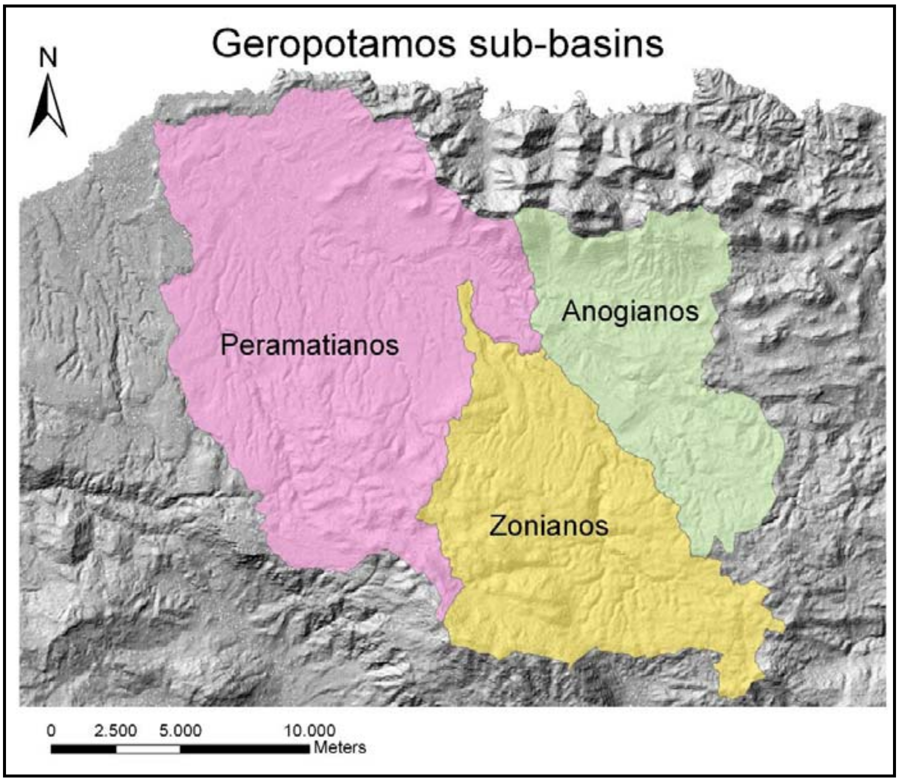


Fig. 1.4: Geropotamos sub-basins: Peramatianos, Zonianos and Anogianos.

1.5.4 Hydrogeology

The northern part of the study area (along the coastline) consists of apparently impermeable formations, expecting to act as groundwater barriers for any possible seawater intrusion or groundwater discharge into the sea. The recharge of the study aquifer is expected to come from a) the eastern and southern part of the area (mountainous area) which consists of highly permeable formations - primary recharge, and b) leakages from the dense river banks (network) - secondary recharge.

A priori hydro-geological data from water wells are available from the local authorities and data from 23 public drills (9 drills for potable water, and 14 used only for irrigation; as they were classified by the local authorities) and 2 springs were used.

The two local springs, Sweet (fresh) and Salty (brackish), are explicitly investigated as well, as they represent an unusual hydrological occurrence. Sweet and Salty springs are less than 200 m from each other but the water quality differs greatly, demonstrating the complex nature of local subterranean plumbing.

More details about the hydro-geological status of the broad area are given at **section 2.3** of the next chapter, while more information about the salty-sweet spring phenomenon is given at **section 4.5** of ***Chapter 4***.

1.6 Geographic Information System (GIS) as data-base management system

All the data that were collected or acquired (geological, hydrogeological, geochemical, geophysical, etc) within the frame of this thesis were inserted in GIS environment, and maps with different thematic layers were produced. GIS theory and techniques are described in full at **section 3.4** of ***Chapter 3***. Maps, and generally GIS derivatives, are used throughout the thesis in appropriate places.

1.7 Previous geochemical data from local authorities

There are chemical data from previous years which were made available from the local authorities. In particular, Mr. Vassilis Simitzis, geologist from the Organisation for the Development of Western Crete (OADYK), branch of Rethymnon, Mrs. Eleni Vedergiotaki, chemical engineer from the Municipality of Geropotamos, Mr. Marinos Kritsotakis, geologist from Regional Governor of Crete, Mrs. Saia Pavlidou, geologist from Institute of Geology and Mineral Exploration - branch of Rethymnon (IGME), and Mrs. Eva Vrodaki, geologist from Prefecture of Rethymnon, were kindly provided all the existing chemical data prior to this research.

Unfortunately, these existing data are very scarce (and some of them very old) and could not be used for detailed analysis. They were useful, however, for comparison with the results from the samplings, which were took place by the author just for this study, for confirmation purposes.

1.8 Thesis outline

This introduction has presented an overview of Geropotamos study area. It was actually an "overture" of the research and provided some background information concerning the known data of the region. The rest of this thesis is structured as follows:

Chapter 2 is divided into three parts including the key aspects of the thesis. It starts by describing the geology and hydrogeology of the broad study area as previous researchers has studied it by referring series of published works. Then the theory of the salination problem is explored, giving emphasis to sea-water intrusion and evaporites, as possible sources of fresh water contaminants. Finally this chapter provides a short review of each method that has been used to recognize salt-water intrusion and especially those methodologies that are used in this thesis.

The basic theory, the equipment and the procedures of all the methods used are given in ***Chapter 3***. This includes a brief description of geophysical, geochemical and GIS/RS methods and techniques.

The results, the processing of the data and their analysis and modelling are presented in ***Chapter 4***. This chapter details also the fieldwork carried out in Geropotamos area in order to identify the salination problem.

The relationship between the results and the methodologies are presented in ***Chapter 5***. Actually it is a detailed discussion of the implementation of this research.

Chapter 6 summarizes the major outcomes of this research and explains to what extent the aims, referred at this chapter, have been achieved. To conclude, recommendations for further research are discussed.

1.9 Summary

In this introductory chapter, the overall aim and objective questions of the thesis were presented first. Then the study area was located and general information like local economy, land use and water demand was given. The geomorphological, geological and hydrological setting of the study area was described next. At the end, the thesis outline was given. The literature review of the study follows at next chapter.

[LITERATURE REVIEW]

Chapter Contents

2.1 Introduction

This thesis deals with the geophysical and geochemical study of northern Geropotamos basin, in order to understand the origin of the saline groundwater that exists in the area. Initially, this requires understanding of the geology and hydrogeology of the area. A brief description of those matters is presented next, while the chapter ends up with some case studies of geophysical and geochemical applications.

2.2 Geological Setting

The geology of Crete considered to be very interesting due to the position of the island (in the central fore arc of the Hellenic Subduction Zone (HSZ)), and the complexity of the tectonic structure. The geological history has therefore been object of intensive research. From 1848, when V. Raulin published the first papers (1848, 1856, 1860, 1867, 1869a, 1869b) about the geological status of the island, up to present, more than 1000 scientific studies have been published about the same topic internationally.

2.2.1 Geodynamic Evolution of Aegean

Crete lies in the southern Aegean Sea among the islands of Kithira, Kassos, Karpathos and Rhodes, which those five islands consist the Hellenic Arc (Angelier, 1976) (**Figs. 2.1** & **2.2**).

The upper Cenozoic evolution of Crete is characterized by the Subduction of the African plate which it is subducted northwards under the Aegean lithosphere (Makris, 1977; McKenzie 1978; Papazachos and Comninakis, 1978, Le Pichon & Angelier, 1979). Due to the fact that the African plate moves to the north, compression between the Arabian and Eurasian plate is caused (Molnar & Tapponier, 1975). The rate of convergence consists of a 3-4 cm/year SSW-ward movement of Crete relative to stable Eurasia (Jackson, 1994; Le Pichon et al., 1995; Cocard et al., 1999; Noomen et al., 1999; Bohnhoff et al., 2001) and an 1 cm/year northward movement of Africa towards Eurasia (McKenzie, 1970; Le Pichon et al., 1995; Taymaz et al., 1990; Bohnhoff et al., 2001), resulting in a net convergence rate of 4 to 5 cm/year at the plate boundary (**Fig. 2.2**). The Benioff zone seismicity reaches down to ca. 180 km (Makris & Röwer, 1986), being situated at a depth of ca. 140 km underneath the magmatic arc, with volcanic activity on the islands of Aegina, Milos, Santorini and Nisyros in the Aegean Sea (**Fig 2.2**).

This procedure results in the movement of the Aegean and Anatolia lithospheric plates to the west, and then the gravitational spreading of the Aegean to the east Mediterranean (McKenzie, 1972; McKenzie, 1978; Le Pichon & Angelier, 1979; Angelier et al; 1981). This gravitational spreading of the Aegean is proved by the large amount of normal faults (Upper Miocene) (Aubouin & Dercourt, 1965; Aubouin, 1971; McKenzie, 1972; McKenzie, 1978; Le Pichon & Angelier, 1979; Angelier et al., 1981; Angelier et al., 1982; Peters, 1985; Mercier et al., 1987; Mascle & Martin, 1990).

Due to this tectonic regime of extension that takes place in the Aegean area, Aegean subducts. Whereas, the Hellenic Arc (and Crete) appears to be uplifted to the north, in comparison with the Cretan Sea. Angelier & Le Pichon (1980), Angelier (1981), Le Pichon & Angelier (1981), Angelier et al. (1982) believe that this uplift of the Hellenic arc is due to a mechanism where sediments move from the Subductive plate (African) to create the new bedrock of the Hellenic arc (Barton et al., 1983). On the other hand, geological data support the option that probably compression tectonic movements were dominant in Crete, in comparison to the rest of the Aegean area (Angelier et al., 1982; Kopp & Richter, 1983; Fortuin & Peters, 1984; Meulenkamp et al., 1988, Postma et al., 1993). The aforementioned authors correlated the origin of the compression mechanism with the general extension regime of the Aegean lithosphere (Cretan Sea area), and not with the Subduction procedures. Meulenkamp et al. (1988) refer that extension begun 12-11 Ma ago.

2.2.2 The Cretan nappe pile (Alpine and Pre-Alpine Rocks) and the sediments of Crete (Post-Alpine Rocks)

As aforementioned, the geological setting of the island of Crete is very complex and it is characterized by **pre-Alpine and Alpine rocks** (composing a pile of nappes) and **post-Alpine**

rocks (Neogene and Quaternary sediments) (**Table 2.1**), i.e. rocks which formed prior, during or after the Alpine orogenesis.

Fig. 2.1: the Hellenic Arc consisting of five islands: Kithira, Crete, Kassos, Karpathos and Rhodes.

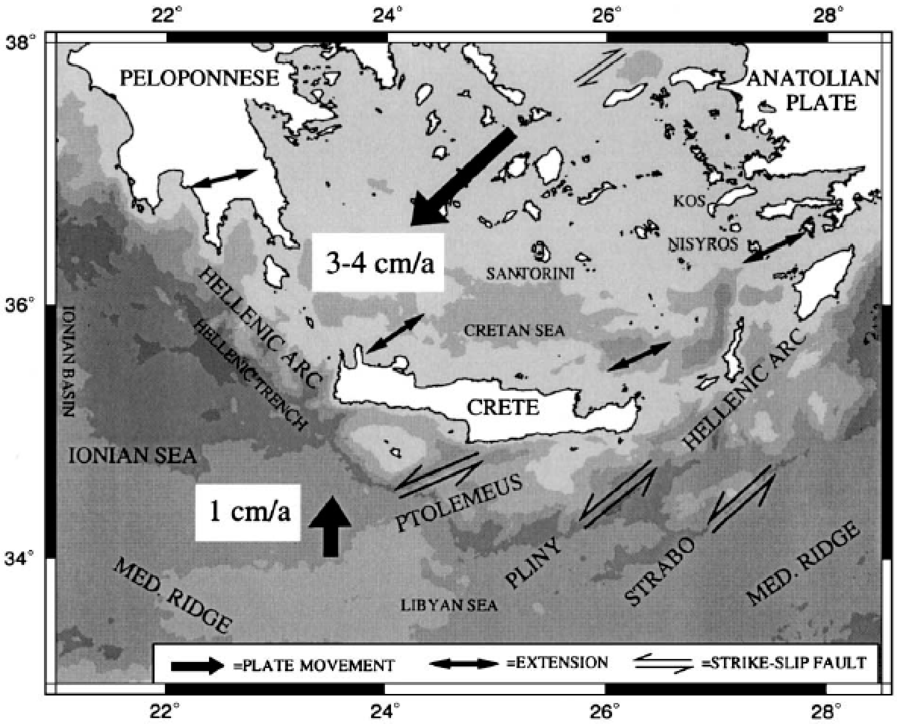


Fig. 2.2: Generalized map of the main tectonic elements of the south Aegean region (Bohnhoff et al., 2001)

pre-Alpine and Alpine rocks

The Cretan nappe pile has been studied extensively and numerous studies have been published by many authors. This has led to a variety of interpretations, which in many cases result in diverging views. Detailed description of the tectono-stratigraphic sequence of the rock units is not within the scope of this thesis. The stratigraphy and tectonic interpretation of the Alpine orogenesis in Crete are part of the studies of the following authors: Creutzburg (1958), Aubouin & Dercourt (1965), Fytrolakis (1967, 1972), Creutzburg & Papastamatiou (1969), Bonneau (1970, 1972, 1973, 1982, 1984,), Epting et al. (1972), Creutzburg & Seidel (1975), Sannemann & Seidel (1976), Bijon et al. (1976), Baumann et al. (1977), Aubouin et al. (1979), Karakitsios (1979, 1987, 1989), Bonneau & Karakitsios (1979), Richter & Kopp (1983), Hall & Audley-Charles (1983), Hall et al. (1984), Robertson & Dixon (1984), Mercier et al. (1989), De Boer (1989), Alexopoulos (1990), Fassoulas et al. (1994); Jolivet et al. (1996); Kilias et al. (1994); Ring et al. (2001), Fassoulas (2004). Among others, the metamorphic conditions and ages have been studied by Seidel et al (1982), Feldhoff et al. (1991), Theye et al (1992), Koepke et al. (2002).A short description of the stratigraphic sequence, lithologies, protolith ages, and metamorphic ages of the rock units in Crete is given next.

The Cretan nappe pile can be divided into two main nappe groups: the upper nappes and the lower nappes, separated by a major thrust fault (**Table 2.1**). The lower nappes consist of: i) the Plattenkalk (called Ida nappe or Cretan-Mani sequence or Ionion nappe), ii) the Trypali (only in western Crete), and iii) the Phyllite/Quartzite nappes which reveal High Pressure-Low Temperature (HP-LT) metamorphism (during Late Oligocene-Early Miocene). The upper nappes consist of (in rising order): the Tripolis (or Tripolitza), the Pindos, and the Uppermost nappe. The second nappe group lacks of the HP-LT metamorphism. The lithology, protolith ages and metamorphic conditions are given in **Table 2.1**, while **Table 2.2** is the geological time scale for protolith rock ages symbols understanding.

post-Alpine rocks

Sedimentation (basin fills) has occurred in Crete approximately 13,000,000 years ago, since Miocene, beginning in the Serravallian-Tortonian, and comprises Neogene and Quaternary sediments (**Table 2.2**), covering the 1/3 of the island (Meulenkamp et al. 1979). More than 60 Neogene lithological units have been recognised the last years (e.g. Meulenkamp, 1969; Dermitzakis & Papanikolaou, 1981; Peters 1985). Meulenkamp et al. (1979) divided the sediments of Crete into six groups that can been seen everywhere in the island: i) Prina group, ii) Tefeli group, iii) Vrysses group, iv) Hellenikon group, v) Finikia group, and vi) Agia Galini group.

Table 2.1: The nappe pile of Crete and sediments (modified from Chatzaras et al, 2006). The nappes and sediments that are present in the study area are highlighted and only their rock types are shown in the last column (see **Table 2.2** for the protolith ages symbols understanding).

<table>
<tr><td rowspan="2">Post-Alpine Rocks</td><td colspan="3">Quaternary sediments</td><td rowspan="2">Alluvial deposits (Q2)
Marine deposits (N2-Q1)
Limestones, Marls, Clays, Conglomerates (N1-N2)</td></tr>
<tr><td colspan="3">Neogene sediments</td></tr>
<tr><td rowspan="11">Alpine and Pre-Alpine Rocks</td><td rowspan="5">Upper nappes</td><td>LP-HT metamorhosed</td><td>Uppermost nappe</td><td></td></tr>
<tr><td colspan="3">- thrust fault -</td></tr>
<tr><td>unmetamorphosed</td><td>Pindos nappe</td><td></td></tr>
<tr><td colspan="3">- thrust fault -</td></tr>
<tr><td>LP-LT metamorhosed</td><td>Tripolis nappe</td><td></td></tr>
<tr><td colspan="4">- major thrust fault -</td></tr>
<tr><td rowspan="5">Lower nappes</td><td rowspan="5">HP-LT metamorphosed</td><td>Phyllite-Quartzite nappe</td><td>- Phyllites, quartzites and orthorocks (C3-T3)</td></tr>
<tr><td colspan="2">- thrust fault -</td></tr>
<tr><td>Trypali nappe (only in western Crete)</td><td></td></tr>
<tr><td colspan="2">- thrust fault -</td></tr>
<tr><td>Plattenkalk nappe</td><td>- Dolomites and dolomitic limestones (T3-J1)
- Banded recrystallized olomitic stromatolites (C3-T3)</td></tr>
</table>

2.2.3 Tectonics of Crete

Mainly two different dominant opinions exist concerning the structural evolution of Crete, concerning the post-alpine tectonics.

a. Among others Kilias et al. (1994), Fassoulas et al. (1994), Jolivet et al. (1996), Ring & Reischmann (2002), etc suggest that the contact between the high pressure rocks and overlying thrust sheets (**Table 2.1**) is a shallow-dipping extensional detachment, which formed in the Lower Miocene.

As it is described in Fassoulas' field-guide: "North-south crustal extension in the Early Miocene (Low N1) was associated with northward- or southward-directed detachment faulting, collapse of the nappe pile, and syntectonic basin formation. The detachment faulting accelerated the removal of at least 10Km of crust now missing between the Upper, unmetamorphosed and the Lower HP metamorphosed nappes. Miocene extension consequently led to the re-emplacement of the whole nappe pile and to boudinage of almost all the tectonic units lying above the Plattenkalk series" (Fassoulas, 2000).

At the same booklet it is referred that from Middle Miocene to present (Middle N1-present), the tectonic development of Crete was mainly the result of successive extensional periods that created three fault groups (three generations): A) EW trending faults, B) NS trending faults, and C) NE-SW and NW-SE large scale normal faults.

b. To the contrary, models for the Peloponnese suggest that exhumation of the high-pressure rocks was achieved by a compressional mechanism (e.g. Xypolias & Doutsos, 2000). A very recent work in central Crete by Chatzaras et al (2006) proposes an orogenic model for the Hellenides in Crete, resembling that proposed for the Peloponnese. Three major deformation phases (D_1-D_3) are distinguished at that study and their prominent structural features are presented below: D_1) Early constructional phase - low angle thrusting, D_2) Late constructional phase - thrust faults and folds, and, D_3) Extensional phase - moderate to steep normal faults, which strike WNW-ESE and NNE-NNW.

Table 2.2: Geological Time scale

ERA	PERIOD	EPOCH		SYMBOL
CENOZOIC	**Quaternary**	**Holocene**		**Q2**
		Pleistocene		**Q1**
	Neogene	**Pliocene**		**N2**
		Miocene	**Messinian**	**N1**
			Tortonian	
			Serravallian	
			Langhian	
			Burdigalian	
	Paleogene	**Oligocene**		***P3***
		Eocene		***P2***
		Paleocene		***P1***
MESOZOIC	**Cretaceous**	**Upper**		**K2**
		Lower		**K1**
	Jurassic	**Upper**		**J3**
		Middle		**J2**
		Lower		**J1**
	Triassic	**Upper**		**T3**
		Middle		**T2**
		Lower		**T1**
PALEOZOIC	**Permian**	**Upper**		**P2**
		Lower		**P1**
	Carboniferous	**Upper**		**C3**
		Middle		**C2**
		Lower		**C1**

2.2.4 The geology of Geropotamos study area

The geological setting of the Geropotamos study area has been examined poorly in the past and mainly by local authorities. The investigations were based on the available literature and some exploratory boreholes from the local geologists. IGME (branch of Rethymnon) has published some geological studies for the area, but in the most cases were included as a section in hydro-geological studies. Of course, there is a detailed geological map (Perama sheet) 1:50,000 from IGME that includes the study area at the north-eastern part of the map.

IGME, branch of Rethymnon, and, specifically, the geologist M. Knithakis published some geological/ hydrogeological studies about the area of Rethymnon prefecture, where the study area was included. At the report of 1995 ("geological & hydrogeological setting of Rethymnon" issue), Knithakis gives a detailed description of the geology (lithology and tectonics) of Retyhmnon, but the study was based on old hat ideas about the nappe pile of Crete (Knithakis, 1995).

The information used for that section, in order to state the geology of the area, is acquired mainly by the IGME geological map (Perama Sheet) (IGME, 1991). The geological mapping was carried out by I. Mylonakis, geologist of IGME, from 1982 to 1987.

The geology of the Geropotamos study area (Northern part of Geropotamos basin) is composed mainly by some of the oldest rocks in Crete (Phyllite/ Quartzite and Plattenkalk nappes) covered by Neogene and Quaternary deposits. At the western part of the broad study area lays the Tripolis nappe, but it is out of the range of this thesis and there has been no geophysical or geochemical research on Tripolis unit (**Fig. 2.3** & **Table 2.1**).

At the northern part near the coastline lays the Phyllite/ Quartzite nappe (C3-T3). This unit is comprised by low-permeable rocks (Phyllites and Quartzites) and it is considered to be a "block" for the seawater by the locals. According to Fassoulas' N-S geological cross-section in the North-central part of Crete, nearby the study area (**Fig. 2.4**) the thickness of this nappe is approximately 500m. At the eastern part of the target area the roots of the Talea Ori Mountain are situated. That part of the mountain consists of dolomitic limestones and dolomites at the southern part, and stromatolites of marbles and dolomitic limestones at the northern (Plattenkalk nappe). The Phyllite/Quartzite nappe overlies the Plattenkalk nappe in thrust contact. Pliocene/ Pleistocene marine deposits and Miocene biogenic limestones, marls, clays and conglomerates crop out in the central and the southern part covering the largest piece of the study area. The Neogene sediments (N1) are overlain by the youngest sediments, the Marine (N2-Q1), following a presumed sequence. At the top of the stromatographic comumn the Alluvial deposits (Q2) are present (**Fig. 2.5**).

The local tectonic regime of the study area is characterized by normal faults of NW-SE and NE-SW directions, as it is expected (**section 2.2.3** of this chapter) (**Fig. 2.3**). These faults define the groundwater flow direction and possible contamination from seawater intrusion. In some cases, these tectonic structures may act as underground barriers bounding the groundwater movement. The only worry, concerning the "contribution" of tectonic in the aforementioned water contamination, comes from the fact that the tectonic features start from the coastline and seems to continue for about 5 Km (**section 2.3** of this chapter).

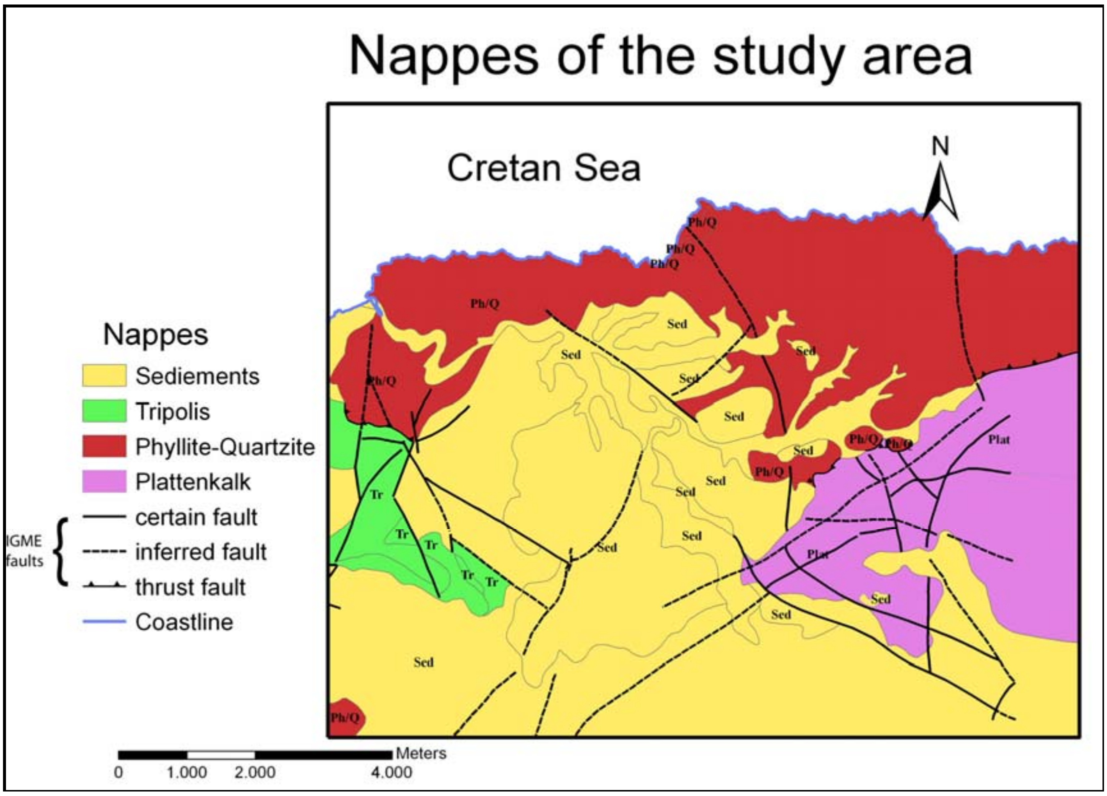


Fig. 2.3: Nappes of Geropotamos study area

2.3 Hydro-geological setting

A large number of hydrological studies have been written about Crete, and some of them exclusively about Rethymnon region. These investigations attest one more time the immense value of freshwater and the increased demand. Some public reports were written about the hydrological setting of Rethymnon, mainly by accomplishing exploratory boreholes and chemical analyses. IGME (branch of Rethymnon), OADYK (Organisation for the Development of Western Crete), Regional Governor of Crete, municipality of Geropotamos, and many others tried to acquire and interpret hydrogeological and hydro-geochemical data from all over the Rethymnon prefecture. Nevertheless, Geropotamos, the study area of this thesis, has been poorly investigated and some assumptions (especially about the contamination of the groundwater) are still unconfirmed.

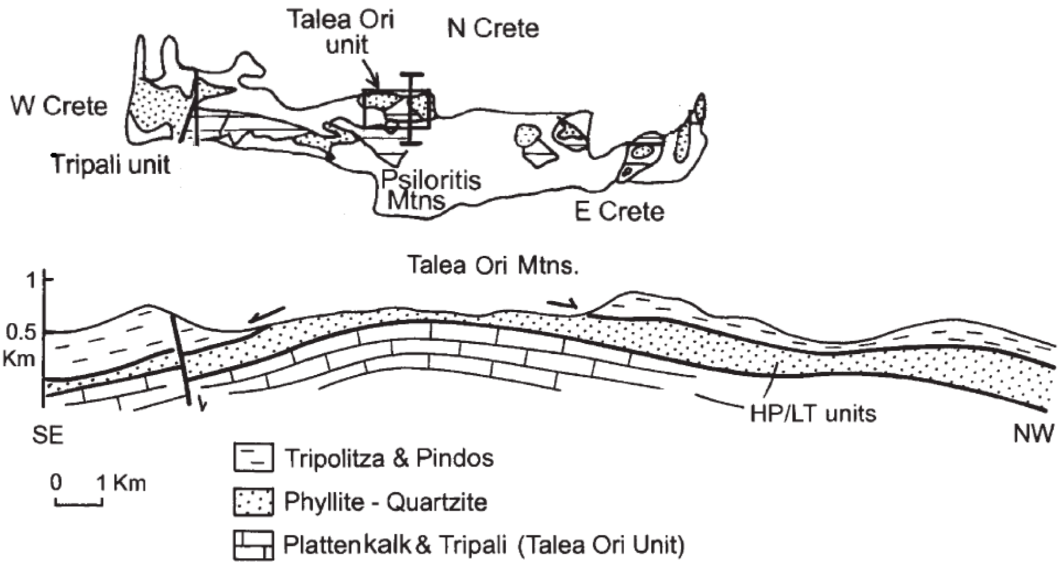


Fig. 2.4: Simplified cross-section of central-northern Crete showing the main thrust sheets and nappes. (Robertson, 2006 - modified from Fassoulas, 2000)

The first integrated study concerning the hydrogeology of the prefecture of Rethymnon is that of 1995 by IGME (branch of Rethymnon) (Knithakis, 1995) which was assigned from 1983 by the Greek ministry of the Environment. That study comprises six volumes: geological/hydrogeological description, exploratory boreholes, hydro-meteorological data, geochemical analyses, maps, and conclusions. The northern part of Geropotamos basin is referred at this study and the contamination problem of the area is investigated for the first time. After some chemical analyses (mainly from analysing samples from the Salty spring), they have assumed that there are evaporites (halite) in the Neogene. The reason why they reached that conclusion is because of the phyllite/quartzite nappe that lies near the coast and generally it works like a boundary to the seawater intrusion. Another reason is the gypsum that has been found in Pigi-Adele region western to the study area (section **2.4.2** of this chapter). There is no further study about this problem up to the present and never evaporite evidence was found in Geropotamos basin, either from exploratory boreholes or hydrowells.

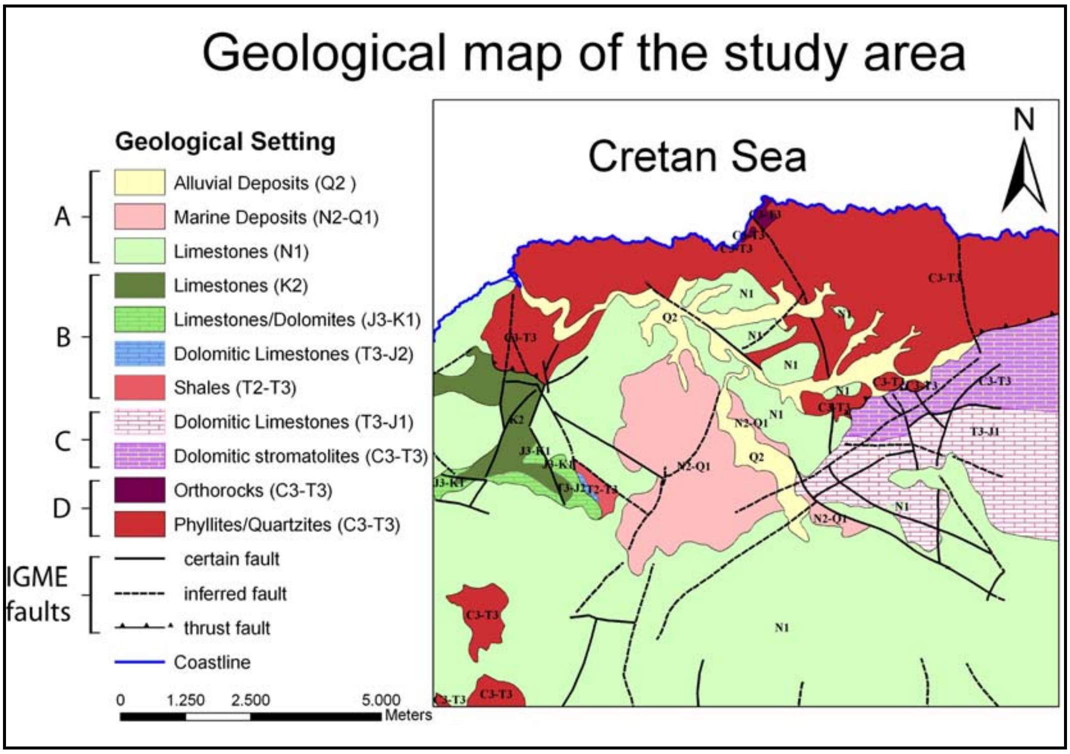


Fig. 2.5: Geological status of the study area (modified from IGME map). Note the prominent approximately North-South-orientated faults intersecting the coastline, that may permit pathways of saltwater intrusion. A: Sediments, B:Tripolis nappe, C: Plattenkalk nappe, D: Phyllite/Quartzite nappe

The study of Crete by the Regional Governor of Crete in 1999 (by the leadership of the geologist Marinos Kritsotakis) (Regional Governor of Crete, 1999) is a full and detailed study about the hydrogeological setting of Crete and the water resources (data collected from IGME, OADYK (Organisation for the Development of Western Crete), OANAK (Organisation for the Development of Eastern Crete), Regional Governor of Crete, Ministry of Agriculture and Ministry of the Environment, local Prefectures, local Municipalities, etc.). It is divided into three phases. The first one includes data collection, data processing and analyses, and data base construction; and the other two phases consist mainly of management and development plans. Concerning the Geropotamos study area and the contamination problem, this project does not make any further research (except some more chemical analyses) but reviews the IGME study of 1995 (see above). So, they reach the same conclusion: halite existence as the contamination source.

From 2000 the Regional Governor of Crete has began the installation of an on-line telemetric hydrologic network and up to now 21 telemetric hydrologic stations have been installed all over Crete (**Fig. 2.6**). The parameters that are monitored in real time from those 21 stations (boreholes and wells) are: depth, electrical conductivity (EC), and temperature. The closest station to the study area has been installed from 2004, but it is out of the range of the targeted region, and no data, coming from this borehole, have been used.

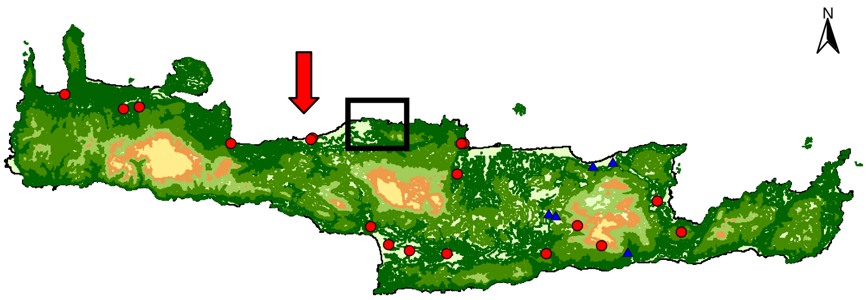


Fig. 2.6: The hydrogeologic telemetric network of Crete (Regional Governor of Crete, 2008). The red arrow indicates the closest station (Platanias station) western to the study area (indicated by the black box).

Another project that the Regional Governor of Crete was involved is the EU-funded project called MEDIS. The overall goal of MEDIS is to contribute towards the sustainable use of water on islands of the Mediterranean where conflicting demand for water is combined with a wide range of hydrological, social and economic conditions. The study is carried out at a catchment-scale on major islands of the Mediterranean extending from the west to the east: Corsica, Crete, Cyprus, Mallorca and Sicily. Except of the Regional Governor of Crete, the MEDIS consortium consists of many Institutions including universities, research centres and organizations from Germany, Cyprus, Greece, Italy, France, and Spain.

The project was mainly concerning the water management of the islands. However, in the frames of MEDIS some geophysical research was performed in Crete studying the seawater intrusion in two areas. More information about this work is given at section **2.5.1** of this chapter.

The geologist Vassilis Simitzis from OADYK, has investigated the Geropotamos basin for more than 25 years and has constructed more than fifteen boreholes at the broad region. Data from the organisation (OADYK), which include logs and the chemical analyses (whenever they were available) have been provided to the author, contributing to the completeness of this thesis. After personal collaboration with him, he is the first one that introduces the option of seawater intrusion as a contaminator, contrarily to the previous studies, however without any evidence, except some observations of the fieldwork.

Figure 2.7 and **Table 2.3** give some information about the hydrogeological situation of the study area. As already mentioned at the introduction, the northern part of Geropotamos basin (along the coastline) consists of impermeable formations (I2) (phyllites/quartzites), expecting to act as groundwater barrier for any possible seawater intrusion. The recharge of the study aquifer is expected to come from Talea Ori, the eastern and southern part of the area, which consists of high permeable formations (K1) (dolomitic limestones and stromatolites), and from leakages from the dense river banks (network).

Two different types of aquifer are expected based on rock types: a) a phreatic aquifer, into porous media (Quaternary and Neogene sediments), and b) deep aquifer into fracture zone (phyllite/quartzite nappe)/ karstic rocks (plattenkalk) - secondary porosity (Kallergis, 2001).

A priori hydro-geological data from hydrowells, which were available from the local authorities, were collected. In the study area data from 23 public drills exist (9 drills for potable water, and 14 used only for irrigation; as they were classified by the local authorities (**Fig. 2.8**)). The groundwater of the drills, which are used only for irrigation, is characterized by high salinity and conductivity. Note that at the study area many exploratory drills have been constructed, especially at the central part (where no drills are situated), but then they were abandoned not due to the small amount of water but due to their bad water quality.

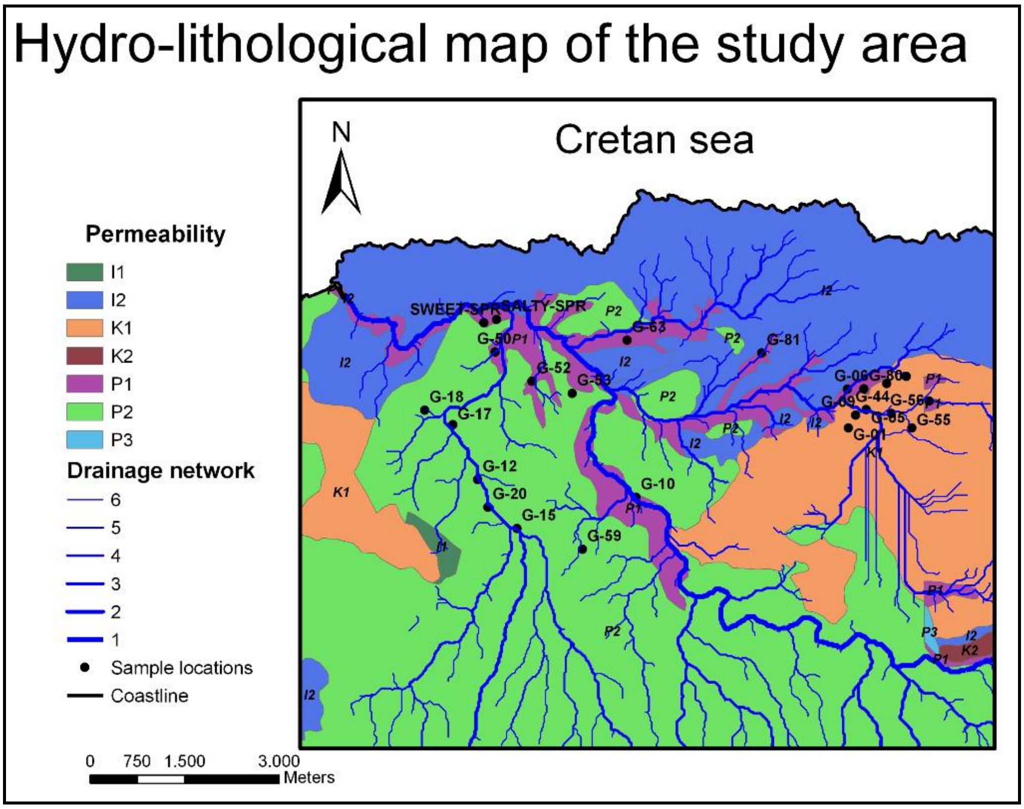


Fig. 2.7: Hydrolithological status of the study area. See **Table 2.3** for explanation of key colours.

Table 2.3: The hydrolithological classification of the geological units based on permeability is presented (Regional Governor of Crete, 1999).

I1	impermeable, low-very low permeability
I2	impermeable or selective low-very low permeability
P1	Granural deposits, fluctuating permeablility
P2	Deposits, medium-low permeability
P3	Granural, low-very low permeability
K1	Karstic, high-medium permeability
K2	Karstic, medium-low permeability

The increasing density of those drills (mostly the private ones) influence adversely the environment (the quantitative and qualitative characteristics of the coastal aquifers) is also investigated. Finally, the logs from available boreholes are the only reliable geological information, so they are used for calibration and confirmation of the geophysical modelling.

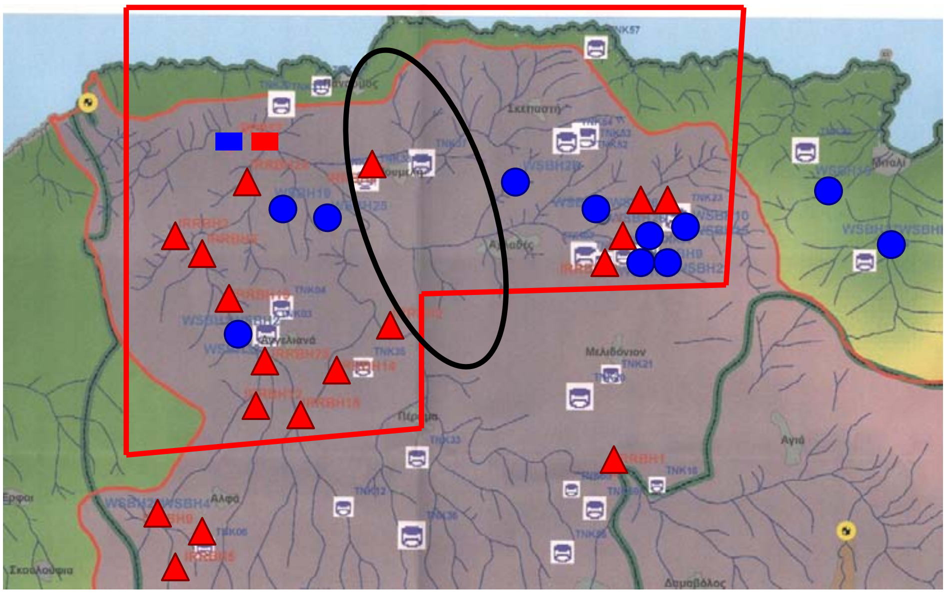


Fig. 2.8: Quality classification of the waters of the study area as it is used by the municipality of Geropotamos (modified from Zarris, 2008) Red triangles: irrigation wells, blue circles: wells for drinking purpose, red and blue rectangulars: Salty and Sweet spring respectively, cylinders: water tanks. The black ellipse indicates the lack of wells at the center part of the study area.

The two local springs, Sweet and Salty, lying at the north-western part of the study area, are explicitly investigated as well, as they consist an unusual hydrological occurrence. The distance between them is less than 200m from each other but the water quality differs significantly. Actually, the groundwater from the Sweet spring is considered to have the best quality and the sample from the Salty spring, the worst (based on 16 chemical parameters according to WHO (World Health Organization) regulations). The names of the springs, that local people have gave, are apparently due to this difference in water quality.

2.4 Origin of Saltwater Intrusion

Saline groundwater can lead to serious problems for water supply, especially under arid climate conditions. To define saline groundwater, we will consider the concentration of chloride exceeding 250 mg/L and electrical conductivity exceeding 2500 μS/cm (WHO; 2004).

In addition to anthropogenic effects (e.g. fertilizer, waste deposits) the main origins of saline groundwater are (Kirsch, 2006):

- Seawater intrusions in coastal areas
- Salt domes
- Enhanced mineral concentration in groundwater under arid conditions

In this section, a brief description of two main salination problems, that it is assumed to influence Geropotamos basin, is following: **seawater intrusion** and **evaporites**. As already mentioned, up to present the contamination of Geropotamos is still a debate problem, and no well-documented answer exists.

2.4.1 Seawater Intrusion Problem

Where aquifers form a coastline, groundwater discharges into the sea. In addition, seawater intrusions occur due to higher density (slightly heavier) of saltwater than freshwater. As a result, in coastal areas the seawater forms a saline wedge below the fresh water, i.e. freshwater is underlain by saltwater, and the boundary (or salt/freshwater interface) between them (in a state of dynamic equilibrium) is moving with the seasonal variations of the water table (transition zone of mixed salinity).

Ghyben (Drabbe and Badon Ghyben, 1888-1889) and Herzberg (1901) were two European scientists who independently recognized the known Ghyben-Herzberg relationship. This principle empirically relates the depth of the interface to the elevation of the land surface under a set of simplifying assumptions: the theoretical interface occurs at a depth below sea-level that is 40 times the height of fresh water above sea-level. Of course, geological variability makes the formula more complex.

The equilibrium between freshwater and seawater can be disturbed by high pumping rates from a coastal aquifer. So, the fresh-water level gets lower and the seawater intrudes further into the aquifer (**Fig. 2.9b**), making the water of the pumping boreholes saline.

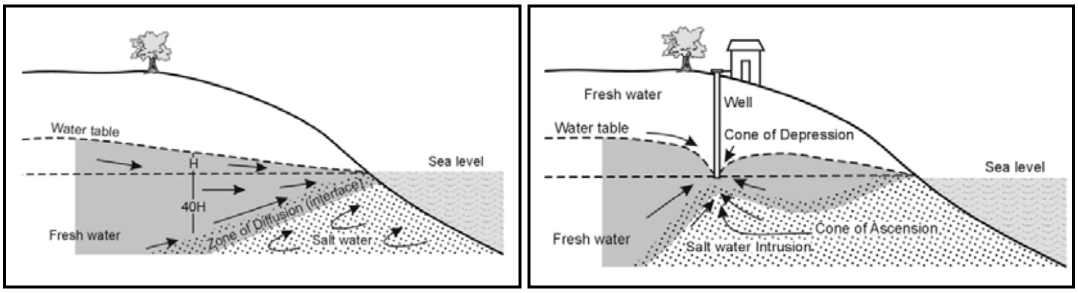


Fig. 2.9: (a) Balanced and **(b)** disturbed salt/freshwater interface in a coastal area (Kirsch, 2006; after Keller, 1988)

There is a scientific meeting that it is important for hydrogeologists whose subject is the seawater intrusion problems. The Saltwater Intrusion Meeting (SWIM) has been held in different European countries on a biennial basis since 1968 with an increasing number and diversity of participants. The scope of SWIM in the beginning was a pure exploitation of coastal and continental aquifers that may be affected by salt water to all aspects of a sustainable development of the groundwater resources. Today, the categories in which the published papers were grouped in the proceedings shifted constantly. Geological, geophysical, hydrogeological, hydro-geochemical and isotopic research were described as providing the data for the modelling work. In every meeting people who are interested in saline groundwater issues are brought together, many new methodologies and new ideas are exchanged, and discussed results on saline groundwater problems (SWIM, 2009). On the “Methods recognizing saltwater intrusion” section (**section 2.5**), some case studies of different methods (geophysics and geochemistry) that have been presented on some of the SWIM meetings are discussed.

2.4.2 Evaporites

Evaporites are sediments deposited from natural waters that have been concentrated as a result of evaporation. The source waters can be either marine or continental in origin. Evaporite deposits are important sources of gypsum, halite, sylvite, and other minerals. Substantial thicknesses of evaporites are buried in some sedimentary basins. There, they act as important barriers to groundwater flow, but they are also susceptible to dissolution by groundwater. Buried evaporites can migrate slowly though overlying sediments in the form of salt domes (Ingebritsen and Sanford, 1998).

In Greece, and especially in Crete, evaporites have been formed mainly due to the Mediterranean Salinity crisis that took place in the upper Neogene period. That event caused the creation of gypsum that is lying in the Neogene formations and in phyllite/quartzite nappe in some places all over Crete. In the vicinity of the study area, south-eastern to Rethymnon city and western to Geropotamos basin, at the Pigi-Adele Neogene basin (**Fig. 2.10**), gypsum has been found during drillings and it is the reason for the groundwater contamination of that region (Regional Governor of Crete, 1999).

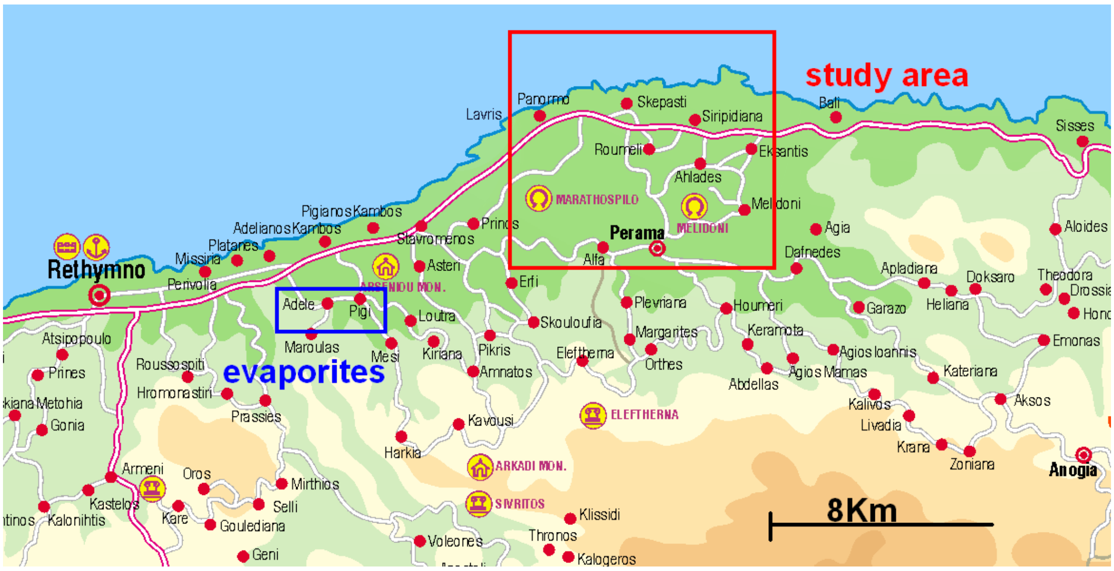


Fig. 2.10: Map showing the study area (red box) and the closest evaporite evidence in boreloles at Pigi-Adele region (blue box)**.**

2.5 Methods recognizing saltwater intrusion

Generally the salination problem all over the world has been studied by several methodologies, including geophysics, geochemistry and remote sensing analysis. This section reviews briefly some of the most important works, where mainly seawater intrusion issues have been studied with success, using the same tools as the ones used for this thesis.

2.5.1 By geophysical methods

Among all geophysical methods, resistivity and electromagnetic methods considered to be the leading ones in the exploration of groundwater. Many successful applications of these methods reported in the literature have to do with seawater intrusion detection and fresh-saline groundwater interface configuration.

Much has been published on the Transient ElectroMagnetic (TEM) technique, including applications in hydrogeological research (e.g. Fitterman and Stewart, 1986; Eddy-Dilek, 1997; Richards et al, 1998; Meju et al, 2000; Guérin et al, 2001; Danielsen et al, 2003; Young et al., 2004; Lepper and Elmore, 2005; Metwaly et al, 2006, Barrett et al, 2006; MacNeil et al, 2007), and for studying the specific problem of salt water intrusion (Mills et al. 1988; Yuhr and Benson, 1995; Hoekstra et al. 1996; Richards et al. 1995; Young et al., 1998; Chen, 1999; Land et al, 2004; Papadopoulos et al., 2004; Nielsen et al, 2006; Kontar and Ozorovich, 2006).

Vertical Electrical Sounding (VES) technique is used fulsomely for groundwater investigations (e.g. Yadav and Abolfazli, 1998; Salem, 2001; Dhakate and Singh, 2005; Soupios, 2007) and seawater intrusion mapping (e.g. Shaaban, 2001; Frohlich and Urish, 2002). Many successful applications combine VES and TEM surveys as well (e.g. Al-Sayed and El-Qady, 2007), while joint inversion of DC and TEM soundings has been attempted (e.g. Albouy et al, 2001, Barsukov et al., 2007).

This section reviews briefly some applications of using TEM, and VES techniques (the same geophysical methodology that used for this thesis). Moreover, joint inversion or combination of them with other geophysical techniques, in coastal regions for hydrogeological investigations. The point is to show the wide application that those methods have found globally and the good results that have been extracted for this kind of problems.

Medis program

Within the frame of MEDIS EU-project (described in **section 2.3** of this chapter) a catchment on Crete (Tybaki) was selected for field surveys, as the geophysical objective within MEDIS was to investigate possibilities and limitations for aquifer characterization and detection of saline intrusions on Mediterranean islands. Both areas are mainly used for agriculture, which takes place preferable in greenhouses or plantations.

Tymbaki catchment lies at the south coast of the island. It is located in the Messara plain, close to the sea and near to the town of Tymbaki. Two surveys using TEM, combined with VES and radio-magnetotellurics (RMT), were carried out in spring and summer 2003. A limited area in the north of Tymbaki was identified to be affected by a saline intrusion. This analysis is verified by water samples and corresponds with information from local farmers. In the south of Tymbaki a second area with low-resistivities above ground water level was found, whereas the decreased resistivites are assigned to other ground water contaminations. As a conclusion, the authors refer that TEM is the best suited method for surface geophysics in Mediterranean coastal area, since other methods often fail due to the small field sizes and the multitude of fences and greenhouses. Nevertheless other methods are recommended in some cases and a careful field reconnaissance is always essential (Pipatpan & Blindow, 2005).

SWIM meetings

As described in **section 2.4.1** of this chapter SWIM meetings every two years provide a great opportunity for hydrogeologists to gain knowledge of the new methodologies and applications concerning saline water intrusion globally. A few case studies from the two more recent meetings of 2006 and 2008, where TEM and VES geophysical techniques have been used, have been selected and presented next.

At the 19th SWIM of 2006 in Italy the following two studies were presented using TEM technique as tool for saltwater intrusion characterisation in Southern Spain and Nabeul-Hammamet (Tunisia) regions respectively.

A TEM survey was carried out in Motril Salobrena coastal aquifer in order to define the characteristics of the fresh water-salt water contact in the aquifer, as boreholes existing in the area are not deep enough to directly locate the contact. Four profiles performed and the results of the first profile managed to detect zones of the aquifer that were affected by seawater more than 150m deep (Duque-Calvache et al., 2006).

At the second study selected, the TEM survey in Nabeul-Hammamet was able to map the interface between fresh and salt water as well. One dimensional interpretation of the TEM data was correlated to existing data from borehole logs (Gamma Ray, Spontaneous Potential, Resistivity) giving good results (Trabelsi et al., 2006).

The 20th SWIM of 2008 took place in Florida USA (out of Europe). Two studies follows that were presented using TEM and resistivity methods for saltwater intrusion mapping.

Another study from Duque et al. was presented, using two geophysical techniques (TEM and VES) in the Motril Salobrena coastal aquifer. The two methods carried out in different chronological periods (TEM data acquired 25 years after VES data) and the analysis of the water table trend showed a similar situation after 25 years (Duque et al., 2008).

The next application was in Los Angeles Country of California, where the TEM compared with High Resolution Electric Resistivity (ER) in order to determine which method is the most suitable for full-scale intrusion mapping of the basin. The conclusion is that TEM proved the most effective at measuring brackish and salty water with the smallest footprint and minimal noise. The results also compared favorably to nearby monitoring wells (Johnson et al, 2008).

Seawater intrusion mapping in Israel

More than 25 years Goldman M., Kafri U. and Melloul A. evaluate seawater intrusion and apply the TEM technique in order to delineate seawater intrusion into the multiple aquifer system of the Mediterranean coastal aquifer of Israel (Melloul and Aberbach, 1984; Goldman et al, 1988; Melloul and Bibas, 1991; Goldman et al, 1991; Kafri et al., 1997; Goldman and Gendler, 2002; Goldman and Kafri, 2002; Goldman et al, 2003; Goldman & Kafri, 2004; Kafri and Goldman, 2006; Kafri et al., 2007). All those years they have constructed a dense TEM grid, and combining other geophysical methods as well (e.g. reflection seismics), they have succeed a detailed study of the whole coast of Israel.

2.5.2 By Geochemical Approach

Geochemical parameters and processing of them, using quality factors (e.g. Na:Cl, Mg:Cl, etc) and special diagrams (e.g. Piper, Durov, Stiff), are good tools for indicating the origin of the salination of the groundwaters. In some occasions, like Geropotamos basin, the demarcation between the contaminators is hard, but a lot of applications have shown that geochemistry can give reliable answers.

Tremendous number of hydro-geochemical researches has taken place in coastal regions by taking samples from boreholes nearby the sea with the aim to contributing to the understanding of the processes which effect groundwater quality (e.g. Jeen, 2001; Kim et al, 2003; Pulido-Leboeuf, 2004; Sivan, 2005; Subba Rao et al, 2005; Park et al., 2005; Petalas and Lambrakis, 2006; El Moujabber, 2006; Lee and Song, 2007; Psychoyou et al, 2007; Panagopoulos, 2008; de Montety, 2008; Petalas, 2009; Aris, 2009) or trying to understand the source of contamination (Petalas and Diamantis, 1999; Sanchez-Martos, 1999; Perry et al, 2002; Sanchez-Martos, 2002).

2.5.3 By GIS and RS techniques

Geographic Information System (GIS) and Remote Sensing (RS) methods are considered the recent years as very effective tools in groundwater modelling and management. Specifically, GIS methods have been extensively used in groundwater vulnerability mapping (e.g. Loague et al., 1996; Rupert, 2001; Lake et al. 2003; Babiker, 2007; Kouli et al., 2008). Moreover, RS analysis, and specifically application of special filtering techniques on satellite images for major tectonic features, geomorphologic structures, etc detection, has shown great results in the past (e.g. Argialas et al, 1988; Rokos, 2000).

2.6 Summary

This chapter was mainly a review in previous studies, where it described briefly the geological (rock types and tectonics) and hydrogeological status of Crete, focusing in the study area. Then, seawater intrusion and evaporites (the two hypotheses) problems were introduced. Finally, some case studies were referred, where the same methodologies (geophysical and geochemical) have been applied successfully in the past in different places.

[METHODS]

Chapter Contents

3.1 Introduction

In order to reach the objectives that were given in ***Chapter 1***, this thesis applies a combination of methodologies, of which geophysics, and geochemistry are the principal ones; and by attempting a preliminary remote sensing analysis. This chapter describes all the methods used in this research.

3.2 Geophysical measurements

Two geophysical measuring tools were used for this project to observe the electrical conductivity changes with depth. This section reviews the theoretical background of Transient Electromagnetic and Vertical Electrical Soundings and the instrumentation of those techniques. Transient electromagnetic theory is described in more detail, as the EM survey is the main part of this thesis.

3.2.1 Electromagnetic Method - Transient ElectroMagnetic (TEM) Technique

The TEM technique (known also as Time-Domain ElectroMagnetic technique, TDEM) is relatively a young method in comparison with other EM methods, as it has been developed and re-fined mainly in the mid-1980s. The reason is that the technology was not at the same level as it is today, because TEM data acquisition and interpretation require sophisticated electronics and modern computers, respectively (Kirsch, 2006). During the last few years TEM method has become increasingly popular for hydrogeological purposes with very good results (**section 2.5.1** of ***Chapter 2***).

In the first part of this section, some general idea of this technique is given and then follows a more detail description of this geophysical tool, based on the Fast TEM technology.

3.2.1.1 Electromagnetic methods - Fundamentals

Most of Electromagnetic (EM) techniques (Transient-EM (TEM), Controlled source audio-frequency magnetotellurics (CSAMT), Frequency Domain EM (FDEM), Ground Penetrating Rarar (GPR), etc) use a controlled artificial electromagnetic source as a primary field that induces a secondary electromagnetic field. On the other hand, other EM methods use the Earth's natural EM fields as well (e.g. Magnetotelluric method).

The EM methods have many advantages. They are sensitive to electrical resistivity and electrical permittivity over a volume of ground where induced electric currents are present. In comparison with other geophysical methods, EM provides deeper penetration depth capability and grater resolving power (Everett and Meju, 2005).However, the main concerns in all EM methods are cultural noise sources, such as power lines, pipelines, etc, that decrease the signal-to noise ratio. EM induction methods, like TEM, are not the most widely used in hydrogeological studies. However, TEM is the most promising and versatile geophysical method for this purpose.

General EM theory can be found in the literature (e.g. Edminister, 1994; Stratton, 2007, etc) and it is beyond the scope of this section. Next, just an introduction of electromagnetism is given, which is actually the backbone of the TEM technique. The principle behind Electromagnetic methods (EM) is governed by Maxwell's equations that describe the coupled set of electrical and magnetic fields change with time.

Electric and magnetic fields are connected by Maxwell's field equations (differential form):

$$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t} \qquad (3.1)$$

$$\nabla \times \mathbf{H} = \mathbf{J} + \frac{\partial \mathbf{D}}{\partial t} \qquad (3.2)$$

$$\nabla \cdot \mathbf{B} = 0 \qquad (3.3)$$

$$\nabla \cdot \mathbf{D} = \rho \qquad (3.4)$$

where $\mathbf{E}$ is the electric field (in $\mathrm{V\ m^{-1}}$), $\mathbf{B}$ is magnetic induction (in T), $\mathbf{H}$ is the magnetic intensity (in $\mathrm{A\ m^{-1}}$), $\mathbf{D}$ is electric displacement (in $\mathrm{C\ m^{-2}}$), $\mathbf{J}$ is the electric current density owing to free charges (in C m^{-3}), and ρ is the charge density (C m^{-3}). Curl ($\nabla\times$) and div ($\nabla\cdot$) are vector calculus expressions.

A time-varying external magnetic field, $\mathbf{B}_e$, in accord with Faraday's Law (**Equation 3.1**), induces an electric field **E**, which then induces a secondary, internal magnetic field $\mathbf{B}_i$, in accord with Ampère' s Law (**Equation 3.2**) (**Fig. 3.1**).

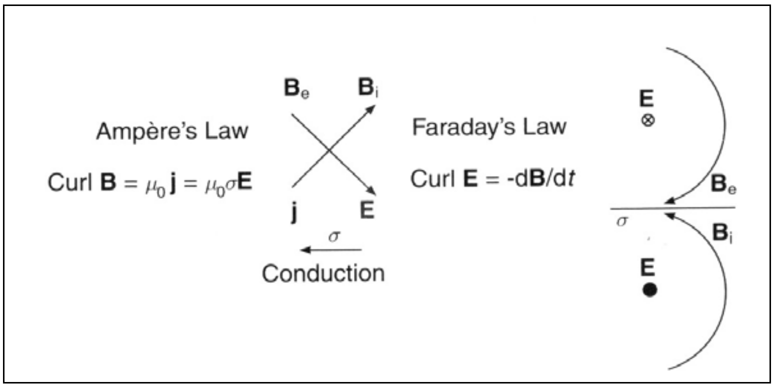


Fig 3.1: Diagram explaining graphically the Maxwell's Equations (Simpson & Bahr, 2005)

3.2.1.2 Transient Electromagnetic Method (TEM) - Fundamentals

In this section a brief description of TEM method is provided. An analytical presentation of the method can be found by McNeill (1980), and Nabighian and Macnae (Nabighian & Macnae, 1991).

TEM is a controlled source electromagnetic (EM) method (the energy source is a transient EM signal) that uses large loops laid on the ground as a transmitter/receiver. The method can be applied in many different configurations, no direct electrical contact with the ground is required, can be used to investigate the top few meters of ground till hundreds of meters in depth (depend on the size of the antenna), it is a fast and cost effective method, but it does not work properly in high resistive region and is susceptible to interference from nearby (buried or not) metal pipes, cables, fences, vehicles and induced noise from power lines.

In the Transient Electromagnetic method (TEM) a strong direct current (DC) is passed through an ungrounded loop. The flow of the current in the loop creates a primary electromagnetic field. The rapid termination of the current generates a system of induced currents in subsurface conductors, called eddy currents, which flow in such way as to preserve the magnetic field that existed before the current was switched off. The eddy currents and the secondary magnetic field, which they produce, decay with time, according to the “Zero Input Response” ($i(t) = i(0)e^{-t/\tau}$, (more details in **Fig. 3.2**), and induces a voltage in the receiver coil.

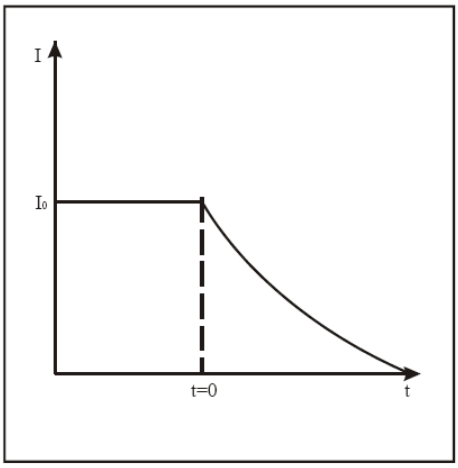


Fig. 3.2 The Zero Input Response (ZIR), also called the natural response, of an RL (resistor-inductor) circuit describes the behavior of the circuit after it has reached constant voltages and currents and is disconnected from any power source. It is called the zero-input response because it requires no input.

It can be shown that on or above the surface of the earth at any given time after switch off, the combined effect of all induced currents in the ground can be approximated by the effect of a single current filament of the same shape as the transmitter loop, that moves outwards and downwards with time This is known as the “smoke ring” concept and it is useful for visualising the complex process occurring in the earth (**Fig. 3.3**). The amplitude of the current filament decreases with time as does its velocity in a homogeneous earth.

“Each TEM measurement is treated as a sounding; many measurements must be carried out to produce many soundings, which may then be interpreted as a collection of soundings. As for all electrical and electromagnetic methods, TEM measurements yield information about variations in the earth's **electrical resistivity**”, Dept of Geography - University of British Columbia, 2009. The depth of investigation depend on the size of the antenna (the bigger the loop size, the deeper the investigation), and on the type of the rocks.

Three TEM measuring array configurations are used: central loop, offset loop and the coincident loop (or single-loop). For this project the coincident loop configuration was used. It is the most simple, and the perhaps the most usable. The same wire loop is used for both transmitter (**TR**) and receiver (**REC**), and major advantages of this loop configuration include good signal-to-noise ratios and a uniform response as a function of transmitter location. However, a homogeneous relief area is required.

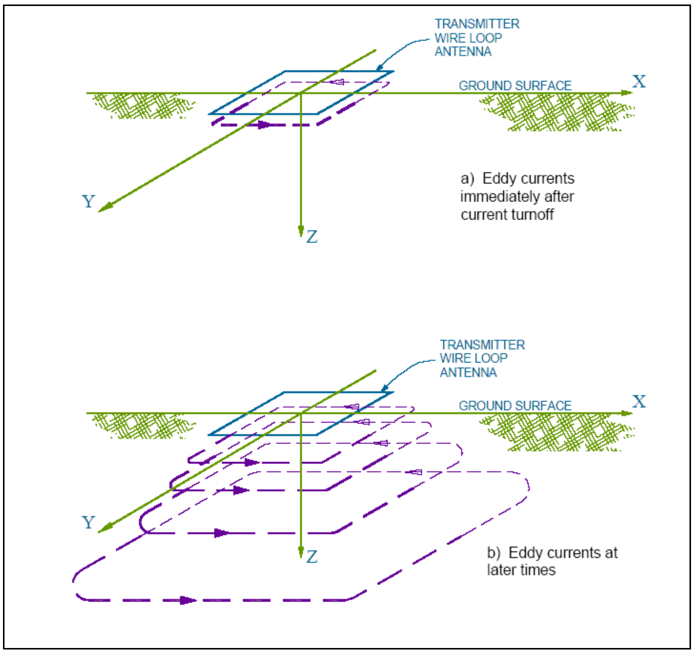


Fig. 3.3: The secondary field immediately begins to decay, in the process generating additional eddy currents that propagate downward and outward into the subsurface like a series of smoke rings (French, 2002; after McNeil, 1990).

3.2.1.3 The TEM-Fast 48 System

TEM-Fast 48 system, developed by AEMR Ltd (TEM-Fast 48 manual, 2007), is a new geophysical tool and it was used in this project, with coincident loop configuration. That new TEM instrument is intended for electromagnetic researches within the limits of first 350 m depth (depending on the ground resistivity). The main areas of application are: search of mineral deposits; geological researches, research of rock samples; and of course hydro-geological researches.

TEM-FAST originally was developed within the framework of the international program MARS-94" and intended for installation on the Martian module with the purpose of TEM sounding of the surface of Mars. It follows that by its development increased requirements to reliability of the tool in extreme conditions were set.

3.2.1.3.1 TEM-Fast 48 Components

TEM-FAST includes: **i)** the **generator** of unipolar rectangular pulses (transmitter), **ii)** the measuring block providing registration of the signals (**receiver**), **iii)** the control block (**controller**), and **iv)** the **power supply** (battery). All devices are assembled in a single case.

i. Transmitter (generator)

The generator develops rectangular pulses of a current, which are passed through the transmitting antenna. The form of the pulses is shown in **Figure 3.4a**. The real antenna can be presented as inertial electrical system with distributed inductance, capacitance and resistance. At the moment of switching off (namely this moment represents the special interest at measurements of transients!), current in the antenna sharply differs from the ideal. Voltage profiles in the transmitter antenna of 50 × 50 m and 20 × 20 m size at the moment of the current off, measured by a digital oscilloscope are shown in **Figure 3.4b**. Graph of the voltage (Model) calculated for the line with distributed parameters is presented in the **Figure 3.4b** as well.

The parameter **Ton + Toff** of the current's pulses TEM-FAST 48 (**Fig. 3.4**) depending on a measurement mode (FILTR = 50/60 Hz) is given in **Table 3.1**.

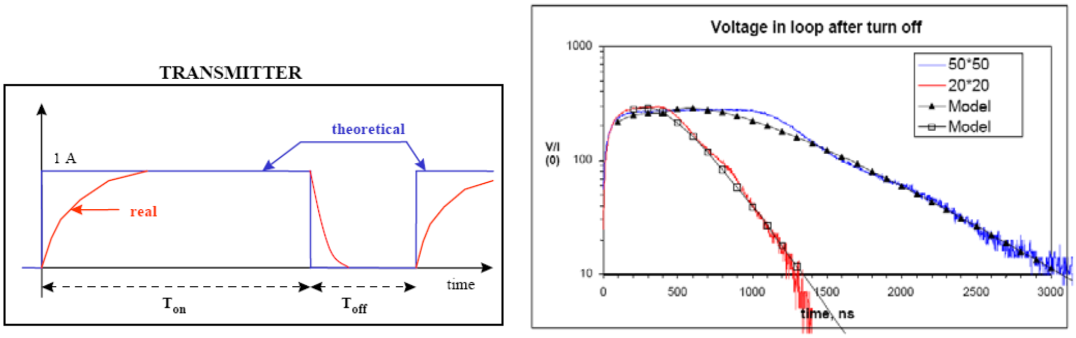


Fig. 3.4: a) Pulses developed by the generator (real & theoretical), and b) Voltage profiles in the transmitter antenna of 50 x 50 and 20 x 20 m after turn off, and models (TEM-Fast 48 manual, 2007).

Table 3.1: The parameter **Ton + Toff** of the current's pulses TEM-FAST 48 (**Fig. 3.4**) depending on a measurement mode (FILTR = 50/60 Hz) (TEM-Fast 48 manual, 2007)

Key	Max time (μs)	Active Time gates	Ton + Toff (50Hz) (ms)	Ton + Toff (60Hz) (ms)
1	64	16	0.3125	0.26
2	128	20	0.625	0.52
3	256	24	1.25	1.042
4	512	28	2.5	2.08
5	1024	32	5	4.17
6	2048	36	10	8.33
7	4096	40	30	25
8	8192	44	50	41.67
9	16384	48	90	75

ii. Receiver (measuring block)

Measuring block consists of: a) devices of protection from a high input voltage **HVP**, b) multi-channel strobe system, integration and storage of the analog information - **DAS**, c) the multiplexer of channels - **MX**, and d) the Analog-to-Digital Converter (**Fig. 3.5**). Some further description of the DAS is following.

The signal after passage of the protection device HVP gets in DAS. As it was mentioned above, this device is intended for stacking of a measured signal, integration of a signal in readouts (strobes) for suppression of noise and compressing of a dynamic range, and finally storing and stacking of the analog information.

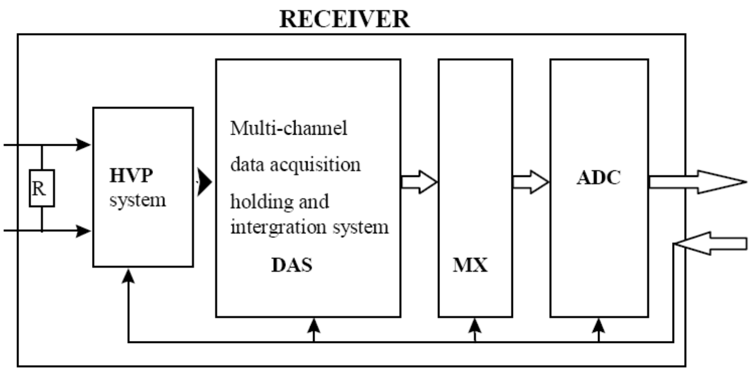


Fig. 3.5: Block diagram of the receiver of TEM Fast 48 (TEM-Fast 48 manual, 2007)

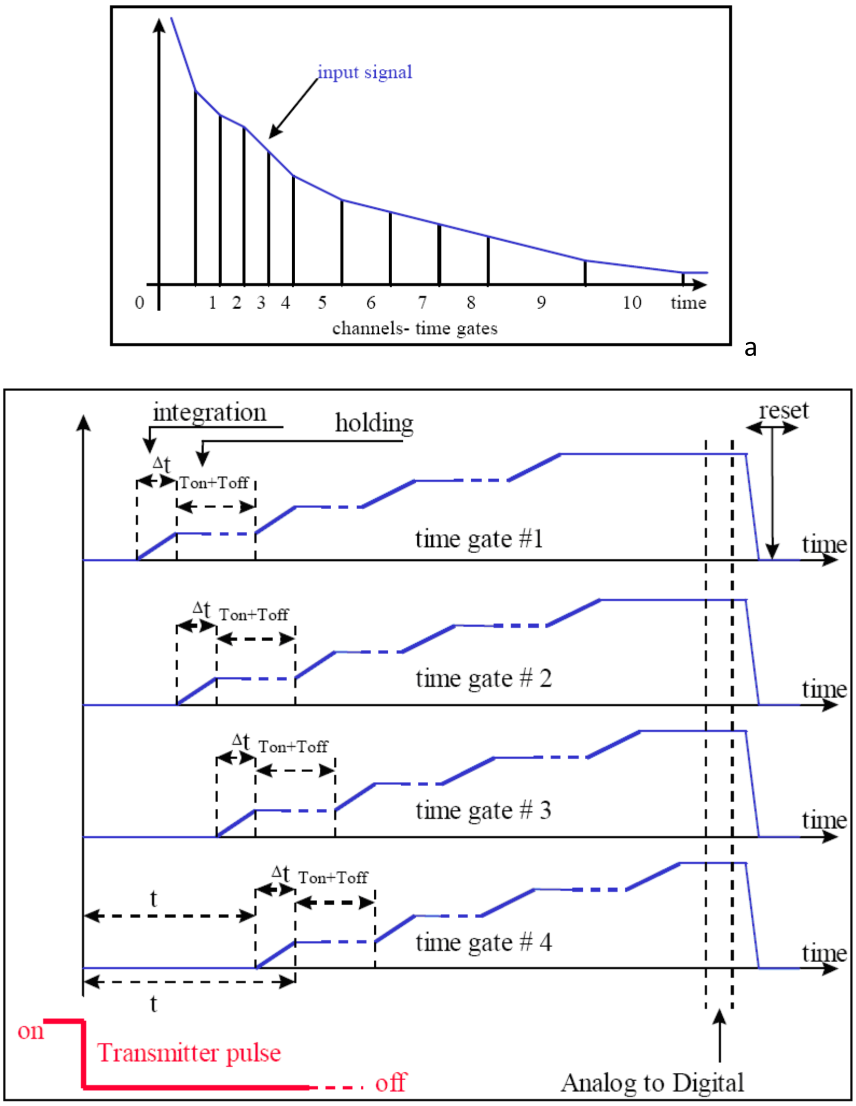


Fig 3.6: a), b) The main principles of DAS operation (see text for more explanation) (TEM-Fast 48 manual, 2007)

Figures 3.6a & **3.6b** show schematically measured transient **E(t)** and arrangement of strobes in limits of which further integration is made. The moment "0" on an axis of time corresponds to the moment of turning off the current's pulse (**Fig. 3.4a**).

The algorithm of **DAS** works depend on time for first four strobes is shown in **Figure 3.7**. The intervals of time **t finish - t start** determine location of a strobe on time axes, **Δt** is the gate's width and time of integration, **Ton+Toff** is time of keeping determined by the period of recurrence of the generator's pulses. The parameters of strobe pulses of TEM-FAST 48 are given in **Table 3.2**.

Table 3.2: Parameters of strobe pulses of TEM-Fast 48 (TEM-Fast 48 manual, 2007)

#Time Gates	t start µs	t finish µs	T center µs	Δt µs	# Time Gates	t start µs	t finish µs	t center µs	Δt µs
1	3.6	4.6	4.06	1	**25**	255.6	319.6	285	64
2	4.6	5.6	5.07	1	**26**	319.6	383.6	350	64
3	5.6	6.6	6.07	1	**27**	383.6	447.6	414	64
4	6.6	7.6	7.08	1	**28**	447.6	511.6	478	64
5	7.6	9.6	8.52	2	**29**	511.6	639.6	570	128
6	9.6	11.6	10.53	2	**30**	639.6	767.6	699	128
7	11.6	13.6	12.55	2	**31**	767.6	895.6	828	128
8	13.6	15.6	14.56	2	**32**	895.6	1023.6	956	128
9	15.6	19.6	17.44	4	**33**	1023.6	1279.6	1152	256
10	19.6	23.6	21.46	4	**34**	1279.6	1535.6	1408	256
11	23.6	27.6	25.49	4	**35**	1535.6	1791.6	1664	256
12	27.6	31.6	29.50	4	**36**	1791.6	2047.6	1920	256
13	31.6	39.6	35.28	8	**37**	2047.6	2559.6	2304	512
14	39.6	47.6	43.30	8	**38**	2559.6	3071.6	2816	512
15	47.6	55.6	51.40	8	**39**	3071.6	3583.6	3328	512
16	55.6	63.6	59.41	8	**40**	3583.6	4095.6	3840	512
17	63.6	79.6	71.60	16	**41**	4095.6	5119.6	4608	1024
18	79.6	95.6	87.60	16	**42**	5119.6	6143.6	5632	1024
19	95.6	111.6	103.6	16	**43**	6143.6	7167.6	6656	1024
20	111.6	127.6	119.6	16	**44**	7167.6	8191.6	7680	1024
21	127.6	159.6	143.6	32	**45**	8191.6	10239.6	9216	2048
22	159.6	191.6	175.6	32	**46**	10239.6	12287.6	11264	2048
23	191.6	223.6	207.6	32	**47**	12287.6	14335.6	13312	2048
24	223.6	255.6	239.6	32	**48**	14335.6	16383.6	15360	2048

iii. The control block (controller)

The controller is executed on the basis of a Programmable Logic Device and is intended to control of all process of measurements and transfer of the information to the computer.

iv. Power supply

In TEM-FAST 48 the opportunity to use several power batteries is stipulated:

- Standard internal battery, 12V 2000 mAh
- External battery 12V for supply of the receiver and generator
- External battery 24V only for supply of the generator

v. The case and connectors of the device

All blocks of the device, including the internal battery, are assembled in the uniform duralumin case (**Fig. 3.7**).

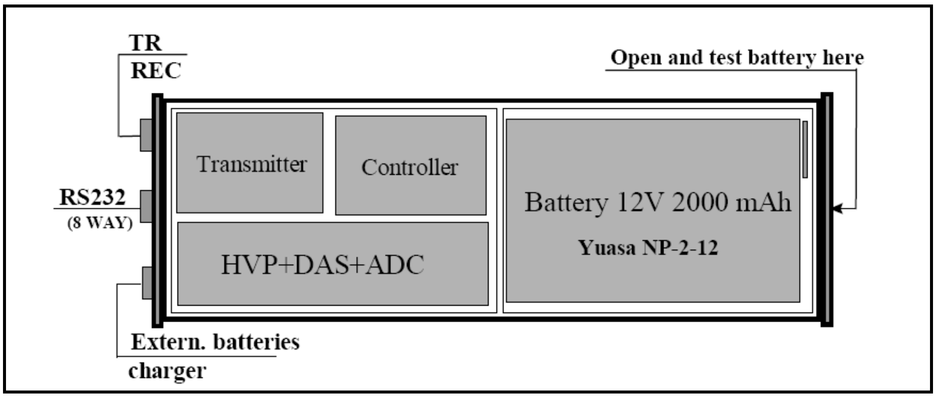


Fig. 3.7: The arrangement of blocks of the device in the case (TEM-Fast 48 manual, 2007)

3.2.1.3.2 More details in TEM Theory (based on Fast TEM technology)

A long description of physical and mathematical bases of TEM theory in general can be found in literature (e.g. Spies and Frischknecht, 1991), (Nabighian & Macnae, 1991)), and Kamenetsky, 1997) and it is not the scope of this section. A picture of the TEM theory which is based on Fast TEM technology, as it is referred at TEM-Fast 48 manual (2007) and Barsukov et al (2007), is given next in this section, followed by representation about the instrumentation and its components.

Fig. 3.8: TEM instrumentation and peripheral units: a) palmtop PC, b) external power supply (12V+12V in series =24V), c) TEM Fast 48 system

A common practice in electric prospecting is to use, as the interpretation parameter, an apparent resistivity $\rho_\alpha(t)$ of a homogeneous medium, the response of which at a given moment coincides with the signal measured in experiment. Traditionally, $\rho_\alpha(t)$ is calculated by asymptotic formula for late times in near zone of transient field when the condition $t = \frac{t}{(\mu_0 R^2 / \rho)} >> 1$ is satisfied:

$$\rho_\alpha(t) = \left[\frac{\sqrt{\pi}}{20} \frac{\mu^{5/2} R^4}{t^{5/2} E(t)/I} \right]^{2/3}$$

where μ_0 is the magnetic permeability of vacuum, ρ is the resistivity of the homogeneous half-space, $E(t)/I$ is the measured value of normalized voltage at antenna terminals, and $R = L/\pi^{1/2}$ the effective radius of a single-turn square antenna with a side L.

Table 3.3: Technical specifications of TEM Fast 48 (TEM-Fast 48 manual, 2007).

The transmitter	
Time of turning off the current's pulse (TR=REC, I=1 A) (μs)	
TR=25m	< 3
TR=50m	< 8
TR=100m	< 20
- The amplitude of current's pulses (A) is (selective)	1, 4
- Ratio pulse/pause (time range = 1-6)	3/1
- Active resistance of load (Ohm)	0 - 20
- Inductance of a load (I=1A) (H)	< 0.01
The receiver	
- Frequency band (MHz)	> 4
- Allowable constant voltage at input (mV)	-2 + 5
- Number of automatically registered delays	48
- Suppression of industrial noise 50/60 Hz (dB)	> 60
- Internal noise (RMS- root mean square, μV) (Stack =20, TR=REC, I=1A, resistance at input r = 2-8 Ohm)	1
- Dynamic range (max /min) (μV)	10^7/1(0.1)
- Systematic errors (%)	1
- Measured parameters:	
E.M.F./CURRENT	V/A
Errors of measurements	V/A
- Allowable types of measuring antenna's configurations:	
One-loop with the sizes of antennas (m)	0.01×0.01 up to 400×400
"loop-in-loop" - size of a TR-loop (m)	500×500
size of a REC-loop	REC< TR/2 with Amplifier=ON
Optimum configuration - one loop by the size (m)	18×18 - 100×100
Time of measurements (Stack = 1) min/max (sec)	18 / 30
Power consumption	
- Standard internal battery	12V, 2000 mAh
- Maximum number of soundings with standard battery: (I = 1A, Stack = 10)	> 50
- Consumption in a mode - "sleep" (μA)	1
- Average consumption in a mode - "work I = 1A" (mA)	350
Other characteristics	
Operation with IBM - compatible PC with standard port RS 232, DOS or Windows 95/98 or Palmtop PC with OS Windows CE	
Weight (kg)	1.5
Size (mm)	103×27×310
Operating temperature range	-20° - + 65° C
Change of temperature (°C / minute)	3
Power of protection of the case of the device	IP15 (65)

Next follows some practical solutions and recommendations about TEM theory and practice from Dr. Pavel Barsukov et al (2007), as they referred at TEM-Fast 48 manual:

- "The increase of the size of antenna in TEM method results the increase of a level of registered signals. At late stages the ratio signal-to-noise is proportional to the area of the transmitting antenna (**TR^2**)".
- "Maximal depth of researches is determined by the maximal time **t**, on which it is possible reliably to register a signal **E(t)/I**".
- "Maximal depth of researches with configuration loop-in-loop theoretically is identical to the coincident configuration".
- "Stratification of section with high levels of resistivity is extremely complicated. It is practically impossible to distinguish layers with $\rho = 1000$ and $\rho = 10000$ ohm.m. At these levels of resistivity it is necessary to use antennas of the large sizes (for $\rho > 1000$ ohm.m TR = 100m and more)".
- "The most favourable range of specific resistivity for stratification of rock lays within the limits of $10 \text{ ohm.m} < \rho < 300 \text{ ohm.m}$".
- "Optimum range of the sizes of transmitting-receiving antennas for TEM-FAST 48 is **TR**=**REC**=18×18 - 100×100 m".
- "At a choice of the optimum size of antennas it is necessary to remember that large size antennas increase limiting depth of researches. However, estimations of a range of depths **h**, for which reliable interpretation of the received results is possible, at use of coincide antennas with the side **TR=REC=L** usually lay in limits: $h_{min} > L/10$ and $h_{max} < 3L$".

3.2.1.3.3 Side Effects in TEM sounding

During TEM data acquisition with TEM-Fast instrumentation, three physical phenomena take place that cause difficulties to the process of field diffusion and may affect significantly the effectiveness of geological interpretation of the measured results. These are: SuperParaMagnetic (**SPM**) effect and Induced Polarization (**IP**) effect (Barsukov, 2007). Apart from those, man-made noise can distort a TEM sounding too.

i) When TEM measurements are acquired on SPM rocks (SPM material – superficial clay above parent rocks, glacier, etc), anomalous transient recordings are taken, leading to invalid apparent resistivity determinations with time.
ii) The IP effect has as a result to increase the voltage on a TEM decay curve at early times and to decrease it at late times (in extreme cases becoming negative). This effect is minimal in the coincident antennas. Generally reduction of IP effect can be achieved by increasing the size of the antenna or by rising the antenna above ground surface (TEM-Fast 48 manual, 2007).
iii) Man-made (known also as cultural noise) arises from the presence of pipelines, power and telephone lines, metal fences, etc. Currents induced in such metallic conductors, cause distortions in the TEM data. It is not possible to carry out TEM measurements in areas with high power-line noise, even though instrumentation has internal notch filters for reducing the effect.

3.2.2 Resistivity Method - VES technique

The resistivity method has a longer history than EM methods and it has a wide range of applications to environmental and engineering problems. The technique of resistivity surveying has its origin in 1912 and it was developed by Conrad Schlumberger, who conducted the first experiments in Normandy. This section describes in brief the theoretical principles of the resistivity method, and deals in greater detail with the Vertical Electrical Sounding (VES) field technique and Schlumberger electrode configuration.

3.2.2.1 Basic principles

The underlying principle of geoelectrical methods is: "Electrical measurements of various types are made at the surface of the earth to investigate subsurface conditions in an area. An electric current is driven through the ground and the resulting potential differences are measured at the surface. Anomalous conditions or inhomogeneities within the ground, such as electrically better or poorer conducting layers, are inferred from the fact that they deflect the current and distort the normal potentials" (Sharma, 1997).

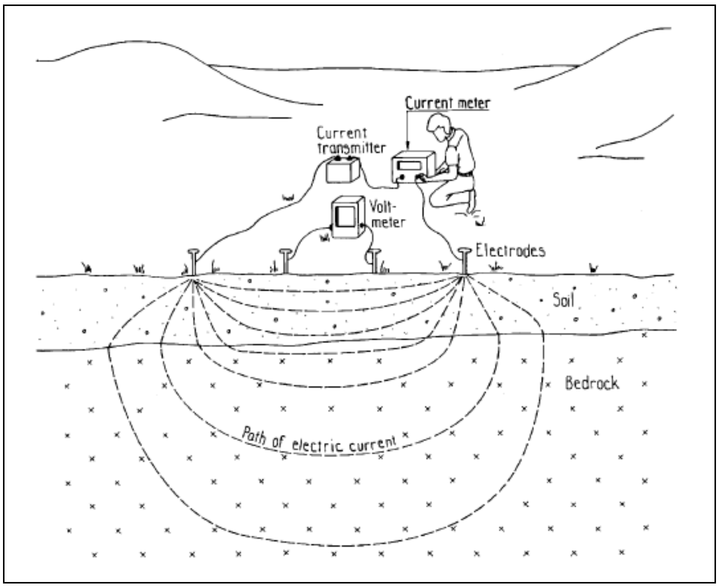


Fig. 3.9: Sketch showing principle of DC resistivity measurement (Dahlin, 2001; modified from Robinson and Coruh, 1988).

The property of the electrical resistance (R) of a material is expressed in terms of its resistivity (ρ) [Ω m or ohm.m]. Resistivity is a bulk property of a material and describes how well that material inhibits current flow and should not be confused with the term resistance. The inverse of resistivity is called conductivity, σ (=1/ρ) [S/m]. The purpose of Vertical Electrical Soundings (VES) is to determine the variations in resistivity with depth. **Figure 3.10** shows the approximate resistivity ranges of earth materials.

For a homogeneous ground the resistivity ρ is calculated by:

$$\rho = K \cdot \frac{\Delta V}{I} \qquad (3.5)$$

where ΔV the potential difference, I the flowing current, and K denotes the geometric factor of the electrodes configuration and calculated by:

$$K = \frac{1}{2\pi}\left(\frac{1}{AM} - \frac{1}{BM} - \frac{1}{AN} + \frac{1}{BN}\right) \qquad (3.6)$$

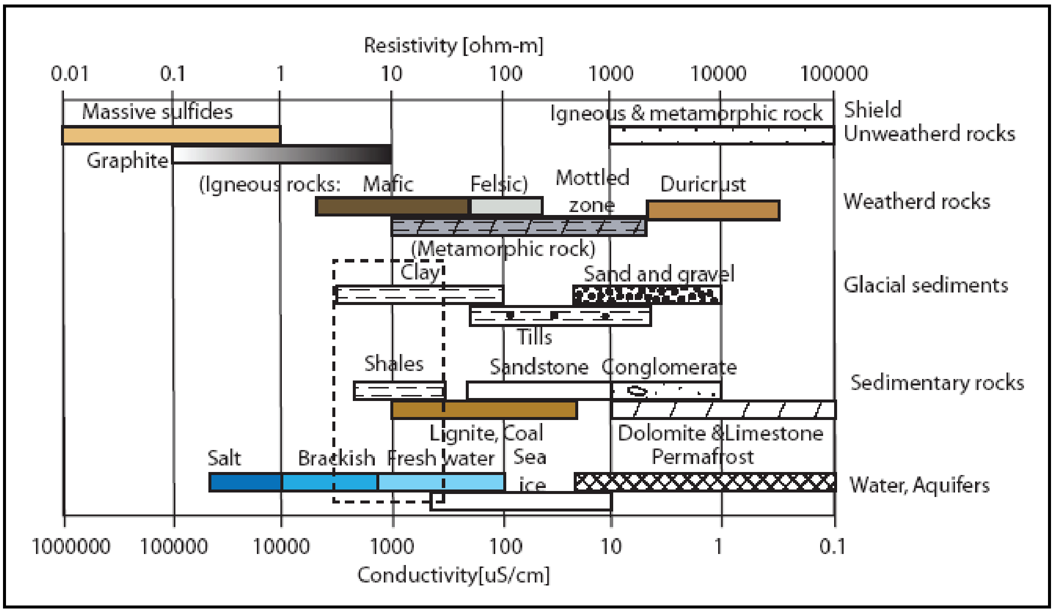


Fig . 3.10: Typical ranges of electrical resistivities of earth materials (Perttu, 2008; after Palacky 1987)

3.2.2.2 Vertical Electrical Soundings

Resistivity measurements are carried out current electrodes (A and B) and then measure the resultant potential difference (ΔV) between two potential electrodes (M and N) (**Figs. 3.11** & **3.12**). As described by Kirsch (2006): "The basic idea of resolving the vertical resistivity layering is to stepwise increase the current-injection electrodes AB spacing (usually with a logarithmic electrode separation distribution), which leads to an increasing penetration of the current lines and in this way to an increasing influence of the deep-seated layers on the apparent resistivity ρ_α"

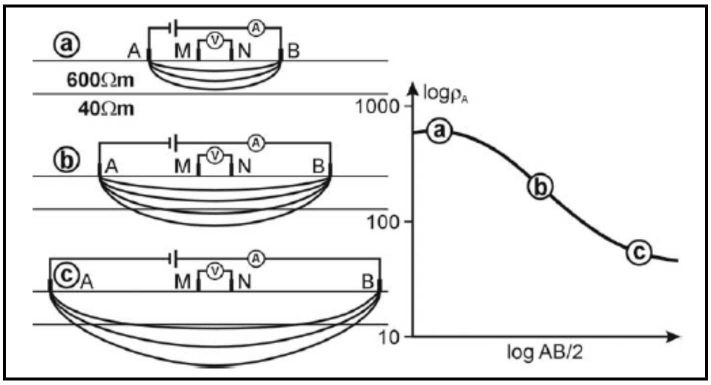


Fig. 3.11: apparent resistivity measurements with increased current electrode spacing leading to increased penetration depths of the injected current (Kirsch, 2006)

Different types of electrode configurations are used, depending on the type of investigation, field condition and the sensitivity of the resistivity meter. Because of practical and methodical advantages, VES mostly use the symmetrical Schlumberger configuration. Sounding with that array is carried out by keeping the electrode array centred over the field site while increasing the distance between current electrodes, thus increasing the depth of investigation. Work in this thesis has been carried out using a Schlumberger electrode configuration.

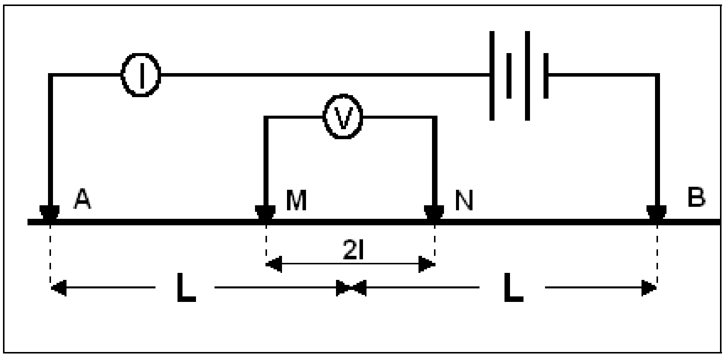


Fig. 3.12: Outline of a Schlumberger array for Vertical Electrical Soundings (VES). A, B for current electrodes, and M, N for potential electrodes.

Equation 3.5 is only true for a homogeneous earth. For an inhomogeneous earth the resistivity as computed will vary, and, therefore, the resistivity obtained is designated as 'apparent resistivity', ρ_α.

In Schlumberger array (**Fig. 3.12**), the simplified formula for apparent resistivity (Sharma, 1997) is:

$$\rho_\alpha = \frac{\pi L^2}{I}\frac{\Delta V}{2l}$$

3.2.2.3 Instrumentation for DC measurements

In our fieldwork, resistivity data were acquired with a SYSCAL R1 PLUS Switch-48 from IRIS. It is an all-in-one multinode resistivity imaging system that it features an internal switching board for 48 electrodes and a voltage up to 600V. Automatic ranging is also available, where the output current is automatically adjusted in order to optimize the input voltage values and therefore, certify the best measurement quality. It is ideal for environmental and especially for hydrogeologic applications such as salinity control and shallow groundwater exploration (depth and thickness of aquifers) (IRIS instruments, 2009).

3.3 Geochemical Analyses

The analytical chemistry of groundwater in general is beyond the scope of this section. In most cases water analyses were carried out by standard procedures as described mainly in "Standard Methods for the examination of water and wastewater" (2005) handbook, and in some other reference sources, as mentioned in the text. In the first part of this chapter some information about the sample collection, preservation and storage is given. Then the physical and aggregate properties, the metals and the inorganic nonmetallic constituents, that have been analyzed within the frames of this thesis, are summarized, and some short descriptions of each method of each chemical parameter is given (**Table 3.4**).

3.3.1 Collection & Preservation of Samples

Correct sampling and preservation are critical for accurate results. Substantial errors involving the faulty identification and classification of materials on sites may be induced by the usage of inappropriate sampling techniques or procedures (Ostler & Holley, 1997).

3.3.1.1 Collection of Samples

The purpose of water sampling is to collect a portion of material large enough to be representative and small enough in volume to be transported easily, i.e. essentially similar in chemical and physical properties with the total body of the material under investigation.

For each sample location 500 mL of water was collected, amount enough for the analysis of all the chemical parameters.

Very important issue is to ensure that all sampling equipment is clean and quality-assured before use. For all the samplings of this thesis, the sample containers that were used were clean and free of contaminants as they were first washed thoroughly and then swilled many times with distilled water. Finally, the containers were rinsed several times with the water to be sampled before taking the sample.

A very detailed and exact sample-tracking data base was kept during the whole period of this study in order to avoid errors or mistakes coming from sample mixing and/or sample misidentification. Each sample collected was recorded and identified with a unique sample number and date, marked on each bottle using waterproof ink. Other sufficient information, including the unique sample identification number, the date, exact location, water temperature, etc. were recorded in a sample book in the field at the sampling site at the time of sample collection in order to provide positive sample identification at a later date.

For fixing the sampling points, Global Positioning Systems (GPS) were used, as they supply accurate sampling position data. After the sampling points were chosen, they were all marked by GPS, so it was finally easy for the sampler/ author to find each time the sample location guided by the GPS.

A general rule for water sampling from wells is to collect samples only after the water has run long enough to draw fresh groundwater into the system and the samples should be collected from a tap near the well. Purging stagnant water is critical, that's why the well was pumping for about 10 minutes at least before water sample collection (2 times the well volume was emptied approximately). For the 2 springs, the samples there were taken very close to the place where the water flowed, in order to have a representative sample from each spring for analysis. The samples were taken under the surface water and the caps were submerged before removing.

3.3.1.2 Sample Storage and Preservation

The type of sample container used is of extreme importance as well. Glass sample containers are generally avoided (due to their fragile nature), but sometimes are the only solution because some sample analytes may dissolve (be absorbed) into the walls of plastic containers; and, similarly, contaminants from plastic containers may leach into samples. For this thesis, all the samples were stored in high-density Polyethylene (HDPE) bottles of 500 mL with watertight lids.

In general, it is known that the reliability of the analytical results depends on the time that elapses between collection of a sample and its analysis. For certain physical values (e.g. temperature) and constituents, instant analysis in the field is required. In order to avoid changes in the chemical composition of the samples between sampling and analyses, they were kept refrigerated (≈4°C). Of course, some chemical parameters that should be measured immediately (pH-Value, Electrical Conductivity, Alkalinity, Cl^-, NO_3^-), their determination were started without delay after the arrival in the laboratory. The analyses of the samples were completed as soon as possible (within 2-3 days after collection). In some cases and in order to test the repeatability of the methods, and the procedures used in the study, a few samples were kept for longer time in the refrigerator, after acidification with conc. HNO_3.

3.3.2 Physical and Aggregate Properties

This section comprises five physical and aggregate properties: **Alkalinity** (and HCO_3^- concentration), **Total Hardness**, **Electrical Conductivity** (and **TDS**), **Salinity**, and T**emperature**. These parameters were measured or calculated for the three samplings (except Alkalinity which was determined only for the October's 2008 sampling).

Table 3.4: All the measured chemical parameters and their methodologies used in the present study

Chemical Parameter		**Methodology**
Physical and Aggregate Properties	Alkalinity	Titration Method
	Hardness	E.D.T.A. Titrimetric Method
	Electrical Conductivity	Conductivity Cell
	Salinity	Electrical Conductivity Method
	Temperature	Digital Thermometer (in situ)
Metals	Calcium	Flame Atomic Absorption
	Magnesium	
	Potassium	
	Sodium	
	Iron	
Inorganic Nonmetallic Constituents	Boron	Azomethine-Hydrogen Method
	Chloride	Argentometric Method
	pH value	pH Electrode
	Nitrate nitrogen	Ultraviolent Spectrophotometric Screening Method
	Sulfate	semi-quantitative Method (Aquaquant 1.14411)
	Phosphate	Spectrophotometric Method

3.3.2.1 Alkalinity (expressed as mg $CaCO_3/L$**) and Bicarbonate concentration (**as mg HCO_3^-/L**)**

"The alkalinity of water represents a measurement of the water's capacity to neutralize an acid and as such is related to the water's buffering capacity, i.e. its capacity to resist a change in pH as acid is added", AWWA Staff, 1995. The measured value may vary significantly with the end-point pH used (Standard Methods for examinations of water and wastewater, 2005).

"Alkalinity has a little identified significance for human health. Nevertheless, highly alkaline water has a horrible taste ("soda" taste) and may force consumers to look for other water sources", AWWA Staff, 1995. "In addition, as the alkalinity of many surface waters is primarily a function of carbonate, bicarbonate, and hydroxide content, it is taken as an indication of the concentration of these constituents. The measured values also may include contributions from borates, phosphates, silicates, or other bases if these are present ", Standard Methods for examinations of water and wastewater, 2005.

There is no regulation about alkalinity from WHO or European Council, but the EPA (U.S. Environmental Protection Agency) Secondary Drinking Water Regulations limit alkalinity only in terms of TDS (500 ppm) and by the limitation on pH (EPA, 2009).

The method that was chosen for determining alkalinity is the **Titration Method** (2320 B, Standard Methods for examinations of water and wastewater, 2005).

Reagents a) Sodium carbonate solution, approximately 0.05N (1.25 g Na_2CO_3 were added (after drying at 250° for 4 h), and diluted to 500 mL with distilled water in a volumetric flask), b) Standard hydrochloric acid, 0.1 N (not precise value).

40 mL 0.05 N Na_2CO_3 solution and 60 mL water were added in a beaker, and the pH value equaled to 10.9. Then this solution was standardized against by titrating potentiometrically to pH of about 3. However, the volume of HCl solution used for titrating the Na_2CO_3 solution to pH 4.5 was used to the calculations presented below.

The reactions which take place during the titration are:

$$Na_2CO_3 + H^+ + Cl^- \rightarrow 2Na^+ + Cl^- + HCO_3^- \qquad (1)$$

$$HCO_3^- + H^+ \rightarrow H_2CO_3 \qquad (2)$$

So, the normality of the HCl was calculated as following:

$$\text{Normality, } N = \frac{A \times B}{53 \times C} = \frac{2.5 \times 40}{53 \times 17.55} = 0.107$$

where:

A=g Na_2CO_3 weighted into 1L flask

B=mL Na_2CO_3 solution taken for titration,

C= mL acid used

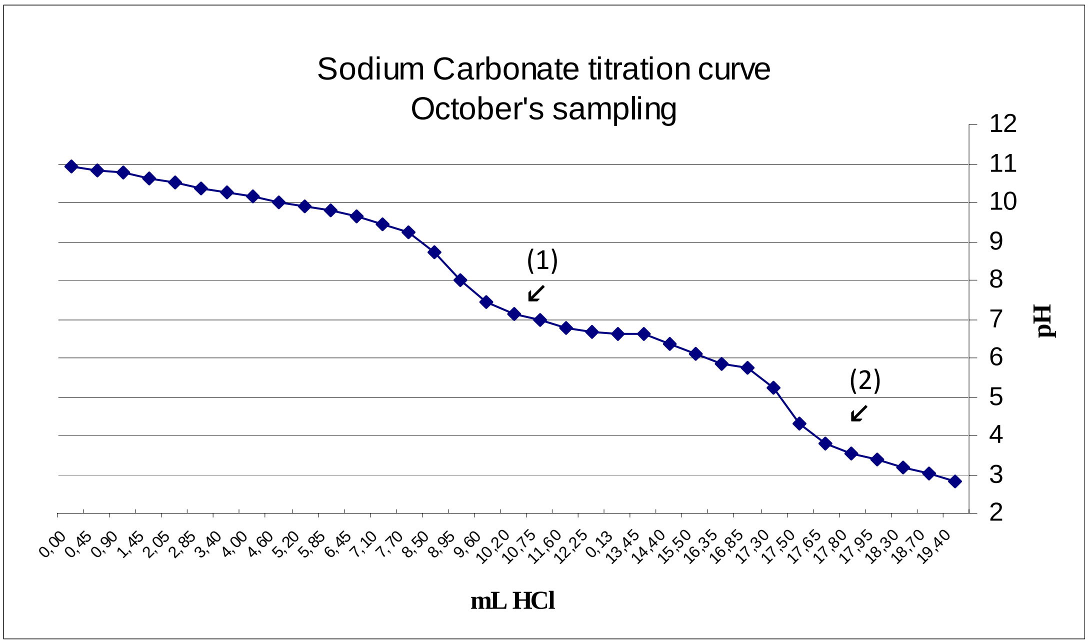


Fig. 3.13: Sodium carbonate titration curve for October's sampling for the HCl normality calculation. The equivalent points (1) and (2) correspond to the end of the reactions 1 and 2 respectively.

Procedure Potentiometric titration curves were constructed for each sample to end-point pH value of 4.5 according to the reference method 2320 B (Standard Methods for examinations of water and wastewater, 2005). The samples were not filtered, diluted, concentrated or altered.

Calculation Potentiometric titration to end-point pH:

$$\text{Alkalinity (mg CaCO}_3\text{/L)} = \frac{A \times N \times 50000}{\text{mL sample}}$$

where:

A=mL standard acid used

N=normality of standard acid (estimated as described above)

It is necessary to convert bicarbonate ion concentration (expressed as mg $CaCO_3$/L) to bicarbonate ion activity (in mg HCO_3^-/L), because it is needed for Piper, Durov, Stiff diagram etc. plotting. There is a practical method to do this: If the pH is less than about 8.4, to do that conversion, we just multiple the alkalinity (in mg $CaCO_3$ /L) by 1.22 to convert to bicarbonate [HCO_3^-] ions concentration (in mg HCO_3^-/L). The titration curve in **Figure 3.13** also indicates that samples with pH values below 8 contain no CO_3^{2-} ions. As it can been seen in **Appendix C** all our samples fulfill this condition (all pH values below 8). Thus, for the conversion of the total alkalinity expression to bicarbonate concentration the utilization of the 1.22 factor is valid. That state is true in most cases as HCO_3^- is truly most dominant component of alkalinity in natural water (Coal Geology, 2009).

3.3.2.2 **Hardness** (expressed as mg $CaCO_3$/L)

Water hardness is considered to be a measure of the capacity of water to precipitate soap. Soap is precipitated mainly by the calcium and magnesium ions present. Therefore, hardness is a measure of Ca^{2+} and Mg^{2+} salts in water, which are present mainly as bicarbonate salts. Hard waters usually occur where topsoil is thick and limestone formations are present, whereas, soft waters occur where the topsoil is thin and limestone formations are sparse or absent (AWWA Staff, 1995). According to current practice, total hardness is defined as the sum of the calcium and magnesium concentrations, both expressed as calcium carbonate, in milligrams per liter (mg $CaCO_3$/L) (Fresenius et al., 1988).

There is no regulation about hardness from WHO, but a taste threshold is suggested for the calcium ion in the range of 100-300 mg/L, depending on the associated anion, and a taste threshold for magnesium in a lower range than that for calcium. In some instances, consumers tolerate water hardness in excess of 500 mg/L (WHO, 2004).

The method that was chosen for determining hardness is **EDTA Titrimetric Method (2340C,** Standard Methods for examinations of water and wastewater, 2005**).**

Reagents a) Standard EDTA titrant: EDTA solution 0.01 M (3.723 g EDTA-Na_2 salt was added and diluted to 1 L with distilled water), b) Indicator: Eriochrome Black T. The indicator was included in the buffer tablet (see next), c) Buffer system: Tablets, containing NH_4Cl and the indicator, (Merck, 1-08430-1000), were used along with 1 mL of NH_3 25% (w/v) to buffer the sample at pH 10.0 ± 0.1.

Procedure 25mL of sample were diluted to 50mL with distilled water in an erlenmeyer flask. 1mL buffer solution was added and then the indicator. standard EDTA titrant was added slowly with continuous stirring, until the last reddish tinge disappeared. At the end point the solution was blue. The procedure was repeated one more time and the average value was recorded.

Calculation Hardness (EDTA) as mg $CaCO_3$/L $= \frac{A \times B \times 1000}{\text{mL samle}}$

where: A = mL titrant for sample, and

B = mg $CaCO_3$ equivalent to 1.00 mL EDTA titrant

3.3.2.3 Electrical Conductivity (μS/cm) and TDS (mg/L)

Electrical Conductivity (EC) of water is based on the presence of ions. It can be regarded as a non-specific gauge for the content or the concentration of dissolved dissociable substances in water (Fresenius, 1988). Hence, it can be considered as a measure of the ionic strength of a solution and an indirect measure of the Total Dissolved Solids (TDS) in a water supply (AWWA Staff, 1995). An approved method for determining conductivity utilizes a self contained conductivity instrument with conductivity cells containing either platinum or non-platinum electrodes. The reference temperature or any conversion to a different temperature from the measuring temperature should always be indicated, as the results measured are dependent on temperature, since the movement of ions under an electrostatic potential increases with increasing temperature. EC is normally expressed in units of μS/cm and the reported values have already been normalized automatically to 20°C by the conductivity meter.

For groundwater, EC values greater than 500 μS/cm indicate that the water may be polluted, although values as high as 2000 μS/cm may be acceptable for irrigation water. In Europe, the EC of drinking water should be no more than 2500 μS/cm @ 20°C (European Council, 1998).

Apparatus The conductivity meter used was Consort, model C532.

Procedure The instrument was calibrated with fresh standards, at room temperature, at the beginning of the measurements. When the calibration was finished, the cell was rinsed several times with the sample and it was immersed in that solution. Low stirring was used. The conductivity in μS was displayed. Then, we rinsed again with distilled water and continued to the next sample. The same procedure was repeated for all the samples.

EC to TDS Conversion:

A rough approximation for EC to TDS conversion is commonly used:

TDS (ppm) ≈ **EC** * 0.65 **(Mandel & Shiftan)**

A second method was used (only for October's sampling) for TDS determination using the sum of the concentrations of the dominant elements present in each sample (anions: HCO_3^-, Cl^-, SO_4^{2-}, and cations: K^+, Na^+, Ca^{2+}, Mg^{2+}). The two different methods gave similar results for the TDS value (data from the second method not shown in next chapter).

No health-based guideline value for TDS was proposed in the 1993 Guidelines, as reliable data on possible health effects associated with the ingestion of TDS in drinking water were not available. However, the presence of high levels of TDS in drinking-water (greater than 1200 mg/L) may be objectionable to consumers. Water with extremely low concentrations of TDS may also be unacceptable because of its flat, insipid taste (WHO, 2004). Secondary maximum contaminant level is set to a lower value of 500 mg/L by EPA (EPA, 2009).

3.3.2.4 Salinity (ppt)

"Salinity was originally conceived as a measure of the mass of dissolved salts in a given mass of solution. The experimental determination of the salt content by drying and weighing presents some difficulties due to the loss of some components. The only reliable way to determine the true or absolute salinity of natural water is to make a complete chemical analysis. However, this method is time-consuming and cannot yield the precision necessary for accurate work. Thus, to determine salinity, one normally uses indirect methods involving the measurement of a physical property such as electrical conductivity, density, sound speed, or refractive index", Standard Methods for examinations of water and wastewater, 2005.

When we measure the salinity of water, we estimate the amount of the dissolved salt in the water, or the concentration of salt in the water. Concentration can be expressed in parts per million (ppm) or parts per thousand (ppt), where $1 \text{ ppm} = 10^{-3} \text{ ppt} = 1\text{mg/L}$ (Windows to the Universe, 2009). There are no guidelines/recommendations for salinity from WHO, EU or EPA. The classes of the salinity of water are displayed on **Table 3.5**.

Table 3.5: Classifications of the Salinity of waters

drinking water	0.1ppt
restriction on drinking water	0.5ppt
limit drinking water	1ppt
limit agriculture irrigation	2ppt
brackish water	0.5 - 30ppt
sea water	30 - 50ppt
Brine	>50ppt

The method that was chosen for determining salinity is **Electrical Conductivity Method (**2520B, Standard Methods for examinations of water and wastewater, 2005**)**.

Apparatus See Electrical Conductivity, section 3.3.2.3.

Reagent KCl solution (we added a mass of 3.243g KCl in a mass of 100g of solution).

Determination For seawater measurements the Practical Salinity Scale 1978 was used. This scale was developed relatively to a KCl solution (see Reagent above). A seawater with a conductivity, C, at 15°C equal to that of the above indicated KCl solution is defined as having a practical salinity of 35. The conductivity of the KCl solution was measured, that was 59.3 at 24.5°C. The conductivity values of each sample already been measured at 24.5°C.

The conductivity ratio is defined as $R_t = \frac{C \text{ (sample at t)}}{C \text{ (KCl solution at t)}}$ (valid from S=2 to 42), where t is temperature and C is conductivity.

The salinity dependence of the conductivity ratio, R_t, as a function of temperature of a given sample to a standard S=35 seawater is used to determine the salinity (S_{PSS})

$$S = a_0 + a_1 R_t^{1/2} + a_2 R_t + a_3 R_t^{3/2} + a_4 R_t^2 + a_5 R_t^{5/2} + \Delta S$$

where ΔS is given by

$$\Delta S = \left[\frac{t-15}{1+0.0162(t-15)} \right] \left(b_0 + b_1 R_t^{1/2} + b_2 R_t + b_3 R_t^{3/2} + b_4 R_t^2 + b_5 R_t^{5/2} \right)$$

and

$a_0 = 0.0080$	$b_0 = 0.0005$
$a_1 = -0.1692$	$b_1 = -0.0056$
$a_2 = 25.3851$	$b_2 = -0.0066$
$a_3 = 14.0941$	$b_3 = -0.0375$
$a_4 = -7.0261$	$b_4 = 0.0636$
$a_5 = 2.7081$	$b_5 = -0.0144$

The salinity of our samples was low, so the equation that is valid from 0 to 40 salinity is:

$$S = S_{PSS} - \frac{a_0}{1+1.5X+X^2} - \frac{b_0 f(t)}{1+Y^{1/2}+Y^{3/2}}$$

where S_{PSS} = value determined from the Practical Salinity Scale given earlier,

a_0 = 0.008

b_0 = 0.0005

X = 400R_t

Y = 100R_t, and

$$f(t) = (t-15)/\left[1+0.0162(t-15)\right]$$

3.3.2.5 Temperature (°C)

Temperature is measured on the Celsius (°C) or the Fahrenheit (°F) scale. Water temperature is a physical parameter with great significance. The rate at which chemicals dissolve and react is, in part, dependent on temperature. From all the parameters measured in this thesis, temperature is the only one that was measured in situ during samplings.

Apparatus Digital Thermometer from FRIO-Temp® with range -50 to 300°C (-58 to 572°F). Accuracy: ±0.5° from -20 to 70°C.

3.3.3 Metals (mg/L)

"Water contains trace amounts of metals, which are in general not harmful to human health. Actually, some metals (calcium, magnesium, potassium, and sodium) are essential to sustain life and for normal body functions. Metals in the water supply could occur naturally or may be the result of contamination. Naturally occurring metals are dissolved in water when it comes into contact with rock or soil material. Other sources of metal contamination are corrosion of pipes and leakage from waste disposal sites", Health Effects of Metals in Drinking Water, 2009.

For this thesis Ca (Calcium), Mg (Magnesium), K (Potassium), Na (Sodium), and Fe (Iron) were determined and the contaminant level of each metal is displayed in **Table 3.6**

Flame Atomic Absorption Spectrometry (FAAS) is a very common technique for detecting metals and metalloids in water samples by using an acetylene-air flame. It is very reliable and easy to use. In summary, the technique is based on the fact that free metal atoms in ground state absorb light at specific wavelengths. Metal ions in a solution are converted to atoms which they spend a short amount of time in a flame. This area is targeted by a light-beam which consists of the emission spectrum of the specific metal under investigation. Since the atomic emission spectra include the lines of the corresponding absorption spectra, there is a certain probability atoms of the metal to absorb photons and to convert to an excited state. This absorption can be measured and quantified, and by means of a calibration curve, to be correlated with the concentration of the metal in the sample (Haswell, 1991; Meyers, 2001).

"The technique of Flame Atomic Absorption Spectroscopy (FAAS) requires a liquid sample to be aspirated, aerosolized, and mixed with combustible gases, such as acetylene and air or acetylene and nitrous oxide. The mixture is ignited in a flame whose temperature ranges from 2100 to 2800 C", Ma, G. & Wilson González, G. (2009). A flow diagram of FAAS instrumentation is shown in **Figure 3.14**.

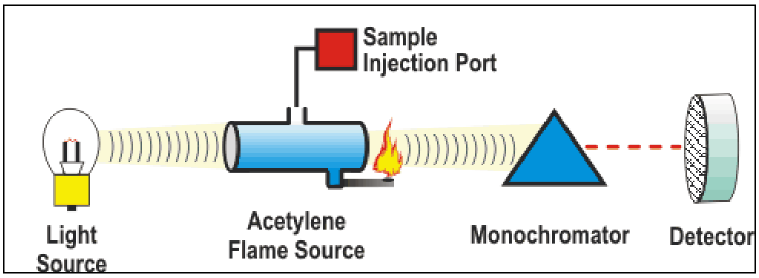


Fig. 3.14: Operation principle of an atomic absorption spectrometer (ETS Labs, 2009).

Instrumentation All metal (Ca, Mg, K, Na, and Fe) concentrations were determined by Perkin Elmer, AA100 flame atomic absorption spectroscopy.

Procedure Calibration and standard curves: "As with other analytical techniques, FAAS requires careful calibration. Calibration through several steps is required, including interference check sample, calibration verification, calibration standards, bland control, and linear dynamic range determination. The idealized calibration or standard curve is stated by Beer's law that the absorbance of an absorbing analyte is proportional to its concentration. FAAS tends to have calibration curves that have a limited linear dynamic range relative to the other atomic spectrometric techniques", Sevostianova, 2009.

In this study, the correlation coefficient (R value) of all the accepted and finally used calibration curves for all the metal determinations (Ca, Mg, K, Na, and Fe) was between 0.999 and 1 (high-quality correlation)!

3.3.4 Inorganic Nonmetallic Constituents

This section comprises six inorganic nonmetallic parameters: **Boron**, **Chloride**, **pH value**, **Nitrate**, **Sulfate**, and **Phosphate**. These parameters were measured or calculated for the three samplings (except Boron and Nitrate which were determined only for the October's 2008 sampling, and Phosphate, which was determined only for July's 2008 sampling).

3.3.4.1 Boron (B, mg/L)

"The average abundance of boron in groundwaters is 0.01 to 10 mg/L, and although it is an element essential for plant growth, in excess of 2 mg/L it can be harmful to certain plants. Drinking water rarely contains more than 1 mg B/L and normally the range tends to be below 0.01 to 0.1 mg/L. Higher values of boron concentration are generally due to the presence of wastewater (industrial, commercial or domestic origin)", Lenntech, 2009.

A health-based guideline value of 0.3 mg/L for boron was established in the 1993 Guidelines by WHO, which guideline value was increased to 0.5 mg/L in the addendum to the Guidelines published in 1998 (WHO, 2004). EU standard for boron is 1 mg/L (European Council, 1998).

The method that was chosen for determining B is **Azomethine-Hydrogen Method** (Sparks, 1996).

Apparatus UVmini-1240 UV-Visible Spectrophotometer from Shimadzu Corporation.

Reagents a) Azomethine-H solution (0.9 g azomethine-H were dissolved and 2 g of L-ascorbic acid were added in about 200 mL of lukewarm distilled water. It was cooled and then it was diluted to 250 mL), b) EDTA solution, 0.025 M (4.563 g of EDTA were dissolved in 200 mL of distilled water and the volume was adjusted with distilled water to 500 mL), c) buffer solution (250 g of ammonium acetate were dissolved in 500 mL distilled water and acetic acid was added (approximately 300 mL) to bringing the pH of the final solution to 4.8, d) Standard B solution (0.5174 g of $B(OH)_3$ were dissolved in distilled water and the volume of solution was adjusted to 1 L with distilled water. One milliliter of that solution contained 100 μg B. That solution was diluted 10-fold to have the 10 μg/mL standard B solution. That solution was used to prepare the calibration curve.

Procedure

a) Calibration curve standards: 0, 0.2, 0.4, 0.8, and 1 mL of the 10μg mL^{-1} B stock solution were transferred to 5-mL tubes and then appropriate volume of distilled water was added to bring the solution volume to 2 mL. 0.2 mL of EDTA solution and 0.4 mL of buffer solution were added and mixed well. Then 1 mL of azomethine-H solution was added and the volume was adjusted to 5 mL with distilled water. The contents of the tubes were mixed and were kept at room temperature for 2 h for colour development. The final B concentrations in these standard solutions were: 0, 0.4, 0.8, 1.6, and 2 μg/mL, respectively.

b) Samples: All samples were prepared exactly as described for standards, using 3.4 mL of each water sample.

The absorbance of the solutions (both standards & samples) was measured at a wavelength of 420 nm.

3.3.4.2 Chloride (Cl^-, mg/L)

"Chlorine, in the form of chloride ion, Cl^-, is one of the major inorganic elements in water and wastewater. Chlorides are salts resulting from the combination of the gas chlorine with a metal. Some common chlorides include sodium chloride (NaCl) and magnesium chloride ($MgCl_2$). Chlorine alone as Cl_2 is highly toxic and it is often used as a disinfectant. In combination with a metal, such as sodium, it becomes essential for life. Small amounts of chlorides are required for normal cell functions in plant and animal life. The salty taste produced by chloride concentrations is variable and depent on the chemical composition of water", Lenntech, 2009.

No health-based guideline value is proposed for chloride in drinking-water. However, chloride concentrations in excess of about 250 mg/L can give rise to detectable taste in water (WHO, 2004). The same contaminant level comes from EPA Secondary Drinking Water Regulations (secondary standard for Cl^-=250 mg/L) (EPA, 2009) and EU (European Council, 1998).

The method that was chosen for determining Cl^- is the **Argentometric Method** (4500-Cl B, Standard Methods for examinations of water and wastewater, 2005).

Reagents a) Potassium chromate indicator solution (2 g of K_2CrO_4 were dissolved in distilled water and was diluted to 100 mL, 2% w/v), and b) standard silver nitrate titrant, 0.0141 M (0.598 g $AgNO_3$ were dissolved in distilled water and was diluted to 250 mL).

Procedure First $AgNO_3$ titrant was standardized and reagent blank value was determined by the titrant method outlined below. Then, the samples were prepared. 2.5 mL sample were diluted to 25 mL with distilled water in a conical flask. Then, 1 mL of the indicator solution was added. We titrated with standard $AgNO_3$ titrant slowly with continuous stirring to a pinkish yellow end point. The procedure was repeated one more time and kept the average value.

Calculation $$\text{mg Cl}^- / \text{ L} = \frac{(A-B)\times N\times 35450}{mL \text{ sample}}$$

where A = mL titration for sample,

B = mL titration for blank, and

N = normality of $Ag(NO_3)_2$

3.3.4.3 pH value (H^+)

Some books usually include pH in the physical parameters section. The standard methods handbook's structure (Standard Methods for examinations of water and wastewater, 2005) was followed, where H^+ considered as inorganic nonmetallic constituent. Water quality and pH are often mentioned in the same sentence. The pH is a very important factor, because certain chemical processes can only take place when water has a certain pH.

"At a given temperature, the intensity of the acidic or basic character of a solution is indicated by pH or hydrogen ion activity. pH is defined as $-\log\left[H^+\right]$; it is the "intensity" factor of acidity. Pure water is very slightly ionized and at equilibrium the ion product is:

$$\left[H^+\right]\left[OH^-\right] = K_w = 1.01\times10^{-14} \text{ at } 25^\circ C$$

and

$$\left[H^+\right] = \left[OH^-\right] = 1.005\times10^{-7}$$

where

$$\left[H^+\right] = \text{activity of hydrogen ions (moles/L)}$$

$$\left[OH^-\right] = \text{activity of hydroxyl ions (moles/L)}$$

$K_w = \text{ion product of water}$" (Standard Methods for examinations of water and wastewater, 2005)

No health-based guideline value was proposed for pH in the 1993 Guidelines. Although pH usually has no direct impact on consumers, it is one of the most important operational water quality parameters, the optimum pH required often being in the range 6.5-9.5 (WHO, 2004). The EPA (U.S. Environmental Protection Agency) Secondary Drinking Water Regulations limit to a range between 6.5-8.5 (EPA, 2009).

Apparatus pH meter used was Consort, model C532.

Procedure The instrument was calibrated with fresh standards, at room temperature, at the beginning of the measurements. When the calibration was finished, the electrode was rinsed several times with the sample and it was immersed in that solution. The pH value was displayed. Then, we rinsed again with distilled water and continued to the next sample. The same procedure was repeated for all the samples. Slow stirring was used for faster homogenization.

3.3.4.4 Nitrogen (Nitrate nitrogen, NO_3^--N, mg/L)

“Measurement of UV absorption at 220 nm enables rapid determination of NO_3^-. Because dissolved organic matter also may absorb at 220 nm, but it does not absorb at 275 nm, a second measurement at 275 nm may be used to correct the values. The extent of this empirical correction is related to the nature and concentration of organic matter and may vary from one water sample to another”, Standard Methods for examinations of water and wastewater, 2005.

The guideline value for nitrate is 50 mg/L (WHO, 2004). Because of the possibility of simultaneous occurrence of nitrite and nitrate in drinking-water, it was recommended in the 1993 and 1998 Guidelines that the sum of the ratios of the concentration of each to its guideline value should not exceed 1 (WHO, 2004). The same limit has been set by EU (European Council, 1998).

The method that was chosen for determining NO_3^--N is **Ultraviolet Spectrophotometric Screening Method** (**4500- NO_3^- B,** Standard Methods for examinations of water and wastewater, 2005).

Apparatus Nitrates (NO_3^-) were measured with UVmini-1240 UV-Visible Spectrophotometer from Shimadzu Corporation.

Procedure First the standard curve was prepared. Three NO_3^- calibration standards were prepared in the range of 0 to 7 mg $NO_3^- - N$ /L (1, 3, 7 mg /L) and they were treated in the same manner as samples. KNO_3, dried at 105° for 2h, was used for the preparation of standard solutions. Absorbance at 220 nm and 275 nm was measured for all standards and samples.

Calculation For samples and standards, the absorbance reading at 275 nm was multiplied by two and the result was subtracted from the reading at 220 nm to obtain absorbance due only to NO_3^-. A standard curve was constructed by plotting absorbance due to NO_3^- against $NO_3^- - N$ concentration of standard. Using corrected sample absorbances, sample concentrations were obtained directly from standard curve.

The correlation coefficient (R value) of the accepted and finally used calibration curve for nitrates concentration was 1 (high-quality correlation).

3.3.4.5 Sulfate (SO_4^{2-})

“Sulfate is widely distributed in nature and may be present in natural waters in varying concentrations. Health concerns regarding sulfate in drinking water have been raised because of reports that diarrhea may be associated with the ingestion of water containing high levels of sulfate. Of particular concern are groups within the general population that may be at greater risk from the laxative effects of sulfate when they experience an abrupt change from drinking water with low sulfate concentrations to drinking water with high sulfate concentrations", EPA, 2009.

No health-based guideline value for sulfate was proposed in the 1993 Guidelines. However, because of the gastrointestinal effects resulting from ingestion of drinking-water containing high sulfate levels, it was recommended that health authorities be notified of sources of drinking-water that contain sulfate concentrations in excess of $500\ mg/L$ (WHO, 2004). EU is stricter, and the maximum level for sulfate concentration in water is $250\ mg/L$ (European Council, 1998). The same maximum contamination level is given by EPA Secondary Drinking Water Regulations (EPA, 2009).

For the determination of the SO_4^{2-} in water samples, a semi-quantitative method was used (visual colour kit Aquaquant® 1.14411 Sulfate, Merck). The method kit which was used was appropriate for SO_4^{2-} determination in the range of $0\text{-}300\ mg\,SO_4^{2-}/L$. This colourimetric method is based on the reaction of iodate with tannin in a weak acid medium resulting in a reddish-brown colour. It is not an exact method, but the ranges that are determined for SO_4^{2-} are quite reliable.

3.3.4.6 Phosphate (PO_4^{3-})

"Phosphorus is one of the major elements required for growth of plants and animals. There are phosphates in natural waters at concentrations which do not cause any health issues to humans. However, high concentration of Phosphorus in waters (mainly from agricultural fertilisers or wastewaters) can promote excessive algae or plant growth", Drinking Water Testing, Water Quality and Pathogenic Disease Laboratories, Wilkes University, 2009.

No phosphate guideline proposed by WHO, EU or EPA.

Phosphate determination was carried out spectrophotometrically using a modification of the method of Murphy and Riley (Murphy & Riley, 1962). Water samples were acidified with

H_2SO_4 and then ammonium molybdate solution was added. With the assistance of potassium antimonyl-tartrate, a blue colour was developed the intensity of which was a linear function of the phosphorus content of the sample. The absorption of the samples at 882 nm was measured and the PO_4^{3-} content was determined using a calibration curve constructed by KH_2PO_4 standard solutions.

Table 3.6: Water Quality Regulations

Contaminant	WHO (1993)*	EU (1998)**	Secondary MCL (EPA)***
Alkalinity	*No guideline*	*Not mentioned*	*Not mentioned*
Hardness	*No guideline* **(1)**	*Not mentioned*	*Not mentioned*
Electrical Conductivity	*No guideline*	2,500 µS/cm	*Not mentioned*
TDS	*No guideline* **(2)**	*Not mentioned*	500mg/L
Salinity	*No guideline*	*Not mentioned*	*Not mentioned*
Calcium	*No guideline* **(3)**	*Not mentioned*	*Not mentioned*
Magnesium	*No guideline* **(4)**	*Not mentioned*	*Not mentioned*
Potassium	*No guideline* **(5)**	*Not mentioned*	*Not mentioned*
Sodium	*No guideline* **(6)**	200mg/L	Not mentioned
Iron	*No guideline* **(7)**	0.2mg/L	0.3mg/L
Boron	0.3mg/L **(8)**	1.00mg/L	*Not mentioned*
Chloride	*No guideline* **(9)**	250mg/L	250mg/L
pH	*No guideline* **(10)**	*Not mentioned*	6.5 - 8.5
Nitrate	50 mg/L **(11)**	50mg/L	Not mentioned
Sulfate	*No guideline* **(12)**	250mg/L	250mg/L
Phosphate	*No guideline*	*Not mentioned*	*Not mentioned*

(1) Desirable: less than 500mg/L
(2) Desirable: less than 1200mg/L
(3) Desirable less than 300mg/L
(4) Desirable less than 300mg/L
(5) Desirable less than 250mg/L
(6) Desirable: less than 200mg/L
(7) Desirable less than 0.3mg/L
(8) Guideline value was increased to 0.5mg/L in the addendum to the Guidelines published in 1998 by WHO.
(9) Desirable less than 250mg/L
(10) Desirable between 6.5-9.5
(11) Because of the possibility of simultaneous occurrence of nitrite and nitrate in drinking-water, it was recommended in the 1993 and 1998 Guidelines that the sum of the ratios of the concentration of each to its guideline value should not exceed 1.
(12) Desirable less than 500mg/L

*WHO's (World Health Organization) Guidelines for Drinking-water Quality, set up in Geneva, 1993, are the international reference point for standard setting and drinking-water safety.

**Council Directive 98/83/EC on the quality of water intented for human consumption. Adopted by the Council, on 3 November 1998.

***EPA (U.S. Environmental Protection Agency) has established National Secondary Drinking Water Regulations that set non-mandatory water quality standards for 15 contaminants.

3.4 GIS and Remote Sensing methods and techniques

3.4.1 GIS methods and techniques

3.4.1.1 Defining Geographic Information System

"Geographic Information System (GIS) is defined as a computer-assisted mapping and cartographic application, a set of spatial-analytical tools, a type of database systems, or a field of academic study", Lo & Yeung, 2003. A simple working definition is: "GIS is an integrated system of computer hardware and software coupled with procedures and a human analyst which together support the capture, management, manipulation, and analysis, modelling, and display of spatially referenced data" (Lusch, 1999) (**Fig. 3.15**).

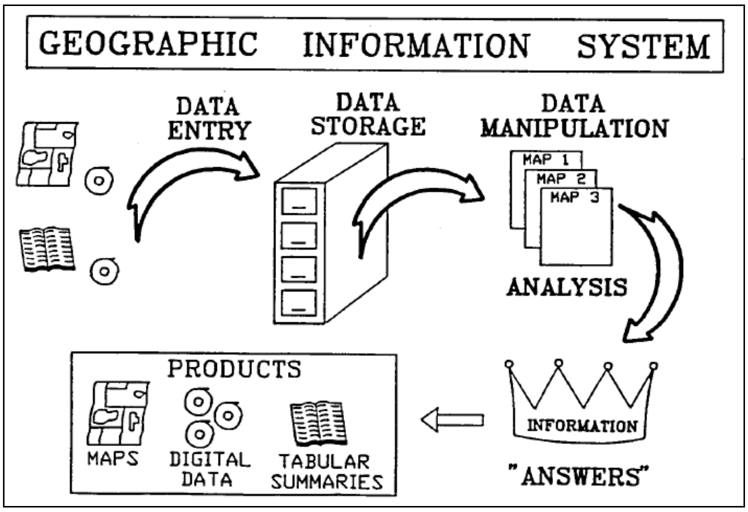


Fig. 3.15: Several steps describing a GIS procedure (Lusch, 1999)

3.4.1.2 GIS software and extensions

The GIS software that was used is ArcView Desktop 9.1 from ESRI. It is a commercial software for visualizing, managing, creating, and analyzing geographic data. ESRI (Environmental Systems Research Institute) is located in Redlands, California (ESRI, 2009).

ESRI has built plug-in extensions which add functional capabilities to the main desktop products. In especial, three extensions were used for this thesis: **3D Analyst**, **Spatial Analyst**, and **Geostatistical Analyst**.

"**ArcGIS 3D Analyst** enables the operator to visualize and analyze surface data in three dimensions. Slope, aspect, hillshade and curvature maps were derived with 3D Analyst, giving the power to the user to effectively relate the data to real-world elevation", ESRI, 2009.

"**ArcGIS Spatial Analyst** is an extension which provides powerful tools for comprehensive, raster-based spatial analysis. Among others, it contains specialized tools for working with and deriving new information from hydrologic data and its toolset includes methods for describing hydrologic characteristics and tools to calculate flow across an elevation surface and derive features such as watersheds and stream networks, which were used for this thesis", ESRI, 2009.

"**ArcGIS Geostatistical Analyst** is an extension for advanced surface modelling using deterministic and geostatistical methods. Geostatistical Analyst extends ArcMap by adding an advanced toolbar containing tools for exploratory spatial data analysis and a geostatistical wizard to create a statistically valid surface", ESRI, 2009.

3.4.1.3 Digital Elevation Models (DEMs) and derivatives

Paper and computer screens are two dimensional and the world is three dimensional; incorporating the third dimension into GIS has been an ongoing struggle. Cartographers have developed several conventions for representing the third dimension -elevation, topography, or terrain- on paper and computer screens. Most common is still the use of contour lines, but requiring more craft and skill, shaded relief and analytical hill shading are ways to depict the third dimension on a paper map or computer screen.

The raster data model incorporates elements of the third dimension as values in a cell. This is sometimes referred to as a 2.5-D model because the elevation is not directly part of the model but is stored as an attribute of a two dimensional pixel. These models are also referred to as Digital Elevation Models (DEMs) (Harmon & Anderson, 2003).

Namely, DEMs are used to represent the surface topography of the earth. These models are commonly built from remote sensing data or from contour lines digitization from topographic maps (Shekhar & Xiong, 2008). As aforementioned, they are cell-based models and they are considered as the most common digital data of the shape of the Earth's surface.

In the frame of this thesis, DEM was extracted by the digitization of 1:50,000 scale topographic map using a contour interval of 20m from Hellenic Military Geographical Service, Perama sheet (IGME, 1991).

The derivatives from DEM are: Slope, Aspect, Hillshade, and Curvature in ArcGIS 3D Analyst. Short description of each one is given next.

3.4.1.3.1 Slope gradient

"Slope is the change in elevation between two points over a given distance, i.e. it identifies the steepest downhill slope for a location on a surface. Slope is calculated for each cell in rasters and, actually, it is the maximum rate of change in elevation over each cell and its eight neighbours", ESRI ArcGIS Desktop Help, 2004.

"The Slope function of ArcView calculates the maximum rate of change between each cell and its neighbours, for example, the steepest downhill descent for the cell. Every cell in the output raster has a slope value. The lower the slope value is, the flatter the terrain; and vice versa. The output slope raster can be calculated as percent of slope or degree of slope. When the slope angle equals 45 degrees, the rise is equal to the run. Note that as the slope approaches vertical (90°), the percentage slope approaches infinity", ESRI ArcGIS Desktop Help, 2004. For this thesis, degree option was chosen (**Fig. 3.16**).

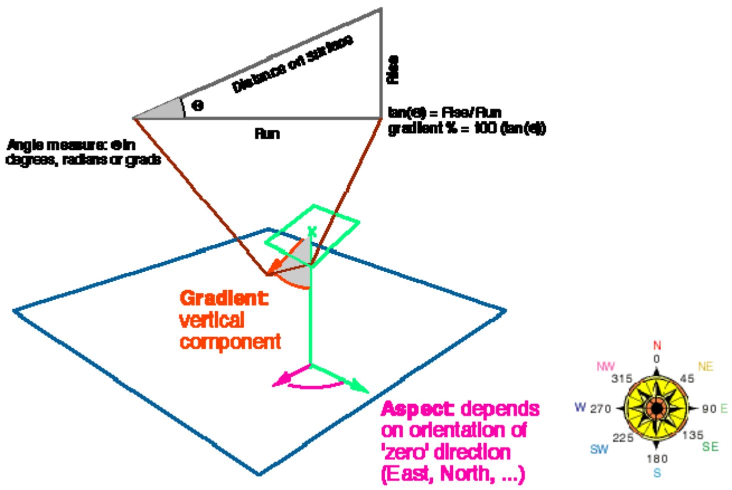


Fig. 3.16: Slope components: slope gradient can be express in percent or in degrees and aspect is measured clockwise in degrees from 0 (due north) to 360, (again due north, coming full circle). (Modified from Dept of Geography - University of British Columbia, 2009).

3.4.1.3.2 Slope aspect

"Aspect is the direction that a slope faces. It identifies the steepest downslope direction at a location on a surface. It can be thought of as slope direction or the compass direction a hill faces. Aspect is calculated for each cell in rasters", ESRI ArcGIS Desktop Help, 2004.

"It is measured clockwise in degrees from 0 (due north) to 360, (again due north, coming full circle). The value of each cell in an aspect dataset indicates the direction the cell's slope faces. Flat areas having no downslope direction are given a value of -1 (**Fig. 3.16**)", ESRI ArcGIS Desktop Help, 2004.

3.4.1.3.3 Hillshade

"A common use of the 2.5-D raster data model is hill shading. It is possible to shine artificial light on the area from a certain direction and elevation above the horizon and create a pattern of light and shadow that provides a visual sense of hills and valleys", ESRI ArcGIS Desktop Help, 2004.

“The Hillshade function of ArcView obtains the hypothetical illumination of a surface by determining illumination values for each cell in a raster. It does this by setting a position for a hypothetical light source and calculating the illumination values of each cell in relation to neighbouring cells”, ESRI ArcGIS Desktop Help, 2004.

“By default, shadow and light are shades of gray associated with integers from 0 to 255 (increasing from black to white). The azimuth is the angular direction of the sun, measured from north in clockwise degrees from 0 to 360. An azimuth of 90 is east. The default is 315 (NW). The altitude is the slope or angle of the illumination source above the horizon. The units are in degrees, from 0 (on the horizon) to 90 degrees (overhead) and the default is 45 degrees”, ESRI ArcGIS Desktop Help, 2004.

3.4.1.3.4 Curvature

“As with slope, curvature values depend upon the line or plane along which such calculations are made. There are several alternative measures of surface curvature. The three most frequently provided within GIS software are profile curvature, plan curvature and tangential curvature”, Geospatial analysis, 2009.

“The curvature of a surface is calculated on a cell-by-cell basis. A positive curvature indicates that the surface is upwardly convex at that cell. A negative curvature indicates that the surface is upwardly concave at that cell. A negative profile indicates that the surface is upwardly convex at that cell. A positive profile indicates that the surface is upwardly concave at that cell. A positive plan indicates that the surface is upwardly convex at that cell. A negative plan indicates that the surface is upwardly concave at that cell. A value of zero indicates that the surface is flat for all the three measures”, ESRI ArcGIS Desktop Help, 2004.

3.4.1.4 Hydrology - Basins

“In geomorphology, a drainage system is the pattern formed by the streams, rivers, and lakes in a particular drainage basin (which is also called watershed in the USA and catchment in

UK). In other words, drainage basin is the area upon which water falls, and the network through which it travels to an outlet is referred to as a drainage system (**Fig. 3.17a**)", Huggett, 2007.

"The drainage basin area is normally defined as the total area flowing to a given outlet, or pour point (**Fig. 3.17b**). An outlet, or pour point, is the point at which water flows out of an area. This is usually the lowest point along the boundary of the drainage basin. The boundary between two basins is referred to as a drainage divide or watershed boundary (**Figs. 3.17a & 3.17b**). The network through which water travels to the outlet can be visualized as a tree, with the base of the tree being the outlet. The branches of the tree are stream channels. The intersection of two stream channels is referred to as a node or junction. The sections of a stream channel connecting two successive junctions, or a junction and the outlet are referred to as stream links (**Fig. 3.17b**)", ESRI ArcGIS Desktop Help, 2004.

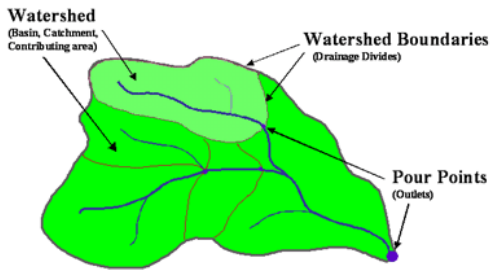


Fig. 3.17: Cartoon images illustrating a Drainage basin: a)(Geoscape Canada, 2009), b) (ESRI ArcGIS Desktop Help, 2004).

Hydrologic analysis was accomplished exclusively in ArcGIS Spatial Analyst, using the hydrologic tools. These tools were applied in sequence to extract hydrologic information from the DEM. We were allowed to identify and fill **sinks**, determine the **flow direction**, calculate the **flow accumulation**, **order** the segments in the network (Strahler ordering), delineate the Geropotamos **watershed** and **sub-watersheds**, and finally, extract the **stream network**. A brief description of each tool and its application follows.

3.4.1.4.1 Identifying and filling sinks

"Errors in DEMs are regularly classified as either sinks or peaks. A sink is an area surrounded by higher elevation values. In other words, a cell in the DEM that is lower than all surrounding cells. Some of these may be natural, although many sinks are imperfections in the DEM. Likewise, a spike or peak is an area surrounded by cells of lower value, and they are more commonly natural features. Sinks in DEMs are usually removed by common GIS software before attempting to derive any surface information because they can induce endless processing loops and truncate flow networks. To create an accurate representation of flow direction and, therefore, accumulated flow, it is best to use a dataset that is free of sinks", Maidment & Djokic, 2000.

In order to recognize the sinks in DEM, "Identify sinks" tool was used. "Finding sinks depends on knowing flow direction. At the end, as the sinks are recognised, they were removed using the "Fill Sinks" option", ESRI ArcGIS Desktop Help, 2004.

3.4.1.4.2 Flow Direction

"Establishing the flow direction in a geometric network determines the direction in which commodities flow along each edge. The output of Flow Direction is an integer raster whose values range from 1 to 255. The values for each direction from the centre are shown in **Figure 3.18**", ESRI ArcGIS Desktop Help, 2004.

32	64	128
16		1
8	4	2

Fig. 3.18: The values for each direction from the centre (ESRI ArcGIS Desktop Help, 2004).

"The direction of flow is determined by finding the direction of steepest descent from each cell. This is calculated as:

$$\text{change in z value / distance} * 100$$

The distance is determined between cell centers. Therefore, if the cell size is 1, the distance between two orthogonal cells is 1, and the distance between two diagonal cells is 1.414", ESRI ArcGIS Desktop Help, 2004.

"If the descent to all adjacent cells is the same, the neighbourhood is enlarged until a steepest descent is found. If all neighbours are higher than the processing cell, it will be considered noise and filled to the lowest value of its neighbours, and have a flow direction towards this cell. However, if a one-cell sink is next to the physical edge of the raster or has at least one NoData cell as a neighbour, then it is not filled due to insufficient neighbour information. To be considered a true one-cell sink, all neighbour information must be present. If two cells flow to each other, they are sinks, and have an undefined flow direction", ESRI ArcGIS Desktop Help, 2004; after Jenson & Domingue, 1988.

3.4.1.4.3 Delineating drainage basins

In order to delineate the drainage basins of the broad study area (and of course, Geropotamos drainage basin), the Basin function was used. "This creates a raster delineating all drainage basins within the analysis window. Basin analyzes the flow direction raster to find all sets of connected cells that belong to the same drainage basin. The drainage basins are created by locating the pour points at the edges of the analysis window (where water would pour out of the raster), as well as sinks, then identifying the contributing area above each pour point", ESRI ArcGIS Desktop Help, 2004.

3.4.1.4.4 Flow Accumulation

After creating the flow direction grid (**3.4.1.4.2** section), the flow accumulation grid was acquired. "Flowaccumulation" function creates a raster of accumulated flow to each cell, by accumulating the weight for all cells that flow into each downslope cell (ESRI ArcGIS Desktop Help, 2004).

"The output of "FlowAccumulation" function represents the amount of rain that would flow through each cell, assuming that all rain became runoff and there was no interception, evapotranspiration, or loss to groundwater. This could also be viewed as the amount of rain that fell on the surface, upslope from each cell", ESRI ArcGIS Desktop Help, 2004.

"Output cells with a high flow accumulation are areas of concentrated flow and may be used to identify stream channels", ESRI ArcGIS Desktop Help, 2004.

3.4.1.4.5 Stream Order and Stream Link

"Stream ordering is a method of assigning a numeric order to links in a stream network. This order is a method for identifying and classifying types of streams based upon their number of tributaries. Some characteristics of streams can be inferred by simply knowing their order", ESRI ArcGIS Desktop Help, 2004.

"For example, first-order streams are dominated by overland flow of water; they have no upstream concentrated flow. Because of this, they are most susceptible to nonpoint source pollution problems and can derive more benefit from wide riparian buffers than other areas of the watershed", ESRI ArcGIS Desktop Help, 2004.

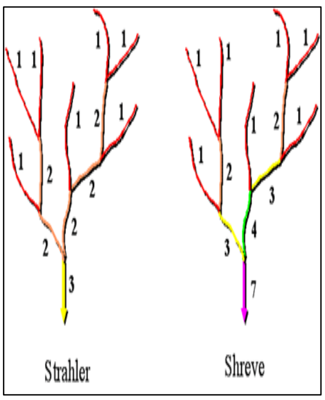


Fig. 3.19: Strahler method for stream ordering. Stream order increases when streams of the same order intersect (ESRI ArcGIS Desktop Help, 2004).

“The Stream Order function has two methods you can use to assign orders. The Strahler method was chosen in the frame of this thesis. In the Strahler method, which is the most common, stream order increases when streams of the same order intersect (**Fig. 3.19**). Therefore, the intersection of two first-order links will create a second-order link, and the intersection of two second-order links will create a third-order link. The intersection of two links of different order, however, will not result in an increase in order. For example, the intersection of a first-order and second-order link will not create a third order link, but will retain the order of the highest ordered link”, ESRI ArcGIS Desktop Help, 2004.

“The results of “FlowAccumulation” were used to create a stream network by applying a threshold value to select cells with a high accumulated flow. For this thesis, all cells that had more than 200 cells flowing into them were assigned 1; all other cells were assigned NoData”, ESRI ArcGIS Desktop Help, 2004.

“The resulting stream network can be used as input to the “StreamOrder” and “StreamLink” functions. “Stream Link” function assigns unique values to sections of a raster linear network between intersections, ESRI ArcGIS Desktop Help, 2004.

3.4.1.4.6 Delineating watersheds (basins)

“A watershed is the upslope area contributing flow to a given location. Such an area may also referred to as a basin, catchment, subwatershed, or contributing area. A subwatershed is simply part of a hierarchy implying that a given watershed is part of a larger watershed. Watersheds can be delineated from a DEM by computing the flow direction and using it in the Watershed function. The Watershed function uses a raster of flow direction to determine contributing area. A flow accumulation threshold or the pour points were used to delineate watersheds. When the threshold is used to define a watershed, the pour points for the watershed will be the junctions of a stream network derived from flow accumulation. Therefore, a flow accumulation raster must be specified as well as the minimum number of cells that constitute a stream (the threshold value). When a feature dataset is used to define a watershed, the features identify the pour points”, ESRI ArcGIS Desktop Help, 2004.

3.4.1.5 Spatial Interpolation

As was mentioned in the introduction, ArcGIS Geostatistical Analyst Extension was used for the kriging estimations. Kriging was used to obtain the spatial distribution of groundwater quality parameters over the area and geophysical TEM data (3D imaging).

“Kriging is a moderately quick interpolator that can be exact or smoothed depending on the measurement error model. It is very flexible and allows you to investigate graphs of spatial autocorrelation. Kriging uses statistical models that allow a variety of map outputs including predictions, prediction standard errors, probability, etc. The flexibility of kriging can require a lot of decision-making”, ESRI ArcGIS Desktop Help, 2004.

In this study, ordinary kriging was used. “Instead of weighting nearby data points by some power of their inverted distance, ordinary kriging relies on the spatial correlation structure of the data to determine the weighting values. This is a more rigorous approach to modelling, as correlation between data points determines the estimated value at an unsampled point. Furthermore, ordinary kriging makes the assumption of normality among the data points”, Isaaks & Srivastava, 1989.

Therefore, kriging methods work best if the data are approximately normally distributed. Transformations were used to make data normally distributed and satisfy the assumption of equal variability for the data. In the ArcGIS Geostatistical Analyst, the histogram and normal QQPlots were used to check what transformations, if any, are needed to make the data more normally distributed. For a perfect normal distribution pattern skewness should be 0 and kurtosis 3. For those parameters which did not show normal distribution, a Log transformation has been applied to make the distribution closer to normal.

In this study, the semivariogram models (Circular, Spherical, Tetraspherical, Pentaspherical, Exponential, Gaussian, Rational Quadratic, Hole effect, K-Bessel, J-Bessel, Stable) were tested for each parameter data set. Prediction performances were assessed by cross-validation. Cross-validation allows determination of which model provides the best predictions.

3.4.2 Remote Sensing

Among others, Campbell (2002) defines remote sensing as “the practice of deriving information about the earth’s land and water surfaces using images acquired from an overhead perspective, using electromagnetic (EM) radiation in one or more regions of the EM spectrum, reflected or omitted from the earth’s surface”. Therefore, RS includes data analysis as well which involves the methods and processes for extracting significant spatial information from the remotely sensed data for direct input to a GIS. The software used for analysing satellite imagery in order to increase the value of the available geospatial information is ERDAS Imagine 9.1 from Leica Geosystems. It is a valuable survey tool, used throughout the geospatial community.

Within the frame of this thesis preliminary remote sensing analysis was attempted for detection and mapping of photo-lineaments indicating possible faulting. More details are given in **section 4.4** of ***Chapter 4.***

3.5 Summary

A short description of the methodologies that were applied was given in this chapter. The two geophysical techniques: TEM and VES were presented first: basic principles, instrumentation used, etc. Then the standard procedures of the 15 chemical parameters determination followed, as described mainly in “Standard Methods for the examination of water and wastewater” (2005) handbook. After that, GIS was defined and its methods and techniques that used for this thesis were described. Finally, a short reference to remote sensing analysis was made. The results, processing, analyses and modelling chapter comes next, where all the extracted raw data after the application of the aforementioned methodologies are presented, as well as the results after their analyses and modelling.

Chapter 4

[RESULTS, PROCESSING, ANALYSIS & MODELLING]

Chapter Contents

4.1 Introduction

This chapter includes all the results derived from methods described in the previous chapter. GIS derivatives, RS preliminary results, and geophysical and geochemical data are presented first, and their processing, analysis and modelling are then described and final images are given.

4.2 Geomorphology - Geropotamos Basin and Study Area

An initial critical part of the analysis of the data for this thesis is to determine the geomorphological features of the area, which have been analysed using GIS, based on a Digital Elevation Model (DEM) and derivatives from it. The following sections show the various aspects of the geomorphology, of relevance to analysis of aquifer problems.

4.2.1 Digital Elevation Model of Geropotamos area

A DEM (**Fig. 4.1**) was extracted by the digitization of 1:50,000 scale topographic map using a contour interval of 20m from the Hellenic Military Geographical Service, Perama sheet (HMGS, 1994). The method is described in **section 3.4.1.3** of ***Chapter 3***. White colour indicates the high elevation, whereas the black colour indicates the low.

4.2.2 DEM Reclassification

In order to use the DEM effectively, reclassification of the elevation was performed, using the “Spatial analyst” tool of ArcGIS. The Geropotamos basin was classified into 25 elevation zones (100m range), while the study area was divided into 10 elevation zones (50m range).

From **Table 4.1**, column diagram (**Fig. 4.2**) and elevation map (**Fig.4.3)**, it can be seen that most of the area falls into zones 1-3 (101-400m). Within the study area, (**Table 4.2** & **Fig. 4.4**) the major elevation range is 50-100m.

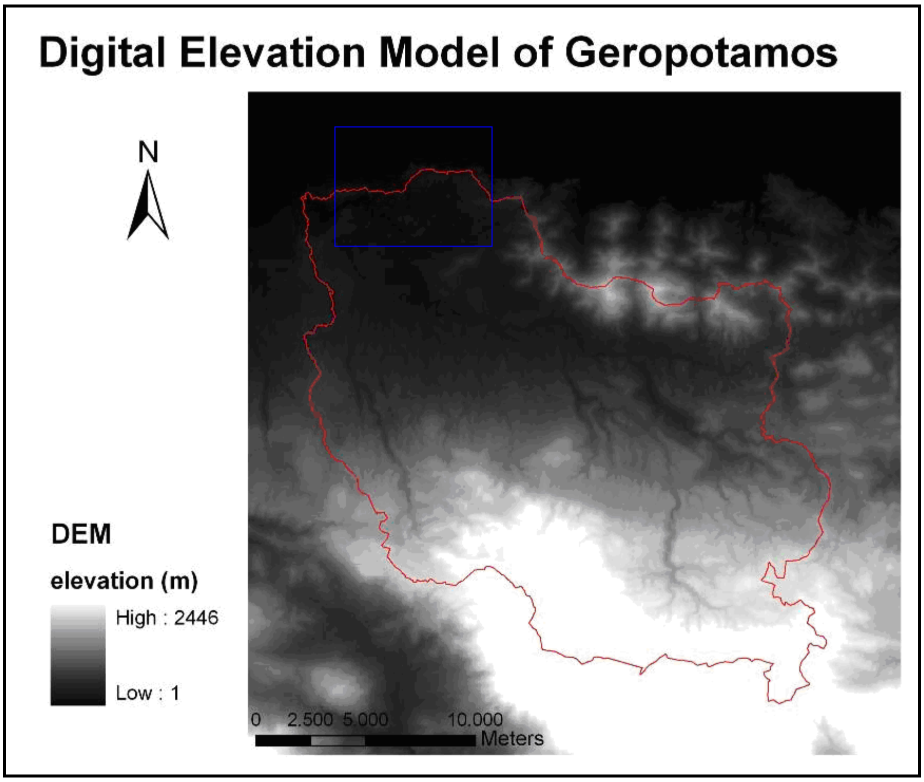


Fig. 4.1: Digital Elevation Model (DEM) as extracted by the digitization of 1:50,000 scale topographic map using a contour interval of 20m. White colour indicates the high elevation, whereas the black colour indicates the low. The blue box specifies the study area.

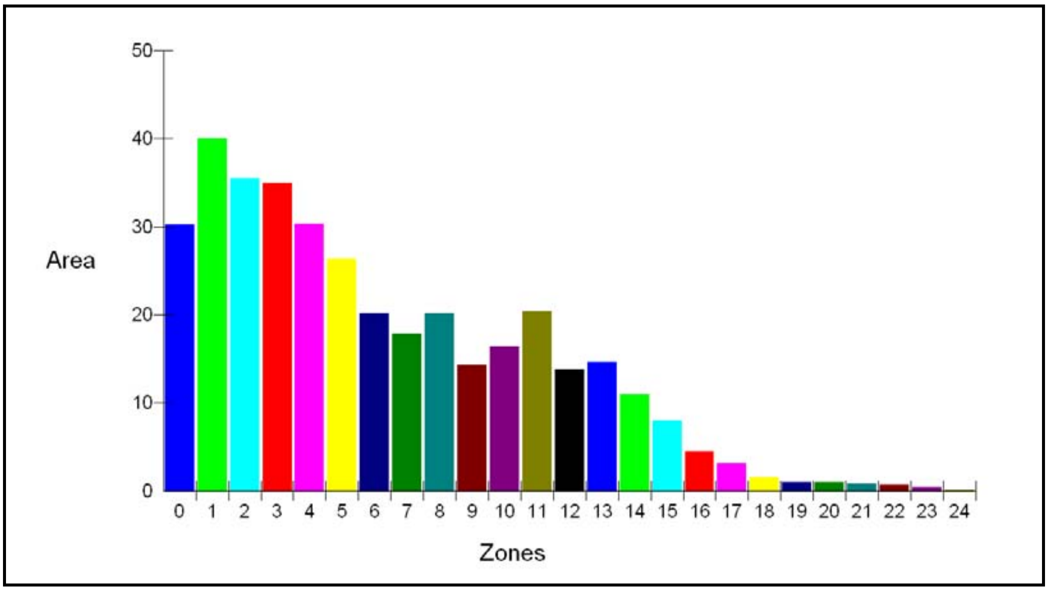


Fig. 4.2: Spatial extension of the 25 classes of elevation of Geropotamos basin.

a) For Geropotamos basin

Table 4.1: Statistical analysis of the Geropotamos basin's elevation classified using an equal internal of 100 meters.

Zones	Ranges	AREA	MEAN	STD
0	0-100	30.286	65.31	21.81
1	101-200	40.083	151.33	29.32
2	201-300	35.543	249.47	28.86
3	301-400	35.004	349.38	28.72
4	401-500	30.328	449.10	29.33
5	501-600	26.350	548.87	28.63
6	601-700	20.247	647.34	28.37
7	701-800	17.924	752.57	28.90
8	801-900	20.231	847.91	28.28
9	901-1000	14.294	945.90	28.47
10	1001-1100	16.447	1057.57	28.00
11	1101-1200	20.362	1149.73	29.88
12	1201-1300	13.799	1247.97	29.74
13	1301-1400	14.684	1351.22	28.30
14	1401-1500	10.957	1447.59	29.22
15	1501-1600	8.031	1547.72	28.62
16	1601-1700	4.474	1644.07	29.58
17	1701-1800	3.117	1748.72	28.85
18	1801-1900	1.504	1842.48	28.32
19	1901-2000	1.000	1951.63	28.51
20	2001-2100	0.981	2050.59	28.92
21	2101-2200	0.771	2151.44	29.08
22	2201-2300	0.676	2250.22	28.85
23	2301-2400	0.482	2343.47	28.46
24	2401-2500	0.069	2420.45	16.89

b) Study area

Table 4.2: Statistical analysis of study area's elevation.

Zones	Ranges	AREA	MEAN	STD
1	0-50	10.7904	33.66	12.46
2	51-100	25.0100	75.02	14.05
3	101-150	16.4192	122.06	14.32
4	151-200	10.1656	174.35	14.26
5	201-250	2.2772	220.26	14.58
6	251-300	1.0428	272.37	14.57
7	301-350	0.4208	322.64	14.66
8	351-400	0.1952	369.07	17.53
9	401-450	0.1148	420.89	19.70
10	451-500	0.0556	471.09	14.63

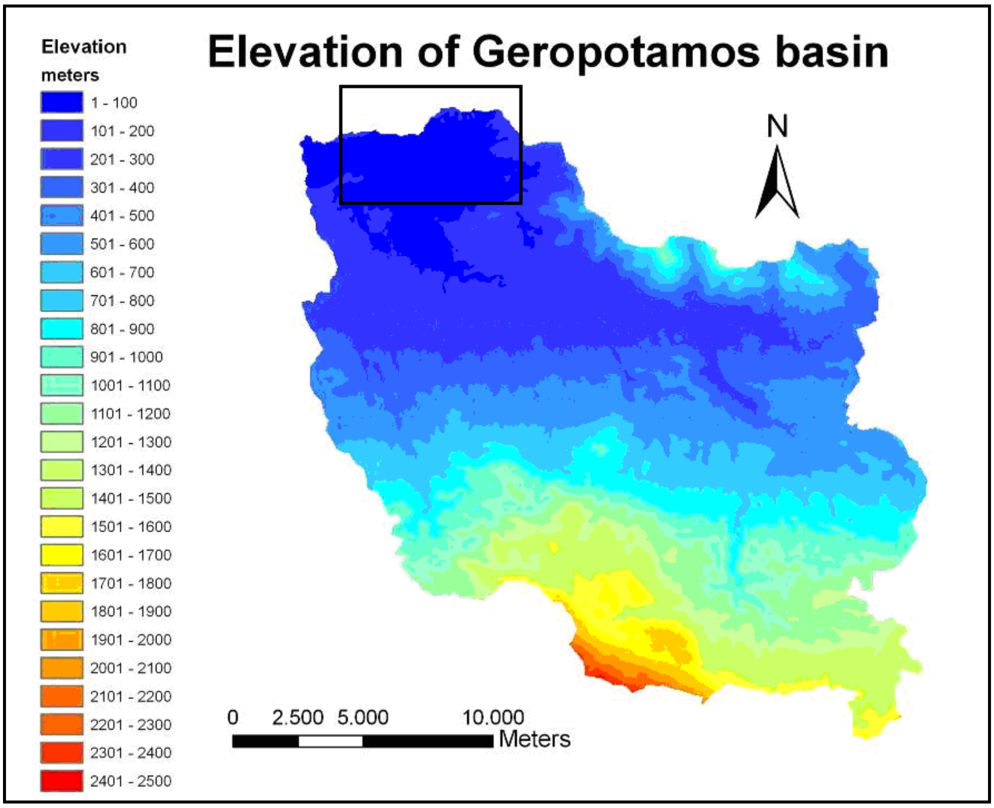


Fig. 4.3: The Geropotamos basin showing the 25 elevation zones (100 m range). The black box specifies the study area.

x

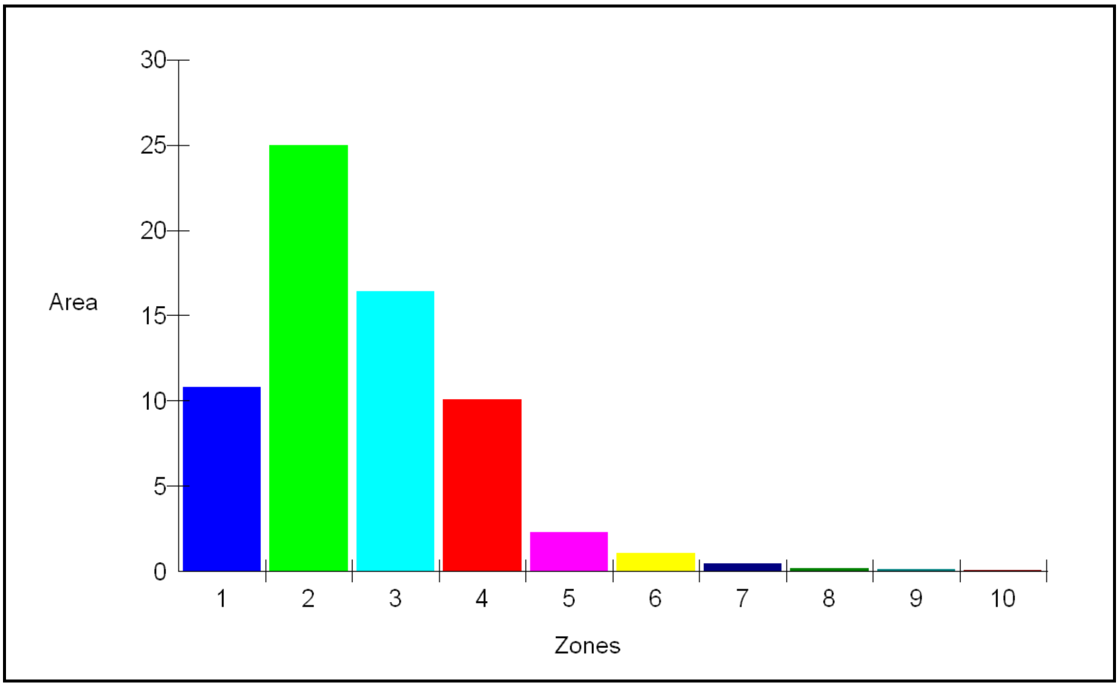


Fig. 4.4: Spatial extension of the 10 classes of elevation of the study area.

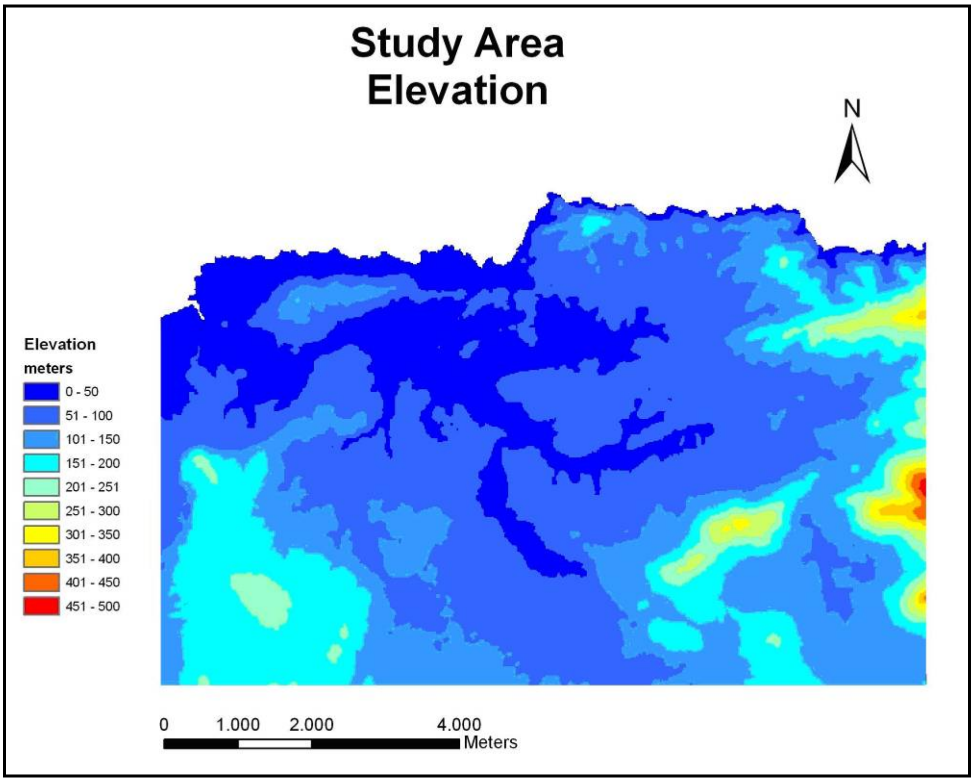


Fig. 4.5: The study area showing the 10 elevation zones (50 m range).

4.2.3 Slope angle & Curvature Maps

Figures 4.6 and **4.7** present the slope gradient of Geropotamos basin and study area respectively, based on **Table 4.3**. The steepest slope areas are located on the north-east and south of the basin (**Fig. 4.6**).

A slope angle map and a curvature map were constructed for the study area showing similar results (**Fig. 4.7** & **4.8**). Excluding the far east part, the study area is generally flat (**Fig. 4.7** & **Table 4.3**).

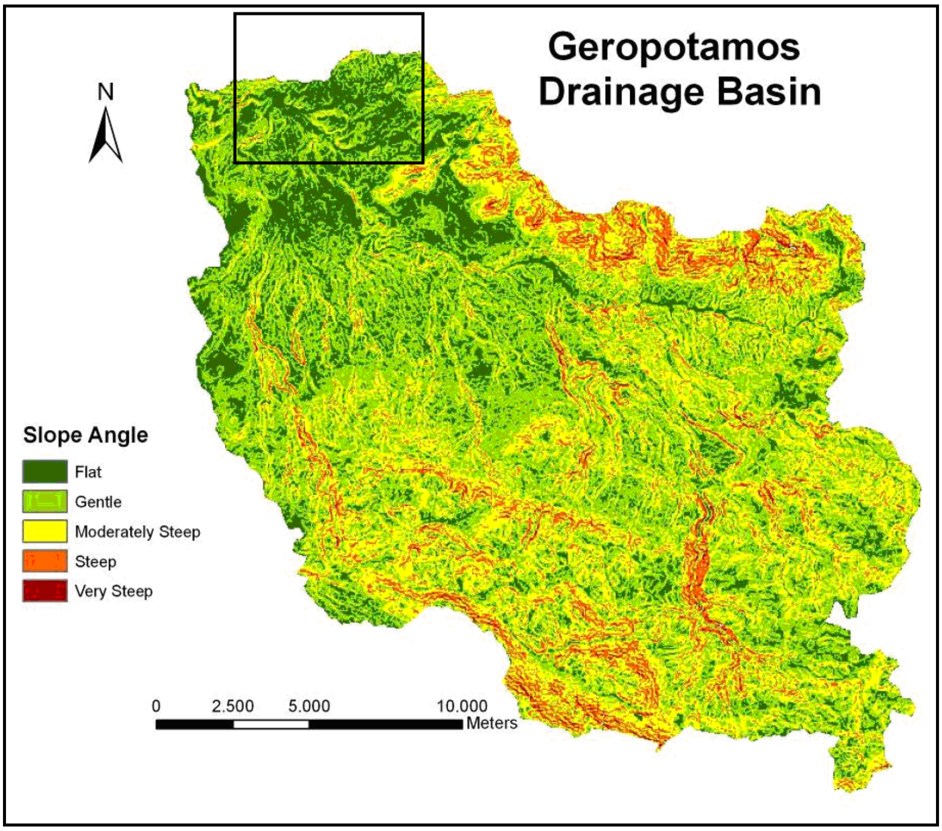


Fig. 4.6: Slope angle map of Geropotamos basin. The black box specifies the study area.

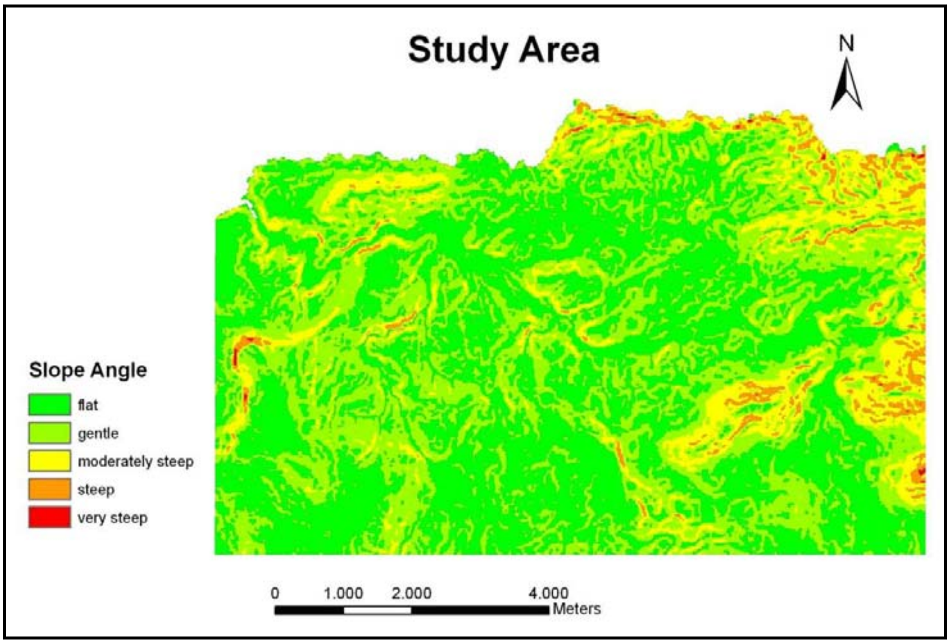


Fig. 4.7: Slope angle map of the study area

Table 4.3: Statistical analysis of slope angles of the study area

Slope Angle	Characterization	AREA	MEAN	STD
0-5.99	flat	29.614	3.491	1.477
6-15.99	Gentle	26.390	9.628	2.727
16-30.99	Moderately steep	8.665	21.974	4.164
31-45.99	Steep	1.668	35.524	3.547
>46	Very steep	0.058	49.190	2.956

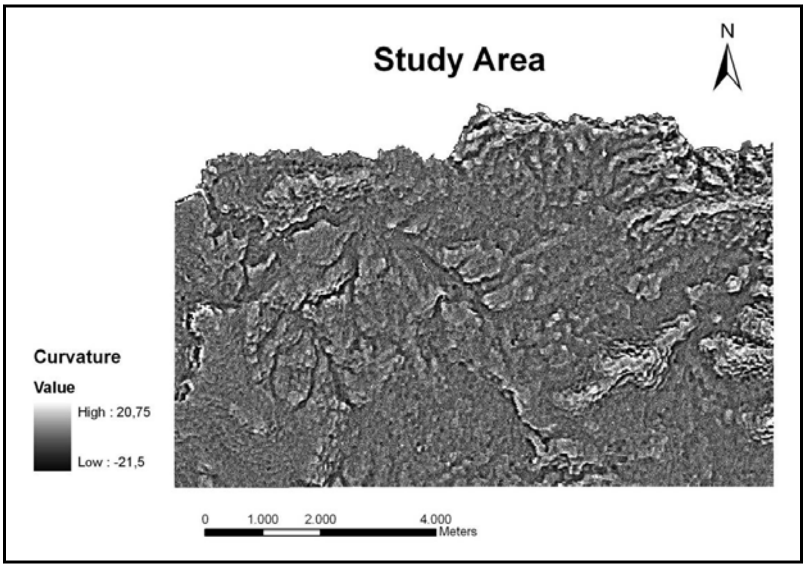


Fig. 4.8: Ground curvature map of the study area.

4.2.4 Aspect Map

Figure 4.9 presents the aspect of the Geropotamos basin. It is shown that on the north-eastern part of the basin the aspect is mainly SSW.

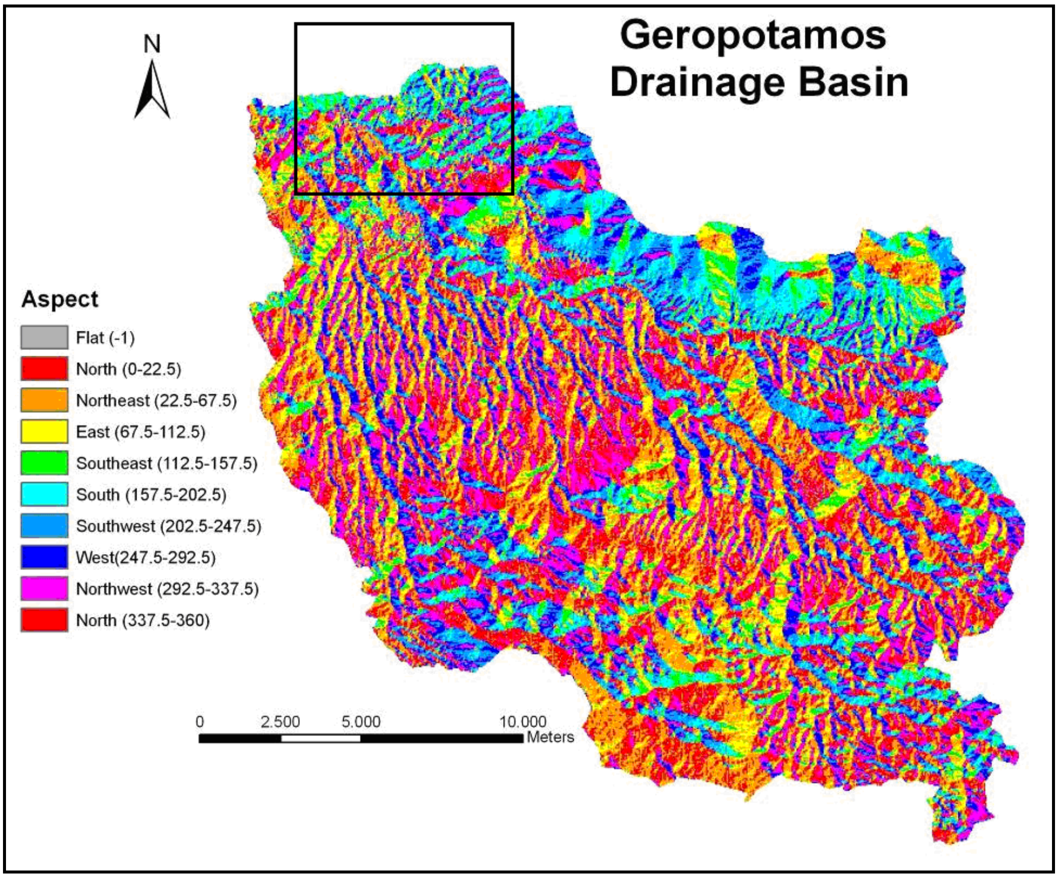


Fig. 4.9: Aspect map of Geropotamos basin. The black box indicates the study area.

4.2.5 Hill-shade Maps

Hill-shade maps were constructed to show the terrain of the Geropotamos and the study area (**Figs. 4.10** & **4.11**).

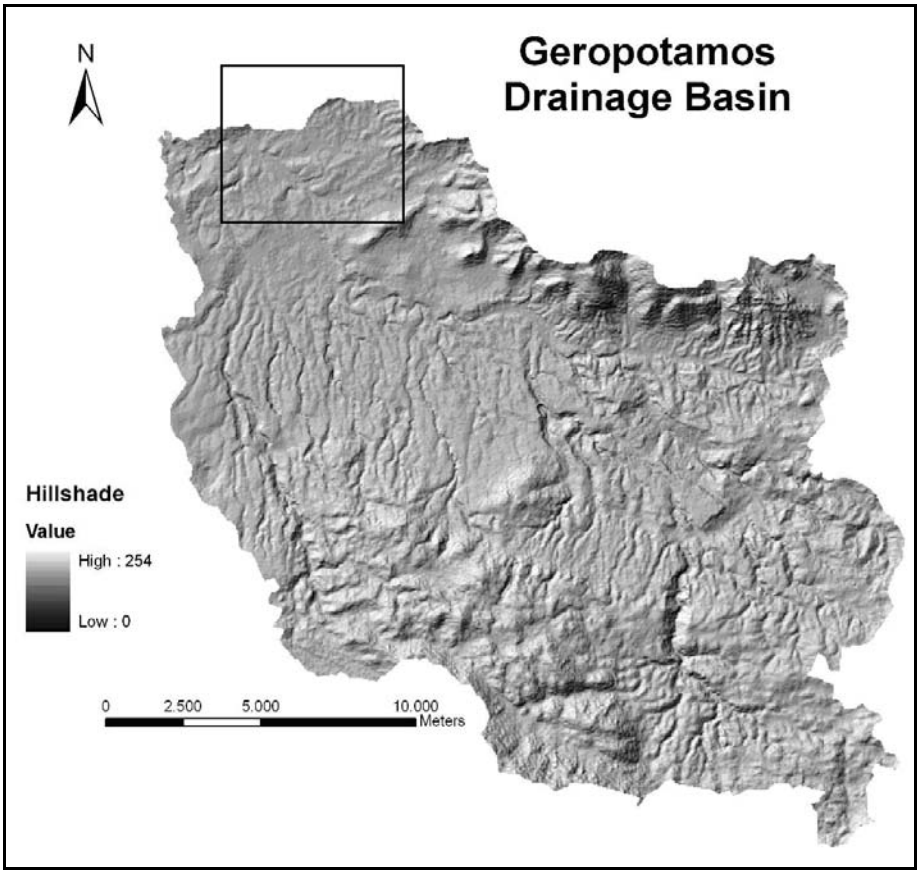


Fig. 4.10: Hill-shade map of the Geropotamos basin. The black box indicates the study area.

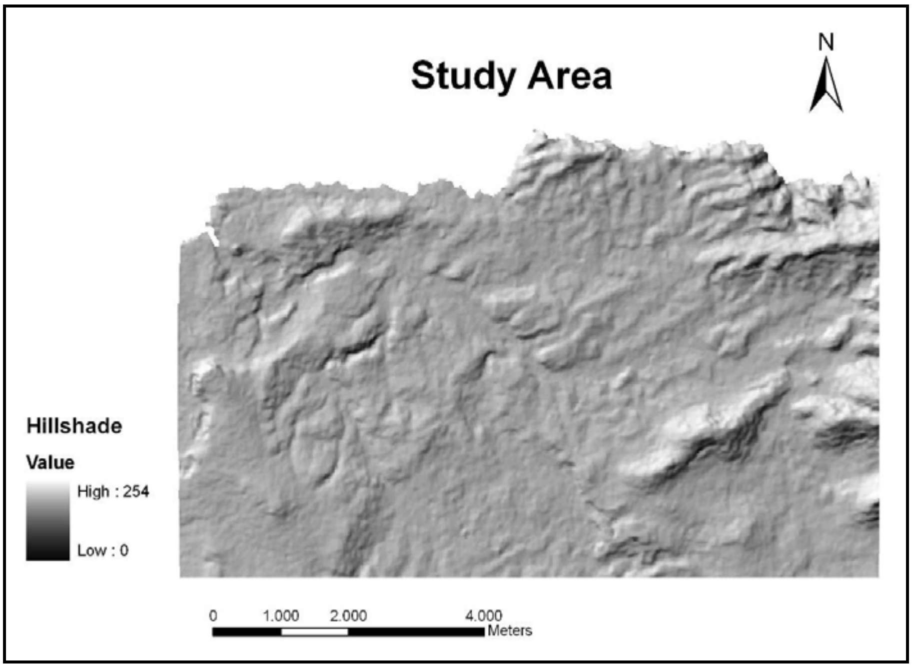


Fig. 4.11: Hill-shade map of the study area

4.3 Hydrology - Geropotamos Basin and Study Area

The Geropotamos basin, its drainage network and its sub-basins were extracted following the steps that described in **section 3.4.1.4** of ***Chapter 3***.

4.3.1 Flow Direction Map

Initially, flow direction map of Geropotamos basin was extracted first. Each value (1, 2, 4, …, 128) indicates a flow direction based on **Figure 3.18** of **section 3.4.1.4.2** of ***Chapter 3***.

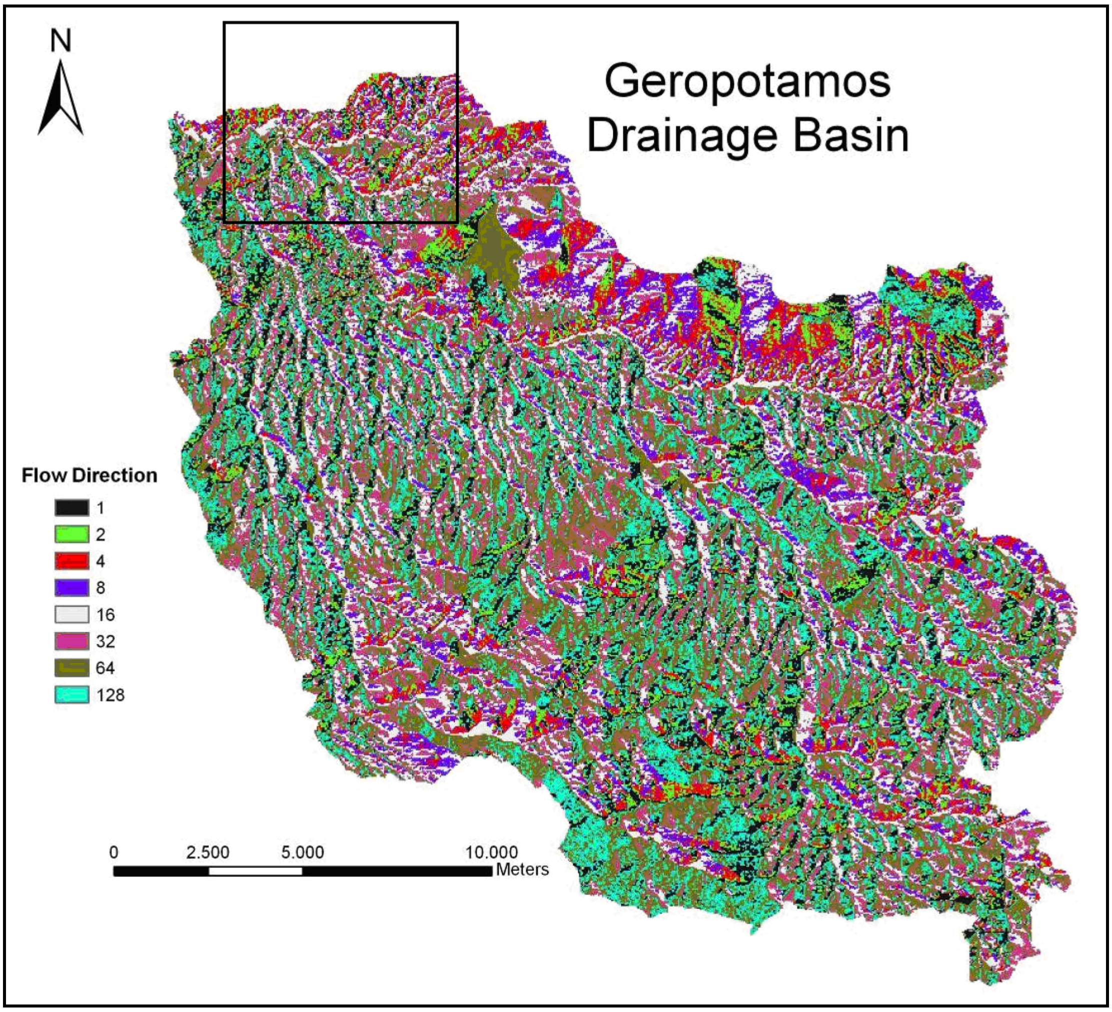


Fig. 4.12: Flow direction of the Geropotamos basin. The black box specifies the study area. Each value (1, 2, 4, …, 128) indicates a flow direction based on **Figure 3.18** of **section 3.4.1.4.2** of ***Chapter 3***.

4.3.2 Delineating Drainage Basins of the broad area

Next, the drainage basins of the broad area (including Geropotamos drainage basin) were delineated (**Fig. 4.13).**

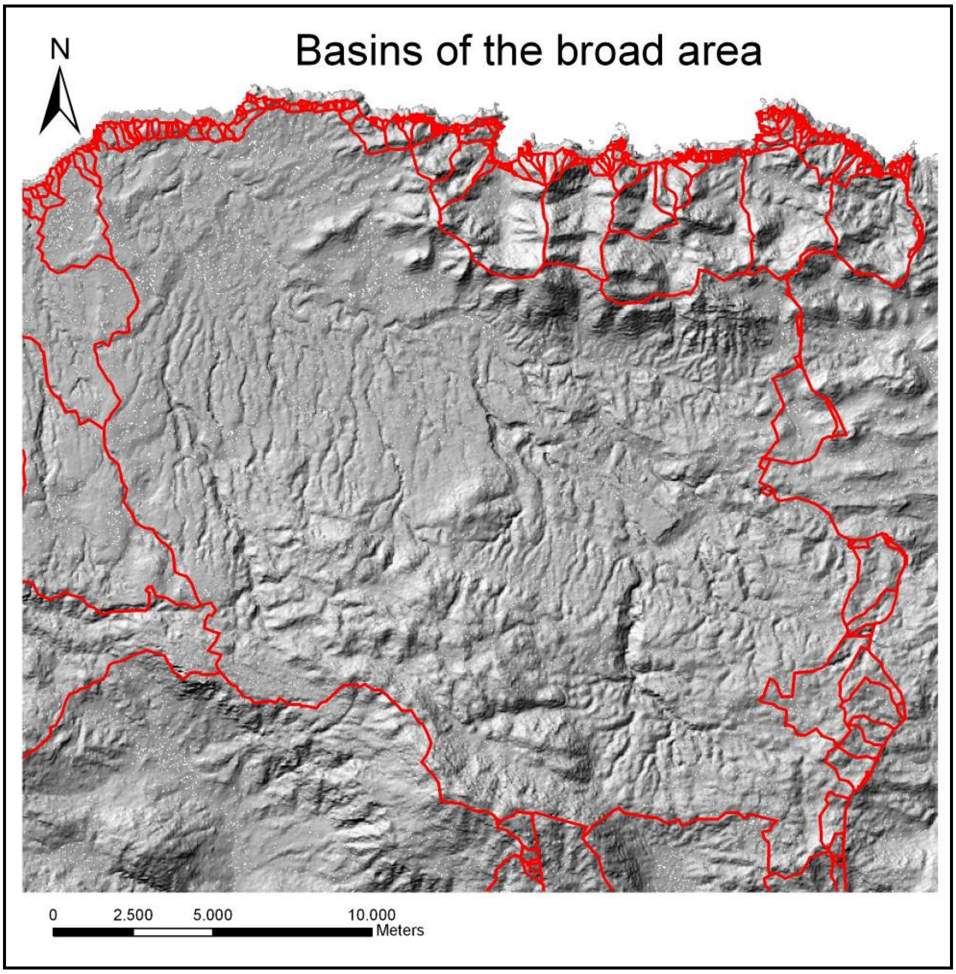


Fig. 4.13: Drainage basins of the broad area. Geropotamos basin was delineated as well.

4.3.3 Flow Accumulation

As described in **section 3.4.1.4.4** of ***Chapter 3***, the output of "Flow Accumulation" tool represents the amount of rain that would flow through each cell (**Fig. 4.14a**). Then, output cells with high flow accumulation (areas of concentrated flow) were used to identify stream channels. The stream network was created by applying a threshold value of 200 to select cells with a high accumulated flow (**Fig. 4.14b**).

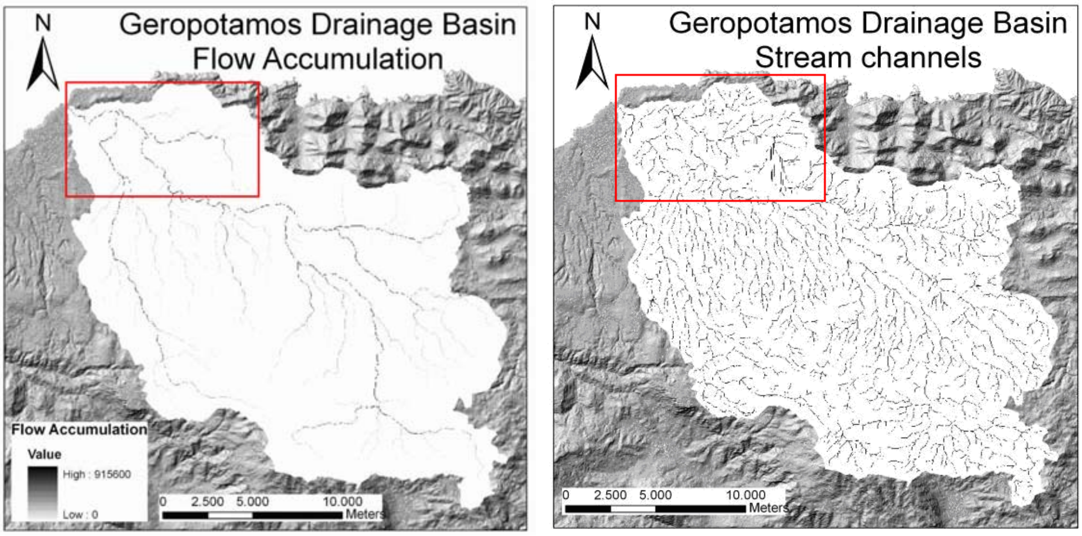


Fig. 4.14: a) Flow accumulation of Geropotamos basin and b) stream network created by applying a threshold value of 200

4.3.4 Drainage Network of Geropotamos

The resulting stream network, as shown above, was used as input to the "StreamOrder" function. So, by applying Strahler' s method (**section 3.4.1.4.5** of ***Chapter 3***) stream orders were determined (**Fig. 4.15**). Data on the number of channels and length of channel in each Strahler category is given in **Table 4.4**.

Drainage network of Geropotamos basin, as extracted from DEM, is in a good agreement with the satellite image. In addition, it is more detailed (20m DEM) than previous drainage networks existed up to now (e.g. topographic map). However, when network is extracted by DEM sometimes errors occur. For Geropotamos application, generally there was not such a problem, except from some possible artefacts at the north-eastern part of the basin (within red ellipsis). Usually, possible artefacts are recognised as 1^{st} order streams that seem perfectly linear and parallel to each other.

Table 4.4: Information for number of channels and length of channels in each Strahler's order

Strahler Ordering	Number of channels	Length of channels (m)
Order 1	1103	442,513
Order 2	529	231,146
Order 3	301	143,237
Order 4	152	66,405
Order 5	46	21,366
Order 6	58	19,708

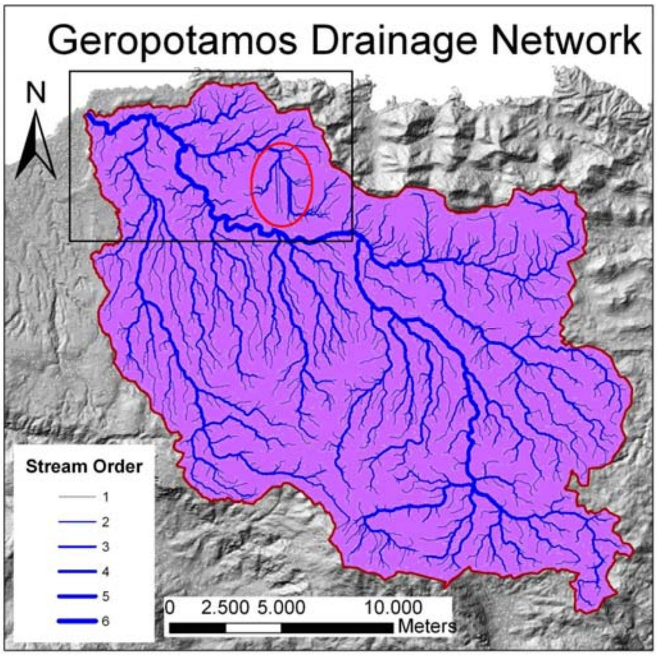


Fig. 4.15: Drainage network of Geropotamos basin as extracted from DEM. Geropotamos River has 6 orders. The black box indicates the study area. Red ellipse shows some possible errors (see text).

4.3.5 Delineating sub-basins

Geropotamos basin includes 3 major sub-basins, Peramatianos, Anogianos, and Zonianos. These sub-basins were delineated again within the frame of this thesis, using DEM based on the classified drainage network, as described above (**Fig. 4.16**). As the Geropotamos drainage network has 6 orders, the pour point at the beginning of the fifth class segments (red star), were chosen to define the three 5^{th} order sub-basins.

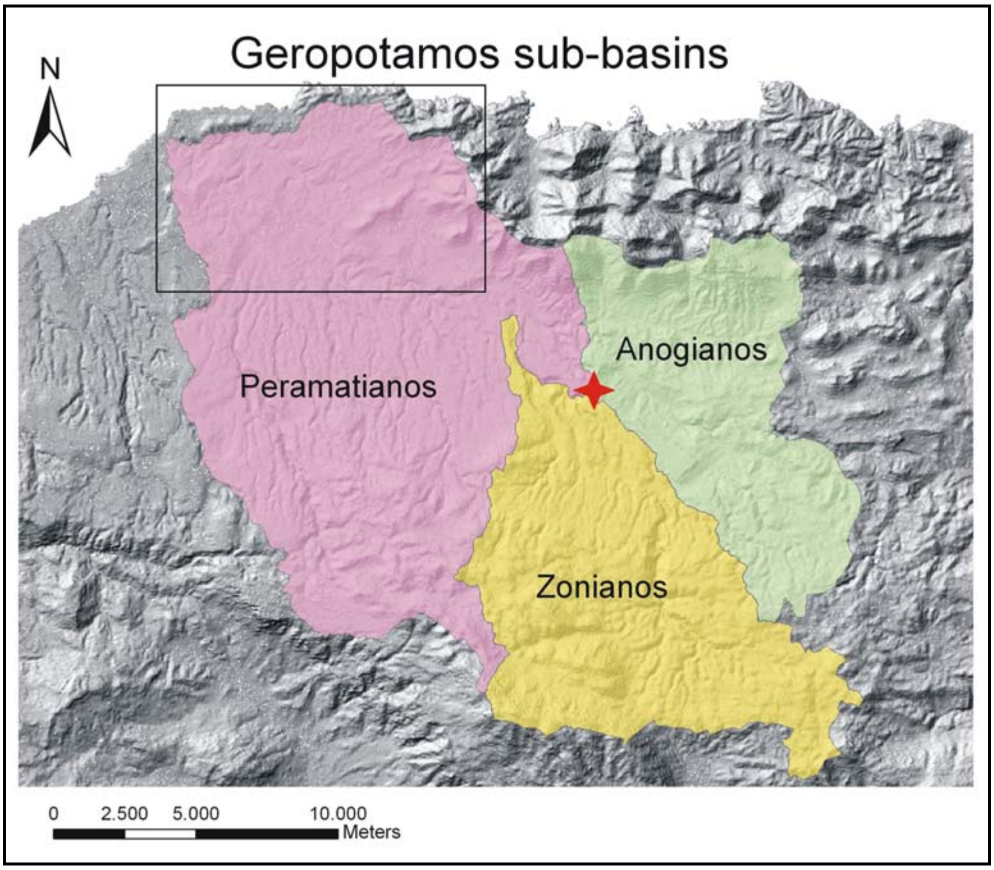


Fig. 4.16: Geropotamos basin includes three major sub-basins: Peramatianos, Anogianos, and Zonianos. The black box defines the study area, and the red star indicates the pour point at the beginning of the fifth class segments (see text for more explanation).

4.4 Remote Sensing analysis- Digital processing of Landsat-ETM imagery

Preliminary remote sensing analysis ensued for detection and mapping of photolineaments indicating possible faulting. The term lineament has been propagated in remote sensing geology the last years and represents the most obvious linear features on aerial or satellite images (Gupta, 2003). Among others (roads, tree arrays, etc), lineaments are indicators of possible faulting.

The output images were generated from the analysis and processing of a cloud-free Landsat-ETM (Landsat 7) satellite image acquired on 30/06/2000 with a resolution of 30 m. Remote sensing analysis was taken place in the Laboratory of Geoinformatics of TEI of Crete (Branch of Chania), in collaboration with Dr. Maria Kouli. Imagery and ERDAS software were also provided by the institute.

Primarily, **Figure 4.17** shows only for visual purposes (visual interpretation) Landsat-ETM satellite image with band combination 5,7,3 (R,G,B). Several band combinations were produced and that combination (5-7-3) was selected as the most informative band combination since bands 5, 7 and 3 are less correlated, since band 4 was excluded because we wished to eliminate the effect of vegetation.

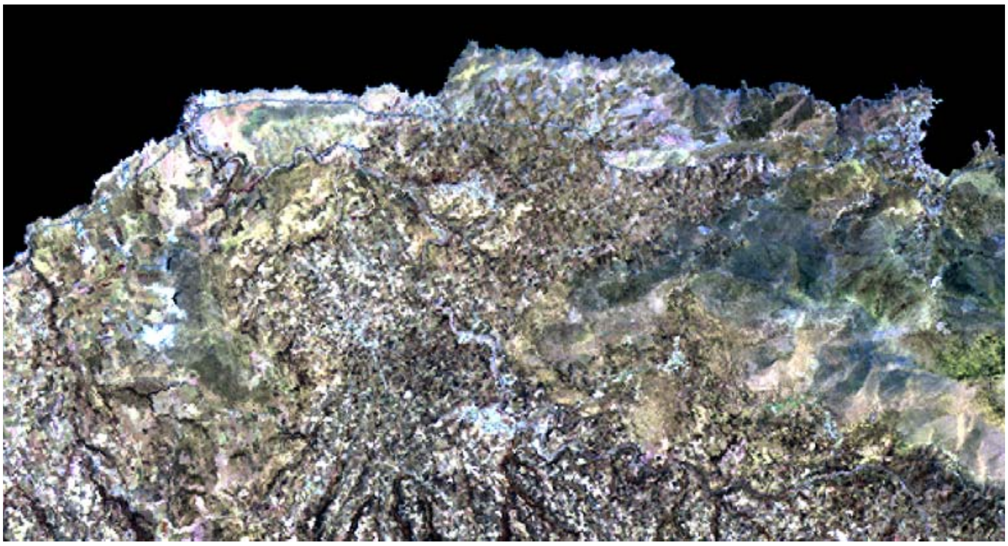


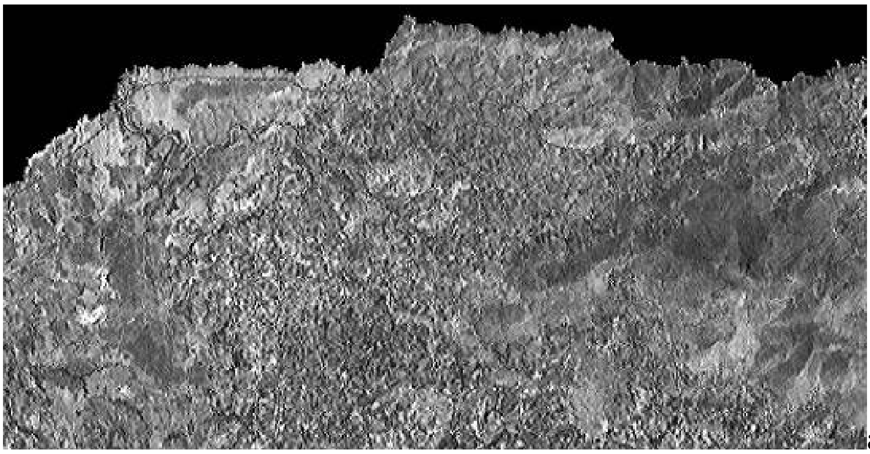
Fig. 4.17: Landsat-ETM satellite image with band combination 5-7-3 (RGB).

The lineament-enhancement techniques, and specifically directional spatial filtering (Rigol & Chica-Olmo, 1998; Rokos et al., 2000), were applied on Band 5 of Landsat-ETM image in order to investigate the basic tectonic pattern of the study area. Specifically, band 5 was chosen as it has little vegetation effect, and is a band which records well the geology (i.e. gives the best discrimination of rock. As a result four enhanced images were created (**Fig. 4.18a**, **Fig. 4.18b**, **4.18c** & **4.18d**) after the application of the following directional masks (Miliaresis, 2003; Tso & Mather, 2009).

North-South			West-East			NE-SW			SE-NW		
0	-1	0	0	-1	0	-1	0	0	0	0	-1
-1	2	0	0	2	0	0	2	0	0	2	0
0	0	-1	0	-1	0	0	0	-1	-1	0	0

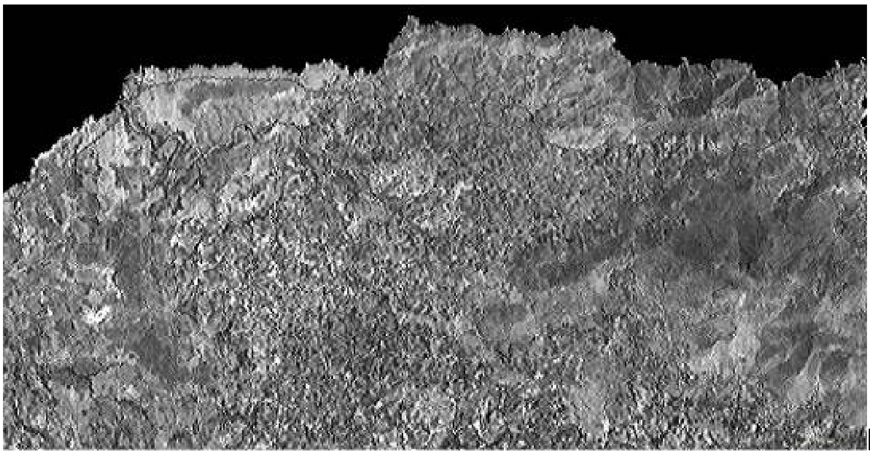
After the filter application, the initial image (band 5) was added on them.

N-S



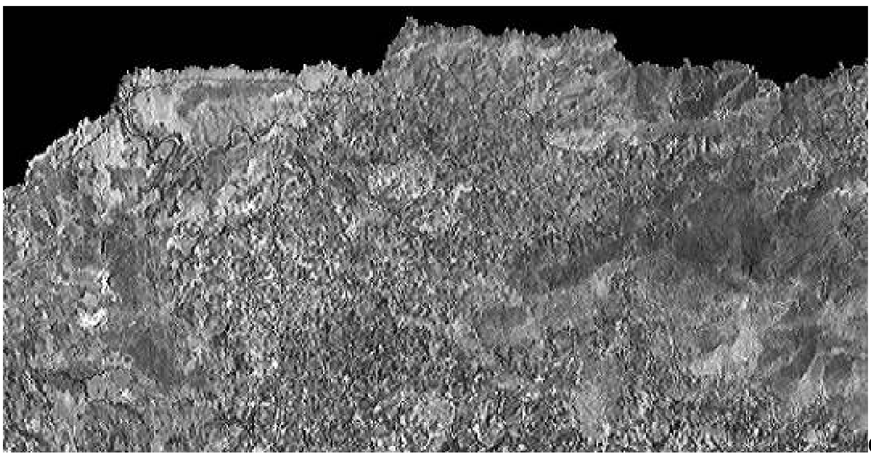
a

W-E



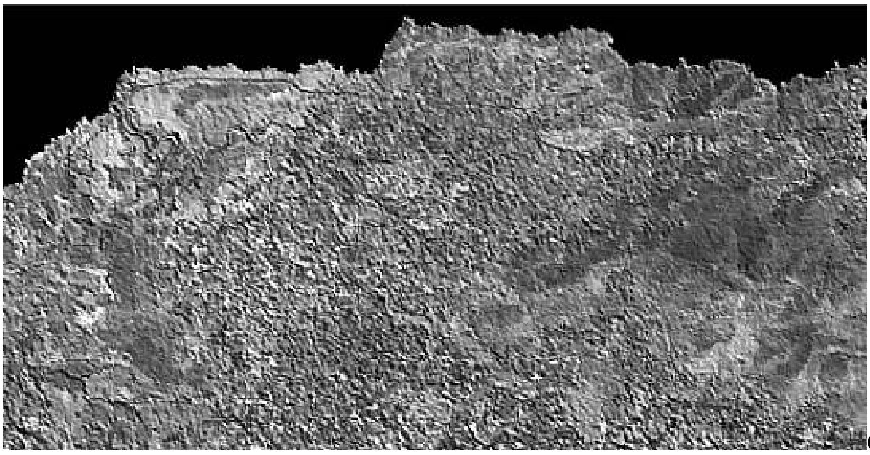
b

NE-SW



c

NW-SE



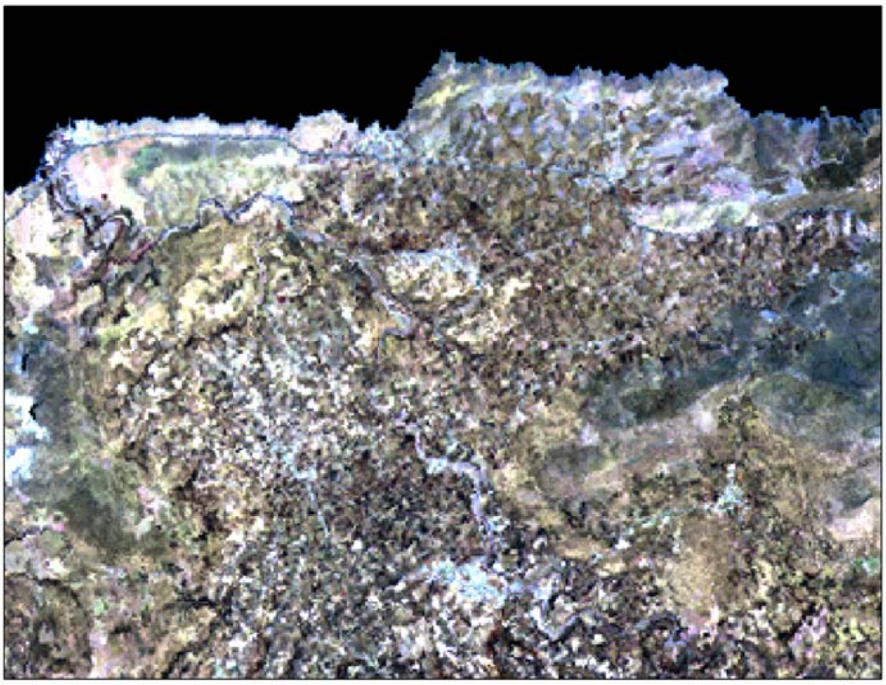
d

Fig. 4.18 a, b, c, d: Enhanced images generated using N-S, W-E, NE-SW, and NW-SE directional masks respectively, applied on band 5

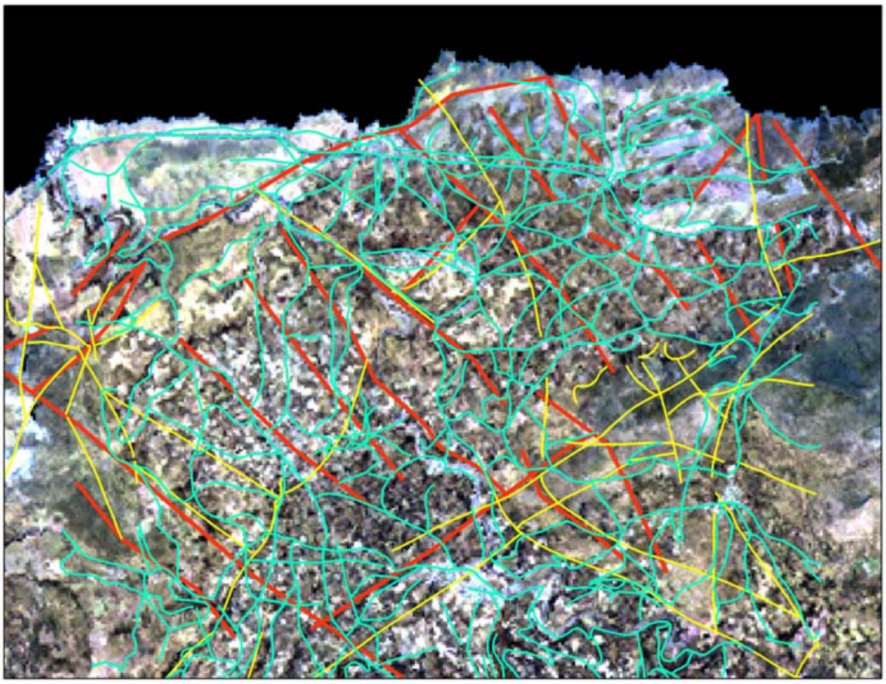
Finally, one individual vector layer of lineaments was created by "on-screen digitizing" (process in which a map is created using previously digitized of scanned information or it is used to trace features from a scanned map or image to create new layers or themes) of the lineaments derived from the four enhanced images (after N-S, W-E, NE-SW, and NW-SE directional filtering) (**Fig. 4.19b**, vector layer of lineaments with red colour).

The derived lineament vector layer was statistically analyzed and a rose diagram was generated in order to extract the major lineament orientation. **Figure 4.20a** presents the rose diagram, and it seems that the dominant direction that the lineaments follow is NNW-SSE. There are some more minor directions, e.g. one similar to the major, one with NNE-SSW direction, etc.

Figure 4.20b shows a second rose diagram that was created as well, using a vector layer containing the faults digitized from IGME map (**section 2.2.4** of ***Chapter 2***). The two rose diagrams show that lineament patterns of Landsat-ETM and IGME map are similar. It was concluded from both diagrams that lineaments follow the NNW-SSE dominant direction (one major fault group). Note that this remote sensing analysis is preliminary and fieldwork for identification of possible faults, derived from satellite image interpretation (RS faults), is required as future work.



a



b

Fig. 4.19: a) Satellite image of the study area (Landsat-ETM satellite image with band combination 5,7,3 (R,G,B), and **b)** the same image with vector layers of lineaments overlaid: i) faults derived from satellite image interpretation (RS faults) (red colour), ii) faults and thrusts digitized from IGME map (yellow colour), and iii) road network derived from air-photos interpretation as provided by municipality of Geropotamos (turquoise colour)

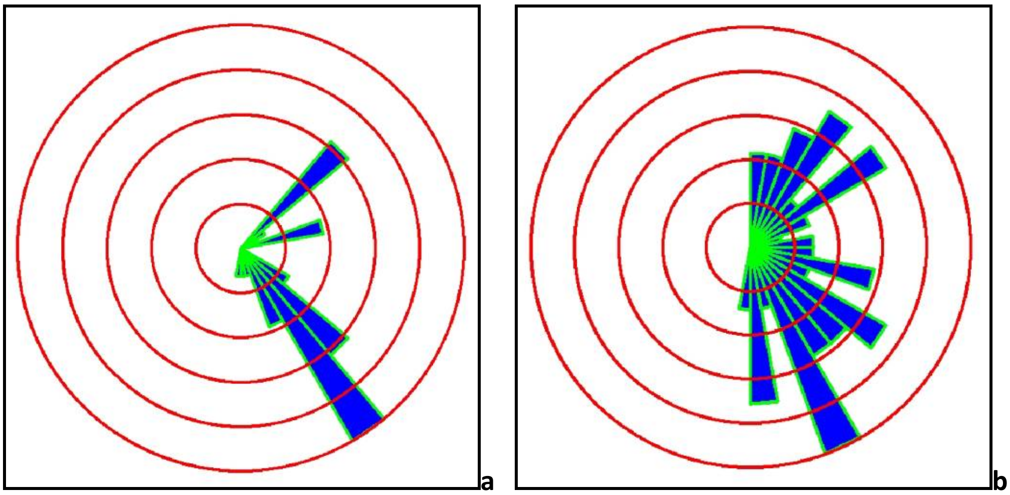


Fig. 4:20: Rose diagrams of lineament density (length) for **a)** RS faults, **b)** IGME faults and thrusts

4.5 Geological cross-sections

Five simple geological cross-sections (AB, CD, EF, FG, and HI) were constructed for better comprehension of the geological setting of the study area (**Figs. 4.25a, 4.25b, 4.25c, 4.25d** & **4.25e**).

The cross-sections were positioned to meet the following requirements: a) the lines should cross through all the nappes, b) they should cross near the geochemical sample locations (**Fig 4.21**), c) they should cross near the three VES soundings (**section 4.6.2.1**), and d) wherever TEM grid was dense enough (**Fig. 4.2.6**).

The data sources that were used for their construction were: a) the 1:50,000 IGME map (**section 2.2.4** of ***Chapter 2***), b) information from the borehole logs (**Appendix A**), whenever it was available, c) possible faults that were extracted from Remote Sensing analysis (**section 4.4**), and d) data that collected after 4-day fieldwork for geological observations with my supervisor, Dr. Stephen Kershaw, in February 2008. A short description of this fieldwork follows.

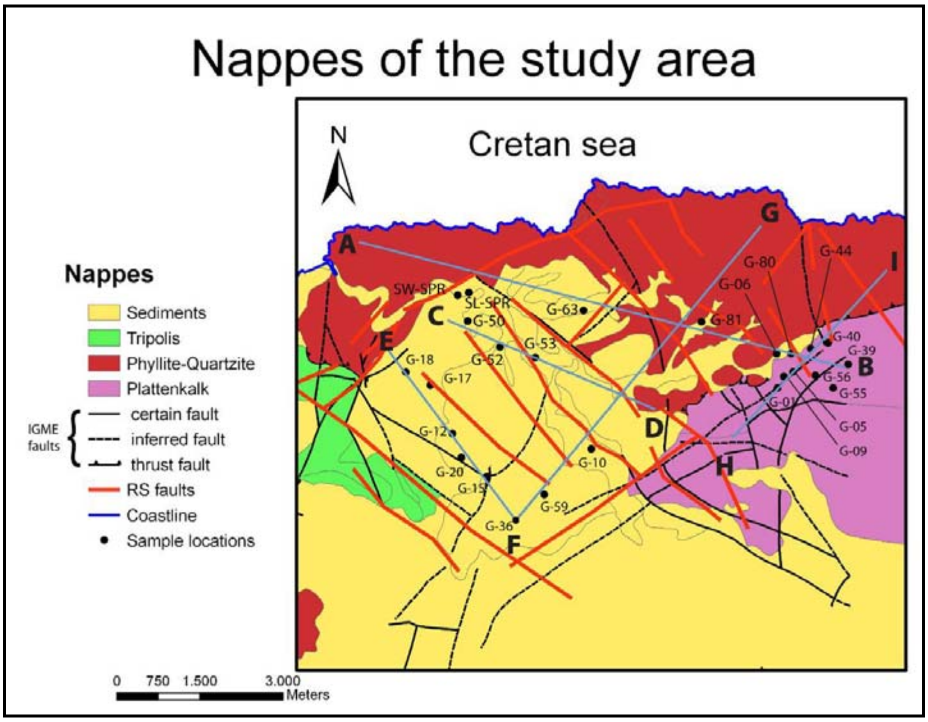


Fig. 4.21: Nappes of the study area with: i) the five geological sections (AB, CD, EF, FG, and HI), ii) the faults derived from satellite image interpretation (RS faults), and iii) IGME faults layers overlaid. Source of nappes mapping is IGME geological map.

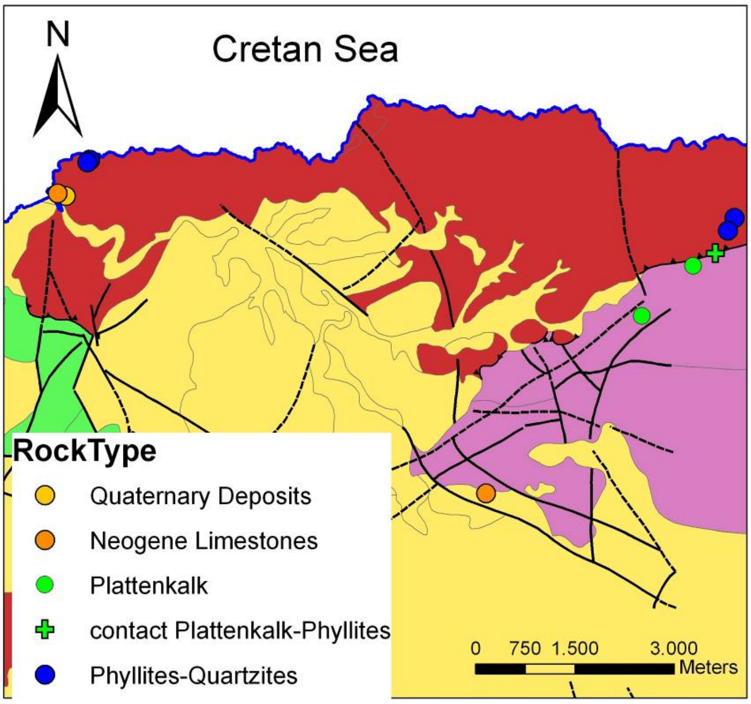


Fig. 4.22: GPS locations of rock formations examined in the study area.


a


b


c


d

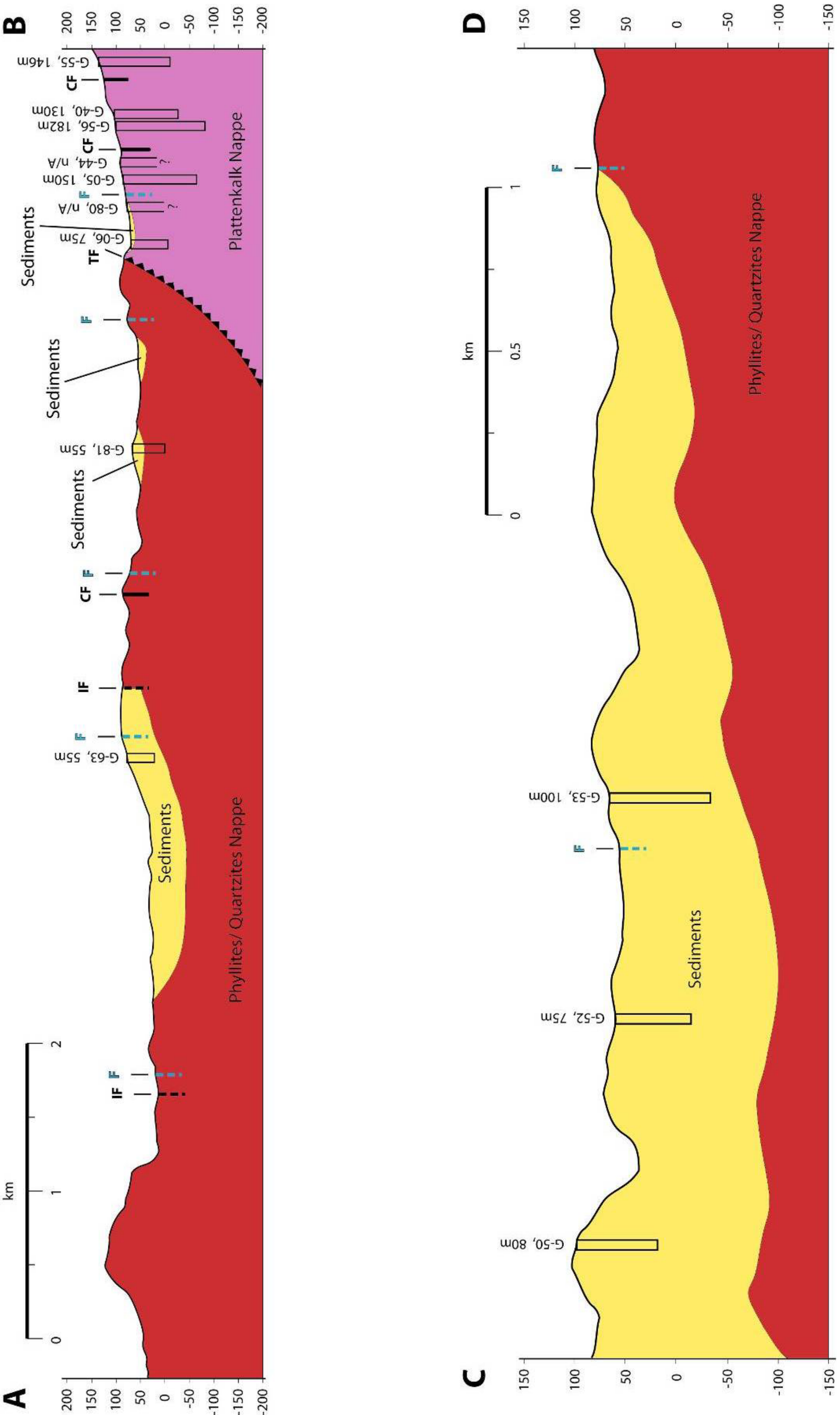
Fig. 4.23: a) and b) depict from different directions the contact between phyllite/quartzite and plattenkalk nappe located at the north-eastern part of the study area: a) shows the iron-stained yellow colour of the quartzite-phyllite thrust over the grey-coloured limestones of the Plattenkalk nappe, view to south; **b)** shows the same site view to north, so the thrust is clearly visible in the centre of the photograph; **c)** the phyllites near the thrust fault showing distortion and pervasive fracturing due to friction between the two rock masses; d) the dolomitic limestones (plattenkalk nappe) below the fracture portion of the thrust fault zone.

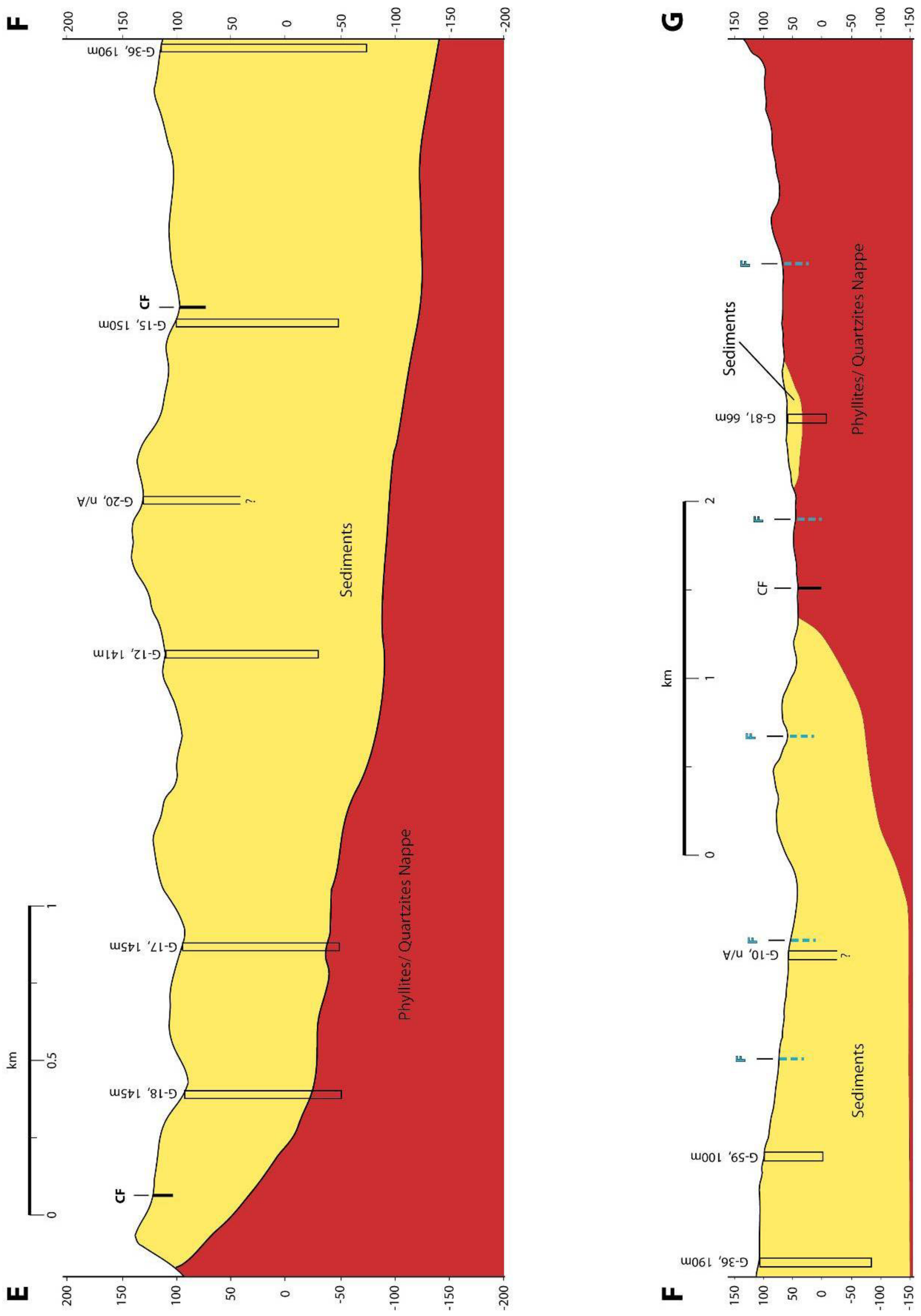
Between 16 - 19 February, with the guidance of my supervisor Dr. Stephen Kershaw, brief geological observation was accomplished. All rock formations of the study area were recognized, located by GPS, and rock samples were collected (**Fig. 4.22**). A key feature is the contact (thrust fault) between phyllites/quartzites and plattenkalk nappe at the north-eastern part of the area (**Fig. 4.23a, 4.23b, 4.23c,** & **4.23d**).

In addition we visited for the first time the site where the salty-sweet spring phenomenon takes place (**section 2.3** of ***Chapter 2***). Mr. Vassilis Simitzis joined us on this visit, providing useful information (**Fig. 4.24a** & **Fig. 4.24b**). A similar occurrence takes place at the Loutraki spring on the Perahora peninsula just north of Korinthos in central Greece, where at that case the distance between the two springs is only 1 m (Steve Kershaw, personal communication).

Fig. 4.24: Sweet-salty spring phenomenon in Geropotamos study area.In the left-hand photograph, the salty spring is out of view near the left hand side of the photo, and the stream from the salty spring is directed along the cliff base. Water from the sweet spring is shown directed away from the cliff in the right hand photograph. The two springs meet just to the right of the two people off the edge of the right-hand photograph.

The five simple geological cross-sections follow next: AB (9 km), CD (4 km), EF (4 km), FG (7 km) and HI (4 km). Above each borehole is situated its name and its depth. Boreholes with (?) continue below the level drawn but the amount of borehole below that level is not known. The boundaries of rock units are the best estimated obtainable for the map and the borehole data. Solid and dashed black colour lines indicate Certain Faults (CF) and Inferred Faults (IF) as derived from IGME map respectively, while blue solid lines (RS faults) indicate faults derived from satellite image after remote sensing analysis (**section 4.4** of this chapter). There is no information about the direction of the faults (from the geological map or from fieldwork), so they are drawn as short line.


A
B
C
D
km
Sediments
Phyllites/ Quartzites Nappe
Plattenkalk Nappe
G-55, 146m
G-40, 130m
G-56, 182m
G-44, n/A
G-05, 150m
G-80, n/A
G-06, 75m
G-81, 55m
G-63, 55m
G-53, 100m
G-52, 75m
G-50, 80m
CF
TF
IF
F


E
F
G
km
CF
G-18, 145m
G-17, 145m
G-12, 141m
G-20, n/A
G-15, 150m
G-36, 190m
Sediments
Phyllites/ Quartzites Nappe
G-59, 100m
G-10, n/A
G-81, 66m

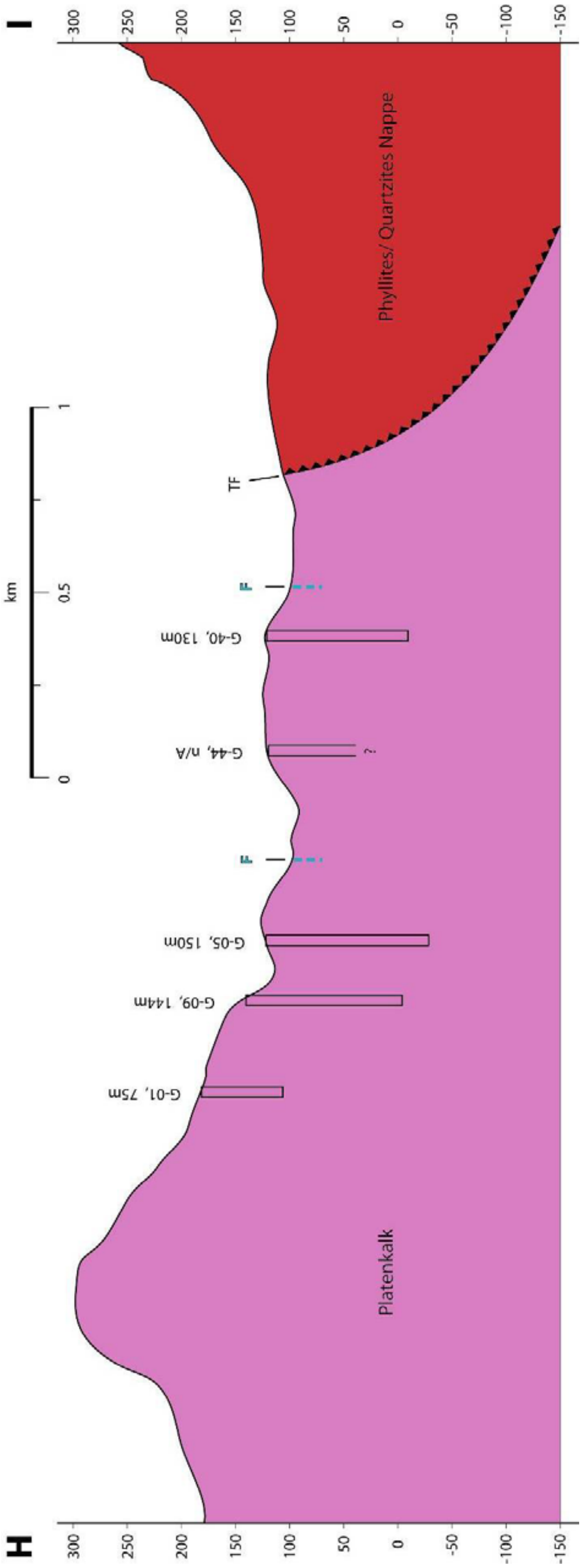


Fig. 4.25a, 4.25b, 4.25c, 4.25d, & 4.25e: Simple geological cross-sections as shown on **Fig. 4.21** (see text for more explanation).

4.6 Geophysical Approach

This section presents the complete TEM and VES surveys and results. The instrumentations and softwares were provided by Laboratory of Geophysics and Seismology of TEI of Crete (Branch of Chania) and the geophysical surveys were designed and accomplished in collaboration with Dr. Pantelis Soupios, Associate Professor of TEI, Dept of Natural Resources and Environment.

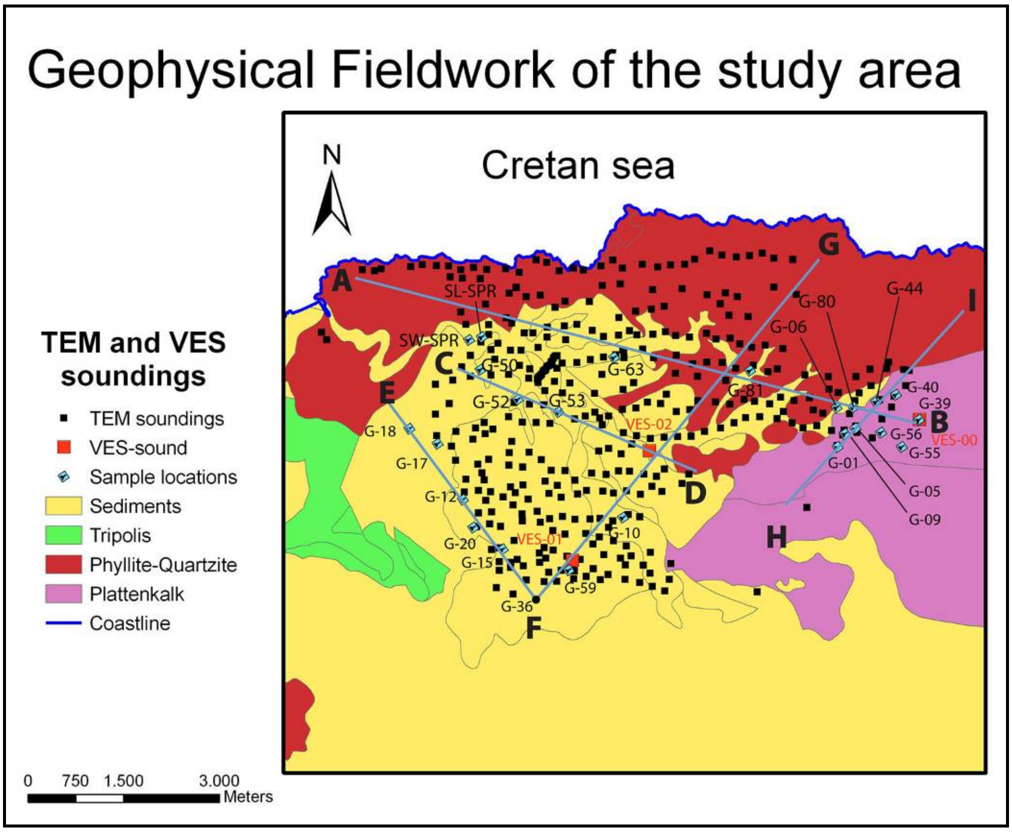


Fig. 4.26: Nappes of the study area with: TEM profiles (having the same position with AB, CD, EF, FG, and HI cross-sections), VES soundings, and sample locations layers overlaid.

4.6.1 EM method - TEM technique

4.6.1.1 TEM measurements in Geropotamos study area

All TEM data were collected mainly within 3 months (June, July, and August of 2008) (**Fig. 4.27**). In total, one thousand one hundred seventy-nine (1179) TEM soundings were acquired in three hundred seventy-two (372) different locations in a detailed survey grid (about 200-250 m in X and Y dimension) using mainly single loop 50 x 50 m, Stack 5 (65 complete cycles) and Time 5 or 6 (i.e. 32 or 36 time gates), in order to be able to image a possibly complex (3D or due to the tectonic) subsurface. The large number of the TEM soundings reflects the fact that the measurements were repeated several times at each sounding location, in order to define and avoid aliasing effects (high frequency - HF noise from radio sources) and generally for optimisation of the raw data.

During the TEM fieldwork, the author/operator was very careful for the best possible site selection, the correct installation of the loop, and other conditions which can produce noisy and bad quality data, like man-made noise (power and telephone lines, pipelines, fences, etc). Notwithstanding, some of the final acquired data were affected by resonance of power lines, by strong SPM (Super Para Magnetic) effects in the locations composed of dolomitic limestones (Plattenkalk nappe at the eastern part of the study area), and rarely aliasing effects from high frequency noise (**section 3.2.1.3.3** of ***Chapter 3***). Some of those data were totally removed. Finally, data of 350 of the 372 locations were used (**Appendix B**). Those data were filtered, smoothed and corrected prior to the final modelling and imaging.

4.6.1.2 Processing & analysis of TEM data

TEM data from a field instrument consist of an approximately exponential voltage decay curve. The way to interpret these data is to convert the field data to apparent resistivities, ρ(t). TEM-Fast 48 raw data come directly in ohm.m (resistivity data) (an example of sounding 0071-B is shown in **Fig. 4.32a**).

TEM-RES software, available with the TEM-Fast 48 instrument, is a Windows integrated software system, which was the tool for data processing of TEM data and then for the inverse problem solution. This program is used for TEM data editing, smoothing, analysis, processing, and modelling (TEM-RES manual, 2007).

Fig. 4.27: TEM data acquisition in Geropotamos study area. At the two lower photos, the two participants set the antenna (50 x 50 m square).

Once the resistivity data were derived, the next stage was modelling of the data, as the ultimate goal was to deduce the subsurface resistivity distribution (resistivity-depth information) from these sounding curves. Before that, editing and smoothing of the data was required.

Editing was a very important part of the analysis of the data of the study area. For example, the author/analyst had to correct mistakes contained in the head of the field data (Name, TR, REC, coordinates). Other options were the exclusion of points from the resistivity curves and the change of position of a point. Generally, the quality of the data was very high and almost no editing was required, except the head correction of the files.

The next step after editing, and before modelling, was the smoothing of the data, as the manufacturer strongly suggests. In **Figure 4.32a** an example of data smoothing is shown. Two more curves, except the resistivity curve, are given as result of the raw data smoothing. The first (upper) continuous curve approximates initial $\rho_\alpha(t)$ data and the second (lower) curve is the calculated dependence $\rho_{full}(t)$.

At that stage, before modelling, it was decided which locations finally would be used for further modelling, and then the best measurement of each location was chosen. In some areas a strong superparamagnetic effect (**section 3.2.1.3.3** of ***Chapter 3***) destroyed the data, which at the end were excluded. Two such examples are Maniaki site at the eastern part), and Melidoni cave (at the south-eastern part).

Super ParaMagnetic Effect in Geropotamos study area

- Maniaki is a place lying on dolomitic limestones very close to G-39 sample location. (50x50 loop size, Time=6, stack=7). The site that was chosen for the following TEM sounding was on "terra rossa" kind of soil which generally considered to contain large amount of magnetic constituents, like magnetite. **Figure 4.28** presents the resistivity curve which was excluded from further analysis and modelling.

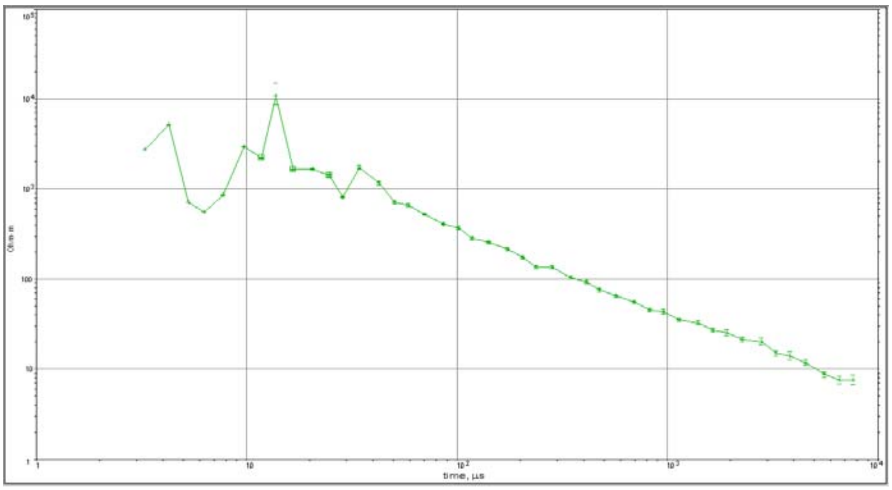


Fig. 4.28: Resistivity curve of Maniaki (near G-39 sample location) (50 x 50 m loop size, Time=6, stack=7)

- Two TEM soundings took place at Melidoni cave: one exactly at the entrance of the cave and the other in it, after special permission (**Figs. 4.30a, 4.30b, 4.30c** & **4.30d**). Both measurements showed SPM effect and they were not used any further (**Fig. 4.29**).

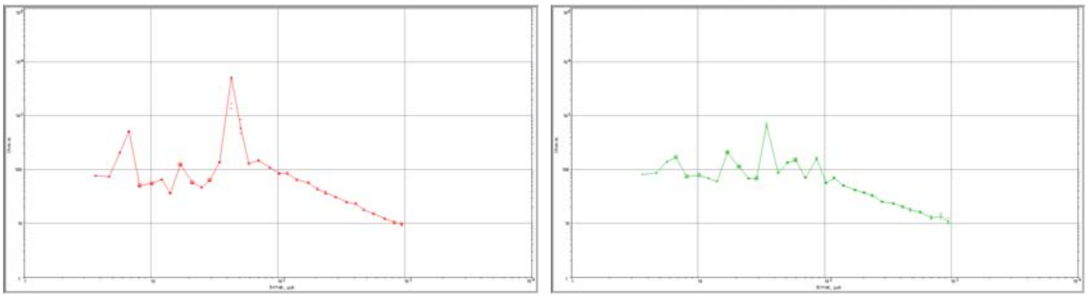


Fig. 4.29: Resistivity curves with SPM effect. Red=in Melidoni cave, Green=out of the cave (25 x 25 m loop size, Time=5, Stack=5)

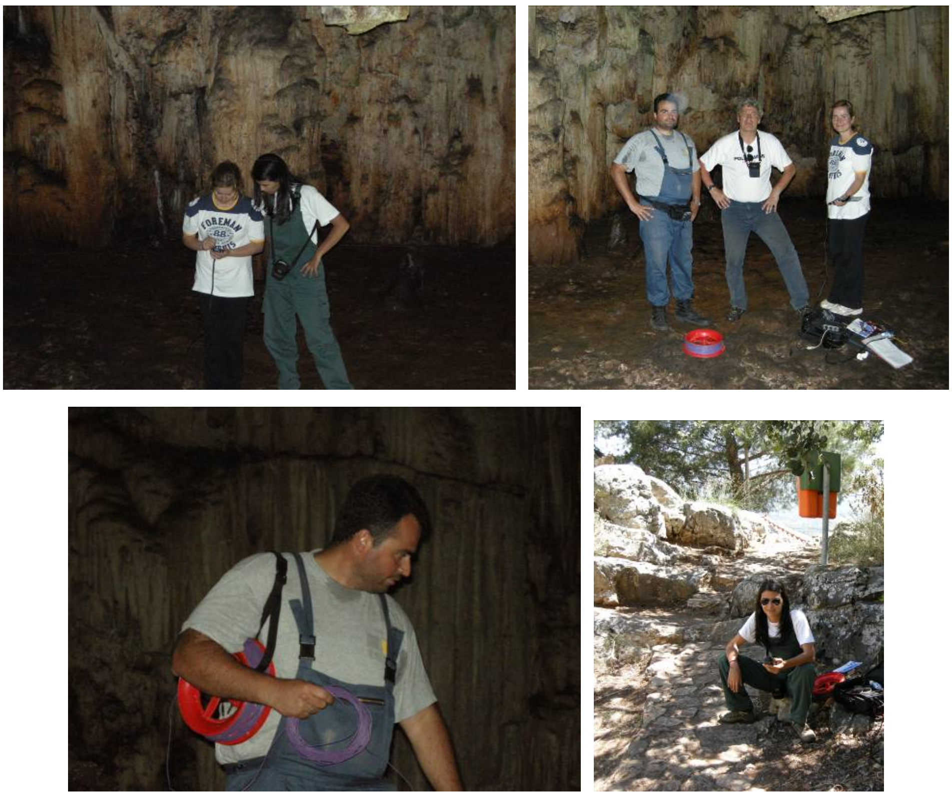


Fig. 4.30a, 4.30b & **4.30c:** TEM measurements in Melidoni cave; **4.30d:** TEM measurements in front of the cave

4.6.1.3 Modelling of TEM data

Construction of a section can be completed in two ways by the TEM-RES software: transformation and inversion.

The first involves the description of the theory of transformation of the resistivity curve $\rho_\alpha(t)=\mathrm{Res}(t)$ (**section 3.2.1.3.2** of ***Chapter 3***) in pseudosection $\rho(h)=\mathrm{Res}(h)$, where $\mathrm{Res}(h)$ is the specific resistivity, is not the scope of this section, as it is described analytically in Svetov & Barsukov (1984). It is a quick and simple approach to EM interpretation, which can be used in situ, as well, immediately after the acquisition of the TEM data.

Next, the section deals with basic concepts underlying geophysical inversion, where an overview of essential ideas without mentioning mathematical details is provided, as first described by D.W. Oldenburg and F.H.M. Jones (2007).

“In a typical geophysical survey, we put energy into the ground and record a response, which we refer to as data or observations. The values of the data depend upon the distribution of physical properties in the subsurface. The goal of the inverse problem is to determine the distribution of the physical property or properties that gave rise to the data. Unfortunately, this is not rigorously possible in practical surveys because only a limited number of data can ever be recorded and the data are also inaccurate. Nevertheless, approximate solutions can be found, and the methodology is designed to include other information about the problem so that the calculated solution is more likely to represent the true earth structure”, Oldenburg and Jones, 2007.

“Inversion is a mathematical procedure that can take on several forms. In order to generate understanding about the subsurface without digging or drilling, measurements must be gathered, data must be generated from these measurements, and some degree of understanding about what is being investigated ("prior knowledge") should exist. Then inversion processing can be carried out, using the data and prior knowledge as input. The result will be a set of "models" characterizing how the relevant physical property is distributed in the ground. These models will have characteristics determined by the inversion method used, by the data and by prior knowledge (**Fig. 4.31**)", Oldenburg and Jones, 2007.

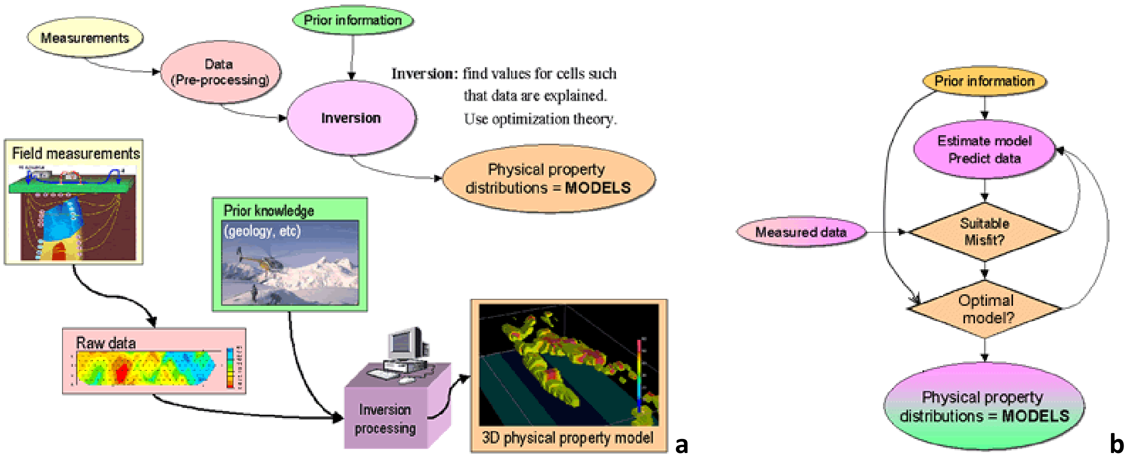


Fig 4.31: **a),b**) Flow charts showing the basic ingredients of inversion, **b)** The arrows in Figure 3b show how information is used and where iteration (feedback) occurs (Oldenburg and Jones, 2007)

"The **Inversion** section of **Fig. 4.31** consists of a model estimation algorithm and two decisions which must be made before the model is considered satisfactory. The principle requirements of inversion are: **1)** A model must be estimated and resulting predicted data must be calculated, **2)** Predicted and measured data must compare favourably, and**3)** The model must optimal in some well-defined sense", Oldenburg and Jones, 2007.

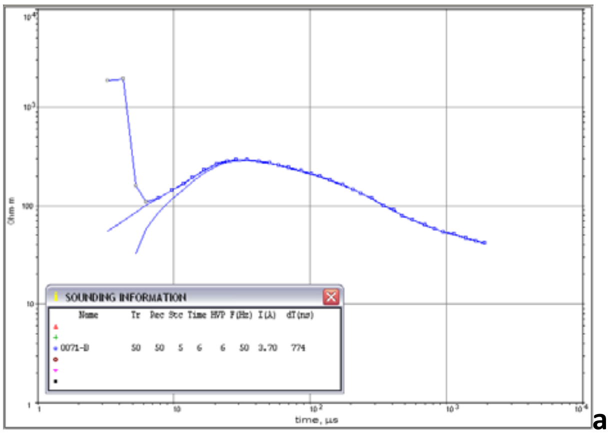
"A solution to the inverse problem is obtained by estimating a model, testing it using misfit and acceptibility criteria, and then iteratively perturbing (i.e. adjusting) the model until the two testing criteria are satisfied. The arrows in Figure 3b show how information is used and where iteration (feedback) occurs", Oldenburg and Jones, 2007.

As mentioned above, TEM soundings are commonly used to define aquifer properties and other subsurface characteristics. Of course, those kinds of structures are multi-dimensional, but 1D inversions are used to determine geologic structure for groundwater flow models. Generally, they can be imaged without significant errors. For this thesis it is not necessary to describe the formulae that TEM-RES software uses for the inversion procedure.

4.6.1.3.1 1D Modelling

As already mentioned, **Figures 4.32a** & **4.32b** show 0071-B sounding, as an example. Transformation Res(h), which is distribution of specific resistivity versus apparent depth (smooth curve), and the model after 1D inversion (piecewise-uniform diagram) are presented in **Figure 4.32b**. Together with the resistivity curve (**Fig. 4.32a)**, two more curves are shown as result of the raw data smoothing. The first (upper) continuous curve approximates initial $\rho_a(t)$ data and the second (lower) curve is the calculated dependence $\rho_{full}(t)$. For better interpretation, after Dr. Pavel Barsukov's recommendation, an upper threshold 1000 ohm.m was set.

These kinds of diagrams were extracted for all the 350 TEM locations. Results after 1D inversion are included in Appendix E (CD attached to the back cover of the thesis).



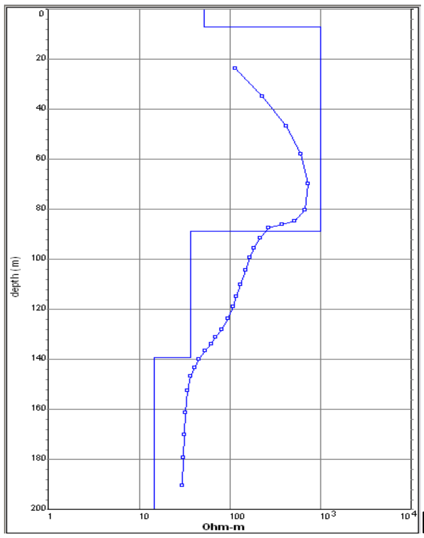


Fig. 4.32: a) Curve of apparent resistivity ρa(t) (example of sounding 0071). Two more curves are given as result of the raw data smoothing. The first (upper) continuous curve approximates initial ρa(t) data and the second (lower) curve is the calculated dependence ρfull(t), **b)** The transformation (ρ(h)) and inversion (example of sounding 0071) are presented by the smooth curve and the piecewise-uniform diagram, respectively.

4.6.1.3.2 2D Imaging of TEM data

Since the 1D modelling is not enough to reconstruct and describe the subsurface, 2D imaging is required. TEM-RES software is a great tool for geoelectrical sections construction as well. The sections that were chosen for 2D imaging stay at the same position with the geological cross-sections that were constructed as shown previously (**section 4.5** of this chapter) (**Fig. 4.21**). Exactly the same positions were used to allow for direct comparison between the geology and TEM results (**section 5.4** of ***Chapter 5***).

So, data from transformation and 1D inversion were received, and 6 different versions of each profile (AB, CD, EF, FG, and HI) were illustrated: 1) transformation loggings, 2) transformation as tomography, 3) transformation as tomography with 1D inversion loggings, 4) 1D inversion as tomography and transformation loggings, 5) 1D inversion loggings, and 6) 1D inversion as tomography. 2D geoelectrical sections (as Tomographies) are the colour presentation of the structure. Hot colours (red) represent high resistivity formations, while the cold colours (blue) depict the low resistivity units. All the different versions of each section are following. The 3x exaggeration of all the sections is that same as that used for the construction of the geological cross-sections.

Note that, even though the sections that were chosen for 2D imaging stay at the same position with the geological cross-sections for direct comparison, each 2D section is a crooked line and not exactly the same straight line (**Figs. 4.33a, 4.33b, 4.33c, 4.33d** & **4.33e**) like the geological cross sections. TEM data are scarcer than DEM, so for TEM resistivity tomographies construction the best estimated lines where selected (red crooked lines). In addition, each profile is composed only by the elevation of points (sites located in fieldwork by GPS), which means that any elevation changes between them is not visible.

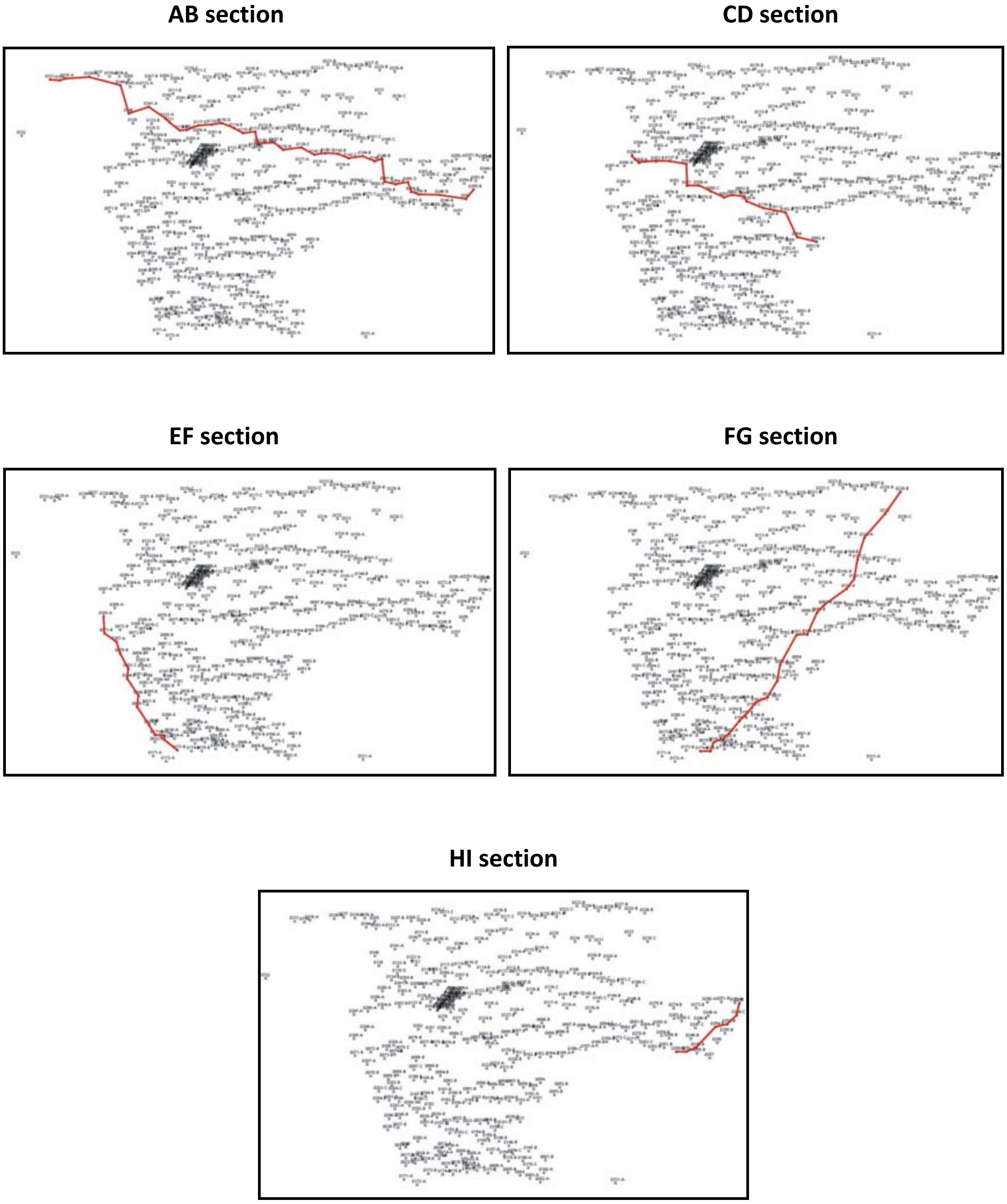


Fig. 4.33: TEM soundings acquired in the study area. Red colour crooked lines were selected for AB, CD, EF, FG and HI 2D geoelectrical sections construction.

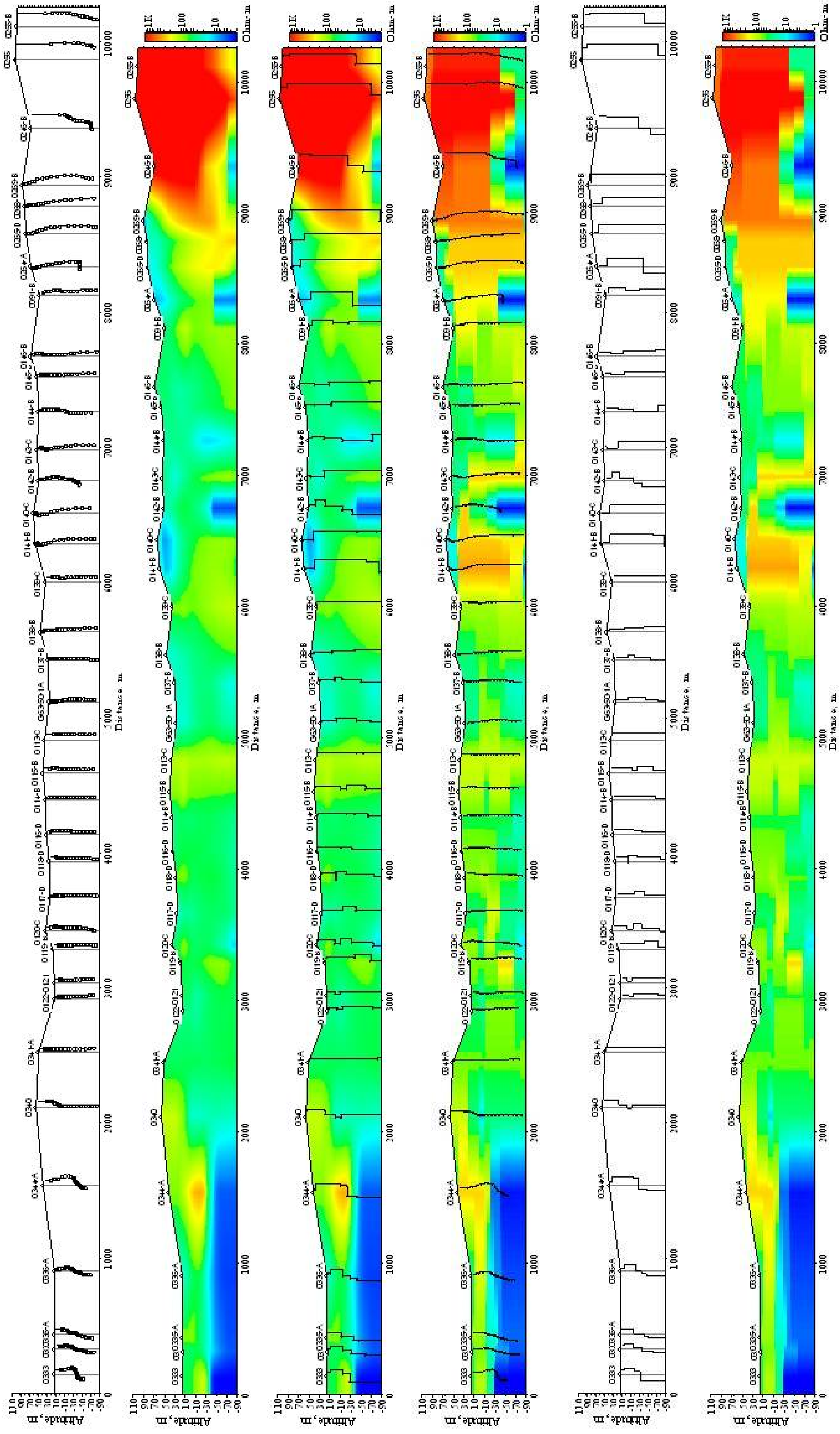
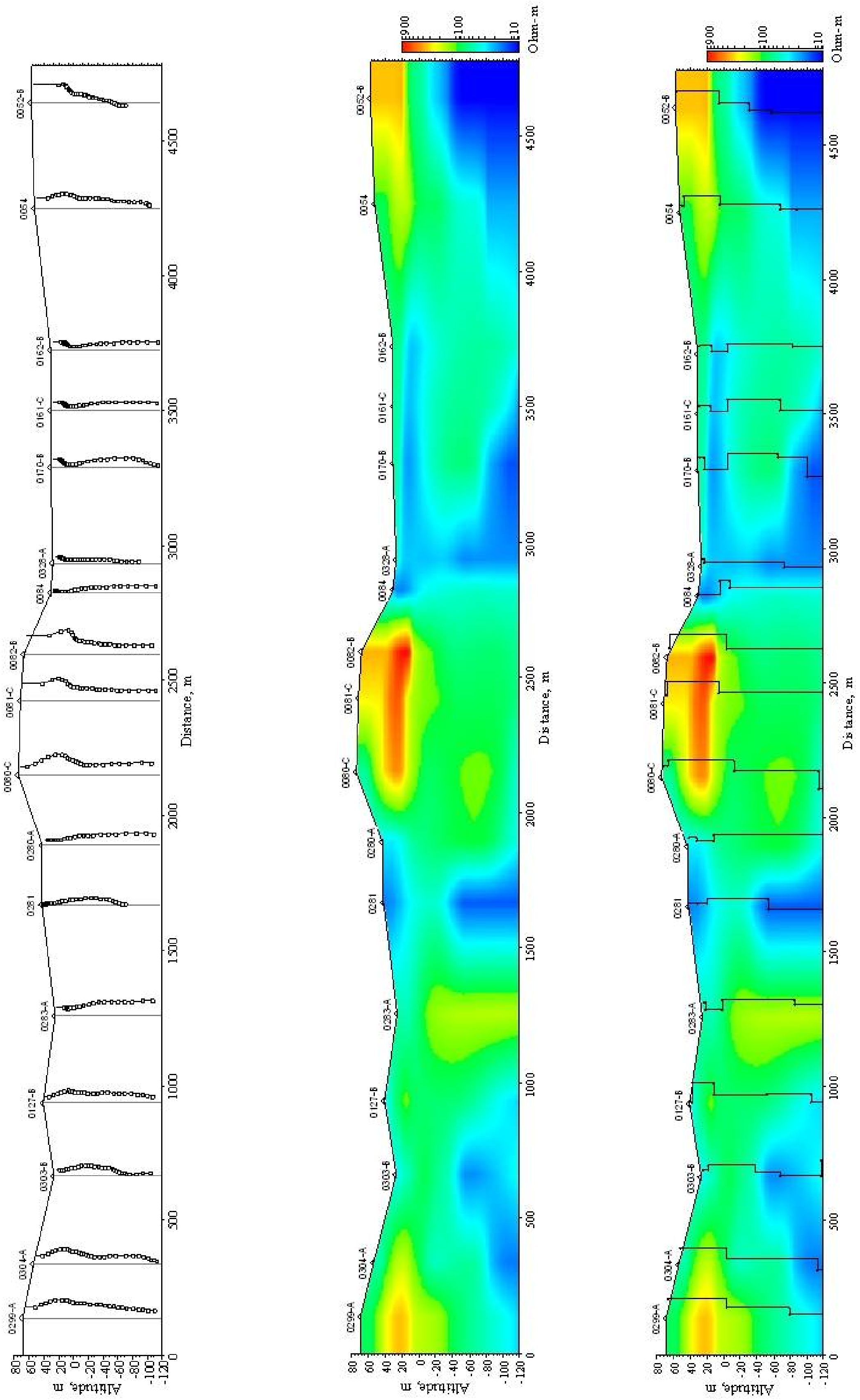


Fig. 4.34: 2D imaging of section AB: 1) transformation loggings, 2) transformation as tomography, 3) transformation as tomography with 1D inversion loggings, 4) 1D inversion as tomography and transformation loggings, 5) 1D inversion loggings, and 6) 1D inversion as tomography.


Altitude, m
Distance, m
Ohm-m
0299-A
0304-A
0303-B
0127-B
0283-A
0281
0280-A
0080-C
0081-C
0082-B
0084
0328-A
0170-B
0161-C
0162-B
0054
0052-B

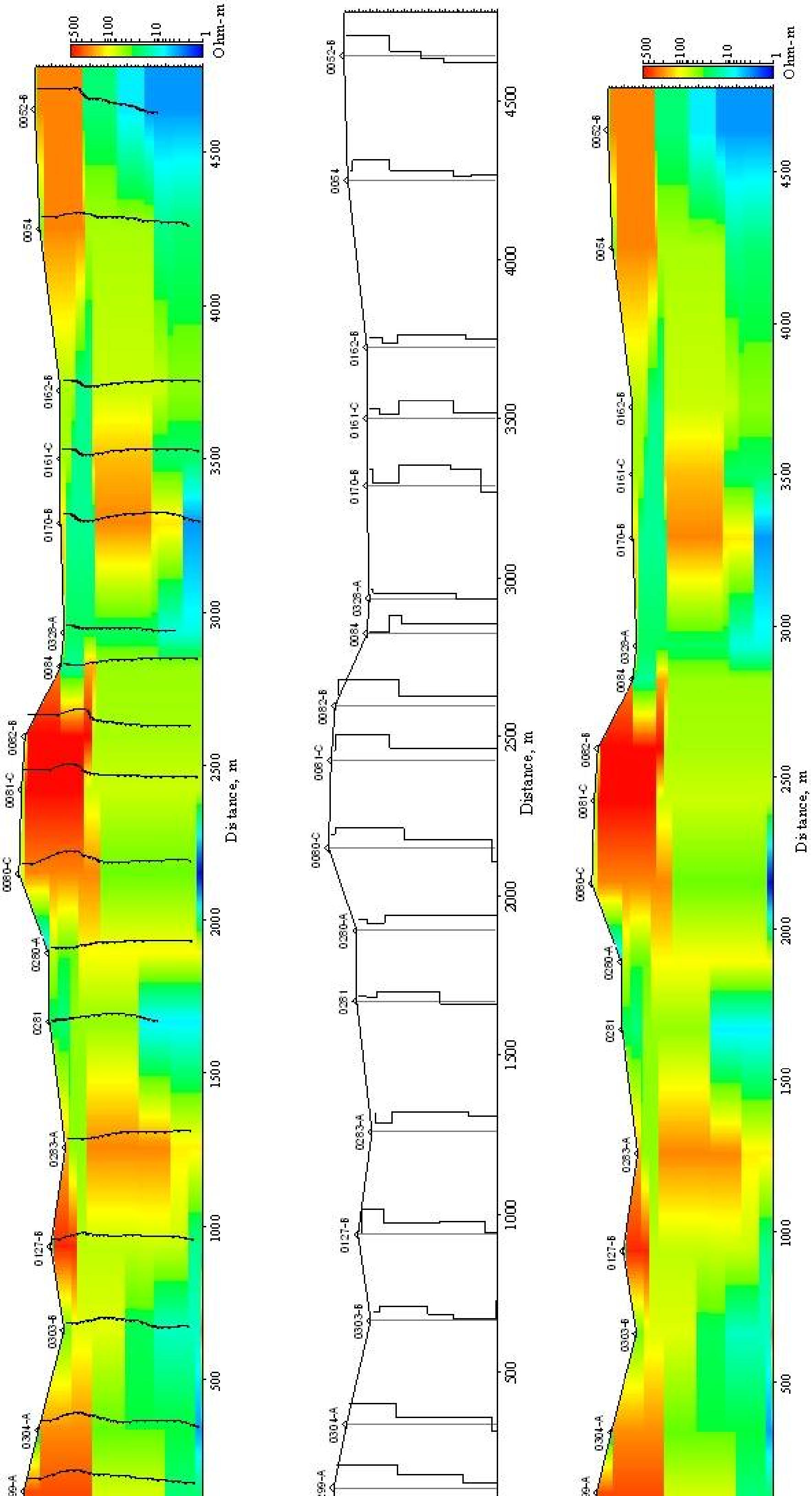
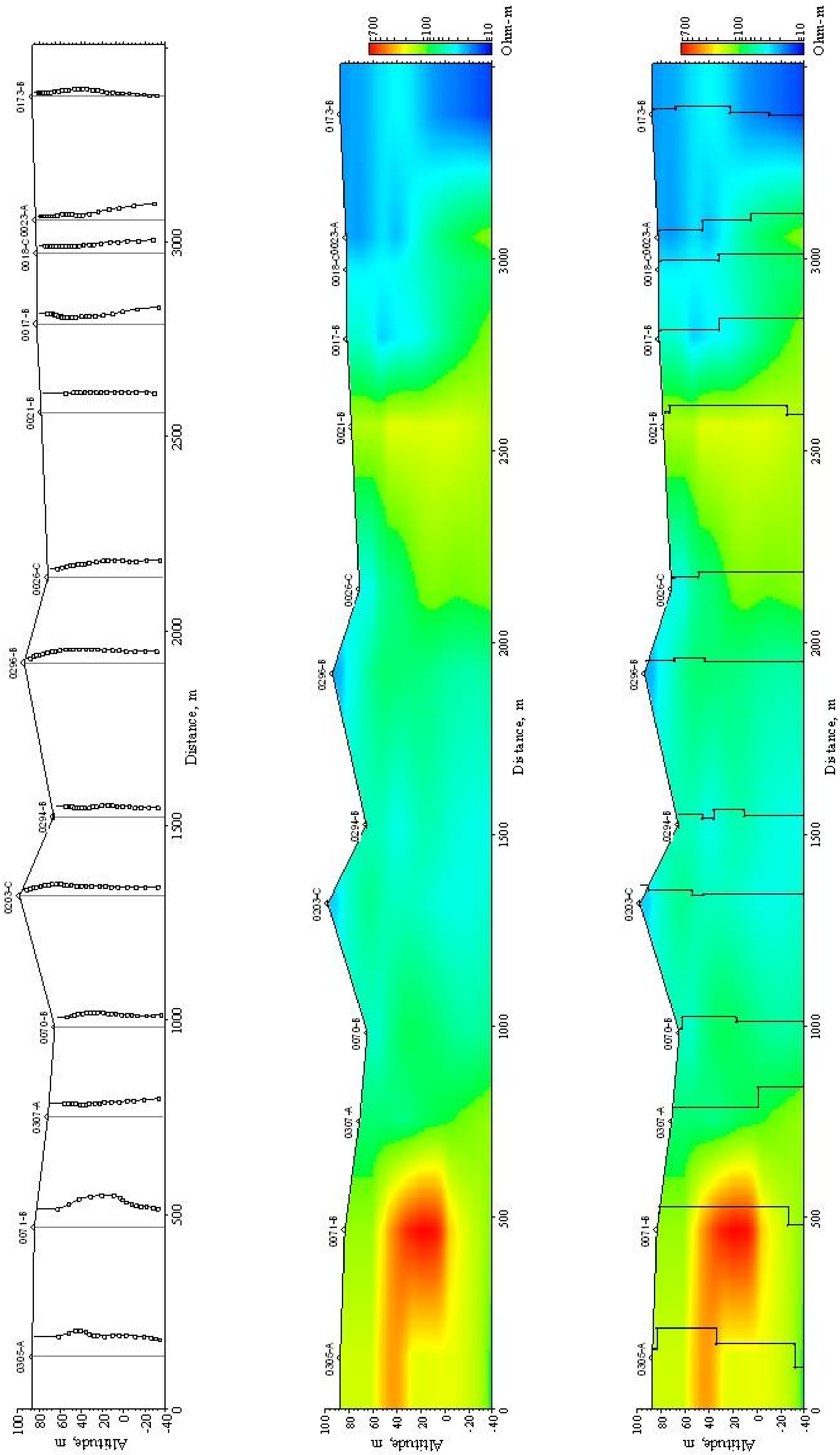


Fig. 4.35: 2D imaging of section CD: 1) transformation loggings, 2) transformation as tomography, 3) transformation as tomography with 1D inversion loggings, 4) 1D inversion as tomography and transformation loggings, 5) 1D inversion loggings, and 6) 1D inversion as tomography.



Altitude, m
Distance, m
Ohm-m
700
100
10
0305-A
0071-B
0307-A
0070-B
0203-C
0294-B
0296-B
0026-C
0021-B
0017-B
0018-C
0023-A
0173-B

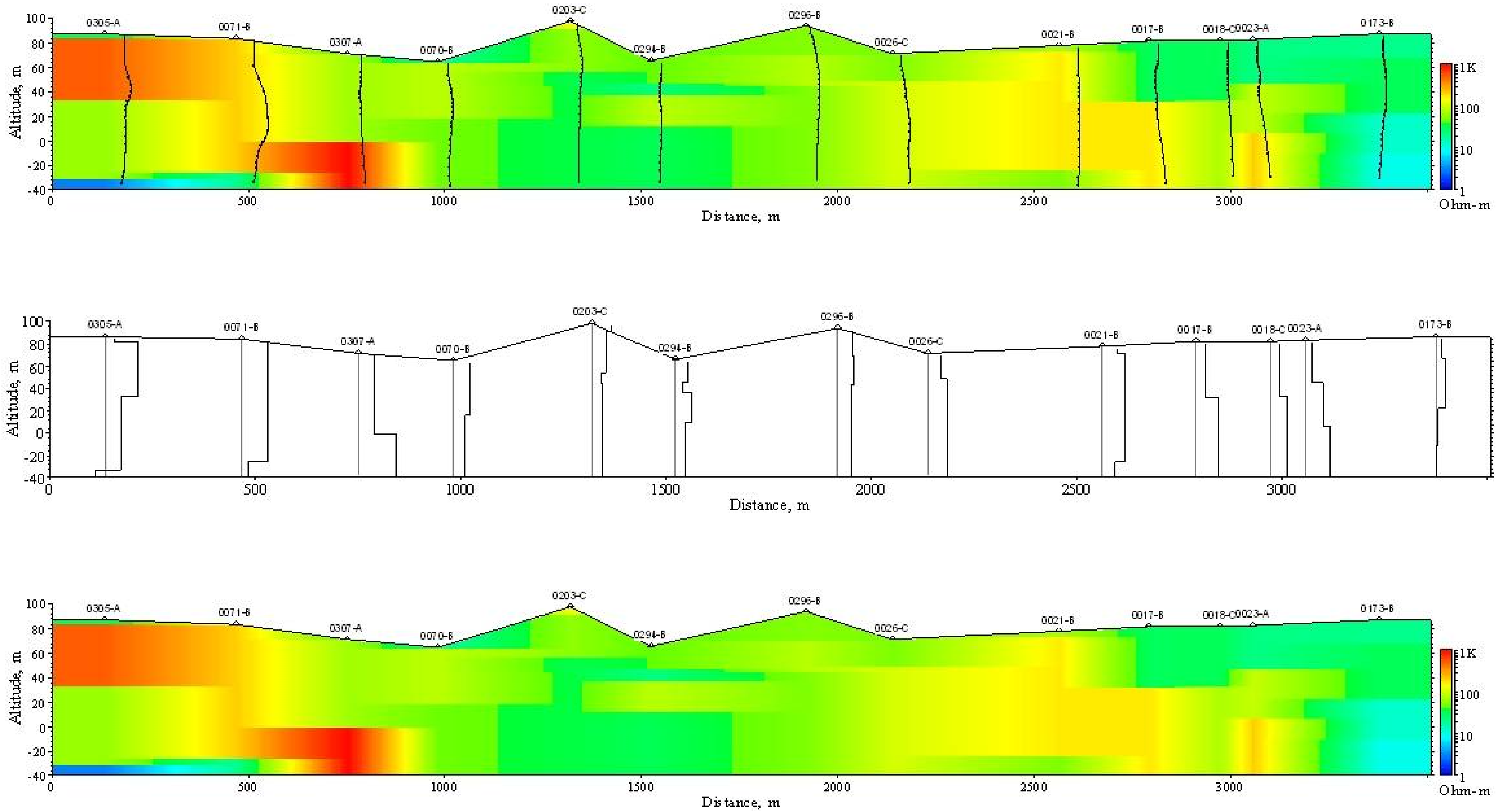
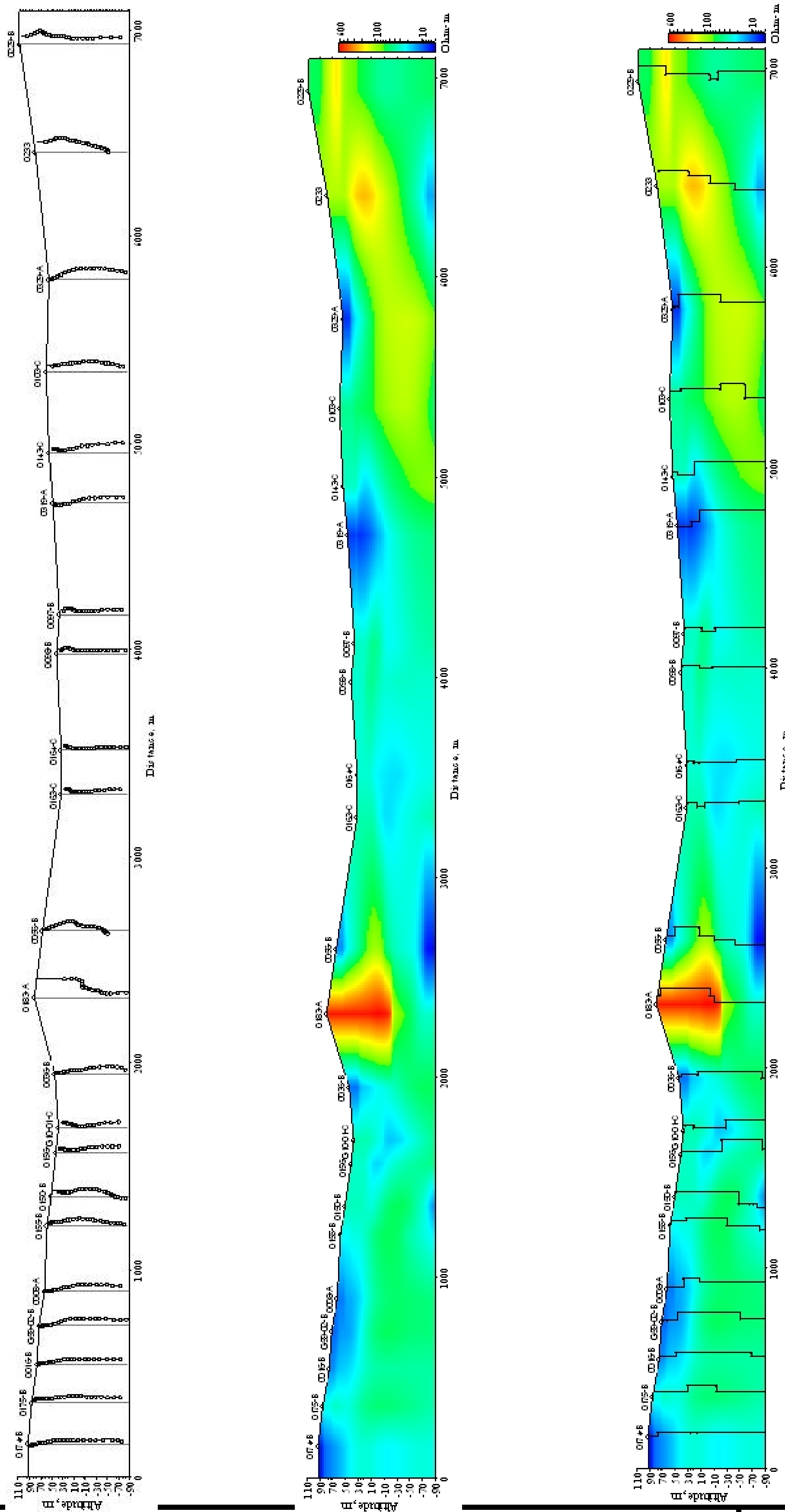


Fig. 4.36: 2D imaging of section EF: 1) transformation loggings, 2) transformation as tomography, 3) transformation as tomography with 1D inversion loggings, 4) 1D inversion as tomography and transformation loggings, 5) 1D inversion loggings, and 6) 1D inversion as tomography.


Distance, m
Altitude, m
Ohm·m

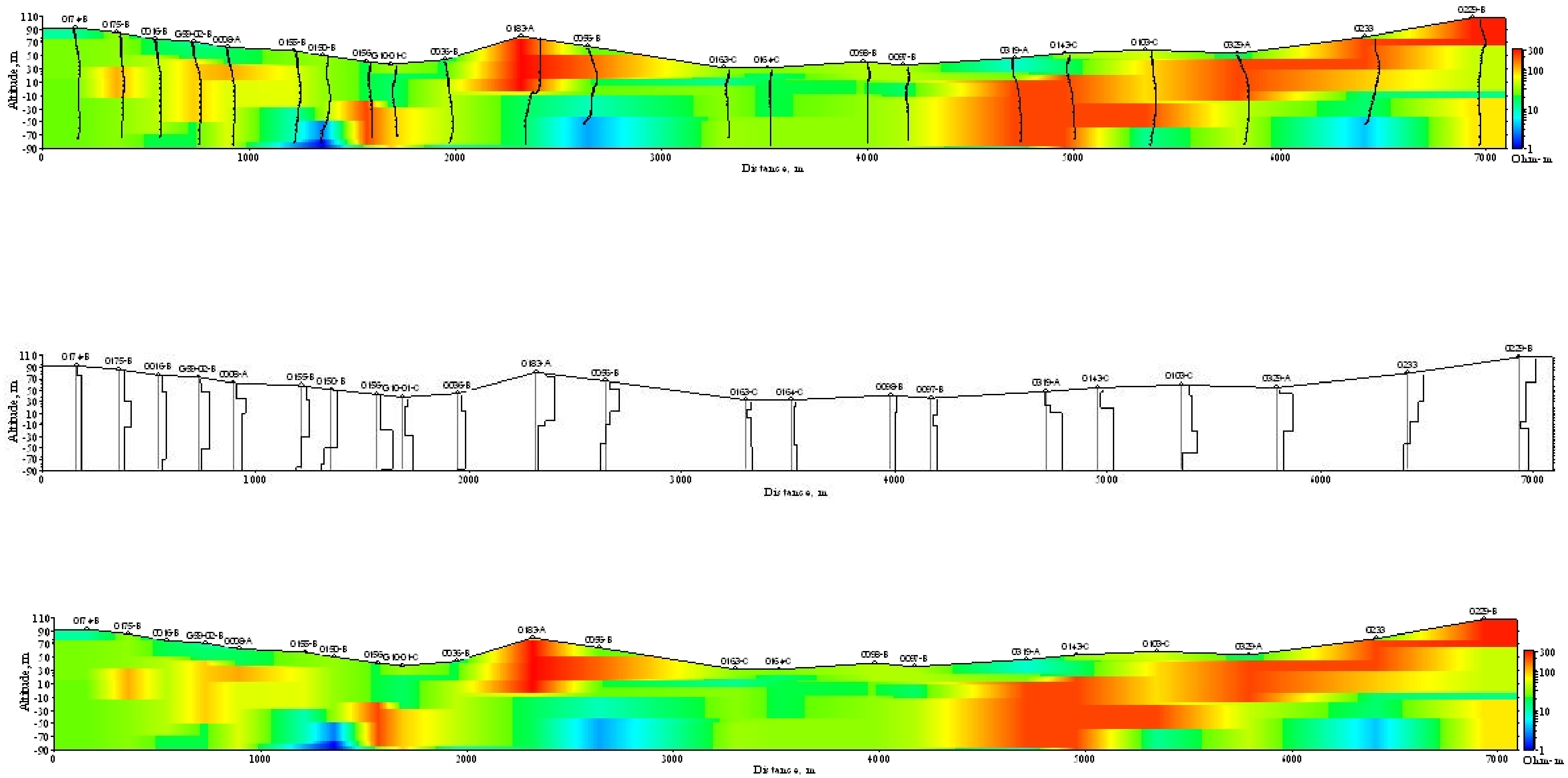
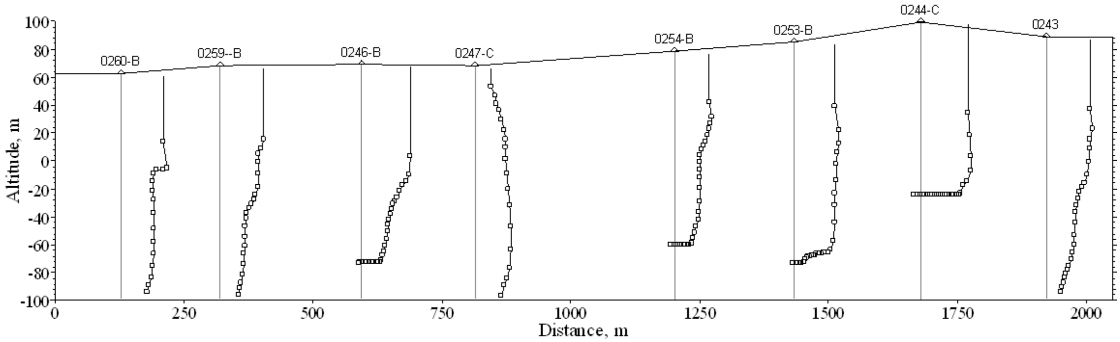
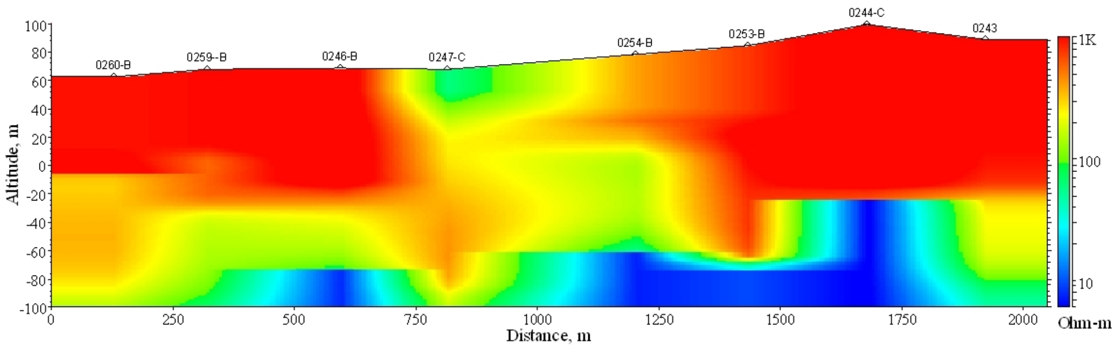
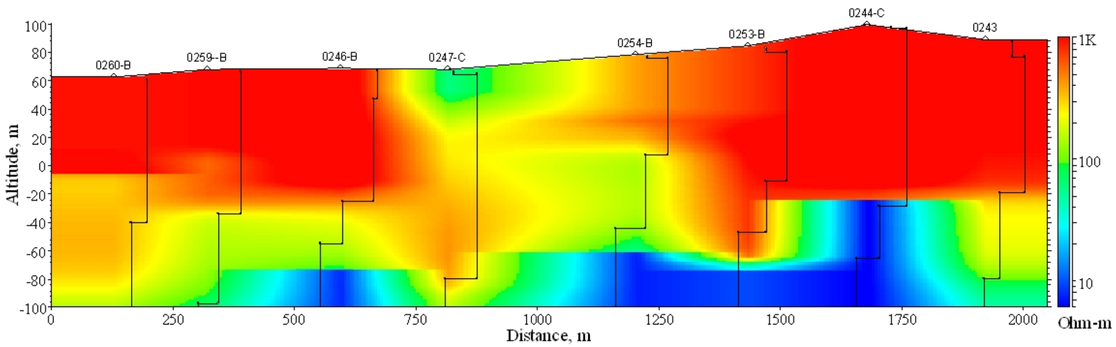
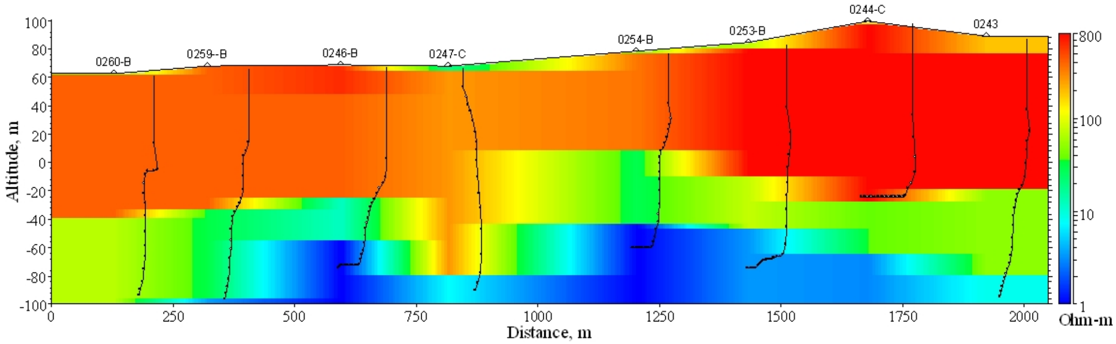


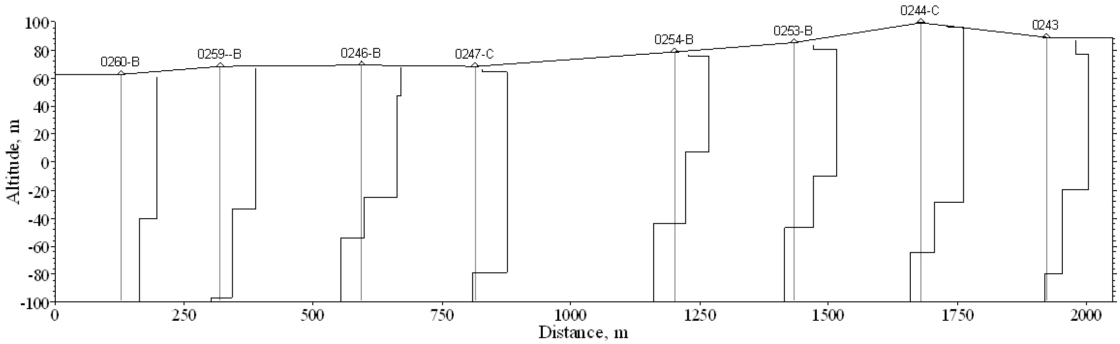
Fig. 4.37: 2D imaging of section FG: 1) transformation loggings, 2) transformation as tomography, 3) transformation as tomography with 1D inversion loggings, 4) 1D inversion as tomography and transformation loggings, 5) 1D inversion loggings, and 6) 1D inversion as tomography.


0260-B
0259--B
0246-B
0247-C
0254-B
0253-B
0244-C
0243
Altitude, m
Distance, m


0260-B
0259--B
0246-B
0247-C
0254-B
0253-B
0244-C
0243
1K
100
10
Ohm-m
Altitude, m
Distance, m


0260-B
0259--B
0246-B
0247-C
0254-B
0253-B
0244-C
0243
1K
100
10
Ohm-m
Altitude, m
Distance, m





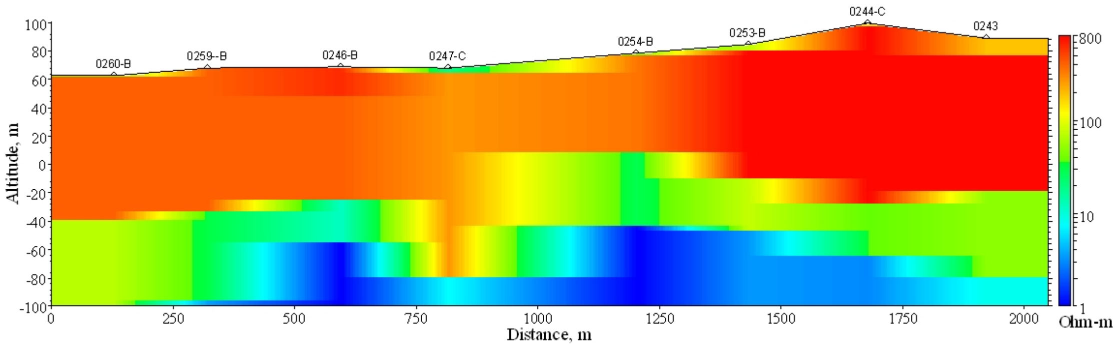


Fig. 4.38: 2D imaging of section HI: 1) transformation loggings, 2) transformation as tomography, 3) transformation as tomography with 1D inversion loggings, 4) 1D inversion as tomography and transformation loggings, 5) 1D inversion loggings, and 6) 1D inversion as tomography.

4.6.1.3.3 3D imaging of TEM data

The final 1D inverted models from all the available TEM data were finally merged to form slices differentiated with depth.

The roof and the bottom of each layer [for example see next: for layer A, roof = 0.0 m (surface) and bottom = 20.0 m (20 m deep from the ground surface)] are defined using the TEM-RES software. So, the selected layers are extracted, where each layer includes the information of the average resistivity (in Log ohm.m) of each point. For example, for layer A (0.0 - 20.0 m depth from the ground surface) for each of the 350 points an average resistivity value was extracted (for these 20 m only).

Then, all this information was inserted in a GIS environment for spatial distribution map construction (one map for each layer). Ordinary kriging interpolator was used for the construction of the spatial distribution maps of resistivity parameter as described in **section 3.4.1.5** of ***Chapter 3***. Therefore, in the first place, the data were checked (by the histogram and normal QQPlots in the ArcGIS Geostatistical Analyst) if they need any transformation in order to make them more normal distributed (for perfect normal distribution pattern skewness should be 0 and kurtosis 3). So, for the resistivity of layer A, which did not show normal distribution, a log transformation has been applied to make the distribution closer to normal (**Tables 4.5** & **4.6**).

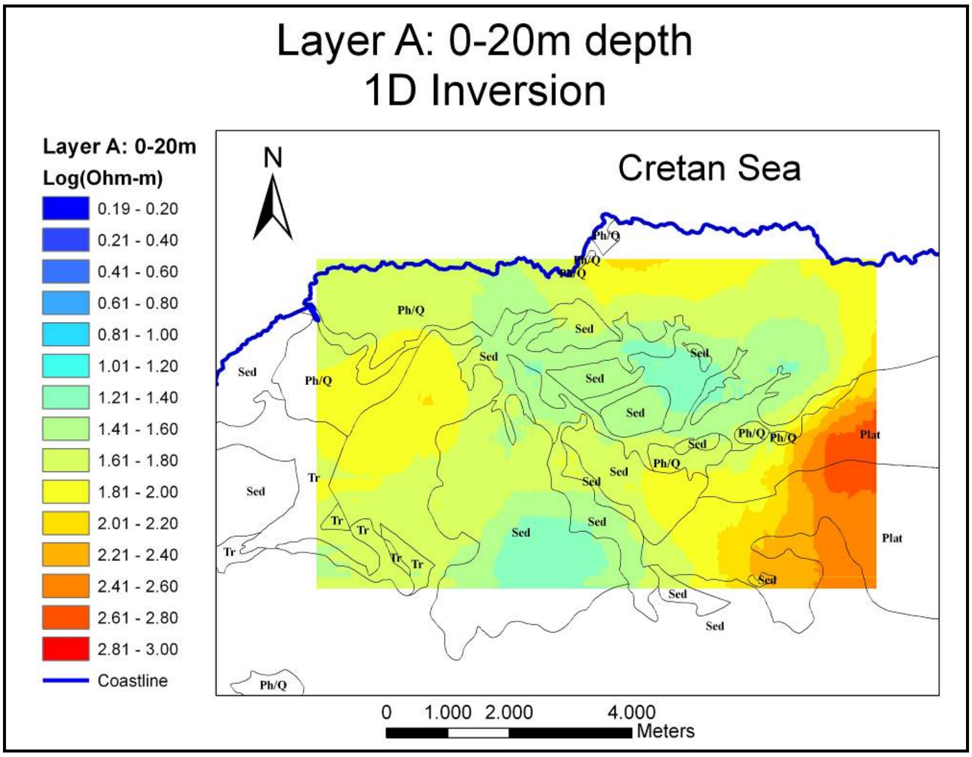
Table 4.5: Normal distribution check for Log ohm.m parameter (see text for explanation)

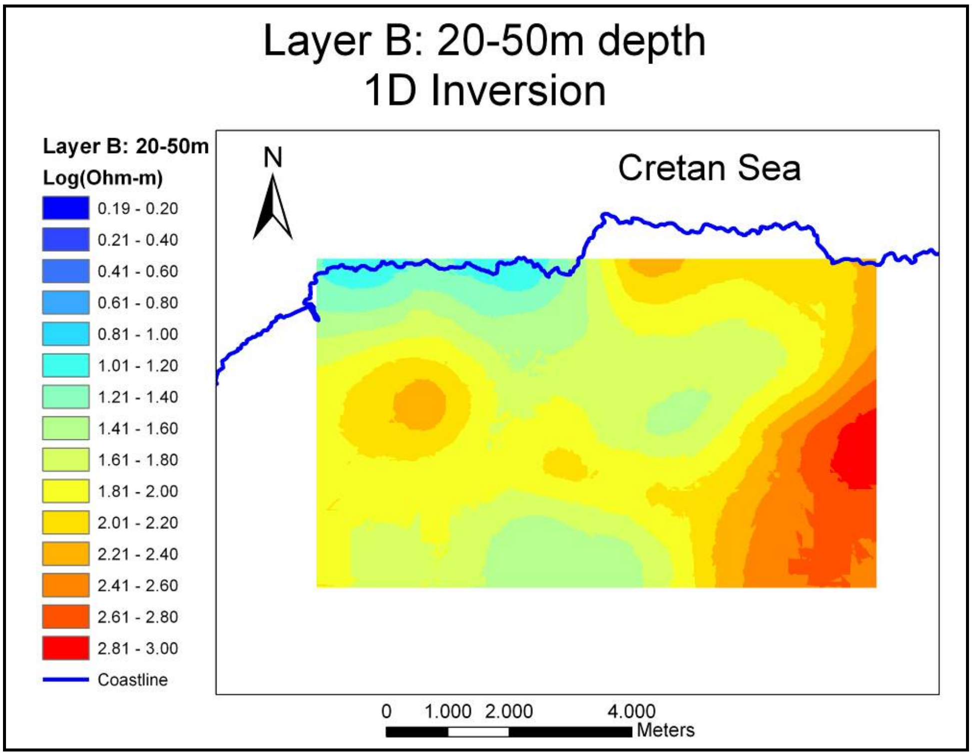
	Kurtosis	**Skewness**	**Transformation**
Layer A	4.4348	0.9581	Log
Layer B	4.6666	0.0032	None
Layer C	3.8425	-0.5057	None
Layer D	2.7532	0.0083	None

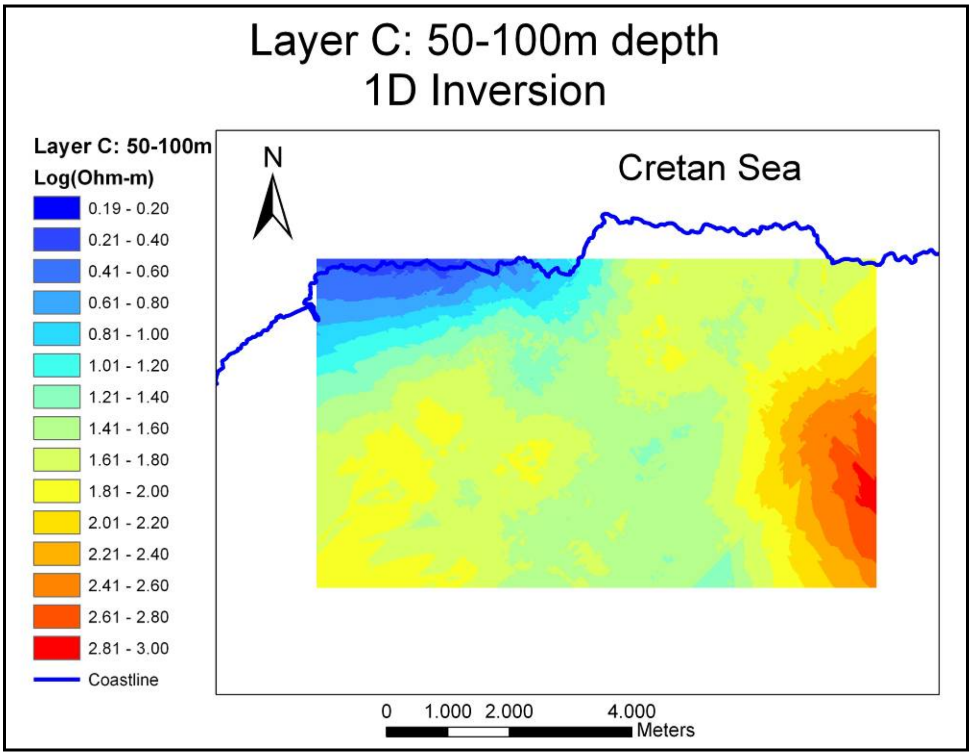
Table 4.6 shows the semivariogram models that were chosen for each layer. For each chosen model, the standardized mean (MS) error was close to 0, the root-mean-square (RMS) error and average standard (ASE) error were as small as possible, and the Root-Mean Square Standardized (RMSS) error was close to 1.

The positions of all the 350 soundings are not included in the final presented slices, in order to have clear images, but the density of the measurements (for coverage control) can be shown in previous **Figure 4.26**. The estimated model is represented as four different depth slices with depths: Layer A=0.0-20.0 m, Layer B=20.0-50.0 m, Layer C=50.0-100.0 m, and Layer D=100.0-200.0 m, respectively (**Figures 4.39a, 4.39b, 4.39c** & **4.39d)**. Only for the uppermost resistivity layer A the nappes layer is superimposed, depicting the surficial geology. Note that resistivity values (ohm.m) for 3D models construction were converted into Log (ohm.m) units.

Figures 4.41a, 4.41b, 4.41c & **4.41d** illustrate the interpolated maps of TEM resistivity values with heights obtained by DEM. All the layers together are shown in **Figure 4.40**.


Layer A: 0-20m depth
1D Inversion
Layer A: 0-20m
Log(Ohm-m)
0.19 - 0.20
0.21 - 0.40
0.41 - 0.60
0.61 - 0.80
0.81 - 1.00
1.01 - 1.20
1.21 - 1.40
1.41 - 1.60
1.61 - 1.80
1.81 - 2.00
2.01 - 2.20
2.21 - 2.40
2.41 - 2.60
2.61 - 2.80
2.81 - 3.00
Coastline
N
Cretan Sea
Ph/Q
Sed
Tr
Plat
0
1.000
2.000
4.000
Meters


Layer B: 20-50m depth
1D Inversion
Layer B: 20-50m
Log(Ohm-m)
0.19 - 0.20
0.21 - 0.40
0.41 - 0.60
0.61 - 0.80
0.81 - 1.00
1.01 - 1.20
1.21 - 1.40
1.41 - 1.60
1.61 - 1.80
1.81 - 2.00
2.01 - 2.20
2.21 - 2.40
2.41 - 2.60
2.61 - 2.80
2.81 - 3.00
Coastline
N
Cretan Sea
0
1.000
2.000
4.000
Meters



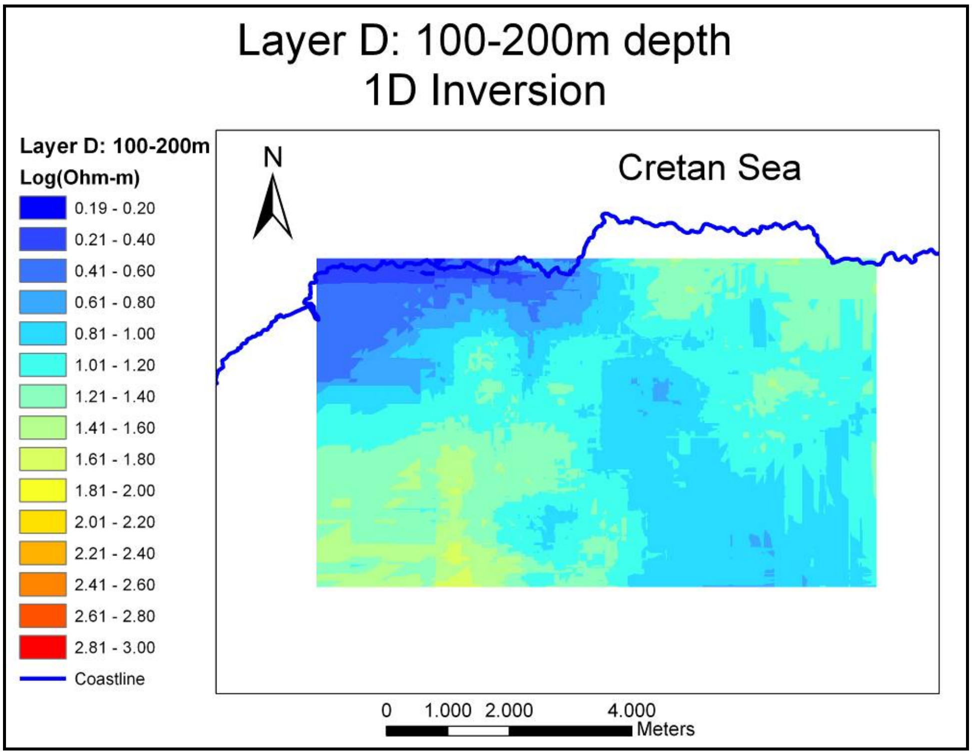


Fig. 4.39a, 4.39b, 4.39c & **4.39d:** 3D imaging of Resistivity data (spatial distribution map of 1D inversion results). Geoelectrical interpretation of intervals to a depth of 200 m is presented. Hot (red) colours represent high resistivity formations and the cold (blue) colours depict the low resistivity. a) Only for slice A the nappes layer is superimposed, depicting the surficial geology.

	Trans	Models	Neighbourhood				Prediction Errors				
			Neighbourhoods to include	**Include at least**	**Shape Type**	**No of Sectors**	**Mean**	Root-Mean Square (**RMS**)	Average Standard Error (**ASE**)	Mean Standardized (**MS**)	Root-Mean-Square Standardized (**RMSS**)
Layer A	Log	Rational Quadratic	5	2	Neighbours in the centre of Ellipse	4	0.0007	0.2661	0.3131	0.0096	0.8565
Layer B	None	Rational Quadratic	5	2	Neighbours in the centre of Ellipse	8	0.0038	0.3648	0.3131	0.0141	1.0050
Layer C	None	J-Bessel	5	2	Neighbours in the centre of Ellipse	4	0.0026	0.4501	0.4491	0.0067	1.0020
Layer D	None	Gaussian	5	2	Neighbours in the centre of Ellipse	4	-0.0082	0.5350	0.5263	-0.0157	1.0170

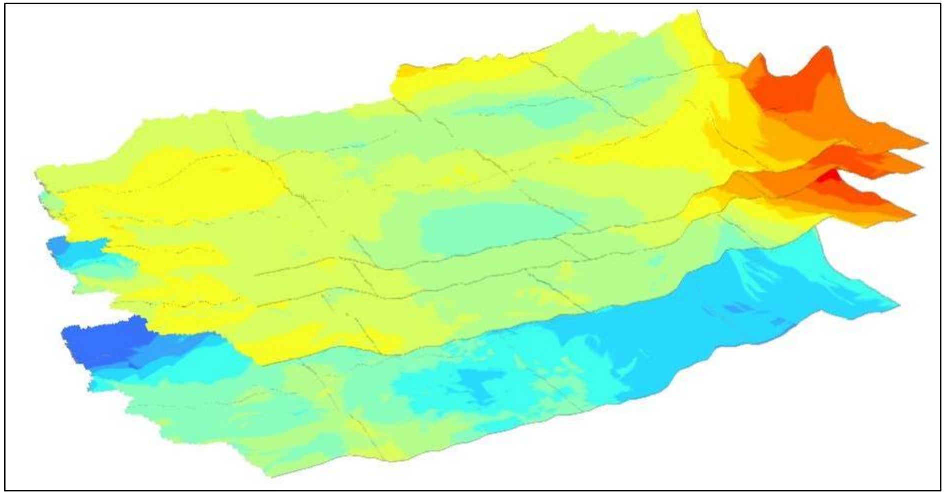
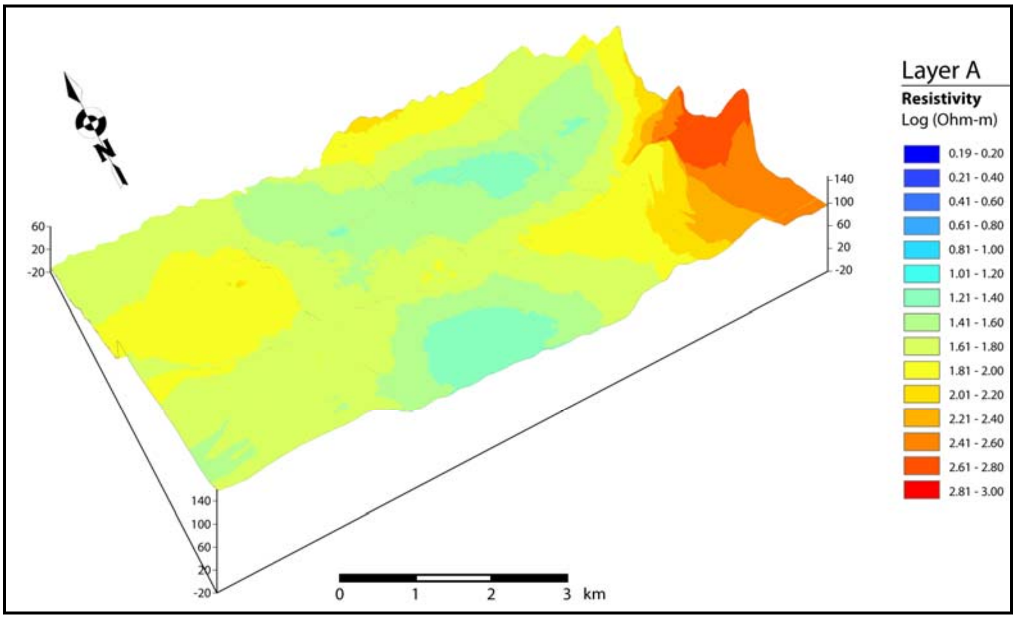
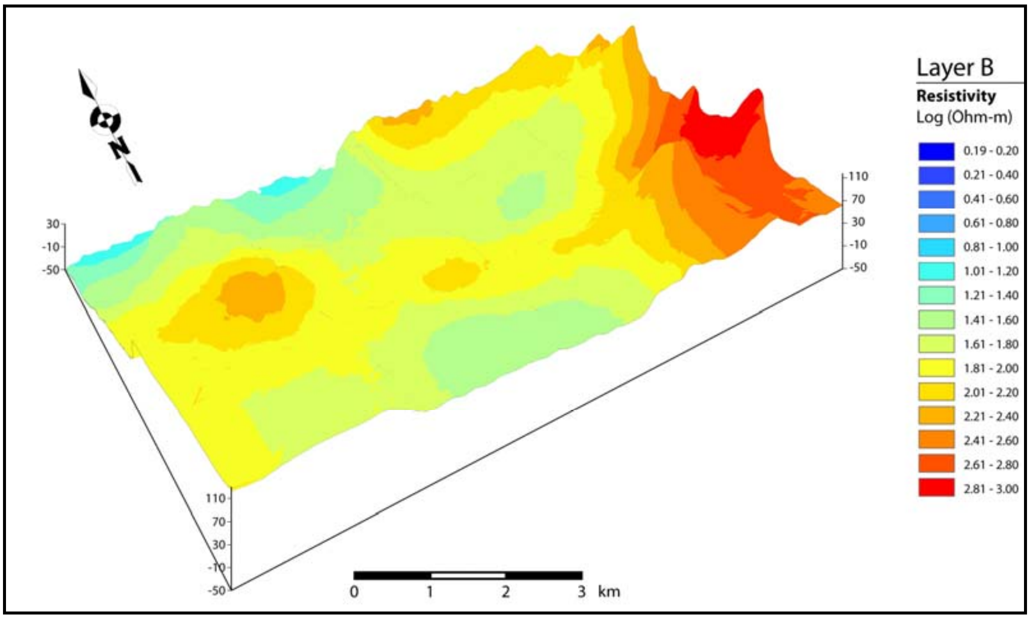


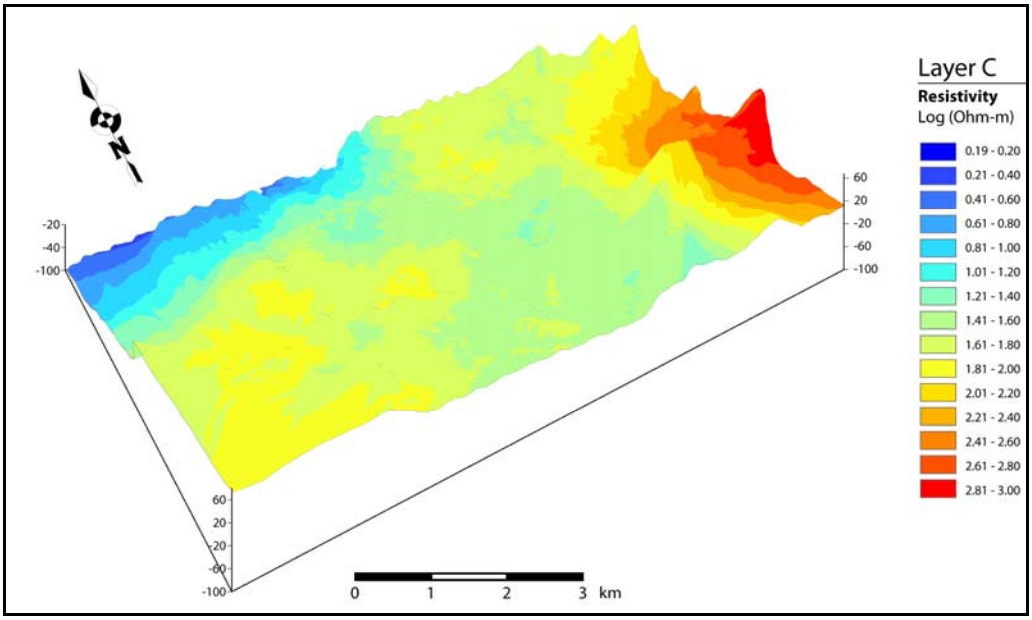
Fig. 40: The four extracted slices A, B, C and D (interpolated maps of TEM resistivity values in different depths) as a 3D imaging



Layer A
Resistivity
Log (Ohm-m)
0.19 - 0.20
0.21 - 0.40
0.41 - 0.60
0.61 - 0.80
0.81 - 1.00
1.01 - 1.20
1.21 - 1.40
1.41 - 1.60
1.61 - 1.80
1.81 - 2.00
2.01 - 2.20
2.21 - 2.40
2.41 - 2.60
2.61 - 2.80
2.81 - 3.00
N
140
100
60
20
-20
0 1 2 3 km



Layer B
Resistivity
Log (Ohm-m)
0.19 - 0.20
0.21 - 0.40
0.41 - 0.60
0.61 - 0.80
0.81 - 1.00
1.01 - 1.20
1.21 - 1.40
1.41 - 1.60
1.61 - 1.80
1.81 - 2.00
2.01 - 2.20
2.21 - 2.40
2.41 - 2.60
2.61 - 2.80
2.81 - 3.00
N
110
70
30
-10
-50
0 1 2 3 km



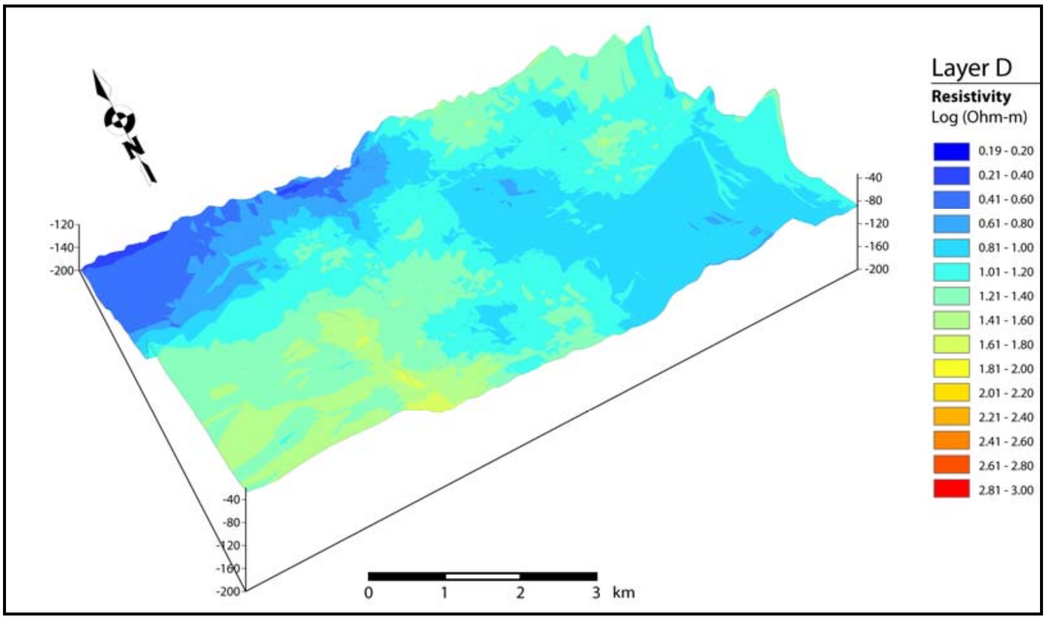


Fig. 4.41a, 4.41b, 4.41c & **4.41d:** The four resistivity layers (Layer A: 0 - 20 m, Layer B: 20 - 50 m, Layer C: 50 - 100 m, Layer D: 100 - 200 m) that described previously with heights obtained by DEM showing the relief of the study area

4.6.2 DC resistivity method - VES technique

In addition to TEM, the VES technique was also used. A limited number of soundings took place in the study area testing different geological conditions. This section describes the fieldwork DC measurements and presents the results of the resistivity research.

4.6.2.1 DC measurements in Geropotamos study area

Three VES soundings were acquired in three different sites (different geological formations): the first sounding VES-00 on dolomitic limestones (Plattenkalk series), the second VES-01 on Neogene sediments, and the last VES-02 near the boundary between phyllite/quartzite nappe and Neogene sediments. For the two of them (VES-01 and VES-02), multidirectional measurements were also acquired since the structure is more complex than a 1D model that VES technique is able to model (Kalisperi et al, 2008). Moreover, for VES-01 and VES-02 two short TEM profiles (A and B) were acquired, crossing through the centres of VES-01 ans VES-02 soundings respectively, just for direct comparison between the two methods. For these particular TEM soundings (comprising the A and B profiles) 25x25 m loop was used, for better resolution of the shallow depth.

4.6.2.2 Processing, Analysis & 1D Modelling

IPI2Win v.2.1 software by Geoscan-M Ltd was the tool for data processing of VES data. It is designed for processing vertical electrical sounding and/or induced polarization data curves 1D interpretation.

VES-00

The first VES sounding, VES-00, took place on the dolomitic limestones at the eastern part of the study area (**Fig. 4.42**) at Maniaki site. As described in **section 4.6.1.2** of this chapter, SPM effect influenced TEM method to have reliable results, so only resistivity data are finally available from this site. Concerning VES, only NS measurements were acquired for this location, because there was not enough space in the other direction (WE).

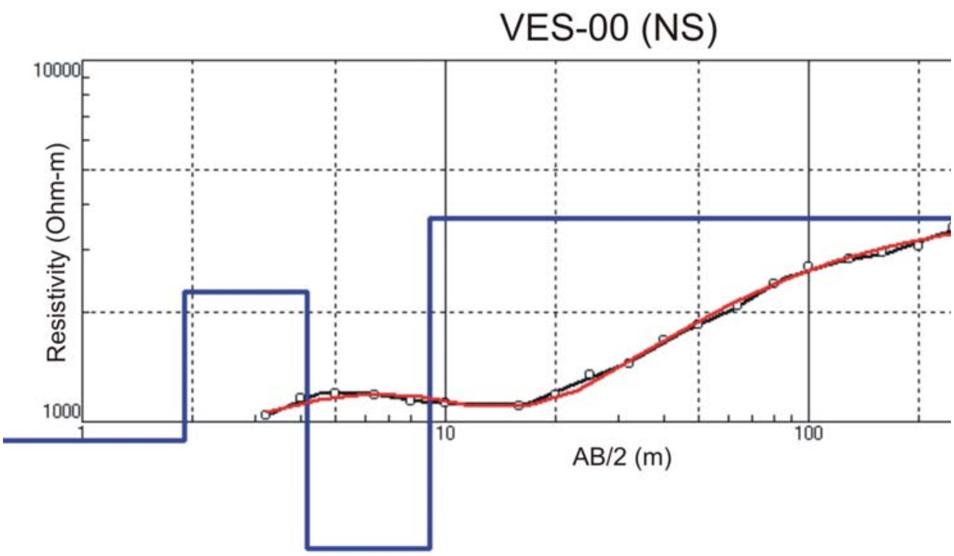
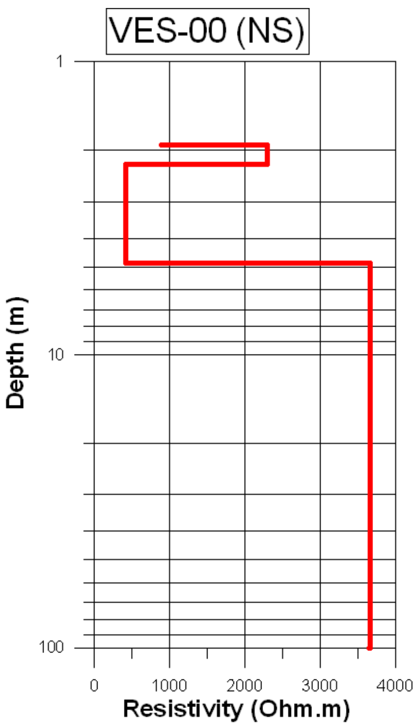


Fig. 4.42a: Curve of apparent resistivity of VES-00 (NS) and 1D inversion model after processing and modelling by IPI2Win software



Depth (m)	Resistivity (ohm.m)
1.92	890
2.24	2293
4.87	416
	3658

Fig. 4.42b: 1D inversion model of VES-00 (NS)

VES-01

The second VES sounding, VES-01, was carried out at the southern part of the study area on Neogene sediments, which consisted mainly of Neogene limestones. Multidirectional measurements acquired in both directions (NS and WE). The resistivity curves and resulted 1D models for the same location, but using different directions are shown in **Figures 4.43** & **4.44.** The 1D resistivity models were almost identical.

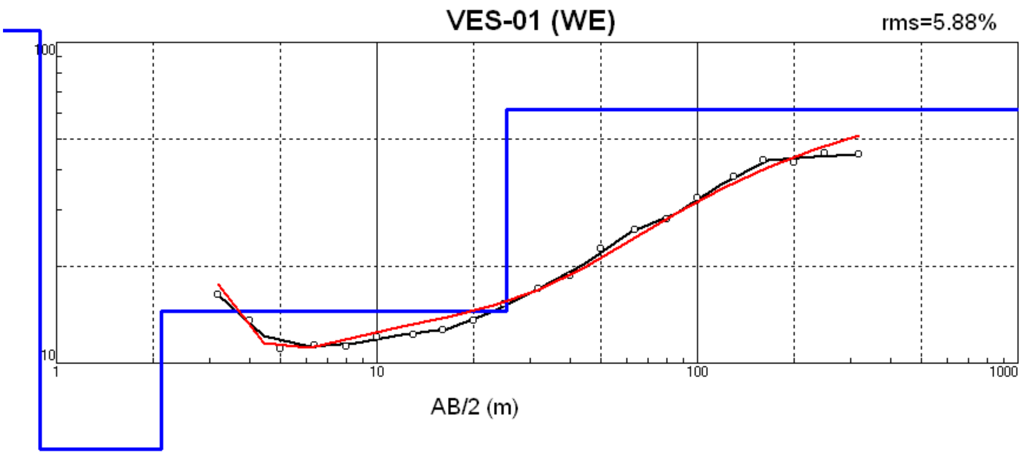
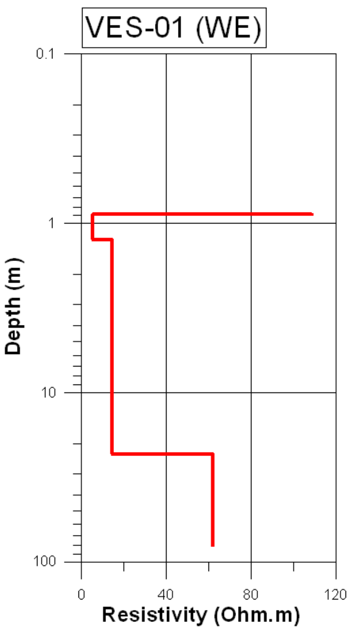


Fig. 4.43a: Curve of apparent resistivity 1D inversion model (WE) after processing and modelling by IPI2Win software



Depth (m)	*Resistivity (ohm.m)*
0.887	109
1.25	5.39
23.1	14.5
	62

Fig. 4.43b: 1D inversion model of VES-01 (WE)

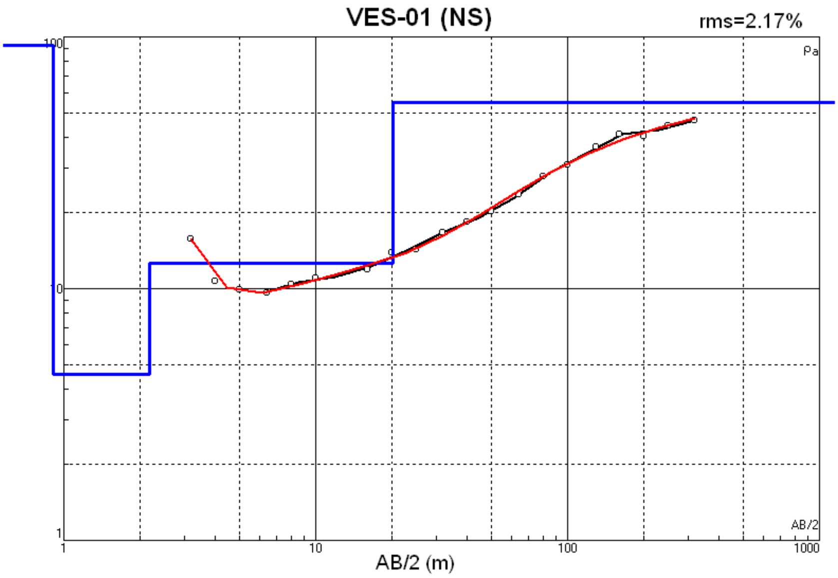
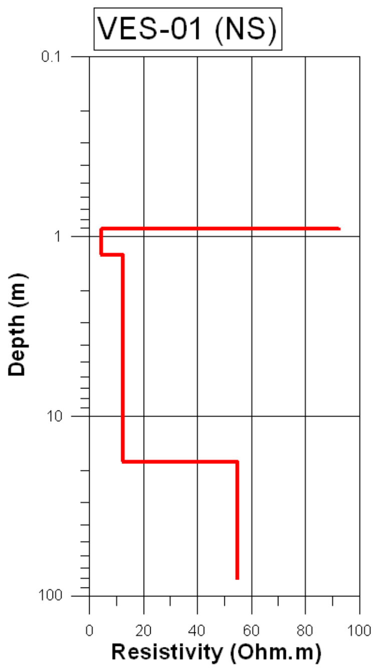


Fig. 4.44a: Curve of apparent resistivity and 1D inversion model (NS) after processing and modelling by IPI2Win software



Depth (m)	*Resistivity (ohm.m)*
0.909	92.4
1.27	4.57
18	12.6
	54.8

Fig. 4.44b: 1D inversion model of VES-01 (NS)

- **VES-01 with TEM profile A**

TEM profile A had WE direction and crossed the VES-01 sounding about in the middle (red arrow in **Figs. 4.45a** & **4.45b**). It was 500m long and consisted of 10 TEM soundings (approximately 50m distance to each other) (**Figs. 4.45a** & **4.45b**).

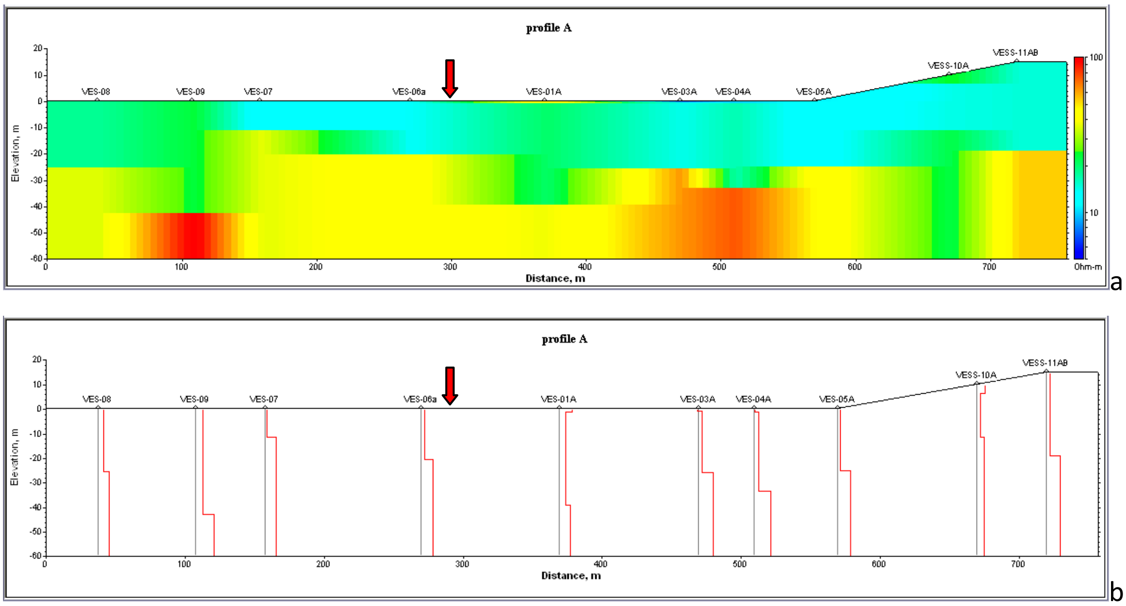


Fig. 4.45: TEM Profile A: TEM resistivity tomography with 2x exaggeration (distance to elevation ratio). Red arrow indicates the exact position of VES-01.

VES-02

The last of the three VES soundings, VES-02, took place in the central part of the area, near the contact between phyllite/quartzite unit and Neogene sediments. Multidirectional measurements acquired in both directions (NS and WE). This sharp change in the experimental curve of VES-02 (EW), as it is shown in **Figure 4.47a**, is usually correlated with tectonic features (faults or tectonic geological contacts).

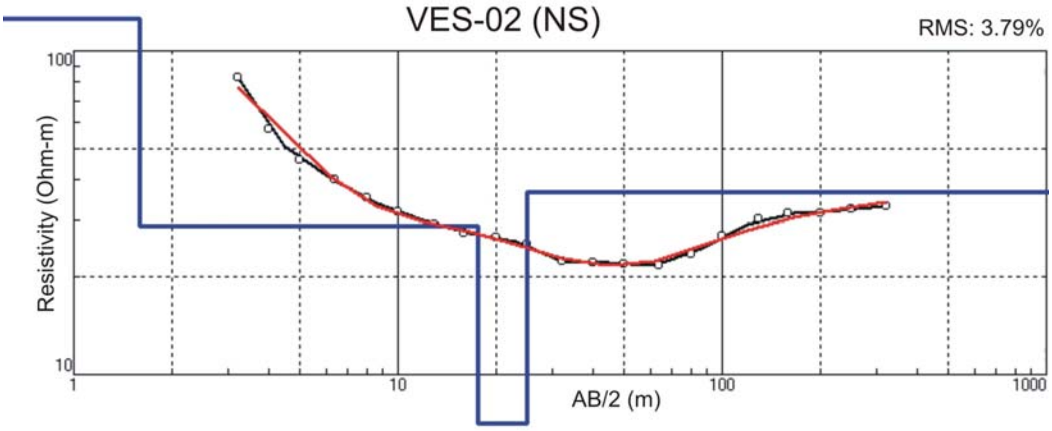
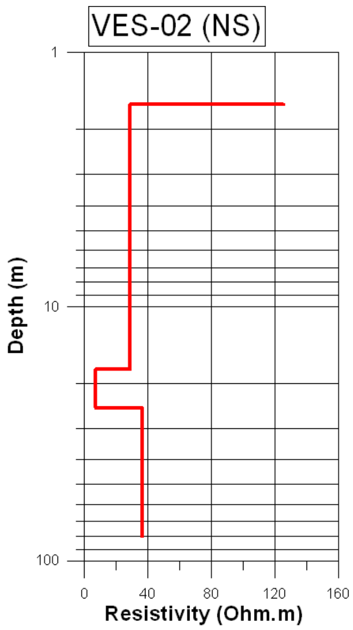


Fig. 4.46a: Curve of apparent resistivity and 1D inversion (NS) after processing and modelling by IPI2Win software



Depth (m)	*Resistivity (ohm.m)*
1.6	126
17.6	28.9
25.1	7.08
	36.6

Fig. 4.46b: 1D inversion model of VES-02 (NS)

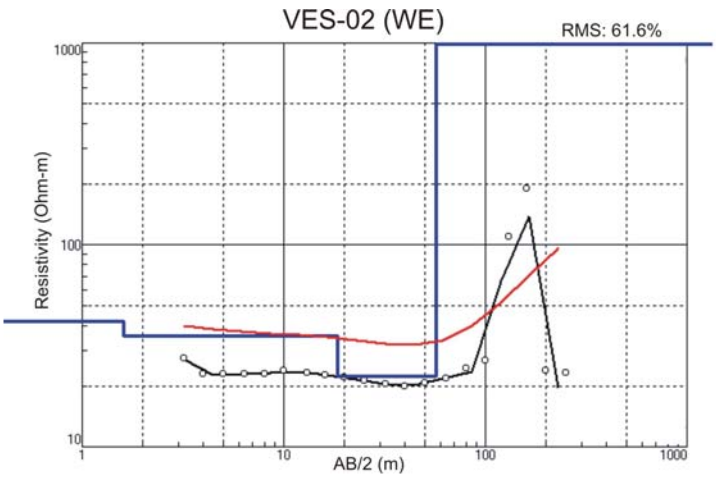


Fig. 4.47: Curves of apparent resistivity and 1D inversion model (WE). The sharp change in the experimental curve of VES-02 (EW), as it is shown, is usually correlated with tectonic features (faults or tectonic geological contacts)

- **VES-02 with TEM profile B**

TEM profile B had WE direction too, and crossed VES-02 sounding about in the middle, like profile A did to VES-01 (red arrow in **Figs. 4.48a** & **4.48b**). It was 700m long, i.e. longer than profile A, and consisted of 14 TEM soundings (approximately 50m distance to each other) (**Figs. 4.48a** & **4.48b).**

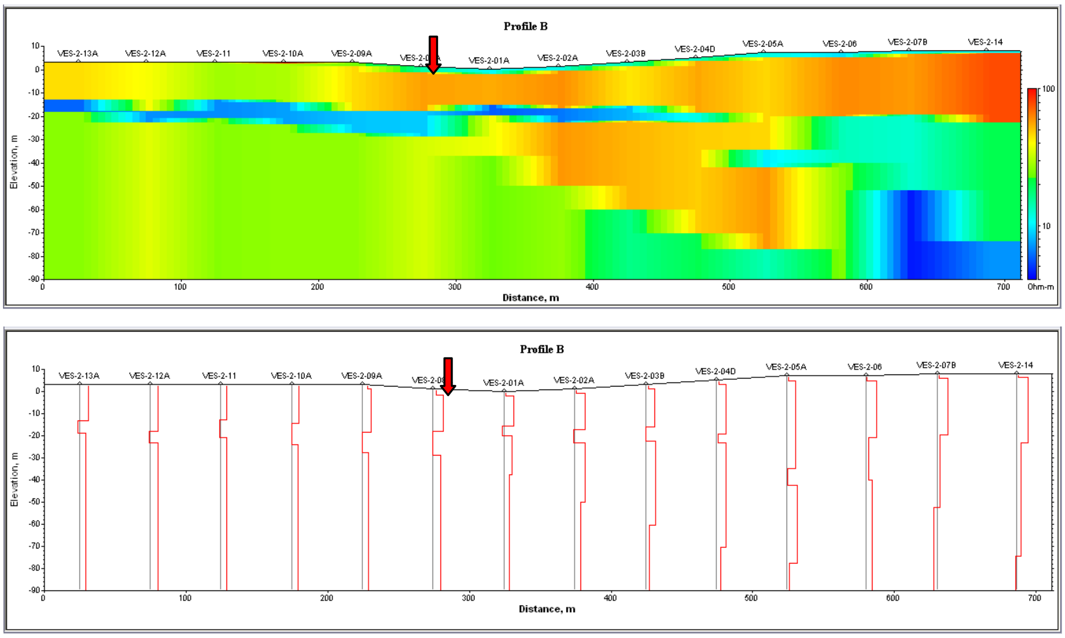


Fig. 4.48: TEM Profile B: TEM resistivity tomography with 1.7x exaggeration (distance to elevation ratio). Red arrow indicates the exact position of VES-02.

4.7 Geochemical Analyses

Along with the geophysical data (TEM and VES soundings), groundwater chemistry data were obtained in this study in order to check the quality of the waters and to test the hypotheses of evaporite domes or seawater intrusion in the area (**section 2.4**, ***Chapter 2***). Three water samplings took place during 2008: a) first days of June, b) end of July, and c) first day of October, that is to say approximately every 2 months. Especially, the summer period was chosen for sampling as it is the dry period and high pumping rates for water supply take place (irrigation season). May is actually the month when generally the rainfalls stop in Crete, and October is the beginning of the wet period. So, in the case of the seawater intrusion problem in Geropotamos study area, of the worst groundwater quality would be expected to be found in the October samples.

As already described in ***Chapter 3***, 16 chemical parameters were measured in the frame of this thesis (**Table 3.4** of **section 3.3**). The first water sampling (June 2008) was a pilot study of 10 samples. More comprehensive analysis was undertaken of 24 locations in July and October 2008 (**Table 4.7**). Alkalinity, nitrate, Boron and phosphate measured only once for October's sampling.

Fig. 4.49: a) & **b)** During October's water sampling, G-55 sample location, and G-09 sample location respectively.

Municipality of Geropotamos offered both financial and human support for the water sampling and chemical analyses of the study area's groundwaters. In the three water samplings, Mr. Stefanakis Manolis and Mr. Moschonas Dimitris, employers at Municipality of

Geropotamos, were participated, while the chemical analyses were financially supported by the same source.

All the chemical analyses took place in Laboratory of Environmental Chemistry and Biochemical Processes of TEI of Crete (Branch of Chania) in collaboration with Dr. Nikolaos Lydakis.

4.7.1 Results of Chemical Analyses

The chemical parameters measured may potentially originate either from natural sources or from anthropogenic activity. For example, Ca^{2+} and Mg^{2+} may originate mainly from the weathering of several mineral deposits like limestone or dolomites etc; SO_4^{2-} can come from dissolution of gypsum and other mineral deposits containing this ion; Na^{+} and Cl^{-} can originate from evaporites (i.e. halites) or groundwaters which have been affected by seawater intrusion or by agricultural or irrigation discharges; NO_3^{-} and PO_4^{3-} may come from the extensive use of fertilizers. Boron was also measured as a quality parameter of water. Its origin can be correlated mainly with anthropogenic activities. As will be shown, the concentrations of K^{+} and $Fe^{2+\ 3+}$ were generally small in our samples and may originate from several rock formations in the area. Alkalinity values are correlated with the bicarbonate (HCO_3^{-}) content of the waters. The rest of the measured parameters (total hardness, electrical conductivity, total dissolved solids, and salinity) have values which are strongly related with the values of the abovementioned parameters, whereas pH and temperature were also measured.

In this section, all the geochemical results are presented separately. For each parameter there is a column graph with all the results and two tables of statistical analysis, (using OriginPro 7.5 software). The first table has the statistical analysis of each parameter for all the samplings (June, July, October 2008), while the second table has the statistical analysis for the same 10 samples of each parameter for all the samplings (June, July, October 2008), for direct comparison. In addition, for each parameter of July's and October's samplings a spatial distribution map has been created.

Table 4.7: Chemical parameters that were measured in Geropotamos study area for all the samplings. June's sampling was a pilot sampling and samples were collected only from 10 of 24 sample points: G-01, G-05, G-06, G-09, G-50, G-53, G-80, G-81, Sweet Spr., and Salty Spr.

	Physical & Aggregate Properties					**Metals**					**Inorganic Nonmetallic Constituents**					
	Alkalinity	Hardness	Electrical Conductivity	Salinity	Temperature	Ca	Mg	K	Na	Fe	B	Cl^-	pH value	NO_3^-	SO_4^{2-}	PO_4^{3-}
04/06/2008		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	
28/07/2008		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	
01/10/2008	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

4.7.1.1 Spatial Interpolation of geochemical parameters

For spatial interpolation maps of the geochemical data, the same steps that were followed for 3D resistivity maps construction (**section 4.6.1.3.3** of this chapter), were followed again, as already described in section **3.4.1.5** of ***Chapter 3***. Therefore, initially the data were checked (by the histogram and normal QQPlots in the ArcGIS Geostatistical Analyst) to see if they need any transformation in order to make them more normally distributed (for perfect normal distribution pattern skewness should be 0 and kurtosis 3). So, for those parameters which did not show normal distribution, a Log transformation has been applied to make the distribution closer to normal (**Tables 4.8** & **4.9**).

This type of map was produced for July's and October's samplings (24 sample locations), but not for June's data, as only 10 sample locations were available. Ten samples is a very low number for spatial distribution map construction and the results may not give a fully representative indication of the geochemical patterns.

Table 4.8: Normal distribution check for July's Sampling

Parameters	Kurtosis	Skewness	Transf
Total Hardness	2.6299	-0.076156	None
Conductivity	5.6143	1.7729	Log
TDS	5.6143	1.7729	Log
Salinity	5.852	1.8414	Log
Temperature	3.8007	0.10974	Log
Ca	2.7775	0.61909	None
Mg	3.419	1.0233	Log
K	7.8473	2.4141	Log
Na	5.7435	1.8419	Log
Cl-	6.0602	1.9098	Log
pH-value	2.4309	0.47287	None
SO4	6.5924	2.1263	Log

Table 4.9: Normal distribution check for October's sampling

Parameters	Kurtosis	Skewness	Transf
Alkalinity	2.721	0.16802	None
Total Hardness	5.1693	1.2916	Log
Conductivity	6.1829	1.7823	Log
TDS	6.1829	1.7823	Log
Salinity	6.5541	1.8711	Log
Temperature	3.746	0.4074	Log
Ca	3.1731	0.8026	Log
Mg	2.6117	0.62697	None
K	9.9119	2.6254	Log
Na	6.9023	1.9591	Log
Cl-	6.6064	1.8983	Log
pH-value	2.222	0.42177	None
NO3	8.0327	2.2092	Log
SO4	5.5126	1.7189	Log

Tables 4.10 & **4.11:** show the semivariogram models that were chosen for each parameter data set (July and October). That chosen model the standardized mean (MS) error was close to 0, the root-mean-square (RMS) error and average standard (ASE) error were as small as possible, and the Root-Mean Square Standardized (RMSS) error was close to 1.

Table 4.10 Fitted parameters of the theoretical variogram model for groundwater quality parameters (July's sampling)

Parameters	Trans	Models	Neighbourhood				Prediction Errors				
			Neighbourhoods to include	Include at least	Shape Type	No of Sectors	Mean	Root-Mean Square (RMS)	Average Standard Error (ASE)	Mean Standardized (MS)	Root-Mean-Square Standardized (RMSS)
Total Hardness	None	Rational Quadratic	5	2	One Sector	1	15.11	126.6	127.2	0.1103	1.005
Conductivity	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	-20.45	151.5	1480	-0.04312	1.02
TDS	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	-13.48	984.2	961.2	-0.04323	1.02
Salinity	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	-0.01186	0.7447	0.7439	-0.04684	1.004
Temperature	Log	Exponential	5	2	One Sector	1	-0.05101	0.7776	0.6214	-0.04638	1.003
Ca	None	J-Bessel	5	2	One Sector	1	0.64	24.38	24.38	0.02987	1.003
Mg	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	0.3196	28.97	32.65	-0.04515	1.017
K	Log	Rational Quadratic	5	2	Neighbours in the centre of Ellipse	8	0.01004	8.33	10.9	-0.03795	0.8496
Na	Log	Pentaspherical	5	2	Neighbours in the centre of Ellipse	8	2.737	158.2	214.4	-0.06087	0.8972
Cl-	Log	Hole Effect	5	2	One Sector	1	3.378	568.7	947.7	-0.0833	0.9105
pH-value	None	Hole Effect	5	2	One Sector	1	0.04827	0.303	0.32	0.1425	0.9884
SO4	Log	J-Bessel	5	2	Neighbours in the centre of Ellipse	4	-5.948	96.91	93.04	-0.07198	1.019

Table 4.11 Fitted parameters of the theoretical variogram model for groundwater quality parameters (October's sampling)

Parameters	Trans	Models	Neighbourhood				Prediction Errors				
			Neighbourhoods to include	Include at least	Shape Type	No of Sectors	Mean	Root-Mean Square (RMS)	Average Standard Error (ASE)	Mean Standardized (MS)	Root-Mean-Square Standardized (RMSS)
Alkalinity	None	J-Bessel	5	2	Neighbours in the centre of Ellipse	4	-1.304	50.92	53.72	-0.01732	0.942
Total Hardness	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	0.5655	208.3	185.3	-0.02084	1.117
Conductivity	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	-4.273	1487	1473	-0.03698	1.041
TDS	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	2.834	966.3	957.1	-0.03705	1.041
Salinity	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	4	-0.003683	0.7306	0.7377	-0.04112	1.03
Temperature	Log	Exponential	5	2	One sector	1	-0.07549	0.9456	0.6567	-0.06921	1.205
Ca	Log	J-Bessel	5	2	Neighbours in the centre of Ellipse	4	0.4111	26.76	29.29	0.003981	0.9407
Mg	None	J-Bessel	5	2	Neighbours in the centre of Ellipse	8	0.3646	26.39	23.05	0.009216	1.129
K	Log	Rational Quadratic	5	2	One sector	1	0.1054	6.529	8.186	-0.03781	0.9545
Na	Log	J-Bessel	5	2	Neighbours in the centre of Ellipse	4	6.532	334.6	430.1	-0.08099	0.9725
B	Log	Pentaspherical	5	2	Neighbours in the centre of Ellipse	4	0.0006169	0.05808	0.05461	-0.03176	1.009
Cl-	Log	Hole Effect	5	2	One sector	1	9.924	535.9	771	-0.08637	1.008
pH-value	None	Stable	5	2	Neighbours in the centre of Ellipse	4	-0.004946	0.2332	0.2356	-0.02171	0.9938
NO3	Log	Rational Quadratic	5	2	One sector	1	-0.2039	3.774	3.13	-0.1272	1.261
SO4	Log	K-Bessel	5	2	Neighbours in the centre of Ellipse	8	-1.395	99.79	97.15	-0.0554	1.026

4.7.1.2 Physical and Aggregate Properties

Total alkalinity and bicarbonate concentration, total hardness, electrical conductivity and TDS, salinity, and temperature belong in physical and aggregate properties, as already mentioned on **section 3.3.2** of ***Chapter 3***. Column graphs, tables of statistics and prediction maps of those parameters for the three samplings (June, July, October 2008) are following.

4.7.1.2.1 Alkalinity (expressed as mg $CaCO_3$/L) and Bicarbonate concentration (as mg HCO_3^-/L)

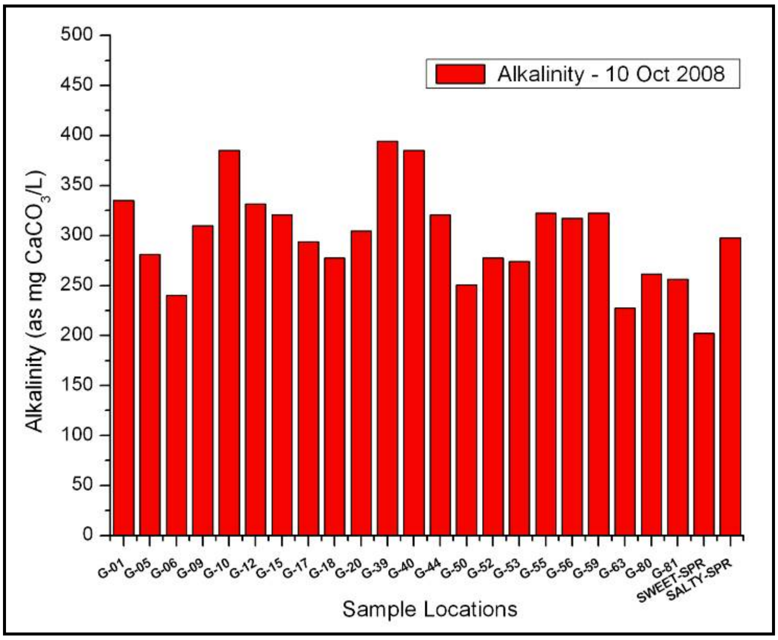


Fig. 4.50: Column graph of alkalinity expressed as mg $CaCO_3$/L for October's 2008 sampling

Table 4.12: Statistical analysis of alkalinity expressed as mg $CaCO_3$/L for October's 2008 sampling

DATE	01/10/2008
Number of Samples	24
Mean	299.6
Standard Deviation	48.51
Standard Error	9.901
Minimum Value	202.5
Maximum Value	394.2
Median	301.0
Kurtosis	-0.049

As described in section **3.3.2.1** of ***Chapter 3***, it was necessary to convert bicarbonate ion concentration (expressed as mg $CaCO_3$/L) to bicarbonate ion activity (in mg HCO_3^-/L). The results are presented next.

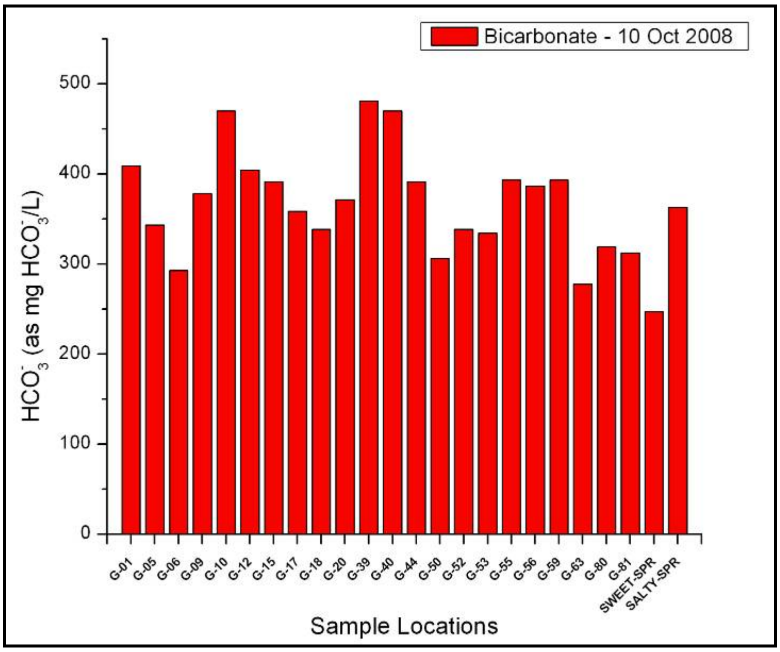


Fig. 4.51: Column graph of bicarbonate (as mg HCO_3/L) for October's 2008 sampling

Table 4.13: Statistical analysis of bicarbonate (as mg HCO_3/L) for October's 2008 sampling

DATE	01/10/2008
Number of Samples	24
Mean	365.5
Standard Deviation	59.18
Standard Error	12.08
Minimum Value	247.0
Maximum Value	480.9
Median	367.3
Kurtosis	-0.049

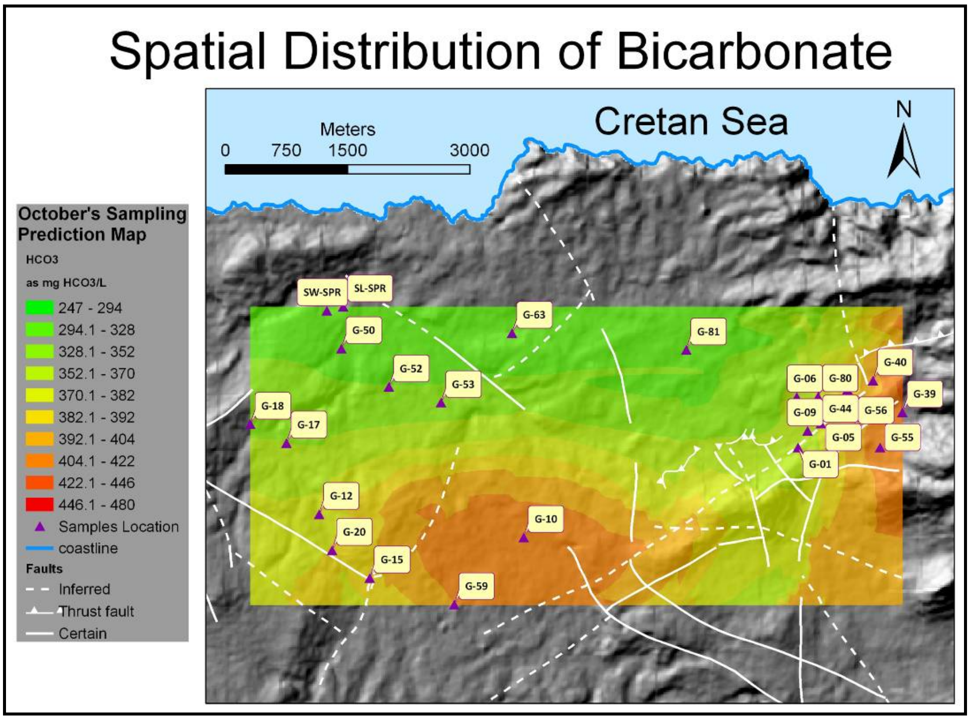


Fig. 4.52: Spatial distribution map of bicarbonate (as mg HCO_3/L) for October's 2008 sampling

4.7.1.2.2 **Total Hardness** (expressed as mg $CaCO_3$/L)

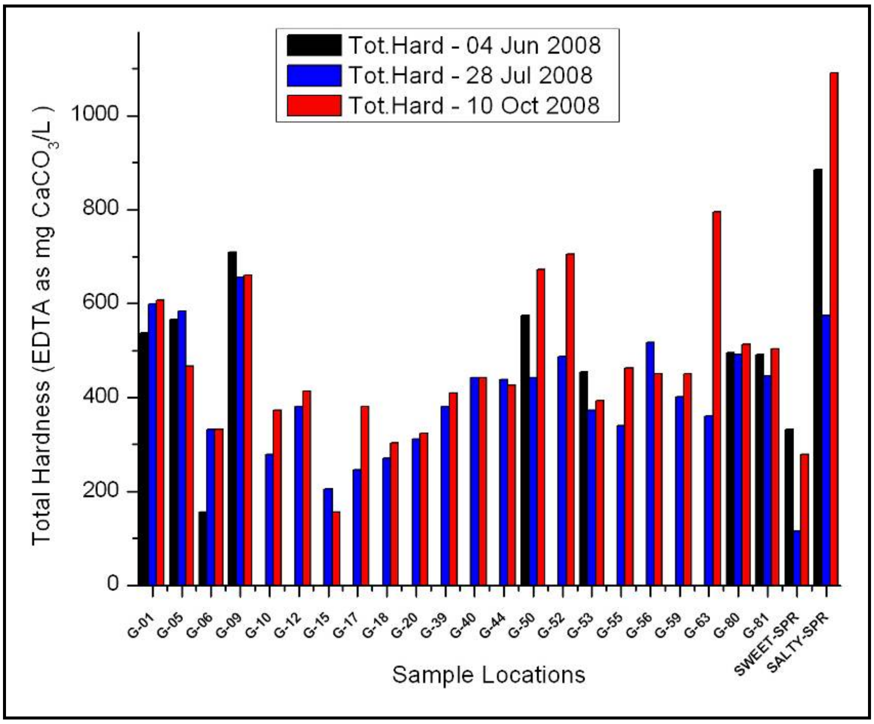


Fig. 4.53: Column graph of total hardness (expressed as mg $CaCO_3$/L) for all the samplings (June, July, October 2008)

Table 4.14: Statistical analysis of total Hardness (expressed as mg $CaCO_3$/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	520.3	403.3	483.9
Standard Deviation	196.7	131.8	195.3
Standard Error	62.21	26.90	39.86
Minimum Value	155.8	114.8	155.8
Maximum Value	885.6	656.0	1090.6
Median	516.6	391.6	446.9
Kurtosis	1.201	-0.162	2.998

Table 4.15: Statistical analysis of total Hardness for the same 10 samples only (expressed as mg $CaCO_3$/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	520.3	461.4	551.9
Standard Deviation	196.7	160.1	230.5
Standard Error	62.21	50.62	72.90
Minimum Value	155.8	114.8	278.8
Maximum Value	885.6	656.0	1090.6
Median	516.6	469.5	508.4
Kurtosis	1.201	1.298	2.859

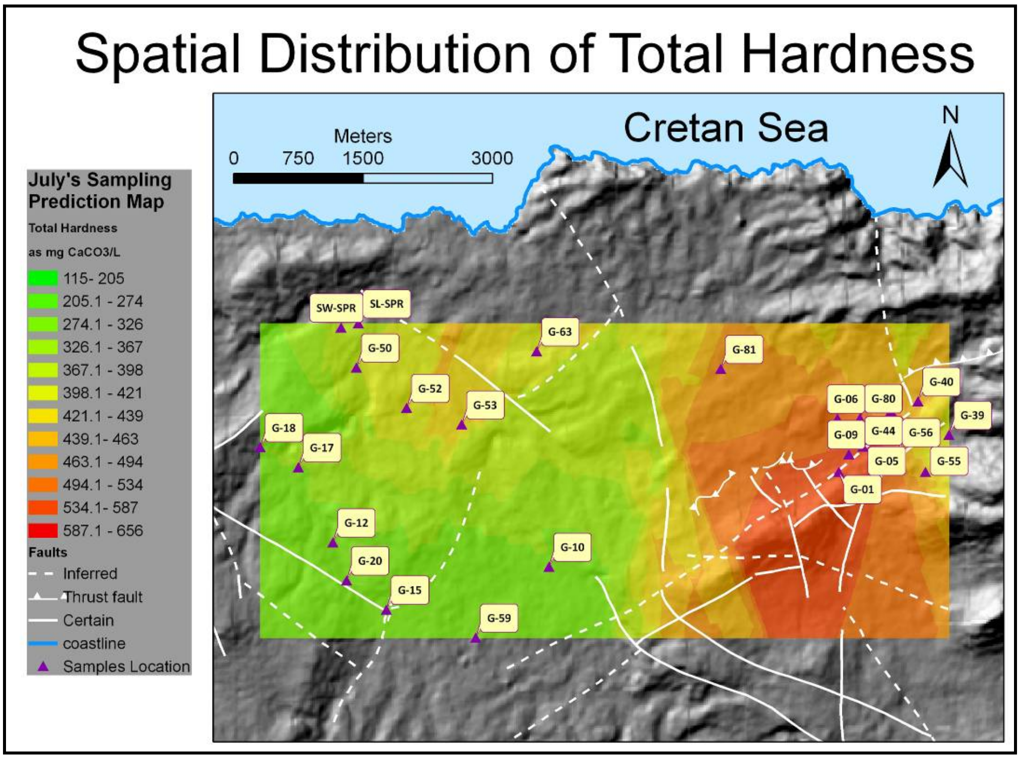


Fig. 4.54: Spatial distribution map of total hardness (expressed as mg $CaCO_3$/L) for July's 2008 sampling

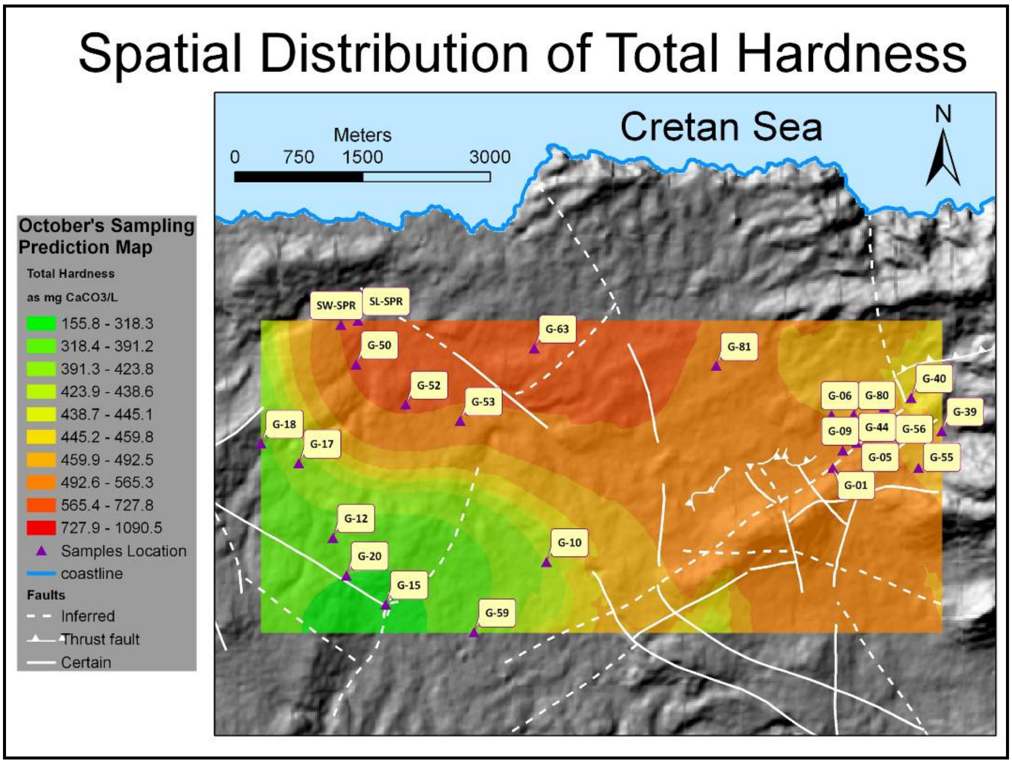


Fig. 4.55: Spatial distribution map of total hardness (expressed as mg $CaCO_3$/L) for October's 2008 sampling

4.7.1.2.3 Electrical Conductivity (EC) and Total Dissolved Solids (TDS)

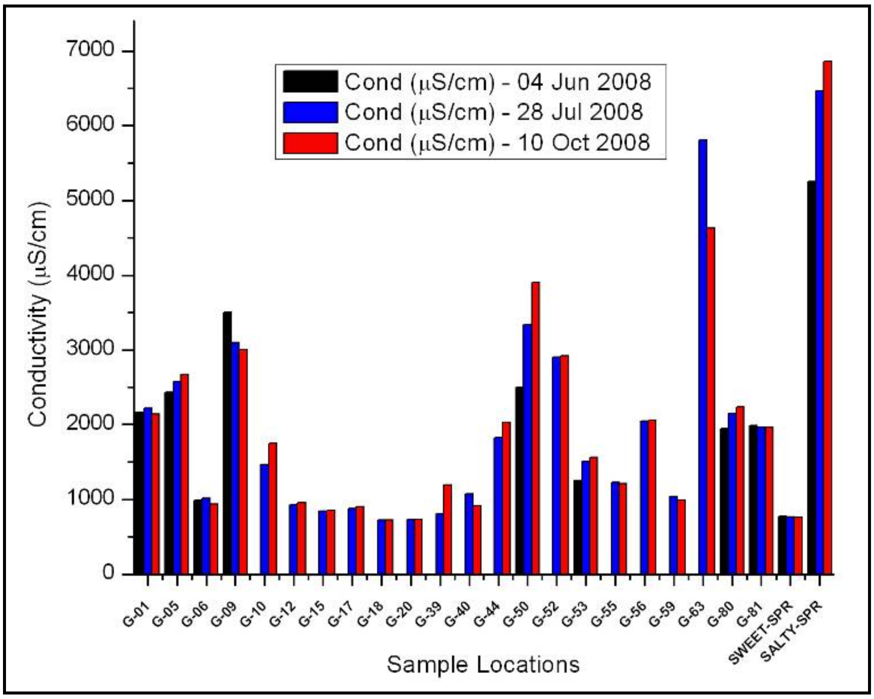


Fig. 4.56: Column graph of electrical conductivity (as μS/cm) for all the samplings (June, July, October 2008)

Table 4.16: Statistical analysis of electrical conductivity (as μS/cm) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	2281	1976	1995
Standard Deviation	1315	1511	1472
Standard Error	416	308	301
Minimum Value	776	726	721
Maximum Value	5250	6470	6860
Median	2080	1490	1655
Kurtosis	2.15	3.55	4.26

Table 4.17: Statistical analysis of electrical conductivity for the same 10 samples (as μS/cm) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	2281	2510	2603
Standard Deviation	1315	1617	1764
Standard Error	416	511	558
Minimum Value	776	767	757
Maximum Value	5250	6470	6860
Median	2080	2185	2190
Kurtosis	2.15	4.02	3.59

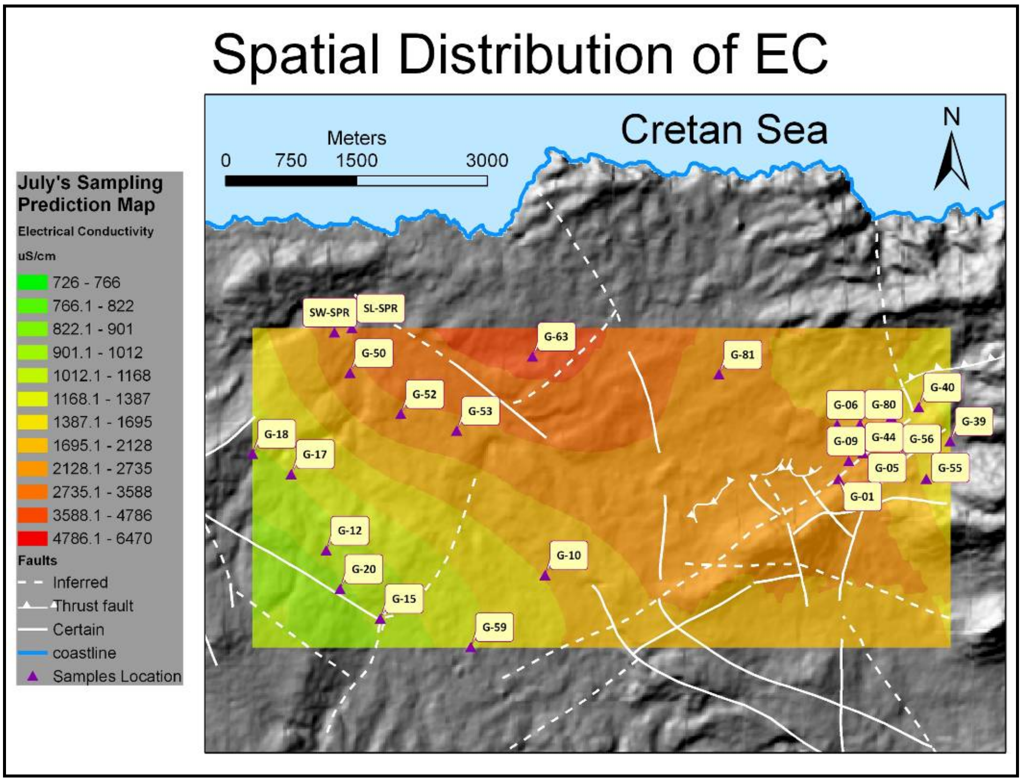


Fig. 4.57: Spatial distribution map of electrical conductivity (μS/cm) for July's 2008 sampling

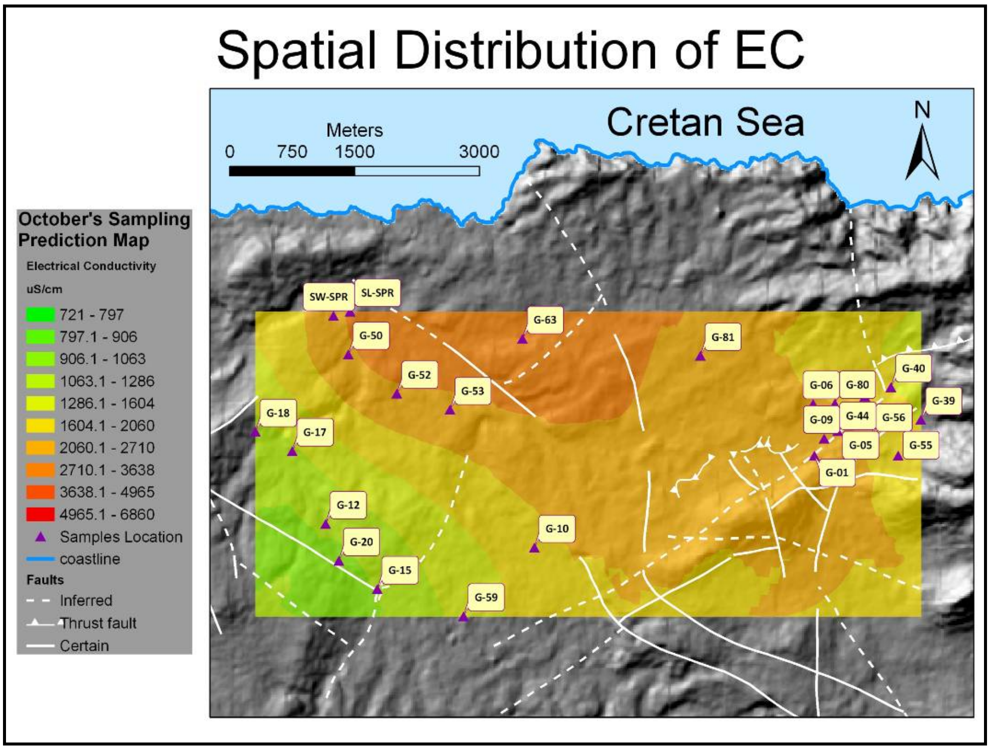


Fig. 4.58: Spatial distribution map of electrical conductivity ($\mu S/cm$) for October's 2008 sampling

As described in section **3.3.2.3** of ***Chapter 3***, the electrical conductivity can be roughly converted into TDS (expressed as mg/L). The results are presented next.

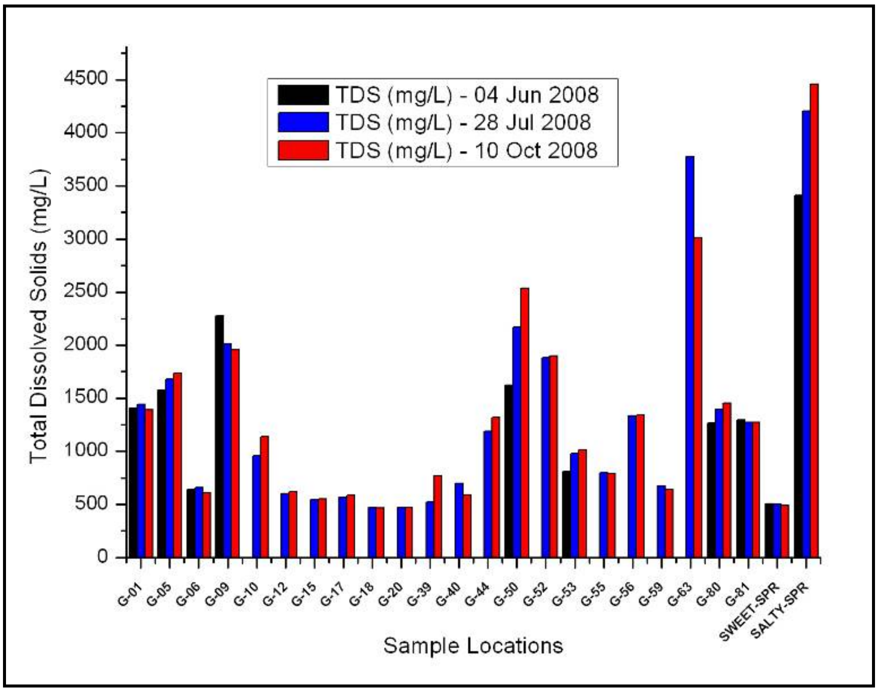


Fig. 4.59: Column graph of TDS (as mg/L) for all the samplings (June, July, October 2008)

Table 4.18: Statistical analysis of TDS (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	1482	1284	1297
Standard Deviation	855	982	957
Standard Error	270	201	195
Minimum Value	504	472	469
Maximum Value	3412	4205	4459
Median	1352	968	1076
Kurtosis	2.15	3.55	4.26

Table 4.19: Statistical analysis of TDS for the same 10 samples (as μS/cm) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	1482	1632	1692
Standard Deviation	855	1050	1146
Standard Error	270	332	363
Minimum Value	504	499	492
Maximum Value	3412	4205	4459
Median	1352	1420	1424
Kurtosis	2.15	4.02	3.59

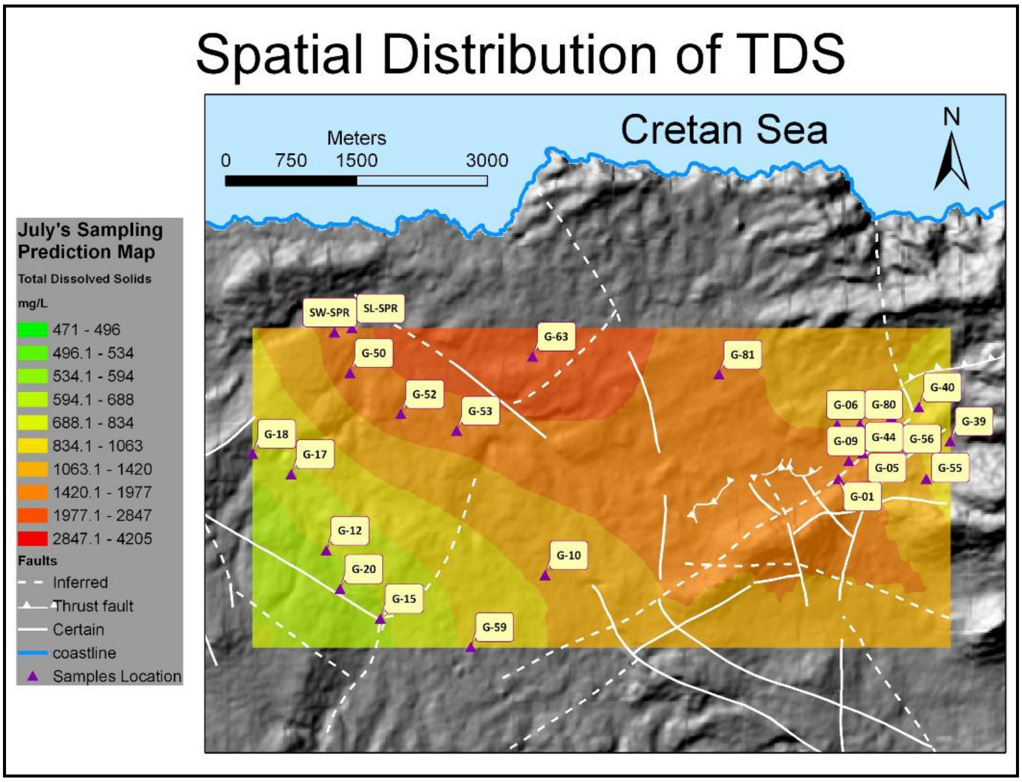


Fig. 4.60: Spatial distribution map of TDS (as mg/L) for July's 2008 sampling

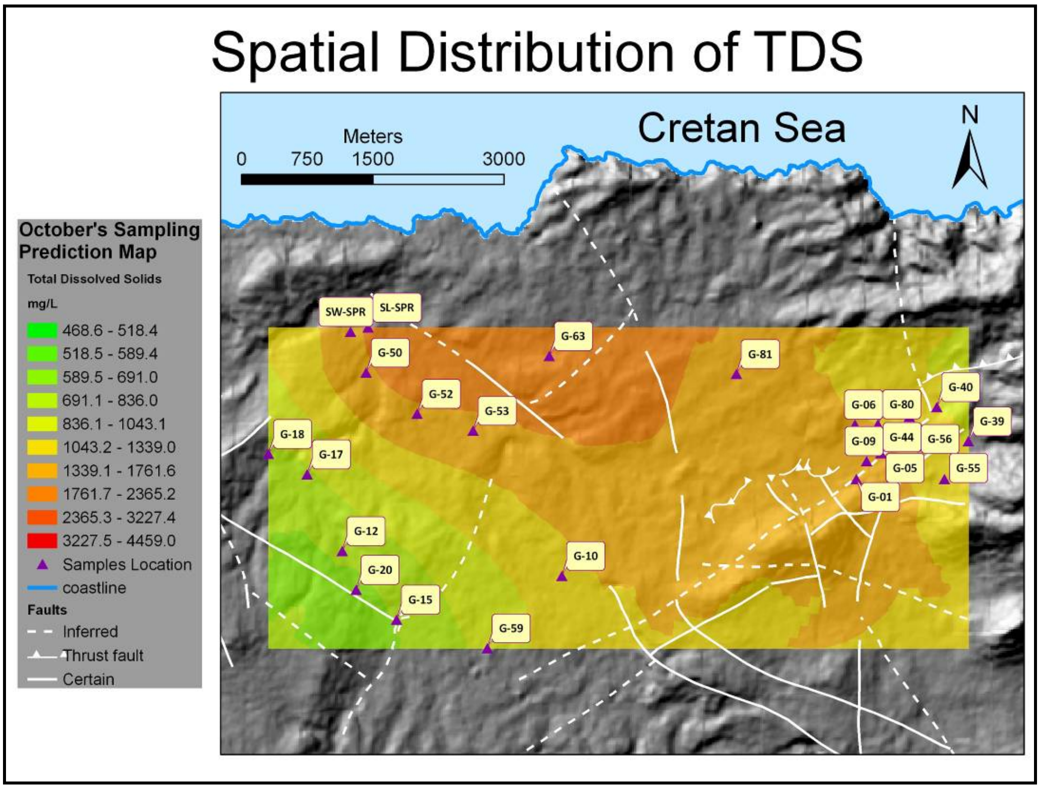


Fig. 4.61: Spatial distribution map of TDS (as mg/L) for October's 2008 sampling

4.7.1.2.4 Salinity

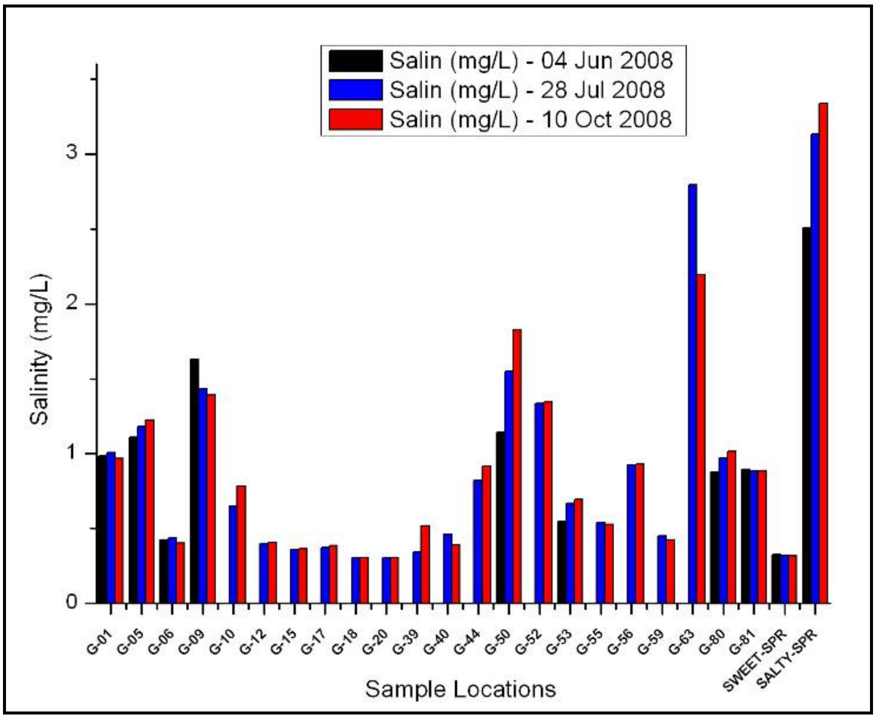


Fig. 4.62: Column graph of salinity (as mg/L) for all the samplings (June, July, October 2008)

Table 4.20: Statistical analysis of salinity (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	1.0	0.9	0.9
Standard Deviation	0.6	0.7	0.7
Standard Error	0.2	0.2	0.1
Minimum Value	0.3	0.3	0.3
Maximum Value	2.5	3.1	3.3
Median	0.9	0.7	0.7
Kurtosis	2.4	3.8	4.7

Table 4.21: Statistical analysis of salinity for the same 10 samples (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	1.0	1.2	1.2
Standard Deviation	0.6	0.8	0.9
Standard Error	0.2	0.3	0.3
Minimum Value	0.3	0.3	0.3
Maximum Value	2.5	3.1	3.3
Median	0.9	1	1
Kurtosis	2.4	4.3	3.9

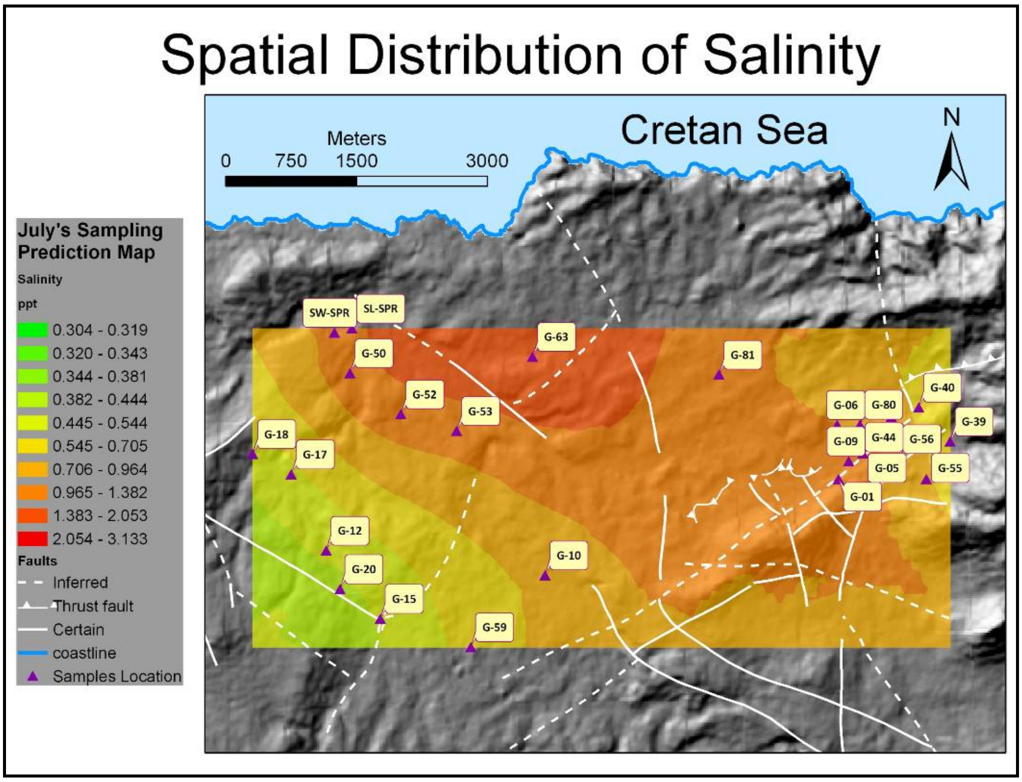


Fig. 4.63: Spatial distribution map of salinity (as mg/L) for July's 2008 sampling

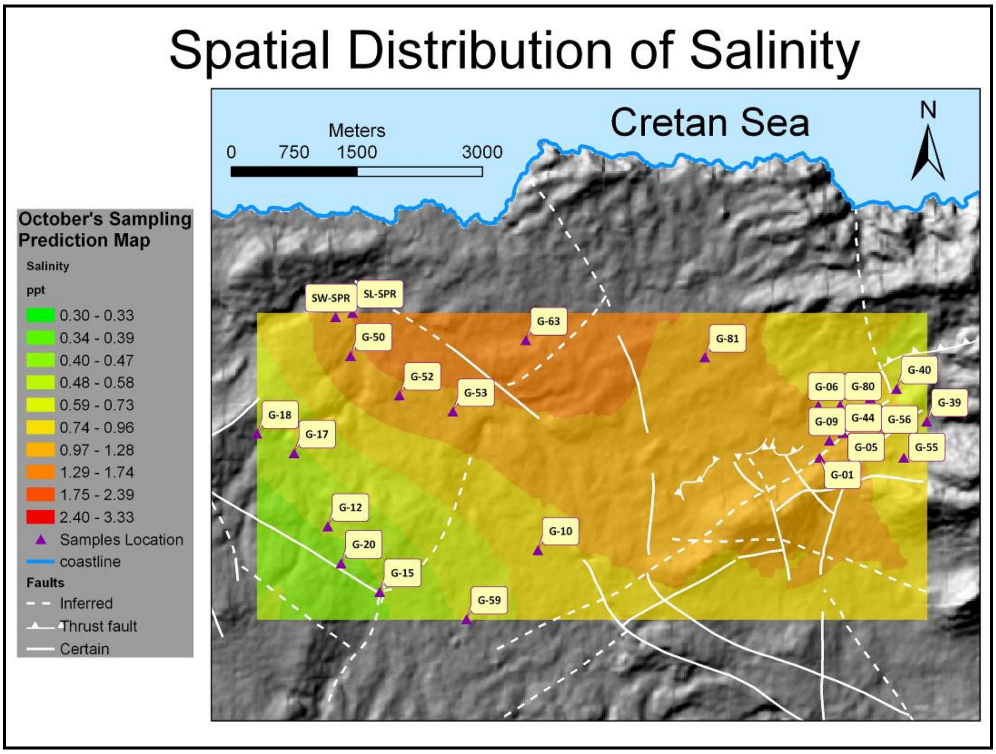


Fig. 4.64: Spatial distribution map of salinity (as mg/L) for October's 2008 sampling

4.7.1.2.5 Temperature (in ˚C)

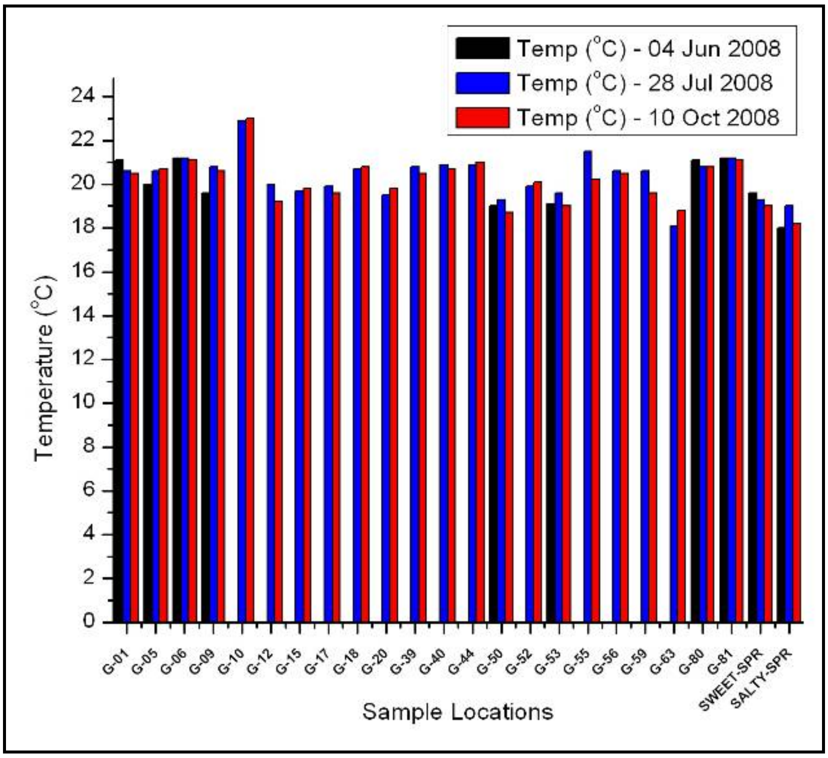


Fig. 4.65: Column graph of temperature (˚C) for all the samplings (June, July, October 2008)

Table 4.22: Statistical analysis of temperature (˚C) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	19.9	20.4	20.1
Standard Deviation	1.13	0.98	1.04
Standard Error	0.36	0.20	0.21
Minimum Value	18.0	18.1	18.2
Maximum Value	21.2	22.9	23.0
Median	19.8	20.6	20.4
Kurtosis	-1.00	1.29	1.23

Table 4.23: Statistical analysis of temperature for the same 10 samples (˚C) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	19.9	20.2	19.9
Standard Deviation	1.13	0.85	1.11
Standard Error	0.36	0.27	0.35
Minimum Value	18.0	19.0	18.2
Maximum Value	21.2	21.2	21.1
Median	19.8	20.6	20.6
Kurtosis	-1.00	-1.78	-1.68

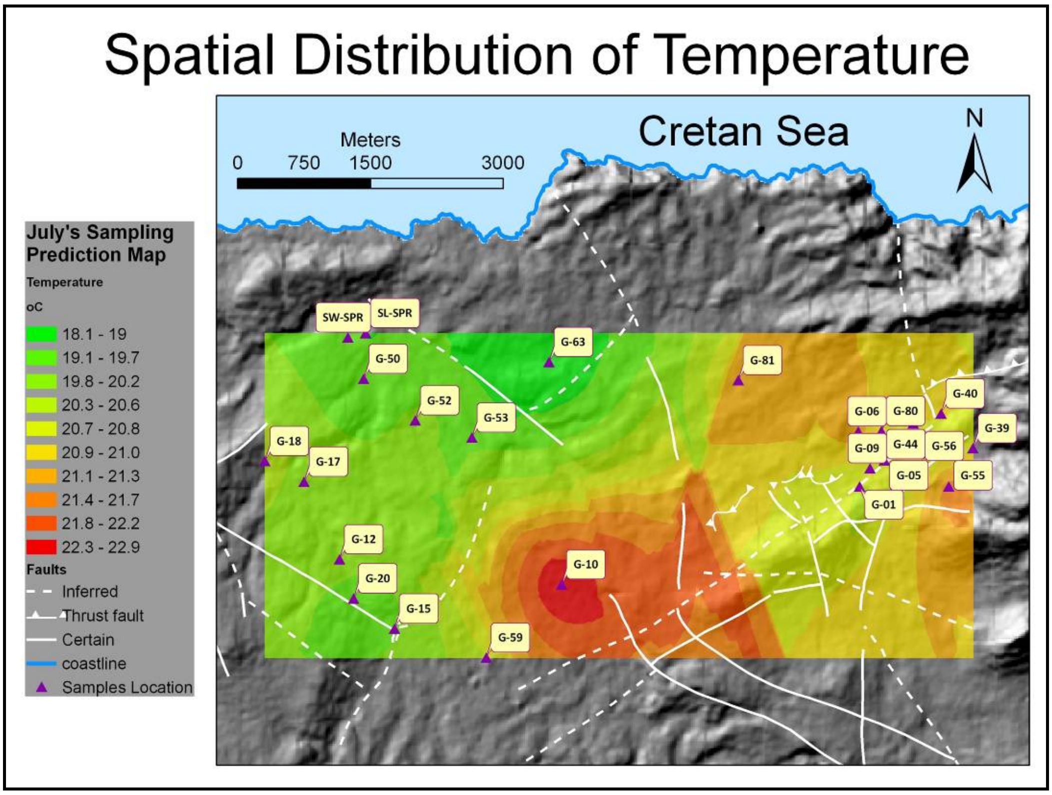


Fig. 4.66: Spatial distribution map of temperature (˚C) for July's 2008 sampling

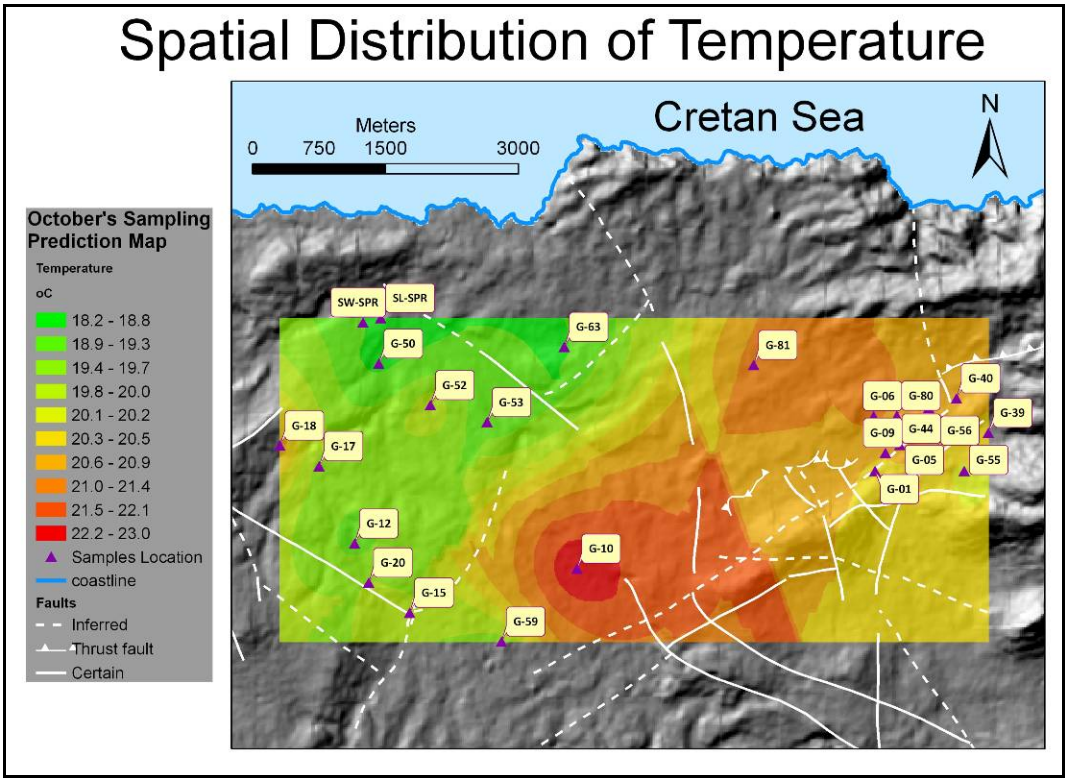


Fig. 4.67: Spatial distribution map of temperature (˚C) for October's 2008 sampling

4.7.1.3 Metals

4.7.1.3.1 Calcium (Ca)

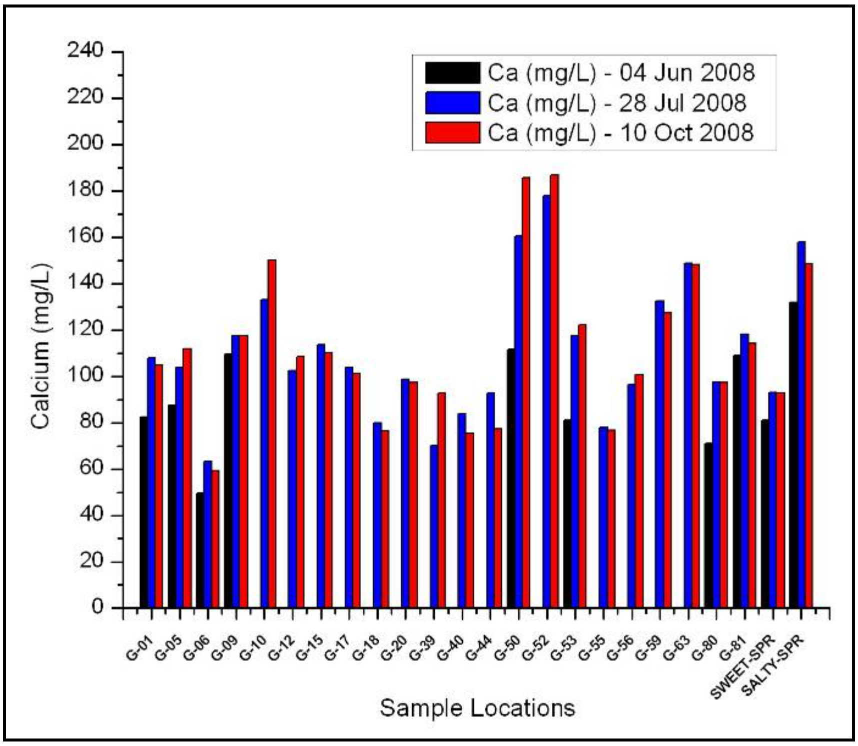


Fig. 4.68: Column graph of calcium (as mg/L) for all the samplings (June, July, October 2008)

Table 4.24: Statistical analysis of calcium (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	91.48	110.42	111.84
Standard Deviation	23.99	29.31	32.83
Standard Error	7.587	5.982	6.702
Minimum Value	49.50	63.25	59.40
Maximum Value	132.00	178.00	186.83
Median	85.00	104.00	106.60
Kurtosis	-0.141	0.022	0.514

Table 4.25: Statistical analysis of calcium for the same 10 samples (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	91.50	113.78	115.46
Standard Deviation	23.90	28.96	33.65
Standard Error	7.590	9.150	10.64
Minimum Value	49.50	63.25	59.40
Maximum Value	132.00	160.50	185.63
Median	85.00	112.88	113.08
Kurtosis	-0.140	0.407	1.739

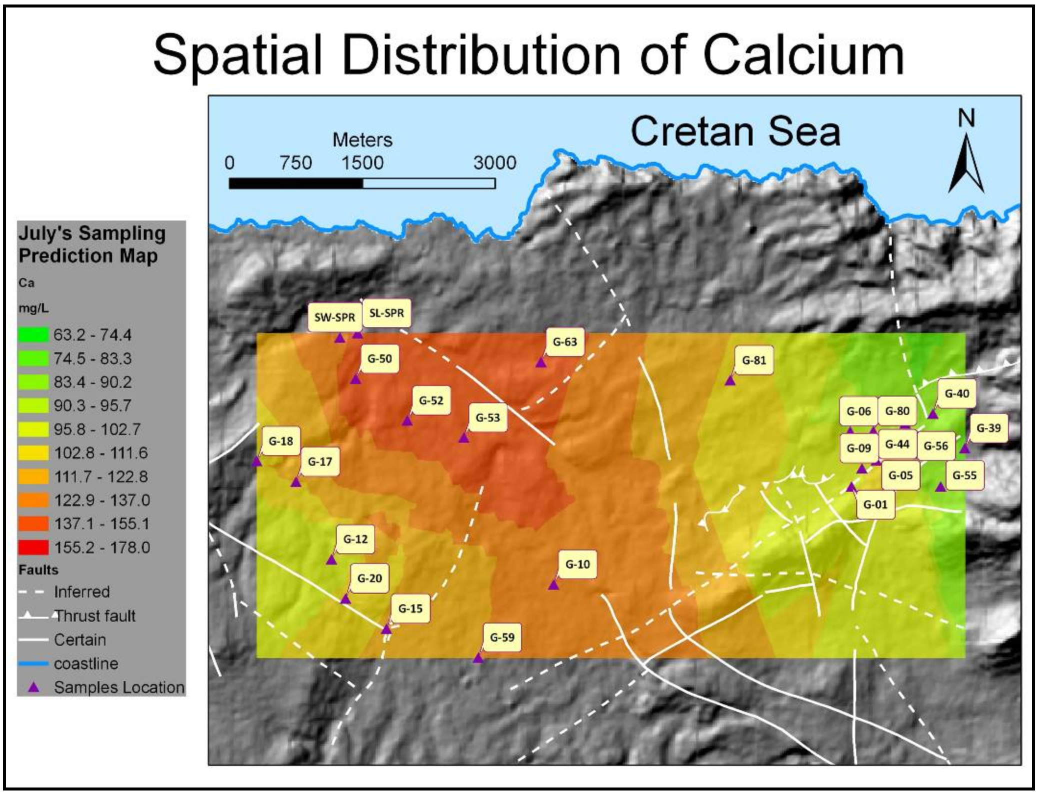


Fig. 4.69: Spatial distribution map of calcium (as mg/L) for July’s 2008 sampling

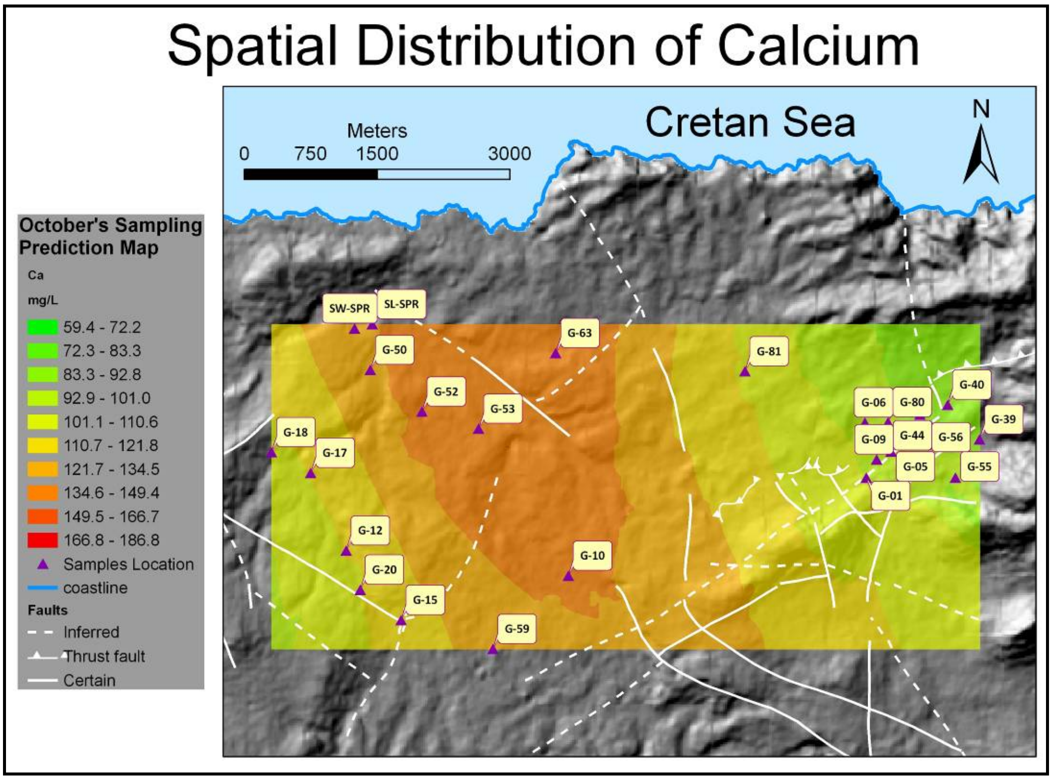


Fig. 4.70: Spatial distribution map of calcium (as mg/L) for October’s 2008 sampling

4.7.1.3.2 Magnesium (Mg)

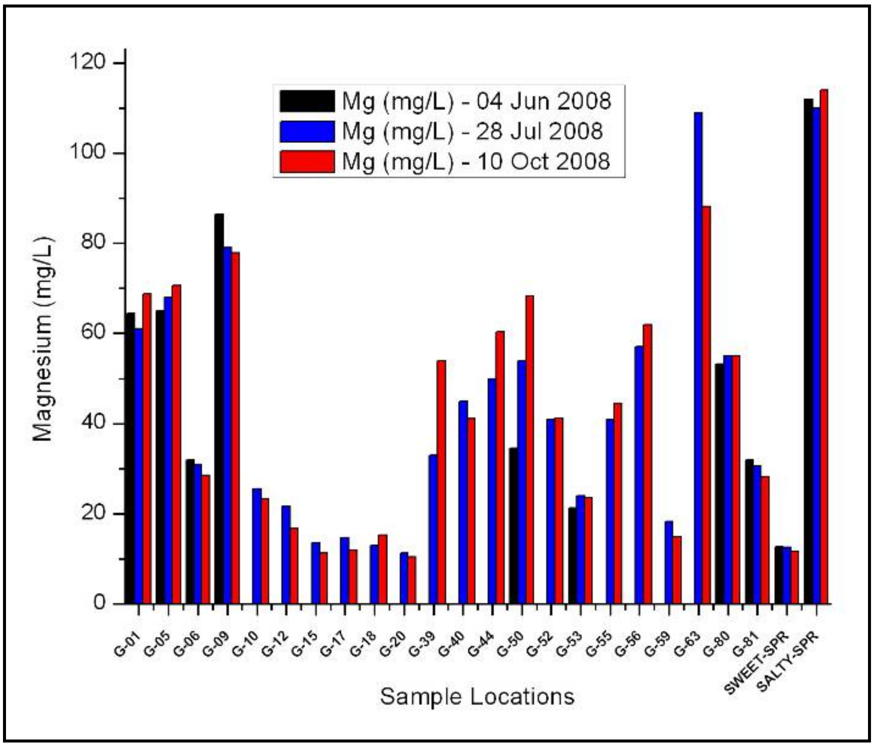


Fig. 4.71: Column graph of magnesium (as mg/L) for all the samplings (June, July, October 2008)

Table 4.26: Statistical analysis of magnesium (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	51.38	42.47	43.42
Standard Deviation	31.10	28.16	28.56
Standard Error	9.835	5.748	5.829
Minimum Value	12.75	11.25	10.38
Maximum Value	112.00	110.00	114.00
Median	43.88	37.00	41.20
Kurtosis	-0.022	0.820	-0.185

Table 4.27: Statistical analysis of magnesium for the same 10 samples (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	51.38	52.53	54.69
Standard Deviation	31.10	29.21	31.44
Standard Error	9.835	9.236	9.942
Minimum Value	12.75	12.50	11.70
Maximum Value	112.00	110.00	114.00
Median	43.88	54.50	61.75
Kurtosis	-0.022	0.200	-0.293

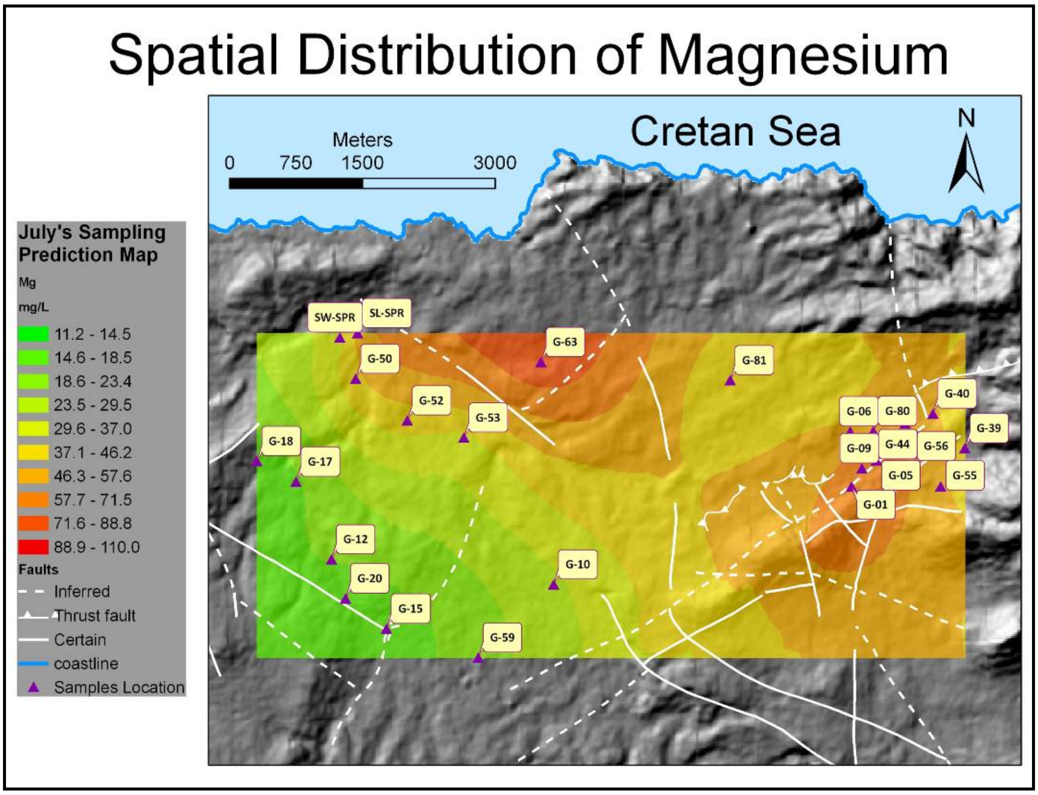


Fig. 4.72: Spatial distribution map of magnesium (as mg/L) for July's 2008 sampling

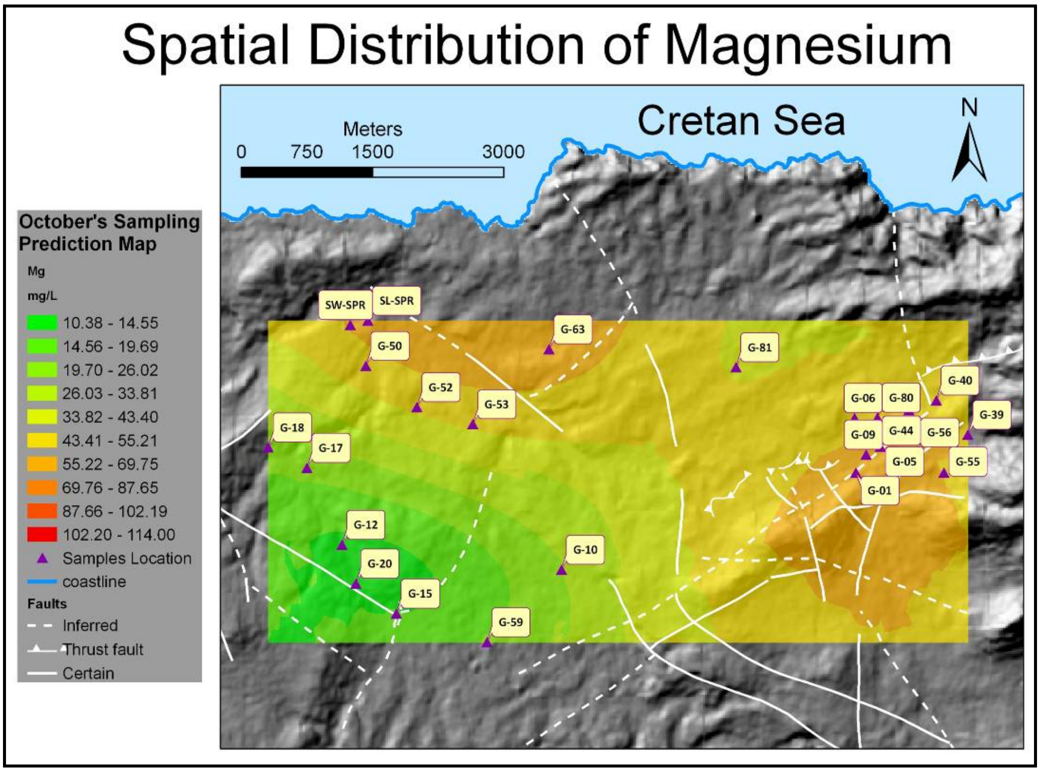


Fig. 4.73: Spatial distribution map of magnesium (as mg/L) for October's 2008 sampling

4.7.1.3.3 Potassium (K)

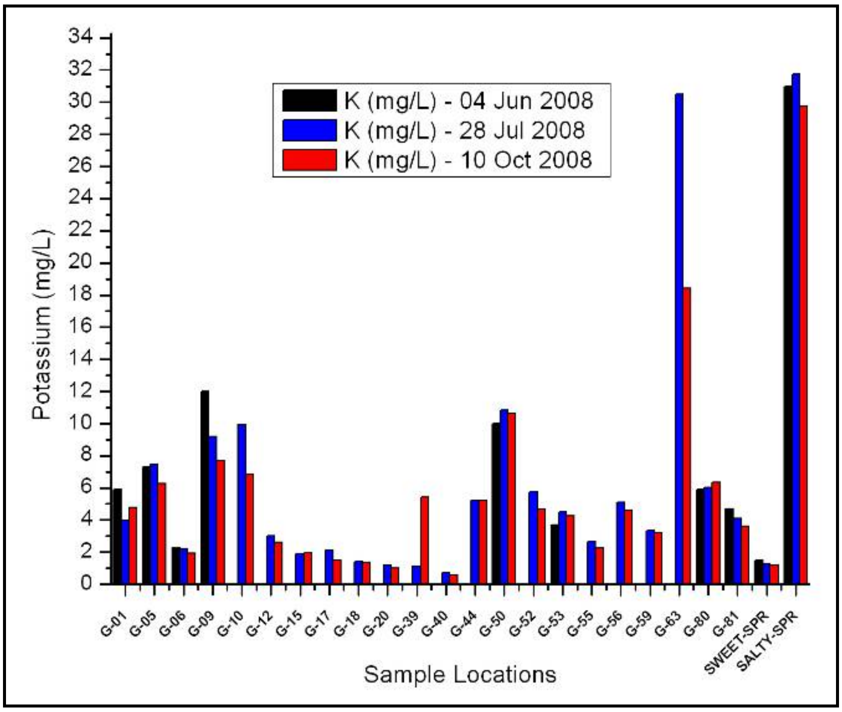


Fig. 4.74: Column graph of potassium (as mg/L) for all the samplings (June, July, October 2008)

Table 4.28: Statistical analysis of potassium (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	8.43	6.47	5.67
Standard Deviation	8.57	8.11	6.39
Standard Error	2.71	1.66	1.31
Minimum Value	1.50	0.72	0.56
Maximum Value	31.00	31.75	29.75
Median	5.90	4.04	4.45
Kurtosis	6.36	6.33	8.90

Table 4.29: Statistical analysis of potassium for the same 10 samples (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	8.43	8.14	7.65
Standard Deviation	8.57	8.82	8.24
Standard Error	2.71	2.79	2.61
Minimum Value	1.50	1.26	1.15
Maximum Value	31.00	31.75	29.75
Median	5.90	5.27	5.52
Kurtosis	6.36	7.04	7.09

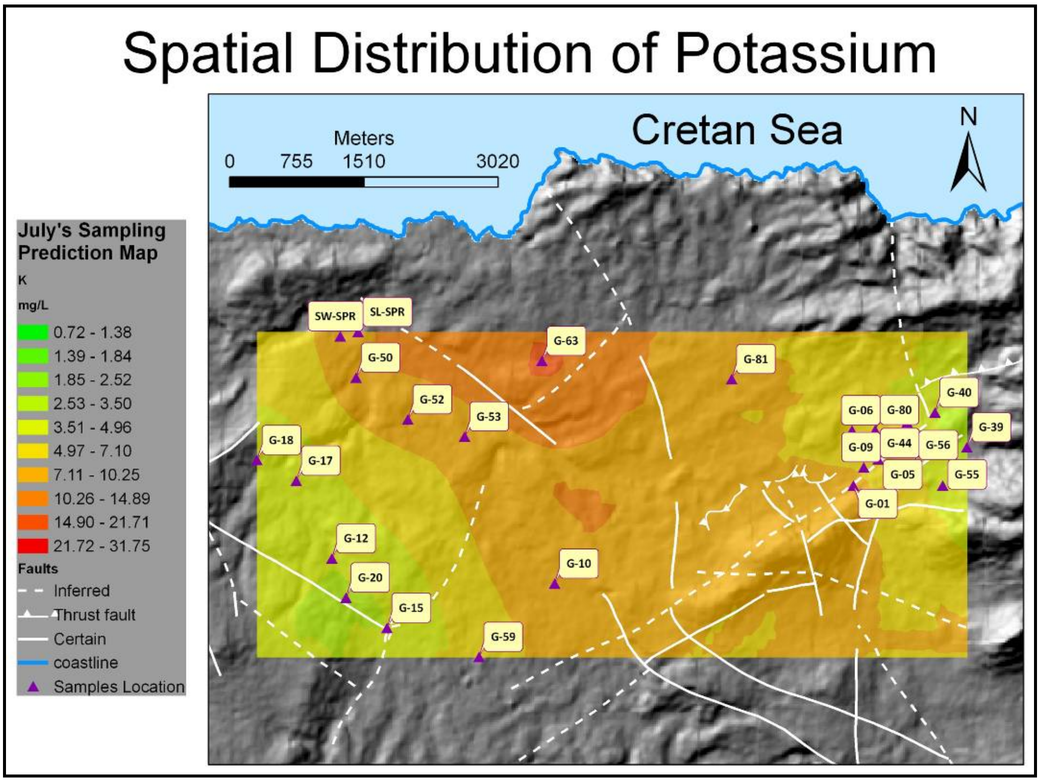


Fig. 4.75: Spatial distribution map of potassium (as mg/L) for July's 2008 sampling

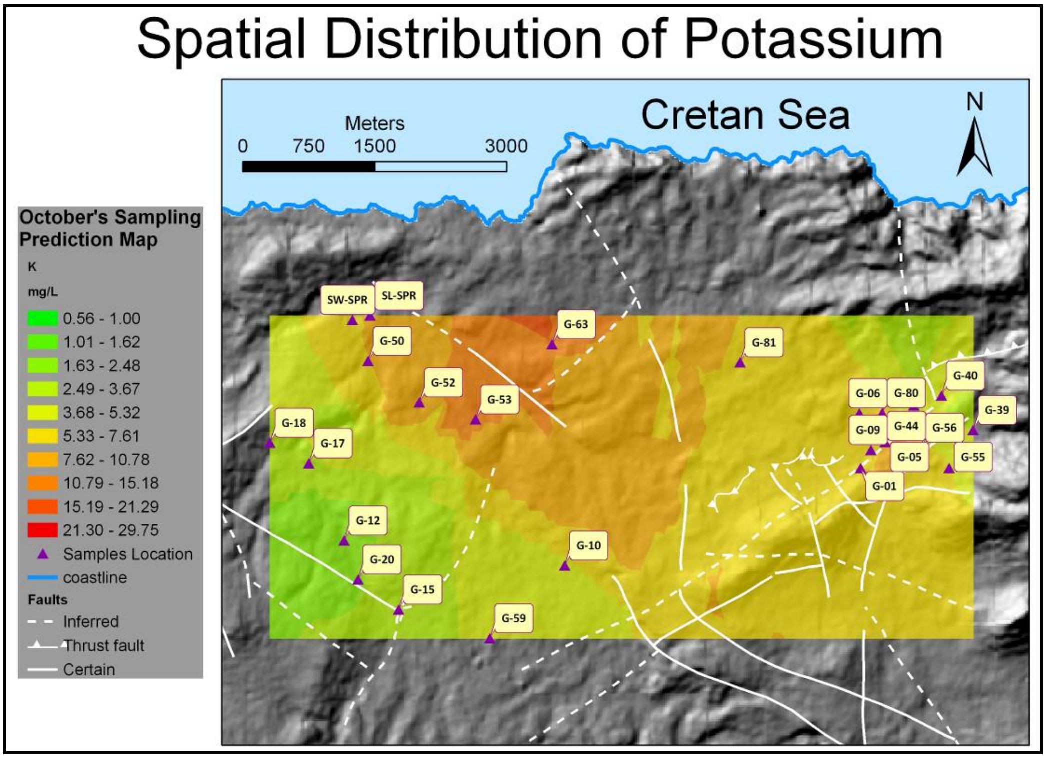


Fig. 4.76: Spatial distribution map of potassium (as mg/L) for October's 2008 sampling

4.7.1.3.4 Sodium (Na)

In mg/L

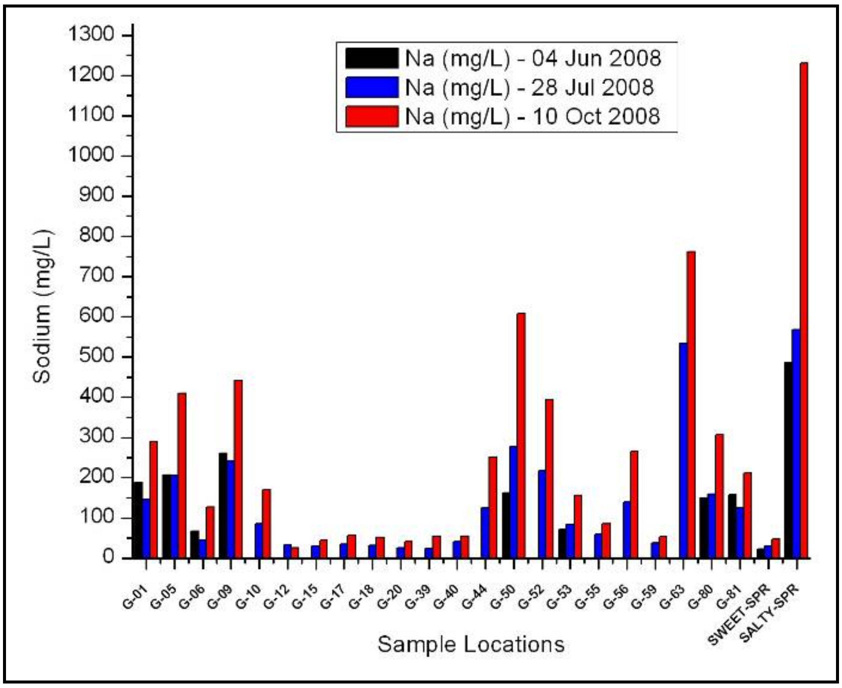


Fig. 4.77: Column graph of sodium (as mg/L) for all the samplings (June, July, October 2008)

Table 4.30: Statistical analysis of sodium (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	177.30	137.52	255.82
Standard Deviation	129.9	148.4	284.9
Standard Error	41.09	30.29	58.15
Minimum Value	23.00	23.75	25.75
Maximum Value	486.50	568.75	1230.00
Median	160.00	84.50	163.38
Kurtosis	3.336	3.713	5.155

Table 4.31: Statistical analysis of sodium for the same 10 samples (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	177.30	187.98	382.90
Standard Deviation	129.9	155.9	340.9
Standard Error	41.09	49.29	107.8
Minimum Value	23.00	30.50	47.50
Maximum Value	486.50	568.75	1230.00
Median	160.00	152.00	298.75
Kurtosis	3.336	3.889	4.360

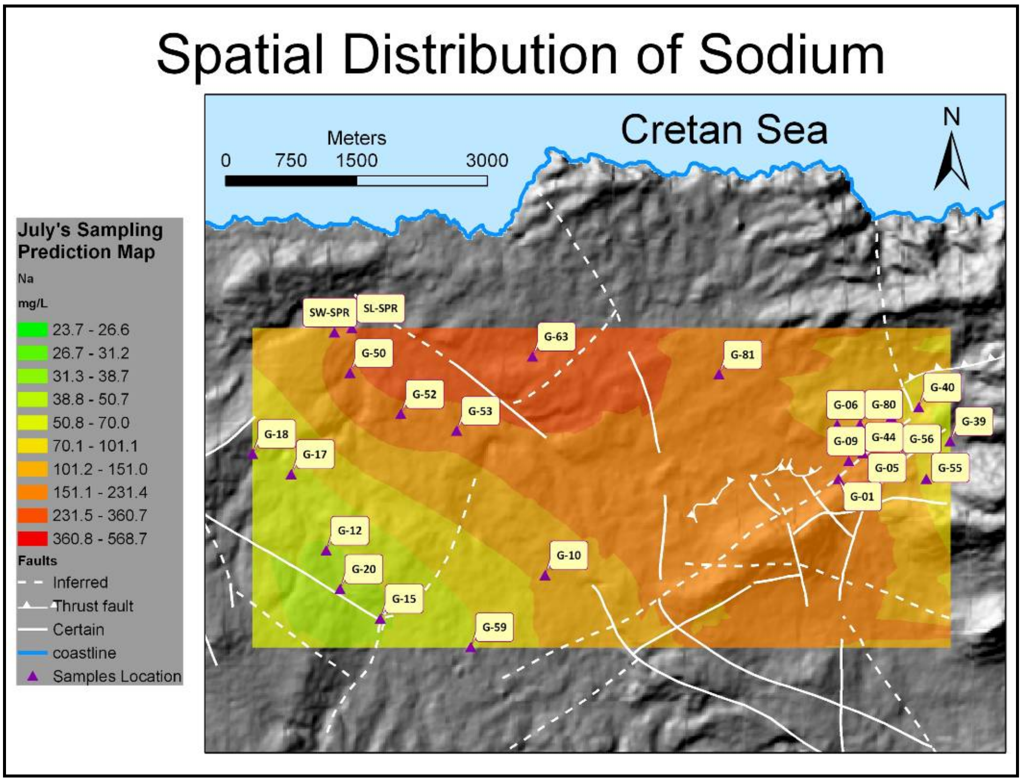


Fig. 4.78: Spatial distribution map of sodium (as mg/L) for July's 2008 sampling

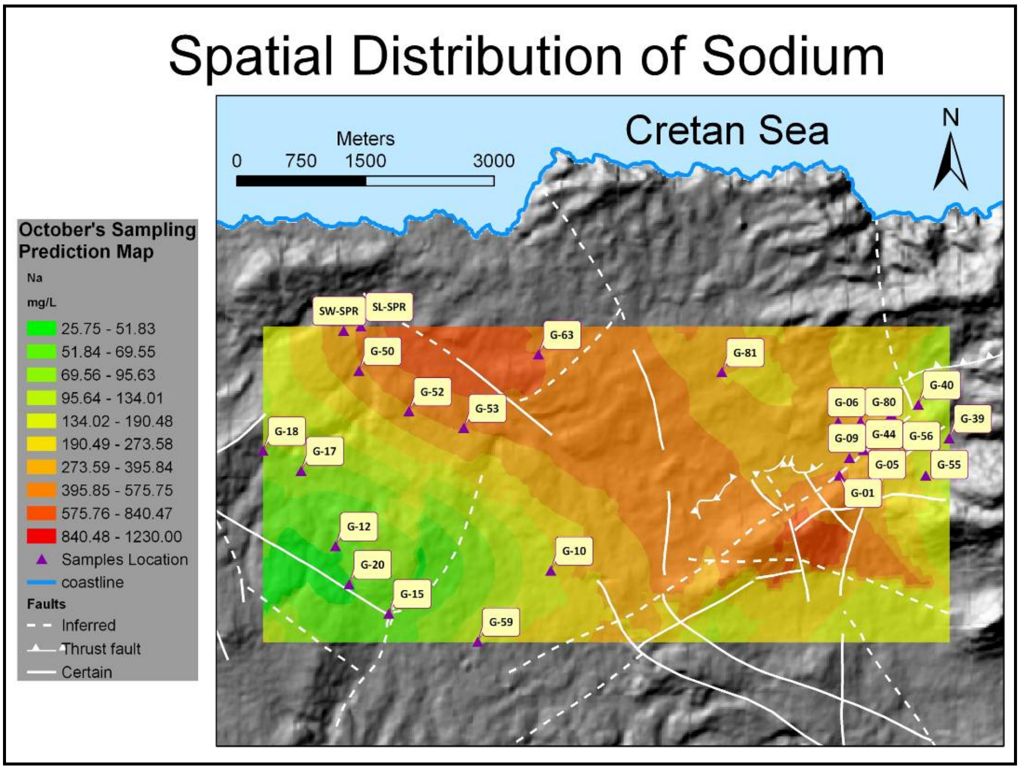


Fig. 4.79: Spatial distribution map of sodium (as mg/L) for October's 2008 sampling

4.7.1.3.5 Iron (Fe)

Table 4.32: Statistical analysis of iron (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Concentration for all the samples (mg/L)	0	0	0

4.7.1.4 Inorganic Nonmetallic Constituents

4.7.1.4.1 Boron (B)

In mg/L

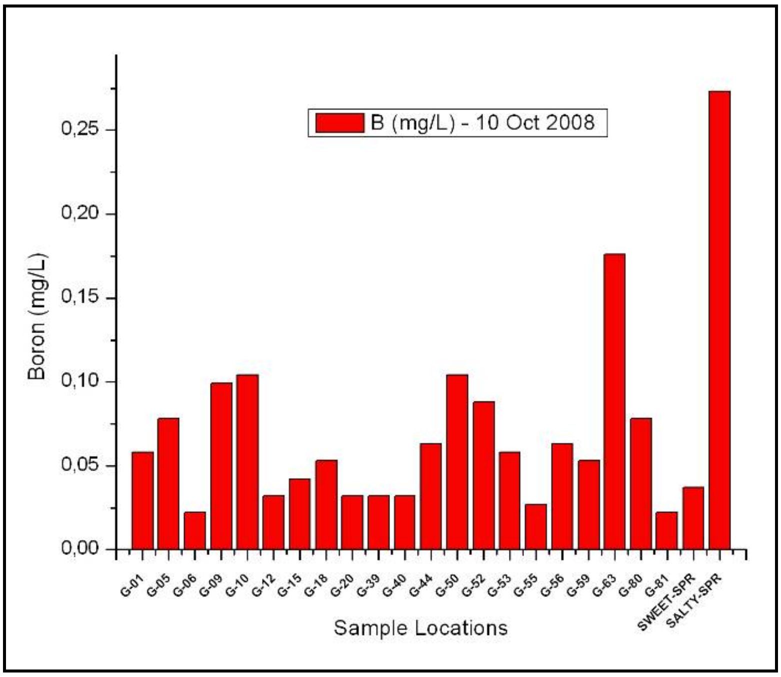


Fig. 4.80: Column graph of boron (as mg/L) for October's 2008 sampling

Table 4.33: Statistical analysis of boron (as mg/L) for October's 2008 sampling

DATE	01/10/2008
Number of Samples	23
Mean	0.07
Standard Deviation	0.06
Standard Error	0.01
Minimum Value	0.02
Maximum Value	0.28
Median	0.06
Kurtosis	6.99

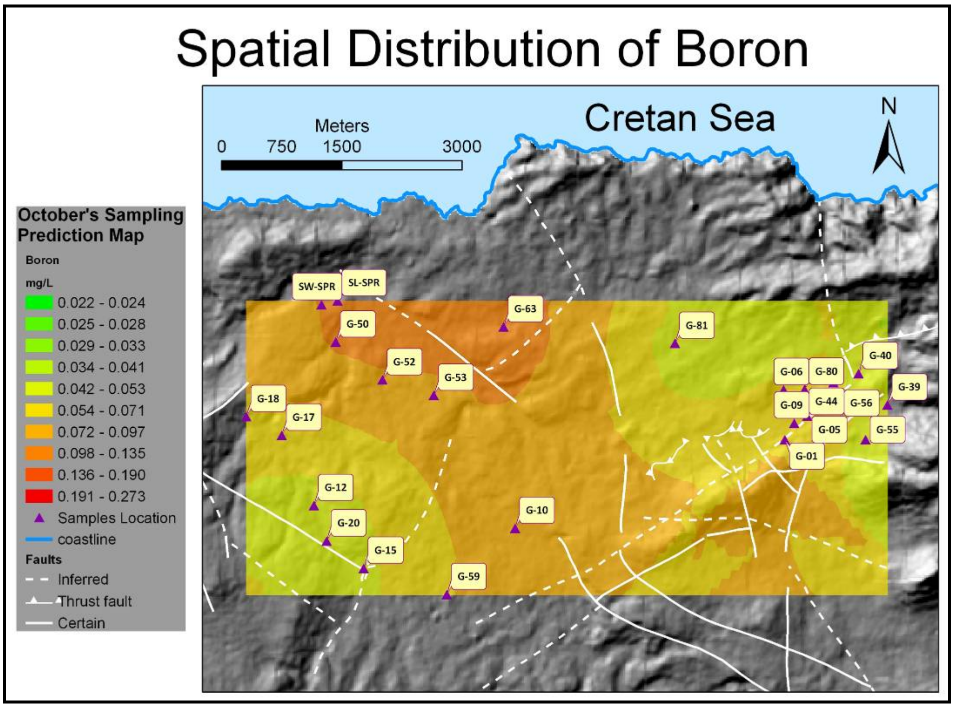


Fig. 4.81: Spatial distribution map of boron (as mg/L) for October's 2008 sampling

4.7.1.4.2 Chloride (Cl-)

In mg/L

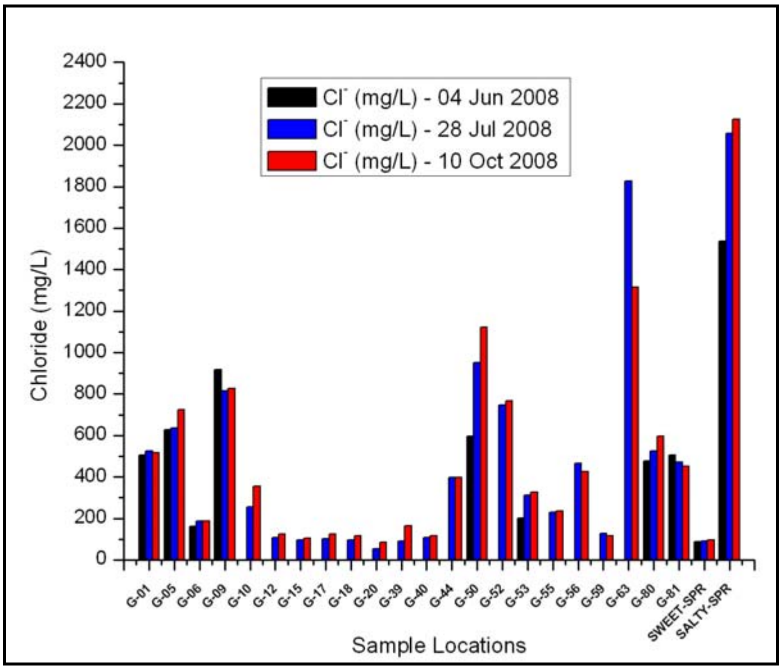


Fig. 4.82: Column graph of chloride (as mg/L) for all the samplings (June, July, October 2008)

Table 4.34: Statistical analysis of chloride (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	561.8	469.9	475.9
Standard Deviation	423	523	488
Standard Error	134	107	99.6
Minimum Value	86.9	54.5	85.9
Maximum Value	1536.5	2055.9	2125.3
Median	506.8	283.9	340.9
Kurtosis	2.56	4.11	4.79

Table 4.35: Statistical analysis of chloride for the same 10 samples (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	561.8	657.3	696.9
Standard Deviation	423	557.6	587.0
Standard Error	134	176	186
Minimum Value	86.9	91.5	95.9
Maximum Value	1536.5	2055.9	2125.3
Median	506.8	526.3	555.8
Kurtosis	2.56	4.69	3.78

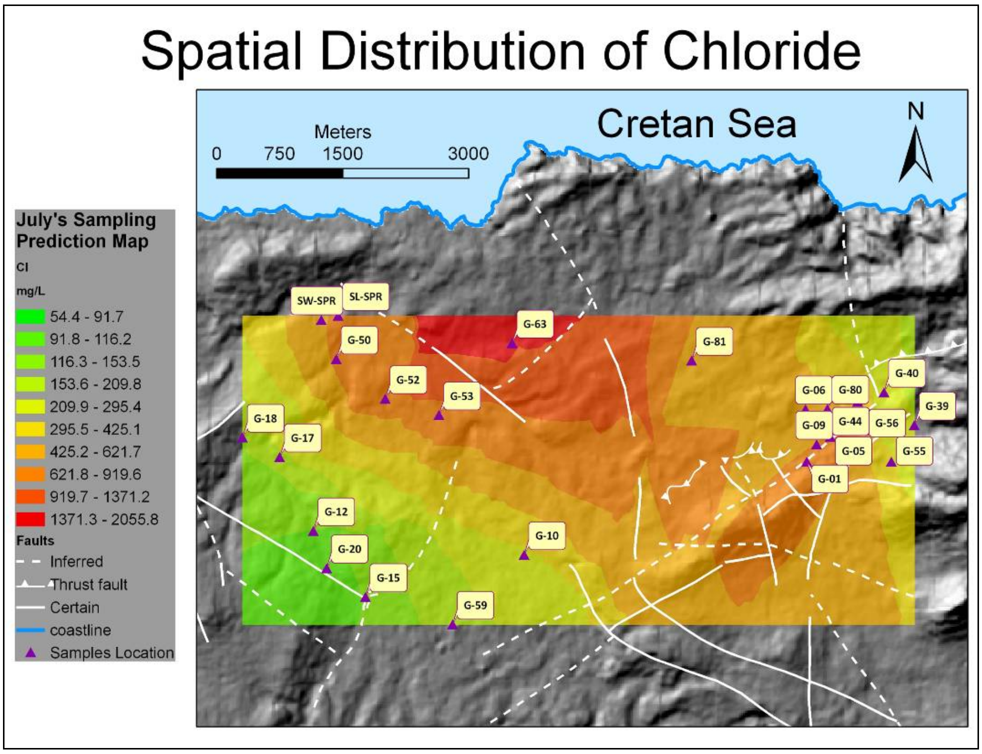


Fig. 4.83: Spatial distribution map of chloride (as mg/L) for July's 2008 sampling

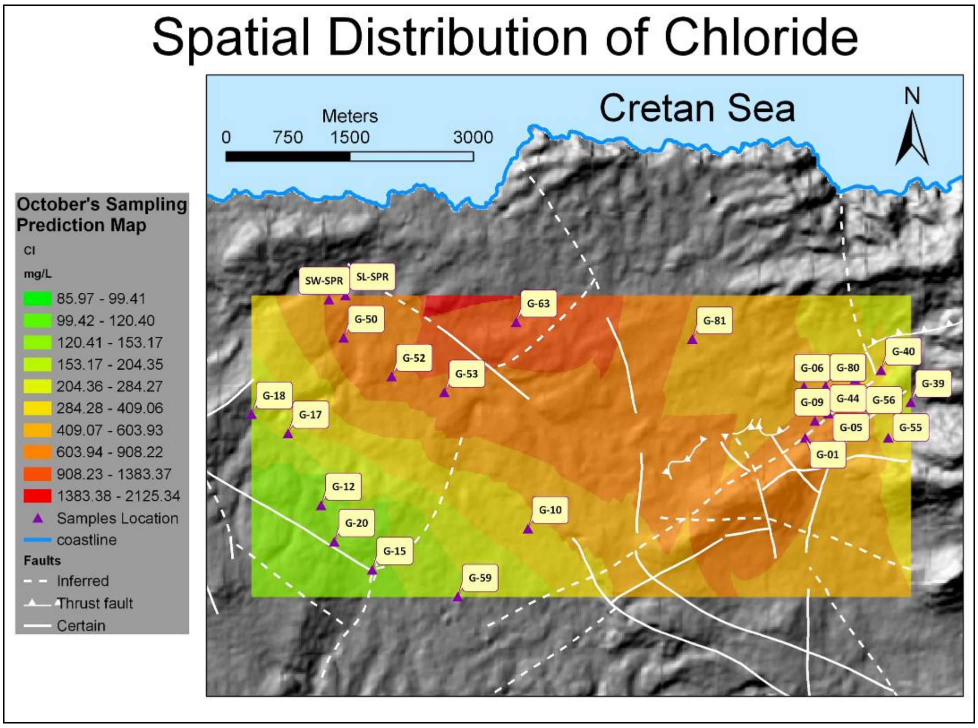


Fig. 4.84: Spatial distribution map of chloride (as mg/L) for October's 2008 sampling

4.7.1.4.3 pH value (H^+)

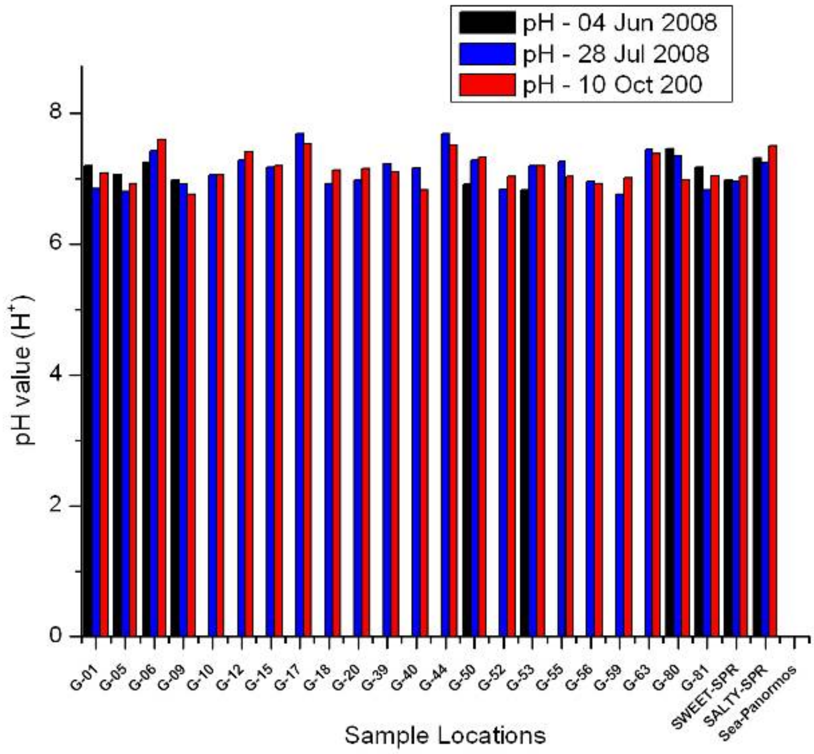


Fig. 4.85: Column graph of pH for all the samplings (June, July, October 2008)

Table 4.36: Statistical analysis of pH for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	7.1	7.1	7.1
Standard Deviation	0.2	0.3	0.2
Standard Error	0.06	0.05	0.04
Minimum Value	6.8	6.8	6.8
Maximum Value	7.5	7.7	7.6
Median	7.1	7.2	7.1
Kurtosis	-0.7	-0.4	-0.7

Table 4.37: Statistical analysis of pH for the same 10 samples for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	7.1	7.1	7.2
Standard Deviation	0.2	0.2	0.3
Standard Error	0.06	0.07	0.08
Minimum Value	6.8	6.8	6.8
Maximum Value	7.5	7.4	7.6
Median	7.1	7.1	7.1
Kurtosis	-0.7	-1.9	-0.4

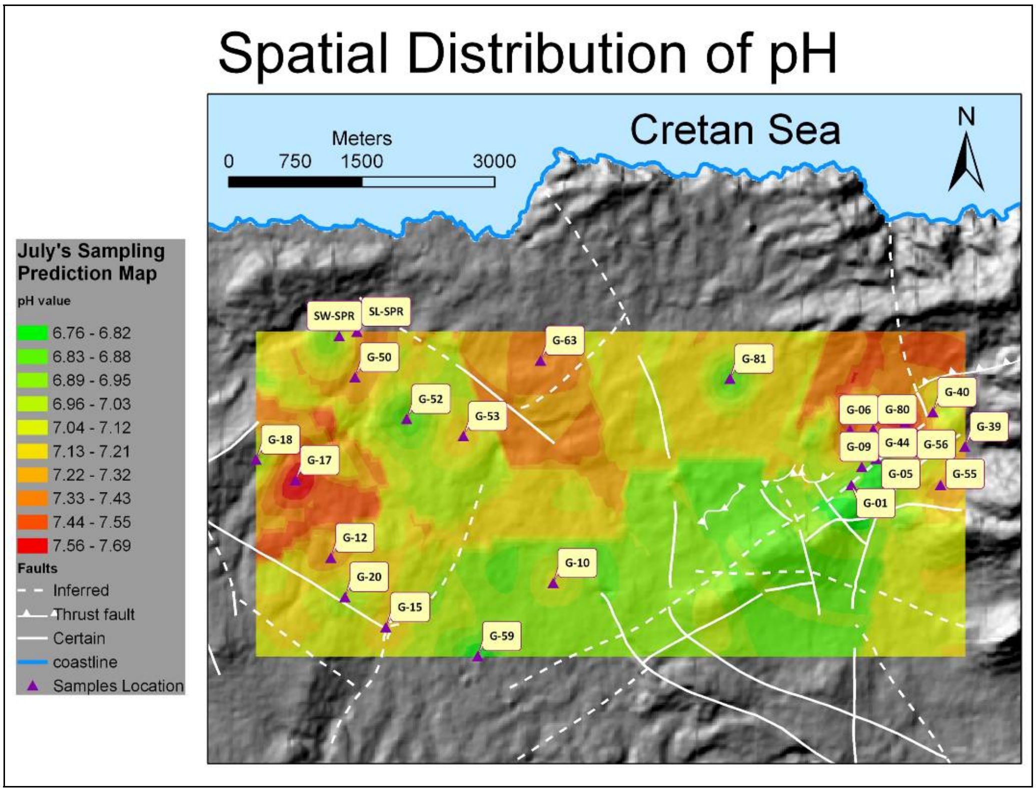


Fig. 4.86: Spatial distribution map of pH for July's 2008 sampling

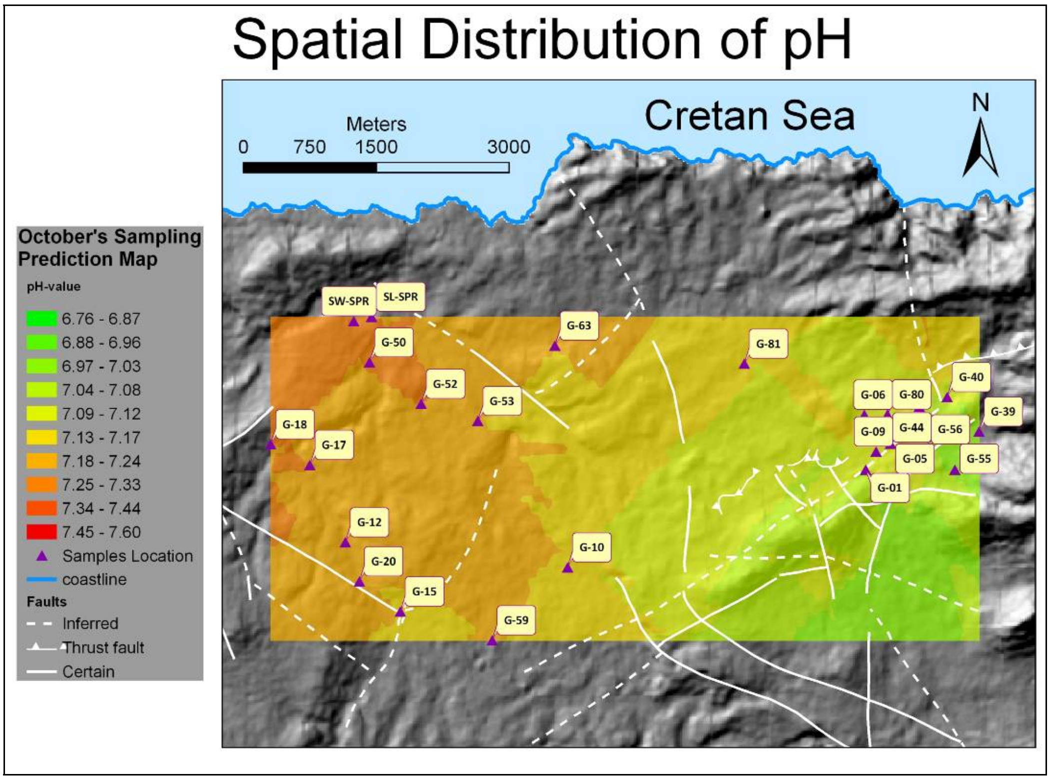


Fig. 4.87: Spatial distribution map of pH for October's 2008 sampling

4.7.1.4.4 Nitrogen (Nitrates, NO_3^-)

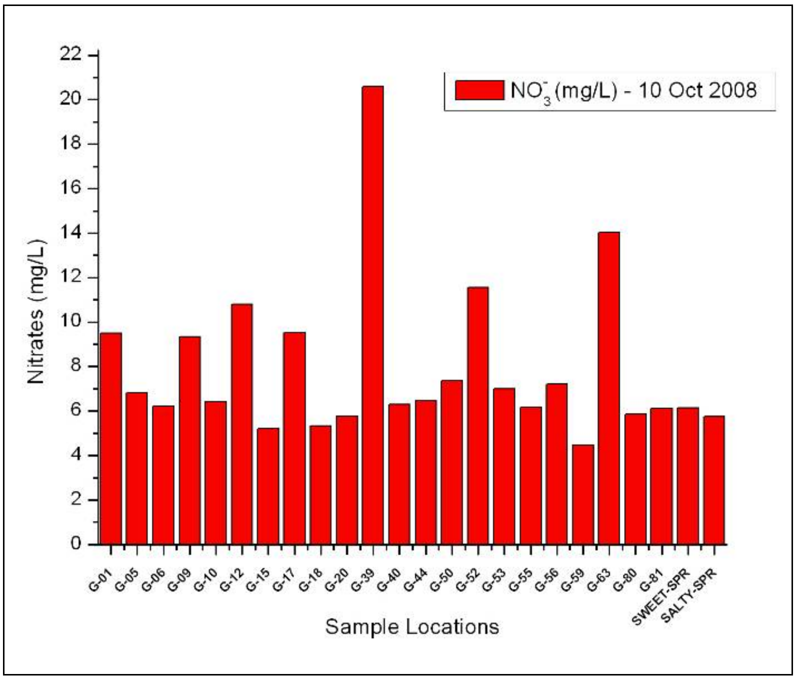


Fig. 4.88: Column graph of nitrate (as mg/L) for October's 2008 sampling

Table 4.38: Statistical analysis of nitrate (as mg/L) for October's 2008 sampling

DATE	01/10/2008
Number of Samples	23
Mean	7.9
Standard Deviation	3.5
Standard Error	0.7
Minimum Value	4.5
Maximum Value	20.6
Median	6.5
Kurtosis	6.6

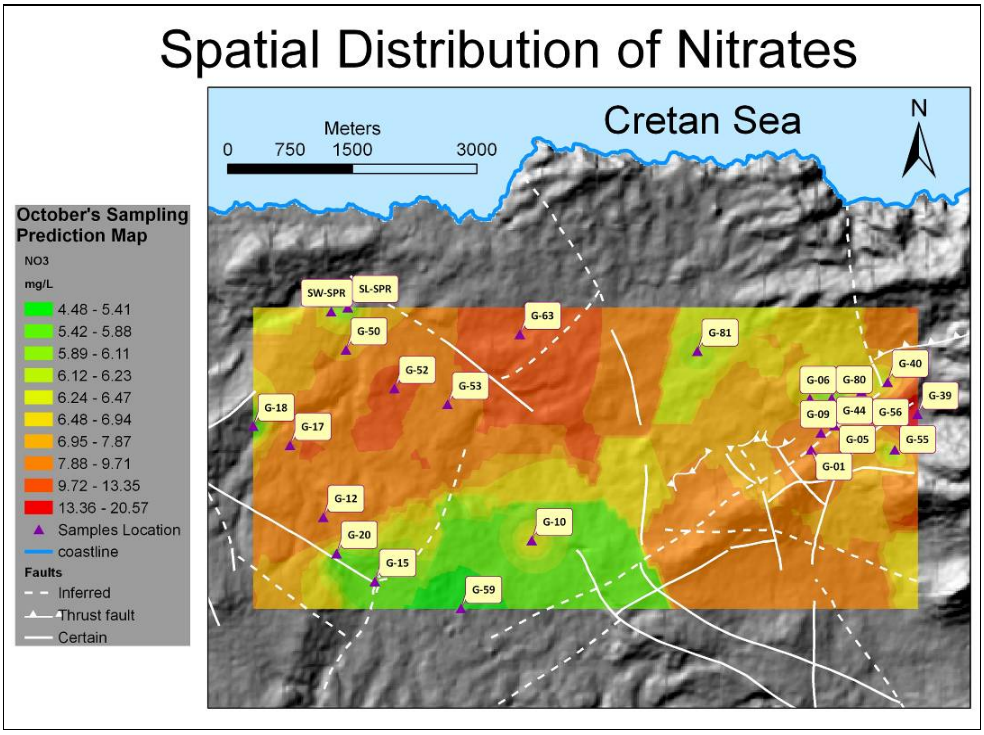


Fig. 4.89: Spatial distribution map of nitrate (as mg/L) for October's 2008 sampling

4.7.1.4.5 Sulfate (SO_4^{2-})

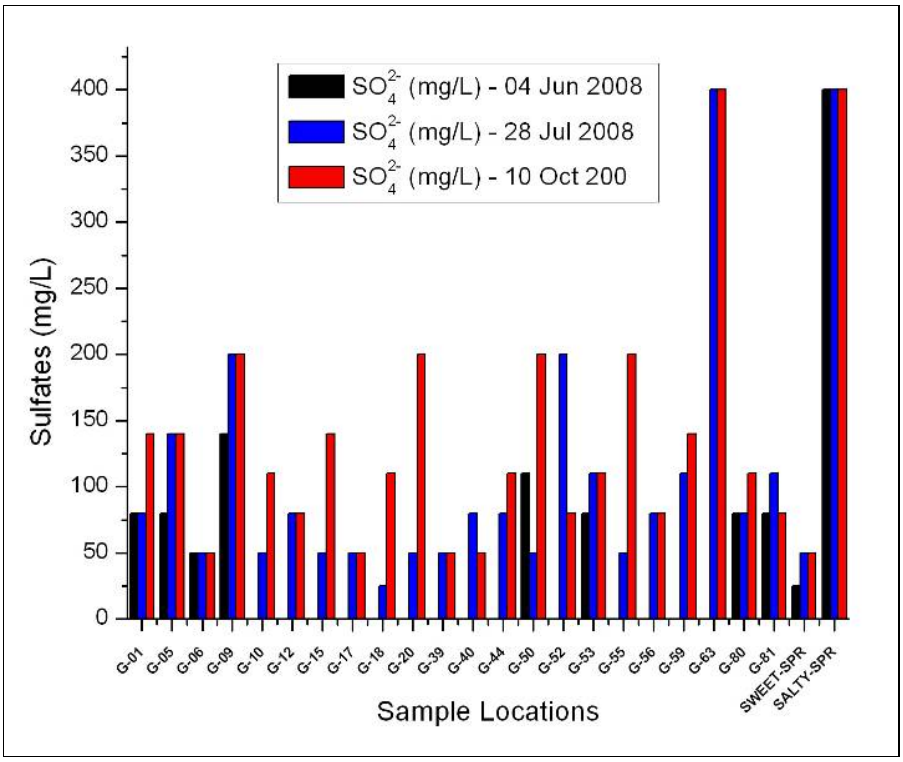


Fig. 4.90: Column graph of sulphate (as mg/L) for all the samplings (June, July, October 2008)

Table 4.39: Statistical analysis of sulfate (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	24	24
Mean	113	109	137
Standard Deviation	105	100	95
Standard Error	33	20	19
Minimum Value	25	25	50
Maximum Value	400	400	400
Median	80	80	110
Kurtosis	7.8	4.8	3.4

Table 4.40: Statistical analysis of sulfate for the same 10 samples (as mg/L) for all the samplings (June, July, October 2008)

DATE	04/06/2008	28/07/2008	01/10/2008
Number of Samples	10	10	10
Mean	113	127	148
Standard Deviation	105	107	103
Standard Error	33	34	33
Minimum Value	25	50	50
Maximum Value	400	400	400
Median	80	95	125
Kurtosis	7.8	5.2	3.9

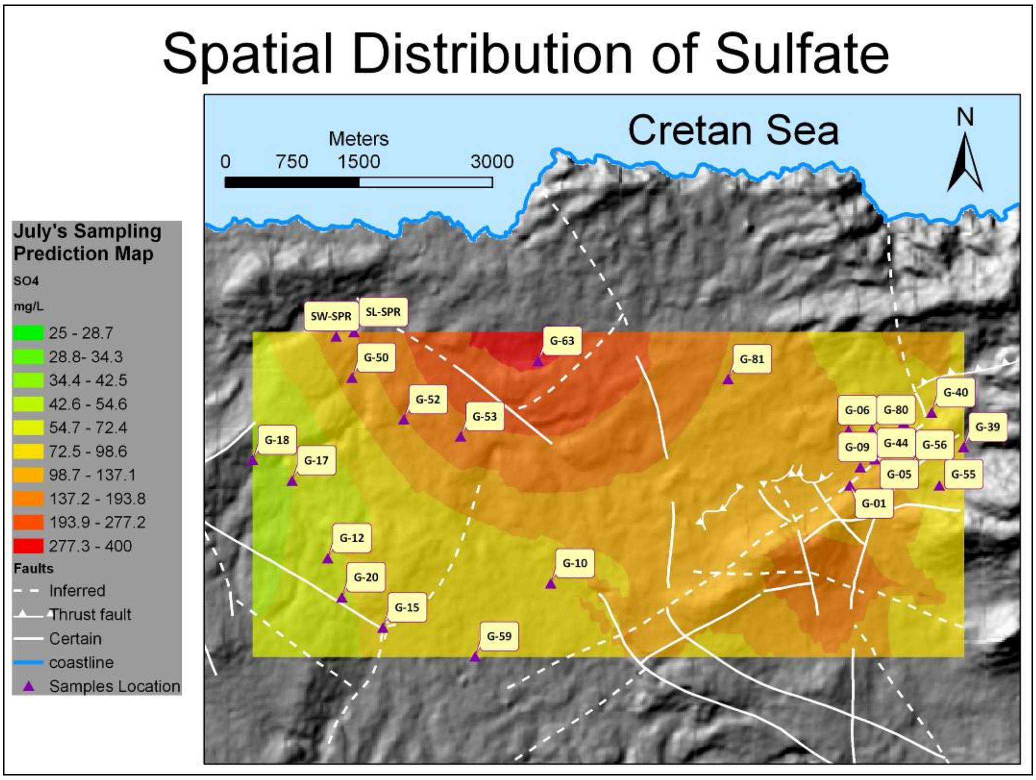


Fig. 4.91: Spatial distribution map of sulfate (as mg/L) for July's 2008 sampling

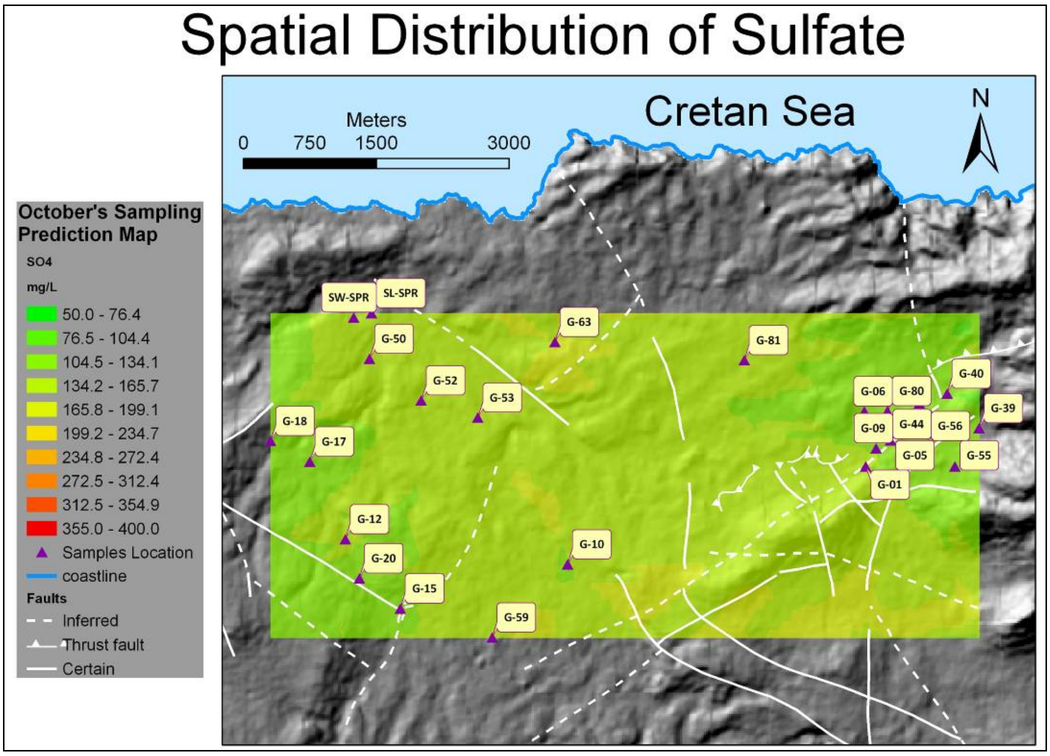


Fig. 4.92: Spatial distribution map of sulfate (as mg/L) for October's 2008 sampling

4.7.1.4.6 Phosphate (PO_4^{3-})

Table 4.41: Statistical analysis of phosphate (as mg/L) for October 2008 sampling

DATE	01/10/2008
Number of Samples	24
Concentration for all the samples (mg/L)	0.00

4.7.2 Special Interpretation of the results of the geochemical parameters

The results of the geochemical parameters were processed using graphic and statistical methods, and the results are presented in this chapter. At first place, the type of water of each sample location was characterized (based on the dominant ion), and then several diagrams, like Piper diagram, Durov diagram, dispersion diagrams etc, were constructed, and quality factors were calculated, in order to identify which is the source of contamination (seawater or halite).

4.7.2.1 Ionic Concentrations of the Aegean seawater

The chemical analysis of the seawater of the study area didn't take place at the lab but concentrations of the Aegean sea-water were taken from Yalçin et al. (1997).

4.7.2.2 Characterization of Groundwater

Concentrations (in mg/L) of chemical parameters as determined by various methods (**Appendix C**), were converted into me/L (milliequivalents/Litre) for characterization of groundwater according to the dominant ions (**Table 4.43**).

Table 4.42: Aegean seawater concentrations as derived from Yalçin et al. (1997).

Ions	Aegean sea-water, mg/L
Cations	
Na^+	11699
Mg^{2+}	1337
Ca^{2+}	477
K^+	283
Anions	
Cl^-	21999
SO_4^{2-}	3016
CO_3^{2-}	140
Br^-	60
Total	39011

Generally, $Ca(HCO_3)_2$ type of water is considered as fresh water, while NaCl type of water is considered as salty. On the other hand, $CaCl_2$.type of water is characterized as transition water type.

According to the main constituents (dominant ions), from the 24 samples, three types of groundwater determined: NaCl type (blue colour) - 13 samples, $Ca(HCO_3)_2$ type (green colour) - 9 samples, and $CaCl_2$.(red colour) - 2 samples. Spatial distributions of groundwater types for October's 2008 sampling (applying ordinary kriging) is shown in **Figure 4.93**.

Table 4.43: Concentrations of chemical parameters in me/L for characterization of groundwater

Code Name	Anions			Cations				
	HCO_3 me/L	Cl^- me/L	SO_4 me/L	K me/L	Na me/L	Ca me/L	Mg me/L	Water Type
G-01	6.7	**14.6**	2.9	0.12	**12.62**	5.23	5.66	**NaCl**
G-05	5.6	**20.5**	2.9	0.16	**17.84**	5.59	5.81	**NaCl**
G-06	4.8	**5.2**	1.0	0.05	**5.52**	2.96	2.35	**NaCl**
G-09	6.2	**23.3**	4.2	0.19	**19.25**	5.87	6.41	**NaCl**
G-10	7.7	**10.0**	2.3	0.17	7.43	**7.50**	1.92	**$CaCl_2$**
G-12	**6.6**	3.6	1.7	0.07	1.12	**5.41**	1.37	**$Ca(HCO_3)_2$**
G-15	**6.4**	2.9	2.9	0.05	1.91	**5.49**	0.93	**$Ca(HCO_3)_2$**
G-17	**5.9**	3.6	1.0	0.03	2.45	**5.06**	0.98	**$Ca(HCO_3)_2$**
G-18	**5.6**	3.3	2.3	0.03	2.23	**3.82**	1.26	**$Ca(HCO_3)_2$**
G-20	**6.1**	2.4	4.2	0.03	1.76	**4.85**	0.85	**$Ca(HCO_3)_2$**
G-39	**7.9**	4.7	1.0	0.14	2.39	**4.63**	4.44	**$Ca(HCO_3)_2$**
G-40	**7.7**	3.3	1.0	0.01	2.36	**3.76**	3.38	**$Ca(HCO_3)_2$**
G-44	6.4	**11.2**	2.3	0.13	**10.96**	3.86	4.97	**NaCl**
G-50	5.0	**31.6**	4.2	0.27	**26.43**	9.26	5.63	**NaCl**
G-52	5.5	**21.6**	1.7	0.12	**17.18**	9.32	3.39	**NaCl**
G-53	5.5	**9.2**	2.3	0.11	**6.79**	6.10	1.94	**NaCl**
G-55	6.4	**6.7**	4.2	0.06	3.69	**3.83**	3.66	**$CaCl_2$**
G-56	6.3	**12.0**	1.7	0.12	**11.57**	5.03	5.09	**NaCl**
G-59	**6.4**	3.3	2.9	0.08	2.33	**6.35**	1.22	**$Ca(HCO_3)_2$**
G-63	4.6	**37.1**	8.3	0.47	**33.13**	7.39	7.26	**NaCl**
G-80	5.2	**16.8**	2.3	0.16	**13.38**	4.85	4.53	**NaCl**
G-81	5.1	**12.7**	1.7	0.09	**9.18**	5.70	2.32	**NaCl**
SW-SP	**5.9**	2.7	1.0	0.03	2.07	**4.63**	0.96	**$Ca(HCO_3)_2$**
SL-SP	4.0	**59.9**	8.3	0.76	**53.51**	7.42	9.38	**NaCl**

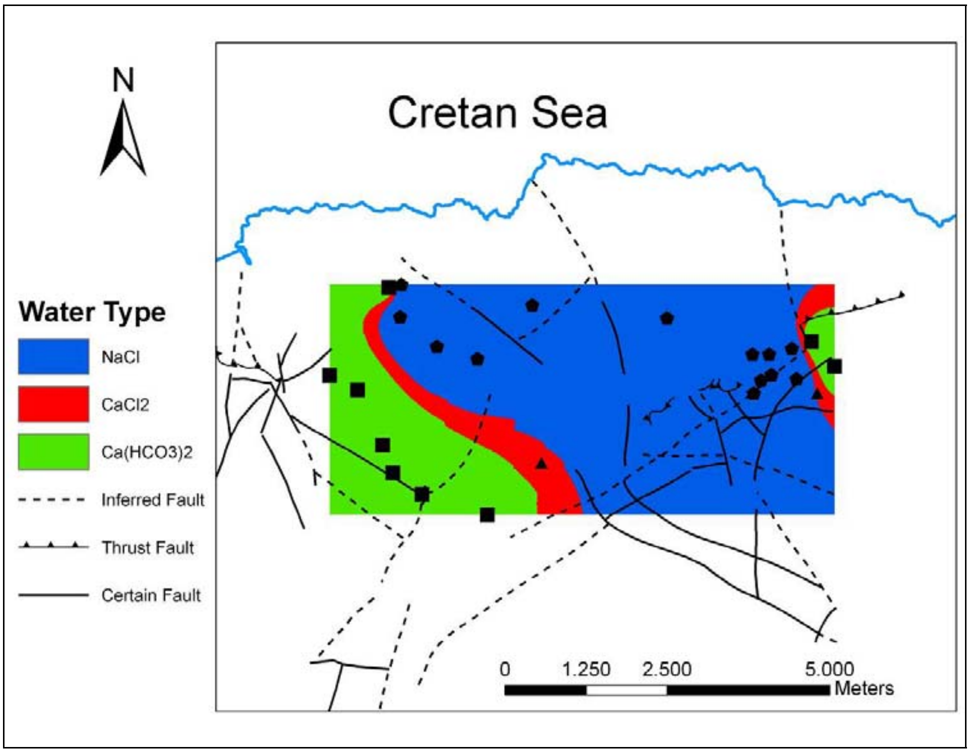


Fig. 4.93: Spatial distributions of groundwater types for October's 2008 sampling. Rectangulars: **$Ca(HCO_3)_2$** type, Triangles: **$CaCl_2$** type, and pentagons: **NaCl** type.

4.7.2.3 Ternary Diagrams

Two ternary (tri-lateral) diagrams were generated for dominant anions and dominant cations respectively based on the previous **section 4.7.3.2**. Each diagram is based on three columns of data for depicting the proportions of the main cations or anions, expressed in milliequivalents per litre (me/L).

For anions, the diagram has 100% Cl^- to the left corner, bicarbonate to the right and SO_4^{2-} on top. For cations, the diagram has 100% Ca^{2+} in the left corner, 100% Mg^{2+} towards the right, and 100% Na^+ upwards.

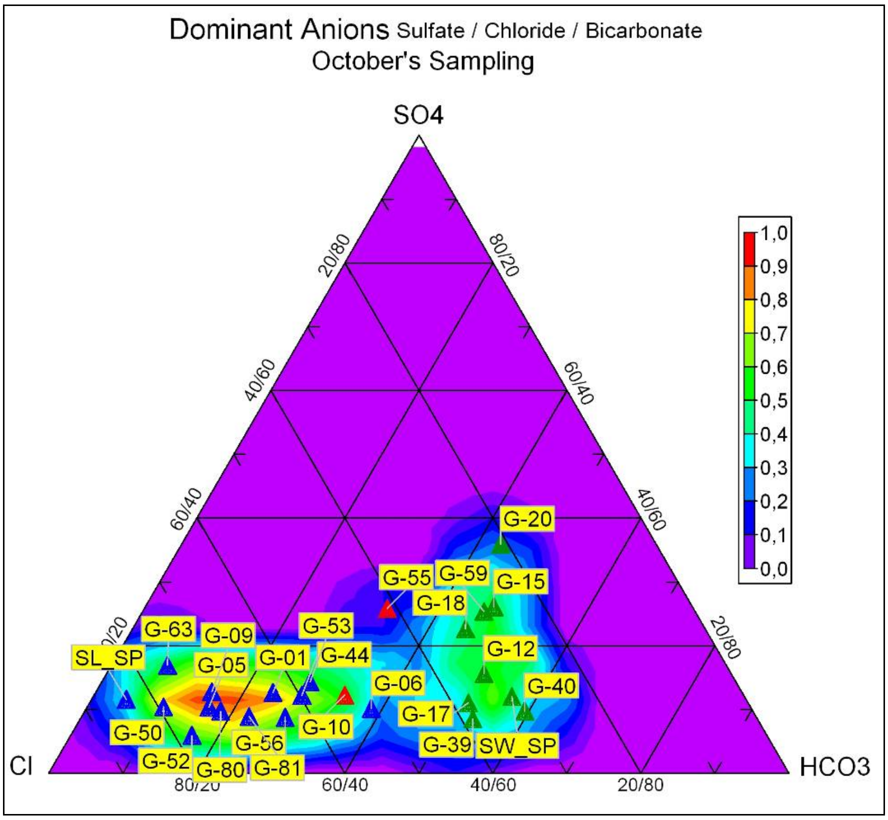


Fig. 4.94: Ternary diagram of major anions

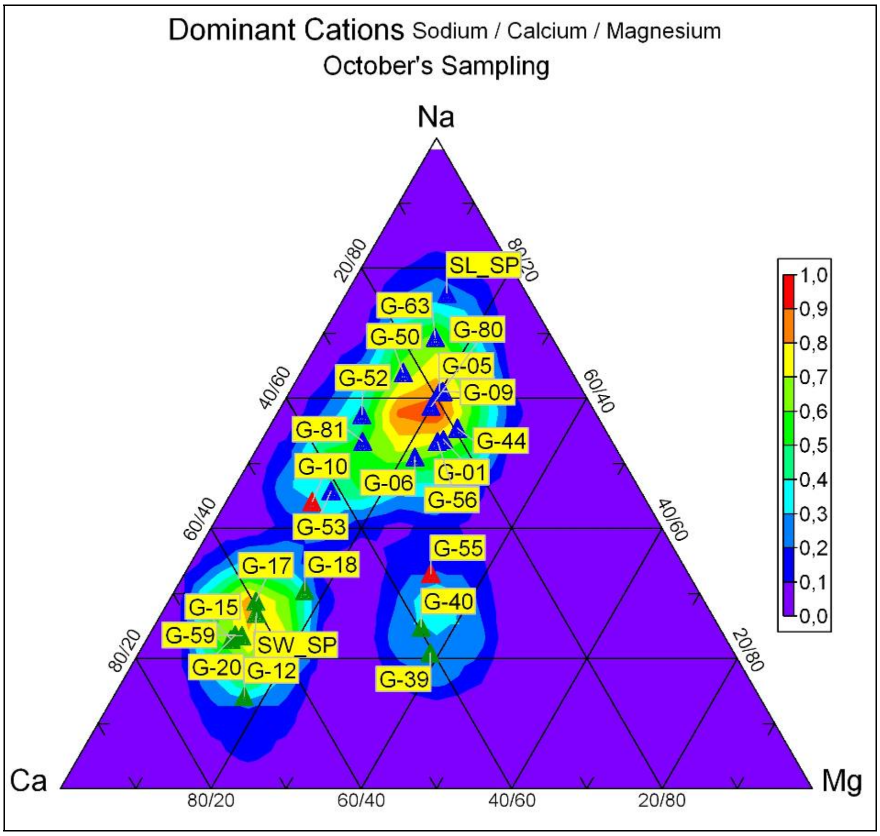


Fig. 4.95: Ternary diagram of major cations

4.7.2.4 Piper Diagram

A very useful way for compiling a large number of chemical analyses is by constructing the so-called Piper diagram. This diagram contains two triangular charts for illustrating the proportions of cations and anions (expressed in milliequivalents /Litre (me/L)). At the left is situated the triangle for cations (Ca^{2+}, Na^{+} + K^{+}, Mg^{2+}), while at the right the triangle for anions (carbonate, Cl^{-}, SO_4^{2-}) (**Fig. 4.96**).

The triangle for cations has 100% of Ca^{2+}, Na^{+} + K^{+} and Mg^{2+} in the left, the right, and on top corner respectively. The sum of their concentrations (in me/L) is recalculated to 100% and the relative composition is plotted in the triangle. Similarly, for anions, the triangle has 100% carbonate, Cl^{-} and SO_4^{2-} to the left, to the right and on top corner respectively. The two data points in the triangles (cation and anion triangles) are united by drawing lines parallel to the outside boundary until they join in the middle diamond shape (**Fig. 4.96**). Therefore, a single point indicates the relative chemical composition of the groundwater (Appelo and Postma, 2005).

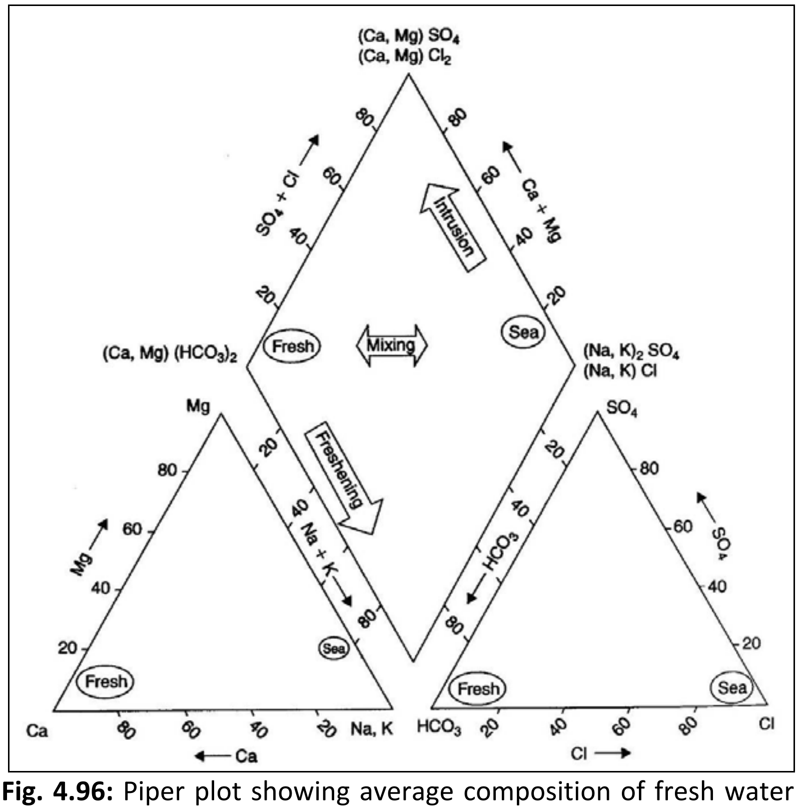


Fig. 4.96: Piper plot showing average composition of fresh water and seawater (Appelo and Postma, 2005).

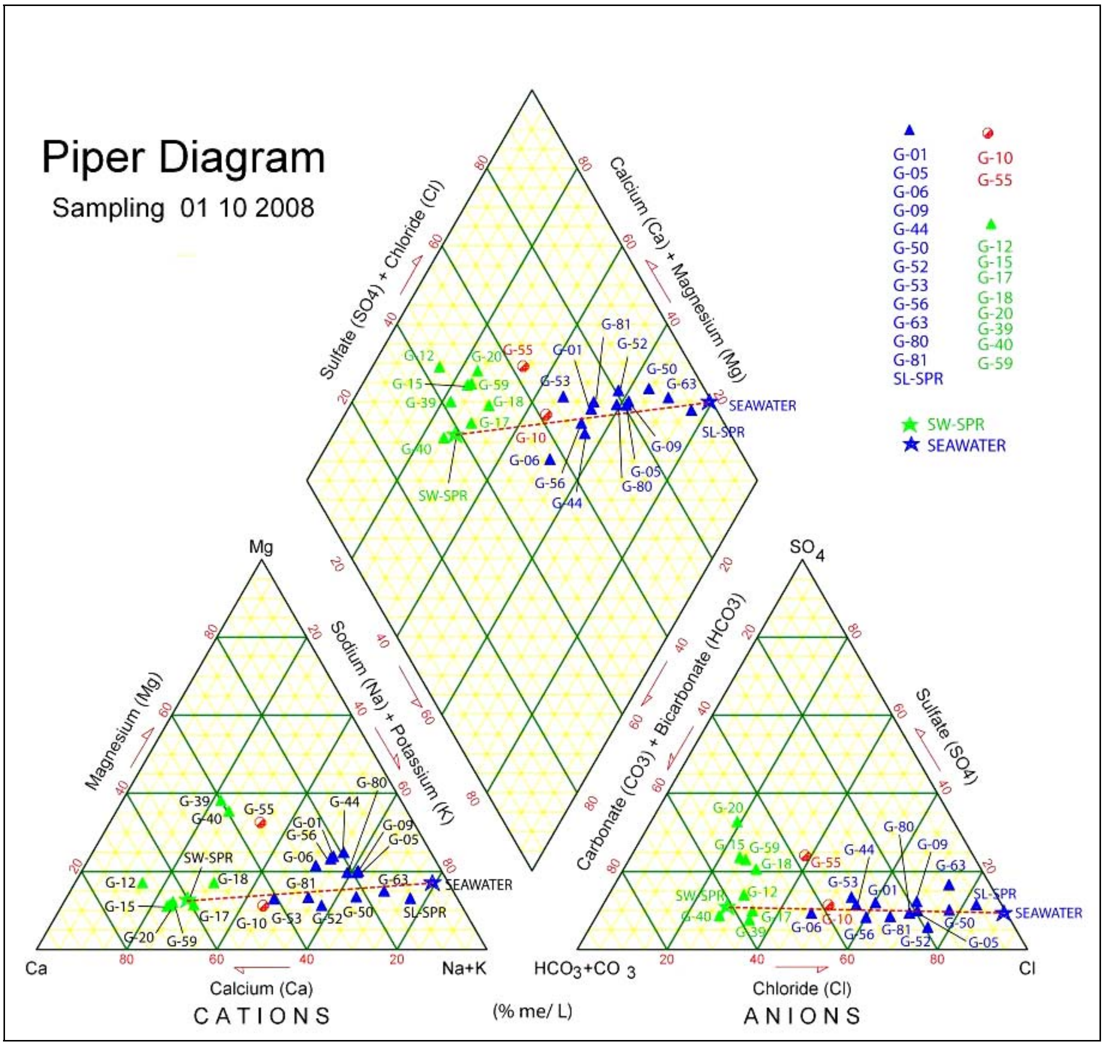


Fig. 4.97: Piper diagram for October's sampling showing theoretical fresh-seawater mixing line: Red dotted line is the mixing line between fresh (sweet spring) and seawater

4.7.2.5 Durov Diagram

The Durov diagram plots the major ions as percentages of milli-equivalents (me) in two triangles, while the total anions and the total cations are equal to 100%. The data points (in the two triangles) are projected onto a square grid which lies perpendicular to the third axis in each triangle (**Fig. 4.98**). (Rockworks 14 Help, 2008).

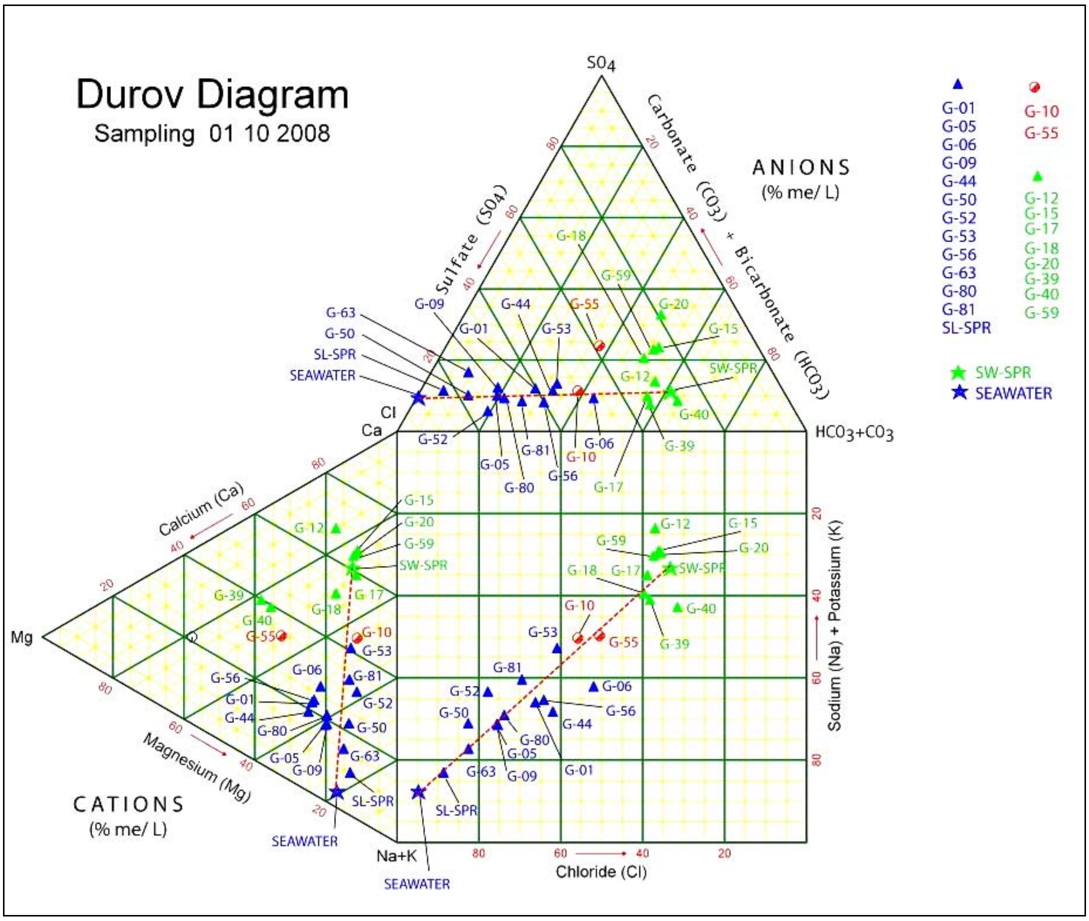


Fig. 4.98: Durov diagram for October's sampling. Red dotted line is the mixing line between fresh (sweet spring) and seawater

4.7.2.6 Stiff Diagrams - Stiff Map

The Stiff diagrams are plotted for individual samples as a method of graphically comparing the concentration of selected anions and cations for several individual samples. The shape formed by the Stiff diagrams identifies samples that have similar compositions and are useful when used as map symbols (**Fig. 4.99 & 4.100**) (Rockworks 14 Help, 2008).

A stiff diagram consists of three horizontal axes displaying selected components. On each axis a cation is plotted to the left and an anion to the right, again in me/L. The uppermost axis has Na^+ to the left and Cl^- to the right and reflects a possible marine influence since in seawater NaCl is the dominant salt. The second axis has Ca^{2+} to the left and HCO_3^- to the right and this axis is meant to display the dissolution of $CaCO_3$. The third axis has Mg^{2+} to the left and

SO_4^{2-} to the right, presenting the remaining two major components in most waters (Appelo and Postma, 2005).

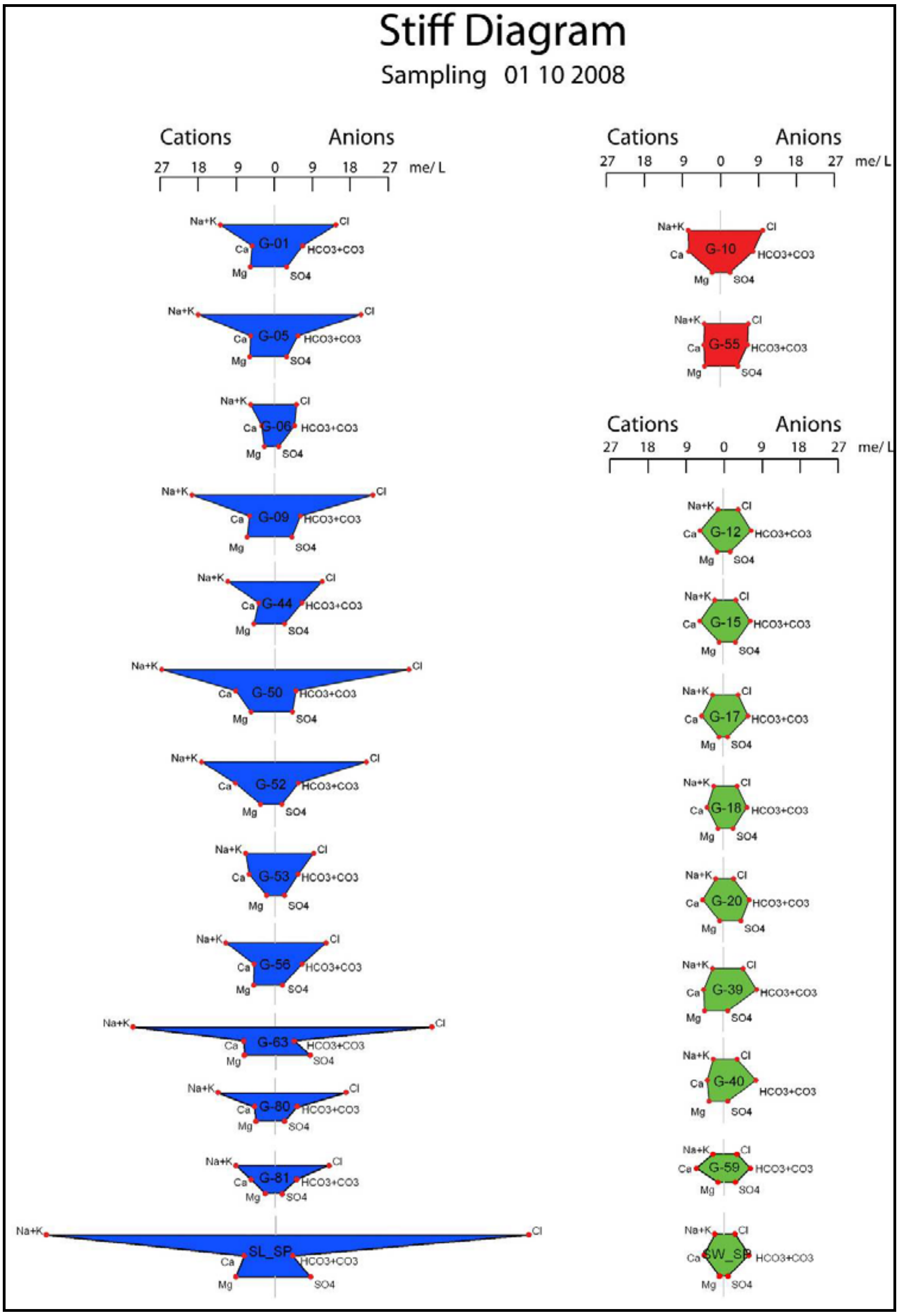


Fig. 4.99: Stiff diagrams for October's sampling. Blue colour represents the NaCl water type, red represents the $CaCl_2$ water type, and green represents the $Ca(HCO_3)_2$ type (according to section **4.7.3.2**).

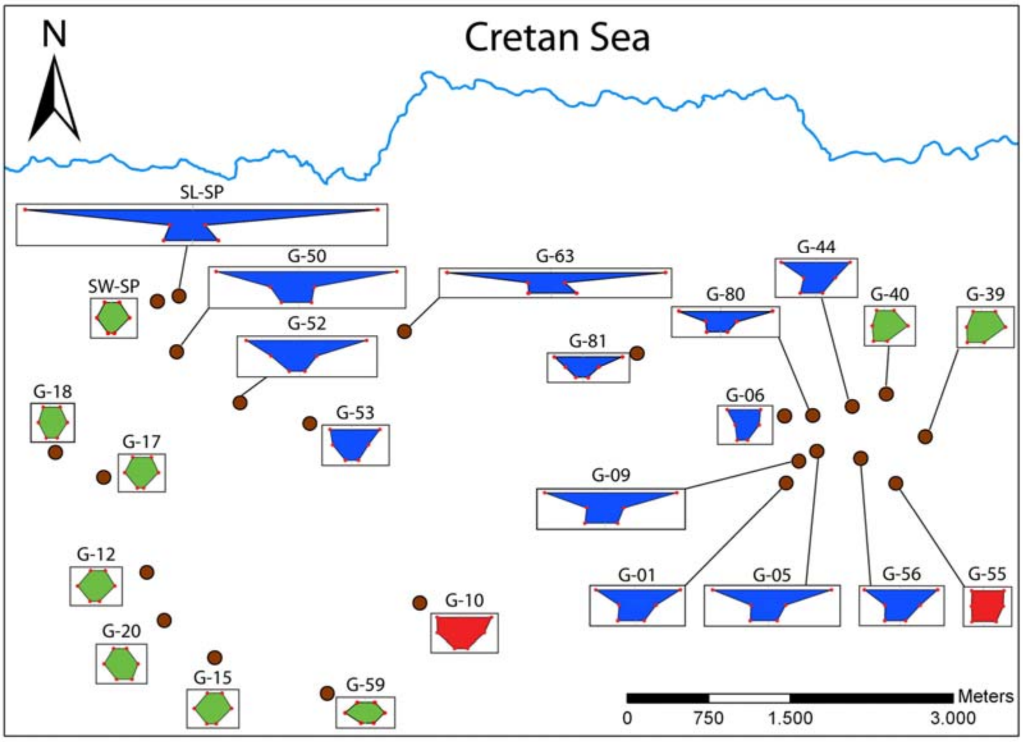


Fig. 4.100: Stiff map: Spatial distribution of Stiff diagrams for October's sampling

4.7.2.7 Sodium Absorption Ratio (SAR)

High sodium concentrations in irrigation water affect the permeability of soil and cause infiltration problems, and finally results in breakdown of soil aggregates (Kallergis, 2001).

Geochemists often use the Sodium Absorption Ratio (SAR) of water to estimate the appropriateness of irrigation water, as proposed first from Ayer in 1975. SAR is defined by the following equation:

$$SAR=\frac{Na}{\sqrt{(Ca+Mg)/2}}, \quad \text{where Na, Ca, Mg in me/L}$$

The SAR hazard classification is shown in **Figure 4.101**, where values below 6 indicate no problem concerning the irrigation water, between 6 to nine the SAR hazard is moderate, and above 9 the hazard is acute, and the water is unsuitable for any kind of crops (Kallergis, 2001).

The SAR hazard map of the study area, which was extracted in GIS environment for October's sampling (where sodium was increased greatly), using ordinary Kriging interpolator, is presented below (**Fig. 4.101**).

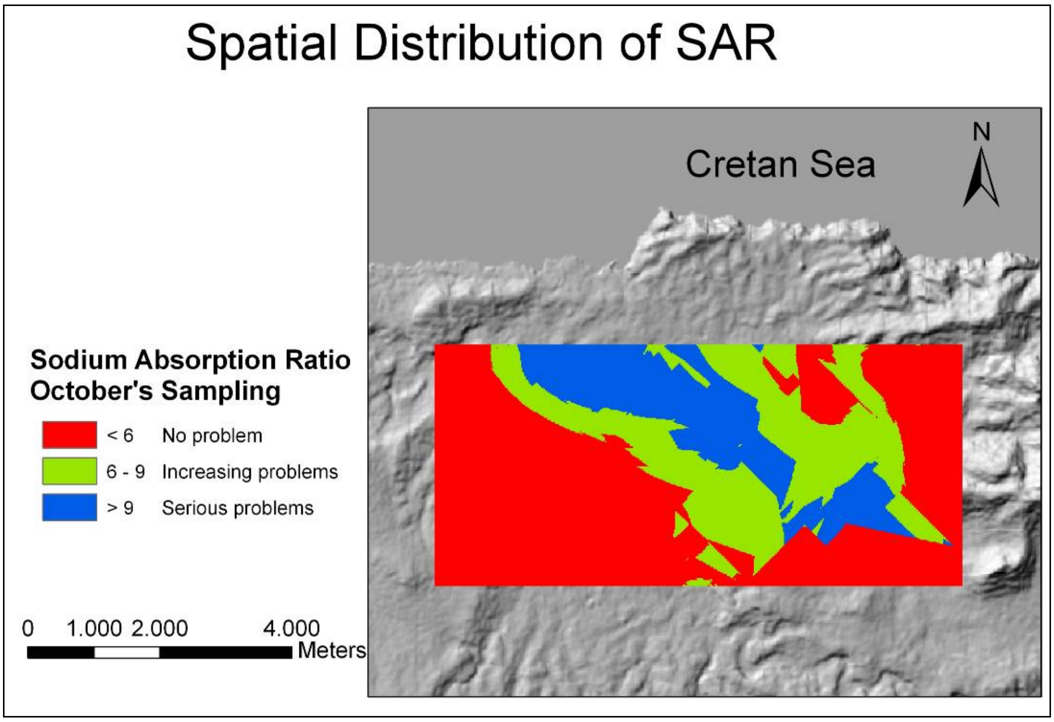


Fig. 4.101: SAR hazard map of the study area.

4.7.2.8 Wilcox Plot

Using SAR and electrical conductivity values, an easy way that can be used to determine easily the viability of irrigation water is the Wilcox plot.

The Wilcox diagram is a simple scatter plot of SAR on the Y-axis vs. electrical conductivity on the X-axis (in log scale). The plot was created in AquaChem software 5.1 Version by Rockworks. The categories that the software divides the sodium (SAR) and salinity hazard (EC) are giving in **Table 4.44**.

Table 4.44: Categories of SAR and EC used for Wilcox diagram construction

Conductivity (µs/cm)				SAR*	
C1	Low	0-249		**S1**	Low
C2	Medium	250-749		**S2**	Medium
C3	High	750-2249		**S3**	High
C4	Very High	2250-5000		**S4**	Very High

* The locations of the SAR lines are determined by the following equations (AquaChem Help, 2008):

S1: Line equation: y= -1.5816e-3x + 10.15816

S2: Line equation: y= -2.2959e-3x + 18.22959

S3: Line equation: y= -3.0102e-3x + 26.30102

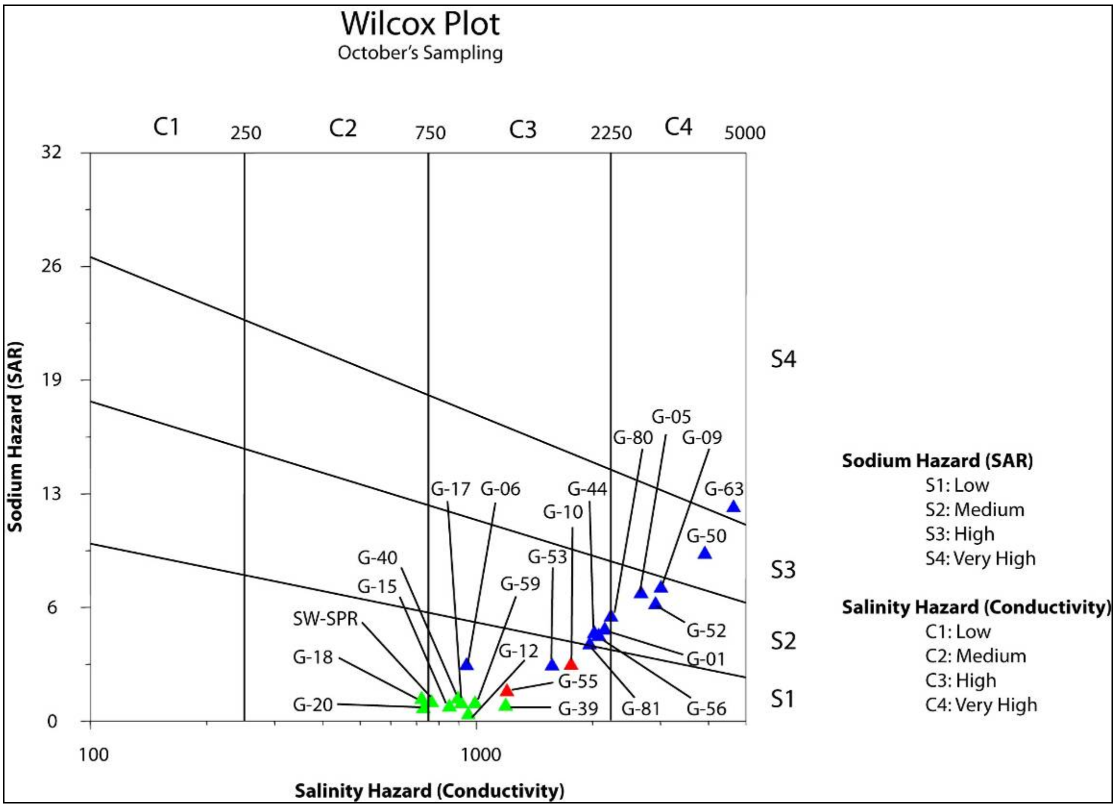


Fig. 4.102: Wilcox plot of the study area for irrigation water determination. Salty spring is not included (out of range (EC>5,000µS/cm))

The Wilcox plot for the study area for October's sampling (where sodium was increased greatly), is presented below (**Fig. 4.102**). Note that only 23 of the 24 sample locations are depicted, because the electrical conductivity of Salty Spring was out of range (above 5,000μs/cm - very high salinity hazard), so this sample location is not included in the Wilcox plot.

4.7.2.9 Dispersion Diagrams

Dispersion diagrams were created in order to find if the water from each borehole has the same source of contamination. This fact was checked by the correlation coefficient R (known as Pearson's R) which is used in statistics for indicating the strength and direction of a linear relationship between two random variables (Rodgers & Nicewander, 1988).

Several authors have offered guidelines for the classification of a correlation coefficient R (e.g. Lomax, 2007; Cohen, 1988), as the interpretation of a correlation coefficient depends on the purposes. For the interpretation of the size of correlation of the chemical parameters, the classification presented in **Table 4.45** was used:

Correlation	R
None	≈0
Weak	<0.50
Medium	0.50-0.80
Strong	>0.80
Perfect	1

Table 4.45: Classification of correlation coefficient which used for the chemical parameters

So, only when the data points all lie exactly on a straight line (with positive slope) a perfect correlation of 1 occurs. A correlation bigger than 0.8 is usually described as strong, while a correlation less than 0.5 is described as weak. No linear correlation for R close to 0.

Five kinds of dispersion diagrams were constructed for all the samplings (June, July, August 2008), where various major elements are plotted in relation to Cl^- concentration: Na-Cl, Ca-Cl, K-Cl, Mg-Cl, and SO_4-Cl. The solid line represents the regression line of each diagram, drawn according to the least-square method, while, the dotted line is the marine composition line (mixing line), joining the end-members - fresh water (sweet spring) and Aegean seawater.

All cross-plots have very high correlation coefficients (R) of their concentrations (0.91-0.98), and a few close to 0.8.

4.7.2.9.1 Na-Cl

Sampling 4 June 2008

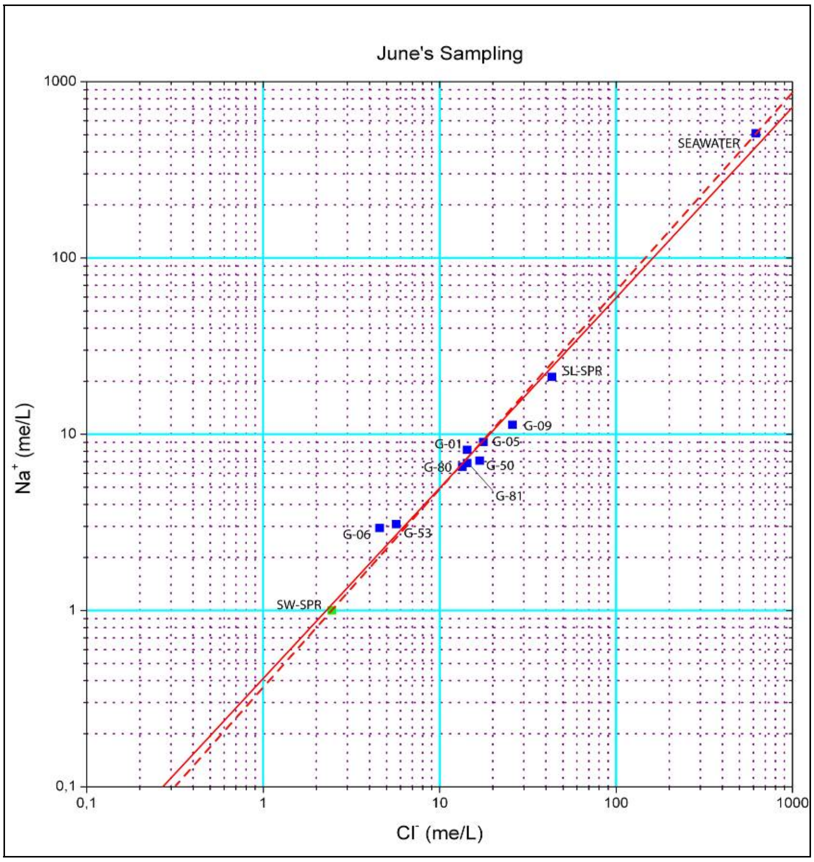


Fig. 4.103: Dispersion Diagram of Na^+ in relation to Cl^- for June's sampling

Yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.38548	0.05289
B	1.08035	0.03861

R-Value	Standard Deviation	N	P value
0.99	0.08	11	<0.0001

Sampling 28 July 2008

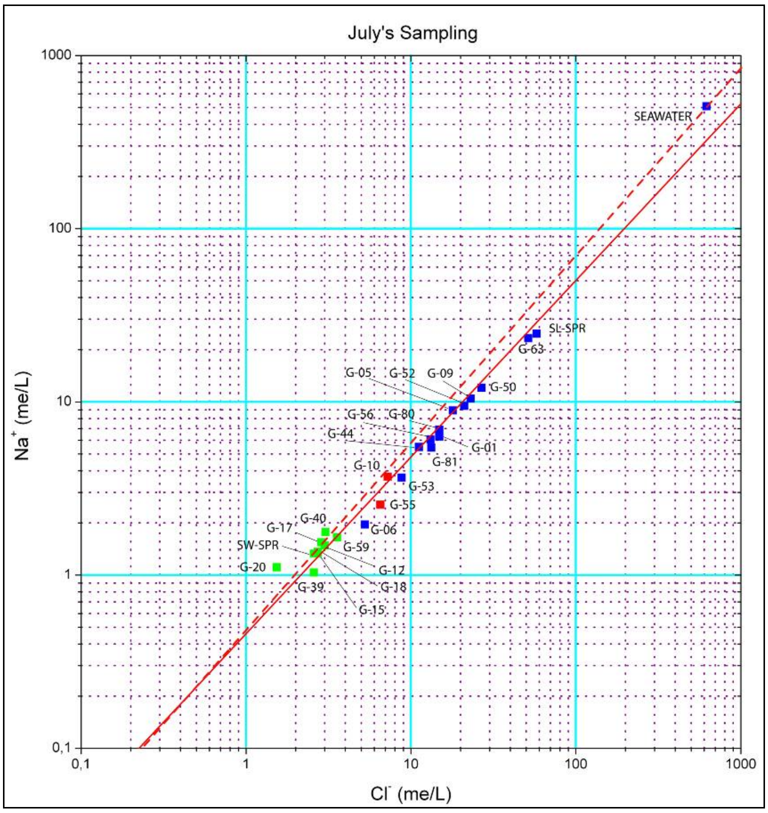


Fig. 4.104: Dispersion Diagram of Na^+ in relation to Cl^- for July's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.33832	0.03102
B	1.01972	0.02743

R-Value	**Standard Deviation**	**N**	**P**
0.99	0.08	25	<0.0001

Sampling 10 October 2008

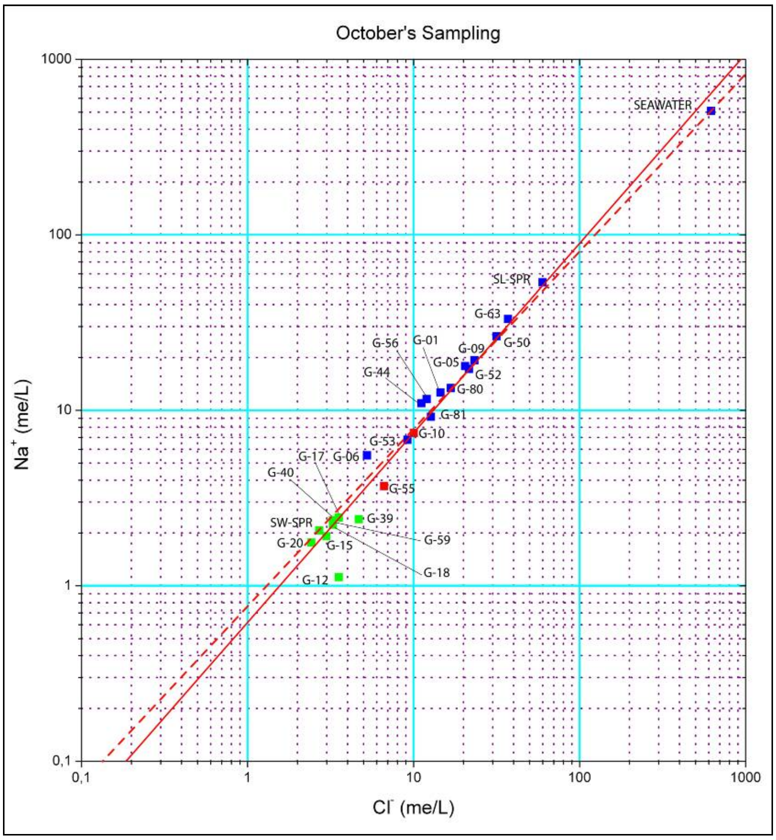


Fig. 4.105: Dispersion Diagram of Na^{+} in relation to Cl^{-} for October's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.20887	0.04235
B	1.08001	0.0369

R-Value	Standard Deviation	N	P
0.99	0.09	25	<0.0001

4.7.2.9.2 Ca-Cl

Sampling 4 June 2008

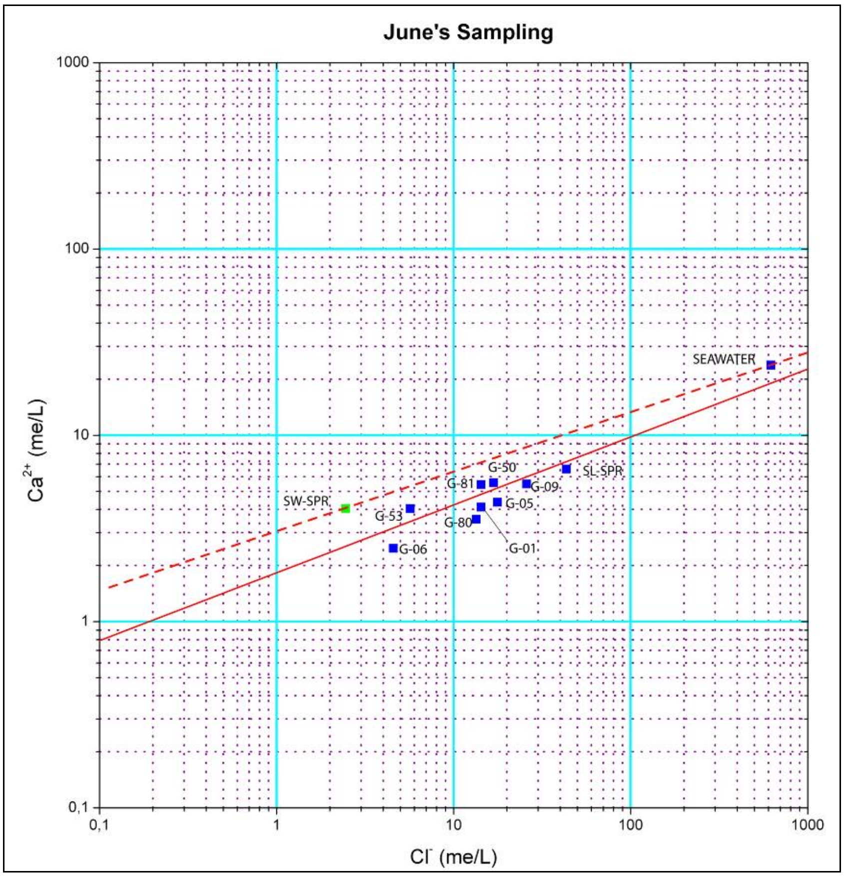


Fig. 4.106: Dispersion Diagram of Ca^{2+} in relation to Cl^- for June's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	0.26208	0.07304
B	0.36441	0.05333

R-Value	Standard Deviation	N	P
0.92	0.11	11	<0.0001

Sampling 28 July 2008

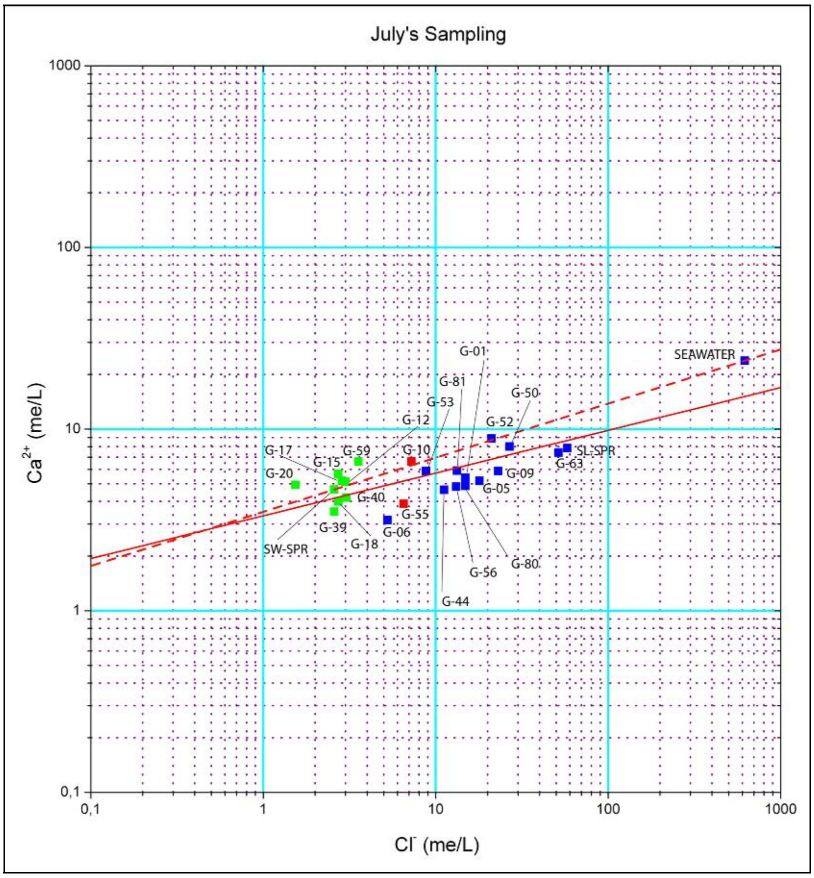


Fig. 4.107: Dispersion Diagram of Ca^{2+} in relation to Cl^- for July's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	0.52269	0.04225
B	0.23525	0.03737

R-Value	**Standard Deviation**	**N**	**P**
0.80	0.11	25	<0.0001

Sampling 10 October 2008

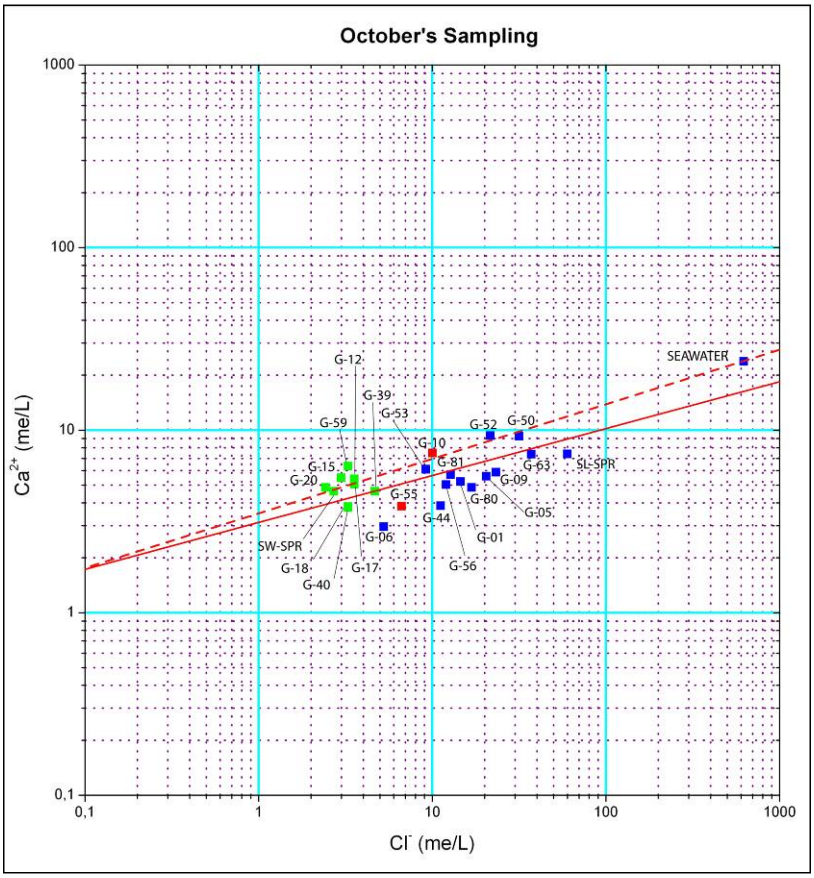


Fig. 4.108: Dispersion Diagram of Ca^{2+} in relation to Cl^- for October's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	0.49422	0.04762
B	0.25722	0.0415

R-Value	**Standard Deviation**	**N**	**P**
0.79	0.11	25	<0.0001

4.7.2.9.3 K-Cl

Sampling 4 June 2008

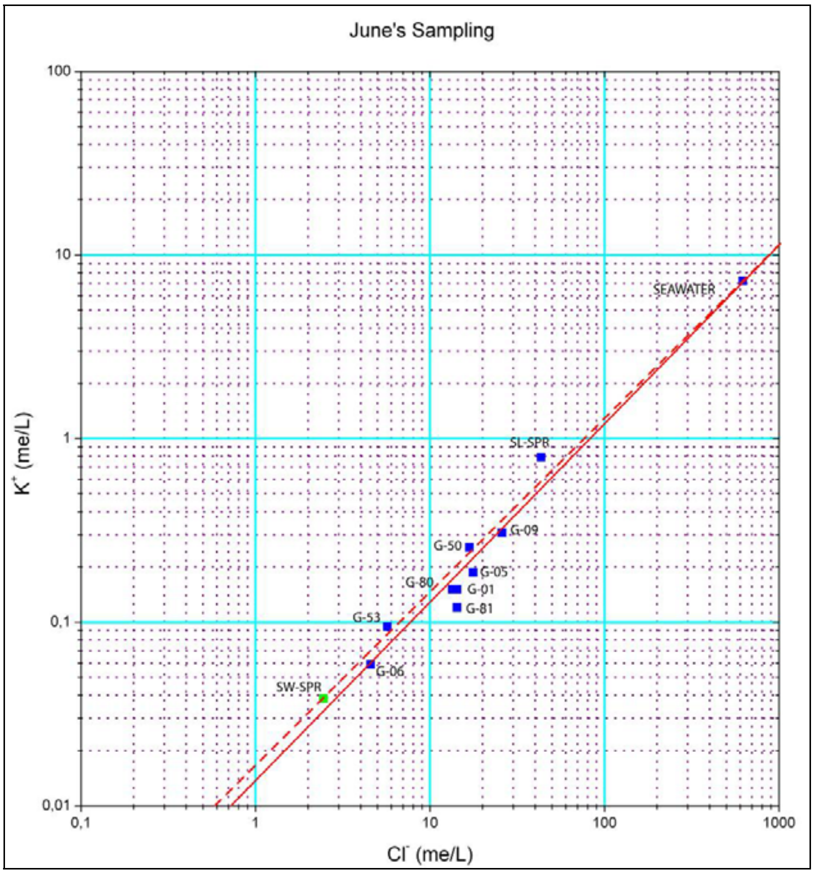


Fig. 4.109: Dispersion Diagram of K^+ in relation to Cl^- for June's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-1.8624	0.07292
B	0.97183	0.05324

R-Value	**Standard Deviation**	**N**	**P**
0.99	0.11	11	<0.0001

Sampling 28 July 2008

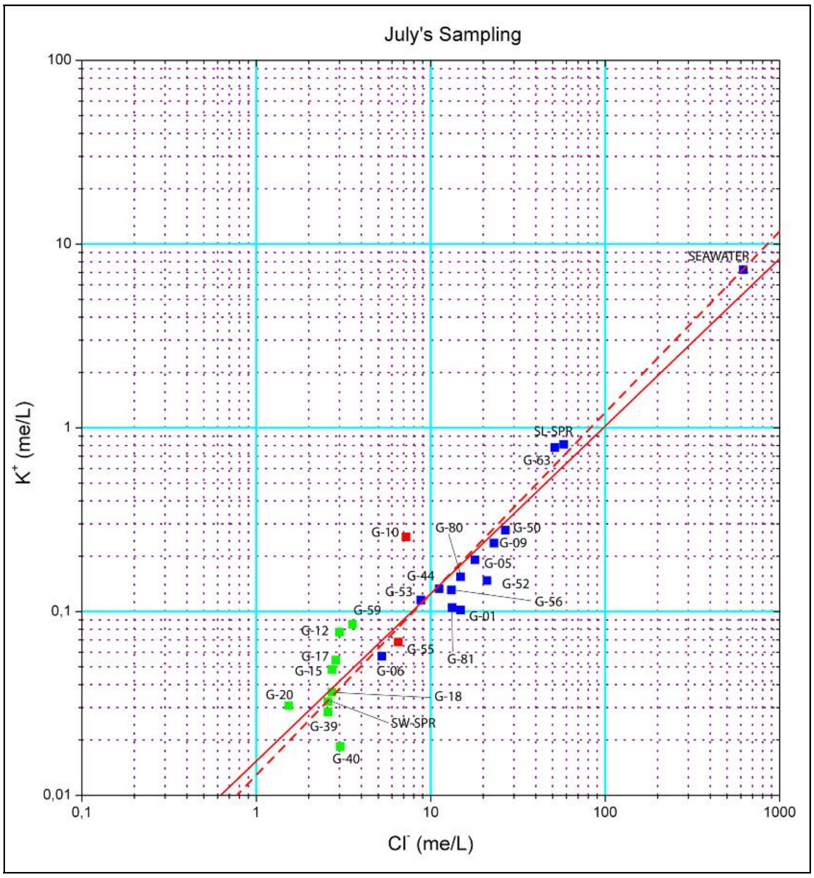


Fig. 4.110: Dispersion Diagram of K^+ in relation to Cl^- for July's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-1.81384	0.07173
B	0.91152	0.06344

R-Value	**Standard Deviation**	**N**	**P**
0.95	0.18	25	<0.0001

Sampling 10 October 2008

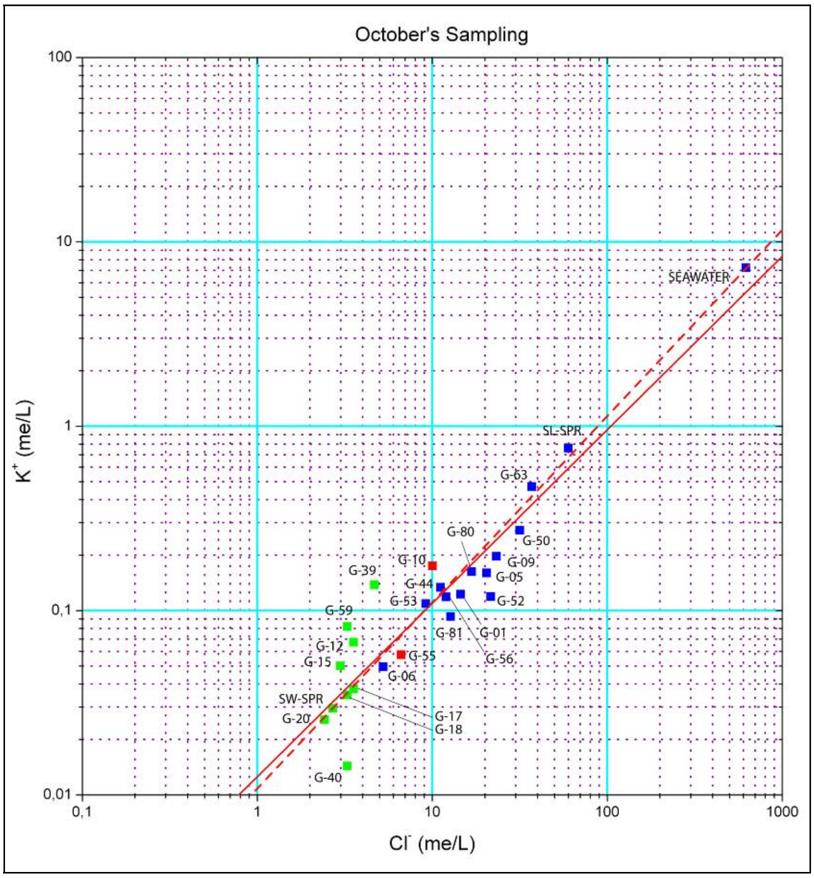


Fig. 4.111: Dispersion Diagram of K^+ in relation to Cl^- for October's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-1.90143	0.07959
B	0.94085	0.06936

R-Value	**Standard Deviation**	**N**	**P**
0.94	0.18	25	<0.0001

4.7.2.9.4 Mg-Cl

Sampling 4 June 2008

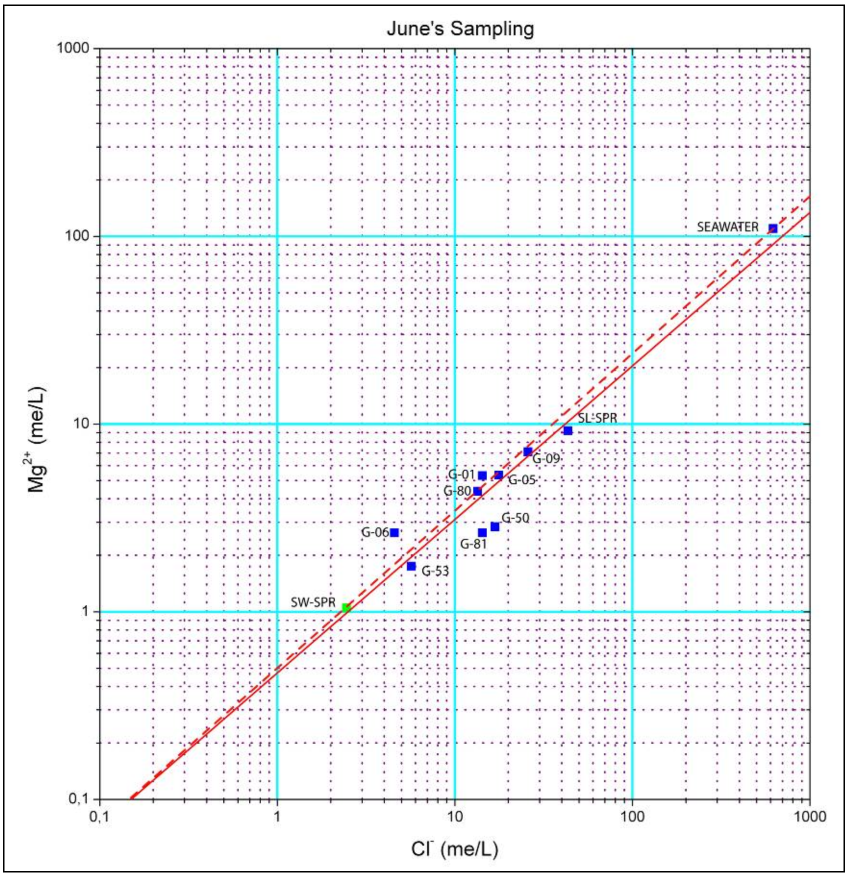


Fig. 4.112: Dispersion Diagram of Mg^{2+} in relation to Cl^- for June's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.32552	0.09213
B	0.81792	0.06726

R-Value	**Standard Deviation**	**N**	**P**
0.97	0.13	11	<0.0001

Sampling 28 July 2008

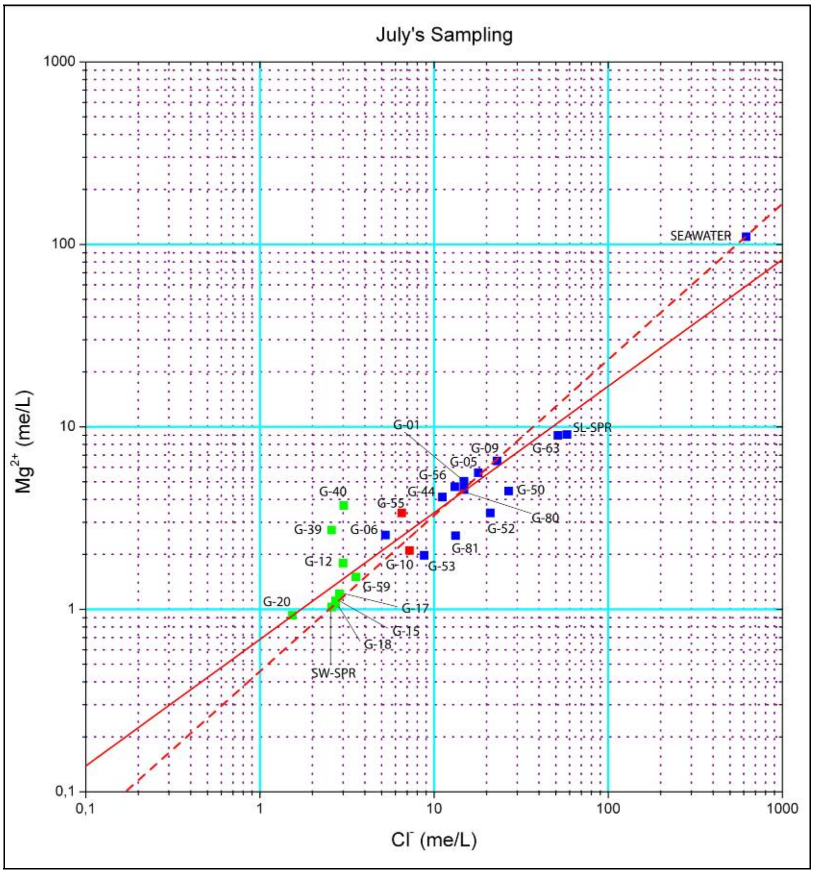


Fig. 4.113: Dispersion Diagram of Mg^{2+} in relation to Cl^- for June's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.1643	0.06447
B	0.69353	0.05702

R-Value	Standard Deviation	N	P
0.93	0.16	25	<0.0001

Sampling 10 October 2008

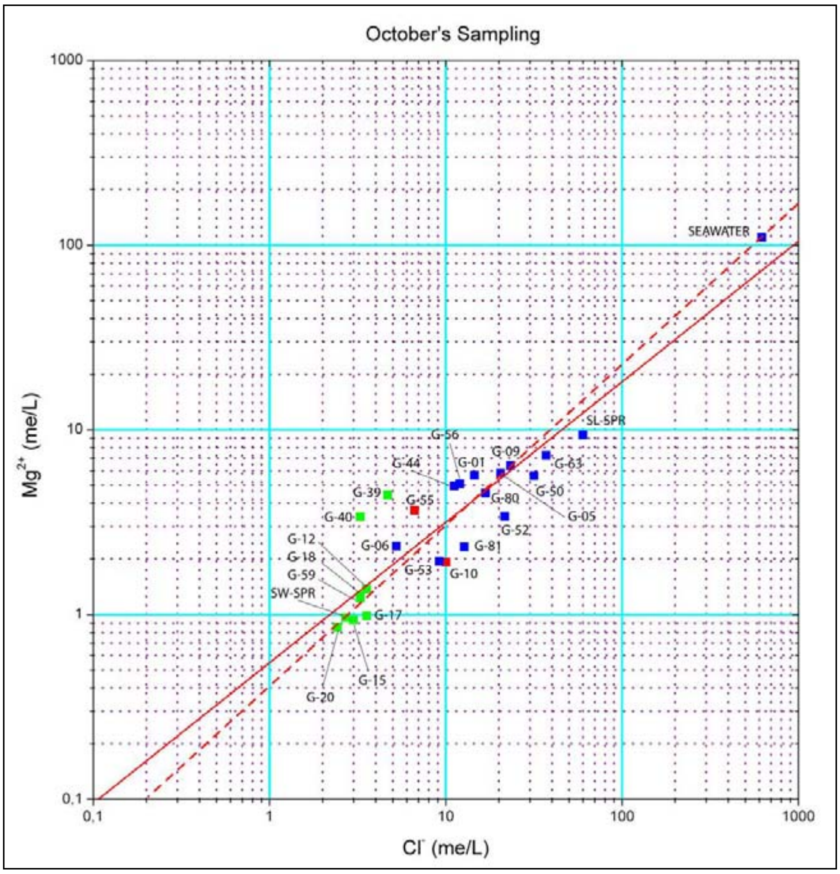


Fig. 4.114: Dispersion Diagram of Mg^{2+} in relation to Cl^- for June's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.2608	0.07702
B	0.76055	0.06712

R-Value	**Standard Deviation**	**N**	**P**
0.92	0.18	25	<0.0001

4.7.2.9.5 SO_4-Cl

Sampling 4 June 2008

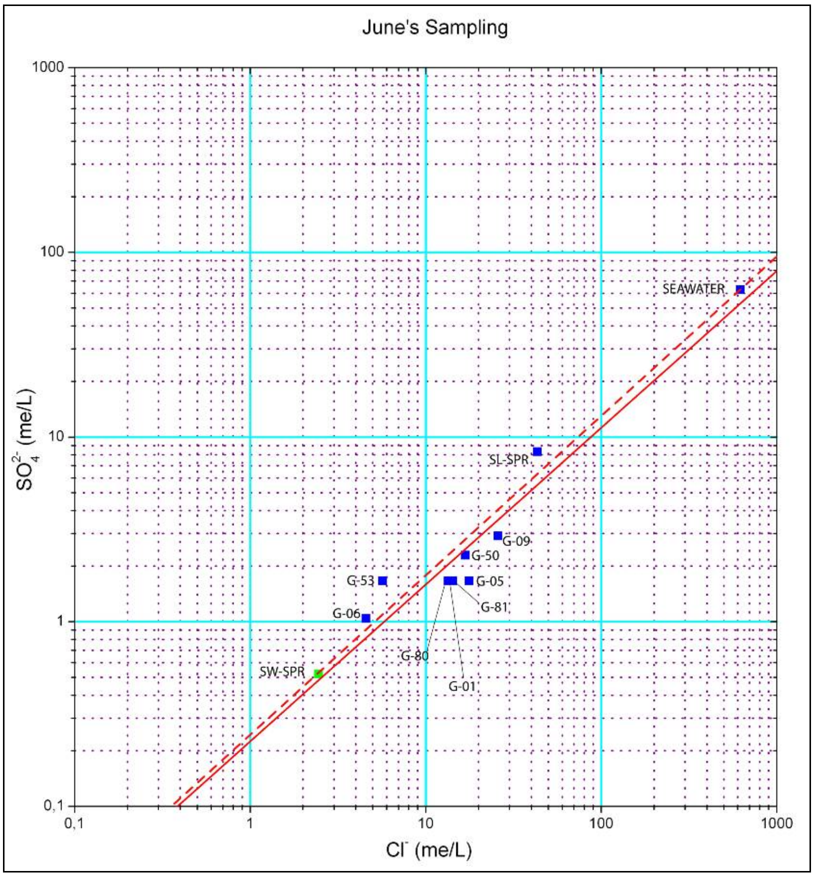


Fig. 4.115: Dispersion Diagram of SO_4^{2-} in relation to Cl^- for June's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.64808	0.09758
B	0.84905	0.07124

R-Value	**Standard Deviation**	**N**	**P**
0.97	0.14	11	<0.0001

Sampling 28 July 2008

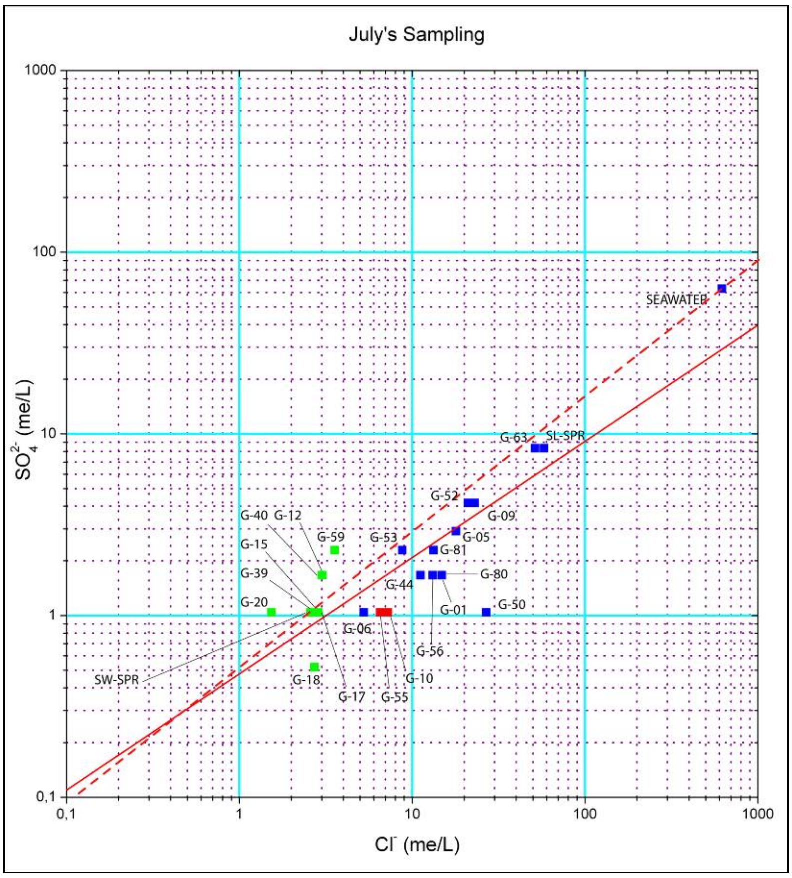


Fig. 4.116: Dispersion Diagram of SO_4^{2-} in relation to Cl^- for July's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.32093	0.08581
B	0.63981	0.07589

R-Value	**Standard Deviation**	**N**	**P**
0.87	0.22	25	<0.0001

Sampling 10 October 2008

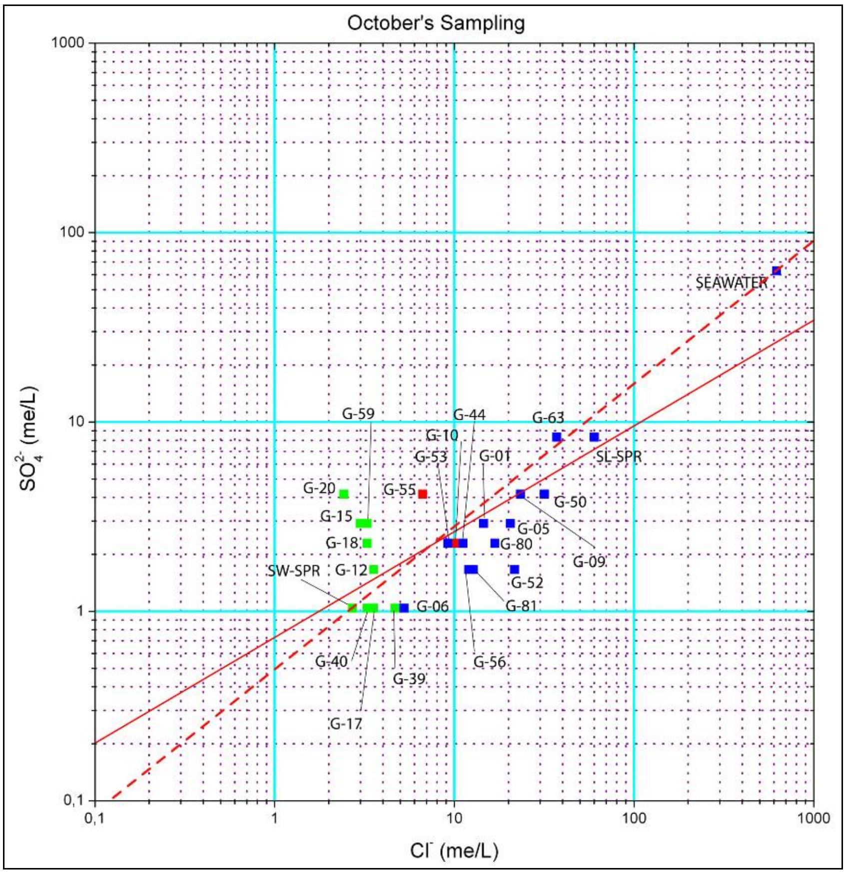


Fig. 4.117: Dispersion Diagram of SO_4^{2-} in relation to Cl^- for October's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-0.13717	0.10319
B	0.55836	0.08992

R-Value	**Standard Deviation**	**N**	**P**
0.79	0.24	25	<0.0001

4.7.2.10 **Factors controlling Groundwater quality** (Indications of seawater intrusion)

Effects of seawater intrusion have been evaluated by series of ionic ratios. For this thesis four molar ratios were calculated: **$Na^+ : Cl^-$, $Ca^{2+} : Mg^2$, $Cl^- : HCO_3^-$, $SO_4^- : Cl^-$,** and then they were showed versus Cl^- concentrations (except $Ca^{2+} : Mg^{2+}$).

4.7.2.10.1 Ranges of hydrochemical ratios

Table 4.46: Ranges of geochemical ratios (modified from Rao et al., 2005)

Hydrochemical ratio	Range	Remarks with the reference to the seawater
$Na^+ : Cl^-$	<0.82	Contamination
	≈0.82	Recent contamination
	>0.82	Non-contamination
$Ca^{2+} : Mg^{2+}$	<1	Contamination
	>1	Non-contamination
$Cl^- : HCO_3^-$	<1	Non-contamination
	>1	Contamination
$SO_4^- : Cl^-$	≈ or <0.1	Contamination
	>0.1	Non-contamination

4.7.2.10.2 Molar Ratio of $Na^+ : Cl^-$

Table 4.47: $Na^+ : Cl^-$ molar ratio results for all the samplings (June, July, October).

Code Name	Na : Cl (June)	Na : Cl (July)	Na : Cl (October)
G-01	0.57	0.42	0.87
G-05	0.51	0.50	0.87
G-06	0.64	0.37	1.05
G-09	0.44	0.45	0.83
G-10	-	0.51	0.74
G-12	-	0.49	0.32
G-15	-	0.49	0.64
G-17	-	0.54	0.69
G-18	-	0.50	0.68
G-20	-	0.72	0.73
G-39	-	0.40	0.51
G-40	-	0.58	0.72
G-44	-	0.49	0.98
G-50	0.42	0.45	0.83
G-52	-	0.45	0.80
G-53	0.54	0.42	0.74
G-55	-	0.39	0.56
G-56	-	0.46	0.96
G-59	-	0.46	0.71
G-63	-	0.45	0.89
G-80	0.49	0.47	0.80
G-81	0.48	0.41	0.72
SWEET-SPR	0.40	0.51	0.76
SALTY-SPR	0.49	0.43	0.89

Molar Ratio of Na^+ : Cl^- versus Cl^-

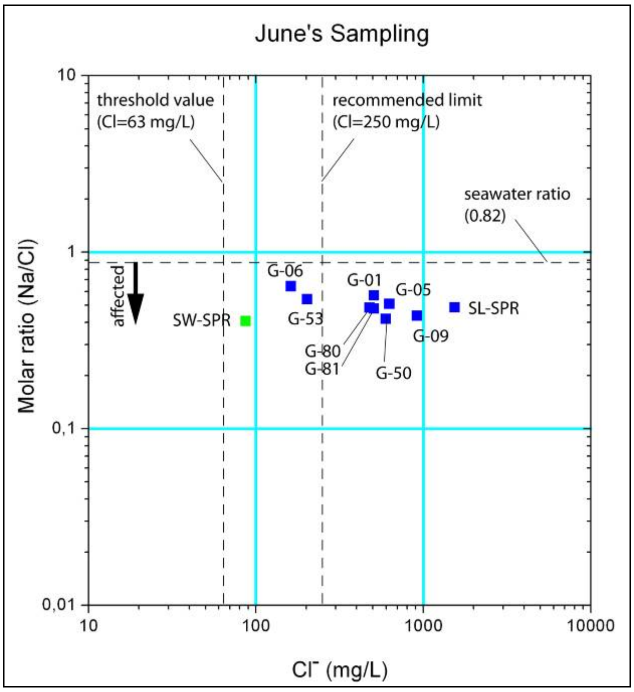


Fig. 4.118: Na^+ : Cl^- molar ratio versus Cl^- for June's sampling

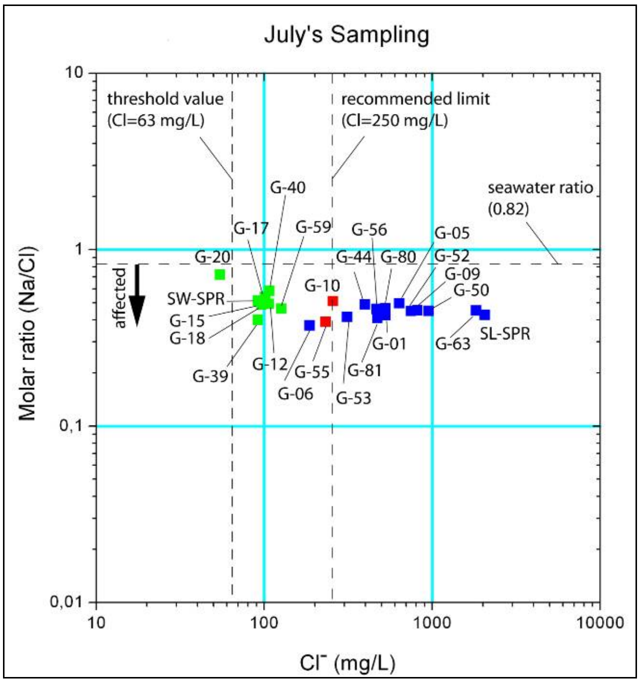


Fig. 4.119: Na^+ : Cl^- molar ratio versus Cl^- for July's sampling

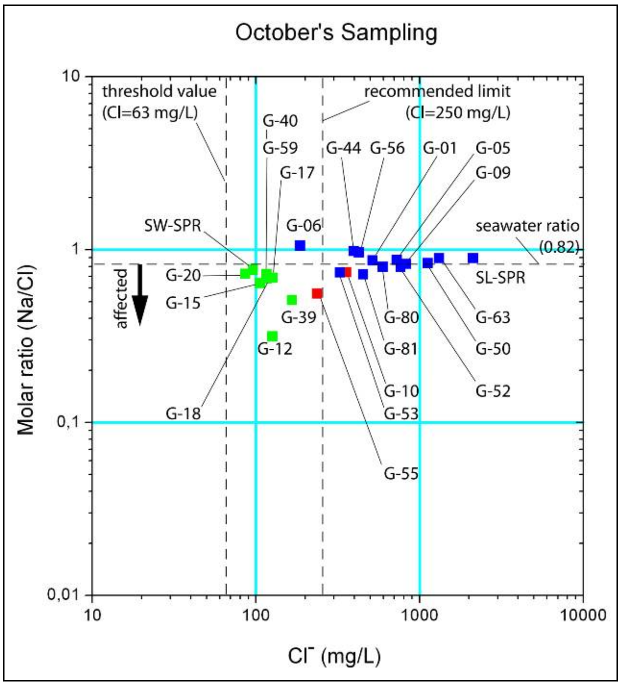


Fig. 4.120: Na^+ : Cl^- molar ratio versus Cl^- for October's sampling

4.7.2.10.3 Molar Ratio $Ca^{2+} : Mg^{2+}$

Table 4.48: $Ca^{2+} : Cl^{-}$ molar ratio results for all the samplings (June, July, October).

Code Name	Ca : Mg (June)	Ca : Mg (July)	Ca : Mg (October)
G-01	0.78	1.07	0.92
G-05	0.82	0.93	0.96
G-06	0.94	1.24	1.26
G-09	0.77	0.90	0.92
G-10	-	3.17	3.91
G-12	-	2.86	3.95
G-15	-	5.10	5.88
G-17	-	4.28	5.15
G-18	-	3.73	3.03
G-20	-	5.32	5.68
G-39	-	1.29	1.04
G-40	-	1.13	1.11
G-44	-	1.12	0.776
G-50	1.96	1.80	1.65
G-52	-	2.63	2.74
G-53	2.31	2.98	3.14
G-55	-	1.15	1.05
G-56	-	1.03	0.99
G-59	-	4.40	5.19
G-63	-	0.83	1.02
G-80	0.81	1.08	1.07
G-81	2.07	2.33	2.45
SW-SP	3.85	4.51	4.81
SL-SP	0.71	0.87	0.79

4.7.2.10.4 Molar Ratio Cl^- : HCO_3^-+CO_3

Table 4.49: Cl^- : HCO_3^-+CO_3 molar ratio results for October's sampling

Code Name	Cl : HCO3 (October)
G-01	2.2
G-05	3.6
G-06	1.1
G-09	3.8
G-10	1.3
G-12	0.5
G-15	0.5
G-17	0.6
G-18	0.6
G-20	0.4
G-39	0.6
G-40	0.4
G-44	1.7
G-50	6.3
G-52	3.9
G-53	1.7
G-55	1.0
G-56	1.9
G-59	0.5
G-63	8.2
G-80	3.2
G-81	2.5
SWEET-SPR	0.5
SALTY-SPR	15

Molar Ratio Cl^- : HCO_3^-+CO_3 versus Cl^-

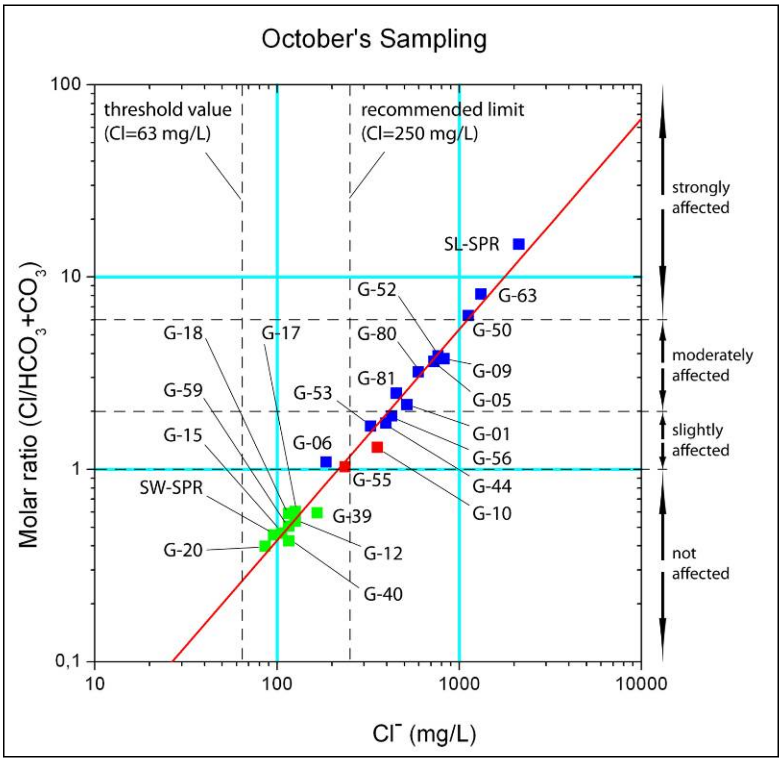


Fig. 4.121: Cl^- : HCO_3^-+CO_3 molar ratio versus Cl^- for October's sampling

yscale(Y) = **A** + **B** * xscale(X)		
Parameter	**Value**	**Error**
A	-2.56329	0.07812
B	1.09704	0.03096

R-Value	**Standard Deviation**	**N**	**P**
0.99	0.06	24	<0.0001

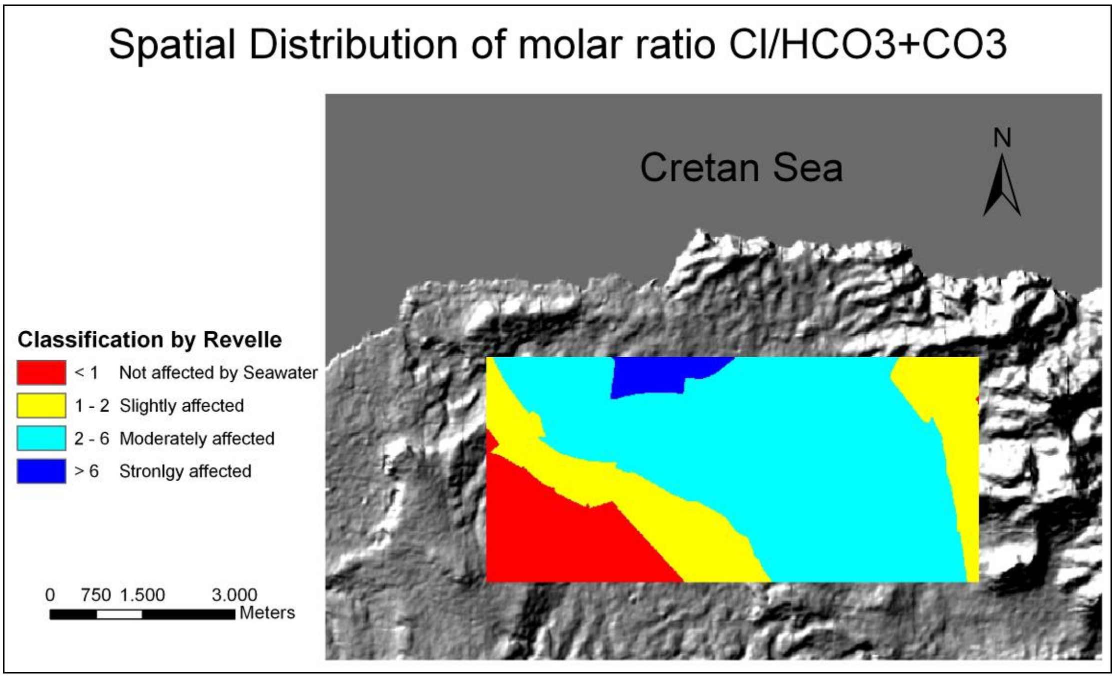


Fig. 4.122: Spatial distribution map of Cl/HCO_3+CO_3 molar ratio. Classification by Revelle (Kallergis, 2001).

4.7.2.10.5 Molar Ratio SO_4^- : Cl^-

Table 4.50: SO_4^- : Cl^- molar ratio results for all the samplings (June, July, October).

Code Name	SO_4^- : Cl^- (June)	SO_4^- : Cl^- (July)	SO_4^- : Cl^- (October)
G-01	0.12	0.11	0.20
G-05	0.09	0.16238	0.14
G-06	0.23	0.19	0.19
G-09	0.11	0.18	0.18
G-10	-	0.14	0.23
G-12	-	0.55	0.47
G-15	-	0.38	0.98
G-17	-	0.36	0.29
G-18	-	0.19	0.70
G-20	-	0.68	1.72
G-39	-	0.40	0.22
G-40	-	0.55	0.32
G-44	-	0.15	0.21
G-50	0.14	0.04	0.13
G-52	-	0.19	0.08
G-53	0.29	0.26	0.25
G-55	-	0.16	0.63
G-56	-	0.13	0.14
G-59	-	0.64	0.89
G-63	-	0.16	0.22
G-80	0.12	0.11	0.14
G-81	0.12	0.18	0.13
SWEET-SPR	0.21	0.40	0.38
SALTY-SPR	0.19	0.14	0.14

Molar Ratio SO_4^- : Cl^- versus Cl^-

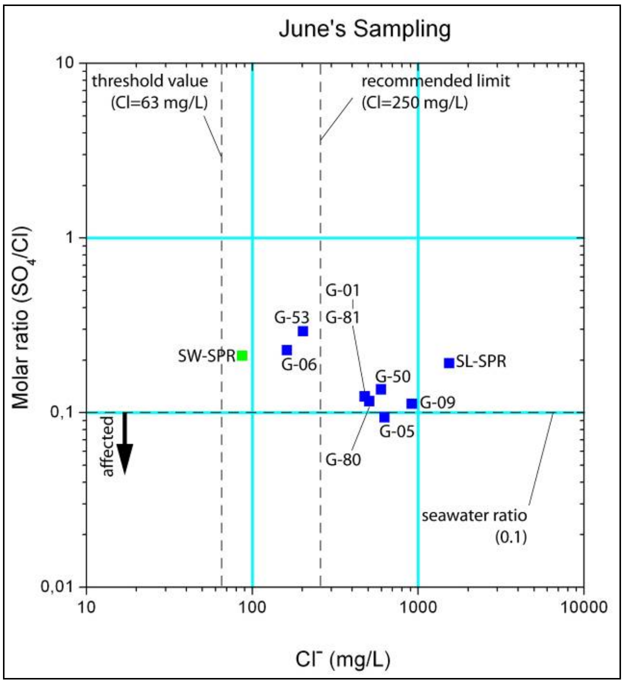


Fig. 4.123: SO_4^- : Cl^- molar ratio versus Cl^- for June's sampling

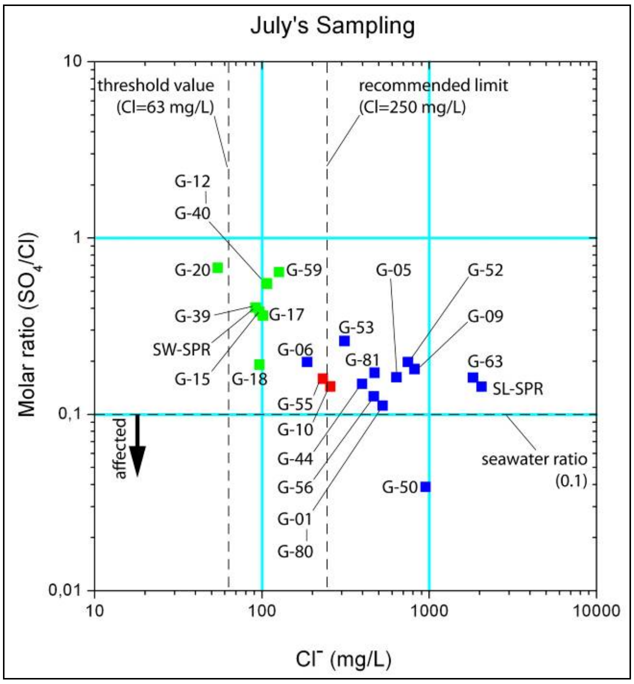


Fig. 4.124: SO_4^- : Cl^- molar ratio versus Cl^- for July's sampling

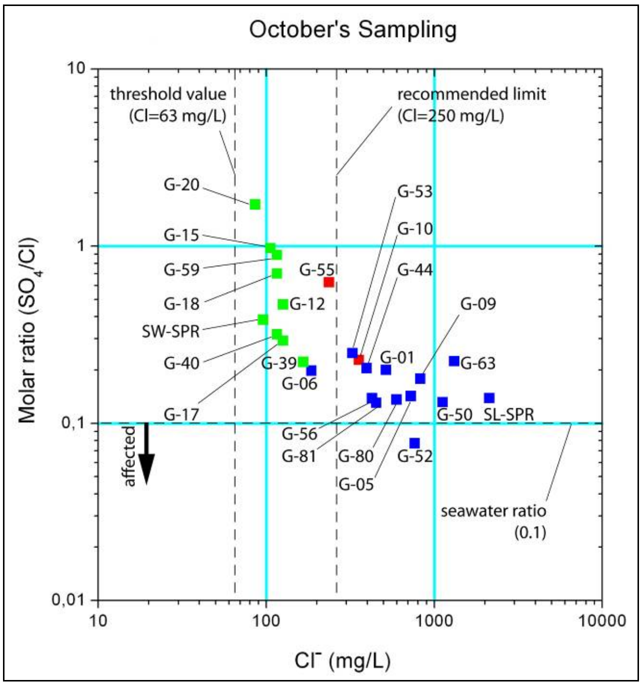


Fig. 4.125: SO_4^- : Cl^- mzolar ratio versus Cl^- for October's sampling

4.7.2.11 Quality Maps

Two different approaches were used for the production of groundwater quality maps. These maps were created in a GIS environment in order to determine the quality of the waters of the study area based on different groups of geochemical parameters. The first groundwater quality map, takes into account conductivity, total hardness, chloride, sulfate, and nitrate, and it is commonly used in urban areas for groundwater assessment (Ducci, 1999; Nas & Berktay, 2008) based on Civita et al (1993) classification. Whereas, the second one, known as Groundwater Quality Index (GQI) links different water quality data (calcium, magnesium, sodium, chloride, sulfate, TDS and nitrate) concentrations to the WHO's guidelines (**Table 3.6** of ***Chapter 3***).

4.7.2.11.1 Groundwater Quality Map (based on Civita et al., 1993)

A groundwater quality map was generated following the classification shown in **Table 4.51**. That classification was firstly suggested by Civita et al. (1993) and it is based mainly on European Council's guidelines. The production of the groundwater quality map was carried out through the overlapping of the thematic maps, which thematic maps are produced as a result of ordinary kriging interpolations as has already been presented at **section 4.7.2** of this chapter. ArcGIS Spatial Analyst extension was used for the creation of this map which was made only for October's data, because nitrate data was available only for that sampling.

For the total hardness, all the proposed classes of water quality (A, B, C) (**Table 4.51**) were existed at the water samples. Though, for the conductivity and chloride the B and C class existed, for the nitrate the A and B class, and finally for the sulfate only the B class. At last, after the above outputs manipulation, the derived groundwater quality map classifies the study area into 9 classes (**Fig. 4.126**).

Table 4.51: Groundwater quality classification (Civita et al., 1993) (Total hardness units were transformed from mg $CaCO_3$/L to French units (˚F = 10mg $CaCO_3$ per 1L water))

Quality	Class	Total Hardness	Conductivity	SO_4^{2-}	Cl^-,	NO_3^-
		(˚F)	μS/cm	(mg/L)	(mg/L)	(mg/L)
Optimum	**A**	<30	<1000	<50	<50	<10
Medium	**B**	30-50	1000-2000	50-250	50-200	10-50
Poor	**C**	>50	>2000	>250	>200	>50

4.7.2.11.2 Ground Quality Index (GQI)

As already mentioned, the GQI was developed using seven chemical parameters (Ca^{2+}, Mg^{2+}, Na^+, Cl^-, SO_4^{2-}, NO_3^-, and TDS). First Babiker et al (2007) applied the proposed index to Nesuno basin in Japan with great success, while next many applications globally were based on this index. In Crete, Kouli et al. (2008) applied GQI in Keritis river basin in the western part of the island characterising the groundwater quality of the area, combining the same geochemical parameters.

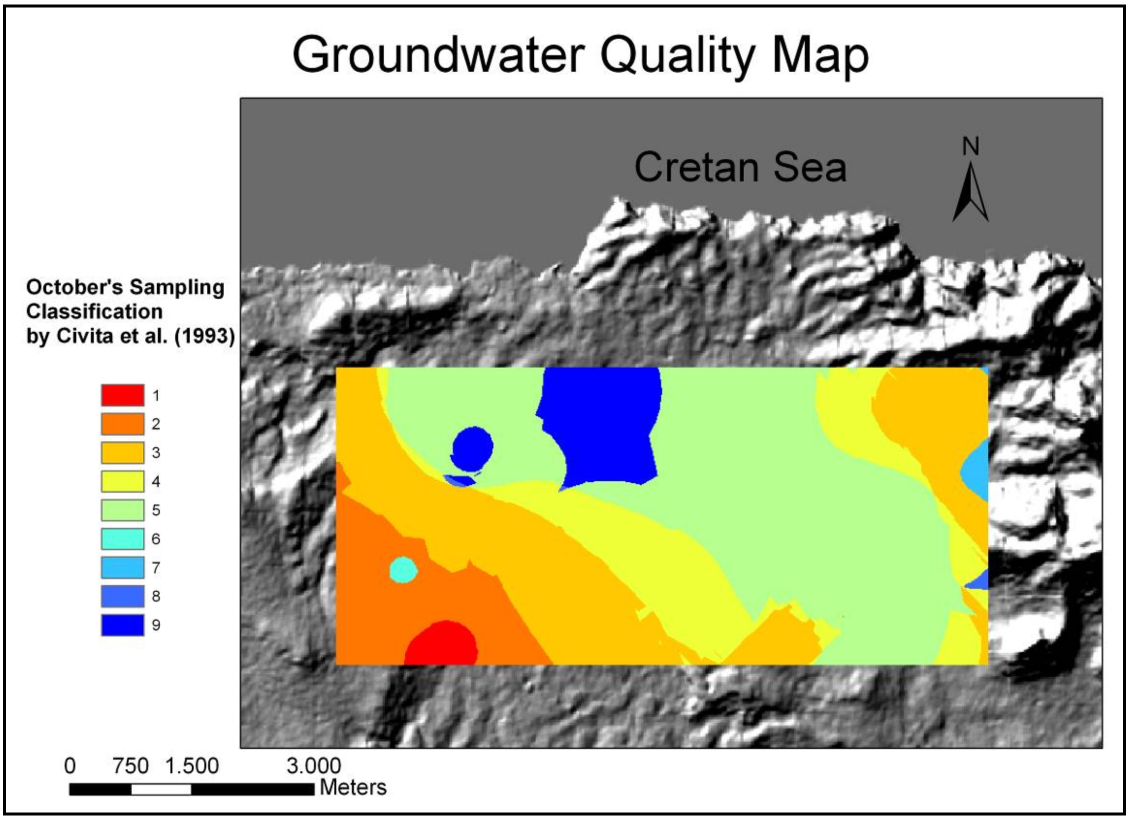


Fig. 4.126: Groundwater quality map of the study area based on Civita etl al. (1993) classification (see **Table 4.51**)

Initially, "primary map I" (representing the seven concentration maps from **section 4.7.2** of this chapter) was used. Then, the measured concentration, X΄, of every pixel in the "primary map I" was associated with its corresponding WHO guideline value, X (**Table 3.6** of ***Chapter 3***), by the following formula:

$$C=\frac{X'-X}{X'+X}$$ Babiker et al (2007)

The "primary map II" (outputs derived as described above) display for each pixel contamination index values ranging from -1 to 1.

Next, primary map II was rated between 1 and 10 in order to generate the "rank map" using the following polynomial function:

$$r = 0.5*C^2 + 4.5*C + 5$$ Babiker et al (2007)

where, C represents the contamination index value for each pixel and r represents the corresponding rank value.

Afterwards, the relative weight (w) of each parameter had to be calculated as the mean value (r: 1–10) of the corresponding rank map and the "mean r + 2" ($r \leq 8$) for the parameter that has potential health effects, i.e. nitrate (**Table 4.52**).

Finally, the GQI map (**Fig. 4.127**) concerning the seven chemical parameters was premeditated as follows:

$$GQI = 100 - \left(\frac{r_1 w_1 + r_2 w_2 + ... + r_7 w_7}{7} \right)$$ Babiker et al (2007)

Figure 4.127 shows the groundwater quality of the study area, created as described above. The extracted map gave groundwater quality values between 72.30 and 84.44. These values were classified into seven equal classes. Hot colours indicate the bad water quality, while the cold colours indicate the good water quality (maximum groundwater quality=100).

Table 4.52: Statistics of the seven parameters of groundwater quality from the study area for October's sampling

Parameters	Min	Max	Mean
Calcium	2.66	3.55	3.16
Magnesium	1.22	3.20	1.87
Sodium	2.30	7.93	5.38
Chloride	4.09	8.78	6.77
Nitrate*	1.59	3.21	1.99 + 2 = 3.99
Sulfate	3.09	4.41	3.83
TDS*	5.19	7.79	6.71

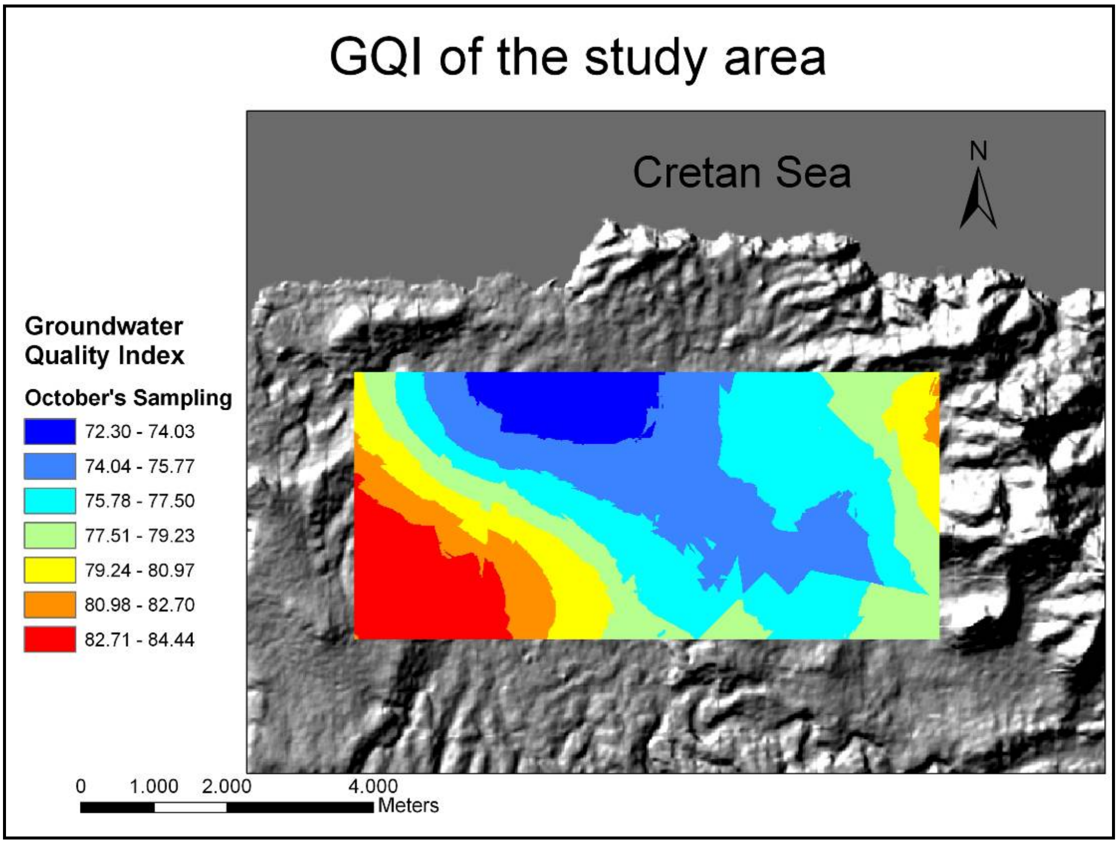


Fig. 4.127: GQI map of the study area as proposed by Babiker et al. 2007, superimposed to the DEM. Hot colours indicate the bad water quality, while the cold colours indicate the good water quality (maximum groundwater quality=100).

4.7.3 Ion exchange

During seawater intrusion in a coastal aquifer two kinds of hydrochemical processes take place between fresh water and seawater and the aquifer, which influence the chemical composition of groundwater: a) mixing processes and b) ion exchange phenomena.

Mixing models have already graphically presented in previous sections. In Piper diagram (**section 4.7.2.5** of this chapter), in Durov diagram (**section 4.7.2.6** of this chapter), and in the dispersion diagrams (**section 4.7.2.10** of this chapter), the mixing line has been drawn, joining the end members - fresh water ("sweet spring" sample location) and Aegean seawater.

On the other hand, apart from the simple mixing, the groundwater from coastal aquifers during seawater intrusion is strongly affected by cation exchange reactions. The type of unaffected fresh groundwater is $Ca(HCO_3)_2$ while seawater is dominated by Na^+ and Cl^- ions (NaCl type). When seawater intrudes into a coastal aquifer (containing fresh water), an exchange of cations takes place:

$$Na^+ + \tfrac{1}{2}Ca\text{-}X_2 \rightarrow Na\text{-}X + \tfrac{1}{2}Ca^{2+}$$

where X indicates the soil exchanger. The reaction shows that Na^+ is received by the exchanger and Ca^{2+} is released, while the dominant anion Cl^- remains the same. The reverse process takes place during freshening (Appelo and Postma book, 2005).

4.8 Summary

In this chapter, all the results that derived after the application of methodologies described at previous chapter were presented. Geomorphological and hydrological features (DEM derivatives) were presented first and preliminary results of RS analysis followed next. Then geophysical raw data (TEM and VES) were presented, and their processing, analysis and modelling were followed (1D modelling, 2D & 3D imaging). All the 15 geochemical parameters of the 3 water samplings were calculated as well, while statistical analysis tables, column graphs, and maps for each parameter were created. At the end, special interpretation of geochemical data took place (Piper, Durov, Stiff, Dispersion diagrams, molar ratios, quality maps, etc) for saline waters origin determination. The discussion chapter comes next, where an assessment of the relationship between all the results is given.

Chapter 5

[DISCUSSION]

Chapter Contents

- ► *Introduction to the discussion*
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    - ○ *AB, CD, EF, FG, HI cross-sections*
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5.1 Introduction to the discussion

The overall purpose of this thesis is stated in ***Chapter 1*** and repeated here for clarity:

The purpose is to apply geophysical and geochemical methods to a poorly understood area of limited groundwater resources, in order to determine the status of those resources used by an increasing local population.

This discussion is based around the objectives of the thesis and is arranged in subsections according to the primary questions stated in ***Chapter 1***. These primary questions are repeated here for clarity:

- **What is the relationship between the geomorphology, rock types and structure?**
- **What is the relationship between the water quality and the physical characteristics of geomorphology and geology?**
- **What is the relationship between the physical & geochemical characters of the area and the geophysical surveys?**

5.2 An assessment of the relationship between the geomorphology, rock types and structure

Data provided in ***Chapter 1-4*** demonstrate the variable geomorphology of northern Crete, whereby the study area is downslope from the mountains, and therefore the Geropotamos River is fed by rainfall. However, beneath the surface, subterranean water flow to the north in the karstic system, carries freshwater to the aquifers on the northern coastal area. Since salination is an established fact of the geochemical measurements from ***Chapter 4***, and is variable throughout the year, there must be an interplay of water pressure from the mountains and from the sea. Therefore, it is necessary to assess the relationship between the water flow from land and sea, in the context of the geomorphology, lithology and geological structure. An integral component of this is the potential impact of evaporite deposits in the study area, discussed below, along with the geological and geomorphological aspects.

It has previously suggested that evaporites (halites) were present in the study area (Knithakis, 1995; Region, 1999). There is the potential that salination of groundwater in part of the study area could be due to buried evaporites. However, the reason this was suggested derives from Lambrakis and Marinos (Lambrakis & Marinos, 2003) who drew attention to the presence to the Neogene evaporites in Greece. However, their work did not specifically include the study area. More focused work in the study area has revealed the following information:

- IGME report (Knithakis, 1995) records the presence of evaporites (halites) in the Neogene sediments only (**section 2.3** of ***Chapter 2***). From the theory, evaporites are created in basins, and cretan evaporites were due to Mediterranean salinity crisis during the Messinian Stage of the Tertiary Period (**section 2.4.2** of ***Chapter2***).
- There is also a problem with the groundwater quality in the north-eastern part of the area too, consisting of dolomitic limestones and dolomites. Although dolomite is well known to be associated with the formational processes of evaporites in some modern environments (such as the Coorong in Australia), in most cases dolomite is a later alteration product of limestones, unrelated to the surface environments where Neogene evaporites form (Tucker and Wright, 1990). Therefore, water quality problems related to dolomite are more likely linked to diagenesis of limestones later in geological history, not controlled by the Earth surface environments where evaporites develop.
- All the evaporites found in Crete are gypsum, the other major evaporite minerals often associate with gypsum have never been found. It is possible that halite was dissolved out of the rock formations, and removed from the system.
- All the data that have been collected in this study (data from borehole logs) have not revealed the presence of evaporites in any of the boreholes.
- The locations in the Neogene sediments which do have salt water are located near the sea or close to the major faults in the eastern part of the study area.
- In the SW of the study area the Neogene sediments yield very good quality water from those sediments.

There are 3 possible scenarios to explain the pattern of the saline water in the study area:

Scenario 1: seawater intrusion, **Scenario 2**: evaporites (halites), **Scenario 3**: combination of seawater Intrusion and evaporites.

The sum of these points shows that the only places that saline water affects the aquifer is the northern part of Geropotamos basin where seawater could be intruding. The lack of evaporites in the Neogene sediments in the southern part of the basin is strong evidence that evaporites do not exist in the study area. Note however that evaporites (gypsum) exist in the neighbouring basin west of the study area shown on **Figure 2.10** of ***Chapter 2***. Overall, this analysis leads to the deduction that there is good evidence that saline water problems in the aquifer are due to seawater intrusion and not due to evaporite dissolution and therefore considered the most likely.

As described above the most likely scenario is the seawater intrusion rather than evaporite existence, due to the reasons that described previously. In this section, five kinds of datasets are cross-compared in order to test this deduction. IGME geological map, data that collected through field geological observations, information from the available borehole logs, hydro-lithological map, and lineaments extracted after remote sensing analysis are combined to lead to the conclusion that salt water is entering the aquifer from faults that extend inland from the coastline.

Geological map of IGME, that was the only available source of knowledge concerning the geology of the study area, gave valuable information about the rock types and structure. As described in **section 2.2.4** of ***Chapter 2***, the northern part of Geropotamos basin consists mainly of dolomitic limestones and stromatolites (Plattenkalk nappe), and phyllites/quartzites (Phyllite/Quartzite nappe) covered by Neogene and Quaternary sediments, while the tectonic setting is characterised by NW-SE and NE-SW direction faults and thrusts.

The information derived from IGME map (see previous paragraph), and particularly the main units and the major thrust fault between plattenkalk and phyllite/quartzite nappes at the north-eastern part of the study area, was verified after the short geological fieldwork in February of 2008 (**section 4.5** of ***Chapter 4***).

Borehole log information that was provided by local authorities gave valuable data about the lithology of the study area, which was also used for geological cross-sections construction (**section 4.5** of ***Chapter 4***). Apart from that, those borehole registration forms included information about the static water level and pumping level of most of the boreholes (**Appendix A**).

Hydrolithological classification of the geological units based on permeability was based on previous study from Regional Governor of Crete (1999) as described on **section 2.3** of ***Chapter 2***. So, along with that classification the northern part of Geropotamos basin (where the phyllite/quartzite nappe lies) is characterised as almost impermeable formation (I2), whereas the eastern and southern part (dolomitic limestones and stromatolites) of the area showed to consists of permeable formations (K1).

To sum up, the previous data show that there is an impermeable formation along the coastline (phyllite/quartzite nappe) which probably consists a barrier to seawater to come inland. This option seems to be in contrary with the seawater intrusion scenario that seemed to be the most likely. Tectonic setting is a very important factor that supports the scenario of seawater intrusion, where the faults are identified as the major potential conduits of water flow into the aquifer.

Hence, as the tectonic features seem to be the key point, remote sensing analysis was attempted for photolineaments detection, indicating possible faults (**section 4.4** of ***Chapter 4***). The lineaments detected in the Landsat-ETM band 5 image (after filtering) can be correlated with the tectonic setting of the study area as described at previous section and some of them correspond to faults documented in the IGME geological map, while some others are presented in this thesis for the first time. The preliminary structural patterns obtained by remote sensing analysis, seems to reflect the actual distribution and orientation of the major tectonic features in the study area since they do not coincide with the road network. However, this is a preliminary work and in order to certify these assumptions, identification of these possible faults in the field is needed in the future.

Consequently, the apparent section showed the close relationship between the geomorphology, rock types and structure, and at the same time the uncertainty of **scenario 1** was decreased, and it seems to be the most probable.

5.3 An assessment of the water quality in relation to the physical characteristics of geomorphology and geology

Three water samplings (June, July, and October 2008) accomplished in 24 sample locations (22 boreholes and 2 springs within the study area), as described in **section 4.7** of ***Chapter 4***, and 15 chemical quality parameters were measured in order to check the quality of the waters and to identify their contaminator. Geomorphological and geological information (physical characteristics) showed so far that scenario 1 (see **section 5.2**) is the most possible. Further down follows a detailed description that proves the excellent relationship between the geochemical analysis and physical characteristics, and provide evidence that seawater intrusion is the contaminator of northern Geropotamos basin.

Initially, chemical parameters will be discussed first and then special chemical interpretation follows (special diagrams, quality factors, etc). For each parameter column graphs, tables of statistical analyses and spatial distribution maps were constructed (**section 4.7.1** of ***Chapter 4***). Note that June's sampling was a pilot sampling and only 10 samples were analysed. Therefore, due to the low number of available data distribution maps were not extracted. Moreover, two tables of statistical analyses exist (one including all the samples of each sampling) and a second one including just the same 10 samples for direct comparison of the statistics for each sampling.

Values of parameters strongly related to seawater presence, such as Electrical Conductivity (EC), Total Dissolved Solids (TDS), and Sodium concentrations, show a relatively high correlation as can be seen in **section 4.7.1** of ***Chapter 4***. The increasing values of those parameters in our samples strongly support the hypothesis of seawater intrusion in the study area (**Fig. 5.1**). Other parameters such as Potassium, Chloride, Boron concentrations in general follow the special spatial distribution of the aforementioned parameters and their values in the samples we analysed are in correlation with them and they support the hypothesis of seawater intrusion too (**Fig. 5.1**). It is not worthy mention that we didn't observe values of the above-mentioned parameters in any of our samples which oppose this hypothesis. The values of the parameters analysed are not affected from any substantial anthropogenic activities (e.g. fertilizers, animal stock production), since sensitive parameters such as Nitrate and Phosphate concentrations show low and zero values respectively.

Groundwaters characterisation

Groundwaters of the study area were classified according to their geochemical characteristics based on the dominant ions (cations and anions) as listed in **Table 4.4.3** on **section 4.7.2.2** of **Chapter 4** and based on ternary diagrams of **section 4.7.2.3** of ***Chapter 4***. Three groundwater types are recognised: NaCl, $CaCl_2$ and $Ca(HCO_3)_2$, and their spatial distribution is shown in **Figure 5.2** (Kriging water types). The SO_4^- and Mg concentrations are normally very low. Stiff diagrams and map is a good way to visualise this information (**Fig. 5.2**).

Therefore, groundwaters in the north-central part of the study area near the coastline belongs to NaCl, which are under the influence of seawater intrusion, while groundwaters in western and eastern part belong to $Ca(HCO_3)_2$ type, which it is considered as the fresh waters of the area. Between the two zones, a thin region of $CaCl_2$ type groundwater exists which is considered as the transition zone and it is probably produced from cation exchange as it will be discussed later.

As mentioned above, boreholes containing NaCl type of water are situated at the north-central part of the study area and close to seashore. These are the same boreholes which showed high EC values, and salinity, TDS, and calcium concentrations, which resulted from seawater intrusion (**Fig. 5.1**).

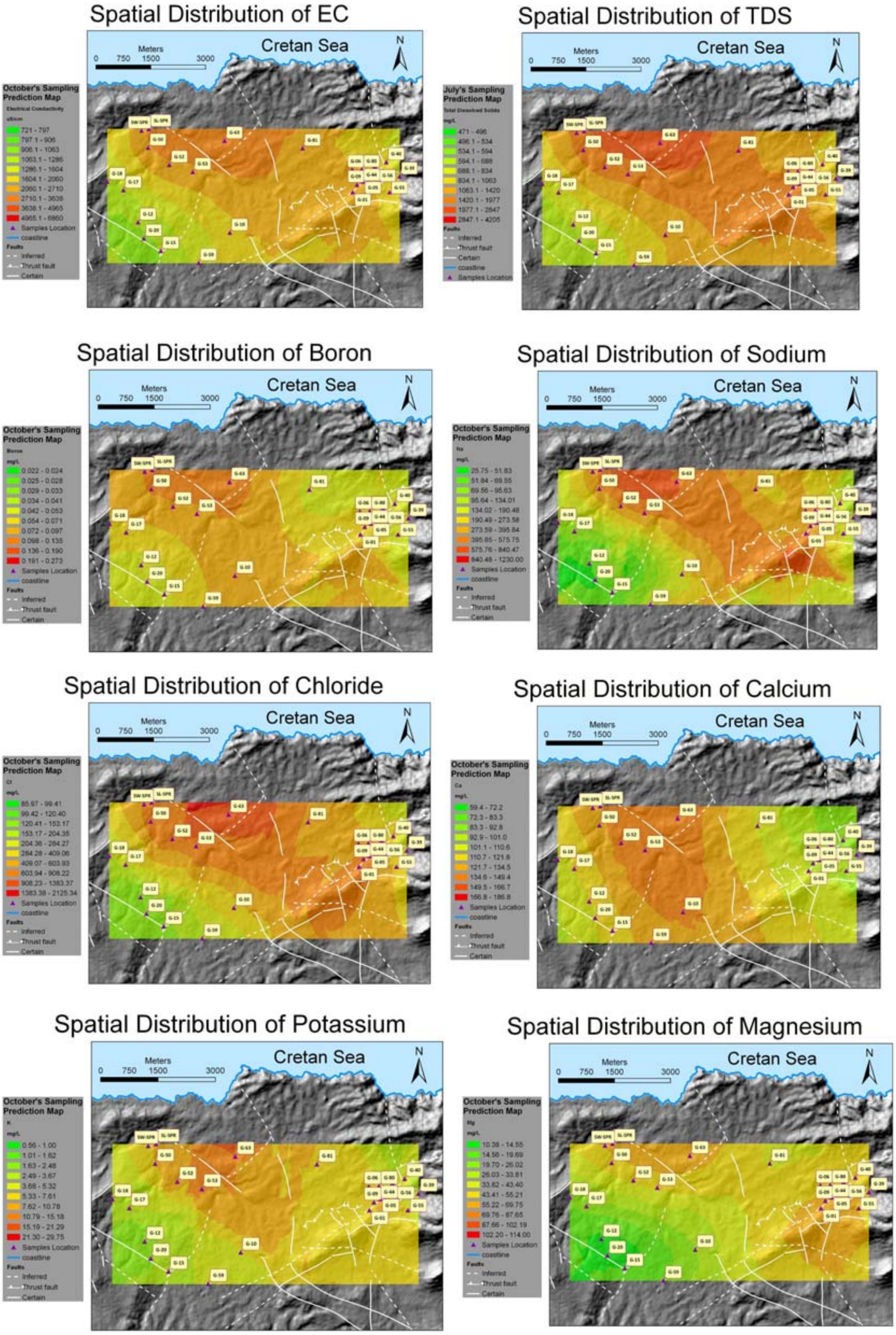

Fig. 5.1: Six chemical parameters from October's sampling showing seawater intrusion as the most likely contaminator of the study area groundwaters

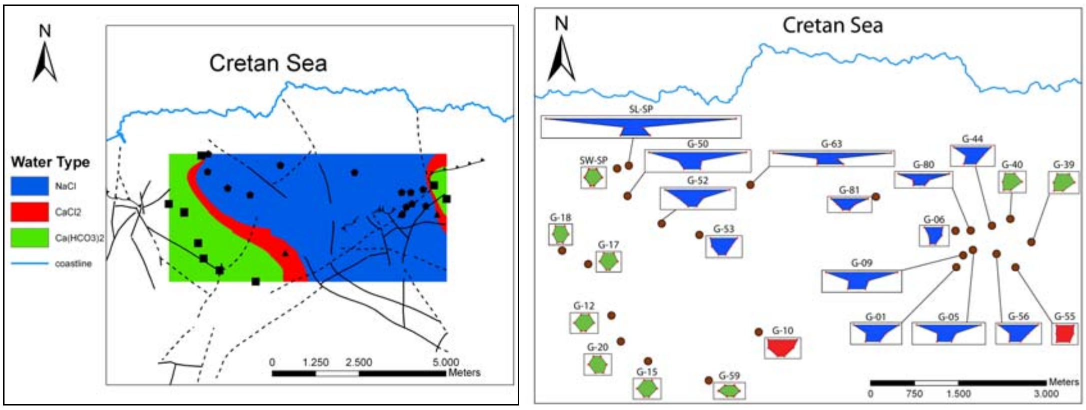

Fig. 5.2: a) Spatial distribution of groundwaters of the area after Kriging, and **b)** stiff map, for October's sampling

Geochemical Processes

As mentioned in **section 4.7.3** of **Chapter 4**, during seawater intrusion in coastal aquifers two kinds of hydrochemical processes take place between fresh water and seawater and the aquifer: a) mixing processes and b) ion exchange phenomena.

- ***Mixing Processes***

The mixing between the fresh and seawater in the northern Geropotamos aquifer system is reflected initially in the Piper and Durov diagrams for October's sampling. Then 5 kinds of dispersion diagrams (Na-Cl, Ca-Cl, K-Cl, Mg-Cl, SO_4-Cl) were constructed and finally 4 quality factors (Na:Cl, Ca:Mg, Cl:HCO_3, SO_4:Cl) were applied for all the samplings (except Cl:HCO_3). For all the aforementioned calculations, sample from the sweet spring was used as the representative freshwater end-member, and seawater from Aegean Sea was used as seawater end-member (**section 4.7.2.1** of ***Chapter 4***) for representative results.

Piper diagram (**Fig. 4.97** of ***Chapter 4***) is in agreement with the theoretical image from Appelo and Postma (2005) (**Fig. 4.96**) which gives an average composition of fresh water and seawater. It shows all 24 samples as well as the theoretical freshwater-seawater line of mixing. All the samples lie very close to the mixing line, with only minor deviations.

Additionaly, the Durov diagram (**Fig. 4.98** of ***Chapter 4***) undoubtedly shows also a trend of samples to plot diagonally of the diagram, indicating the mixing phenomena between end-members.

So, it is deduced from the Piper and Durov diagrams that the most important hydrochemical process in the groundwaters is the mixing. This is confirmed next as concentrations of various cations (Na^+, Ca^{2+}, K^+, Mg^{2+}) and SO_4^- are presented as a function of the chloride (dispersion diagrams). Cl^- is regarded as a conservative ion, and therefore represents the proportion of the mixture (**section 4.7.2.9** of **Chapter 4**). Almost all samples showed strong correlation coefficient R (0.80-1) of regression lines (red solid lines), and all seem to coincide well with the freshwater-seawater mixing lines (red dotted lines), proving their common origin (seawater).

Figures 4.103, 4.104 & **4.105** demonstrate that there is seawater influence of the waters with respect with sodium for all samplings (June, July, October), as the correlation factor R has a value about 0.99 (almost perfect correlation). The same for all the samplings of potassium and magnesium (R values about 0.95) (**Figs. 4.109 - 4.114**). SO_4^--Cl dispersion diagrams (**Figs. 4.115, 4.116** & **4.117**) of all samplings show also that ions have the same origin (R=, however small declinations from the mixing line perhaps are due to redox processes of SO_4^- ions (Panagopoulos, 2008). Therefore, all the aforementioned elements derive from mixing processes of the end members (freshwaters-seawater), while the ion exchange phenomena are not so intensive.

Factors controlling groundwater quality (ionic ratios: **Na^+ : Cl^-, Ca^{2+} : Mg^{2+}, Cl^- : HCO_3^-, SO_4^{2-} : Cl^-**) with respect to the influence of seawater were also applied and their ranges are shown in **Table 4.46** (**section 4.7.2.10.1** of ***Chapter 4***). Then the calculated above-mentioned molar ratios were graphically presented versus Cl^- concentrations (except Ca^{2+} : Mg^{2+}).

Table 4.46 shows that Na^+ : Cl^- ratio values less than 0.82 (seawater ratio) indicate fresh water contamination by seawater. For June's and July's samplings **all** Na^+ : Cl^- ratios have values below that threshold, which indicates the high influence of seawater in the groundwaters (even for good quality waters) (**Table. 4.47**). However, in October's sampling, sodium concentrations were increased very much, while chloride concentrations were remained almost the same in comparison with June and July (**Table. 4.47**). This fact had as a result the jump of the molar ratios for that sampling, with values near the seawater ratio, 0.82 (about ±10%). The key point here is that on October the simple mixing between groundwaters with seawater was very recent (Mercado, 1985; Lee and Song, 2007), which influenced all the sample locations.

- ***Cation exchange phenomena***

As described in **section 4.7.3** of ***Chapter 4***, when seawater intrusion takes place, due to cation exchange, Ca^{2+} are released, while Na^{+} are received by the soil exchanger. Nevertheless, increase in Na^{+} concentrations took place in October, as mentioned above which is normal as the groundwaters molar ratios reach the seawater ratio (0.82) and indicate the recent water intrusion into the area. This seawater encroachment is so recent that no extended cation exchange phenomena have taken place yet along with mixing processes (as occurred in June and July). This also supports the hypothesis that seawater is the contaminator in the study area because in October the aquifer is expected to be in its most stressed condition due to extended dry season and high water pumping rates, especially for irrigation purposes. So, the seawater intrusion should be very recent for that period.

Quality maps

Quality maps showed great relationship between physical characteristics and geochemical analyses as well. Both approaches of groundwater quality maps, one based on Civita et al. (1993) classification and the other based on WHO guidelines, locate the northern-central part of the area near the seashore as contaminated, which it is also in agreement with scenario 1. The same maps will be discussed again later for comparison with the TEM 3D imaging maps. To sum up, geochemical approach decrease much more the uncertainty of which is the contaminator in the northern part of Geropotamos basin, and complements scenario 1, which regards seawater as the only source of contamination.

5.4 An assessment of the relationship between the physical & geochemical characters of the area and the geophysical surveys

In **sections 5.2** evaluation of all the available data, concerning the physical characteristics of geomorphology and geology of the study area, was accomplished, while in **section 5.3** the correlation between those characteristics with chemical results is described. The majority of the data lead to the interpretation that seawater encroachment takes place at the northern part of Geropotamos and contaminates the fresh groundwater of the area. Of course all this information is surfacial information, while data from boreholes (lithology and chemical analyses) are relatively not many and not very good distributed. Geophysical survey, which comprises from a dense grid of TEM soundings covering all the area under study, and some VES soundings taken in selective places, was used as a tool in order to give information for the deeper geology (rock types, tectonics) and hydrogeology (aquifer characteristics) of Geropotamos area. Description of TEM and VES results and their good relationship with the previously discussed results follows, attesting that seawater intrudes, through faults that extend inland, and contaminates the groundwater.

Although TEM and VES geophysical techniques are considered as very innovative and capable for deep investigations, it is necessary their results to be combined with other data, such as chemical and geological/geomorphological (**section 5.3**). Note that, because the area is very complex, for better understanding, only 2D and 3D TEM extracted geoelectrical graph models are discussed. It is reminded that for the construction of those 2 kinds of models, only 1D inversion results were used (**section 4.6.1.3** of ***Chapter 4***).

AB, CD, EF, FG, HI cross-sections

Five geological cross-sections were constructed (**section 4.5** of ***chapter 4***), while at the same positions five TEM profiles were created having the same 3x exaggeration and the same length for easier comparison between them. However, some differences in relief maybe appear due to the fact that for geological cross-sections construction a straight line on the surface was chosen using dense information from DEM, but for the TEM profiles the scarce elevation information from each sounding (from GPS) only was used for the relief. In addition each 2D geoelectrical model is a crooked line (**Fig. 4.33** of ***Chapter 4***) and not a straight line like each geological cross-section.

As it is presented below, 2D geoelectrical models are in good correlation with the geological cross-sections concerning the recognition of the nappes (especially phyllite/quartzite nappe with plattenkalk nappe) and confirmation of faults. In addition, 2D geoelectrical models give information about the permeability of the rocks (conclusively phyllite/quartzite nappe is not impermeable) and the aquifer characteristics (saturation, water table depth and contamination). AB and HI cross-section examples are described next in more detail since they are the most representative.

AB cross-section is 9 km long and has NW-SE direction and it comprises the two major units (Plattenkalk and phyllite/quartzite nappes) covered by the Neogene and Quaternaty sediments. Plattenkalk unit (presented in purple colour) is recognised at the south-eastern part of the profile (**Fig 5.3**) with resistivities greater than 1000 ohm.m (as expected). Phyllite/quartzite nappe is defined very well in the north-western and central part of the profile with resistivities generally about 100 ohm.m and sometimes in places up to 300 ohm.m, when the nappe is rich in quartzite. Sediments which are composed by marly limestones, marine and alluvial deposits, clays, etc have resistivities ranging from 100 to 500 ohm.m, and occasionally, when Neogene limestones are more cohesive and stiff, the resistivities are even more increased up to 1000 ohm.m. Generally, the sediments are not recognised clearly over phyllite/quartzite nappe (**Fig. 5.3**), since the resistivity values overlap (**Table 5.1**).

The thrust fault between phyllite/quartzite nappe and plattenkalk nappe is observed in AB geoelectrical model, which its position and direction are verified by the geological cross-section. Additionally, the transition zone between them is recognised with resistivity values between the values of the two nappes (**Fig. 5.3**).

As already mentioned, phyllite/quartzite nappe is considered almost impermeable, except if faults then these could be major potential conduits of water flow inland. The north-western part of AB 2D geoelectrical model (**Fig. 5.3**) shows undoubtedly the seawater encroachment and complements scenario 1 (**section 5.2**). It illustrates the low resistivity values (blue colour) situated into the phyllites/quartzite nappes 20m under the surface extending up to 1.7 km inland and it is considered as the strongest evidence for scenario 1.

Two different types of aquifer expected based on rock types. Sediments are expected to host a phreatic aquifer (G-63 and G-81 are evidence) which lie above phyllite/quartzite unit.

The problem is that resistivity values overlap (**Table 5.1**) and it is hard to separate them, which is part of the limitation of geophysics. Deeper aquifer is expected to be found in discontinuities (fracture zone in Phyllite/quartzite nappe or karst in plattenkalk unit). A fracture zone (1st left black colour ellipse) seems to appear which probably acts as a conduit (e.g. a fault) for seawater encroachment into aquifer. The 2nd ellipse in the middle most likely represents the seawater intrusion through the thrust zone. The deeper aquifer (maybe a little influenced by seawater) is recognised in the dolomites with resistivity values greater than 10 ohm.m, while underneath there is brackish water (≈1 ohm.m) probably originating from seawater which intrudes though faults from the north-eastern part of the seashore (3rd ellipsis). Many boreholes through the Plattenkalk nappe with relatively high pumping rate (**Appendix A**) confirm the existence and the amount of groundwater.

In order to show that the low resistivities that appear (indicated by the three ellipses) are not artefacts but good quality data, resistivity curves and 1D inversion models are illustrated only for those soundings (**Fig. 5.3**). All models (low rms) present that conductive layers (≈ 1 ohm.m) lie below, which complement scenario 1. Note that 0264 and 0246 TEM soundings, were measured in different units (phyllite/quartzite nappe and plattenkalk nappe respectively), and the difference in their responses (different resistivity values for the upper layers) permits recognition of different rock formations. However, both measurements recognised groundwater existence (low resistivity values), as well as its different quality characteristics (brackish water underneath fresh water).

CD, EF and FG geological cross-sections cross mainly above sediments, superimposed to phyllite/quartzite nappe, which their thickness has approximately estimated by the available data (geological map and borehole logs). CD and EF are 4 km long, while FG cross-section is 7 km long having NW-SE, NNW-SSE and SSW-NNE directions respectively. Their 2D geoelectrical models (juxtaposed 1D inversion models) (**Fig. 4.35f, 4.36f** & **4.37f**) demonstrate that the resistivity values of these sediments vary depending on the rock types from 100 to 500 ohm.m (Neogene limestone, clays, gravels, etc); however when Neo-

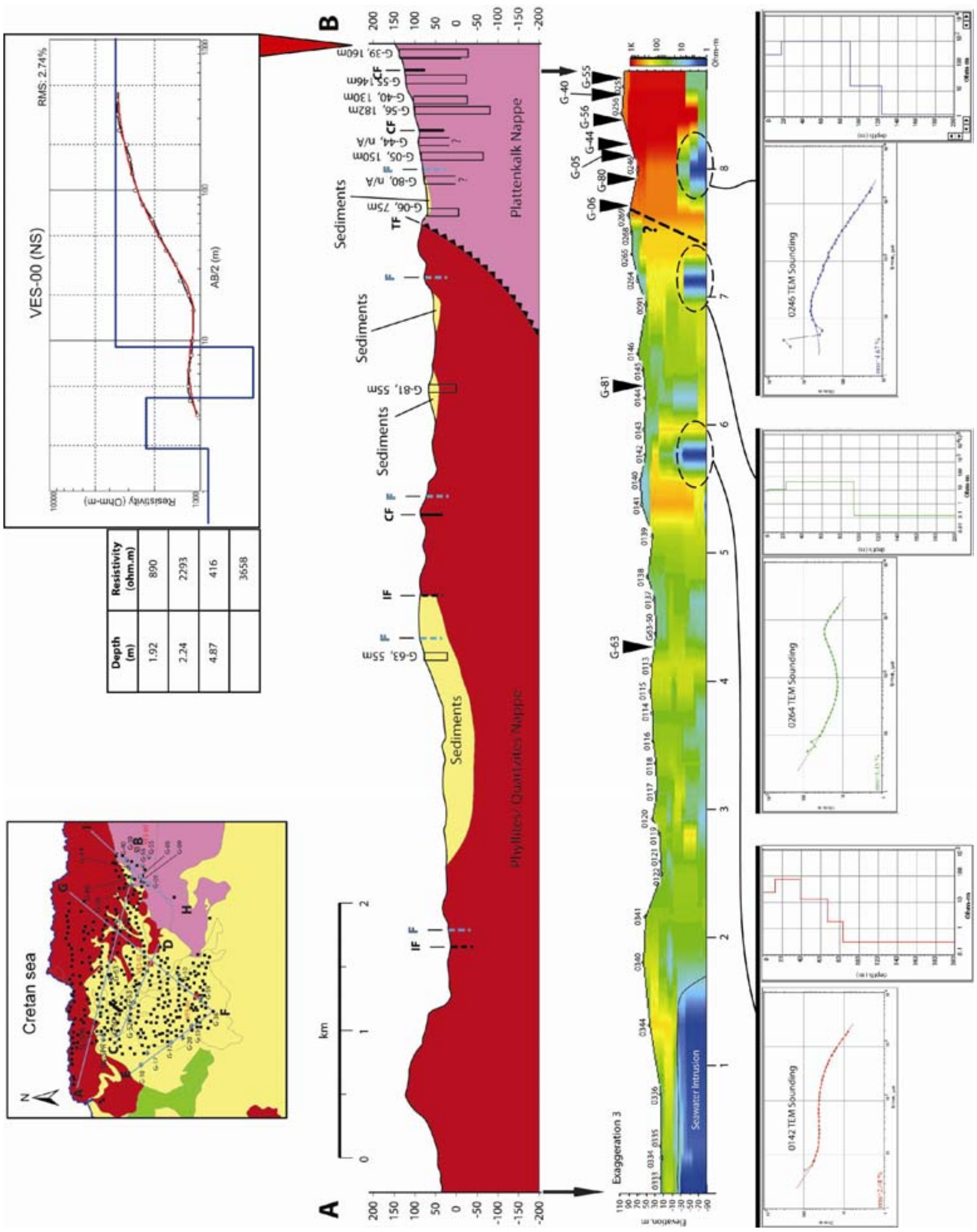

Fig. 5.3: AB geological cross-section in comparison with the 2D geoelectrical model and VES-00 sounding

gene limestones are more cohesive and stiff, the resistivity values are even more increased up to 1000 ohm.m. Generally, due to resistivity values overlapping between phyllite/quartzite nappe and sediments, it is hard to distinguish them. Boreholes confirm that there is groundwater in sediments, which is confirmed by TEM data, where the recharge zone is defined with resistivity values 10-40 ohm.m. Low resistivity areas at deeper layers are evidence for fracture zones in the phyllite/quartzite nappe. These zones are conduits for seawater intrusion, and consequently contamination of the groundwater (low resistivity areas shown with blue colour).

Finally, the HI geoelectrical model is a small part (4 km long) of ***HI*** geological ***cross-section*** and crosses only the plattenkalk nappe, which is obvious from the high resistivity values which indicate the dolomites and dolomitic limestones. TEM technique is very good for identifying conductive zones underneath more resistive layers (in contrary with VES soundings). The aquifer system is clearly identified. The water table (60m-100m from the surface) and the interface (mixing zone) between fresh and brackish waters (beginning from 110m) are depicted in **Figure 5.4** (black thick dashed lines). The aforementioned hydrogeological status is supported by the big number of boreholes with high pumping rate (greater than 100 m^3/h, **Appendix A**). Since the depth of the boreholes is close to mixing zone (as described above) the quality of their waters appears slightly affected (**section 5.3**). Specifically, the contamination zone is situated lower, mainly below G-44. Based on this interpretation, this particular borehole is considered the most vulnerable to saline intrusion problems.

The resistivity curves and 1D inversion models of three TEM soundings (0254, 0253 and 0244) are given (as we did for cross-section AB) in order to enforce the hydrogeological model that assumed previously. Specifically, these three TEM soundings were presented in order to show the good quality of data (low rms), as well as the similarity between their resistivity values. The depth models of each sounding appear slight differences between them, where the aquifer system is mapped (see text above). For that reason, TEM technique can be used as an effective tool for monitoring of the seasonal changes of the aquifer system (seawater intrusion) by applying time lapse measurements.

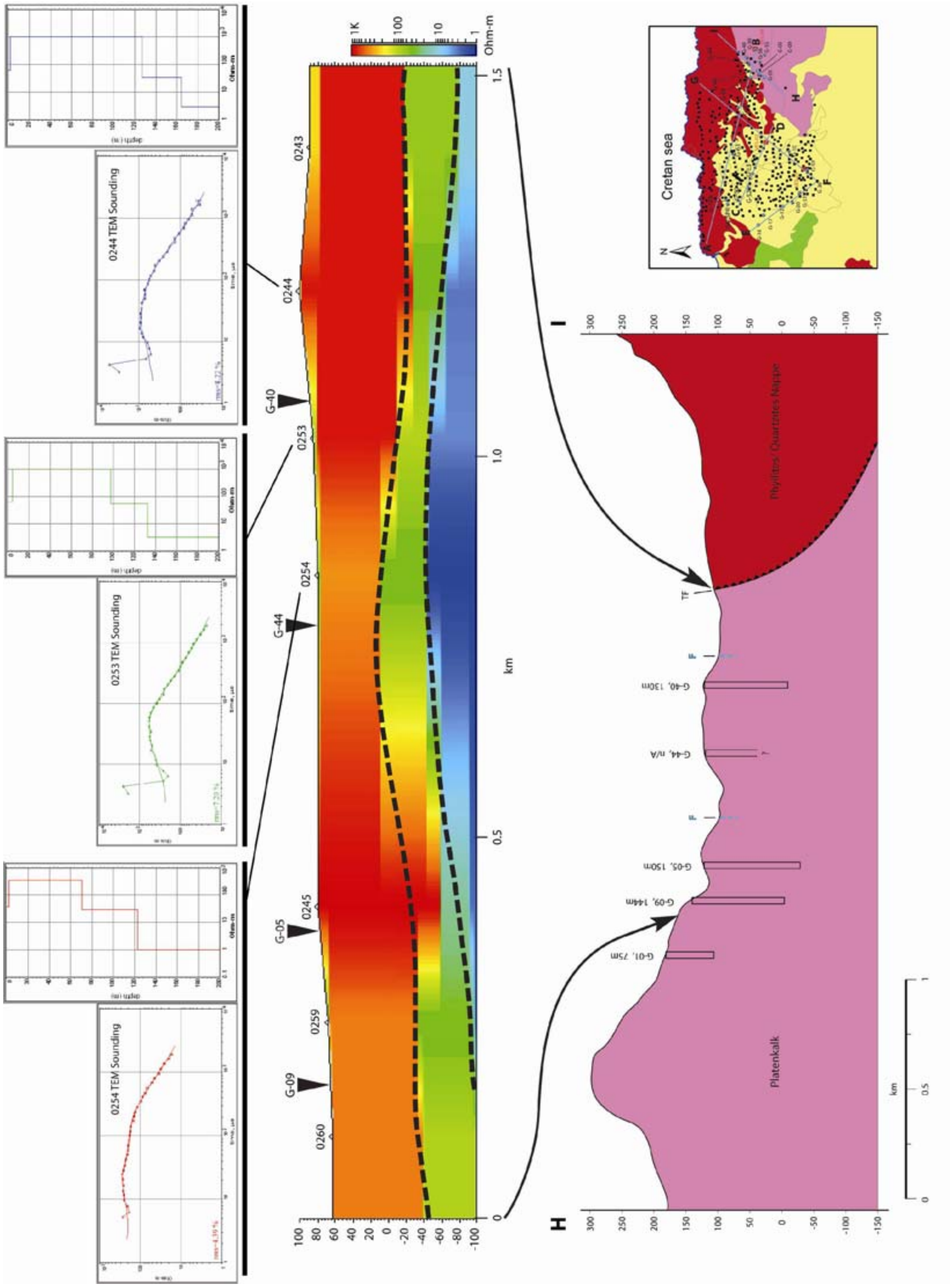

Fig. 5.4 HI geological cross-section in comparison with the 2D geoelectrical model

VES soundings

In **section 4.6.2** of ***Chapter 4***, resistivity data acquisition was described, where 3 VES soundings took place in three different environments: a) VES-00, on plattenkalk nappe (dolomitic limestones), b) VES-01, on sediments, and c) VES-02 on the contact between sediments and Phyllite/quartzite nappe. For VES-01 and VES-02 multidirectional measurements took place (NS and WE direction), whereas two small TEM profiles (25 x 25 m loop size for better resolution near surface) are created as well crossing through VES soundings for direct correlation. The results of each sounding are discussed next.

VES-00 sounding is situated at the end of AB cross-section (**Fig. 5.3**). This means that it took place on dolomitic limestones at Maniaki area, where TEM technique had SPM effect and no reliable data were acquired (**section 4.6.1.2** of ***Chapter 4***). Moreover, no multidirectional measurements accomplished (only NS direction), because there was not enough space in the WE direction. As shown in **Figure 5.3**, the first thin layer (2m thick), with resistivity about 800 ohm.m, represents the weathered surface. This is probably the “terra rossa”, which was referred to in **section 4.6.1.2** of ***Chapter 4*** and probably, due to the fat that it is rich in magnetite material, creates the SPM effect in TEM data. The next layer represents dolomitic limestones, which has values varying from 2293 to 2650 ohm.m. Note that a probable fracture zone lies at 5 meters depth with resistivity 416 ohm.m, as it contains groundwater.

VES-01 is situated at the southern part of FG cross-section (**Fig. 4.26** of **Chapter 4**) on the sediments. Measurements in both directions (NS and EW) showed similar results: the first very thin layer (1.6 m thick) is followed by a less resistive layer (up to about 20m depth), which finally is followed by a resistive layer (**Fig. 4.43** & **4.44** of **Chapter 4**). The small TEM profile with WE direction (**Fig. 4.45** of ***Chapter 4***) showed exactly the same results, that is the phreatic aquifer.

VES-02 is situated at the eastern part of CD cross-section (**Fig. 4.26** of **Chapter 4**). This site is on sediments, very close to the contact between phyllite/quartzite nappe with sediments. It was chosen in purpose and multidirectional measurements took place. VES-02 with NS direction had good results. In the contrary, the resistivity curve of VES-02 (with WE direction), is problematic as the last measurement points (when during measurement the eastern electrodes was very close to phyllite/quartzite nappe) showed extremely big values (**Fig. 4.47**). When these points removed, the model showed similar results with VES-02 with NS direction. Small TEM profile (**Fig. 4.48** of ***Chapter 4***) with WE direction shows clearly the contact.

Table 5.1: Values of resistivity for different geological materials and groundwaters of the study area as concluded after geophysical data interpretation (TEM and VES)

	Rock Material	Resistivity (ohm.m)
Quaternary sediments	- Alluvial deposits (Q2) - Marine deposits (N2-Q1) - Limestones, Marls, Clays, Conglomerates (N1-N2)	100-500
Neogene sediments		
Phyllite-Quartzite nappe	- Phyllites, quartzites and orthorocks (C3-T3)	100-300
Plattenkalk nappe	- Dolomites and dolomitic limestones (T3-J1) - Banded recrystallized olomitic stromatolites (C3-T3)	>1000

	Resistivity (ohm.m)
Fresh water	10-40
Brackish water	0.1-10

3D TEM imaging + Groundwater Quality Maps

In previous paragraphs, 2D geoelectrical models were discussed, where information about rock types, tectonics and aquifer characteristics were successfully identified. As described on **section 4.6.1.3.3** of ***Chapter 4***, four 3D geoelectrical resistivity layers were constructed: Layer A (0-20m depth), layer B (20-50m depth), Layer C (50-100m depth) and Layer D (100-200m depth) in order to give some extra information about the surficial geology (rock types and general tectonic regime) and aquifer characteristics as well. Therefore, the upper Layer A can be correlated with the surficial geological setting, that’s why a layer with the geology is overlain. Layers B and C are compared with the geochemical data (as 20-100m is the depth which boreholes mainly pump from), and Layer D shows clearly the contamination. Note that all chemical maps cover a smaller area than TEM resistivity maps.

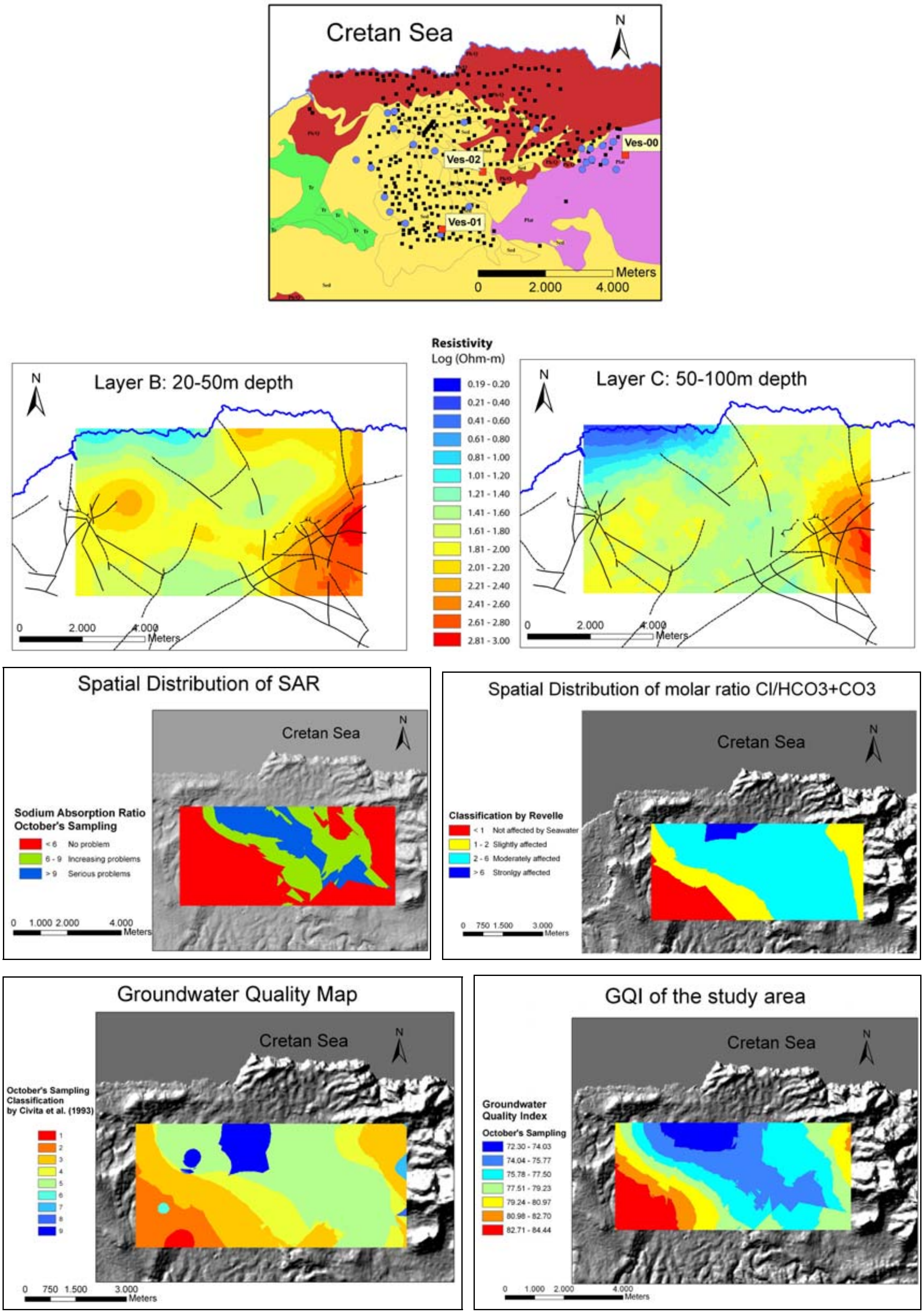

Fig. 5.5: Layers B and C (upper images) are compared with the four chemical maps, extracted as described in ***Chapter 4*** (lower images), showing the same results (see text for details).

Figure 4.39a of ***Chapter 4*** depicts Layer A with geology, in which they are in great agreement. At the eastern part, high resistivity plattenkalk nappe is shown, while sediments and phyllite/quartzite nappe have almost the same resistivity values. There is no evidence of contamination, but in the contrary the phreatic aquifer is shown in the central and southern part (Quaternary deposits and Neogene limestones, respectively). This is in agreement with the information from locals saying that at that at those specific areas there are plenty of shallow wells with good quality water.

As it is already mentioned on **section 2.3** of ***Chapter 2***, two aquifers are expected in the area (phreatic and deep), where from log information (**Appendix A**) the pumping level ranges mostly between 20-100m depth. For this reason, chemical maps (groundwater quality maps, SAR, Revelle, and EC) are correlated with Layers B and C. At both B and C layers plattenkalk nappe was recognised (high resistivity values) at the eastern part. At the most south-eastern part, the values are not representative because there is no TEM data coverage, but these values are given after interpolation of resistivity data (ordinary kriging). Actually, these values are expected higher. The same situation in the phyllite/quartzite nappe at the north-eastern part, the coverage is not adequate. So, probably some contamination from the sea through the fault (**Fig. 5.5**., Layer C) it is not depicted. On the contrary, in the north-western part (especially for Layer C) 50m below surface the most reasonable interpretation is that seawater intrudes inland. Except for contamination areas (where the resistivity measurements are not reliable), the same resistivity values exist for this nappe, as described earlier at 2D TEM interpretation (**Table 5.1**) which overlap with sediment resistivity values.

Layer D gives information about the size and geometry of contamination. Specifically, the south-western part of the 3D model seems unaffected from seawater. The north-eastern part of the area seems not contaminated as well, but (as mentioned above) no TEM measurements are available, and maybe seawater encroaches and contaminates plattenkalk nappe at the eastern part. Finally, a graben with NW-SE direction crosses the study area and it is envisaged here to be a major conduit for seawater.

Despite the fact that the sample locations are not well distributed, all chemical maps show similar results and they are in agreement with geophysical data interpretation i.e. they show contamination near seashore which extends inland. It is worth saying that Electrical Conductivity map from chemical analysis (**Fig. 5.1**) is in great spatial distribution agreement with the resistivity (inverse conductivity) layer C from TEM data interpretation.

Simple Hydrogeological Model

The four resistivity layers (Layer A: 0 - 20 m, Layer B: 20 - 50 m, Layer C: 50 - 100 m, Layer D: 100 - 200 m) that described in previous section (interpolated maps of TEM resistivity values in different depths) are represented with heights obtained by DEM showing the relief of the study area. These images mainly were constructed in order to make clear the physical mechanism of the seawater intrusion (**section 2.4.1** of ***Chapter 2***). From the physical point of view seawater intrusion cannot be occurred above the sea-level, so the NW part of the study area was contaminated firstly through fracture zones (low elevation), while the contamination of the SE part of the study area is shown only in Layer D approximately 80m below sea-level.

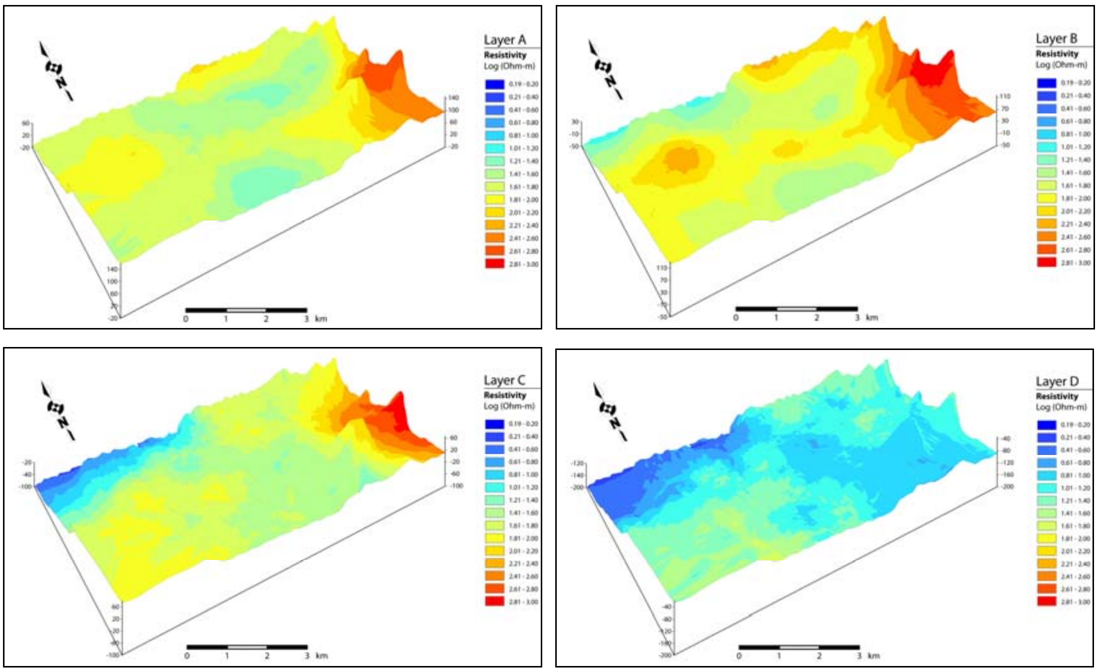

Fig. 5.6: The four resistivity layers (Layer A: 0 - 20 m, Layer B: 20 - 50 m, Layer C: 50 - 100 m, Layer D: 100 - 200 m) with heights obtained by DEM showing the relief of the study area.

Finally, it should be discussed how the results of this thesis relate to studies from other areas. Two places were selected to show general similarities and differences with Geropotamos study area, as they are considered as the most representative: the coastal strip of Israel and the coastal Rhodope area (north-eastern Greece). Of course, it is important to repeat that the northern part of Geropotamos was studied scientifically for the first time, while the Israeli coast and Rhodope aquifer system have been examined for many years. On the other hand, it is intended, like Goldman M., Kafri U. and Melloul did for their area (Israel), to continue TEM surveys, in order to cover more area of the Cretan coasts. In addition, the chemical analyses of groundwaters will be continued (like Petalas et al. did in north-eastern Greece), while more sampling points will be added. Therefore, the continuation of this project will be a good attempt for the seawater intrusion problem of Crete Island delineation.

In the Literature Review Chapter (**section 2.5.1** of ***Chapter 2***) a short reference at the seawater intrusion mapping the last 25 years by Goldman M., Kafri U. and Melloul A. in Israel was made (e.g. Goldman et al, 1988; Melloul and Bibas, 1991; Kafri et al., 1997; Goldman and Kafri, 2002; Kafri and Goldman, 2006; Kafri et al., 2007). They use mainly TEM technique making extensive surveys, covering the almost the whole Mediterranean coastal strip of Israel. At the same area Sivan et al. (2004) sampled saline and brackish groundwaters from the Israeli coastal aquifer in order to quantify the geochemical processes and the timescale of seawater intrusion into a coastal aquifer. At both places TEM technique and chemical analyses showed seawater intrusion to be the only contaminator of the groundwaters. In addition, for both places information from existed boreholes were used, which in conjunction with the results of the TEM surveys, the coastal aquifers were delineated successfully. Detailed chemical analyses by Sivan et al. (2004) that took place in Israel were independent from geophysical surveys, while for our case study in this thesis the two different approaches were done concordantly, and the results were directly compared.

Concerning Rhodope aquifer, repeated hydrogeological and hydrochemical investigations from Petalas et al. the last decade (Petalas et al, 1999; Petalas & Lambrakis, 2006; Petalas et al. 2009) have shown the origin and distribution of saline groundwaters in the coastal area, illustrating the large extent of seawater intrusion in the Rhodope aquifer system. Using the same special interpretation of geochemical data, as it was used for Geropotamos area (dominant ions, Piper diagram, Durov diagram, ion exchange etc), they managed to characterise the groundwaters and determine the chemical processes. Even though Petalas et al. mainly combine the field observations with geochemistry, without using any other methodologies (e.g. geophysics), they were able to safely lead to better explanation of the origin of saline waters, proving one more time that geochemical data are a very effective tool for these kinds of salinity problems.

5.5 Summary

In this section, the results from ***Chapter 3*** were discussed and the objective questions that were posed on ***Chapter 1*** were answered. Tectonic setting is the key point and supports the scenario of seawater intrusion, since the faults seem to act as conduits for seawater encroachment into aquifer. It showed that this state is in agreement with the results of the chemical analyses and their special interpretation. Then it was discussed the great relationship between the physical characteristics of geomorphology and geology with geophysical 2D and 3D geoelectrical models, as well as with the geochemical characters, decreasing the uncertainty of this assumption even lower. Therefore, there is a strong set of evidence which showed that all the quality problems are due to seawater intrusion and not evaporites.

Chapter 6

[CONCLUSIONS]

Chapter Contents

6.1 Introduction

This chapter summarizes the major outcomes of the research and explains to what extend the aims have been achieved. In evaluating the relative strengths and weaknesses of the study, we need to consider one more time the key questions that have already been discussed at the previous chapter:

- **What is the relationship between the geomorphology, rock types and structure?**
- **What is the relationship between the water quality and the physical characteristics of geomorphology and geology?**
- **What is the relationship between the physical & geochemical characters of the area and the geophysical surveys?**

6.2 Conclusions

The conclusions of this study are catalogued here:

1. The evidence presented in previous chapters is best interpreted that the saline water is due to seawater intrusion. This disproves previous work. **Figure 6.1** shows a simple diagram of the Geropotamos drainage basin which combines together all the aspects of this thesis. Hence, during the winter period precipitation (mainly snow and rain), falling mostly in the mountains (Psiloritis Mountain and Talea Ori Mountain), either runs off surficially (creating Geropotamos River), or soaks into the ground as infiltration (replenishment of deep aquifer - plattenkalk nappe, or phreatic aquifer - Neogene sediments). During summer season, seawater intrudes inland through faults with NE-SW direction (dashed orange colour lines), contaminating the freshwater. Blue points indicate the boreholes with NaCl water type, red points the boreholes with $CaCl_2$ water type, while green points the boreholes with $Ca(HCO_3)_2$ water type.

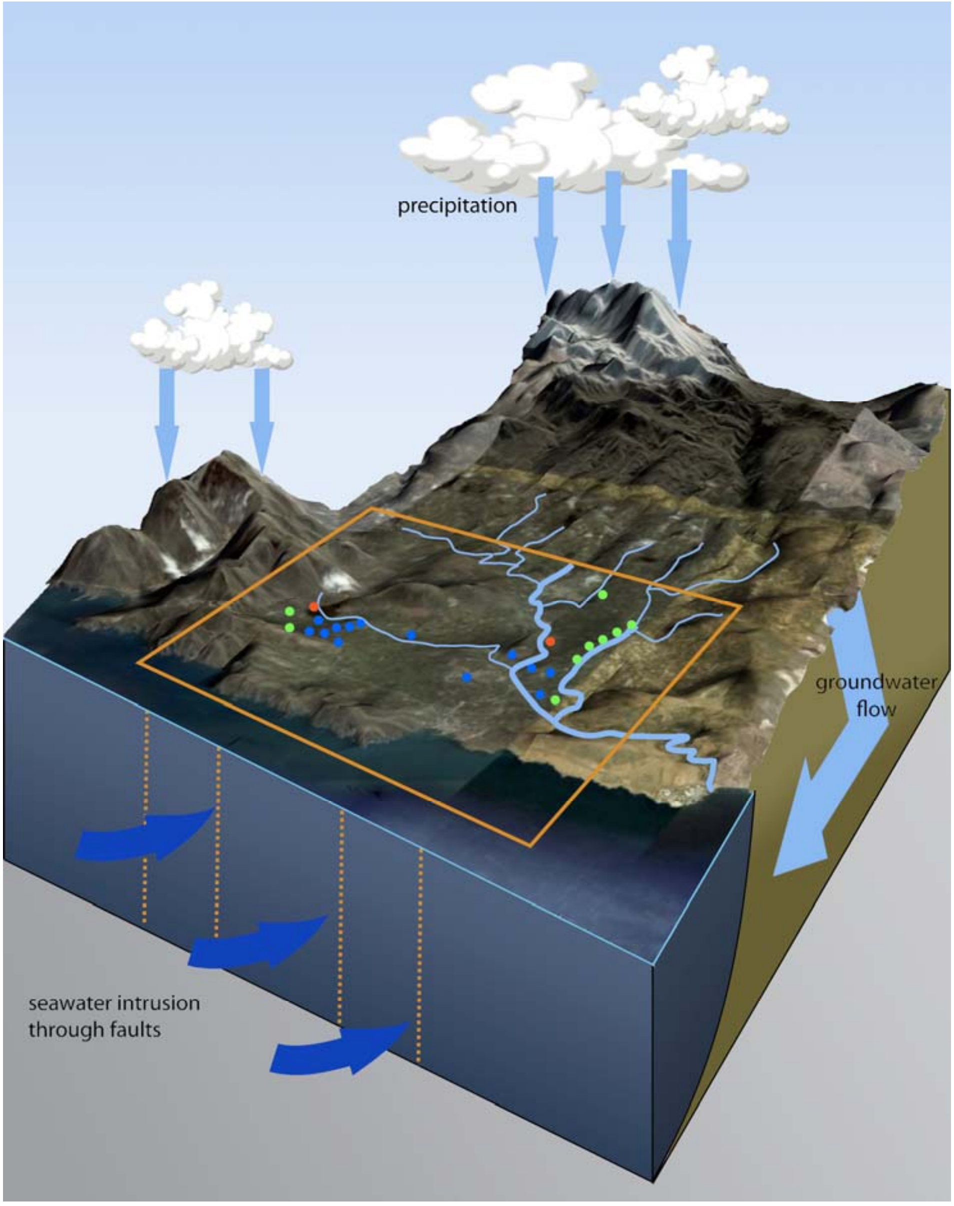

Fig. 6.1. Schematic three-dimensional reconstruction of the dynamics of the study area; see text for explanation.

2. Evidence that groundwater of Geropotamos aquifer has already been contaminated by seawater encroachment is presented in this thesis. Winter rainfall every year recharges the deep and phreatic aquifers, providing relatively fresh water to the local population. Nevertheless, climate change and/or increasing water demand (increasing pumping rates), could easily lead to shortage of

freshwater supplies, and increased salination of the aquifers of the area. For that reason, water management projects are essential.

3. Geochemical research, which is the direct characterization of the aquifer, and geophysical research, which is the indirect characterization of the aquifer, showed similar results. Nevertheless, TEM and VES techniques provide a crude model of the aquifer (qualitative characteristics) since geophysical measurements are on multi-face materials (aquifer and hosted rocks). Geochemical analyses proved the most accurate for groundwater quality determination, but samplings can take place only where boreholes exist. In the contrary, with TEM and VES geophysical techniques dense grid can be created. In complex environments, like Geropotamos area, the interpretation of geophysical results does not always lead to single interpretations and needs experience, due to resistivity values overlapping (**Table 5.1** of ***Chapter 5***). Nevertheless the methods are robust in that brackish waters can be easily distinguished by TEM and VES, but the range of variation within brackish waters is not fully determinable.

4. The multi-proxy approach used in this thesis shows correlation between the outcomes of those methods. The physical characteristics (geomorphology, geological structure) are clearly related to the geochemical and geophysical properties. All information was correlated together decreasing the uncertainty, and seawater was concluded as the only contaminator of the northern part of Geropotamos basin.

5. This work emphasizes that the application of TEM technique is successful in groundwater resources assessment. The reliability of the data, the portable nature of the equipment, the fast data gathering and the minimal participants needed for its operation (3 people maximum) make this electromagnetic technique an excellent tool for hydrogeology. It can be used even alone, extracting trustworthy results. However, TEM in correlation with other methods, e.g. chemical analyses or other geophysical techniques as used within the frames of this thesis, makes the project more robust.

6. Remote sensing analysis, even though it was a preliminary work, showed wonderful results, confirming documented faults (IGME map) or giving entirely new lineaments, which seem to be in agreement with TEM geophysical investigation. However, fieldwork will confirm this work

7. Therefore, overall, this thesis offers three contributions to knowledge:
   1 A practical demonstration of the value of TEM and VES geophysical methodologies in groundwater studies
   2 A new set of geophysical and geochemical data
   3 Established that seawater and not evaporites (halites), as people up to now believed, is the most likely contaminator of the study area's groundwaters.

6.3 Perspectives (Suggestions for future work)

From the scientific point of view, even though this study is a multi-proxy approach which reaches coherent conclusions, future work has the potential to decrease the uncertainty even further. Some suggestions concerning both additional geochemical and geophysical work are given next.

A) For geophysics, joint inversion of TEM and VES data maybe could improve the 1D models. This requires deeper VES soundings and of course good quality VES and TEM raw data. In addition, 3D TEM inversion using very innovative algorithms can also show better results.
B) For geochemistry, more comprehensive and longer records of water sampling would give more information about the seasonal variation of the groundwater quality, and it is in the future plans of the author. 1 or 2 years of continuous monitoring (water sampling every 2 months), with simultaneous graphs (Piper, Durov, Stiff, molar ratios, etc) and vulnerability maps (e.g. GQI) creation, could give a more consistent model. Isotopic study is a great tool for identifying the origin of saline waters too.

To sum up, geophysical and geochemical interpretation showed safely the source of contamination, as well as the qualitative and quantitative characteristics of the groundwaters. So, the results of this thesis can lend a hand to find solutions for water management in order to achieve and preserve a long-term protection of the available groundwater resources of the area.

[REFERENCES]

Alexopoulos, A. (1990). *Geological and hydrogeological conditions of the topographical sheet Mohos area (central-eastern Crete).* Doct. Thesis, Athens: University of Athens (in Greek).

Al-Sayed, E.A. & El-Qady, G. (2007). Evaluation of Sea Water Intrusion using the Electrical Resistivity and Transient Electromagnetic Survey: Case Study at Fan of Wadi Feiran, Sinai, Egypt. *EGM 2007 Proceedings.*

Albouy, Y., Andrieux, P., Rakotondrasoa, G., Ritz, M., Descloitres, M., Join, J.-L. & Rasolomanana, E. (2001). Mapping coastal aquifers by joint inversion of DC and TEM soundings-three case histories. *Ground Water, 39 (1)*, 87-97.

AMRA- Environmental Risk Analysis and Monitoring Limited Liability Consortium Company. (2007). *Methodology Integration of EO Techniques as Operative Tool for Land Degradation Management and Planning in Mediterranean Areas* (MILDMAP MEDIA EU Project, WP 3 "Integrated techniques for land degradation monitoring and control", Action 3.3 "Hydraulic-Hydrological modelling").

Angelier, J. (1976). Sur la neotectonique de l' arc egeen externe: les failles normales Est-Quest et l' extension submeridienne cretoise. *C.R. Acad. Sci. Paris, (D), 282*, 413-416. (in French).

Angelier, J. & Le Pichon, X. (1980). Neotectonique horizontale et verticale de l' Egee: subduction et expansion. *Mem. Bur. Rech. Geol. Min., 115,* 249-260. (in French).

Angelier, J., Dumont, J.F., Karamanderesi, H., Poisson, A., Simsek, S. & S. Uysal, S. (1981). Analyses of fault mechanisms and expansion of southwestern Anatolia since the Late Miocene. *Tectonophysics, 75,* T1-T9.

Angelier, J. (1981). Analyse quantitative des relations entre deformation horizontale et movements verticaux: l' extenxion egeen, la subsidence de la mer de Crete et la surrection de l' arc hellenique. *Ann. Geophys. 37,* 327-345. (in French).

Angelier, J., Lyberis, N., Le Pichon, X., Barrier, E. & Huchon, P. (1982). The tectonic development of the Hellenic Arc and the Sea of Crete: a synthesis. In. X. Le Pichon, S.S. Augoustithis and J. Mascle (Eds.), Geodynamics of the Hellenic Arc and Trench. *Tectonophysics, 86*, 159-196.

Appelo, C.A.J. & Postma, D. (2005). *Geochemistry, Groundwater and Pollution.* Leiden: A.A. Balkema Publishers (member of Taylor & Francis Group plc).

AquaChem Help. 2008. Aquachem Help included in AquaChem software version 5.1 by Rockware Inc.

ArcGIS Desktop Help. (2004). ArcGIS Desktop Help included in ArcMap Version 9.1 software by ESRI.

Argialas, D., Stearns, R. & Shahrokhi F. (1988). Mapping and significance of Landsat and gravity lineaments in west Tennessee, *Jour. Aerospace Engineering, Am. Soc. Civil Engineers, 1 (2)*, 74-87.

Aris, A. Z., Abdullah, M. H., Kim, K. W. & Praveena, S. M. (2009). Hydrochemical changes in a small tropical island's aquifer: Manukan Island, Sabah, Malaysia, *Environmental Geology, 56 (8)*, 1721-1732.

Aubouin, J. & Dercourt, J. (1965). Sur la geologie de l' Egee: regard sur la Crete (Greece). *Bull. Soc. Geol. France, (7), t. VII*, 787-821. (in French).

Aubouin, J. (1971). Reflexion sur la tectonique de faille plio-quaternaire. *Geol. Rdsch., 60*, 833-848. (in French).

Aubouin, J., Le Pichon, X. Winterer, E. & Bonneau, M. (1979). Les Hellenides dans l'optique de la tectonique des plaques. *Proc. VI Coll. Geod. Aegean Region (Athens 1977), III*, 1333-1354. (in French).

AWWA Staff. (1995). Water Quality. *Principles and practices of water supply operations*. Denver: American Water Works Association, 2nd Edition.

Babiker I.S., Mohamed M.A.A. & Hiyama T. (2007). Assessing groundwater quality using GIS, *Water Resour Manage, 21*, 699-715.

Barton, M., Salters, V.J.M. & Huysmans, J.P.P. (1983). Sr isotope and trace element evidence for the role of vontinental crust in calc-alkaline volcanism on Santorini and Milos, Aegean Sea, Greece. *Earth Plan. Sci. Lett., 63*, 273-291.

Barrett, B., Heinson, G., Hatch, M. & Telfer, A. (2006). River sediment salt-load detection using a water-borne transient electromagnetic system. *Journal of Applied Geophysics, 58*, 29-44.

Barsukov, P.O. & Fainberg, E.B. (2002). Study of the environment by the transient electromagnetic method using the induced polarization and superparamagnetic effects. *Izvestiya, Physics of the Solid Earth 38 (11)*, 981-984.

Barsukov, P.O., Fainberg, E.B. & Khabensky, E.O. (2007). *Shallow Investigations by TEM-FAST Technique: Methodology and examples*. In: Electromagnetic Sounding of the Earth's Interior, Spichak, V.V. (Ed.), Holland: Elsevier, 55-77.

Baumann, A., Best, G. & Wachendorf, H. (1977). Die alpidische stockewerke der sudlichen Agais. *Geol. Rundschau, 66,* 492-522. (in German).

Bohnhoff, M., Makris, J., Papanikolaou, D. & Stavrakakis, G. (2001). Crustal investigation of the Hellenic subduction zone using wide aperture seismic data. *Tectonophysics, 343*, 239-62.

Bonneau, M. (1970) Les lambeaux allochtones du revers septentrional du massif des Psiloriti (Crete moyenne, Greece). *Bull. Societe geologique de France, 7, 12*, 1124-1129. (in French).

Bonneau, M. (1972). La nappe metamorphic del' Asteroussia, lambeu d' affinites pelagoniennew charrie jusque sur la zone de Tripolitza de la Crete moyenne (Grece). *C. R. Acad. Sci. Paris, (D), 275*, 2303-2306. (in French).

Bonneau, M. (1973). Sur lea affinites ioniennes des "calcaires en plaquettes" epimetamorphiques de la Crete, le charriage de la serie de Gavrovo-Tripolitza et la structure del' arc egeen. *C. R. Acad. Sci. Paris (D), 277*, 2453-2456. (in French).

Bonneau, M. (1982). Evolution geodynamique de l 'arc egeen depuits le Jurassique superieur jusqu' au Miocene. *Bull. Societe geologique de France, Paris, ser. 7, t. XXIV, 2*, 229-242. (in French).

Bonneau, M. (1984). Correlation of the Hellinide nappes in the south-east Aegean and their tectonic reconstruction. In: Dixon, J.E. & Robertson, A.H.F. "The geological evolution of the eastern Mediterranean". Geological Society, Blackwell scientific publications ltd edit., Oxford, London, Edimbourg, Boston, Palo, Alto, Carlton, Sp. Publ. 17, 517-527.

Bonneau, M. & Karakitsios, V. (1979). Les niveaux inferieurs (Trias superieur) de la nappe de Tripolitza en Crete moyenne (Grece) et leurs relations avec la nappe des Phyllades. Problemes stratiphiques, tectoniques et de metamorphisme. *C. R. Academie des Sciences, (D), t. 288, 15*-18.

Bijon, G., Bonneau, M., Le Boulenger, P., Matesco, S. & Thiebault, F. (1976). Sur la signification et l' extension des "massifs cristallins externes" en Peloponnese meridional et dans l' arc egeen. *Bull. Soc. Geol. France, 7, XVIII, 2*, 337-345. (in French).

Campbell, J.B. (2002). *Introduction to Remote Sensing*. New York: Taylor & Francis Ltd; 3Rev Ed edition.

Chartzoulakis, K.S., Paranychianakis, N.V. & Angelakis, A.N. (2001): Water resources management in the island of Crete, Greece, with emphasis on the agricultural use. *Water Policy 3*, 193-205.

Chatzaras V., Xypolias P. & Doutos T. (2006). Exhumation of high-pressure rocks under continuous compression: A working hypothesis for the southern Hellenides (central Crete, Greece). *Geological Magazine, 143 (6),* 859-876.

Chen C.-S. (1999). TEM Investigations of Aquifers in the Southwest Coast of Taiwan. *Ground Water, 37 (6)*, 890-896.

Civita, M., Dal Pra, A., Francani, V., Giuliano, G., Oliviero, G., Pellegrini, M. & Zavatti, A. (1993). Proposta di classificazione e mappatura della qualità delle acque sotterranee, *Inquinamento, 35*, 8-17. (in Italian).

Cocard, M., Kahle, H.-G., Peter, Y., Geiger, A., Veis, G., Felekis, S., Paradissis, D. & Billiris, H. (1999). New constrains on the rapid crustal motion of the Aegean region: recent results inferred from GPS measurements (1993-1998) across the West Hellenic Arc Greece. *Earth Planet. Sci. Lett., 172*, 39-47.

Cohen, J. (1988) *Statistical power analysis for the behavioral sciences.* Hillsdale, New Jersey: Lawrence Erlbaum; 2nd edition.

Coal Geology. (2009). Retrieved June 12, 2009 from http://coalgeology.com.

Creutzburg, N. (1958). Probleme des Gebirgsbaues und der Morphogenese auf der Insel Kreta. Freiburger Universitatstreden, N. Folge, H. 26, S. 46, 20 Text., Freiburg i/Br. (in German).

Creutzburg, N. & Papastamatiou, J. (1969). Die Ethia-Serie des sudlichen Mittelkretas und ihre Ophiolitvorkommen. Sitzungsber. Heidelberger Akad.Wiss. math.–naturw. K1, 1 (in German).

Creutzburg, N. & Seidel, E. (1975). Zum Stand der Geologie des Praneogens auf Kreta. *N. Jb. Geol. Palaont. Abh., 149 (3),* 363-383. (in German).

Dahlin T. (2001). The development of DC resistivity imaging techniques. *Computers and Geosciences, 27 (9)*, 1019-1029.

Danielsen J.E., Auken E., Jorgensen F., Sondergaard V., & Sorensen K.I. (2003). The application of the transient electromagnetic method in hydrogeophysical surveys, *Journal of Applied Geophysics, 53 (4),* 181-198.

De Boer, J.Z. (1989). The Greek enigma: is development of the Aegean orogeny dominated by forces related to subduction or obduction? *Mar. Geol., 87,* 31-54.

de Montety, V., Radakovitch, O.,Vallet-Coulomb, C., Blavoux, B.,Hermitte, D. & Valles, V. (2008). Origin of groundwater salinity and hydrogeochemical processes in a confined coastal aquifer: Case of the Rhône delta (Southern France). *Applied Geochemistry, 23 (8)*, 2337-2349.

Dept of Geography - University of British Columbia. (2009). Retrieved April, 28, 2009 from http://www.geog.ubc.ca.

Dermitzakis, M.D. & Papanikolaou, D. (1981). Paleography and Geodynamics of Aegean Region during Neogene. Viith Int. Congress on Medit. Neogene, Athens 1979. *Ann. Geol. Pays Hellen., IV*, 245-289.

Dhakate R. & Singh V.S. (2005). Estimation of hydraulic parameters from surface geophysical methods, kaliapaniultramafic complex, Orissa, *India Journal of Environmental Hydrology, 13.*

Donta, A. A., Lange, M. A. & Herrmann, A. (Eds.). (2005). *Water on Mediterranean Islands: Current conditions and prospects for sustainable management* (MEDIS EU Project, ZUFO-Reports, Volume 5). Muenster: Centre for Environmental Research (CER), University of Muenster.

Drabbe, J. & Badon Ghyben, W. (1888-1889). Nota in verband met de voorgenomen putboring nabij Amsterdam. Tijdschrift van het Koninklijk Instituut van Ingenieurs, The Hague, Neth, 8-22.

Drinking Water Testing, Water Quality and Pathogenic Disease Laboratories. (2009). Wilkes University, Center for Environmental Quality, Environmental Engineering and Earth Sciences. Retrieved January 3, 2009 from http://www.water-research.net.

Ducci D. (1999). GIS techniques for mapping groundwater contamination risk. *Natural Hazards, 20 (2-3)*, 279-294.

Duque-Calvache, C., Calvache, M.L., Pedrera, A., Hódar, A., López Chicano, M., Martín Rosales, W., González, A. & Rubio J.C. (2006). Characteristics of the fresh water-salt water contact in the Motril-Salobrepa aquifer (Southern Spain) using time domain electromagnetic soundings. *19th SWIM 2006 Proceedings*, 283-388.

Duque, C., Calvache, M.L., Pulido-Bosch, A., González Ramón, A.,Rubio, J.C., Navarro, J.A., López-Chicano, M. & Martín-Rosales, W. Evolution of the Marine Intrusion Using Geophysical Methods after 25 Years in the Motril-Salobreña Aquifer (Southern Spain). *20th SWIM 2008 Proceedings*, 68-71.

Standard Methods for the examination of water and wastewater. (2005). Eaton, A., Clesceri, L. S., Rice, E. W., Greenberg, A. E. & Franson, M.A.H. (Eds.). USA: American Public Health Association; 21 Har/Cdr edition.

Eddy-Dilek, C.A., Looney, B.B., Hoekstra, P., Harthill, N., Blohm, M., Phillips, D.R. (1997). Definition of a critical confining zone using surface geophysical methods. *Ground Water, 35 (3)*, 451-462.

Edminister, J. (1994). *Schaum's Outline of Theory and problems of Electromagnetics*. USA: McGrawn-Hill.

El Moujabber, M., Bou Samra, B., Darwish, T., Atallah T. (2006). Comparison of different indicators for groundwater contamination by seawater intrusion on the Lebanese coast. Water Resources Management, 20 (2), 161-180.

EPA (U.S. Environmental Protection Agency). (2009). Retrieved January 3, 2009 from http://www.epa.gov.

Epting, M., Kudrass, H.R., Leppig, U. & Schafer, A. (1972). Geologie der Talea Ori (Kreta). Neues Jahrbuch for Geologie und Palaontologie Abhandlungen, Stuttgart, t. 141, fasc. 3, 259-285.

ESRI. (2009). Environmental Systems Research Institute. Retrieved April, 28, 2009 from http://www.esri.com.

ETS Labs. (2009). Retrieved March 5, 2009 from http://www.etslabs.com.

Everett, M. & Meju, M.A. (2005). Near-surface controlled-source electromagnetic induction: Background and recent advances. In Y. Rubin & S. Hubbard (eds.), Hydrogeophysics, Springer, Chapter 6, 157-184.

European Council. (1998). Council Directive 98/83/EC on the quality of water intented for human consumption. Adopted by the Council, on 3 November 1998.

Fassoulas, C., Kilias, A. & Mountrakis, D. (1994). Post-nappe stacking extension and exhumation of the HP/LT rocks in the island of Crete, Greece. *Tectonics, 13*, 127-138.

Fassoulas, C. (2000). *Field Guide to the Geology of Crete*. Heraklio: Natural History Museum of Crete Publ.

Fassoulas C., Rahl J.M., Ague J., Henderson K. (2004). Patterns and conditions of deformation in the Plattenkalk Nappe, Crete: A preliminary study. Proceedings of the 10th International Congress, Thessaloniki, Greece, April 2004, Extended abstracts.

Feldhoff, R. A., Lücke, A. & Richter, D. K. (1991). Über die Diagenese/ Metamorphosebedingungen der Pindosund Tripolitza-Serie auf der Insel Kreta (Griechenland). Zentralblatt für Geologie und Palaontologie Teil I 11, 1611-22. (in German).

Fitterman, D.V., & Stewart, M.T. (1986). Transient electromagnetic sounding for groundwater. Geophysics, 51 (4), 995-1005.

Fortuin, A.R. & Peters, J.M. (1984). The Prina complex in eastern Crete and its relationship to possible Miocene strike-slip tectonics. *J. Struct. Geol., 6,* 459-476.

French, R.B. (2002). *A discussion of Geophysical techniques: Time-domain Electromagnetic Exploration*. Flyer by Northwest Geophysical Associates, Inc. Retrieved February 8, 2008, from: http://www.nga.com.

Fresenius, W., Quentin, K.E. & Schneider, W. (Eds.). (1996). Water Analysis: A Practical Guide to Physico-Chemical, Chemical and Microbiological Water Examination and Quality Assurance. Berlin: Springer-Verlag.

Frohlich, R.K. & Urish D.W. (2002). The use of geoelectrics and test wells for the assessment of groundwater quality of a coastal industrial site. *Journal of Applied Geophysics, 50 (3)*, 261-278.

Fytrolakis, N. (1967). On fossil occurrence in eastern Crete metamorphic rocks. *Bull. Geol. Soc. Greece, 7*, 89-92.

Fytrolakis, N. (1972). Die Einwirkung gewisser orrogenen Bewegungen und die Gipsbildung in Ostkreta (Prov. Sitia). *Bull. Geol. Soc. Greece, 9, 1,* 81-118. (in German).

General Secretariat of National Statistical Service of Greece. (2008). Retrieved April 1, 2008, from http://www.statistics.gr/portal/page/portal/ESYE/ (in Greek).

Geospatial Analysis. (2009). Retrieved June 10, 2009 from www.spatialanalysisonline.com.

Geoscape Canada. (2009). Natural Resources Canada. Retrieved May, 10, 2009 from http://geoscape.nrcan.gc.ca.

Goldman, M., Arad, A., Kafri, U., Gilad, D. & Melloul, A. (1988). Detection of freshwater/seawater interface by the time domain electromagnetic (TDEM) method in Israel. *Proc. 10th SWIM, Ghent*, 329-344.

Goldman, M., Gilad, D., Ronen, A. & Melloul, A. (1991). Mapping of seawater intrusion into the coastal aquifer of Israel by the time domain electromagnetic method. *Geoexploration 28*, 153-174.

Goldman, M. & Gendler, M. (2002). Detection of fresh and brackish groundwater bodies within deep sub-aquifers and mapping freshwater/seawater interface along the coastal aquifer of Israel using geophysical (TDEM) method. Geophys. Inst. Israel Rep. 914/210(1)/02 (in Hebrew).

Goldman, M. & Kafri, U. (2002). Integrated electromagnetic geophysical technology applied o the detection of deep fresh/salinegroundwater interfaces in northern and central Israel. *Geoph. Inst. Israel. Rep. 911/188/01.*

Goldman, M., Kafri, U. and Yechieli, Y.(2003). Application of the TDEM method for studying groundwater salinity in different coastal aquifers in Israel. In: Lopez-Geta, J.A., De Dios Gomes, J., de la Orden, J.A., Ramos, G., Rodriguez, L., eds. Coastal aqiufers intrusion technology: Mediterranean countries. The Institute of Geology and Mineralogy of Spain (IGME) 45-56.

Goldman, M & Kafri, U. (2004). The use of the TDEM method to evaluate porosity of saline water saturated aquifers. *Proceedings of the 18th SWIM, Cartagena (Spain) 31 May-3 June 2004.*

Guerin, R., Descloitres, M., Coudrain, A., Talbi, A., & Gallaire, R. (2001). Geophysical surveys for identifying saline groundwater in the semi-arid region of the central Altiplano, Bolivia *Hydrological Processes, 15 (17)*, 3287-3301.

Gupta, R. P. (2003). *Remote Sensing Geology*. Germany: Springer-Verlag Berlin and Heidelberg GmbH & Co. KG.

Hall, R. & Audley-Charles, M.G. (1983). The structure and regional significance of the Talea Ori, Crete. *J. Struct. Geol., 5,* 167-179.

Hall, R., Audley-Charles, M.G. & Carter, D.J. (1984). The significance of Crete for the evolution of eastern Mediterranean. In: Dixon, J.E. and Robertson, A.H.F. (Eds.). The Geological Evolution of the Eastern Mediterranean. *Spec. Publ. Geol. Soc. London, 17,* 499-516.

Harmon, J.E. & Anderson, S.J. (2003). *The Design and Implementation of Geographic Information Systems*. Hoboken, New Jersey: John Wiley & Sons, Inc.

Haswell, S.J. (Ed.). (1991). *Atomic Absorption Spectrometry: Theory, Design and Applications (Analytical Spectroscopy Library)*. Amsterdam: Elsevier Science Publishers.

Health Effects of Metals in Drinking Water. (2009). Retrieved February 22, 2009 from http://corrosion-doctors.org/NaturalWaters/Health.htm.

Herzberg, B. (1901). Die Wasserversorgung einiger Nordseebader. *J. Gasbeleuchtung und Wasserversorgung, 44,* 815-819, 842-844.

Hoekstra, P., Harthill, N., Blohm, M. & Phillips, D.R. (1996) : Definition of a critical confining zone using surface geophysical methods. *SAGEEP 1996 Proceedings*, 387-391.

Huggett, R.J. (2007). *Fundamentals of geomorphology*. New York: Routledge; 2nd edition.

HMGS. (1994). Topographic Map, Rerama Sheet. Athens: Hellenic Military Geographical Service. SÊle: 1:50,000.

IGME. (1991). Geological Map of Greece, Perama sheet. (Geological mapping by Mylonakis, I. during the years 1982-1987), Athens: Institute of Geology and Mineral Exploration. Scale: 1:50,000.

Ingebritsen, S.E. & Sanford, W.E. (1998). *Groundwater in Geologic Processes*. Cambridge: Cambridge University Press.

IRIS Instruments. (2009). Retrieved January 15, 2009 from http://www.iris-instruments.com.

Isaaks, E.H. & Srivastava, M. (1989). *An Introduction to Applied Statistics*. New York: Oxford University Press.

Jackson, J. (1994). Active tectonics of the Aegean region. *Ann. Rev. Earth Planet. Sci., 22*, 239-271.

Jeen S.-W., Kim J.-M., Ko K.-S., Yum B., & Chang H.-W. (2001). Hydrogeochemical characteristics of groundwater in a mid-western coastal aquifer system, Korea. *Geosciences Journal, 5 (4)*, 339-348.

Jenson, S.K. & Domingue, J.O. (1988). Extracting topographic structure from digital elevation data for geographic information system analysis *Photogrammetric Engineering and Remote Sensing, 54 (11),* 1593-1600.

Jolivet, L., Goffe, B., Monie, P., Truffert-Luxey, C., Patriat, M. & Bonneau, M. (1996). Miocene detachment in Crete and exhumation P-T-t paths of high-pressure metamorphic rocks. *Tectonics, 15*, 1129-1153.

Johnson, T.A., Matsumoto, N. & Jansen, J.R. (2008). Time Domain Electromagnetic Induction and High Resolution Electric Resistivity Soundings to Map Salt Water Intrusion in Coastal Sandy Aquifers, Los Angeles County, California. *20th SWIM Proceedings 2008*, 105-108.

Kafri, U., Goldman, M. & Lang, B., (1997). Detection of subsurface brines, freshwater bodies and the interface configuration in between by the Time Domain Electromagnetic (TDEM) method in the Dead Sea rift, *Israel. J. Env. Geol. 31*, 42-49.

Kafri, U. & Goldman, M. (2006). Are the lower subaquifers of the Mediterranean coastal aquifer of Israel blocked to seawater intrusion? Results of a TDEM (time domain electromagnetic) study. *Isr. J. Earth Sci. 55*, 55-68.

Kafri, U., Goldman, M., Lyakhovsky, V., Scholl, C., Helwig, S. & Tezkan B. (2007). The configuration of the fresh-saline groundwater interface within the regional Judea Group carbonate aquifer in northern Israel between the Mediterranean and the Dead Sea base levels as delineated by deep geoelectromagnetic soundings. *Journal of Hydrology, 344 (1-2)*, 123-134.

Kalisperi, D., Soupios, P., Kouli, M., Barsukov, P., Kershaw, S., Collins, P., & Vallianatos, F. (2009). Coastal aquifer assessment using geophysical methods (TEM, VES), case study: Northern Crete, Greece. *Proceedings of the 3rd IASME/WSEAS International Conference on GEOLOGY and SEISMOLOGY (GES '09), Cambridge, UK, February 24-26, 2009*.

Kallergis, G.A. (2001). *Applied-Environenmental Hydrogeology*. Athens: Technical Chamber of Greece.

Kamenetsky, F.M. (1997). *Electromagnetic geophysical studies with the method of transient processes*. Moscow: GEOS. (in Russian).

Karakitsios, V. (1979). Contribution a l' etude geologique des Hellinides. Etude de la region de Sellia (Crete moyenne-occidentale, Grece). Doct. 3^{e} cycle, Univ. P. et M. Curie, Paris. (in French).

Karakitsios, V. (1987). Sur la signification de la "serie de Trypali" dans la region de Sellia en Crete occidentale (Grece). *C. R. Acad. Sc. Paris, t. 304, Serie II, no3*, 123-128. (in French).

Karakitsios, V. (1989). Alpine deformation of Tripolis series s.l. in Peloponnesus and Crete (Greece) and its dynamic interpretation. Ann. Geol. Pays Hellen., 34/1, 21-30.

Kilias, A., Fassoulas, C. & Mountrakis, D. (1994). Tertiary extension of continental crust and uplift of Psiloritis metamorphic core complex in the central part of the Hellenic arc (Crete, Greece). *Geologische Rundschau, 83,* 417-30.

Kim Y., Lee K.-S., Koh D.-C., Lee D.-H., Lee S.-G., Park W.-B., Koh G.-W. & Woo N.-C. (2003). Hydrogeochemical and isotopic evidence of groundwater salinization in a coastal aquifer: A case study in Jeju volcanic island, Korea. *Journal of Hydrology, 270 (3-4)*, 282-294.

Kirsch, R. (Ed.) (2006) *Groundwater Geophysics: A Tool for Hydrogeology, XVII*, Berlin: Springer.

Knithakis, M. (1995*). Hydrogeological Investigation of Rethymnon Region (Prefecture of Rethymnon)*. Rethymnon: Institute of Geological and Mineralogical Investigations (IGME).

Koepke, J., Seidel, E. & Kreuzer, H. (2002). Ophiolites on the Southern Aegean islands Crete, Karpathos and Rhodes: composition, geochronology and position within the ophiolite belts of the Eastern Mediterranean. *Lithos, 65*, 183-203.

Kontar E.A., Ozorovich Y.R. (2006). Geo-electromagnetic survey of the fresh/salt water interface in the coastal southeastern Sicily. *Continental Shelf Research, 26 (7)*, 843-851.

Kopp, K.O. & Richter, D. (1983). Synorogenetische Schuttbildidungen und die Eigenstandigkeit der Phyllit-Gruppe auf Kreta. *Neues Jb. Geol. Palaont. Abh., 165*, 228-253. (in German).

Kouli M., Lydakis-Simantiris N. & Soupios P. (2008). GIS-based aquifer modeling and planning using integrated geoenvironmental and chemical approaches, Groundwater: Modeling, Management and Contanimation (eds. Luka F. König and Jonas L. Weiss), USA: Nova Publishers.

Lake I.R., Lovett A.A. & Hiscock K.M. (2003). Evaluating factors influencing groundwater vulnerability to nitrate pollution: developing the potential of GIS. *J Environ. Manage., 68,* 315-328.

Lambrakis N. & Marinos P. (2003). The salinisation of coastal aquifers in Greece; A general review. Serie: *Hydrogeologia Y Aguas Subterraneas, (8)*, 251-263.

Land, L.A., Lautier, J.C., Wilson, N.C., Chianese, G. & Webb S. (2004). Geophysical Monitoring and Evaluation of Coastal Plain Aquifers. *Ground Water, 42 (1)*, 59-67.

Le Pichon, X. & Angelier, J. (1979). The hellenic Arc and Trench System: a key to the neotectonic evolution of the Eastern Mediterranean. *Tectonophysics, 60,* 1-42.

Le Pichon, X. & Angelier, J. (1981). The Aegean Sea. *Phil, Trans. R. Soc. London, 300,* 357-372.

Le Pichon, X., Chamot-Rooke, N., Lallemant, S., Noomen, R. & Veis, G. (1995). Geodetic determination of the kinematics of central Greece with respect to Europe: implications for eastern Mediterranean tectonics. *J. Geophys. Res., 100,* 12675-12690.

Lee J.-Y. & Song S.-H. (2007). Evaluation of groundwater quality in coastal areas: Implications for sustainable agriculture. Environmental Geology, 52 (7), 1231-1242.

Lenntech. (2009). Retrieved March 5, 2009 from http://www.lenntech.com.

Lepper, E. & Elmore, A.C. (2005). Groundwater development in Lemoa, *Guatemala. Environmental Geology, 48 (1)*, 49-56.

Lo, C.P. & Yeung, A.K.W. (2003). Concepts and Techniques of Geographic Information Systems (2nd Edition) (Ph Series in Geographic Information Science). Prentice Hall; 2nd edition.

Loague K., Bernknopf R.L., Green R.E. & Giambelluca T.W. (1996). Uncertainty of groundwater assessments for agricultural regions in Hawaii, *Review. J. Environ. Qual., 25*, 475-490.

Lomax R. G. (2007). An Introduction to Statistical Concepts, Mahwah: Lawrence Erlbaum; 2nd edition.

Lusch, D. P. (1999). *Fundamentals of GIS. Emphasizing GIS use for natural resources management.* Michigan: BSRSI, Michigan State University.

Ma, G. & Wilson González, G. (2009). Environmental Sampling & Monitoring Primer, Flame Atomic Absorption Spectrometry. Retrieved January, 2009 from http://www.cee.vt.edu/ewr/environmental/teach/smprimer/aa/aa.html

MacNeil, R.E., Sanford, W.E., Connor, C.B., Sandberg, S.K. & Diez M. (2007). Investigation of the groundwater system at Masaya Caldera, Nicaragua, using transient electromagnetics and numerical simulation, *Journal of Volcanology and Geothermal Research, 166 (3-4)*, 217-232.

Maidment, D. & Djokic, D. (Eds.). (2000). *Hydrologic and Hydraulic Modeling Support with Geographic Information Systems*. Redlands, California: Esri Press.

Makris, J. (1977). Geophysical investigations of the Hellinides. Hamb. Geophys. Einzelschr., 34, 124.

Makris, J., Röwer, P., 1986. Struktur und heutige Dynamik der Lithosphäre in der Ägäis. In: Jakobshagen, V. (Ed.), Geologie von Griechenland. Gebrüder Bornträger, Berlin, 241-256. (in German).

Mascle, J. & Martin, L. (1990). Shallow structure and recent evolution of the Aegean Sea: a synthesis based on continuous reflection profiles. *Mar. Geol., 94,* 271-299.

McKenzie, D.P. (1972). Active tectonics of the Mediterranean region, *Geophys. J. R. Astron. Soc., 30*, 109-185.

McKenzie, D.P. (1978). Some remarks on the development of sedimentary basins. *Earth Panet. Sci. Lett., 40*, 23-32

McKenzie, D.P. (1970). Plate tectonics of the Mediterranean region. *Nature, 226*, 239-243.

McNeill. J.D. (1980). *Applications of transient electromagnetic techniques*. Geonics Limited Technical Note TN-7

McNeil, J.D. (1990). Use of electromagnetic methods for groundwater studies. *Geotechnical and Environmental Geophysics, 1 (5)*, 191-218.

Meju, M.A. (1994). *Geophysical Data Analysis: Understanding Inverse Problem Theory and Practice* (Course Notes Series, Vol 6). Oklahoma: Society of Exploration Geophysicists.

Meju M.A., Fenning P.J. & Hawkins T.R.W. (2000). Evaluation of small-loop transient electromagnetic soundings to locate the Sherwood Sandstone aquifer and confining formations at well sites in the Vale of York, England. *Journal of Applied Geophysics, 44 (2-3)*, 217-236.

Melloul, A. & Aberbach, S. (1984). An evaluation of seawater intrusion in the coastal plain aquifer of Israel. Tahal Rep. No. l/84/80, Tahal Co., *Tel-Aviv and Hydrological Service. Jerusalem*. 77 pp. (in Hebrew).

Melloul, A. & Bibas, M. (1991). Water quantities according to quality standards in the coastal plain aquifer of Israel, localization of areas reaching critical water quality in 1987-1992 and their consequences on the aquifer water resources management. Isr. Hydrol. Serv. Rep. Hydro/4/1991.

Mercier, J.L., Sorel, D. & Simeakis, K. (1987). Changes in the state of stress in the overriding plate of a subduction zone: the Aegean arc from the Pliocene to the present. *Annales Tectonicae, 1,* 20-39.

Mercier, J.L., Sorel, D., Vergely, P. & Simeakis, K. (1989). Extensional tectonic regimes in the Aegean basins during the Cenozoic. Basin Research. *Blackwell scientific publications edit., Oxford, Londres, Edimburg, Boston, Palo, Alto, Melburne, 2,* 49-71.

Metwaly, M., Khalil, M., Al-Sayed, E.-S. & Osman, S. (2006). A hydrogeophysical study to estimate water seepage from northwestern Lake Nasser, *Egypt Journal of Geophysics and Engineering 3 (1)*, 21-27.

Mercado, A. (1985). The use of hydrogeochemical patterns in carbonate sand and sandstone aquifers to identify intrusion and flushing of saline water. *Ground Water, 23 (5)*, 635-645.

Meulenkamp, J.E. (1969). Stratigraphy of Neogene deposits in the Rethymnon province, Crete, with special reference to the phylogeny of uni serial Uvigerina from Mediterranean region. *Utrecht micropaleontological bull., 2,* 168.

Meulenkamp, J.E., Dermitzakis, M.D., Georgiades-Dikeoulia, E., Jonkers, H.A. & Boger, H. (1979). *Field guide to the Neogene of Crete.* Publ. of the Department of Geology and Paleontology, Univ. of Athens, ser. A, no32, 32.

Meulenkamp, J.E., Wortel, M.J.R., Van Wamel, W.A., Spakman, W. & Hoogerduyn Strating, E. (1988). On the Hellenic Subduction zone and the geodynamic evolution of Crete since the late Middle Miocene. *Tectonophysics, 146,* 1-13.

Meyers, R.A. (Ed.). (2001). Encyclopedia of Physical Science and Technology. Eighteen-Volume Set. Academic Press; 3rd edition.

Mills, T., Hoekstra, P., Blohm, M. & Evans, L. (1988). Time domain electromagnetic soundings for mapping sea-water intrusion in Monterey County, California. *Ground Water, 26 (6)*, 771-782.

Miliaresis, G. (2003). Photo Interpretation - Remote Sensing. Athens: Ion (In Greek).

Molnar, P. & Tapponier, P. (1975). Cenozoic tectonics of Asia: effects of a continental collision. Science, 189, 419.

Murphy, J. & Riley, J. P. (1962). A modified single solution method for the determination of phosphate in natural waters*. Anal. Chim. Acta,* 21, 31-36.

Nabighian, M.N. & Macnae, J.C. (1991). Time domain electromagnetic methods. Electromagnetic methods in applied geophysics 2: Applications, chapter 6, Nabighian, M.N. (Ed.), SEG Publ., 427-520.

Nas, B. & Berktay, A. (2008). Groundwater quality mapping in urban groundwater using GIS. *Environmental Monitoring and Assessment*, 1-13.

Nielsen, L., Jørgensen, N.O. & Gelting, P. (2006). Mapping of the freshwater lens in a coastal aquifer on the Keta Barrier (Ghana) by transient electromagnetic soundings. *Journal of Applied Geophysics, 62*, 1-15.

Noomen, R., Loohuis, J. & Kampes, B. (1999). Deformations in the Mediterranean area observed by space geodesy. Geophys. Res. Abstracts 1. In: Proceedings of the 24th General Assembly of the European Geophysical Soc., The Haague, Netherlands.

Ostler, N.K. & Holley, P.K. (Eds.). (1997). *Prentice Hall's Environmental Technology Series Volume IV: Sampling and Analysis*. New Jersey: Prentice Hall.

Palacky, G.J. (1987). Resistivity characteristics of geologic targets. *Electromagnetic Methods in Applied Geophysics, 1*, 53-129.

Panagopoulos, G. (2008). Application of major and trace elements as well as boron isotopes for tracing hydrochemical processes: the case of Trifilia coastal karst aquifer, Greece. *Environmental Geology* (Article in Press).

Papadopoulos, I., Tsourlos, P., Karmis, P., Vargemezis, G. & Tsokas, G. N. (2004). *Journal of Balkani Geophysical Society, 7 (1*), 1-11.

Papazachos, B.C. & Comninakis, P.E. (1978). Deep structure and tectonics of the Eastern Mediterranean*. Tectonophysics, 33,* 285-296.

Park S.-C., Yun S.-T., Chae G.-T., Yoo I.-S., Shin K.-S., Heo C.-H., & Lee S.-K. (2005). Regional hydrochemical study on salinization of coastal aquifers, western coastal area of South Korea. *Journal of Hydrology, 313 (3-4)*, 182-194.

Perry E., Velazquez-Oliman G. & Marin L. (2002). The hydrogeochemistry of the karst aquifer system of the northern Yucatan Peninsula, Mexico. *International Geology Review, 44 (3)*, 191-221.

Perttu, N. (2008). *Assessment of Hydrogeological and Water Quality Parameters, Using MRS and VES in the Vientiane Basin, Laos*. Licentiate Thesis, Luleå: Luleå University of Technology.

Petalas C.P. & Diamantis I.B. (1999). Origin and distribution of saline groundwaters in the upper Miocene aquifer system, coastal Rhodope area, northeastern Greece. *Hydrogeology Journal, 7 (3)*, 305-316.

Petalas C. & Lambrakis N. (2006). Simulation of intense salinization phenomena in coastal aquifers-the case of the coastal aquifers of Thrace. *Journal of Hydrology, 324 (1-4)*, 51-64.

Petalas, C., Pisinaras, V., Gemitzi, A., Tsihrintzis, V.A. & Ouzounis, K. (2009). Current conditions of saltwater intrusion in the coastal Rhodope aquifer system, northeastern Greece. *Desalination 237 (1-3)*, 22-41.

Peters, J.M. (1985). Neogene and Quaternary vertical tectonics in the south Hellenic Arc and their effection on the concurrent sedimentation processes. *Gua paper of Geology, Amsterdam, Series 1, No 23*, 230.

Pipatpan, S. (responsible scientist) & Blindow, N. (leader of subproject) (2003). Selection and application of geophysical methods for aquifer characterization and detection of saline intrusions, (MEDIS EU Project, Report No D2/D3). Muenster: Institute of Geophysics, Westfälische Wilhelms-Universität.

Postma, G., Fortuin, A.R. & W.A. Van Wamel (1993). Basin-fill patterns controlled by tectonics and climate: the Neogene “forearc” basins of eastern Crete as a case history. In: Frostick, L.E & Steel R.J. (Eds.) “Tectonic Controls and Signatures in Sedimentary Successions”, *Spec. Publ. Int. Ass. Sed.,* 335-362.

Prefecture of Rethymnon. (2008). Retrieved May 15, 2008, from http://www.nar.gr. (in Greek).

Psilakis, N. (1996). *Cretan Mythology*. Heraklion: Karmanor Press.

Psychoyou M., Mimides T., Rizos S. & Sgoubopoulou A. (2007). Groundwater hydrochemistry at Balkan coastal plains - the case of Marathon of Attica, Greece. *Desalination, 213 (1-3)*, 230-237.

Pulido-Leboeuf P. (2004). Seawater intrusion and associated processes in a small coastal complex aquifer (Castell de Ferro, Spain). Applied Geochemistry, 19 (10), 1517-1527.

Raulin, V. (1848). Geologische Verhaltnisse der Insel Kreta. Haidinger’s Ber., Bd. 4, 301-304 (in German).

Raulin, V. (1856). Note sur la constitution geologique del’ ile de Crete. Bull. Societe geologique de France, Paris, ser. 2, t. XIII, 439-458 (in French).

Raulin, V. (1860). Note sur le Almyros de la Crete. Bull. Societe geologique de France, Paris, XVII, 504-507 (in French).

Raulin, V. (1867). Note additionnelle sur la constitution geologique de l’ ile de Crete. Bull. Societe geologique de France, Paris, XXIV, 724-730 (in French).

Raulin, V. (1869a).Description physique de l’ ile de Crete. 2 Bd. Mit 1078 S., 21 Taf. Und geol. Karte, Paris (in French).

Raulin, V. (1869b). Carte geologique de l’ ile de Crete, 1:300,000, Paris (in French).

Regional Governor of Crete. (1999). *Study of Warer Resources Management of Crete*. Heraklion: Regional Governor of Crete. (in Greek).

Regional Governor of Crete. (2008). *Telemetric Network of Hydrological Stations Development in Crete - Data and Applications*. Heraklion: Regional Governor of Crete (in Greek).

Richards, R.T., Troester, J.W. & Martinez, M.I. (1995). A comparison of electrical techniques used in reconnaissance of the groundwater resources under the coastal plain of the Isla de Mona, Puerto Rico. *SAGEEP 1995 Proceedings*, 251-260.

Richards, R.T., Troester, J.W., & Martinez M.I. (1998). An electromagnetic geophysical survey of the freshwater lens of Isla de Mona, Puerto Rico. *Journal of Cave and Karst Studies, 60 (2),* 115-120.

Richter, D. & Kopp, K.O. (1983). Zur Tektonik der untersten geologischen Stockwerke auf Kreta. *Neues Jahrbuch fur Geologie und Palaontologie Monatshefte, E. Schweizerbart' ache Verlagsbuchhandlung edit., Stuttgart, fasc. 1,* 27-46.

Rigol, J.P. & Chica-Olmo, M. (1998). Merging remote-sensing images for geological-environmental mapping: application to the Cabo de Gata-Nijar Natural Park, Spain, Environmental Geology, 34 (2-3), 194-202.

Ring, U., Brachert, T. & Fassoulas, C. (2001). Middle Miocene graben development in Crete and its possible relation to large-scale detachment faults in the southern Aegean. *Terra Nova, 13*, 297-304.

Ring, U. & Reischmann, T. (2002) The weak and superfast Cretan detachment, Greece: exhumation at Subduction rates in extruding wedges. *Journal of the Geological Society, London, 159*, 225-8.

Robertson, A.H.F. & Dixon, J.E. (1984). Introduction: Aspects of the geological evolution of the Eastern Mediterranean. In: Dixon, J.E. and Robertson, A.H.F. (Eds.). The Geological Evolution of the Eastern Mediterranean. *Spec. Publ. Geol. Soc. London, 17,* 1-74.

Robertson A.H.F. (2006). Sedimentary evidence from the south Mediterranean region (Sicily, Crete, Peloponnese, Evia) used to test alternative models for the regional tectonic setting of Tethys during Late Palaeozoic - Early Mesozoic time. *Geological Society Special Publication, 260*, 91-154.

Robinson, E.S. & Coruh, C. (1988). *Basic Exploration Geophysics*, New York: Wiley.

Rockworks 14 Help. (2008). Rockworks 14 Help included in Rockworks 14 Complete software from Rockware Inc.

Rodgers, J.L. & Nicewander, W.A. (1988). Thirteen Ways to Look at the Correlation Coefficient. *The American Statistician, 42 (1)*, 59-66.

Rokos D., Argialas D., Mavratza R., Seymour-St. C., Vamvoukakis K., Kouli M., Lamera, S., Paraskevas H., Karfakis I. and Denes G. (2000). Structural Analysis for Gold Mineralization Using Remote Sensing and Geochemical Techniques in a GIS Environment: Island of Lesvos, Hellas. *Nat. Resour. Res., 9*, 277-293.

Rupert M.G. (2001). Calibration of the DRASTIC ground water vulnerability mapping method, *Ground Water, 39 (4)*, 625-630.

Salem H.S. (2001). Modelling of lithology and hydraulic conductivity of shallow sediments from resistivity measurements using Schlumberger vertical electric soundings Energy Sources, 23 (7), 599-618.

Sanchez-Martos F. & Pulido-Bosch A. (1999). Boron and the origin of salinization in an aquifer in southeast Spain. Comptes *Rendus de l'Academie de Sciences - Serie IIa: Sciences de la Terre et des Planetes, 328 (11)*, 751-757.

Sanchez-Martos, F., Pulido-Bosch, A., Molina-Sanchez, L. & Vallejos-Izquierdo, A. (2002). Identification of the origin of salinization in groundwater using minor ions (Lower Andarax, Southeast Spain). Science of the Total Environment, 297 (1-3), 43-58.

Sannemann, W. & Seidel, E. (1976). Die Trias-Schichten von Ravducha/NW-Kreta. Ihre stellung im Kretischen Deckendau. N. Jb. Geol. Palaont. Mh, 4, 228-241.

Seidel, E., Kreuzer, H. & Harre, W. (1982). A Late Oligocene/Early Miocene High Pressure Belt in the External Hellenides. *Geologisches Jahrbuch E23*, 165-206.

Sevostianova, E. (2009). Atomic Absorption Spectroscopy. Retrieved April, 2009, from http://weather.nmsu.edu/Teaching_Material/soil698/Student_Reports/Spectroscopy/report.htm

Shaaban, F.F. (2001). Vertical electrical soundings for groundwater investigation in northwestern Egypt: A case study in a coastal area. *Journal of African Earth Sciences 33 (3-4)*, 673-686.

Sharma, P.V. (1997). *Environmental and Engineering Geophysics*. Cambridge: Cambridge University Press.

Shekhar, S. & Xiong, H. (Eds.). (2008). *Encyclopedia of GIS*. New York: Springer.

Simpson, F. & Bahr, K. (2005). *Practical Magnetotellurics*. Cambridge: Cambridge University Press.

Sivan O., Yechieli Y., Herut B. & Lazar B. (2005). Geochemical evolution and timescale of seawater intrusion into the coastal aquifer of Israel. *Geochimica et Cosmochimica Acta, 69 (3)*, 579-592.

Sparks, D.L. (Author & Ed.). (1996). *Methods of Soil Analysis*. Part 3. Chemical Methods (Soil Science Society of America Book Series, No. 5). Madison, Wisconsin: American Society of Agronomy-Soil Science Society of America.

Spies, R.B. & Frischknecht, F.C (1991). Electromagnetic Sounding. Electromagnetic methods in applied geophysics 2: Applications, chapter 5, Nabighian, M.N. (Ed.), SEG Publ., 285-422.

Soupios P.M., Kouli M., Vallianatos F., Vafidis A., Stavroulakis G. (2007). Estimation of aquifer hydraulic parameters from surficial geophysical methods: A case study of Keritis Basin in Chania (Crete - Greece). *Journal of Hydrology, 338 (1-2)*, 122-131.

Stratton, J.A. (2007). *Electromagnetic Theory (IEEE Press Series on Electromagnetic Wave Theory)*. Hoboken, New Jersey: Wiley-IEEE Press.

Subba Rao N., Saroja Nirmala I., Suryanarayana K. (2005). Groundwater quality in a coastal area: A case study from Andhra Pradesh, India. Environmental Geology, 48 (4-5), 543-550.

Svetov, B.S. & Barsukov P.O. (1984). Transformation of Quasistationary Transient Geoelectrical Processes into Equivalent Wave Processes. *Izv. Akad. Nauk SSSR, Fiz. Zemli (8)*, 29-37.

SWIM, Salt Water Intrusion Meeting. (2009). Retrieved May 2, 2009 from http://www.swim-site.org.

Taymaz, T., Jackson, J. & Westaway, R. (1990). Earthquake mechanisms in the Hellenic Trench near Crete. *Geophys. J. Int., 102,* 695-731.

TEM-Fast 48 manual. (2007). The Netherlands: Applied Electromagnetic Research (AEMR) Version 7.3.

TEM-RES manual. (2007). The Netherlands: Applied Electromagnetic Research (AEMR) Version 7.

Theye, T., Seidel, E.& Vidal, O. (1992). Carpholite, sudoite, and chloritoid in low-grade high-pressure metapelites from Crete and the Peloponnese. *European Journal of Mineralogy, 4,* 487-507.

Trabelsi, F., Ben Mammou, A., Tarhouni, J. Piga, C., Piero Deidda, G. & Ranieri, G. (2006). Salt Water intrusion characterisation in the Coastal Aquifer of Nabeul Hammamet Using Geophysical Methods. 19th SWIM 2006 Proceedings, 295-301.

Tso, B. & Mather, P. (2009). Classification Methods for Remotely Sensed Data. Boca Raton: CRC Press; 2nd Edition.

Tucker, M.E. & Wright, V.P. (1990). Carbonate Sedimentology. Oxford: Blackwell Scientific Publications.

WHO, World Health Organization. (2004). *Guidelines for drinking water quality*, vol 1, 3rd ed, recommendations. Geneva: WHO.

Windows to the Universe. (2009). Retrieved March 5, 2009 from www.windows.ucar.edu.

Xypolias, P. & Doutsos, T. (2000). Kinematics of rock flow in a crustal-scale shear zone: implication for the orogenic evolution of the southwestern Hellenides. *Geological Magazine, 137*, 81-96.

Yadav, G.S. & Abolfazli, H. (1998). Geoelectrical soundings and their relationship to hydraulic parameters in semiarid regions of Jalore, northwestern India Journal of Applied Geophysics, 39 (1), 35-51.

Yalçin, H., Koç, T. & Pamuk, V. (1997). Hydrogen and bromine production from concentrated sea-water. International Journal of Hydrogen Energy, 22 (10-11), 967-970.

Young, M.E., De Bruijn, R.G.M. & Bin Salim Al-Ismaily, A. (1998). Exploration of an alluvial aquifer in Oman by time-domain electromagnetic sounding. *Hydrogeology Journal, 6 (3)*, 383-393.

Young, M.E., Macumber, P.G., Watts, M.D., & Al-Toqy N. (2004). Electromagnetic detection of deep freshwater lenses in a hyper-arid limestone terrain, *Journal of Applied Geophysics, 5 (1)*, 43-61.

Yuhr, L. & Benson, R.C. (1995). Saltwater intrusion: concepts for measurements and a regional characterisation for Broward County, Florida. SAGEEP 1995 Proceedings, 231-242.

Zarris, D. (2008). *Water supply masterplan of Municipality of Geropotamos*. Perama: Municipality of Geropotamos (in Greek).

Appendices

Contents

[APPENDIX A]

s/n	code number	District	x	y	completion date	formation (near the filters)	Borehole Depth (m)	Pump Q (m3/h)	Static water level (m)	Pumping level (m)
1	G-01	Achlades (Stavros 1)	566614,57	3916591,42		melidoni marbles	75	25	57.3	
2	G-05	Achlades (Zoules 1)	566895,96	3916884,04	1985	dolomitic limestone	146	110	66,5	75,6
3	G-06	Achlades (Zoules 2)	566598,31	3917211,33	1998	melidoni marbles	75	36	52,9	62,03
4	G-09	Achlades (Stavros 2)	566730,98	3916795,65	1989	melidoni marbles	144	100	63	65.30
5	G-10	Achlades (Agathes)	563248,73	3915484,67				20		
6	G-12	Aggeliana (Spilio Psaraki)	560738,49	3915767,76	1987	marly limestone	141	30	27	
7	G-15	Aggeliana (Hanothiana)	561360,01	3914985,42	1975	marly limestone	150	80	29,5	51,96
8	G-17	Aggeliana (Vrisida)	560340,4	3916643,2	1995	marly limestone / sandstone / conglomerate	150	60	36	85
9	G-18	Aggeliana (Aspros Poros)	559896,4	3916875,63	1991	marly limestone / sandstone / conglomerate	146	10	50	112
10	G-20	Aggeliana (Podikou)	560898,68	3915326,59				35		
11	G-39	Melidoni (Maniaki)	567893,47	3917020,11	1984	dolomitic limestone	162	35	118	
12	G-40	Melidoni (Gonia-Exadis)	567531,24	3917411,7	1969	dolomitic limestone	130	25	75	
13	G-44	Melidoni (Tzigromouri)	567219,8	3917299,51				130		
14	G-50	Panormos (Chalikias)	561013,5	3917803,03	1969	marly limestone	80	50	14	50
15	G-52	Panormos (Dalambelos)	561595,91	3917333,62	1995	marly limestone	75	20	24.2	30
16	G-53	Panormos (Zigardeli)	562236,8	3917140,97	2000	marly limestone	100	25	50	53
17	G-55	Perama (Melissokipos)	567620,62	3916590,69	1986	dolomitic limestone	180	30	120,36	157,76
18	G-56	Perama (Exandi)	567296,25	3916819,25	1986	dolomitic limestone	182	60	83.80	
19	G-59	Perama (Livadia)	562396,02	3914658,3	1976	conglomerate / marly limestone / sandy marly limestone	125	20	artesian	43
20	G-63	Roumeli (Vlicho Pigadi)	563106,82	3917992,1	1994	marly limestone / sandstone	57	50	9,5	30
21	G-80	Skepasti (Zoules)	566858,98	3917214,12				120		
22	G-81	Skepasti (Tzanouros)	565241,62	3917787,88	1987	marly limestone	66	8	33.78	

[APPENDIX B]

Name	X	Y	Z	Place	time	stack	I	TR	REC	Conf	Bat	Turns	Ampifier	Filter	deff	rms
0001-B	563995	3914758	52	Perama	5	5	3,7	50	50	single	24	1	Off	50	6	2,3
0002-A	563901	3914333	48	Perama	6	5	3,7	50	50	single	24	1	Off	50	6	2,49
0003-A	563703	3914400	53	Perama	6	5	3,7	50	50	single	24	1	Off	50	6	1,55
4	563508	3914463	53	Perama	6	5	3,7	50	50	single	24	1	Off	50	6	2
0005-B	563275	3914511	60	Perama	6	5	3,7	50	50	single	24	1	Off	50	6	1,18
0006-A	563011	3914586	64	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,87
0008-A	562573	3914822	62	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,75
0009-A	562364	3914873	62	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,46
0010-A	562151	3914971	72	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,16
0011-A	562475	3914647	73	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,4
0012-A	562670	3914555	68	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,58
0013-A	562007	3915011	84	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,33
0014-A	562033	3914846	85	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,65
0015-B	562081	3914625	86	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,62
0016-B	562274	3914654	75	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,07
0017-A	561303	3914787	81	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	10,82
0018-C	561484	3914781	81	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	2,21
0019-A	561586	3914822	81	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	1,74
20	561932	3914926	89	Aggel	5	5	2	50	50	single	12(int)	1	Off	50	6	0,9
0021-B	561183	3914980	77	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,61
0022-A	561302	3914655	83	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	4,88
0023-A	561479	3914697	82	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	6,19
0024-A	561682	3914721	83	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	3,68
0025-B	561940	3914779	88	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,23
0026-C	560951	3915336	70	Aggel	5	5	3,8	50	50	single	24	1	Off	60	6	6,3
0027-B	561153	3915383	100	Aggel	6	5	3,7	50	50	single	24	1	Off	60	6	2,22
0029-A	561660	3915540	96	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	2,42
0030-B	561900	3915581	80	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,26
0031-C	562094	3915462	66	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,83
0032-B	562297	3915499	63	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,95
0033-C	562493	3915454	64	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,82
0034-B	562727	3915459	47	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,36
0035-B	562884	3915467	38	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,91
0036-B	563327	3915530	43	Achlad	5	5	3,7	50	50	single	24	1	Off	50	6	1,58
37	563506	3915492	41	Achlad	5	5	1,9	50	50	single	12(int)	1	Off	50	6	1,97
0052-B	564277	3916165	56	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,31
0053-B	564173	3916018	59	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	4,96

54	563898	3916245	51	Achlad	5	5	2,1	50	50	single	12(int)	1	Off	50	6	2,19
55	563772	3916127	63	Achlad	5	5	2,1	50	50	single	12(int)	1	Off	50	6	2,93
0056-B	563573	3916164	64	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	4,89
0057-B	563346	3916209	50	Achlad	5	5	3,7	50	50	single	24	1	Off	50	6	2,62
0058-B	563177	3916215	64	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,43
0059-B	562980	3916156	55	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,25
0060-B	562752	3916176	44	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,99
0061-B	562493	3916069	31	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	3,97
0063-B	562120	3916222	80	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	1,1
0064-B	561965	3916388	84	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,74
0065-B	561770	3916504	78	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,97
0066-B	561501	3916675	61	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,49
0067-C	561458	3916500	68	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	3,26
0068-B	561139	3916394	64	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	3,61
0069-B	560965	3916317	78	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,71
0070-B	560622	3916381	64	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,65
0071-A	560323	3916769	83	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	14,98
0072-B	560625	3916834	66	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	3,41
0073-A	560893	3916712	64	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	0,45
0074-B	561082	3916797	49	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,72
0075-C	561203	3916866	50	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	4,93
0076-A	561450	3917062	54	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	0,51
0077-B	561665	3916979	48	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	3,15
0078-A	561881	3916972	43	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	0,22
0079-B	562099	3916959	49	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,89
0080-C	562236	3917140	73	Roumeli	5	5	3,7	50	50	single	24	1	Off	50	6	11,43
0081-C	562488	3917030	70	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	3,83
0082-B	562651	3917075	66	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	6,42
0083-B	562805	3917132	24	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,11
0085-B	563018	3917072	25	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,17
0086-B	563239	3917178	28	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,51
0087-B	563448	3917197	52	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,51
0088-B	563630	3917289	61	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,36
0089-B	563834	3917271	74	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	3,28
0090-B	563925	3917414	67	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	3,12
0091-B	565719	3917370	48	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,13
0092-B	565548	3917265	44	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	3,44
0093-C	565309	3917304	51	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,82

0094-B	565144	3917333	59	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,44
0095-B	564921	3917260	52	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	0,66
0096-B	564697	3917294	38	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,91
0097-B	564419	3917317	35	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,31
0098-B	564294	3917172	40	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,87
0099-B	564081	3917146	58	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,46
0100-C	565754	3918128	76	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	3,25
0101-C	565475	3918184	63	Skepa	6	5	3,7	50	50	single	24	1	Off	50	6	1,27
0102-B	565265	3918152	60	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,34
0103-C	565081	3918206	58	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,16
0104-B	564930	3918297	43	Skepa	6	5	3,7	50	50	single	24	1	Off	50	6	2,03
0105-B	564704	3918282	52	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,57
106	564556	3918371	43	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	2,05
0107-B	564291	3918311	29	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,8
0108-B	564070	3918336	27	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	6,41
0109-B	563911	3918396	29	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,3
0110-B	563717	3918357	24	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	0,92
0111-B	563464	3918349	24	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	4,89
0112-B	563346	3918411	24	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	6,18
0113-C	563177	3918343	35	Roumeli	5	5	3,7	50	50	single	24	1	Off	50	6	2,1
0114-B	562762	3918416	34	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,27
0115-B	562939	3918324	39	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	3,25
0116-D	562523	3918515	31	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,97
0117-D	562060	3918469	23	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	3,08
0118-D	562328	3918486	25	Panorm	6	5	1	50	50	single	24	1	Off	50	5	1,47
0119-B	561697	3918376	18	Panorm	6	5	1	50	50	single	24	1	Off	50	5	2,45
0120-C	561834	3918378	33	Panorm	5	5	1	50	50	single	24	1	Off	50	5	2,15
121	561502	3918532	14	Panorm	5	5	1	50	50	single	12(int)	1	Off	50	5	0,95
0122-A	561411	3918613	13	Panorm	5	5	1	50	50	single	24	1	Off	50	5	0,46
0123-B	561140	3918506	7	Panorm	5	5	1	50	50	single	24	1	Off	50	5	1,39
0124-B	561019	3918234	30	Panorm	5	5	1	50	50	single	24	1	Off	50	5	2,48
0125-D	561137	3918351	28	Panorm	5	5	2	50	50	single	12(int)	1	Off	50	6	1,5
126	560780	3918513	14	Panorm	5	5	2	50	50	single	12(int)	1	Off	50	6	2,63
0127-B	561448	3917729	40	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,27
0128-B	561620	3917868	21	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	0,68
0129-B	561780	3917814	19	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,49
0130-B	562017	3917796	21	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,29
0131-B	562212	3917821	18	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,15

0132-A	562520	3917914	20	Roumeli	5	5	1,9	50	50	single	12(int)	1	Off	50	6	2,58
0133-A	562733	3917961	23	Roumeli	5	5	3,7	50	50	single	24	1	Off	50	6	1,54
0134-C	562291	3917906	26	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,08
0135-C	562940	3917999	23	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,51
0136-B	563133	3918035	21	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,5
0137-B	563556	3918127	28	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,43
0138-B	563725	3917991	45	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	0,81
0139-C	564084	3918031	34	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	3,11
0140-C	564560	3917920	62	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	16,53
0141-B	564339	3917893	57	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	6,63
0142-B	564801	3917916	49	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,48
0143-C	565013	3917822	53	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,19
0144-B	565291	3917871	50	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	0,65
0145-B	565519	3917766	54	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	1,95
0146-B	565669	3917813	67	Achlad	6	5	3,6	50	50	single	24	1	Off	50	6	1,87
0147-B	563677	3914933	41	Perama	5	5	3,7	50	50	single	24	1	Off	50	6	0,96
0148-B	563297	3915034	52	Perama	6	5	3,7	50	50	single	24	1	Off	50	6	2,41
0149-B	563094	3915118	53	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,8
0150-B	562873	3915175	50	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	4,2
0151-D	561951	3915410	71	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,2
0152-B	562147	3915278	68	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,1
0153-C	562334	3915224	61	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,76
0154-B	562662	3915230	58	Aggel	6	5	1,9	50	50	single	12(int)	1	Off	50	6	3,72
0155-B	562775	3915068	57	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,31
0156-C	563019	3915327	41	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	6,26
0157-B	562946	3914898	70	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,92
0158-B	563205	3914846	57	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,05
0159-C	563371	3914879	53	Perama	6	5	2,8	50	50	single	24	1	Off	50	6	1,4
0160-A	563562	3914735	46	Perama	5	5	3,1	50	50	single	24	1	Off	50	6	1,58
0161-C	563458	3916768	30	Achlad	6	5	3,5	50	50	single	24	1	Off	50	6	0,73
0162-B	563675	3916722	29	Achlad	6	5	3,5	50	50	single	24	1	Off	50	6	0,76
0163-C	563891	3916743	31	Achlad	6	5	3,5	50	50	single	24	1	Off	50	6	0,51
0164-C	564102	3916749	31	Achlad	6	5	3,5	50	50	single	24	1	Off	50	6	0,42
0165-A	564315	3916758	33	Achlad	6	5	3,4	50	50	single	24	1	Off	50	6	0,84
0166-C	564523	3916834	35	Achlad	6	5	3,4	50	50	single	24	1	Off	50	6	0,66
0167-A	564775	3916886	35	Achlad	6	5	3,3	50	50	single	24	1	Off	50	6	1,5
0168-B	564988	3916967	38	Achlad	6	5	3,1	50	50	single	24	1	Off	50	6	1,35
0169-B	565171	3917046	40	Achlad	6	5	2,5	50	50	single	24	1	Off	50	6	4,65

0170-B	563251	3916812	29	Achlad	6	5	2,2	50	50	single	24	1	Off	50	6	1,86
0171-A	561260	3914381	91	Aggel	5	5	2,6	50	50	single	24	1	Off	50	6	1,16
0172-A	561519	3914280	94	Aggel	5	5	2,2	50	50	single	24	1	Off	50	6	1,63
0173-B	561729	3914500	86	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,36
0174-B	562007	3914478	91	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,53
0175-B	562207	3914480	85	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,69
0176-B	562474	3914521	81	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,76
0177-C	562888	3914506	64	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,11
0178-B	563284	3914741	65	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,3
0179-C	563669	3914610	48	Perama	5	5	3,7	50	50	single	24	1	Off	50	6	1,83
0180-A	563970	3914510	50	Perama	5	5	3,7	50	50	single	24	1	Off	50	6	0,88
181	563855	3915893	69	Achlad	5	5	1,9	50	50	single	12(int)	1	Off	50	6	1,23
0182-A	563702	3915971	68	Achlad	5	5	3,7	50	50	single	24	1	Off	50	6	2,52
0183-A	563517	3915845	79	Achlad	5	5	3,5	50	50	single	24	1	Off	50	6	4,92
0184-A	563303	3915903	72	Achlad	5	5	3,2	50	50	single	24	1	Off	50	6	1,54
0185-C	563096	3915864	47	Achlad	6	5	2,8	50	50	single	24	1	Off	50	6	4,17
0186-B	562931	3915895	39	Achlad	6	5	2,6	50	50	single	24	1	Off	50	6	2,24
0187-B	562672	3915904	41	Aggel	6	5	2,4	50	50	single	24	1	Off	50	6	3,87
0188-B	562534	3915853	66	Aggel	6	5	2,5	50	50	single	24	1	Off	50	6	4,98
0189-B	562278	3915801	71	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,67
0190-B	562217	3915987	71	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	3,26
0191-B	562022	3916054	65	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,96
0192-B	562082	3915860	70	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,59
193	561758	3915772	115	Aggel	5	5	2	50	50	single	12(int)	1	Off	50	6	1,88
0194-B	561679	3915991	107	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	4,3
0195-B	561670	3916274	65	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,89
0196-B	561456	3916302	61	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,01
0197-B	561478	3915963	102	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	1,14
0198-C	561558	3915873	119	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	3,01
199	561166	3915884	95	Aggel	5	5	1,9	50	50	single	12(int)	1	Off	50	6	1,58
0200-A	561364	3915805	106	Aggel	5	5	3,4	50	50	single	24	1	Off	50	6	5,93
0201-D	560979	3915906	97	Aggel	6	5	3,2	50	50	single	24	1	Off	50	6	1,44
0202-B	561033	3916183	98	Aggel	6	5	3,2	50	50	single	24	1	Off	50	6	2,6
0203-C	560782	3916084	97	Aggel	6	5	2,9	50	50	single	24	1	Off	50	6	2,32
0204-C	561068	3916073	86	Aggel	6	5	2,7	50	50	single	24	1	Off	50	6	3,12
205	560701	3919367	16	Panorm	5	5	2,1	50	50	single	12(int)	1	Off	50	6	7,03
0207-B	561108	3919373	14	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,17
0208-C	561407	3919381	6	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,45

0209-B	561615	3919326	7	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,77
0210-C	561885	3919523	4	Panorm	7	5	3,7	50	50	single	24	1	Off	50	6	1,26
0211-C	562050	3919482	10	Panorm	7	5	3,7	50	50	single	24	1	Off	50	6	2,27
0212-B	562245	3919353	12	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,28
0213-B	562468	3919393	8	Panorm	6	5	3,5	50	50	single	24	1	Off	50	6	2,27
214	562621	3919365	12	Panorm	5	5	2	50	50	single	12(int)	1	Off	50	6	9,02
0215-A	562902	3919428	33	Panorm	5	5	3,5	50	50	single	24	1	Off	50	6	3,83
0216-B	563085	3919517	57	Panorm	6	5	3,1	50	50	single	24	1	Off	50	6	4,07
0217-C	563236	3919392	67	Panorm	6	5	2,9	50	50	single	24	1	Off	50	6	1,61
0218-B	563551	3919455	78	Roumeli	6	5	2,8	50	50	single	24	1	Off	50	6	5,63
0219-A	563791	3919413	93	Roumeli	5	5	2,7	50	50	single	24	1	Off	50	6	2,21
0220-C	563992	3919444	76	Roumeli	7	5	3,7	50	50	single	24	1	Off	50	6	4,28
0221-B	564214	3919455	75	Skepa	6	5	3,7	50	50	single	24	1	Off	50	6	5,49
0222-C	564371	3919535	67	Skepa	6	5	3,7	50	50	single	24	1	Off	50	6	3,41
0223-C	564606	3919664	93	Skepa	5	5	3,3	50	50	single	24	1	Off	50	6	4,47
0224-B	564795	3919601	88	Skepa	6	5	3,1	50	50	single	24	1	Off	50	6	4,31
0225-B	565023	3919572	82	Skepa	6	5	3	50	50	single	24	1	Off	50	6	5,54
0226-B	565229	3919588	69	Skepa	6	5	2,9	50	50	single	24	1	Off	50	6	2,31
0227-B	565429	3919631	80	Skepa	6	5	2,6	50	50	single	24	1	Off	50	6	5,71
0228-B	565614	3919551	74	Skepa	6	5	2,6	50	50	single	24	1	Off	50	6	1,39
0229-B	565911	3919527	106	Skepa	6	5	2,4	50	50	single	24	1	Off	50	6	2,38
0230-C	565966	3918980	97	Skepa	6	5	2,4	50	50	single	24	1	Off	50	6	3,48
231	565039	3918947	60	Skepa	5	5	1,9	50	50	single	12(int)	1	Off	50	6	3,54
232	564853	3919004	59	Skepa	5	5	2,1	50	50	single	12(int)	1	Off	50	6	2,22
233	565614	3919097	77	Skepa	5	5	2,1	50	50	single	12(int)	1	Off	50	6	2,75
234	564567	3918978	50	Skepa	5	5	3,7	49	49	single	12(int)	1	Off	50	6	2,93
235	564172	3919071	72	Roumeli	5	5	2	49	49	single	12(int)	1	Off	50	6	3,35
0236-A	563709	3919056	59	Roumeli	5	5	3,7	50	50	single	24	1	Off	50	6	2,41
0237-A	563201	3919146	49	Panorm	5	5	3,4	50	50	single	24	1	Off	50	6	3,01
84	562877	3917044	30	Roumeli	5	5	1,9	50	50	single	12(int)	1	Off	50	6	0,67
0238-B	562921	3919122	35	Panorm	6	5	2,4	50	50	single	24	1	Off	50	6	4,64
0239-A	562717	3918871	47	Panorm	5	5	2,4	50	50	single	24	1	Off	50	6	1,81
0240-A	562334	3918875	50	Panorm	5	5	2,4	50	50	single	24	1	Off	50	6	0,83
0241-A	561725	3918946	48	Panorm	5	5	2,4	50	50	single	24	1	Off	50	6	0,97
0242-A	561948	3918970	46	Panorm	5	5	2,4	50	50	single	24	1	Off	50	6	3,52
243	567736	3917789	88	Melid	5	5	2	50	50	single	12(int)	1	Off	50	6	7,34
0244-C	567678	3917554	99	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	8,22
0245-B	566897	3916920	78	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	10,83

0246-B	566799	3917110	68	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	4,67
0247-C	566886	3917313	67	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	4,06
0248-B	566949	3917435	68	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	6,95
0249-A	567137	3917552	71	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	1,94
0250-A	567121	3917807	84	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	4,6
0251-B	567384	3917818	94	Melid	6	5	3,6	50	50	single	24	1	Off	50	6	2,5
0252-B	567648	3917801	87	Melid	6	5	3,5	49	49	single	24	1	Off	50	6	7,71
0253-B	567498	3917386	84	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	7,2
0254-B	567274	3917331	78	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	4,39
0255-B	567457	3917212	100	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	5,51
256	567306	3917026	104	Melid	5	5	2	50	50	single	12(int)	1	Off	50	6	10,71
257	567157	3916729	90	Melid	5	5	2	50	50	single	12(int)	1	Off	50	6	14,81
0258-B	566916	3916818	78	Achlad	6	5	3,4	50	50	single	24	1	Off	50	6	4,31
0259-B	566713	3916850	67	Achlad	6	5	3,3	50	50	single	24	1	Off	50	6	6,15
0260-B	566520	3916846	62	Achlad	6	5	3,2	50	50	single	24	1	Off	50	6	8,36
0261-B	566286	3916923	53	Achlad	6	5	3	50	50	single	24	1	Off	50	6	5,66
0262-B	566072	3916885	53	Achlad	6	5	2,9	50	50	single	24	1	Off	50	6	3,29
0263-C	565900	3916966	54	Achlad	5	5	2,5	50	50	single	24	1	Off	50	6	6,6
0264-A	565931	3917316	68	Achlad	6	5	2,9	50	50	single	24	1	Off	50	6	5,45
0265-D	566171	3917360	80	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	6,98
0266-C	566622	3917443	84	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	7,47
0267-A	566477	3917495	73	Achlad	5	5	3,7	50	50	single	24	1	Off	50	6	7,36
0268-B	566233	3917168	82	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	7,61
0269-B	566382	3917117	88	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	7,37
0270-B	565764	3917145	44	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,92
0271-C	565663	3917035	47	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,04
0272-C	565390	3917065	41	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	2,57
0273-A	566902	3917692	82	Achlad	5	5	3,7	50	50	single	24	1	Off	50	6	20,75
0274-B	566469	3917695	77	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	3,32
0275-B	566098	3917718	57	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	4,26
276	562413	3917590	23	Roumeli	5	5	2,1	50	50	single	12(int)	1	Off	50	6	1,76
277	562294	3917437	28	Roumeli	5	5	2,1	50	50	single	12(int)	1	Off	50	6	0,92
278	562170	3917615	23	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	0,98
279	562019	3917469	43	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	1,75
0280-A	562003	3917252	42	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,28
281	561778	3917258	41	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	0,97
282	561538	3917285	41	Aggel	5	5	2	50	50	single	12(int)	1	Off	50	6	1,87
0283-A	561765	3917668	24	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,24

0284-B	561285	3918218	22	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	3,83
0285-B	561478	3918104	21	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,11
0286-A	561649	3918105	20	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,89
0287-B	562346	3918269	38	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,01
0288-A	561915	3918150	17	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,03
0289-A	562052	3918309	22	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,49
0290-A	561535	3915121	89	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,55
0291-B	561668	3915426	90	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	0,83
0292-B	561519	3915680	107	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,05
0293-A	561094	3915749	85	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,97
0294-B	560757	3915883	65	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,92
0295-B	561182	3915571	98	Aggel	5	5	3,7	50	50	single	24	1	Off	50	6	2,88
0296-B	560978	3915555	93	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,35
0297-A	560304	3917574	76	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,48
0298-A	560574	3917639	80	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,19
0299-A	560715	3917843	68	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,91
0300-A	560849	3918027	46	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,04
0301-A	561174	3918116	16	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	3,56
0302-A	561234	3917965	19	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,49
0303-B	561176	3917718	25	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,83
0304-A	560851	3917696	53	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	2,53
0305-A	560303	3917103	86	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,86
0306-A	560518	3917272	86	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	0,86
0307-A	560553	3916602	70	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	6,34
308	560931	3916889	75	Aggel	5	5	2,1	50	50	single	12(int)	1	Off	50	6	4,72
0309-A	561066	3916973	49	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	6,84
0310-A	562179	3918779	39	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	3,81
0311-B	561565	3919088	35	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,32
0312-A	561007	3919229	39	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	6,4
0313-B	563183	3918618	37	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,56
0314-A	563442	3918718	30	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,07
0315-B	563688	3918750	33	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	1,47
0316-A	563889	3918795	44	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	2,18
0317-A	564065	3917742	61	Roumeli	6	5	3,7	50	50	single	24	1	Off	50	6	13,22
0318-A	564412	3917700	47	Roumeli	6	5	1,9	50	50	single	12(int)	1	Off	50	6	1,16
0319-A	564859	3917633	46	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	0,93
0320-B	563382	3916638	0	Achlad	6	6	3,7	50	50	single	24	1	Off	50	6	2,62
0321-B	563217	3916479	37	Achlad	6	5	3,7	50	50	single	24	1	Off	50	6	4,58

0322-A	563021	3916564	68	Achlad	6	5	2	50	50	single	12(int)	1	Off	50	6	5,97
0323-A	562863	3916526	69	Achlad	6	5	2	50	50	single	12(int)	1	Off	50	6	3,21
0324-B	562801	3917433	23	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	3,2
0325-A	562913	3917726	82	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	5,77
0326-A	563412	3917599	84	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	11,21
0327-B	563247	3917493	82	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	2,22
0328-A	562919	3916940	26	Roumeli	5	5	2	50	50	single	12(int)	1	Off	50	6	1,79
0329-A	565210	3918636	53	Skepa	5	5	2	50	50	single	12(int)	1	Off	50	6	1,87
0330-B	564905	3918653	39	Skepa	5	5	2	50	50	single	12(int)	1	Off	50	6	2,16
0331-A	565350	3914318	131	Melid	4	5	1	50	50	single	12(int)	1	Off	50	6	4,99
332	558599	3918271	41	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,21
333	559158	3919367	14	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,36
334	559349	3919354	13	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	0,41
0335-A	559450	3919384	14	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	0,39
0336-A	559917	3919419	14	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,85
337	560099	3919448	15	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	0,97
0338-A	560320	3919434	12	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,65
0339-A	560510	3919427	17	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,68
340	560700	3918704	55	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,78
0341-A	561089	3918832	50	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	1,2
342	561459	3918999	67	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	3,04
0343-A	560724	3919235	40	Panorm	6	5	3,7	50	50	single	24	1	Off	50	6	2,08
0344-A	560534	3919257	40	Panorm	6	5	2	50	50	single	12(int)	1	Off	50	6	1,01
G39-01B	567939	3917034	119	Melid	6	5	3,7	50	50	single	24	1	Off	50	6	8,14
PAN-01	561994	3917778	24	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	2,36
PAN-02	562017	3917790	22	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	2,46
PAN-03	562034	3917803	21	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	1,7
PAN-04A	562051	3917849	16	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	2,28
PAN-05	562081	3917866	17	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	1,19
PAN-06A	562103	3917880	15	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	1,95
PAN-07A	562122	3917920	14	Roumeli	5	5	1	25	25	single	12(int)	1	Off	60	3	2,83
PAN-08A	562135	3917934	12	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	2,53
PAN-09	562157	3917985	14	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	2,69
PAN-10A	562181	3918017	14	Roumeli	5	5	1	25	25	single	12(int)	1	Off	60	3	2,53
PAN-11	562210	3918021	15	Roumeli	5	5	1	25	25	single	12(int)	1	Off	60	3	1,67
PAN-12	561967	3917733	28	Roumeli	5	5	1	25	25	single	12(int)	1	Off	60	3	1,66
PAN-13	561955	3917706	13	Roumeli	5	5	1	25	25	single	12(int)	1	Off	60	3	0,99
PAN-14A	561929	3917694	33	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	1,88

PAN-15A	561912	3917672	37	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	2,22
PAN-16	561902	3917648	38	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	2,82
PAN-17	561911	3917604	39	Roumeli	5	5	1	25	25	single	12(int)	1	Off	50	3	1,95
G63-01A	563261	3917991	33	Roumeli	5	5	3,8	50	50	single	24	1	Off	50	6	4,3
G63-02A	563256	3918071	26	Roumeli	5	5	3,7	50	50	single	24	1	Off	50	6	6,6
G63-03A	563241	3918110	25	Roumeli	5	5	3,7	50	50	single	24	1	Off	50	6	2,34
G10-01B	563084	3915426	36	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,7
G59-01B	562482	3914645	74	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	1,14
G59-02B	562453	3914711	71	Aggel	6	5	3,7	50	50	single	24	1	Off	50	6	3,54

[APPENDIX C]

ALKALINITY & BICARBONATE CONCENTRATIONS				
Samping Date:	**01 10 2008**			
Borehole	**as CaCO3 (mg/L)**		**HCO3 (mg/L)**	**HCO3 (me/L)**
G-01	335,1		408,8	6,7
G-05	281,3		343,2	5,6
G-06	240,1		292,9	4,8
G-09	310,0		378,2	6,2
G-10	385,2		470,0	7,7
G-12	331,5		404,4	6,6
G-15	320,7		391,3	6,4
G-17	293,9		358,5	5,9
G-18	277,7		338,8	5,6
G-20	304,6		371,6	6,1
G-39	394,2		480,9	7,9
G-40	385,2		470,0	7,7
G-44	320,7		391,3	6,4
G-50	250,9		306,0	5,0
G-52	277,7		338,8	5,6
G-53	274,1		334,5	5,5
G-55	322,5		393,5	6,4
G-56	317,2		386,9	6,3
G-59	322,5		393,5	6,4
G-63	227,6		277,6	4,6
G-80	261,6		319,2	5,2
G-81	256,2		312,6	5,1
SWEET-SPR	297,4		362,9	5,9
SALTY-SPR	202,5		247,0	4,0

TOTAL HARDNESS			
Samping Date:	**04 06 2008**	**28 07 2008**	**01 10 2008**
Borehole	**as CaCO3 (mg/L)**	**as CaCO3 (mg/L)**	**as CaCO3 (mg/L)**
G-01	537,1	598,6	606,8
G-05	565,8	584,3	467,4
G-06	155,8	332,1	332,1
G-09	709,3	656,0	660,1
G-10		278,8	373,1
G-12		381,3	414,1
G-15		205,0	155,8
G-17		246,0	381,3
G-18		270,6	303,4
G-20		311,6	323,9
G-39		381,3	410,0
G-40		442,8	442,8
G-44		438,7	426,4
G-50	574,0	442,8	672,4
G-52		487,9	705,2
G-53	455,1	373,1	393,6
G-55		340,3	463,3
G-56		516,6	451,0
G-59		401,8	451,0
G-63		360,8	795,4
G-80	496,1	492,0	512,5
G-81	492,0	446,9	504,3
SWEET-SPR	332,1	114,8	278,8
SALTY-SPR	885,6	574,0	1090,6

	Electrical Conductivity				Total Disolved Solids		
Samping Date:	04 06 2008	28 07 2008	01 10 2008		04 06 2008	28 07 2008	01 10 2008
Borehole	uS/cm	uS/cm	uS/cm		mg/L	mg/L	mg/L
G-01	2170	2220	2140		1411	1443	1391
G-05	2430	2580	2670		1580	1677	1736
G-06	990	1010	940		644	657	611
G-09	3500	3100	3010		2275	2015	1957
G-10		1470	1750			956	1138
G-12		930	950			605	618
G-15		842	852			547	554
G-17		877	900			570	585
G-18		726	721			472	469
G-20		729	728			474	473
G-39		808	1190			525	774
G-40		1070	910			696	592
G-44		1830	2030			1190	1320
G-50	2500	3340	3900		1625	2171	2535
G-52		2900	2920			1885	1898
G-53	1250	1510	1560		813	982	1014
G-55		1230	1210			800	787
G-56		2050	2060			1333	1339
G-59		1040	990			676	644
G-63		5810	4630			3777	3010
G-80	1950	2150	2240		1268	1398	1456
G-81	1990	1960	1960		1294	1274	1274
SWEET-SPR	776	767	757		504	499	492
SALTY-SPR	5250	6470	6860		3413	4206	4459

SALINITY			
Samping Date:	04 06 2008	28 07 2008	01 10 2008
Borehole	mg/L	mg/L	mg/L
G-01	0,982	1,006	0,968
G-05	1,107	1,180	1,223
G-06	0,426	0,435	0,403
G-09	1,630	1,433	1,389
G-10	--	0,650	0,782
G-12	--	0,398	0,407
G-15	--	0,357	0,362
G-17	--	0,374	0,384
G-18	--	0,304	0,302
G-20	--	0,305	0,305
G-39	--	0,342	0,519
G-40	--	0,463	0,389
G-44	--	0,820	0,915
G-50	1,141	1,551	1,828
G-52	--	1,335	1,345
G-53	0,547	0,669	0,692
G-55	--	0,537	0,528
G-56	--	0,925	0,929
G-59	--	0,449	0,426
G-63	--	2,793	2,194
G-80	0,877	0,973	1,016
G-81	0,896	0,882	0,882
SWEET-SPR	0,327	0,323	0,318
SALTY-SPR	2,508	3,133	3,335

TEMPERATURE			
Samping Date:	**04 06 2008**	**28 07 2008**	**01 10 2008**
Borehole	**˚C**	**˚C**	**˚C**
G-01	21,1	20,6	20,5
G-05	20,0	20,6	20,7
G-06	21,2	21,2	21,1
G-09	19,6	20,8	20,6
G-10		22,9	23,0
G-12		20,0	19,2
G-15		19,7	19,8
G-17		19,9	19,6
G-18		20,7	20,8
G-20		19,5	19,8
G-39		20,8	20,5
G-40		20,9	20,7
G-44		20,9	21,0
G-50	19,0	19,3	18,7
G-52		19,9	20,1
G-53	19,1	19,6	19,0
G-55		21,5	20,2
G-56		20,6	20,5
G-59		20,6	19,6
G-63		18,1	18,8
G-80	21,1	20,8	20,8
G-81	21,2	21,2	21,1
SWEET-SPR	19,6	19,3	19,0
SALTY-SPR	18,0	19,0	18,2

CALCIUM						
Samping Date:	**04 06 2008**		**28 07 2008**		**01 10 2008**	
Borehole	**mg/L**	**me/L**	**mg/L**	**me/L**	**mg/L**	**me/L**
G-01	82,50	4,12	108,00	5,39	104,80	5,23
G-05	87,50	4,37	104,00	5,19	111,93	5,59
G-06	49,50	2,47	63,25	3,16	59,40	2,96
G-09	109,75	5,48	117,75	5,88	117,73	5,87
G-10			133,00	6,64	150,30	7,50
G-12			102,50	5,11	108,40	5,41
G-15			113,50	5,66	110,08	5,49
G-17			104,00	5,19	101,40	5,06
G-18			80,00	3,99	76,60	3,82
G-20			98,75	4,93	97,18	4,85
G-39			70,25	3,51	92,85	4,63
G-40			84,00	4,19	75,43	3,76
G-44			92,75	4,63	77,28	3,86
G-50	111,50	5,56	160,50	8,01	185,63	9,26
G-52			178,00	8,88	186,83	9,32
G-53	81,00	4,04	117,75	5,88	122,28	6,10
G-55			77,75	3,88	76,75	3,83
G-56			96,50	4,82	100,88	5,03
G-59			132,50	6,61	127,33	6,35
G-63			148,75	7,42	148,15	7,39
G-80	71,00	3,54	97,50	4,87	97,23	4,85
G-81	109,00	5,44	118,25	5,90	114,23	5,70
SWEET-SPR	81,00	4,04	93,00	4,64	92,75	4,63
SALTY-SPR	132,00	6,59	157,75	7,87	148,60	7,42

MAGNESIUM						
Samping Date:	**04 06 2008**		**28 07 2008**		**01 10 2008**	
Borehole	**mg/L**	**me/L**	**mg/L**	**me/L**	**mg/L**	**me/L**
G-01	64,50	5,31	61,00	5,02	68,80	5,66
G-05	65,00	5,35	68,00	5,60	70,60	5,81
G-06	32,00	2,63	31,00	2,55	28,50	2,35
G-09	86,50	7,12	79,00	6,50	77,90	6,41
G-10			25,50	2,10	23,33	1,92
G-12			21,75	1,79	16,65	1,37
G-15			13,50	1,11	11,35	0,93
G-17			14,75	1,21	11,93	0,98
G-18			13,00	1,07	15,33	1,26
G-20			11,25	0,93	10,38	0,85
G-39			33,00	2,72	54,00	4,44
G-40			45,00	3,70	41,10	3,38
G-44			50,00	4,11	60,40	4,97
G-50	34,50	2,84	54,00	4,44	68,40	5,63
G-52			41,00	3,37	41,30	3,40
G-53	21,25	1,75	24,00	1,97	23,60	1,94
G-55			41,00	3,37	44,50	3,66
G-56			57,00	4,69	61,90	5,09
G-59			18,25	1,50	14,88	1,22
G-63			109,00	8,97	88,20	7,26
G-80	53,25	4,38	55,00	4,53	55,10	4,53
G-81	32,00	2,63	30,75	2,53	28,25	2,32
SWEET-SPR	12,75	1,05	12,50	1,03	11,70	0,96
SALTY-SPR	112,00	9,22	110,00	9,05	114,00	9,38

POTASSIUM						
Samping Date:	**04 06 2008**		**28 07 2008**		**01 10 2008**	
Borehole	**mg/L**	**me/L**	**mg/L**	**me/L**	**mg/L**	**me/L**
G-01	5,90	0,15	3,98	0,10	4,79	0,12
G-05	7,30	0,19	7,48	0,19	6,25	0,16
G-06	2,30	0,06	2,23	0,06	1,94	0,05
G-09	12,00	0,31	9,20	0,24	7,70	0,20
G-10		--	9,95	0,25	6,83	0,17
G-12		--	3,01	0,08	2,63	0,07
G-15		--	1,89	0,05	1,96	0,05
G-17		--	2,12	0,05	1,47	0,04
G-18		--	1,42	0,04	1,36	0,03
G-20		--	1,20	0,03	1,00	0,03
G-39		--	1,11	0,03	5,40	0,14
G-40		--	0,72	0,02	0,56	0,01
G-44		--	5,20	0,13	5,22	0,13
G-50	10,00	0,26	10,83	0,28	10,65	0,27
G-52		--	5,75	0,15	4,65	0,12
G-53	3,70	0,09	4,51	0,12	4,26	0,11
G-55		--	2,66	0,07	2,25	0,06
G-56		--	5,11	0,13	4,63	0,12
G-59		--	3,33	0,09	3,20	0,08
G-63		--	30,50	0,78	18,40	0,47
G-80	5,90	0,15	6,03	0,15	6,35	0,16
G-81	4,70	0,12	4,10	0,10	3,63	0,09
SWEET-SPR	1,50	0,04	1,26	0,03	1,15	0,03
SALTY-SPR	31,00	0,79	31,75	0,81	29,75	0,76

SODIUM						
Samping Date:	**04 06 2008**		**28 07 2008**		**01 10 2008**	
Borehole	**mg/L**	**me/L**	**mg/L**	**me/L**	**mg/L**	**me/L**
G-01	187,50	8,16	145,00	6,31	290,00	12,62
G-05	207,50	9,03	205,00	8,92	410,00	17,84
G-06	67,50	2,94	45,00	1,96	127,00	5,52
G-09	260,00	11,31	240,00	10,44	442,50	19,25
G-10		--	85,00	3,70	170,75	7,43
G-12		--	34,00	1,48	25,75	1,12
G-15		--	30,50	1,33	44,00	1,91
G-17		--	35,50	1,54	56,25	2,45
G-18		--	31,25	1,36	51,25	2,23
G-20		--	25,50	1,11	40,50	1,76
G-39		--	23,75	1,03	55,00	2,39
G-40		--	40,75	1,77	54,25	2,36
G-44		--	126,00	5,48	252,00	10,96
G-50	162,50	7,07	277,50	12,07	607,50	26,43
G-52		--	217,50	9,46	395,00	17,18
G-53	71,00	3,09	84,00	3,65	156,00	6,79
G-55		--	58,50	2,54	85,00	3,70
G-56		--	139,50	6,07	266,00	11,57
G-59		--	38,00	1,65	53,50	2,33
G-63		--	535,00	23,27	761,50	33,13
G-80	150,00	6,53	159,00	6,92	307,50	13,38
G-81	157,50	6,85	125,00	5,44	211,00	9,18
SWEET-SPR	23,00	1,00	30,50	1,33	47,50	2,07
SALTY-SPR	486,50	21,16	568,75	24,74	1230,00	53,51

IRON						
Samping Date:	**04 06 2008**		**28 07 2008**		**01 10 2008**	
Borehole	**mg/L**	**me/L**	**mg/L**	**me/L**	**mg/L**	**me/L**
G-01	0,00	0,01	0,00	0,00	0,00	0,00
G-05	0,00	0,01	0,00	0,00	0,00	0,00
G-06	0,00	0,00	0,00	0,00	0,00	0,00
G-09	0,00	0,00	0,00	0,00	0,00	0,00
G-10		0,00	0,00	0,00	0,00	0,00
G-12		0,00	0,00	0,00	0,00	0,00
G-15		0,00	0,00	0,00	0,00	0,00
G-17		0,00	0,00	0,00	0,00	0,00
G-18		0,00	0,00	0,00	0,00	0,00
G-20		0,00	0,00	0,00	0,00	0,00
G-39		0,00	0,00	0,00	0,00	0,00
G-40		0,00	0,00	0,00	0,00	0,00
G-44		0,00	0,00	0,00	0,00	0,00
G-50	0,00	0,00	0,00	0,00	0,00	0,00
G-52		0,00	0,00	0,00	0,00	0,00
G-53	0,00	0,00	0,00	0,00	0,00	0,00
G-55		0,00	0,00	0,00	0,00	0,00
G-56		0,00	0,00	0,00	0,00	0,00
G-59		0,02	0,00	0,00	0,00	0,00
G-63		0,00	0,00	0,00	0,00	0,00
G-80	0,00	0,00	0,00	0,00	0,00	0,00
G-81	0,00	0,18	0,09	0,00	0,00	0,00
SWEET-SPR	0,00	0,00	0,00	0,00	0,00	0,00
SALTY-SPR	0,00	0,00	0,00	0,00	0,00	0,00

BORON		
Samping Date:	**01 10 2008**	
Borehole	**mg/L**	**me/L**
G-01	0,06	0,02
G-05	0,08	0,02
G-06	0,02	0,01
G-09	0,10	0,03
G-10	0,10	0,03
G-12	0,03	0,01
G-15	0,04	0,01
G-18	0,05	0,01
G-20	0,03	0,01
G-39	0,03	0,01
G-40	0,03	0,01
G-44	0,06	0,02
G-50	0,10	0,03
G-52	0,09	0,02
G-53	0,06	0,02
G-55	0,03	0,01
G-56	0,06	0,02
G-59	0,05	0,01
G-63	0,18	0,05
G-80	0,08	0,02
G-81	0,02	0,01
SWEET-SPR	0,04	0,01
SALTY-SPR	0,27	0,08

CHLORIDE						
Samping Date:	**04 06 2008**		**28 07 2008**		**01 10 2008**	
Borehole	**mg/L**	**me/L**	**mg/L**	**me/L**	**mg/L**	**me/L**
G-01	506,8	14,3	526,3	14,8	515,8	14,6
G-05	626,8	17,7	636,3	18,0	725,8	20,5
G-06	162,0	4,6	186,4	5,3	185,9	5,2
G-09	916,7	25,9	816,3	23,0	825,7	23,3
G-10		--	256,4	7,2	355,9	10,0
G-12		--	106,5	3,0	126,0	3,6
G-15		--	96,5	2,7	106,0	3,0
G-17		--	101,5	2,9	126,0	3,6
G-18		--	96,5	2,7	116,0	3,3
G-20		--	54,5	1,5	86,0	2,4
G-39		--	91,5	2,6	166,0	4,7
G-40		--	107,5	3,0	116,0	3,3
G-44		--	396,4	11,2	395,9	11,2
G-50	596,8	16,8	951,2	26,8	1121,7	31,6
G-52		--	746,3	21,1	765,8	21,6
G-53	201,9	5,7	311,4	8,8	325,9	9,2
G-55		--	231,4	6,5	235,9	6,7
G-56		--	466,4	13,2	425,9	12,0
G-59		--	126,5	3,6	116,0	3,3
G-63		--	1825,9	51,5	1315,6	37,1
G-80	476,9	13,5	526,3	14,8	595,8	16,8
G-81	506,8	14,3	471,4	13,3	451,9	12,7
SWEET-SPR	87,0	2,5	91,5	2,6	96,0	2,7
SALTY-SPR	1536,5	43,3	2055,9	58,0	2125,3	60,0

pH value			
Samping Date:	**04 06 2008**	**28 07 2008**	**01 10 2008**
Borehole			
G-01	7,2	6,9	7,1
G-05	7,1	6,8	6,9
G-06	7,3	7,4	7,6
G-09	7,0	6,9	6,8
G-10		7,1	7,1
G-12		7,3	7,4
G-15		7,2	7,2
G-17		7,7	7,5
G-18		6,9	7,1
G-20		7,0	7,2
G-39		7,2	7,1
G-40		7,2	6,8
G-44		7,7	7,5
G-50	6,9	7,3	7,3
G-52		6,8	7,0
G-53	6,8	7,2	7,2
G-55		7,3	7,0
G-56		7,0	6,9
G-59		6,8	7,0
G-63		7,5	7,4
G-80	7,5	7,4	7,0
G-81	7,2	6,8	7,1
SWEET-SPR	7,0	7,0	7,0
SALTY-SPR	7,3	7,3	7,5

NITRATE		
Samping Date:	**01 10 2008**	
Borehole	**mg/L**	**me/L**
G-01	9,33	0,15
G-05	6,43	0,10
G-06	10,79	0,17
G-09	5,20	0,08
G-10	9,52	0,15
G-12	5,33	0,09
G-15	5,77	0,09
G-18	20,57	0,33
G-20	6,30	0,10
G-39	6,49	0,10
G-40	7,36	0,12
G-44	11,56	0,19
G-50	7,00	0,11
G-52	6,16	0,10
G-53	7,20	0,12
G-55	4,48	0,07
G-56	14,03	0,23
G-59	5,85	0,09
G-63	6,10	0,10
G-80	6,14	0,10
G-81	5,75	0,09
SWEET-SPR	0,04	0,01
SALTY-SPR	0,27	0,08

SULPHATE						
Samping Date:	**04 06 2008**		**28 07 2008**		**01 10 2008**	
Borehole	**mg/L**	**me/L**	**mg/L**	**me/L**	**mg/L**	**me/L**
G-01	80	2	80	2	140	3
G-05	80	2	140	3	140	3
G-06	50	1	50	1	50	1
G-09	140	3	200	4	200	4
G-10			50	1	110	2
G-12			80	2	80	2
G-15			50	1	140	3
G-17			50	1	50	1
G-18			25	1	110	2
G-20			50	1	200	4
G-39			50	1	50	1
G-40			80	2	50	1
G-44			80	2	110	2
G-50	110	2	50	1	200	4
G-52			200	4	80	2
G-53	80	2	110	2	110	2
G-55			50	1	200	4
G-56			80	2	80	2
G-59			110	2	140	3
G-63			400	8	400	8
G-80	80	2	80	2	110	2
G-81	80	2	110	2	80	2
SWEET-SPR	25	1	50	1	50	1
SALTY-SPR	400	8	400	8	400	8

PHOSPHATE		
Samping Date:	**28 07 2008**	
Borehole	**mg/L**	**me/L**
G-01	0,00	0,00
G-05	0,00	0,00
G-06	0,00	0,00
G-09	0,00	0,00
G-10	0,00	0,00
G-12	0,00	0,00
G-15	0,00	0,00
G-17	0,00	0,00
G-18	0,00	0,00
G-20	0,00	0,00
G-39	0,00	0,00
G-40	0,00	0,00
G-44	0,00	0,00
G-50	0,00	0,00
G-52	0,00	0,00
G-53	0,00	0,00
G-55	0,00	0,00
G-56	0,00	0,00
G-59	0,00	0,00
G-63	0,00	0,00
G-80	0,00	0,00
G-81	0,00	0,00
SWEET-SPR	0,00	0,00
SALTY-SPR	0,00	0,00

[APPENDIX D]

```
#GEOSEC: 0001-B       /  50.0/  50.0/   1.0/  563995.000/ 3914758.000/
52.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=      0.000 DH=       0.000/rms=230.00
S  [V/A]:  +3.113e+001 +2.321e+001 +2.074e+001 +2.016e+001 +2.035e+001
+2.098e+001 +2.148e+001 +2.173e+001 +2.189e+001 +2.189e+001 +2.185e+001
+2.188e+001 +2.199e+001 +2.223e+001 +2.246e+001 +2.259e+001 +2.261e+001
+2.236e+001 +2.198e+001 +2.158e+001 +2.109e+001 +2.059e+001 +2.023e+001
+1.994e+001 +1.956e+001 +1.899e+001 +1.837e+001 +1.773e+001 +1.683e+001
+1.567e+001 +1.462e+001 +1.364e+001
Err[V/A]:  +5.000e-001 +4.780e-001 +2.980e-001 +6.600e-002 +8.700e-002
+1.270e-001 +9.700e-002 +5.800e-002 +2.000e-002 -5.000e-003 +1.000e-015
+1.600e-002 +3.800e-002 +5.600e-002 +4.800e-002 +2.300e-002 -2.300e-002
-7.800e-002 -1.120e-001 -1.250e-001 -1.220e-001 -1.090e-001 -1.010e-001
-1.030e-001 -1.230e-001 -1.670e-001 -2.120e-001 -2.500e-001 -2.910e-001
-3.330e-001 -3.710e-001 -4.040e-001
  21.3908      3.07
  21.7660     36.53
  11.5947     20.00
   9.5358     30.28
   3.0000 10000000000.00
<Date: Sat May 31 08:21:38 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH PERAMA, NEAR  INDUSTRY
<Place: PERAMA
<*********************************************************************************
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#GEOSEC: 0002-A       /  50.0/  50.0/   1.0/  563901.000/ 3914333.000/
48.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=      0.000 DH=       0.000/rms=249.00
S  [V/A]:  +0.000e+000 +1.485e+001 +3.007e+001 +3.990e+001 +4.865e+001
+5.536e+001 +5.863e+001 +6.012e+001 +6.081e+001 +6.064e+001 +6.004e+001
+5.935e+001 +5.834e+001 +5.697e+001 +5.570e+001 +5.456e+001 +5.319e+001
+5.176e+001 +5.081e+001 +5.022e+001 +4.979e+001 +4.965e+001 +4.975e+001
+4.993e+001 +5.021e+001 +5.044e+001 +5.038e+001 +4.995e+001 +4.865e+001
+4.576e+001 +4.222e+001 +3.861e+001 +3.391e+001 +2.870e+001 +2.489e+001
+2.207e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.460e-001 +6.500e-001
+3.980e-001 +2.220e-001 +1.140e-001 +2.600e-002 -3.700e-002 -6.700e-002
-8.400e-002 -1.020e-001 -1.200e-001 -1.330e-001 -1.380e-001 -1.350e-001
-1.170e-001 -9.200e-002 -6.600e-002 -3.200e-002 +1.000e-015 +1.900e-002
+2.800e-002 +2.700e-002 +6.000e-003 -3.500e-002 -9.900e-002 -2.090e-001
-3.420e-001 -4.200e-001 -4.570e-001 -4.770e-001 -4.840e-001 -4.850e-001
-4.840e-001
  30.7217      2.87
  71.7535     27.70
  36.4232     47.37
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   3.0000 10000000000.00
<Date: Sat May 31 09:07:30 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WE CROSSED THE RIVER TO WEST
<Place: PERAMA
<*********************************************************************************
*********
#GEOSEC: 0003-A       /  50.0/  50.0/   1.0/  563703.000/ 3914400.000/
53.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=      0.000 DH=       0.000/rms=155.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.477e+000 +1.381e+001 +1.862e+001
+2.080e+001 +2.185e+001 +2.270e+001 +2.383e+001 +2.530e+001 +2.666e+001
+2.789e+001 +2.941e+001 +3.110e+001 +3.240e+001 +3.335e+001 +3.430e+001
+3.508e+001 +3.552e+001 +3.579e+001 +3.608e+001 +3.640e+001 +3.671e+001
+3.703e+001 +3.749e+001 +3.804e+001 +3.837e+001 +3.842e+001 +3.794e+001
+3.647e+001 +3.453e+001 +3.258e+001 +3.014e+001 +2.767e+001 +2.612e+001
+2.522e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.550e-001
+3.450e-001 +2.460e-001 +2.450e-001 +2.600e-001 +2.790e-001 +2.890e-001
+2.870e-001 +2.730e-001 +2.450e-001 +2.120e-001 +1.770e-001 +1.330e-001
+8.900e-002 +6.200e-002 +4.900e-002 +4.400e-002 +4.700e-002 +5.600e-002
+6.400e-002 +6.900e-002 +6.000e-002 +2.800e-002 -2.700e-002 -1.260e-001
-2.470e-001 -3.220e-001 -3.560e-001 -3.620e-001 -3.290e-001 -2.670e-001
-1.910e-001
```

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<Date: Sat May 31 09:44:31 2008
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<Remark: WE CONTINUED WEST, PIG
<Place: PERAMA
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#GEOSEC: 0004          /  50.0/  50.0/   1.0/  563508.000/ 3914463.000/
53.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=200.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +9.395e+000 +1.758e+001
+2.125e+001 +2.248e+001 +2.309e+001 +2.358e+001 +2.404e+001 +2.442e+001
+2.482e+001 +2.540e+001 +2.625e+001 +2.707e+001 +2.782e+001 +2.876e+001
+2.978e+001 +3.055e+001 +3.113e+001 +3.183e+001 +3.273e+001 +3.369e+001
+3.471e+001 +3.621e+001 +3.807e+001 +3.931e+001 +3.988e+001 +3.961e+001
+3.792e+001 +3.560e+001 +3.321e+001 +3.002e+001 +2.626e+001 +2.322e+001
+2.074e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.970e-001
+4.890e-001 +2.250e-001 +1.430e-001 +1.010e-001 +8.900e-002 +9.800e-002
+1.160e-001 +1.400e-001 +1.660e-001 +1.800e-001 +1.840e-001 +1.760e-001
+1.560e-001 +1.370e-001 +1.270e-001 +1.290e-001 +1.530e-001 +1.870e-001
+2.180e-001 +2.360e-001 +2.120e-001 +1.410e-001 +3.700e-002 -1.180e-001
-2.760e-001 -3.620e-001 -4.080e-001 -4.400e-001 -4.630e-001 -4.740e-001
-4.810e-001
  14.4748      2.00
  29.3353     25.27
  44.1546     53.90
  30.2612     58.57
   3.0000 10000000000.00
<Date: Sat May 31 10:08:32 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WE CONTINUED WEST, IN THE OLIV
<Place: PERAMA
<********************************************************************************
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#GEOSEC: 0005-B        /  50.0/  50.0/   1.0/  563275.000/ 3914511.000/
60.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=118.00
S  [V/A]:  +3.480e+000 +2.654e+000 +3.994e+000 +5.923e+000 +8.664e+000
+1.172e+001 +1.382e+001 +1.523e+001 +1.651e+001 +1.749e+001 +1.800e+001
+1.828e+001 +1.851e+001 +1.869e+001 +1.883e+001 +1.898e+001 +1.920e+001
+1.956e+001 +1.995e+001 +2.034e+001 +2.088e+001 +2.158e+001 +2.217e+001
+2.265e+001 +2.315e+001 +2.356e+001 +2.373e+001 +2.377e+001 +2.371e+001
+2.360e+001 +2.352e+001 +2.350e+001 +2.350e+001 +2.341e+001 +2.306e+001
+2.236e+001
Err[V/A]:  +5.000e-001 -5.720e-001 -8.980e-001 -8.980e-001 +8.800e-001
+7.830e-001 +6.280e-001 +4.870e-001 +3.390e-001 +2.070e-001 +1.280e-001
+8.600e-002 +5.900e-002 +4.400e-002 +4.800e-002 +5.900e-002 +7.700e-002
+1.030e-001 +1.240e-001 +1.390e-001 +1.530e-001 +1.580e-001 +1.510e-001
+1.360e-001 +1.060e-001 +6.200e-002 +2.600e-002 +1.000e-015 -1.800e-002
-2.100e-002 -1.300e-002 -4.000e-003 -8.000e-003 -5.700e-002 -1.530e-001
-2.520e-001
  10.0360      2.04
  22.0253     41.97
  36.6612     20.00
  36.6612     20.00
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<Remark: FENSES IN LOOP
<Place: PERAMA
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#GEOSEC: 0006-A        /  50.0/  50.0/   1.0/  563011.000/ 3914586.000/
64.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 87.00
S  [V/A]:  +7.987e+000 +5.528e+000 +5.859e+000 +6.917e+000 +8.545e+000
```

```
+1.035e+001 +1.151e+001 +1.225e+001 +1.292e+001 +1.351e+001 +1.394e+001
+1.433e+001 +1.488e+001 +1.559e+001 +1.625e+001 +1.686e+001 +1.763e+001
+1.857e+001 +1.940e+001 +2.014e+001 +2.111e+001 +2.229e+001 +2.328e+001
+2.410e+001 +2.504e+001 +2.600e+001 +2.667e+001 +2.718e+001 +2.775e+001
+2.834e+001 +2.877e+001 +2.910e+001 +2.939e+001 +2.947e+001 +2.922e+001
+2.873e+001
Err[V/A]:  +5.000e-001 +3.710e-001 -5.710e-001 -7.530e-001 +7.300e-001
+5.960e-001 +4.440e-001 +3.320e-001 +2.400e-001 +1.880e-001 +1.800e-001
+1.910e-001 +2.100e-001 +2.290e-001 +2.400e-001 +2.440e-001 +2.450e-001
+2.480e-001 +2.520e-001 +2.560e-001 +2.590e-001 +2.540e-001 +2.420e-001
+2.250e-001 +1.980e-001 +1.650e-001 +1.410e-001 +1.240e-001 +1.100e-001
+9.600e-002 +8.400e-002 +6.800e-002 +3.600e-002 -2.100e-002 -8.600e-002
-1.470e-001
   9.7566      2.62
  18.9965     23.32
  58.8326     22.14
  34.0865    114.17
  20.0000 10000000000.00
<Date: Sat May 31 11:19:22 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR A STREET
<Place: PERAMA
<*******************************************************************************
*********
#GEOSEC: 0008-A       /  50.0/  50.0/   1.0/  562573.000/ 3914822.000/
62.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=175.00
S  [V/A]:  +1.100e+001 +7.936e+000 +7.929e+000 +8.721e+000 +9.995e+000
+1.132e+001 +1.208e+001 +1.247e+001 +1.272e+001 +1.287e+001 +1.301e+001
+1.316e+001 +1.344e+001 +1.390e+001 +1.439e+001 +1.490e+001 +1.562e+001
+1.662e+001 +1.759e+001 +1.852e+001 +1.980e+001 +2.144e+001 +2.288e+001
+2.413e+001 +2.561e+001 +2.719e+001 +2.833e+001 +2.920e+001 +3.014e+001
+3.106e+001 +3.169e+001 +3.213e+001 +3.253e+001 +3.281e+001 +3.294e+001
+3.303e+001
Err[V/A]:  +5.000e-001 +4.130e-001 -2.890e-001 -5.390e-001 +5.420e-001
+4.090e-001 +2.610e-001 +1.550e-001 +8.200e-002 +5.700e-002 +6.800e-002
+9.400e-002 +1.360e-001 +1.810e-001 +2.160e-001 +2.430e-001 +2.740e-001
+3.070e-001 +3.320e-001 +3.500e-001 +3.650e-001 +3.680e-001 +3.590e-001
+3.400e-001 +3.060e-001 +2.600e-001 +2.220e-001 +1.930e-001 +1.630e-001
+1.310e-001 +1.060e-001 +8.400e-002 +5.700e-002 +3.200e-002 +2.100e-002
+1.800e-002
   9.8758      2.00
  16.1986     23.94
 102.4118     25.90
  46.4548    103.64
  20.0000 10000000000.00
<Date: Sat May 31 12:14:22 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR A POWER LINE
<Place: PERAMA
<*******************************************************************************
*********
#GEOSEC: 0009-A       /  50.0/  50.0/   1.0/  562364.000/ 3914873.000/
62.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=146.00
S  [V/A]:  +9.959e+000 +6.684e+000 +6.539e+000 +7.258e+000 +8.517e+000
+9.933e+000 +1.084e+001 +1.136e+001 +1.177e+001 +1.204e+001 +1.220e+001
+1.235e+001 +1.255e+001 +1.285e+001 +1.316e+001 +1.348e+001 +1.393e+001
+1.457e+001 +1.521e+001 +1.584e+001 +1.674e+001 +1.794e+001 +1.904e+001
+2.003e+001 +2.126e+001 +2.268e+001 +2.378e+001 +2.468e+001 +2.573e+001
+2.686e+001 +2.772e+001 +2.838e+001 +2.909e+001 +2.974e+001 +3.016e+001
+3.048e+001
Err[V/A]:  +5.000e-001 +4.660e-001 -2.740e-001 -5.940e-001 +6.220e-001
+5.060e-001 +3.600e-001 +2.440e-001 +1.470e-001 +8.700e-002 +7.800e-002
+8.400e-002 +9.900e-002 +1.260e-001 +1.500e-001 +1.710e-001 +1.970e-001
+2.310e-001 +2.610e-001 +2.860e-001 +3.120e-001 +3.320e-001 +3.370e-001
+3.320e-001 +3.160e-001 +2.880e-001 +2.630e-001 +2.430e-001 +2.200e-001
+1.950e-001 +1.730e-001 +1.530e-001 +1.250e-001 +9.400e-002 +7.700e-002
+6.800e-002
   8.8803      2.12
```

```
  15.4761     26.88
  64.2305     21.01
  48.8436    101.13
  20.0000 10000000000.00
<Date: Sat May 31 12:37:57 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO LITTLE RIVER
<Place: PERAMA
<********************************************************************************
*********
#GEOSEC: 0010-A       /  50.0/  50.0/   1.0/  562151.000/ 3914971.000/
72.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=116.00
S  [V/A]:  +0.000e+000 +0.000e+000 +7.572e+000 +1.386e+001 +1.700e+001
+1.791e+001 +1.788e+001 +1.769e+001 +1.735e+001 +1.695e+001 +1.665e+001
+1.645e+001 +1.629e+001 +1.620e+001 +1.620e+001 +1.625e+001 +1.639e+001
+1.665e+001 +1.698e+001 +1.734e+001 +1.791e+001 +1.872e+001 +1.952e+001
+2.028e+001 +2.129e+001 +2.254e+001 +2.361e+001 +2.456e+001 +2.575e+001
+2.713e+001 +2.828e+001 +2.927e+001 +3.048e+001 +3.192e+001 +3.321e+001
+3.445e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +5.610e-001
+9.600e-002 -4.100e-002 -8.300e-002 -1.030e-001 -1.030e-001 -9.000e-002
-6.700e-002 -4.100e-002 -1.300e-002 +1.200e-002 +3.300e-002 +6.100e-002
+9.700e-002 +1.300e-001 +1.600e-001 +1.950e-001 +2.290e-001 +2.500e-001
+2.620e-001 +2.690e-001 +2.710e-001 +2.680e-001 +2.640e-001 +2.560e-001
+2.460e-001 +2.370e-001 +2.300e-001 +2.250e-001 +2.270e-001 +2.400e-001
+2.570e-001
  18.9002      2.40
  16.5309     32.48
  50.8849    149.45
  41.2500    150.00
  20.0000 10000000000.00
<Date: Sat May 31 13:00:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR G-59 WELL
<Place: PERAMA
<********************************************************************************
*********
#GEOSEC: 0011-A       /  50.0/  50.0/   1.0/  562475.000/ 3914647.000/
73.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=140.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.031e+001 +1.633e+001
+1.736e+001 +1.710e+001 +1.683e+001 +1.663e+001 +1.642e+001 +1.622e+001
+1.600e+001 +1.575e+001 +1.557e+001 +1.560e+001 +1.578e+001 +1.625e+001
+1.716e+001 +1.824e+001 +1.939e+001 +2.107e+001 +2.331e+001 +2.525e+001
+2.686e+001 +2.854e+001 +2.989e+001 +3.036e+001 +3.026e+001 +2.945e+001
+2.765e+001 +2.565e+001 +2.380e+001 +2.163e+001 +1.948e+001 +1.808e+001
+1.716e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.430e-001
+7.400e-002 -8.900e-002 -8.200e-002 -6.200e-002 -6.500e-002 -8.000e-002
-8.700e-002 -7.100e-002 -1.900e-002 +4.700e-002 +1.160e-001 +2.080e-001
+3.050e-001 +3.730e-001 +4.160e-001 +4.460e-001 +4.490e-001 +4.200e-001
+3.710e-001 +2.810e-001 +1.510e-001 +3.100e-002 -8.100e-002 -2.150e-001
-3.330e-001 -3.900e-001 -4.100e-001 -4.100e-001 -3.860e-001 -3.430e-001
-2.920e-001
  18.3219      3.10
  16.1083     27.12
 200.0000     48.90
 200.0000     20.00
   4.8873 10000000000.00
<Date: Sat May 31 14:46:09 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO G-59 WELL
<Place: PERAMA
<********************************************************************************
*********
#GEOSEC: 0012-A       /  50.0/  50.0/   1.0/  562670.000/ 3914555.000/
68.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 58.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.883e+000 +1.341e+001 +1.782e+001
+1.974e+001 +2.039e+001 +2.067e+001 +2.079e+001 +2.075e+001 +2.065e+001
```

```
+2.056e+001 +2.050e+001 +2.051e+001 +2.063e+001 +2.081e+001 +2.115e+001
+2.171e+001 +2.232e+001 +2.294e+001 +2.383e+001 +2.501e+001 +2.608e+001
+2.705e+001 +2.826e+001 +2.964e+001 +3.067e+001 +3.144e+001 +3.218e+001
+3.265e+001 +3.272e+001 +3.255e+001 +3.213e+001 +3.134e+001 +3.039e+001
+2.925e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.330e-001
+2.870e-001 +1.250e-001 +6.000e-002 +1.100e-002 -1.800e-002 -2.700e-002
-2.300e-002 -7.000e-003 +1.900e-002 +4.700e-002 +7.400e-002 +1.070e-001
+1.450e-001 +1.750e-001 +1.970e-001 +2.200e-001 +2.380e-001 +2.450e-001
+2.450e-001 +2.350e-001 +2.130e-001 +1.850e-001 +1.520e-001 +1.030e-001
+3.900e-002 -1.300e-002 -5.200e-002 -9.500e-002 -1.510e-001 -2.160e-001
-2.790e-001
  17.0808      2.00
  22.0969     36.99
  69.0838     48.50
  33.5301     65.49
  15.1508 10000000000.00
<Date: Sat May 31 15:11:26 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOME FENSES
<Place: PERAMA
<*********************************************************************************
*********
#GEOSEC: 0013-A       /  50.0/  50.0/   1.0/  562007.000/ 3915011.000/
84.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=133.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.110e+001 +2.021e+001 +2.414e+001
+2.427e+001 +2.333e+001 +2.240e+001 +2.133e+001 +2.023e+001 +1.950e+001
+1.900e+001 +1.853e+001 +1.814e+001 +1.792e+001 +1.780e+001 +1.771e+001
+1.770e+001 +1.779e+001 +1.793e+001 +1.820e+001 +1.867e+001 +1.920e+001
+1.975e+001 +2.058e+001 +2.176e+001 +2.289e+001 +2.398e+001 +2.541e+001
+2.705e+001 +2.826e+001 +2.905e+001 +2.964e+001 +2.976e+001 +2.953e+001
+2.924e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +4.380e-001
-1.040e-001 -2.240e-001 -2.420e-001 -2.370e-001 -2.130e-001 -1.820e-001
-1.530e-001 -1.190e-001 -8.300e-002 -5.800e-002 -3.900e-002 -1.500e-002
+1.400e-002 +4.100e-002 +6.800e-002 +1.030e-001 +1.450e-001 +1.800e-001
+2.100e-001 +2.450e-001 +2.810e-001 +3.030e-001 +3.140e-001 +3.080e-001
+2.740e-001 +2.190e-001 +1.550e-001 +6.900e-002 -1.600e-002 -5.700e-002
-7.800e-002
  34.9445      3.29
  16.6326     38.07
  52.5923    138.24
  10.0773 10000000000.00
<Date: Sun Jun 01 08:09:32 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BEFORE AGGELIANA VILLAGE
<Place: PERAMA
<*********************************************************************************
*********
#GEOSEC: 0014-A       /  50.0/  50.0/   1.0/  562033.000/ 3914846.000/
85.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=165.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.134e+000 +1.175e+001 +1.563e+001
+1.663e+001 +1.658e+001 +1.637e+001 +1.606e+001 +1.573e+001 +1.550e+001
+1.536e+001 +1.524e+001 +1.519e+001 +1.520e+001 +1.524e+001 +1.533e+001
+1.548e+001 +1.565e+001 +1.582e+001 +1.610e+001 +1.650e+001 +1.692e+001
+1.736e+001 +1.799e+001 +1.887e+001 +1.967e+001 +2.040e+001 +2.128e+001
+2.222e+001 +2.292e+001 +2.351e+001 +2.435e+001 +2.578e+001 +2.765e+001
+3.001e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.960e-001
+1.110e-001 -5.000e-002 -8.900e-002 -9.800e-002 -8.700e-002 -7.000e-002
-5.300e-002 -3.100e-002 -5.000e-003 +1.300e-002 +2.500e-002 +3.800e-002
+5.600e-002 +7.100e-002 +8.500e-002 +1.070e-001 +1.350e-001 +1.610e-001
+1.850e-001 +2.120e-001 +2.360e-001 +2.450e-001 +2.420e-001 +2.230e-001
+1.940e-001 +1.770e-001 +1.840e-001 +2.320e-001 +3.410e-001 +4.620e-001
+5.650e-001
  16.0961      7.97
  15.1924     26.52
  33.8890    149.92
```

```
  28.2164    115.53
   1.0000 10000000000.00
<Date: Sun Jun 01 08:30:55 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH OF AGGELIANA VILLAGE
<Place: PERAMA
<*****************************************************************************
*********
#GEOSEC: 0015-B       /  50.0/  50.0/   1.0/  562081.000/ 3914625.000/
86.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 62.00
S  [V/A]:  +8.178e+000 +4.851e+000 +4.594e+000 +5.185e+000 +6.313e+000
+7.631e+000 +8.524e+000 +9.079e+000 +9.549e+000 +9.903e+000 +1.014e+001
+1.032e+001 +1.056e+001 +1.086e+001 +1.114e+001 +1.138e+001 +1.170e+001
+1.209e+001 +1.244e+001 +1.276e+001 +1.319e+001 +1.375e+001 +1.431e+001
+1.485e+001 +1.559e+001 +1.653e+001 +1.730e+001 +1.793e+001 +1.863e+001
+1.933e+001 +1.983e+001 +2.022e+001 +2.058e+001 +2.071e+001 +2.035e+001
+1.953e+001
Err[V/A]:  +5.000e-001 +4.950e-001 -2.560e-001 -6.730e-001 +7.120e-001
+6.020e-001 +4.530e-001 +3.280e-001 +2.170e-001 +1.490e-001 +1.230e-001
+1.200e-001 +1.290e-001 +1.390e-001 +1.450e-001 +1.490e-001 +1.560e-001
+1.620e-001 +1.680e-001 +1.760e-001 +1.920e-001 +2.170e-001 +2.410e-001
+2.590e-001 +2.720e-001 +2.700e-001 +2.540e-001 +2.300e-001 +1.970e-001
+1.640e-001 +1.410e-001 +1.180e-001 +6.900e-002 -4.300e-002 -1.930e-001
-3.220e-001
   7.7847      2.15
  12.8370     23.28
  27.3803    103.87
   8.2788     54.37
   3.0000 10000000000.00
<Date: Sun Jun 01 08:55:05 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: MORE SOUTH OF AGGELIANA VILL
<Place: AGGELIANA
<*****************************************************************************
*********
#GEOSEC: 0016-B       /  50.0/  50.0/   1.0/  562274.000/ 3914654.000/
75.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=107.00
S  [V/A]:  +1.305e+001 +9.343e+000 +9.052e+000 +9.758e+000 +1.108e+001
+1.263e+001 +1.367e+001 +1.432e+001 +1.485e+001 +1.524e+001 +1.544e+001
+1.562e+001 +1.581e+001 +1.608e+001 +1.634e+001 +1.659e+001 +1.694e+001
+1.743e+001 +1.793e+001 +1.842e+001 +1.912e+001 +2.006e+001 +2.090e+001
+2.164e+001 +2.253e+001 +2.352e+001 +2.427e+001 +2.487e+001 +2.555e+001
+2.625e+001 +2.678e+001 +2.720e+001 +2.769e+001 +2.823e+001 +2.871e+001
+2.917e+001
Err[V/A]:  +5.000e-001 +4.460e-001 -1.660e-001 -4.760e-001 +5.350e-001
+4.530e-001 +3.380e-001 +2.440e-001 +1.570e-001 +9.500e-002 +7.400e-002
+7.100e-002 +7.400e-002 +8.600e-002 +9.800e-002 +1.090e-001 +1.260e-001
+1.500e-001 +1.740e-001 +1.950e-001 +2.170e-001 +2.330e-001 +2.370e-001
+2.310e-001 +2.170e-001 +1.940e-001 +1.750e-001 +1.590e-001 +1.420e-001
+1.250e-001 +1.130e-001 +1.040e-001 +9.700e-002 +9.700e-002 +1.060e-001
+1.170e-001
  12.0657      2.22
  17.6026     24.38
  35.5831    117.84
  18.6533    138.99
   3.0000 10000000000.00
<Date: Sun Jun 01 09:19:29 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: MORE EAST, NEAR G-59
<Place: AGGELIANA
<*****************************************************************************
*********
#GEOSEC: 0017-B       /  50.0/  50.0/   1.0/  561303.000/ 3914787.000/
81.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=1134.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.496e+001 +2.904e+001 +3.662e+001
+3.834e+001 +3.781e+001 +3.692e+001 +3.562e+001 +3.388e+001 +3.227e+001
+3.088e+001 +2.931e+001 +2.789e+001 +2.713e+001 +2.680e+001 +2.672e+001
```

```
+2.693e+001 +2.719e+001 +2.738e+001 +2.758e+001 +2.793e+001 +2.855e+001
+2.951e+001 +3.146e+001 +3.519e+001 +3.981e+001 +4.526e+001 +5.422e+001
+6.777e+001 +8.001e+001 +8.816e+001 +9.107e+001 +8.487e+001 +7.654e+001
+6.971e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.000e-001
+4.900e-002 -1.140e-001 -1.640e-001 -2.000e-001 -2.390e-001 -2.630e-001
-2.670e-001 -2.460e-001 -1.870e-001 -1.160e-001 -5.300e-002 +9.000e-003
+4.800e-002 +5.200e-002 +4.500e-002 +5.000e-002 +9.800e-002 +1.810e-001
+2.810e-001 +4.200e-001 +5.730e-001 +6.740e-001 +7.370e-001 +7.780e-001
+7.700e-001 +6.730e-001 +4.250e-001 -6.100e-002 -3.930e-001 -4.460e-001
-4.550e-001
  28.8769     50.00
 160.9499    102.65
 200.0000    107.01
   1.0000 10000000000.00
<Date: Sun Jun 01 10:51:34 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO THE RIVER, NOT SQUARE
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0018-C       /  50.0/  50.0/   1.0/  561484.000/ 3914781.000/
81.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=221.00
S  [V/A]:  +0.000e+000 +6.913e+000 +2.049e+001 +2.610e+001 +2.845e+001
+2.876e+001 +2.860e+001 +2.856e+001 +2.860e+001 +2.880e+001 +2.901e+001
+2.919e+001 +2.941e+001 +2.962e+001 +2.975e+001 +2.985e+001 +2.996e+001
+3.015e+001 +3.038e+001 +3.067e+001 +3.119e+001 +3.205e+001 +3.301e+001
+3.403e+001 +3.551e+001 +3.750e+001 +3.928e+001 +4.087e+001 +4.281e+001
+4.502e+001 +4.690e+001 +4.865e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -7.350e-001 +2.390e-001
+5.000e-003 -1.900e-002 -2.000e-003 +1.800e-002 +3.700e-002 +4.100e-002
+4.100e-002 +3.800e-002 +2.900e-002 +2.400e-002 +2.300e-002 +2.500e-002
+3.800e-002 +5.600e-002 +7.800e-002 +1.110e-001 +1.540e-001 +1.910e-001
+2.190e-001 +2.470e-001 +2.650e-001 +2.690e-001 +2.630e-001 +2.500e-001
+2.400e-001 +2.440e-001 +2.550e-001
  29.8968     49.43
  69.9100    147.49
  69.9100     36.42
  14.6626 10000000000.00
<Date: Sun Jun 01 11:56:47 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO THE RIVER, NOT SQUARE
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0019-A       /  50.0/  50.0/   1.0/  561586.000/ 3914822.000/
81.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=174.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000 +1.380e+001
+2.112e+001 +2.231e+001 +2.233e+001 +2.213e+001 +2.200e+001 +2.201e+001
+2.211e+001 +2.233e+001 +2.274e+001 +2.320e+001 +2.368e+001 +2.438e+001
+2.535e+001 +2.629e+001 +2.720e+001 +2.844e+001 +3.000e+001 +3.134e+001
+3.246e+001 +3.374e+001 +3.501e+001 +3.590e+001 +3.661e+001 +3.743e+001
+3.823e+001 +3.844e+001 +3.791e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -1.000e-015 -9.000e-001 +9.000e-001
+7.530e-001 +1.350e-001 -1.900e-002 -3.800e-002 -1.100e-002 +1.800e-002
+4.100e-002 +6.800e-002 +1.010e-001 +1.280e-001 +1.490e-001 +1.730e-001
+2.000e-001 +2.210e-001 +2.370e-001 +2.500e-001 +2.540e-001 +2.450e-001
+2.270e-001 +1.970e-001 +1.620e-001 +1.410e-001 +1.300e-001 +1.150e-001
+6.500e-002 -3.700e-002 -1.530e-001
  22.9318     27.11
  53.4854    126.18
  22.3917    150.00
 156.0627 10000000000.00
<Date: Sun Jun 01 12:22:07 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: MORE TO THE EAST, FENSES
<Place: AGGELIANA
<********************************************************************************
```

```
*********
#GEOSEC: 0020         /  50.0/  50.0/   1.0/  561932.000/ 3914926.000/
89.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 90.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.179e+000 +7.901e+000 +1.063e+001
+1.180e+001 +1.187e+001 +1.166e+001 +1.133e+001 +1.103e+001 +1.086e+001
+1.077e+001 +1.071e+001 +1.069e+001 +1.070e+001 +1.074e+001 +1.079e+001
+1.090e+001 +1.101e+001 +1.112e+001 +1.130e+001 +1.158e+001 +1.189e+001
+1.223e+001 +1.275e+001 +1.350e+001 +1.419e+001 +1.480e+001 +1.548e+001
+1.613e+001 +1.658e+001 +1.695e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.480e-001
+2.180e-001 -4.800e-002 -1.280e-001 -1.350e-001 -1.030e-001 -6.900e-002
-4.400e-002 -2.200e-002 -1.000e-003 +1.500e-002 +2.600e-002 +3.700e-002
+5.400e-002 +6.600e-002 +7.900e-002 +1.030e-001 +1.370e-001 +1.740e-001
+2.100e-001 +2.500e-001 +2.810e-001 +2.860e-001 +2.690e-001 +2.270e-001
+1.770e-001 +1.570e-001 +1.530e-001
  11.6857      2.00
  11.0850     32.61
  33.0780     79.10
  14.1491 10000000000.00
<Date: Sun Jun 01 12:49:19 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: MORE TO EAST, WE CROSSED RIVER
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0021-B       /  50.0/  50.0/   1.0/  561183.000/ 3914980.000/
77.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=261.00
S  [V/A]:  +0.000e+000 +9.155e+000 +4.573e+001 +7.159e+001 +9.556e+001
+1.121e+002 +1.194e+002 +1.235e+002 +1.273e+002 +1.308e+002 +1.332e+002
+1.349e+002 +1.369e+002 +1.392e+002 +1.411e+002 +1.427e+002 +1.443e+002
+1.454e+002 +1.453e+002 +1.445e+002 +1.426e+002 +1.395e+002 +1.362e+002
+1.328e+002 +1.274e+002 +1.192e+002 +1.111e+002 +1.035e+002 +9.417e+001
+8.395e+001 +7.611e+001 +6.977e+001 +6.229e+001 +5.388e+001 +4.716e+001
+4.174e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.970e-001 +7.820e-001
+4.610e-001 +2.630e-001 +1.860e-001 +1.440e-001 +1.120e-001 +9.300e-002
+8.300e-002 +7.900e-002 +7.900e-002 +7.700e-002 +7.000e-002 +5.000e-002
+1.400e-002 -2.300e-002 -5.400e-002 -8.800e-002 -1.230e-001 -1.560e-001
-1.940e-001 -2.550e-001 -3.290e-001 -3.760e-001 -4.020e-001 -4.180e-001
-4.270e-001 -4.340e-001 -4.430e-001 -4.580e-001 -4.740e-001 -4.830e-001
-4.880e-001
  66.4502      5.39
 160.0417     97.34
  49.0323     80.83
   8.0545 10000000000.00
<Date: Sun Jun 01 14:09:58 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST OF G-15, SOME FENSES
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0022-B       /  50.0/  50.0/   1.0/  561302.000/ 3914655.000/
83.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=488.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.721e+000 +9.395e+000 +1.319e+001
+1.608e+001 +1.776e+001 +1.884e+001 +1.980e+001 +2.053e+001 +2.092e+001
+2.117e+001 +2.142e+001 +2.167e+001 +2.185e+001 +2.196e+001 +2.204e+001
+2.210e+001 +2.219e+001 +2.237e+001 +2.280e+001 +2.375e+001 +2.501e+001
+2.651e+001 +2.897e+001 +3.282e+001 +3.677e+001 +4.064e+001 +4.562e+001
+5.092e+001 +5.451e+001 +5.716e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.380e-001
+5.910e-001 +4.200e-001 +3.140e-001 +2.130e-001 +1.330e-001 +9.100e-002
+7.200e-002 +6.000e-002 +5.100e-002 +4.000e-002 +2.800e-002 +1.700e-002
+1.900e-002 +4.000e-002 +7.800e-002 +1.490e-001 +2.510e-001 +3.440e-001
+4.200e-001 +5.020e-001 +5.700e-001 +5.970e-001 +5.900e-001 +5.390e-001
+4.350e-001 +3.490e-001 +2.860e-001
  21.6387     43.01
 200.0000     87.54
 200.0000    103.18
```

```
   3.0000 10000000000.00
<Date: Sun Jun 01 14:56:40 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF G-15
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0023-A       /  50.0/  50.0/   1.0/  561479.000/ 3914697.000/
82.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=619.00
S  [V/A]:  +4.118e+001 +2.817e+001 +2.275e+001 +2.025e+001 +1.870e+001
+1.803e+001 +1.788e+001 +1.794e+001 +1.810e+001 +1.845e+001 +1.888e+001
+1.936e+001 +2.006e+001 +2.099e+001 +2.174e+001 +2.226e+001 +2.267e+001
+2.276e+001 +2.267e+001 +2.260e+001 +2.274e+001 +2.341e+001 +2.453e+001
+2.598e+001 +2.847e+001 +3.249e+001 +3.674e+001 +4.100e+001 +4.653e+001
+5.186e+001 +5.376e+001 +5.283e+001
Err[V/A]:  +5.000e-001 +4.990e-001 +4.830e-001 +4.150e-001 -2.590e-001
-9.400e-002 -9.000e-003 +3.200e-002 +6.700e-002 +1.100e-001 +1.480e-001
+1.780e-001 +2.020e-001 +2.060e-001 +1.780e-001 +1.330e-001 +6.300e-002
-4.000e-003 -2.200e-002 +5.000e-003 +8.300e-002 +2.110e-001 +3.280e-001
+4.230e-001 +5.210e-001 +6.010e-001 +6.350e-001 +6.310e-001 +5.600e-001
+3.440e-001 +3.300e-002 -2.550e-001
  20.9860     36.67
  86.9618     40.42
 200.0000    136.25
   3.0000 10000000000.00
<Date: Mon Jun 02 07:45:30 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0022, CROSSED RIVER
<Place: ALEX HANI
<*******************************************************************************
*********
#GEOSEC: 0024-A       /  50.0/  50.0/   1.0/  561682.000/ 3914721.000/
83.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=368.00
S  [V/A]:  +1.077e+002 +7.125e+001 +5.330e+001 +4.311e+001 +3.506e+001
+2.955e+001 +2.694e+001 +2.563e+001 +2.477e+001 +2.446e+001 +2.450e+001
+2.467e+001 +2.493e+001 +2.531e+001 +2.569e+001 +2.607e+001 +2.664e+001
+2.734e+001 +2.784e+001 +2.809e+001 +2.809e+001 +2.775e+001 +2.742e+001
+2.729e+001 +2.752e+001 +2.851e+001 +2.985e+001 +3.122e+001 +3.269e+001
+3.317e+001 +3.208e+001 +3.018e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +5.000e-001 +4.980e-001 -4.890e-001
-4.380e-001 -3.420e-001 -2.400e-001 -1.210e-001 -2.100e-002 +2.900e-002
+5.100e-002 +6.400e-002 +7.900e-002 +9.400e-002 +1.090e-001 +1.220e-001
+1.150e-001 +8.100e-002 +3.400e-002 -2.700e-002 -6.600e-002 -5.100e-002
+4.000e-003 +1.050e-001 +2.240e-001 +2.860e-001 +2.800e-001 +1.710e-001
-7.600e-002 -2.890e-001 -4.090e-001
  26.0801     40.02
  40.4419    120.40
  40.4419     20.00
 198.5836 10000000000.00
<Date: Mon Jun 02 08:04:58 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0023
<Place: ALEX HANI
<*******************************************************************************
*********
#GEOSEC: 0025-B       /  50.0/  50.0/   1.0/  561940.000/ 3914779.000/
88.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=123.00
S  [V/A]:  +1.132e+001 +7.144e+000 +6.488e+000 +6.862e+000 +7.796e+000
+8.957e+000 +9.721e+000 +1.018e+001 +1.052e+001 +1.071e+001 +1.078e+001
+1.084e+001 +1.090e+001 +1.102e+001 +1.114e+001 +1.126e+001 +1.142e+001
+1.163e+001 +1.180e+001 +1.197e+001 +1.219e+001 +1.252e+001 +1.285e+001
+1.318e+001 +1.361e+001 +1.410e+001 +1.442e+001 +1.463e+001 +1.482e+001
+1.506e+001 +1.538e+001 +1.580e+001 +1.650e+001 +1.743e+001 +1.800e+001
+1.795e+001
Err[V/A]:  +5.000e-001 +4.960e-001 +3.200e-002 -4.300e-001 +5.470e-001
+4.720e-001 +3.440e-001 +2.330e-001 +1.290e-001 +5.800e-002 +3.700e-002
+3.500e-002 +4.000e-002 +5.800e-002 +6.700e-002 +7.400e-002 +8.300e-002
+8.600e-002 +9.200e-002 +9.900e-002 +1.150e-001 +1.410e-001 +1.640e-001
```

+1.770e-001 +1.760e-001 +1.500e-001 +1.150e-001 +8.700e-002 +7.600e-002
+1.030e-001 +1.560e-001 +2.090e-001 +2.520e-001 +2.220e-001 +7.800e-002
-1.080e-001
8.7930 2.00
12.2143 26.57
19.6899 56.91
13.5289 98.59
1.0000 10000000000.00
<Date: Mon Jun 02 08:32:32 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff= 6 Ampl=OFF
<Remark: BEWEEN 0024-0015
<Place: ALEX HANI
<***
****
#GEOSEC: 0026-C / 50.0/ 50.0/ 1.0/ 560951.000/ 3915336.000/
70.0/32/5/0/22222 SPM=0 K= 0.000e+000 H= 0.000 DH= 0.000/rms=630.00
S [V/A]: +0.000e+000 +3.491e+000 +1.479e+001 +2.352e+001 +3.221e+001
+3.991e+001 +4.472e+001 +4.778e+001 +5.036e+001 +5.216e+001 +5.314e+001
+5.394e+001 +5.517e+001 +5.722e+001 +5.946e+001 +6.160e+001 +6.424e+001
+6.690e+001 +6.867e+001 +6.997e+001 +7.160e+001 +7.386e+001 +7.605e+001
+7.797e+001 +8.001e+001 +8.162e+001 +8.244e+001 +8.312e+001 +8.440e+001
+8.692e+001 +8.969e+001 +9.200e+001
Err[V/A]: -9.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +8.310e-001
+6.370e-001 +4.680e-001 +3.420e-001 +2.200e-001 +1.300e-001 +1.020e-001
+1.100e-001 +1.460e-001 +1.970e-001 +2.280e-001 +2.340e-001 +2.130e-001
+1.710e-001 +1.390e-001 +1.290e-001 +1.390e-001 +1.610e-001 +1.710e-001
+1.590e-001 +1.230e-001 +7.600e-002 +5.800e-002 +7.000e-002 +1.130e-001
+1.650e-001 +1.790e-001 +1.700e-001
47.4530 2.00
48.4401 20.00
97.8289 128.21
37.6240 114.76
2.0354 10000000000.00
<Date: Mon Jun 02 09:17:46 2008
<Time Range=5 Currrent= 3.80 Stack= 5 Filter=60 Deff= 6 Ampl=OFF
<Remark: NEAR G-20, IN USE
<Place: AGGELIANA
<***
****
#GEOSEC: 0027-B / 50.0/ 50.0/ 1.0/ 561153.000/ 3915383.000/
100.0/36/5/0/22222 SPM=0 K= 0.000e+000 H= 0.000 DH=
0.000/rms=222.00
S [V/A]: +0.000e+000 +2.379e+000 +2.276e+001 +3.455e+001 +4.297e+001
+4.789e+001 +4.991e+001 +5.084e+001 +5.137e+001 +5.156e+001 +5.159e+001
+5.161e+001 +5.171e+001 +5.183e+001 +5.182e+001 +5.163e+001 +5.110e+001
+5.006e+001 +4.890e+001 +4.776e+001 +4.616e+001 +4.398e+001 +4.180e+001
+3.960e+001 +3.648e+001 +3.244e+001 +2.906e+001 +2.626e+001 +2.315e+001
+2.009e+001 +1.799e+001 +1.648e+001 +1.492e+001 +1.337e+001 +1.217e+001
+1.113e+001
Err[V/A]: -9.000e-001 -9.000e-001 -9.000e-001 -8.910e-001 +6.550e-001
+3.210e-001 +1.630e-001 +8.900e-002 +3.700e-002 +1.000e-002 +3.000e-003
+6.000e-003 +1.100e-002 +4.000e-003 -1.400e-002 -3.900e-002 -7.700e-002
-1.180e-001 -1.470e-001 -1.700e-001 -2.030e-001 -2.520e-001 -3.040e-001
-3.520e-001 -4.030e-001 -4.420e-001 -4.590e-001 -4.650e-001 -4.650e-001
-4.570e-001 -4.450e-001 -4.330e-001 -4.200e-001 -4.180e-001 -4.340e-001
-4.520e-001
32.2906 2.00
53.0166 40.93
19.5663 37.34
3.1405 39.16
3.5220 10000000000.00
<Date: Mon Jun 02 09:46:30 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=60 Deff= 6 Ampl=OFF
<Remark: AGGELIANA CEMETERY, FENCES
<Place: AGGELIANA
<***
****
#GEOSEC: 0029-A / 50.0/ 50.0/ 1.0/ 561660.000/ 3915540.000/

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96.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=242.00
S  [V/A]:  +0.000e+000 +0.000e+000 +9.459e+000 +1.709e+001 +2.297e+001
+2.604e+001 +2.674e+001 +2.667e+001 +2.637e+001 +2.611e+001 +2.615e+001
+2.638e+001 +2.689e+001 +2.768e+001 +2.843e+001 +2.901e+001 +2.960e+001
+3.002e+001 +3.017e+001 +3.023e+001 +3.025e+001 +3.026e+001 +3.018e+001
+2.995e+001 +2.935e+001 +2.815e+001 +2.683e+001 +2.555e+001 +2.389e+001
+2.195e+001 +2.031e+001 +1.884e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.640e-001
+3.120e-001 +5.600e-002 -3.600e-002 -5.300e-002 -1.500e-002 +3.600e-002
+7.800e-002 +1.200e-001 +1.450e-001 +1.440e-001 +1.260e-001 +9.100e-002
+4.700e-002 +2.100e-002 +9.000e-003 +3.000e-003 -8.000e-003 -3.600e-002
-8.000e-002 -1.510e-001 -2.340e-001 -2.860e-001 -3.160e-001 -3.410e-001
-3.670e-001 -3.940e-001 -4.180e-001
  24.6017      2.00
  27.5373     20.00
  31.5457     54.74
   7.7250 10000000000.00
<Date: Mon Jun 02 10:58:11 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF AGGELIANA, IN VILLAGE
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0030-B       /  50.0/  50.0/   1.0/  561900.000/ 3915581.000/
80.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=126.00
S  [V/A]:  +0.000e+000 +0.000e+000 +7.279e+000 +1.555e+001 +2.099e+001
+2.409e+001 +2.558e+001 +2.648e+001 +2.724e+001 +2.780e+001 +2.811e+001
+2.832e+001 +2.859e+001 +2.899e+001 +2.944e+001 +2.993e+001 +3.069e+001
+3.181e+001 +3.297e+001 +3.415e+001 +3.580e+001 +3.797e+001 +3.994e+001
+4.171e+001 +4.396e+001 +4.672e+001 +4.909e+001 +5.113e+001 +5.335e+001
+5.473e+001 +5.415e+001 +5.213e+001 +4.804e+001 +4.211e+001 +3.708e+001
+3.307e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.770e-001
+4.180e-001 +2.590e-001 +1.850e-001 +1.230e-001 +7.600e-002 +5.500e-002
+5.100e-002 +5.900e-002 +7.800e-002 +1.010e-001 +1.240e-001 +1.540e-001
+1.920e-001 +2.230e-001 +2.460e-001 +2.690e-001 +2.850e-001 +2.900e-001
+2.900e-001 +2.890e-001 +2.870e-001 +2.800e-001 +2.580e-001 +1.850e-001
+2.200e-002 -1.660e-001 -3.130e-001 -4.180e-001 -4.640e-001 -4.770e-001
-4.820e-001
  19.6130      3.34
  33.3432     34.90
  68.8701    139.48
   3.0954 10000000000.00
<Date: Mon Jun 02 11:36:40 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0029
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0031-C       /  50.0/  50.0/   1.0/  562094.000/ 3915462.000/
66.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=183.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.673e+000 +1.676e+001 +2.060e+001
+2.122e+001 +2.077e+001 +2.020e+001 +1.947e+001 +1.871e+001 +1.822e+001
+1.790e+001 +1.765e+001 +1.753e+001 +1.755e+001 +1.761e+001 +1.775e+001
+1.796e+001 +1.818e+001 +1.840e+001 +1.872e+001 +1.919e+001 +1.968e+001
+2.020e+001 +2.100e+001 +2.217e+001 +2.334e+001 +2.448e+001 +2.598e+001
+2.771e+001 +2.898e+001 +2.992e+001 +3.094e+001 +3.223e+001 +3.373e+001
+3.559e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +5.330e-001
-6.000e-003 -1.450e-001 -1.780e-001 -1.830e-001 -1.600e-001 -1.300e-001
-9.800e-002 -5.500e-002 -1.100e-002 +1.600e-002 +3.300e-002 +5.000e-002
+6.500e-002 +7.700e-002 +8.900e-002 +1.070e-001 +1.350e-001 +1.640e-001
+1.940e-001 +2.350e-001 +2.800e-001 +3.090e-001 +3.220e-001 +3.160e-001
+2.810e-001 +2.370e-001 +2.040e-001 +1.930e-001 +2.340e-001 +3.140e-001
+3.970e-001
  28.6824      2.00
  17.3921     37.02
  48.8361     48.82
```

```
  60.2127 10000000000.00
<Date: Mon Jun 02 12:08:32 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0030
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0032-B       /  50.0/  50.0/   1.0/  562297.000/ 3915499.000/
63.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 95.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.410e+000 +1.171e+001 +1.649e+001
+1.878e+001 +1.953e+001 +1.978e+001 +1.986e+001 +1.984e+001 +1.983e+001
+1.986e+001 +1.997e+001 +2.018e+001 +2.041e+001 +2.063e+001 +2.090e+001
+2.120e+001 +2.143e+001 +2.162e+001 +2.184e+001 +2.210e+001 +2.234e+001
+2.257e+001 +2.288e+001 +2.329e+001 +2.366e+001 +2.403e+001 +2.454e+001
+2.525e+001 +2.589e+001 +2.642e+001 +2.684e+001 +2.659e+001 +2.541e+001
+2.358e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.060e-001
+3.520e-001 +1.370e-001 +5.400e-002 +9.000e-003 -4.000e-003 +5.000e-003
+1.900e-002 +3.900e-002 +5.900e-002 +6.900e-002 +7.200e-002 +7.100e-002
+6.600e-002 +6.100e-002 +5.800e-002 +5.800e-002 +6.200e-002 +6.700e-002
+7.300e-002 +8.000e-002 +9.100e-002 +1.010e-001 +1.120e-001 +1.280e-001
+1.430e-001 +1.430e-001 +1.160e-001 +2.700e-002 -1.630e-001 -3.450e-001
-4.460e-001
  16.7020      2.48
  21.4182     25.09
  25.4077    147.79
   3.0000 10000000000.00
<Date: Mon Jun 02 12:35:17 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0031
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0033-C       /  50.0/  50.0/   1.0/  562493.000/ 3915454.000/
64.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 82.00
S  [V/A]:  +6.216e+000 +4.974e+000 +6.126e+000 +7.856e+000 +1.024e+001
+1.275e+001 +1.435e+001 +1.535e+001 +1.616e+001 +1.672e+001 +1.700e+001
+1.718e+001 +1.738e+001 +1.761e+001 +1.783e+001 +1.802e+001 +1.828e+001
+1.860e+001 +1.891e+001 +1.921e+001 +1.961e+001 +2.012e+001 +2.054e+001
+2.090e+001 +2.132e+001 +2.180e+001 +2.220e+001 +2.258e+001 +2.308e+001
+2.367e+001 +2.408e+001 +2.428e+001 +2.420e+001 +2.355e+001 +2.263e+001
+2.172e+001
Err[V/A]:  +5.000e-001 -1.890e-001 -8.270e-001 -8.540e-001 +8.010e-001
+6.490e-001 +4.780e-001 +3.430e-001 +2.160e-001 +1.210e-001 +8.100e-002
+6.800e-002 +6.300e-002 +6.800e-002 +7.100e-002 +7.500e-002 +8.200e-002
+9.100e-002 +1.020e-001 +1.110e-001 +1.190e-001 +1.230e-001 +1.200e-001
+1.160e-001 +1.100e-001 +1.080e-001 +1.120e-001 +1.190e-001 +1.230e-001
+1.120e-001 +7.800e-002 +2.200e-002 -7.200e-002 -1.830e-001 -2.450e-001
-2.810e-001
  11.7547      2.51
  20.1932     31.83
  27.3492    125.39
   7.7868 10000000000.00
<Date: Mon Jun 02 13:01:29 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0032
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0034-B       /  50.0/  50.0/   1.0/  562727.000/ 3915459.000/
47.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=136.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.894e+000 +9.439e+000 +1.386e+001
+1.613e+001 +1.684e+001 +1.699e+001 +1.692e+001 +1.669e+001 +1.658e+001
+1.661e+001 +1.684e+001 +1.734e+001 +1.794e+001 +1.854e+001 +1.934e+001
+2.029e+001 +2.103e+001 +2.161e+001 +2.224e+001 +2.292e+001 +2.351e+001
+2.410e+001 +2.497e+001 +2.622e+001 +2.737e+001 +2.839e+001 +2.952e+001
+3.036e+001 +3.041e+001 +2.985e+001 +2.844e+001 +2.610e+001 +2.397e+001
+2.226e+001
```

```
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.420e-001
+4.000e-001 +1.350e-001 +2.000e-002 -4.200e-002 -4.900e-002 -1.000e-002
+4.000e-002 +1.050e-001 +1.690e-001 +2.070e-001 +2.250e-001 +2.300e-001
+2.170e-001 +1.950e-001 +1.730e-001 +1.530e-001 +1.470e-001 +1.600e-001
+1.830e-001 +2.140e-001 +2.430e-001 +2.490e-001 +2.340e-001 +1.800e-001
+6.800e-002 -6.400e-002 -1.870e-001 -3.060e-001 -3.810e-001 -4.010e-001
-4.060e-001
  14.1925      2.00
  18.6818     20.12
  33.7357    123.22
   4.0403     20.00
   3.1443 10000000000.00
<Date: Mon Jun 02 13:25:38 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0033
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0035-B       /  50.0/  50.0/   1.0/  562884.000/ 3915467.000/
38.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=191.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.290e+000 +1.132e+001 +1.743e+001
+2.046e+001 +2.144e+001 +2.171e+001 +2.167e+001 +2.129e+001 +2.086e+001
+2.052e+001 +2.021e+001 +2.004e+001 +2.010e+001 +2.028e+001 +2.067e+001
+2.128e+001 +2.186e+001 +2.232e+001 +2.281e+001 +2.319e+001 +2.333e+001
+2.335e+001 +2.329e+001 +2.316e+001 +2.301e+001 +2.285e+001 +2.258e+001
+2.213e+001 +2.163e+001 +2.111e+001 +2.042e+001 +1.967e+001 +1.915e+001
+1.882e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.640e-001
+4.220e-001 +1.560e-001 +3.900e-002 -4.400e-002 -9.800e-002 -1.100e-001
-9.700e-002 -6.400e-002 -9.000e-003 +4.100e-002 +8.200e-002 +1.220e-001
+1.480e-001 +1.490e-001 +1.330e-001 +1.010e-001 +5.600e-002 +2.100e-002
-2.000e-003 -2.100e-002 -3.400e-002 -4.400e-002 -5.600e-002 -8.000e-002
-1.180e-001 -1.510e-001 -1.710e-001 -1.800e-001 -1.660e-001 -1.350e-001
-1.000e-001
  21.1412      4.21
  20.6050     21.53
  25.8297     74.04
   7.8263     20.00
  15.8826 10000000000.00
<Date: Mon Jun 02 13:54:50 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BETWEEN 0034 AND G-10
<Place: ACHLADES
<*******************************************************************************
*********
#GEOSEC: 0036-B       /  50.0/  50.0/   1.0/  563327.000/ 3915530.000/
43.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=158.00
S  [V/A]:  +6.469e+000 +4.693e+000 +5.544e+000 +7.103e+000 +9.353e+000
+1.179e+001 +1.337e+001 +1.432e+001 +1.506e+001 +1.551e+001 +1.575e+001
+1.595e+001 +1.626e+001 +1.672e+001 +1.719e+001 +1.761e+001 +1.813e+001
+1.868e+001 +1.909e+001 +1.944e+001 +1.994e+001 +2.071e+001 +2.157e+001
+2.250e+001 +2.393e+001 +2.588e+001 +2.753e+001 +2.877e+001 +2.975e+001
+2.990e+001 +2.939e+001 +2.877e+001
Err[V/A]:  +5.000e-001 +8.000e-002 -8.040e-001 -8.570e-001 +8.150e-001
+6.750e-001 +4.950e-001 +3.430e-001 +2.030e-001 +1.090e-001 +8.400e-002
+9.300e-002 +1.180e-001 +1.460e-001 +1.610e-001 +1.630e-001 +1.520e-001
+1.340e-001 +1.260e-001 +1.330e-001 +1.600e-001 +2.110e-001 +2.630e-001
+3.080e-001 +3.480e-001 +3.590e-001 +3.230e-001 +2.470e-001 +1.120e-001
-4.400e-002 -1.250e-001 -1.660e-001
  12.2857      3.12
  19.3885     26.27
  37.9545     99.91
   8.3179     20.00
   3.0000 10000000000.00
<Date: Mon Jun 02 14:28:10 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF G-10
<Place: ACHLADES
```

```
<*******************************************************************************
*********
#GEOSEC: 0037         /  50.0/  50.0/   1.0/  563506.000/ 3915492.000/
41.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=197.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.082e+000 +1.444e+001 +2.329e+001
+2.665e+001 +2.724e+001 +2.719e+001 +2.695e+001 +2.652e+001 +2.615e+001
+2.585e+001 +2.556e+001 +2.534e+001 +2.528e+001 +2.531e+001 +2.544e+001
+2.566e+001 +2.587e+001 +2.603e+001 +2.619e+001 +2.632e+001 +2.643e+001
+2.657e+001 +2.684e+001 +2.731e+001 +2.777e+001 +2.816e+001 +2.852e+001
+2.864e+001 +2.844e+001 +2.808e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.720e-001
+3.150e-001 +4.700e-002 -2.700e-002 -5.900e-002 -7.600e-002 -7.700e-002
-6.900e-002 -5.200e-002 -2.600e-002 -2.000e-003 +1.700e-002 +3.500e-002
+4.500e-002 +4.400e-002 +3.900e-002 +3.000e-002 +2.500e-002 +3.100e-002
+4.600e-002 +6.900e-002 +9.300e-002 +9.800e-002 +8.500e-002 +4.800e-002
-1.300e-002 -6.600e-002 -1.080e-001
  26.3734     15.55
  24.6119     25.11
  31.6565    106.72
  10.8489     20.00
  20.0000 10000000000.00
<Date: Mon Jun 02 14:45:19 2008
<Time Range=5 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF 0036
<Place: ACHLADES
<*******************************************************************************
*********
#GEOSEC: 0038         /  50.0/  50.0/   1.0/  563261.000/ 3917991.000/
33.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=349.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +7.396e+000 +1.493e+001
+1.898e+001 +1.973e+001 +1.941e+001 +1.867e+001 +1.792e+001 +1.763e+001
+1.763e+001 +1.789e+001 +1.844e+001 +1.901e+001 +1.951e+001 +2.003e+001
+2.048e+001 +2.073e+001 +2.091e+001 +2.116e+001 +2.161e+001 +2.217e+001
+2.279e+001 +2.363e+001 +2.446e+001 +2.478e+001 +2.471e+001 +2.423e+001
+2.340e+001 +2.266e+001 +2.201e+001 +2.108e+001 +1.958e+001 +1.782e+001
+1.599e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.990e-001
+5.250e-001 +3.800e-002 -1.460e-001 -1.900e-001 -1.330e-001 -4.200e-002
+3.500e-002 +1.100e-001 +1.610e-001 +1.730e-001 +1.610e-001 +1.290e-001
+8.700e-002 +6.500e-002 +6.300e-002 +8.300e-002 +1.280e-001 +1.700e-001
+1.930e-001 +1.850e-001 +1.180e-001 +2.500e-002 -6.100e-002 -1.360e-001
-1.760e-001 -1.890e-001 -2.100e-001 -2.740e-001 -3.830e-001 -4.540e-001
-4.850e-001
  19.0092      2.04
  18.6626     20.00
  27.3853     87.53
   6.8326    108.87
  20.0000 10000000000.00
<Date: Tue May 20 11:52:27 2008
<Time Range=6 Currrent= 3.80 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark:  NEXT TO VILLAGE<Place: ROUMEL
<Place:  0007-A       /  50.0/  50.0/
<*******************************************************************************
*********
#GEOSEC: 0049         /  50.0/  50.0/   1.0/  561299.000/ 3915007.000/
80.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=435.00
S  [V/A]:  +3.135e+001 +2.722e+001 +2.705e+001 +2.794e+001 +2.949e+001
+3.119e+001 +3.225e+001 +3.284e+001 +3.322e+001 +3.356e+001 +3.411e+001
+3.499e+001 +3.672e+001 +3.971e+001 +4.297e+001 +4.602e+001 +4.964e+001
+5.276e+001 +5.403e+001 +5.422e+001 +5.373e+001 +5.285e+001 +5.226e+001
+5.193e+001 +5.162e+001 +5.093e+001 +4.966e+001 +4.788e+001 +4.489e+001
+4.075e+001 +3.717e+001 +3.418e+001 +3.067e+001 +2.676e+001 +2.357e+001
+2.084e+001
Err[V/A]:  +4.810e-001 +2.340e-001 -8.800e-002 -2.180e-001 +2.480e-001
+2.040e-001 +1.420e-001 +9.000e-002 +5.400e-002 +7.100e-002 +1.330e-001
+2.090e-001 +3.060e-001 +3.960e-001 +4.320e-001 +4.200e-001 +3.480e-001
+2.070e-001 +7.700e-002 -1.000e-002 -6.400e-002 -7.200e-002 -5.400e-002
-3.900e-002 -4.900e-002 -1.110e-001 -1.970e-001 -2.770e-001 -3.530e-001
```

```
-4.030e-001 -4.240e-001 -4.360e-001 -4.490e-001 -4.660e-001 -4.810e-001
-4.900e-001
  34.2385     25.23
 200.0000     44.71
  17.3512     69.97
   2.2102 10000000000.00
<Date: Mon May 16 19:28:39 2005
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO RIVER<Place: HANOTHIAN
<Place:  0062-B       /  50.0/  50.0/
<*****************************************************************************
*********
#GEOSEC: 0052-B       /  50.0/  50.0/   1.0/  564277.000/ 3916165.000/
56.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=231.00
S  [V/A]:  +0.000e+000 +2.238e+001 +5.799e+001 +8.600e+001 +1.178e+002
+1.484e+002 +1.666e+002 +1.765e+002 +1.813e+002 +1.775e+002 +1.684e+002
+1.579e+002 +1.440e+002 +1.287e+002 +1.175e+002 +1.093e+002 +1.006e+002
+9.185e+001 +8.503e+001 +7.925e+001 +7.214e+001 +6.406e+001 +5.775e+001
+5.284e+001 +4.752e+001 +4.228e+001 +3.858e+001 +3.565e+001 +3.220e+001
+2.828e+001 +2.509e+001 +2.252e+001 +1.967e+001 +1.692e+001 +1.512e+001
+1.391e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.950e-001 -8.380e-001
+6.590e-001 +4.480e-001 +2.570e-001 +3.000e-002 -1.980e-001 -3.220e-001
-3.780e-001 -4.060e-001 -4.110e-001 -4.000e-001 -3.870e-001 -3.730e-001
-3.710e-001 -3.820e-001 -3.990e-001 -4.200e-001 -4.360e-001 -4.410e-001
-4.390e-001 -4.310e-001 -4.210e-001 -4.170e-001 -4.220e-001 -4.380e-001
-4.580e-001 -4.690e-001 -4.740e-001 -4.730e-001 -4.630e-001 -4.430e-001
-4.130e-001
  38.7771      2.00
 200.0000     49.30
  17.3704     35.98
   5.5834     26.86
   3.0000 10000000000.00
<Date: Tue Jun 17 06:52:45 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINES
<Place: SOLOCHIANA
<*****************************************************************************
*********
#GEOSEC: 0053-B       /  50.0/  50.0/   1.0/  564173.000/ 3916018.000/
59.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=496.00
S  [V/A]:  +0.000e+000 +4.152e+001 +8.437e+001 +1.223e+002 +1.679e+002
+2.104e+002 +2.331e+002 +2.447e+002 +2.511e+002 +2.497e+002 +2.421e+002
+2.319e+002 +2.167e+002 +1.976e+002 +1.817e+002 +1.687e+002 +1.532e+002
+1.361e+002 +1.228e+002 +1.123e+002 +1.008e+002 +8.964e+001 +8.210e+001
+7.669e+001 +7.106e+001 +6.546e+001 +6.133e+001 +5.797e+001 +5.406e+001
+4.980e+001 +4.647e+001 +4.372e+001 +4.037e+001 +3.624e+001 +3.245e+001
+2.892e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.940e-001 +8.370e-001
+6.300e-001 +3.950e-001 +2.260e-001 +6.100e-002 -1.070e-001 -2.210e-001
-2.920e-001 -3.460e-001 -3.790e-001 -3.960e-001 -4.070e-001 -4.200e-001
-4.330e-001 -4.400e-001 -4.400e-001 -4.330e-001 -4.160e-001 -3.940e-001
-3.740e-001 -3.530e-001 -3.390e-001 -3.370e-001 -3.390e-001 -3.430e-001
-3.470e-001 -3.540e-001 -3.650e-001 -3.920e-001 -4.360e-001 -4.700e-001
-4.870e-001
 200.0000      3.74
 200.0000     67.35
  22.1778     25.90
  18.9391     75.50
   4.7471 10000000000.00
<Date: Tue Jun 17 07:20:45 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR WELL AND CONTAMINATION
<Place: SOLOCHIANA
<*****************************************************************************
*********
#GEOSEC: 0054         /  50.0/  50.0/   1.0/  563898.000/ 3916245.000/
51.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=219.00
```

```
S  [V/A]:  +0.000e+000 +2.397e+001 +4.214e+001 +5.507e+001 +6.868e+001
+8.195e+001 +9.075e+001 +9.669e+001 +1.023e+002 +1.073e+002 +1.104e+002
+1.121e+002 +1.127e+002 +1.107e+002 +1.074e+002 +1.039e+002 +9.970e+001
+9.546e+001 +9.253e+001 +9.025e+001 +8.733e+001 +8.325e+001 +7.907e+001
+7.504e+001 +6.989e+001 +6.424e+001 +6.025e+001 +5.731e+001 +5.415e+001
+5.043e+001 +4.655e+001 +4.232e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.980e-001 -8.470e-001 +7.280e-001
+5.680e-001 +4.370e-001 +3.420e-001 +2.560e-001 +1.850e-001 +1.290e-001
+6.800e-002 -2.600e-002 -1.320e-001 -1.930e-001 -2.150e-001 -2.110e-001
-1.880e-001 -1.710e-001 -1.720e-001 -1.990e-001 -2.530e-001 -3.000e-001
-3.300e-001 -3.470e-001 -3.400e-001 -3.200e-001 -3.000e-001 -3.000e-001
-3.540e-001 -4.280e-001 -4.720e-001
  34.4216      4.66
 200.0000     43.50
  44.8666     72.35
  15.0303     20.00
  17.7737 10000000000.00
<Date: Tue Jun 17 07:50:05 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: WEST OF SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0055         /  50.0/  50.0/   1.0/  563772.000/ 3916127.000/
63.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=293.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.076e+001 +2.516e+001
+3.563e+001 +4.241e+001 +4.790e+001 +5.478e+001 +6.269e+001 +6.864e+001
+7.279e+001 +7.640e+001 +7.869e+001 +7.952e+001 +7.980e+001 +8.000e+001
+8.039e+001 +8.100e+001 +8.169e+001 +8.249e+001 +8.263e+001 +8.138e+001
+7.895e+001 +7.432e+001 +6.751e+001 +6.173e+001 +5.706e+001 +5.194e+001
+4.680e+001 +4.287e+001 +3.951e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.170e-001 +6.880e-001 +6.320e-001 +5.860e-001 +5.110e-001 +4.190e-001
+3.220e-001 +2.040e-001 +9.700e-002 +4.000e-002 +1.900e-002 +1.800e-002
+3.500e-002 +5.200e-002 +5.600e-002 +3.300e-002 -4.500e-002 -1.510e-001
-2.500e-001 -3.430e-001 -3.990e-001 -4.150e-001 -4.140e-001 -4.070e-001
-4.050e-001 -4.170e-001 -4.330e-001
  26.1995      6.81
 200.0000     38.81
  52.0127     55.99
  52.0127     22.26
   8.4202 10000000000.00
<Date: Tue Jun 17 08:14:09 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: BETWEEN SOLOCHIANA AND PINALI
<*******************************************************************************
*********
#GEOSEC: 0056-B       /  50.0/  50.0/   1.0/  563573.000/ 3916164.000/
64.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=489.00
S  [V/A]:  +0.000e+000 +1.444e+000 +4.652e+000 +7.565e+000 +1.093e+001
+1.439e+001 +1.691e+001 +1.889e+001 +2.129e+001 +2.414e+001 +2.672e+001
+2.916e+001 +3.247e+001 +3.664e+001 +4.028e+001 +4.321e+001 +4.624e+001
+4.839e+001 +4.888e+001 +4.843e+001 +4.708e+001 +4.485e+001 +4.277e+001
+4.099e+001 +3.893e+001 +3.674e+001 +3.502e+001 +3.345e+001 +3.123e+001
+2.809e+001 +2.511e+001 +2.247e+001 +1.937e+001 +1.618e+001 +1.393e+001
+1.227e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +8.720e-001
+7.610e-001 +6.510e-001 +5.860e-001 +5.440e-001 +5.220e-001 +5.210e-001
+5.270e-001 +5.270e-001 +5.090e-001 +4.710e-001 +4.090e-001 +2.950e-001
+1.310e-001 -7.000e-003 -1.050e-001 -1.880e-001 -2.430e-001 -2.650e-001
-2.690e-001 -2.650e-001 -2.620e-001 -2.770e-001 -3.100e-001 -3.720e-001
-4.360e-001 -4.680e-001 -4.810e-001 -4.870e-001 -4.890e-001 -4.890e-001
-4.880e-001
  21.2187     12.49
 160.4547     38.75
  20.8280     24.21
   8.5950     33.07
```

```
   3.0000 10000000000.00
<Date: Tue Jun 17 08:49:32 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: EAST OF  PINALI
<*******************************************************************************
*********
#GEOSEC: 0057-B       /  50.0/  50.0/   1.0/  563346.000/ 3916209.000/
50.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=262.00
S  [V/A]:  +0.000e+000 +6.650e-001 +2.821e+001 +4.487e+001 +5.622e+001
+6.146e+001 +6.299e+001 +6.369e+001 +6.409e+001 +6.367e+001 +6.214e+001
+5.986e+001 +5.608e+001 +5.113e+001 +4.709e+001 +4.407e+001 +4.094e+001
+3.811e+001 +3.622e+001 +3.482e+001 +3.322e+001 +3.143e+001 +2.995e+001
+2.874e+001 +2.735e+001 +2.597e+001 +2.500e+001 +2.425e+001 +2.327e+001
+2.174e+001 +1.990e+001 +1.787e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.960e-001 +6.430e-001
+2.410e-001 +9.700e-002 +5.300e-002 +4.000e-003 -8.800e-002 -1.900e-001
-2.730e-001 -3.420e-001 -3.770e-001 -3.780e-001 -3.630e-001 -3.310e-001
-2.890e-001 -2.610e-001 -2.500e-001 -2.490e-001 -2.570e-001 -2.630e-001
-2.610e-001 -2.480e-001 -2.250e-001 -2.080e-001 -2.110e-001 -2.590e-001
-3.660e-001 -4.500e-001 -4.850e-001
  55.0978      5.46
  58.1643     26.83
  14.1742     51.61
   7.3988     24.95
   3.0000 10000000000.00
<Date: Tue Jun 17 09:19:17 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES, POWER LINES
<Place: EAST OF  PINALI
<*******************************************************************************
*********
#GEOSEC: 0058-B       /  50.0/  50.0/   1.0/  563177.000/ 3916215.000/
64.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=143.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +8.299e+000 +1.692e+001
+2.155e+001 +2.390e+001 +2.564e+001 +2.780e+001 +3.056e+001 +3.307e+001
+3.540e+001 +3.840e+001 +4.191e+001 +4.469e+001 +4.676e+001 +4.882e+001
+5.045e+001 +5.126e+001 +5.169e+001 +5.201e+001 +5.220e+001 +5.225e+001
+5.220e+001 +5.200e+001 +5.157e+001 +5.103e+001 +5.042e+001 +4.946e+001
+4.801e+001 +4.655e+001 +4.518e+001 +4.345e+001 +4.155e+001 +4.020e+001
+3.928e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.990e-001
+6.500e-001 +4.590e-001 +4.120e-001 +4.080e-001 +4.160e-001 +4.220e-001
+4.220e-001 +4.080e-001 +3.730e-001 +3.240e-001 +2.710e-001 +1.990e-001
+1.230e-001 +7.400e-002 +4.700e-002 +2.700e-002 +1.100e-002 -1.000e-003
-1.300e-002 -3.000e-002 -5.300e-002 -7.300e-002 -9.400e-002 -1.240e-001
-1.610e-001 -1.880e-001 -2.040e-001 -2.100e-001 -1.980e-001 -1.710e-001
-1.410e-001
  16.1525      4.94
  73.1381     48.17
  66.5764     20.00
  36.4820    104.77
  20.0000 10000000000.00
<Date: Tue Jun 17 09:45:56 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: EAST OF  PINALI
<*******************************************************************************
*********
#GEOSEC: 0059-B       /  50.0/  50.0/   1.0/  562980.000/ 3916156.000/
55.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=125.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +8.031e+000 +2.010e+001
+2.890e+001 +3.450e+001 +3.891e+001 +4.426e+001 +5.048e+001 +5.570e+001
+6.017e+001 +6.570e+001 +7.208e+001 +7.734e+001 +8.155e+001 +8.615e+001
+9.021e+001 +9.223e+001 +9.285e+001 +9.222e+001 +8.982e+001 +8.682e+001
+8.383e+001 +7.999e+001 +7.571e+001 +7.254e+001 +7.004e+001 +6.715e+001
+6.374e+001 +6.050e+001 +5.722e+001 +5.246e+001 +4.601e+001 +4.021e+001
+3.522e+001
```

```
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.260e-001 +6.890e-001 +6.220e-001 +5.700e-001 +5.230e-001 +4.880e-001
+4.630e-001 +4.340e-001 +4.000e-001 +3.640e-001 +3.250e-001 +2.610e-001
+1.700e-001 +8.400e-002 +8.000e-003 -8.000e-002 -1.630e-001 -2.120e-001
-2.370e-001 -2.480e-001 -2.440e-001 -2.340e-001 -2.270e-001 -2.320e-001
-2.630e-001 -3.110e-001 -3.640e-001 -4.240e-001 -4.690e-001 -4.870e-001
-4.940e-001
  14.3202      3.75
 197.2729     23.54
 122.3601     72.09
  21.4310     94.99
   3.0000 10000000000.00
<Date: Tue Jun 17 10:10:48 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: PINALI
<********************************************************************************
*********
#GEOSEC: 0060-B       /  50.0/  50.0/   1.0/  562752.000/ 3916176.000/
44.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=299.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.061e+001 +3.923e+001 +5.411e+001
+6.507e+001 +7.218e+001 +7.822e+001 +8.620e+001 +9.631e+001 +1.052e+002
+1.128e+002 +1.217e+002 +1.309e+002 +1.370e+002 +1.406e+002 +1.426e+002
+1.414e+002 +1.380e+002 +1.338e+002 +1.279e+002 +1.211e+002 +1.160e+002
+1.119e+002 +1.072e+002 +1.015e+002 +9.668e+001 +9.243e+001 +8.742e+001
+8.220e+001 +7.833e+001 +7.515e+001 +7.113e+001 +6.605e+001 +6.164e+001
+5.803e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.210e-001
+5.820e-001 +4.870e-001 +4.720e-001 +4.730e-001 +4.660e-001 +4.460e-001
+4.180e-001 +3.680e-001 +2.920e-001 +2.120e-001 +1.310e-001 +2.300e-002
-9.700e-002 -1.750e-001 -2.180e-001 -2.410e-001 -2.430e-001 -2.350e-001
-2.310e-001 -2.380e-001 -2.580e-001 -2.760e-001 -2.840e-001 -2.820e-001
-2.700e-001 +2.650e-001 +2.740e-001 -3.010e-001 -3.360e-001 -3.520e-001
-3.570e-001
  20.1825      2.85
 200.0000     20.13
 200.0000     78.75
  40.5518 10000000000.00
<Date: Tue Jun 17 10:44:08 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: PINALI
<********************************************************************************
*********
#GEOSEC: 0061-B       /  50.0/  50.0/   1.0/  562493.000/ 3916069.000/
31.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=397.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.577e+000 +1.188e+001 +1.670e+001
+1.969e+001 +2.156e+001 +2.306e+001 +2.489e+001 +2.716e+001 +2.917e+001
+3.104e+001 +3.349e+001 +3.658e+001 +3.939e+001 +4.190e+001 +4.509e+001
+4.884e+001 +5.191e+001 +5.443e+001 +5.730e+001 +6.016e+001 +6.206e+001
+6.324e+001 +6.407e+001 +6.413e+001 +6.353e+001 +6.263e+001 +6.117e+001
+5.907e+001 +5.690e+001 +5.454e+001 +5.077e+001 +4.502e+001 +3.937e+001
+3.429e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.230e-001
+5.290e-001 +4.250e-001 +3.940e-001 +3.840e-001 +3.830e-001 +3.870e-001
+3.920e-001 +3.970e-001 +4.010e-001 +4.000e-001 +3.940e-001 +3.800e-001
+3.550e-001 +3.280e-001 +3.000e-001 +2.590e-001 +2.050e-001 +1.530e-001
+1.040e-001 +4.200e-002 -2.900e-002 -7.800e-002 -1.130e-001 -1.470e-001
-1.910e-001 -2.440e-001 -3.070e-001 -3.930e-001 -4.640e-001 -4.890e-001
-4.960e-001
  15.8240      4.47
  52.4335     20.00
  93.4409    122.60
  13.9666 10000000000.00
<Date: Tue Jun 17 11:12:27 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST OF RIVER, NOT EAST!!
<Place: NEAR GEROP.RIVER
```

```
<*********************************************************************************
*********
#GEOSEC: 0063-B       /  50.0/  50.0/   1.0/  562120.000/ 3916222.000/
80.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=110.00
S  [V/A]:  +6.364e+000 +1.681e+001 +2.472e+001 +3.034e+001 +3.569e+001
+4.014e+001 +4.272e+001 +4.428e+001 +4.567e+001 +4.680e+001 +4.747e+001
+4.792e+001 +4.835e+001 +4.874e+001 +4.908e+001 +4.944e+001 +5.009e+001
+5.128e+001 +5.274e+001 +5.439e+001 +5.695e+001 +6.064e+001 +6.420e+001
+6.747e+001 +7.157e+001 +7.617e+001 +7.972e+001 +8.260e+001 +8.574e+001
+8.780e+001 +8.652e+001 +8.207e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.690e-001 -7.570e-001 +5.790e-001
+3.900e-001 +2.690e-001 +1.960e-001 +1.380e-001 +9.500e-002 +7.100e-002
+5.600e-002 +4.400e-002 +3.900e-002 +4.500e-002 +6.000e-002 +9.200e-002
+1.400e-001 +1.870e-001 +2.290e-001 +2.740e-001 +3.120e-001 +3.280e-001
+3.270e-001 +3.090e-001 +2.780e-001 +2.520e-001 +2.260e-001 +1.660e-001
+5.000e-003 -2.250e-001 -3.950e-001
  21.1366      2.02
  56.2943     62.87
 200.0000    150.00
  20.3267 10000000000.00
<Date: Tue Jun 17 12:10:01 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST OF RIVER
<Place: NEAR GEROP.RIVER
<*********************************************************************************
*********
#GEOSEC: 0064-B       /  50.0/  50.0/   1.0/  561965.000/ 3916388.000/
84.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=174.00
S  [V/A]:  +0.000e+000 +1.190e+000 +1.215e+001 +1.975e+001 +2.638e+001
+3.159e+001 +3.456e+001 +3.636e+001 +3.778e+001 +3.858e+001 +3.878e+001
+3.877e+001 +3.864e+001 +3.854e+001 +3.856e+001 +3.869e+001 +3.902e+001
+3.972e+001 +4.058e+001 +4.155e+001 +4.301e+001 +4.499e+001 +4.675e+001
+4.817e+001 +4.961e+001 +5.057e+001 +5.068e+001 +5.032e+001 +4.949e+001
+4.828e+001 +4.725e+001 +4.640e+001 +4.527e+001 +4.352e+001 +4.133e+001
+3.873e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +7.960e-001
+5.490e-001 +3.760e-001 +2.620e-001 +1.510e-001 +5.900e-002 +1.200e-002
-9.000e-003 -1.500e-002 -5.000e-003 +1.400e-002 +3.400e-002 +6.500e-002
+1.070e-001 +1.440e-001 +1.740e-001 +2.040e-001 +2.200e-001 +2.120e-001
+1.870e-001 +1.320e-001 +4.900e-002 -2.100e-002 -6.900e-002 -1.060e-001
-1.220e-001 -1.250e-001 -1.300e-001 -1.600e-001 -2.390e-001 -3.340e-001
-4.060e-001
  19.5705      2.00
  43.4457     66.20
  96.8397     64.42
  10.1122     88.82
   1.0000 10000000000.00
<Date: Tue Jun 17 12:44:35 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST OF GEROP. RIVER
<Place: EAST OF DALAMPELOS
<*********************************************************************************
*********
#GEOSEC: 0065-B       /  50.0/  50.0/   1.0/  561770.000/ 3916504.000/
78.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 97.00
S  [V/A]:  +0.000e+000 +0.000e+000 +7.918e+000 +2.011e+001 +2.845e+001
+3.336e+001 +3.582e+001 +3.738e+001 +3.881e+001 +3.995e+001 +4.062e+001
+4.108e+001 +4.164e+001 +4.235e+001 +4.300e+001 +4.359e+001 +4.431e+001
+4.515e+001 +4.584e+001 +4.642e+001 +4.707e+001 +4.758e+001 +4.764e+001
+4.733e+001 +4.643e+001 +4.472e+001 +4.293e+001 +4.120e+001 +3.895e+001
+3.622e+001 +3.384e+001 +3.169e+001 +2.895e+001 +2.572e+001 +2.314e+001
+2.111e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.250e-001
+4.780e-001 +3.100e-001 +2.330e-001 +1.660e-001 +1.120e-001 +8.300e-002
+7.400e-002 +7.700e-002 +8.400e-002 +9.000e-002 +9.200e-002 +9.100e-002
+8.900e-002 +8.700e-002 +8.200e-002 +6.600e-002 +2.800e-002 -2.100e-002
-7.300e-002 -1.400e-001 -2.060e-001 -2.480e-001 -2.740e-001 -3.010e-001
-3.320e-001 -3.620e-001 -3.880e-001 -4.170e-001 -4.380e-001 -4.470e-001
```

```
-4.500e-001
  17.6510      2.00
  48.5949     56.89
  35.3990     46.87
   7.2875     50.36
   2.3489 10000000000.00
<Date: Tue Jun 17 13:09:47 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST OF GEROP. RIVER
<Place: EAST OF DALAMPELOS
<*******************************************************************************
*********
#GEOSEC: 0066-B       /  50.0/  50.0/   1.0/  561501.000/ 3916675.000/
61.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=149.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +8.214e+000 +1.414e+001
+1.698e+001 +1.801e+001 +1.849e+001 +1.881e+001 +1.904e+001 +1.923e+001
+1.948e+001 +1.986e+001 +2.048e+001 +2.109e+001 +2.167e+001 +2.242e+001
+2.333e+001 +2.413e+001 +2.483e+001 +2.572e+001 +2.675e+001 +2.758e+001
+2.823e+001 +2.896e+001 +2.976e+001 +3.045e+001 +3.114e+001 +3.220e+001
+3.378e+001 +3.536e+001 +3.677e+001 +3.826e+001 +3.907e+001 +3.872e+001
+3.779e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.910e-001
+4.860e-001 +2.300e-001 +1.320e-001 +7.400e-002 +5.600e-002 +7.100e-002
+9.500e-002 +1.240e-001 +1.570e-001 +1.760e-001 +1.850e-001 +1.890e-001
+1.920e-001 +1.940e-001 +1.950e-001 +1.930e-001 +1.830e-001 +1.680e-001
+1.530e-001 +1.380e-001 +1.340e-001 +1.460e-001 +1.690e-001 +2.080e-001
+2.490e-001 +2.640e-001 +2.450e-001 +1.670e-001 +1.800e-002 -1.130e-001
-2.100e-001
  11.4146      2.00
  24.5750     34.79
  59.6746     38.84
  31.6858    150.00
   2.0000 10000000000.00
<Date: Tue Jun 17 13:38:34 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: DALAMPELOS
<*******************************************************************************
*********
#GEOSEC: 0067-C       /  50.0/  50.0/   1.0/  561458.000/ 3916500.000/
68.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=326.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.941e+000 +1.229e+001 +1.954e+001
+2.351e+001 +2.529e+001 +2.636e+001 +2.738e+001 +2.841e+001 +2.934e+001
+3.028e+001 +3.170e+001 +3.370e+001 +3.559e+001 +3.721e+001 +3.903e+001
+4.066e+001 +4.146e+001 +4.176e+001 +4.163e+001 +4.084e+001 +3.969e+001
+3.838e+001 +3.644e+001 +3.383e+001 +3.155e+001 +2.953e+001 +2.699e+001
+2.400e+001 +2.147e+001 +1.929e+001 +1.668e+001 +1.390e+001 +1.187e+001
+1.037e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.780e-001
+5.200e-001 +3.110e-001 +2.300e-001 +1.840e-001 +1.750e-001 +1.950e-001
+2.240e-001 +2.640e-001 +2.950e-001 +2.990e-001 +2.800e-001 +2.300e-001
+1.510e-001 +7.900e-002 +1.900e-002 -5.200e-002 -1.320e-001 -1.940e-001
-2.430e-001 -2.930e-001 -3.380e-001 -3.670e-001 -3.880e-001 -4.140e-001
-4.440e-001 -4.640e-001 -4.770e-001 -4.870e-001 -4.910e-001 -4.920e-001
-4.930e-001
  12.0191      2.00
  41.2793     45.38
  52.2497     24.68
   5.5161     27.48
   2.0000 10000000000.00
<Date: Wed Jun 18 07:03:01 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: DALAMPELOS
<*******************************************************************************
*********
#GEOSEC: 0068-B       /  50.0/  50.0/   1.0/  561139.000/ 3916394.000/
64.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=361.00
```

```
S  [V/A]:  +0.000e+000 +0.000e+000 +4.229e+000 +1.552e+001 +2.333e+001
+2.792e+001 +3.043e+001 +3.224e+001 +3.429e+001 +3.654e+001 +3.839e+001
+3.994e+001 +4.180e+001 +4.384e+001 +4.542e+001 +4.659e+001 +4.777e+001
+4.872e+001 +4.918e+001 +4.934e+001 +4.928e+001 +4.891e+001 +4.841e+001
+4.792e+001 +4.734e+001 +4.690e+001 +4.684e+001 +4.708e+001 +4.775e+001
+4.895e+001 +5.013e+001 +5.111e+001 +5.202e+001 +5.228e+001 +5.163e+001
+5.037e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.610e-001
+5.400e-001 +3.880e-001 +3.350e-001 +3.020e-001 +2.780e-001 +2.640e-001
+2.520e-001 +2.350e-001 +2.110e-001 +1.850e-001 +1.570e-001 +1.180e-001
+7.300e-002 +3.700e-002 +9.000e-003 -2.100e-002 -5.000e-002 -6.600e-002
-6.900e-002 -5.800e-002 -2.400e-002 +1.600e-002 +5.500e-002 +9.900e-002
+1.320e-001 +1.370e-001 +1.180e-001 +6.500e-002 -2.900e-002 -1.240e-001
-2.050e-001
  15.6824      2.00
  46.9240     20.00
  60.6122     59.72
  32.8465    150.00
   2.0000 10000000000.00
<Date: Wed Jun 18 07:43:14 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINES
<Place: DALAMPELOS
<********************************************************************************
*********
#GEOSEC: 0069-B       /  50.0/  50.0/   1.0/  560965.000/ 3916317.000/
78.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=171.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.603e+000 +1.743e+001 +2.214e+001
+2.374e+001 +2.409e+001 +2.417e+001 +2.428e+001 +2.453e+001 +2.491e+001
+2.542e+001 +2.630e+001 +2.764e+001 +2.899e+001 +3.025e+001 +3.184e+001
+3.359e+001 +3.491e+001 +3.588e+001 +3.690e+001 +3.781e+001 +3.838e+001
+3.875e+001 +3.908e+001 +3.937e+001 +3.961e+001 +3.993e+001 +4.057e+001
+4.180e+001 +4.324e+001 +4.460e+001 +4.597e+001 +4.622e+001 +4.476e+001
+4.246e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.410e-001
+1.770e-001 +4.600e-002 +2.300e-002 +3.500e-002 +6.900e-002 +1.120e-001
+1.560e-001 +2.070e-001 +2.530e-001 +2.760e-001 +2.800e-001 +2.660e-001
+2.360e-001 +2.030e-001 +1.730e-001 +1.380e-001 +1.020e-001 +7.600e-002
+5.800e-002 +4.200e-002 +3.700e-002 +4.700e-002 +7.000e-002 +1.160e-001
+1.740e-001 +2.050e-001 +1.930e-001 +1.040e-001 -9.100e-002 -2.630e-001
-3.700e-001
  18.1266      2.00
  28.3629     20.09
  55.3806     62.95
  32.0194    150.00
   2.0000 10000000000.00
<Date: Wed Jun 18 08:09:05 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: DALAMPELOS
<********************************************************************************
*********
#GEOSEC: 0070-B       /  50.0/  50.0/   1.0/  560622.000/ 3916381.000/
64.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=165.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.029e+001 +2.638e+001 +3.810e+001
+4.544e+001 +4.926e+001 +5.188e+001 +5.462e+001 +5.721e+001 +5.889e+001
+6.000e+001 +6.101e+001 +6.183e+001 +6.231e+001 +6.254e+001 +6.259e+001
+6.221e+001 +6.150e+001 +6.063e+001 +5.938e+001 +5.794e+001 +5.695e+001
+5.634e+001 +5.589e+001 +5.573e+001 +5.581e+001 +5.604e+001 +5.657e+001
+5.756e+001 +5.852e+001 +5.910e+001 +5.873e+001 +5.575e+001 +5.114e+001
+4.631e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.430e-001
+5.240e-001 +3.590e-001 +2.940e-001 +2.400e-001 +1.840e-001 +1.410e-001
+1.090e-001 +7.800e-002 +5.300e-002 +3.400e-002 +1.600e-002 -1.100e-002
-5.000e-002 -8.300e-002 -1.050e-001 -1.170e-001 -1.080e-001 -8.600e-002
-6.100e-002 -3.100e-002 -1.000e-003 +2.000e-002 +4.000e-002 +6.800e-002
+9.200e-002 +8.200e-002 +2.100e-002 -1.350e-001 -3.410e-001 -4.390e-001
-4.760e-001
```

```
  16.8642      2.00
  78.3593     45.80
  42.5829    126.87
  24.0580     57.40
   2.1898 10000000000.00
<Date: Wed Jun 18 08:45:33 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR THE STREET
<Place: BETWEEN G-12 AND G-17
<*****************************************************************************
*********
#GEOSEC: 0071-B       /  50.0/  50.0/   1.0/  560323.000/ 3916769.000/
83.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=2014.00
S  [V/A]:  +0.000e+000 +2.317e+001 +4.562e+001 +6.360e+001 +8.636e+001
+1.168e+002 +1.468e+002 +1.757e+002 +2.131e+002 +2.523e+002 +2.750e+002
+2.847e+002 +2.859e+002 +2.777e+002 +2.665e+002 +2.554e+002 +2.406e+002
+2.228e+002 +2.078e+002 +1.951e+002 +1.794e+002 +1.608e+002 +1.452e+002
+1.319e+002 +1.163e+002 +9.979e+001 +8.815e+001 +7.955e+001 +7.078e+001
+6.281e+001 +5.765e+001 +5.406e+001 +5.040e+001 +4.672e+001 +4.373e+001
+4.097e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.880e-001 +8.590e-001
+8.340e-001 +8.140e-001 +7.880e-001 +7.180e-001 +5.520e-001 +3.340e-001
+1.370e-001 -5.300e-002 -1.850e-001 -2.480e-001 -2.820e-001 -3.120e-001
-3.380e-001 -3.560e-001 -3.730e-001 -3.970e-001 -4.270e-001 -4.470e-001
-4.600e-001 -4.690e-001 -4.710e-001 -4.680e-001 -4.610e-001 -4.450e-001
-4.160e-001 -3.850e-001 -3.580e-001 -3.350e-001 -3.330e-001 -3.580e-001
-3.870e-001
 100.0000      2.00
 200.0000    107.49
  18.4844     33.96
   9.0500     81.58
   2.0000 10000000000.00
<Date: Wed Jun 18 10:09:54 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR A CLIFF, NOT SQUARE
<Place: NORTH OF G-17
<*****************************************************************************
*********
#GEOSEC: 0072-B       /  50.0/  50.0/   1.0/  560625.000/ 3916834.000/
66.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=341.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +8.044e+000 +1.575e+001
+2.093e+001 +2.416e+001 +2.673e+001 +3.001e+001 +3.416e+001 +3.806e+001
+4.180e+001 +4.696e+001 +5.368e+001 +5.993e+001 +6.560e+001 +7.283e+001
+8.111e+001 +8.738e+001 +9.189e+001 +9.599e+001 +9.852e+001 +9.898e+001
+9.846e+001 +9.704e+001 +9.461e+001 +9.197e+001 +8.901e+001 +8.421e+001
+7.688e+001 +6.969e+001 +6.325e+001 +5.563e+001 +4.781e+001 +4.235e+001
+3.841e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.990e-001
+7.470e-001 +6.040e-001 +5.580e-001 +5.420e-001 +5.420e-001 +5.500e-001
+5.590e-001 +5.650e-001 +5.640e-001 +5.550e-001 +5.390e-001 +5.050e-001
+4.430e-001 +3.700e-001 +2.920e-001 +1.880e-001 +7.200e-002 -7.000e-003
-5.600e-002 -1.000e-001 -1.450e-001 -1.920e-001 -2.480e-001 -3.280e-001
-4.060e-001 -4.460e-001 -4.630e-001 -4.700e-001 -4.690e-001 -4.620e-001
-4.530e-001
   6.7305      2.00
 151.6678    129.79
  20.9453     93.90
   2.5140     20.00
  28.6109 10000000000.00
<Date: Wed Jun 18 10:41:38 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR A CLIFF
<Place: EAST OF 0071
<*****************************************************************************
*********
#GEOSEC: 0073-B       /  50.0/  50.0/   1.0/  560893.000/ 3916712.000/
64.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=858.00
```

```
S  [V/A]:  +0.000e+000 +0.000e+000 +9.861e+000 +2.027e+001 +2.656e+001
+2.957e+001 +3.082e+001 +3.154e+001 +3.224e+001 +3.291e+001 +3.342e+001
+3.389e+001 +3.455e+001 +3.547e+001 +3.639e+001 +3.727e+001 +3.848e+001
+4.007e+001 +4.159e+001 +4.308e+001 +4.522e+001 +4.825e+001 +5.130e+001
+5.430e+001 +5.830e+001 +6.287e+001 +6.585e+001 +6.742e+001 +6.783e+001
+6.648e+001 +6.423e+001 +6.161e+001 +5.742e+001 +5.097e+001 +4.445e+001
+3.847e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.220e-001
+3.190e-001 +1.780e-001 +1.320e-001 +1.050e-001 +9.100e-002 +9.000e-002
+9.800e-002 +1.140e-001 +1.360e-001 +1.540e-001 +1.680e-001 +1.840e-001
+2.050e-001 +2.270e-001 +2.500e-001 +2.850e-001 +3.290e-001 +3.610e-001
+3.770e-001 +3.680e-001 +3.070e-001 +2.120e-001 +1.050e-001 -2.700e-002
-1.520e-001 -2.340e-001 -3.030e-001 -3.910e-001 -4.650e-001 -4.910e-001
-4.980e-001
  10.6877      2.00
  55.8794    144.89
  43.6136     47.37
   2.4357     20.00
   3.0241 10000000000.00
<Date: Wed Jun 18 11:08:34 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 500M EAST OF DALAMPELOS
<Place: 500M WEST OF G-17
<*******************************************************************************
*********
#GEOSEC: 0074-B       /  50.0/  50.0/   1.0/  561082.000/ 3916797.000/
49.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=272.00
S  [V/A]:  +0.000e+000 +0.000e+000 +9.383e+000 +2.463e+001 +3.538e+001
+4.193e+001 +4.546e+001 +4.800e+001 +5.086e+001 +5.399e+001 +5.656e+001
+5.886e+001 +6.201e+001 +6.622e+001 +7.024e+001 +7.389e+001 +7.856e+001
+8.400e+001 +8.848e+001 +9.225e+001 +9.669e+001 +1.011e+002 +1.034e+002
+1.041e+002 +1.031e+002 +9.971e+001 +9.535e+001 +9.053e+001 +8.333e+001
+7.358e+001 +6.504e+001 +5.804e+001 +5.041e+001 +4.326e+001 +3.873e+001
+3.577e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.380e-001
+5.150e-001 +3.670e-001 +3.160e-001 +2.840e-001 +2.620e-001 +2.580e-001
+2.680e-001 +2.900e-001 +3.170e-001 +3.300e-001 +3.310e-001 +3.220e-001
+3.040e-001 +2.870e-001 +2.700e-001 +2.370e-001 +1.700e-001 +8.700e-002
+2.000e-003 -1.030e-001 -2.110e-001 -2.870e-001 -3.490e-001 -4.130e-001
-4.580e-001 -4.750e-001 -4.790e-001 -4.770e-001 -4.630e-001 -4.370e-001
-3.990e-001
  11.9304      2.00
 106.4152    140.15
   9.2766     30.06
   3.6162     30.60
   2.0000 10000000000.00
<Date: Wed Jun 18 11:33:54 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: 350M NW OF DALAMPELOS
<*******************************************************************************
*********
#GEOSEC: 0075-C       /  50.0/  50.0/   1.0/  561203.000/ 3916866.000/
50.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=493.00
S  [V/A]:  +0.000e+000 +3.783e+000 +2.204e+001 +3.330e+001 +4.237e+001
+4.863e+001 +5.162e+001 +5.312e+001 +5.416e+001 +5.476e+001 +5.516e+001
+5.566e+001 +5.662e+001 +5.846e+001 +6.072e+001 +6.322e+001 +6.700e+001
+7.222e+001 +7.694e+001 +8.095e+001 +8.545e+001 +8.966e+001 +9.224e+001
+9.378e+001 +9.469e+001 +9.392e+001 +9.126e+001 +8.733e+001 +8.070e+001
+7.160e+001 +6.387e+001 +5.763e+001 +5.077e+001 +4.399e+001 +3.919e+001
+3.555e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.920e-001 +7.160e-001
+4.170e-001 +2.400e-001 +1.450e-001 +7.800e-002 +4.600e-002 +5.100e-002
+7.500e-002 +1.210e-001 +1.860e-001 +2.440e-001 +2.880e-001 +3.300e-001
+3.520e-001 +3.450e-001 +3.180e-001 +2.660e-001 +1.950e-001 +1.370e-001
+8.700e-002 +1.100e-002 -1.110e-001 -2.290e-001 -3.230e-001 -4.030e-001
-4.480e-001 -4.620e-001 -4.660e-001 -4.660e-001 -4.620e-001 -4.590e-001
-4.570e-001
```

```
  15.0089      2.00
  86.9415    146.04
  11.1226     20.00
   3.4503     40.19
   2.0000 10000000000.00
<Date: Wed Jun 18 12:07:08 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: 350M NW OF DALAMPELOS
<*******************************************************************************
*********
#GEOSEC: 0076-B       /  50.0/  50.0/   1.0/  561450.000/ 3917062.000/
54.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=1212.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.766e+000 +1.522e+001 +2.122e+001
+2.409e+001 +2.506e+001 +2.542e+001 +2.548e+001 +2.537e+001 +2.531e+001
+2.535e+001 +2.562e+001 +2.622e+001 +2.697e+001 +2.776e+001 +2.888e+001
+3.032e+001 +3.163e+001 +3.281e+001 +3.434e+001 +3.627e+001 +3.805e+001
+3.973e+001 +4.203e+001 +4.501e+001 +4.759e+001 +4.973e+001 +5.192e+001
+5.317e+001 +5.259e+001 +5.080e+001 +4.721e+001 +4.199e+001 +3.758e+001
+3.412e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.960e-001
+3.480e-001 +1.430e-001 +5.500e-002 -2.000e-003 -1.700e-002 -1.000e-003
+3.100e-002 +8.300e-002 +1.380e-001 +1.780e-001 +2.040e-001 +2.240e-001
+2.380e-001 +2.440e-001 +2.490e-001 +2.560e-001 +2.690e-001 +2.830e-001
+2.980e-001 +3.140e-001 +3.210e-001 +3.070e-001 +2.710e-001 +1.820e-001
+1.800e-002 -1.550e-001 -2.900e-001 -3.920e-001 -4.430e-001 -4.550e-001
-4.580e-001
  12.1166      2.00
  41.5138    150.00
  41.5138     20.60
   2.5419     20.00
   2.0000 10000000000.00
<Date: Wed Jun 18 12:57:31 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: 300M SW OF G-52
<*******************************************************************************
*********
#GEOSEC: 0077-B       /  50.0/  50.0/   1.0/  561665.000/ 3916979.000/
48.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=315.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.456e+001 +2.983e+001 +3.859e+001
+4.109e+001 +4.070e+001 +3.990e+001 +3.879e+001 +3.763e+001 +3.688e+001
+3.645e+001 +3.624e+001 +3.635e+001 +3.669e+001 +3.710e+001 +3.770e+001
+3.847e+001 +3.917e+001 +3.977e+001 +4.050e+001 +4.122e+001 +4.165e+001
+4.186e+001 +4.195e+001 +4.196e+001 +4.198e+001 +4.207e+001 +4.224e+001
+4.244e+001 +4.249e+001 +4.238e+001 +4.198e+001 +4.103e+001 +3.962e+001
+3.777e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.600e-001
+9.400e-002 -9.100e-002 -1.340e-001 -1.420e-001 -1.240e-001 -9.300e-002
-5.700e-002 -1.000e-002 +3.600e-002 +6.600e-002 +8.200e-002 +9.300e-002
+1.010e-001 +1.040e-001 +1.030e-001 +9.400e-002 +7.200e-002 +4.700e-002
+2.500e-002 +7.000e-003 +2.000e-003 +9.000e-003 +1.800e-002 +2.300e-002
+1.400e-002 -6.000e-003 -3.400e-002 -8.000e-002 -1.600e-001 -2.550e-001
-3.380e-001
  31.0186      2.00
  40.0130    150.00
  11.5368     20.00
  16.7337     52.40
   2.0000 10000000000.00
<Date: Wed Jun 18 13:22:23 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: 400M SOUTH OF G-52
<*******************************************************************************
*********
#GEOSEC: 0078-B       /  50.0/  50.0/   1.0/  561881.000/ 3916972.000/
43.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=997.00
```

```
S  [V/A]:  +1.155e+001 +8.392e+000 +8.213e+000 +8.796e+000 +9.742e+000
+1.066e+001 +1.113e+001 +1.135e+001 +1.149e+001 +1.170e+001 +1.198e+001
+1.235e+001 +1.294e+001 +1.381e+001 +1.470e+001 +1.556e+001 +1.672e+001
+1.820e+001 +1.953e+001 +2.071e+001 +2.222e+001 +2.400e+001 +2.548e+001
+2.673e+001 +2.820e+001 +2.981e+001 +3.102e+001 +3.199e+001 +3.309e+001
+3.427e+001 +3.521e+001 +3.597e+001 +3.679e+001 +3.741e+001 +3.744e+001
+3.694e+001
Err[V/A]:  +5.000e-001 +4.300e-001 -1.670e-001 -4.160e-001 +4.200e-001
+2.920e-001 +1.700e-001 +9.900e-002 +7.300e-002 +1.090e-001 +1.690e-001
+2.220e-001 +2.750e-001 +3.270e-001 +3.590e-001 +3.750e-001 +3.850e-001
+3.900e-001 +3.870e-001 +3.810e-001 +3.690e-001 +3.490e-001 +3.280e-001
+3.080e-001 +2.800e-001 +2.470e-001 +2.200e-001 +2.000e-001 +1.800e-001
+1.640e-001 +1.520e-001 +1.380e-001 +1.060e-001 +4.000e-002 -4.700e-002
-1.340e-001
   3.9193      2.00
  37.7310    149.99
  37.7310     34.79
  10.4923     44.30
   2.0000 10000000000.00
<Date: Wed Jun 18 13:45:51 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: 470M SW OF G-53
<*******************************************************************************
*********
#GEOSEC: 0079-B       /  50.0/  50.0/   1.0/  562099.000/ 3916959.000/
49.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=189.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +7.133e+000 +1.332e+001
+1.678e+001 +1.793e+001 +1.824e+001 +1.811e+001 +1.771e+001 +1.735e+001
+1.713e+001 +1.699e+001 +1.707e+001 +1.733e+001 +1.771e+001 +1.837e+001
+1.945e+001 +2.064e+001 +2.188e+001 +2.371e+001 +2.627e+001 +2.873e+001
+3.103e+001 +3.396e+001 +3.729e+001 +3.972e+001 +4.142e+001 +4.287e+001
+4.346e+001 +4.302e+001 +4.202e+001 +4.009e+001 +3.706e+001 +3.400e+001
+3.104e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.980e-001
+5.680e-001 +2.170e-001 +4.300e-002 -6.900e-002 -1.080e-001 -9.800e-002
-6.700e-002 -1.400e-002 +5.800e-002 +1.190e-001 +1.710e-001 +2.340e-001
+3.050e-001 +3.590e-001 +4.010e-001 +4.430e-001 +4.760e-001 +4.870e-001
+4.800e-001 +4.510e-001 +3.900e-001 +3.190e-001 +2.430e-001 +1.340e-001
-2.000e-003 -1.150e-001 -2.010e-001 -2.910e-001 -3.750e-001 -4.280e-001
-4.600e-001
  18.1162     29.90
 200.0000    102.20
   7.8758     66.21
   1.9685 10000000000.00
<Date: Wed Jun 18 14:19:09 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: 250M SW OF G-53
<*******************************************************************************
*********
#GEOSEC: 0080-C       /  50.0/  50.0/   1.0/  562236.000/ 3917140.000/
73.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=1143.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.447e+001 +3.008e+001 +4.836e+001
+7.116e+001 +9.270e+001 +1.126e+002 +1.369e+002 +1.604e+002 +1.734e+002
+1.794e+002 +1.814e+002 +1.785e+002 +1.729e+002 +1.663e+002 +1.563e+002
+1.435e+002 +1.331e+002 +1.251e+002 +1.170e+002 +1.101e+002 +1.064e+002
+1.044e+002 +1.032e+002 +1.027e+002 +1.023e+002 +1.013e+002 +9.865e+001
+9.297e+001 +8.627e+001 +7.950e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.970e-001
+8.740e-001 +8.450e-001 +8.050e-001 +7.110e-001 +5.180e-001 +3.130e-001
+1.500e-001 -4.000e-003 -1.320e-001 -2.160e-001 -2.750e-001 -3.290e-001
-3.610e-001 -3.630e-001 -3.460e-001 -3.040e-001 -2.310e-001 -1.590e-001
-1.000e-001 -4.600e-002 -2.300e-002 -4.600e-002 -1.030e-001 -2.060e-001
-3.270e-001 -4.020e-001 -4.440e-001
  67.2915      6.82
 200.0000     79.16
```

```
  28.7930    101.64
   1.0000 10000000000.00
<Date: Thu Jun 19 07:10:14 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN THE OLIVE TREES
<Place: 150M SOUTH OF G-53
<*******************************************************************************
*********
#GEOSEC: 0081-C       /  50.0/  50.0/   1.0/  562488.000/ 3917030.000/
70.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=383.00
S  [V/A]:  +0.000e+000 +1.103e+001 +5.330e+001 +8.887e+001 +1.333e+002
+1.804e+002 +2.113e+002 +2.312e+002 +2.472e+002 +2.538e+002 +2.502e+002
+2.422e+002 +2.292e+002 +2.128e+002 +1.993e+002 +1.885e+002 +1.763e+002
+1.638e+002 +1.546e+002 +1.474e+002 +1.392e+002 +1.302e+002 +1.231e+002
+1.174e+002 +1.112e+002 +1.051e+002 +1.013e+002 +9.852e+001 +9.539e+001
+9.126e+001 +8.678e+001 +8.204e+001 +7.540e+001 +6.737e+001 +6.106e+001
+5.617e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.850e-001
+7.770e-001 +6.020e-001 +4.410e-001 +2.410e-001 +1.000e-002 -1.500e-001
-2.390e-001 -2.950e-001 -3.220e-001 -3.290e-001 -3.280e-001 -3.210e-001
-3.090e-001 -2.990e-001 -2.930e-001 -2.920e-001 -2.950e-001 -2.960e-001
-2.890e-001 -2.680e-001 -2.300e-001 -1.970e-001 -1.810e-001 -1.910e-001
-2.450e-001 -3.090e-001 -3.610e-001 -4.030e-001 -4.260e-001 -4.300e-001
-4.290e-001
  40.4686      3.50
 500.0001     62.22
  57.4491    150.00
  20.9724 10000000000.00
<Date: Thu Jun 19 08:00:27 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ON A HARDROCK FLOOR!NOT SQUARE
<Place: 150M SE OF G-53
<*******************************************************************************
*********
#GEOSEC: 0082-B       /  50.0/  50.0/   1.0/  562651.000/ 3917075.000/
66.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=642.00
S  [V/A]:  +0.000e+000 +1.270e+001 +5.803e+001 +9.966e+001 +1.589e+002
+2.324e+002 +2.835e+002 +3.123e+002 +3.279e+002 +3.240e+002 +3.088e+002
+2.911e+002 +2.674e+002 +2.407e+002 +2.203e+002 +2.048e+002 +1.879e+002
+1.707e+002 +1.579e+002 +1.477e+002 +1.360e+002 +1.237e+002 +1.145e+002
+1.076e+002 +1.005e+002 +9.405e+001 +9.014e+001 +8.751e+001 +8.481e+001
+8.168e+001 +7.854e+001 +7.529e+001 +7.067e+001 +6.495e+001 +6.038e+001
+5.688e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.960e-001
+8.460e-001 +6.740e-001 +4.250e-001 +1.110e-001 -1.690e-001 -3.010e-001
-3.580e-001 -3.890e-001 -4.000e-001 -3.980e-001 -3.920e-001 -3.840e-001
-3.780e-001 -3.760e-001 -3.780e-001 -3.800e-001 -3.770e-001 -3.670e-001
-3.500e-001 -3.150e-001 -2.620e-001 -2.160e-001 -1.860e-001 -1.750e-001
-2.010e-001 -2.470e-001 -2.920e-001 -3.340e-001 -3.580e-001 -3.570e-001
-3.470e-001
  51.8232      3.39
 500.0001     68.35
  44.7231    150.00
  24.7919 10000000000.00
<Date: Thu Jun 19 08:30:32 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: HARDROCK FLOOR! NOT SQUARE
<Place: 90M N & 190M S OF GEROP.RIVER
<*******************************************************************************
*********
#GEOSEC: 0083-B       /  50.0/  50.0/   1.0/  562805.000/ 3917132.000/
24.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=111.00
S  [V/A]:  +1.513e+001 +3.591e+001 +4.159e+001 +4.128e+001 +3.816e+001
+3.388e+001 +3.076e+001 +2.854e+001 +2.634e+001 +2.445e+001 +2.333e+001
+2.267e+001 +2.220e+001 +2.204e+001 +2.220e+001 +2.250e+001 +2.307e+001
+2.396e+001 +2.484e+001 +2.565e+001 +2.669e+001 +2.785e+001 +2.875e+001
+2.946e+001 +3.024e+001 +3.104e+001 +3.163e+001 +3.207e+001 +3.251e+001
+3.281e+001 +3.289e+001 +3.285e+001 +3.266e+001 +3.218e+001 +3.130e+001
```

```
+2.991e+001
Err[V/A]:  -9.000e-001 -8.920e-001 -2.860e-001 +1.910e-001 -3.700e-001
-4.040e-001 -3.940e-001 -3.730e-001 -3.340e-001 -2.750e-001 -2.130e-001
-1.530e-001 -7.700e-002 +7.000e-003 +6.800e-002 +1.130e-001 +1.590e-001
+1.960e-001 +2.130e-001 +2.180e-001 +2.120e-001 +1.950e-001 +1.750e-001
+1.570e-001 +1.370e-001 +1.180e-001 +1.030e-001 +8.700e-002 +6.200e-002
+2.900e-002 +2.000e-003 -2.000e-002 -5.100e-002 -1.210e-001 -2.310e-001
-3.330e-001
  55.0421      5.85
  17.1456     20.00
  54.2569     64.58
  26.9420 10000000000.00
<Date: Thu Jun 19 10:06:55 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: HARDROCK FLOOR! NOT SQUARE
<Place: NEXT TO RIVER, NEXT TO KATSIGA
<*******************************************************************************
*********
#GEOSEC: 0085-B       /  50.0/  50.0/   1.0/  563018.000/ 3917072.000/
25.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=117.00
S  [V/A]:  +0.000e+000 +8.881e+000 +3.022e+001 +3.729e+001 +3.668e+001
+3.151e+001 +2.730e+001 +2.439e+001 +2.169e+001 +1.943e+001 +1.808e+001
+1.720e+001 +1.645e+001 +1.591e+001 +1.572e+001 +1.569e+001 +1.581e+001
+1.607e+001 +1.635e+001 +1.662e+001 +1.696e+001 +1.740e+001 +1.784e+001
+1.832e+001 +1.908e+001 +2.019e+001 +2.125e+001 +2.219e+001 +2.326e+001
+2.411e+001 +2.441e+001 +2.440e+001 +2.419e+001 +2.384e+001 +2.342e+001
+2.276e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -5.510e-001 -3.130e-001
-4.670e-001 -4.710e-001 -4.570e-001 -4.250e-001 -3.740e-001 -3.210e-001
-2.680e-001 -1.960e-001 -1.090e-001 -3.900e-002 +1.100e-002 +5.900e-002
+9.200e-002 +1.060e-001 +1.110e-001 +1.180e-001 +1.370e-001 +1.670e-001
+2.000e-001 +2.440e-001 +2.840e-001 +2.950e-001 +2.780e-001 +2.210e-001
+1.190e-001 +3.100e-002 -2.400e-002 -5.900e-002 -8.900e-002 -1.530e-001
-2.300e-001
 100.0000      4.70
  11.8527     20.00
  31.6606    123.65
   5.3361     64.88
   3.0000 10000000000.00
<Date: Thu Jun 19 11:16:11 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST TO THE RIVER
<Place: WE CROSSED GEROP.RIVER
<*******************************************************************************
*********
#GEOSEC: 0086-B       /  50.0/  50.0/   1.0/  563239.000/ 3917178.000/
28.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=151.00
S  [V/A]:  +0.000e+000 +1.648e+001 +2.684e+001 +3.069e+001 +3.196e+001
+3.128e+001 +2.999e+001 +2.860e+001 +2.677e+001 +2.469e+001 +2.317e+001
+2.208e+001 +2.100e+001 +2.011e+001 +1.961e+001 +1.933e+001 +1.916e+001
+1.919e+001 +1.941e+001 +1.970e+001 +2.022e+001 +2.094e+001 +2.159e+001
+2.211e+001 +2.264e+001 +2.298e+001 +2.297e+001 +2.275e+001 +2.220e+001
+2.118e+001 +2.002e+001 +1.885e+001 +1.725e+001 +1.536e+001 +1.390e+001
+1.281e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.690e-001 -4.690e-001 +6.000e-002
-1.610e-001 -2.480e-001 -2.910e-001 -3.180e-001 -3.220e-001 -3.030e-001
-2.740e-001 -2.290e-001 -1.680e-001 -1.170e-001 -7.500e-002 -2.200e-002
+3.900e-002 +8.600e-002 +1.220e-001 +1.560e-001 +1.750e-001 +1.700e-001
+1.490e-001 +1.040e-001 +3.200e-002 -3.600e-002 -9.800e-002 -1.760e-001
-2.640e-001 -3.300e-001 -3.760e-001 -4.120e-001 -4.310e-001 -4.290e-001
-4.210e-001
  49.4011      5.67
  15.8071     25.24
  27.7902     65.90
   4.0581     88.79
  20.0000 10000000000.00
<Date: Thu Jun 19 11:43:27 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
```

```
<Remark: 300M EAST OF THE RIVER
<Place: 600M SOUTH OF ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0087-B       /  50.0/  50.0/   1.0/  563448.000/ 3917197.000/
52.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=251.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.237e+001 +2.388e+001
+3.258e+001 +3.812e+001 +4.224e+001 +4.665e+001 +5.056e+001 +5.255e+001
+5.325e+001 +5.299e+001 +5.157e+001 +4.986e+001 +4.826e+001 +4.631e+001
+4.425e+001 +4.279e+001 +4.175e+001 +4.076e+001 +4.003e+001 +3.972e+001
+3.963e+001 +3.960e+001 +3.947e+001 +3.905e+001 +3.838e+001 +3.711e+001
+3.510e+001 +3.307e+001 +3.111e+001 +2.842e+001 +2.491e+001 +2.174e+001
+1.896e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.990e-001
+7.810e-001 +6.280e-001 +5.340e-001 +4.250e-001 +2.800e-001 +1.460e-001
+3.600e-002 -7.400e-002 -1.600e-001 -2.000e-001 -2.140e-001 -2.140e-001
-1.990e-001 -1.760e-001 -1.500e-001 -1.120e-001 -6.400e-002 -3.000e-002
-1.100e-002 -1.000e-002 -4.200e-002 -9.300e-002 -1.480e-001 -2.170e-001
-2.870e-001 -3.380e-001 -3.800e-001 -4.280e-001 -4.700e-001 -4.890e-001
-4.960e-001
  27.6556      8.10
 171.0377     20.60
  27.9963    116.07
   8.8359     20.43
   3.0000 10000000000.00
<Date: Thu Jun 19 12:26:51 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 300M EAST OF THE MAIN ROAD
<Place: 550M SOUTH OF ROUMELI
<*******************************************************************************
********
#GEOSEC: 0088-B       /  50.0/  50.0/   1.0/  563630.000/ 3917289.000/
61.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=136.00
S  [V/A]:  +1.364e+001 +7.914e+000 +6.344e+000 +6.080e+000 +6.399e+000
+7.082e+000 +7.688e+000 +8.178e+000 +8.731e+000 +9.366e+000 +9.916e+000
+1.041e+001 +1.106e+001 +1.189e+001 +1.263e+001 +1.330e+001 +1.418e+001
+1.532e+001 +1.640e+001 +1.746e+001 +1.897e+001 +2.104e+001 +2.305e+001
+2.496e+001 +2.747e+001 +3.041e+001 +3.260e+001 +3.417e+001 +3.553e+001
+3.623e+001 +3.604e+001 +3.527e+001 +3.349e+001 +3.024e+001 +2.677e+001
+2.352e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +4.400e-001 +1.800e-002 +3.270e-001
+4.130e-001 +3.920e-001 +3.550e-001 +3.240e-001 +3.120e-001 +3.120e-001
+3.170e-001 +3.260e-001 +3.320e-001 +3.360e-001 +3.410e-001 +3.510e-001
+3.700e-001 +3.940e-001 +4.190e-001 +4.500e-001 +4.820e-001 +4.980e-001
+4.990e-001 +4.790e-001 +4.230e-001 +3.510e-001 +2.710e-001 +1.610e-001
+2.600e-002 -9.400e-002 -2.050e-001 -3.370e-001 -4.440e-001 -4.820e-001
-4.950e-001
  10.1650      8.37
  21.7382     20.00
  96.0277    109.59
   4.3093     38.27
   3.0000 10000000000.00
<Date: Thu Jun 19 12:52:30 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR VILLAGE
<Place: 500M SE OF ROUMELI
<*******************************************************************************
********
#GEOSEC: 0089-B       /  50.0/  50.0/   1.0/  563834.000/ 3917271.000/
74.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=328.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.789e+001 +5.636e+001 +8.468e+001
+1.065e+002 +1.163e+002 +1.208e+002 +1.234e+002 +1.236e+002 +1.218e+002
+1.191e+002 +1.148e+002 +1.087e+002 +1.029e+002 +9.776e+001 +9.119e+001
+8.357e+001 +7.743e+001 +7.240e+001 +6.662e+001 +6.048e+001 +5.579e+001
+5.203e+001 +4.767e+001 +4.280e+001 +3.891e+001 +3.560e+001 +3.164e+001
+2.729e+001 +2.399e+001 +2.145e+001 +1.874e+001 +1.615e+001 +1.441e+001
+1.319e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.730e-001
```

```
+6.090e-001 +3.330e-001 +1.820e-001 +6.300e-002 -4.300e-002 -1.170e-001
-1.680e-001 -2.190e-001 -2.660e-001 -2.990e-001 -3.230e-001 -3.460e-001
-3.650e-001 -3.750e-001 -3.800e-001 -3.830e-001 -3.850e-001 -3.870e-001
-3.910e-001 -4.010e-001 -4.180e-001 -4.340e-001 -4.480e-001 -4.620e-001
-4.720e-001 -4.760e-001 -4.760e-001 -4.730e-001 -4.630e-001 -4.490e-001
-4.310e-001
  91.3417     19.55
 193.7725     31.15
  16.0953     44.99
   3.0000 10000000000.00
<Date: Thu Jun 19 13:28:03 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOME FENCES, OLIVE TREES
<Place: 650M SE OF ROUMELI
<****************************************************************************
*********
#GEOSEC: 0090-B       /  50.0/  50.0/   1.0/  563925.000/ 3917414.000/
67.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=312.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.410e-001 +2.690e+000 +4.988e+000
+7.244e+000 +8.645e+000 +9.526e+000 +1.031e+001 +1.098e+001 +1.144e+001
+1.181e+001 +1.230e+001 +1.294e+001 +1.356e+001 +1.415e+001 +1.501e+001
+1.621e+001 +1.741e+001 +1.861e+001 +2.032e+001 +2.255e+001 +2.448e+001
+2.603e+001 +2.758e+001 +2.867e+001 +2.892e+001 +2.873e+001 +2.805e+001
+2.665e+001 +2.500e+001 +2.324e+001 +2.074e+001 +1.760e+001 +1.501e+001
+1.295e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +9.000e-001
+8.310e-001 +6.450e-001 +4.840e-001 +3.440e-001 +2.520e-001 +2.180e-001
+2.140e-001 +2.280e-001 +2.510e-001 +2.740e-001 +2.990e-001 +3.340e-001
+3.790e-001 +4.150e-001 +4.430e-001 +4.640e-001 +4.600e-001 +4.240e-001
+3.630e-001 +2.570e-001 +1.130e-001 +1.000e-015 -8.600e-002 -1.830e-001
-2.900e-001 -3.710e-001 -4.260e-001 -4.670e-001 -4.890e-001 -4.950e-001
-4.970e-001
  12.3480     15.41
  42.5093     24.76
  60.6576     62.59
   3.0000     83.26
  20.0000 10000000000.00
<Date: Thu Jun 19 13:56:06 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOME FENCES
<Place: 630M ALMOST EAST OF ROUMELI
<****************************************************************************
*********
#GEOSEC: 0091-B       /  50.0/  50.0/   1.0/  565719.000/ 3917370.000/
48.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=113.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.647e+001 +2.722e+001 +3.577e+001
+4.250e+001 +4.718e+001 +5.096e+001 +5.551e+001 +6.068e+001 +6.464e+001
+6.754e+001 +7.024e+001 +7.189e+001 +7.212e+001 +7.167e+001 +7.070e+001
+6.957e+001 +6.900e+001 +6.890e+001 +6.929e+001 +7.026e+001 +7.125e+001
+7.206e+001 +7.289e+001 +7.363e+001 +7.413e+001 +7.451e+001 +7.478e+001
+7.445e+001 +7.331e+001 +7.156e+001 +6.854e+001 +6.421e+001 +6.032e+001
+5.699e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +7.770e-001
+5.680e-001 +4.790e-001 +4.410e-001 +4.090e-001 +3.640e-001 +3.110e-001
+2.520e-001 +1.650e-001 +6.000e-002 -1.500e-002 -5.700e-002 -7.600e-002
-6.200e-002 -2.800e-002 +9.000e-003 +4.800e-002 +7.600e-002 +8.000e-002
+7.200e-002 +5.700e-002 +4.400e-002 +3.800e-002 +2.900e-002 +1.000e-003
-6.000e-002 -1.300e-001 -1.940e-001 -2.590e-001 -3.090e-001 -3.330e-001
-3.460e-001
  26.8711      5.89
 132.4790     39.39
  45.4318     31.00
  88.5662    131.48
  21.6412 10000000000.00
<Date: Tue Jun 24 06:54:19 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO A LITTLE RIVER
<Place: ACHLADES
```

<***
****
#GEOSEC: 0092-B   / 50.0/ 50.0/   1.0/ 565548.000/ 3917265.000/
44.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=344.00
S [V/A]: +0.000e+000 +0.000e+000 +2.366e+000 +2.244e+001 +3.667e+001
+4.320e+001 +4.521e+001 +4.626e+001 +4.742e+001 +4.889e+001 +5.026e+001
+5.154e+001 +5.327e+001 +5.545e+001 +5.747e+001 +5.932e+001 +6.181e+001
+6.511e+001 +6.821e+001 +7.107e+001 +7.456e+001 +7.771e+001 +7.878e+001
+7.823e+001 +7.591e+001 +7.184e+001 +6.817e+001 +6.500e+001 +6.107e+001
+5.625e+001 +5.193e+001 +4.810e+001 +4.354e+001 +3.877e+001 +3.543e+001
+3.302e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.800e-001
+4.250e-001 +1.870e-001 +1.380e-001 +1.350e-001 +1.480e-001 +1.610e-001
+1.710e-001 +1.840e-001 +1.970e-001 +2.080e-001 +2.190e-001 +2.350e-001
+2.570e-001 +2.710e-001 +2.700e-001 +2.330e-001 +1.350e-001 +1.100e-002
-1.020e-001 -2.060e-001 -2.690e-001 -2.910e-001 -3.040e-001 -3.280e-001
-3.680e-001 -3.990e-001 -4.170e-001 -4.250e-001 -4.190e-001 -4.020e-001
-3.810e-001
36.5375   8.56
74.9260   55.66
138.9567   38.65
138.9567   28.24
11.8967 10000000000.00
<Date: Tue Jun 24 07:19:41 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: POWER LINES, NEXT LITTLE RIVER
<Place: ACHLADES
<***
****
#GEOSEC: 0093-C   / 50.0/ 50.0/   1.0/ 565309.000/ 3917304.000/
51.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=282.00
S [V/A]: +0.000e+000 +0.000e+000 +5.738e+000 +1.287e+001 +1.695e+001
+1.895e+001 +2.001e+001 +2.084e+001 +2.188e+001 +2.316e+001 +2.433e+001
+2.544e+001 +2.692e+001 +2.879e+001 +3.048e+001 +3.195e+001 +3.382e+001
+3.604e+001 +3.801e+001 +3.984e+001 +4.233e+001 +4.553e+001 +4.830e+001
+5.053e+001 +5.278e+001 +5.425e+001 +5.431e+001 +5.357e+001 +5.187e+001
+4.920e+001 +4.674e+001 +4.462e+001 +4.208e+001 +3.917e+001 +3.664e+001
+3.425e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.320e-001
+3.600e-001 +2.660e-001 +2.520e-001 +2.530e-001 +2.660e-001 +2.800e-001
+2.930e-001 +3.060e-001 +3.140e-001 +3.140e-001 +3.090e-001 +3.030e-001
+3.010e-001 +3.080e-001 +3.200e-001 +3.350e-001 +3.380e-001 +3.180e-001
+2.750e-001 +1.910e-001 +6.400e-002 -4.700e-002 -1.320e-001 -2.080e-001
-2.620e-001 -2.850e-001 -2.950e-001 -3.050e-001 -3.280e-001 -3.640e-001
-3.970e-001
22.1132   13.68
65.8621   57.21
155.1932   34.16
155.1932   23.84
14.3838 10000000000.00
<Date: Tue Jun 24 07:44:52 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: ACHLADES
<***
****
#GEOSEC: 0094-B   / 50.0/ 50.0/   1.0/ 565144.000/ 3917333.000/
59.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=144.00
S [V/A]: +2.963e+000 +2.278e+000 +3.498e+000 +5.157e+000 +7.368e+000
+9.560e+000 +1.085e+001 +1.152e+001 +1.193e+001 +1.203e+001 +1.198e+001
+1.192e+001 +1.189e+001 +1.194e+001 +1.207e+001 +1.226e+001 +1.259e+001
+1.312e+001 +1.368e+001 +1.424e+001 +1.505e+001 +1.608e+001 +1.698e+001
+1.773e+001 +1.860e+001 +1.946e+001 +2.001e+001 +2.034e+001 +2.051e+001
+2.028e+001 +1.967e+001 +1.884e+001 +1.754e+001 +1.587e+001 +1.454e+001
+1.356e+001
Err[V/A]: +5.000e-001 -6.150e-001 -8.980e-001 -8.970e-001 +8.660e-001
+7.040e-001 +4.760e-001 +2.850e-001 +1.140e-001 +4.000e-003 -2.800e-002
-2.300e-002 +2.000e-003 +4.400e-002 +8.600e-002 +1.240e-001 +1.700e-001

```
+2.200e-001 +2.570e-001 +2.830e-001 +3.050e-001 +3.120e-001 +3.010e-001
+2.790e-001 +2.420e-001 +1.880e-001 +1.370e-001 +8.400e-002 +1.000e-015
-1.220e-001 -2.300e-001 -3.080e-001 -3.700e-001 -4.000e-001 -3.980e-001
-3.850e-001
  12.4964     24.68
  43.5376     35.86
  18.2262     24.68
  10.9514     25.69
   3.0000 10000000000.00
<Date: Tue Jun 24 08:12:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF ACHLADES, S OF G-81
<Place: ACHLADES
<*******************************************************************************
*********
#GEOSEC: 0095-B       /  50.0/  50.0/   1.0/  564921.000/ 3917260.000/
52.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 66.00
S  [V/A]:  +8.735e+000 +6.338e+000 +6.483e+000 +7.193e+000 +8.148e+000
+8.876e+000 +9.085e+000 +9.060e+000 +8.892e+000 +8.760e+000 +8.780e+000
+8.923e+000 +9.251e+000 +9.812e+000 +1.044e+001 +1.108e+001 +1.200e+001
+1.322e+001 +1.432e+001 +1.526e+001 +1.633e+001 +1.738e+001 +1.807e+001
+1.851e+001 +1.891e+001 +1.918e+001 +1.923e+001 +1.917e+001 +1.897e+001
+1.861e+001 +1.826e+001 +1.794e+001 +1.753e+001 +1.704e+001 +1.661e+001
+1.622e+001
Err[V/A]:  +5.000e-001 +3.800e-001 -3.590e-001 -5.390e-001 +4.600e-001
+2.310e-001 +4.700e-002 -5.400e-002 -8.400e-002 -2.400e-002 +6.400e-002
+1.470e-001 +2.320e-001 +3.120e-001 +3.670e-001 +4.000e-001 +4.270e-001
+4.370e-001 +4.230e-001 +3.920e-001 +3.340e-001 +2.560e-001 +1.940e-001
+1.460e-001 +9.500e-002 +4.000e-002 -4.000e-003 -4.000e-002 -7.500e-002
-1.030e-001 -1.170e-001 -1.240e-001 -1.320e-001 -1.430e-001 -1.550e-001
-1.660e-001
  10.3752     18.46
 200.0000     35.02
  10.5155     32.31
  17.2874     30.83
  10.1005 10000000000.00
<Date: Tue Jun 24 08:38:14 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF ACHLADES
<Place: ACHLADES
<*******************************************************************************
*********
#GEOSEC: 0096-B       /  50.0/  50.0/   1.0/  564697.000/ 3917294.000/
38.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=191.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.885e+000 +1.102e+001 +1.677e+001
+2.017e+001 +2.174e+001 +2.260e+001 +2.320e+001 +2.344e+001 +2.339e+001
+2.323e+001 +2.296e+001 +2.258e+001 +2.225e+001 +2.196e+001 +2.164e+001
+2.133e+001 +2.114e+001 +2.105e+001 +2.101e+001 +2.105e+001 +2.113e+001
+2.122e+001 +2.136e+001 +2.156e+001 +2.178e+001 +2.200e+001 +2.233e+001
+2.277e+001 +2.319e+001 +2.359e+001 +2.417e+001 +2.509e+001 +2.617e+001
+2.745e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.670e-001
+5.240e-001 +3.070e-001 +1.940e-001 +9.500e-002 +1.500e-002 -3.000e-002
-5.400e-002 -7.100e-002 -8.200e-002 -8.600e-002 -8.500e-002 -7.700e-002
-5.900e-002 -3.900e-002 -2.200e-002 -2.000e-003 +1.700e-002 +2.700e-002
+3.300e-002 +4.100e-002 +5.300e-002 +6.500e-002 +7.700e-002 +8.900e-002
+1.020e-001 +1.130e-001 +1.270e-001 +1.580e-001 +2.160e-001 +2.860e-001
+3.530e-001
  22.4541     29.23
  16.8517     20.00
  30.1833    150.00
 177.1283    150.00
   4.4286 10000000000.00
<Date: Tue Jun 24 09:04:48 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH-WEST OF ACHLADES
<Place: ACHLADES
<*******************************************************************************
```

****
#GEOSEC: 0097-B   / 50.0/ 50.0/   1.0/ 564419.000/ 3917317.000/
35.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=231.00
S [V/A]: +0.000e+000 +0.000e+000 +3.603e+000 +1.747e+001 +2.759e+001
+3.360e+001 +3.639e+001 +3.782e+001 +3.858e+001 +3.819e+001 +3.706e+001
+3.575e+001 +3.398e+001 +3.200e+001 +3.051e+001 +2.940e+001 +2.826e+001
+2.722e+001 +2.657e+001 +2.616e+001 +2.583e+001 +2.567e+001 +2.570e+001
+2.585e+001 +2.616e+001 +2.665e+001 +2.710e+001 +2.746e+001 +2.778e+001
+2.780e+001 +2.741e+001 +2.674e+001 +2.555e+001 +2.389e+001 +2.253e+001
+2.154e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.790e-001
+5.510e-001 +3.160e-001 +1.790e-001 +3.400e-002 -1.120e-001 -1.980e-001
-2.400e-001 -2.610e-001 -2.600e-001 -2.450e-001 -2.250e-001 -1.940e-001
-1.560e-001 -1.210e-001 -9.000e-002 -5.200e-002 -9.000e-003 +2.500e-002
+5.200e-002 +7.800e-002 +9.500e-002 +9.500e-002 +7.900e-002 +3.700e-002
-4.400e-002 -1.290e-001 -2.010e-001 -2.690e-001 -3.040e-001 -2.950e-001
-2.710e-001
  34.5197   27.17
  15.1621   20.00
  35.1368   92.25
   7.4296   72.69
  18.2278 10000000000.00
<Date: Tue Jun 24 09:40:24 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NORTH-WEST OF ACHLADES
<Place: ACHLADES
<**
****
#GEOSEC: 0098-B   / 50.0/ 50.0/   1.0/ 564294.000/ 3917172.000/
40.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=287.00
S [V/A]: +0.000e+000 +0.000e+000 +5.245e+000 +1.732e+001 +2.618e+001
+3.171e+001 +3.448e+001 +3.605e+001 +3.714e+001 +3.735e+001 +3.685e+001
+3.609e+001 +3.496e+001 +3.363e+001 +3.260e+001 +3.183e+001 +3.104e+001
+3.033e+001 +2.990e+001 +2.963e+001 +2.939e+001 +2.921e+001 +2.909e+001
+2.900e+001 +2.885e+001 +2.865e+001 +2.846e+001 +2.829e+001 +2.812e+001
+2.798e+001 +2.790e+001 +2.780e+001 +2.751e+001 +2.663e+001 +2.516e+001
+2.327e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.660e-001
+5.520e-001 +3.440e-001 +2.220e-001 +9.500e-002 -3.000e-002 -1.080e-001
-1.500e-001 -1.730e-001 -1.760e-001 -1.660e-001 -1.490e-001 -1.250e-001
-9.500e-002 -7.100e-002 -5.400e-002 -3.800e-002 -2.700e-002 -2.400e-002
-2.500e-002 -3.100e-002 -3.800e-002 -4.000e-002 -3.800e-002 -3.000e-002
-2.000e-002 -2.100e-002 -3.900e-002 -1.050e-001 -2.400e-001 -3.710e-001
-4.480e-001
  34.4676   29.36
  20.7357   20.00
  27.7690   98.27
  11.1481   144.77
  20.0000 10000000000.00
<Date: Tue Jun 24 10:08:04 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NORTH-WEST OF ACHLADES
<Place: ACHLADES
<**
****
#GEOSEC: 0099-B   / 50.0/ 50.0/   1.0/ 564081.000/ 3917146.000/
58.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=146.00
S [V/A]: +0.000e+000 +0.000e+000 +3.293e+001 +5.596e+001 +7.266e+001
+7.879e+001 +7.878e+001 +7.785e+001 +7.675e+001 +7.572e+001 +7.489e+001
+7.409e+001 +7.289e+001 +7.112e+001 +6.935e+001 +6.765e+001 +6.538e+001
+6.255e+001 +6.008e+001 +5.792e+001 +5.525e+001 +5.220e+001 +4.976e+001
+4.777e+001 +4.546e+001 +4.294e+001 +4.095e+001 +3.919e+001 +3.690e+001
+3.394e+001 +3.126e+001 +2.888e+001 +2.602e+001 +2.301e+001 +2.090e+001
+1.942e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +6.850e-001
+1.560e-001 -4.100e-002 -7.500e-002 -6.900e-002 -6.200e-002 -6.700e-002
-7.900e-002 -1.010e-001 -1.300e-001 -1.540e-001 -1.730e-001 -1.940e-001
-2.150e-001 -2.300e-001 -2.410e-001 -2.520e-001 -2.590e-001 -2.610e-001

```
-2.600e-001 -2.580e-001 -2.600e-001 -2.700e-001 -2.900e-001 -3.270e-001
-3.740e-001 -4.070e-001 -4.260e-001 -4.360e-001 -4.320e-001 -4.130e-001
-3.870e-001
  76.4711     23.63
  54.7041     34.09
  20.1981     67.49
   5.9348     91.30
  20.0000 10000000000.00
<Date: Tue Jun 24 10:48:42 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH-EAST OF 0089
<Place: ACHLADES
<*****************************************************************************
*********
#GEOSEC: 0100-C       /  50.0/  50.0/   1.0/  565754.000/ 3918128.000/
76.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=325.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.877e+000 +1.172e+001 +1.671e+001
+1.991e+001 +2.125e+001 +2.189e+001 +2.252e+001 +2.337e+001 +2.436e+001
+2.545e+001 +2.706e+001 +2.912e+001 +3.069e+001 +3.167e+001 +3.224e+001
+3.211e+001 +3.171e+001 +3.142e+001 +3.129e+001 +3.148e+001 +3.181e+001
+3.210e+001 +3.235e+001 +3.240e+001 +3.222e+001 +3.191e+001 +3.127e+001
+3.011e+001 +2.875e+001 +2.731e+001 +2.523e+001 +2.242e+001 +1.981e+001
+1.744e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.360e-001
+4.890e-001 +2.560e-001 +1.690e-001 +1.580e-001 +2.020e-001 +2.580e-001
+3.020e-001 +3.310e-001 +3.140e-001 +2.490e-001 +1.600e-001 +4.400e-002
-4.800e-002 -6.700e-002 -4.500e-002 +1.000e-003 +4.700e-002 +6.200e-002
+5.400e-002 +2.600e-002 -1.500e-002 -5.100e-002 -8.800e-002 -1.440e-001
-2.210e-001 -2.880e-001 -3.430e-001 -4.020e-001 -4.550e-001 -4.820e-001
-4.940e-001
  22.0106     12.16
  47.7459     35.00
  19.4519     30.97
  30.0972     53.01
   3.3982 10000000000.00
<Date: Tue Jun 24 11:37:43 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH-EAST OF G-81
<Place: NEAR NATIONAL ROAD, IN VILLAGE
<*****************************************************************************
*********
#GEOSEC: 0101-C       /  50.0/  50.0/   1.0/  565475.000/ 3918184.000/
63.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=127.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000
+8.220e-001 +3.372e+000 +5.151e+000 +6.786e+000 +8.167e+000 +9.131e+000
+9.907e+000 +1.088e+001 +1.211e+001 +1.326e+001 +1.433e+001 +1.577e+001
+1.761e+001 +1.927e+001 +2.078e+001 +2.275e+001 +2.518e+001 +2.733e+001
+2.923e+001 +3.151e+001 +3.373e+001 +3.473e+001 +3.476e+001 +3.378e+001
+3.167e+001 +2.964e+001 +2.794e+001 +2.605e+001 +2.411e+001 +2.260e+001
+2.127e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -1.000e-015 -1.000e-015 -9.000e-001
+9.000e-001 +9.000e-001 +8.980e-001 +8.140e-001 +6.250e-001 +5.260e-001
+4.860e-001 +4.740e-001 +4.770e-001 +4.820e-001 +4.870e-001 +4.890e-001
+4.870e-001 +4.820e-001 +4.750e-001 +4.650e-001 +4.540e-001 +4.410e-001
+4.200e-001 +3.650e-001 +2.400e-001 +8.400e-002 -6.900e-002 -2.220e-001
-3.160e-001 -3.440e-001 -3.460e-001 -3.370e-001 -3.320e-001 -3.460e-001
-3.660e-001
   9.4036     10.16
  66.4134     58.48
  66.5144     22.47
  66.5144     20.00
   7.0279 10000000000.00
<Date: Tue Jun 24 12:21:44 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH-EAST OF G-81
<Place: WEST OF SIRIPIDIANA VILLAGE
<*****************************************************************************
*********
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#GEOSEC: 0102-B        /  50.0/  50.0/   1.0/  565265.000/ 3918152.000/
60.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=134.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +8.143e+000 +1.721e+001
+2.167e+001 +2.343e+001 +2.440e+001 +2.535e+001 +2.634e+001 +2.719e+001
+2.803e+001 +2.923e+001 +3.088e+001 +3.249e+001 +3.397e+001 +3.585e+001
+3.797e+001 +3.960e+001 +4.082e+001 +4.206e+001 +4.306e+001 +4.354e+001
+4.370e+001 +4.362e+001 +4.318e+001 +4.256e+001 +4.178e+001 +4.051e+001
+3.860e+001 +3.676e+001 +3.508e+001 +3.300e+001 +3.048e+001 +2.812e+001
+2.574e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+5.910e-001 +3.190e-001 +2.290e-001 +1.870e-001 +1.760e-001 +1.890e-001
+2.110e-001 +2.400e-001 +2.720e-001 +2.900e-001 +2.930e-001 +2.820e-001
+2.550e-001 +2.220e-001 +1.880e-001 +1.420e-001 +8.700e-002 +4.300e-002
+9.000e-003 -2.800e-002 -7.000e-002 -1.070e-001 -1.450e-001 -1.950e-001
-2.480e-001 -2.810e-001 -3.000e-001 -3.230e-001 -3.660e-001 -4.190e-001
-4.580e-001
  24.2300     13.10
  56.3988     59.06
  56.3988     21.91
  15.7675     74.82
   4.8609 10000000000.00
<Date: Tue Jun 24 12:46:00 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF G-81
<Place: WEST OF SIRIPIDIANA VILLAGE
<********************************************************************************
*********
#GEOSEC: 0103-C        /  50.0/  50.0/   1.0/  565081.000/ 3918206.000/
58.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=116.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.906e+000 +2.565e+001 +3.689e+001
+4.255e+001 +4.479e+001 +4.611e+001 +4.736e+001 +4.851e+001 +4.926e+001
+4.987e+001 +5.066e+001 +5.182e+001 +5.311e+001 +5.449e+001 +5.657e+001
+5.942e+001 +6.203e+001 +6.426e+001 +6.674e+001 +6.887e+001 +6.974e+001
+6.967e+001 +6.853e+001 +6.582e+001 +6.278e+001 +5.982e+001 +5.604e+001
+5.172e+001 +4.822e+001 +4.525e+001 +4.154e+001 +3.713e+001 +3.345e+001
+3.040e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.260e-001
+4.050e-001 +2.220e-001 +1.630e-001 +1.260e-001 +9.700e-002 +8.400e-002
+8.300e-002 +9.600e-002 +1.250e-001 +1.580e-001 +1.880e-001 +2.190e-001
+2.410e-001 +2.420e-001 +2.250e-001 +1.830e-001 +1.090e-001 +3.000e-002
-4.500e-002 -1.380e-001 -2.290e-001 -2.820e-001 -3.110e-001 -3.310e-001
-3.470e-001 -3.610e-001 -3.780e-001 -4.040e-001 -4.330e-001 -4.500e-001
-4.600e-001
  44.8356     17.06
  70.9228     62.92
 200.0000     37.81
  11.1132     76.96
   3.5516 10000000000.00
<Date: Tue Jun 24 13:12:52 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH-WEST OF G-81
<Place: WEST OF SIRIPIDIANA VILLAGE
<********************************************************************************
*********
#GEOSEC: 0104-B        /  50.0/  50.0/   1.0/  564930.000/ 3918297.000/
43.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=203.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.820e+000 +1.473e+001 +2.317e+001
+2.791e+001 +3.019e+001 +3.156e+001 +3.288e+001 +3.408e+001 +3.494e+001
+3.571e+001 +3.675e+001 +3.811e+001 +3.935e+001 +4.040e+001 +4.167e+001
+4.307e+001 +4.423e+001 +4.528e+001 +4.671e+001 +4.856e+001 +5.017e+001
+5.146e+001 +5.273e+001 +5.352e+001 +5.358e+001 +5.334e+001 +5.295e+001
+5.272e+001 +5.278e+001 +5.282e+001 +5.237e+001 +5.035e+001 +4.728e+001
+4.403e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.760e-001
+5.330e-001 +3.320e-001 +2.460e-001 +1.900e-001 +1.520e-001 +1.420e-001
+1.490e-001 +1.630e-001 +1.770e-001 +1.800e-001 +1.750e-001 +1.650e-001
+1.560e-001 +1.570e-001 +1.660e-001 +1.800e-001 +1.890e-001 +1.810e-001
+1.570e-001 +1.070e-001 +3.600e-002 -1.300e-002 -3.500e-002 -3.200e-002
```

```
-6.000e-003 +6.000e-003 -1.900e-002 -1.140e-001 -2.680e-001 -3.660e-001
-4.180e-001
  19.3693      3.58
  47.5625     38.12
  71.5680     83.79
  28.0205    120.72
   5.6325 10000000000.00
<Date: Tue Jul 01 07:46:40 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: LITTLE STREAM AT EAST
<Place: SKEPASTI
<*******************************************************************************
*********
#GEOSEC: 0105-B       /  50.0/  50.0/   1.0/  564704.000/ 3918282.000/
52.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=257.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.244e+001 +2.792e+001 +3.792e+001
+4.265e+001 +4.417e+001 +4.475e+001 +4.494e+001 +4.470e+001 +4.429e+001
+4.393e+001 +4.361e+001 +4.357e+001 +4.386e+001 +4.432e+001 +4.513e+001
+4.630e+001 +4.735e+001 +4.824e+001 +4.928e+001 +5.044e+001 +5.148e+001
+5.256e+001 +5.430e+001 +5.715e+001 +6.023e+001 +6.339e+001 +6.755e+001
+7.179e+001 +7.387e+001 +7.429e+001 +7.348e+001 +7.207e+001 +7.167e+001
+7.245e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.680e-001
+3.200e-001 +1.300e-001 +5.500e-002 +1.000e-015 -4.000e-002 -5.300e-002
-4.800e-002 -2.400e-002 +1.900e-002 +5.600e-002 +8.400e-002 +1.110e-001
+1.270e-001 +1.290e-001 +1.240e-001 +1.160e-001 +1.170e-001 +1.320e-001
+1.600e-001 +2.100e-001 +2.770e-001 +3.230e-001 +3.430e-001 +3.200e-001
+2.240e-001 +9.900e-002 -6.000e-003 -7.700e-002 -6.100e-002 +2.500e-002
+1.240e-001
  36.9094      3.60
  46.8855     55.11
 113.7496    100.00
 100.0000    100.00
  38.7162 10000000000.00
<Date: Tue Jul 01 08:18:27 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH-WEST OF SKEPASTI
<Place: SKEPASTI
<*******************************************************************************
*********
#GEOSEC: 0106         /  50.0/  50.0/   1.0/  564556.000/ 3918371.000/
43.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=205.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.809e+000 +1.893e+001 +3.016e+001
+3.544e+001 +3.711e+001 +3.782e+001 +3.838e+001 +3.882e+001 +3.911e+001
+3.942e+001 +3.994e+001 +4.083e+001 +4.185e+001 +4.289e+001 +4.430e+001
+4.608e+001 +4.767e+001 +4.916e+001 +5.125e+001 +5.417e+001 +5.708e+001
+5.991e+001 +6.364e+001 +6.796e+001 +7.102e+001 +7.306e+001 +7.469e+001
+7.561e+001 +7.611e+001 +7.680e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.740e-001
+4.220e-001 +1.760e-001 +1.010e-001 +6.600e-002 +4.700e-002 +4.800e-002
+6.100e-002 +8.700e-002 +1.250e-001 +1.540e-001 +1.710e-001 +1.830e-001
+1.930e-001 +2.030e-001 +2.180e-001 +2.460e-001 +2.840e-001 +3.120e-001
+3.250e-001 +3.200e-001 +2.810e-001 +2.230e-001 +1.630e-001 +9.400e-002
+4.900e-002 +5.200e-002 +7.300e-002
  29.7920      5.36
  48.0034     44.91
 154.0078    100.00
 100.0000     64.89
  50.9325 10000000000.00
<Date: Tue Jul 01 08:49:42 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOME POWER LINES
<Place: SKEPASTI
<*******************************************************************************
*********
#GEOSEC: 0107-B       /  50.0/  50.0/   1.0/  564291.000/ 3918311.000/
29.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=180.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.326e+000 +1.493e+001 +2.211e+001
```

```
+2.756e+001 +3.094e+001 +3.339e+001 +3.610e+001 +3.904e+001 +4.136e+001
+4.325e+001 +4.543e+001 +4.767e+001 +4.929e+001 +5.046e+001 +5.165e+001
+5.271e+001 +5.339e+001 +5.385e+001 +5.430e+001 +5.469e+001 +5.490e+001
+5.497e+001 +5.490e+001 +5.460e+001 +5.422e+001 +5.386e+001 +5.353e+001
+5.344e+001 +5.368e+001 +5.409e+001 +5.472e+001 +5.538e+001 +5.575e+001
+5.595e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.670e-001
+6.470e-001 +4.970e-001 +4.240e-001 +3.710e-001 +3.290e-001 +3.010e-001
+2.770e-001 +2.460e-001 +2.070e-001 +1.720e-001 +1.450e-001 +1.150e-001
+8.500e-002 +6.600e-002 +5.400e-002 +4.100e-002 +2.800e-002 +1.500e-002
+2.000e-003 -1.600e-002 -3.500e-002 -4.400e-002 -4.100e-002 -2.300e-002
+1.100e-002 +4.100e-002 +5.800e-002 +6.200e-002 +4.800e-002 +3.200e-002
+1.900e-002
  23.7108      6.56
  73.1215     50.87
  47.0416     22.91
  51.1673    100.00
  65.6399 10000000000.00
<Date: Tue Jul 01 09:23:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF ROUMELI
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0108-B       /  50.0/  50.0/   1.0/  564070.000/ 3918336.000/
27.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=641.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.684e+000 +1.110e+001 +1.512e+001
+1.687e+001 +1.710e+001 +1.671e+001 +1.575e+001 +1.429e+001 +1.305e+001
+1.207e+001 +1.108e+001 +1.024e+001 +9.795e+000 +9.578e+000 +9.487e+000
+9.621e+000 +9.914e+000 +1.029e+001 +1.094e+001 +1.194e+001 +1.302e+001
+1.412e+001 +1.573e+001 +1.796e+001 +2.001e+001 +2.188e+001 +2.409e+001
+2.604e+001 +2.669e+001 +2.634e+001 +2.484e+001 +2.220e+001 +1.982e+001
+1.794e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -7.650e-001
-2.480e-001 -4.800e-002 -2.120e-001 -3.280e-001 -3.900e-001 -4.040e-001
-3.950e-001 -3.590e-001 -2.820e-001 -1.920e-001 -1.070e-001 +3.000e-003
+1.260e-001 +2.170e-001 +2.870e-001 +3.650e-001 +4.410e-001 +4.930e-001
+5.270e-001 +5.560e-001 +5.700e-001 +5.610e-001 +5.280e-001 +4.380e-001
+2.480e-001 +1.800e-002 -1.920e-001 -3.640e-001 +4.420e-001 +4.590e-001
+4.640e-001
  11.1698     33.23
 296.3511     89.55
 133.3356      2.26
 100.0000      2.26
   1.0000 10000000000.00
<Date: Tue Jul 01 09:46:29 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ALMOST NORTH OF ROUMELI
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0109-B       /  50.0/  50.0/   1.0/  563911.000/ 3918396.000/
29.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=230.00
S  [V/A]:  +9.175e+000 +5.519e+000 +4.949e+000 +5.208e+000 +5.843e+000
+6.518e+000 +6.868e+000 +7.026e+000 +7.120e+000 +7.210e+000 +7.334e+000
+7.482e+000 +7.729e+000 +8.097e+000 +8.472e+000 +8.848e+000 +9.398e+000
+1.019e+001 +1.101e+001 +1.185e+001 +1.308e+001 +1.478e+001 +1.639e+001
+1.786e+001 +1.969e+001 +2.178e+001 +2.348e+001 +2.501e+001 +2.701e+001
+2.953e+001 +3.169e+001 +3.351e+001 +3.567e+001 +3.827e+001 +4.085e+001
+4.367e+001
Err[V/A]:  +5.000e-001 +4.980e-001 +7.500e-002 -3.940e-001 +4.790e-001
+3.510e-001 +2.030e-001 +1.100e-001 +6.400e-002 +7.900e-002 +1.150e-001
+1.510e-001 +1.960e-001 +2.390e-001 +2.730e-001 +3.040e-001 +3.480e-001
+4.020e-001 +4.480e-001 +4.840e-001 +5.200e-001 +5.410e-001 +5.390e-001
+5.190e-001 +4.820e-001 +4.380e-001 +4.160e-001 +4.110e-001 +4.120e-001
+4.030e-001 +3.820e-001 +3.570e-001 +3.380e-001 +3.520e-001 +4.050e-001
+4.630e-001
   8.8608     17.33
```

```
 100.0000     70.88
 100.0000     38.70
  42.4785     45.42
 100.0000 10000000000.00
<Date: Tue Jul 01 10:06:12 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ALMOST NORTH OF ROUMELI
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0110-B       /  50.0/  50.0/   1.0/  563717.000/ 3918357.000/
24.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 92.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.172e+000 +1.439e+001 +1.743e+001
+1.797e+001 +1.750e+001 +1.692e+001 +1.624e+001 +1.566e+001 +1.540e+001
+1.539e+001 +1.557e+001 +1.606e+001 +1.667e+001 +1.732e+001 +1.825e+001
+1.952e+001 +2.072e+001 +2.186e+001 +2.339e+001 +2.535e+001 +2.713e+001
+2.875e+001 +3.083e+001 +3.327e+001 +3.517e+001 +3.664e+001 +3.817e+001
+3.946e+001 +4.008e+001 +4.017e+001 +3.954e+001 +3.744e+001 +3.445e+001
+3.116e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +5.060e-001
-1.800e-002 -1.740e-001 -2.050e-001 -1.870e-001 -1.240e-001 -4.600e-002
+2.500e-002 +1.040e-001 +1.820e-001 +2.340e-001 +2.680e-001 +2.990e-001
+3.270e-001 +3.450e-001 +3.570e-001 +3.680e-001 +3.780e-001 +3.810e-001
+3.790e-001 +3.660e-001 +3.350e-001 +2.970e-001 +2.550e-001 +1.970e-001
+1.240e-001 +5.100e-002 -3.100e-002 -1.680e-001 -3.380e-001 -4.370e-001
-4.790e-001
  17.0247     26.66
 148.2407     42.38
  58.3943     45.96
  20.1478     77.28
   3.0000 10000000000.00
<Date: Tue Jul 01 10:37:08 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: N OF ROUMELI, N OF STREAM
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0111-B       /  50.0/  50.0/   1.0/  563464.000/ 3918349.000/
24.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=489.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.974e+001 +3.124e+001 +3.732e+001
+3.886e+001 +3.848e+001 +3.775e+001 +3.674e+001 +3.566e+001 +3.500e+001
+3.469e+001 +3.467e+001 +3.519e+001 +3.606e+001 +3.707e+001 +3.867e+001
+4.097e+001 +4.320e+001 +4.527e+001 +4.779e+001 +5.012e+001 +5.102e+001
+5.082e+001 +4.940e+001 +4.664e+001 +4.394e+001 +4.147e+001 +3.825e+001
+3.423e+001 +3.069e+001 +2.764e+001 +2.409e+001 +2.047e+001 +1.799e+001
+1.626e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.930e-001 +4.950e-001
+4.900e-002 -9.000e-002 -1.290e-001 -1.380e-001 -1.190e-001 -7.900e-002
-3.400e-002 +3.100e-002 +1.080e-001 +1.650e-001 +2.070e-001 +2.500e-001
+2.890e-001 +3.070e-001 +3.040e-001 +2.640e-001 +1.610e-001 +3.400e-002
-8.600e-002 -2.060e-001 -2.900e-001 -3.310e-001 -3.590e-001 -3.960e-001
-4.370e-001 -4.610e-001 -4.730e-001 -4.790e-001 -4.780e-001 -4.690e-001
-4.570e-001
  36.6273     45.75
 400.0000     22.36
 147.0182     23.75
   7.3672     34.72
   3.0000 10000000000.00
<Date: Tue Jul 01 11:41:41 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR SHEAPERT
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0112-B       /  50.0/  50.0/   1.0/  563346.000/ 3918411.000/
24.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=618.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.551e+001 +3.066e+001 +3.947e+001
+4.247e+001 +4.293e+001 +4.303e+001 +4.331e+001 +4.385e+001 +4.446e+001
```

```
+4.504e+001 +4.579e+001 +4.657e+001 +4.712e+001 +4.751e+001 +4.790e+001
+4.831e+001 +4.867e+001 +4.898e+001 +4.926e+001 +4.917e+001 +4.842e+001
+4.712e+001 +4.464e+001 +4.072e+001 +3.698e+001 +3.360e+001 +2.947e+001
+2.498e+001 +2.163e+001 +1.907e+001 +1.636e+001 +1.376e+001 +1.200e+001
+1.074e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.640e-001
+1.720e-001 +3.500e-002 +2.300e-002 +4.500e-002 +6.900e-002 +8.200e-002
+8.700e-002 +8.500e-002 +7.400e-002 +6.100e-002 +5.100e-002 +4.300e-002
+4.200e-002 +4.300e-002 +3.800e-002 +1.300e-002 -5.400e-002 -1.400e-001
-2.270e-001 -3.250e-001 -4.050e-001 -4.440e-001 -4.630e-001 -4.770e-001
-4.840e-001 -4.870e-001 -4.880e-001 -4.870e-001 -4.830e-001 -4.790e-001
-4.730e-001
  43.5943     41.32
 106.6917     15.20
  20.3486     20.25
  17.0018     13.92
   3.0000 10000000000.00
<Date: Tue Jul 01 12:43:34 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN VILLAGE, FENCES, POWER LINE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0113-C       /  50.0/  50.0/   1.0/  563177.000/ 3918343.000/
35.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=210.00
S  [V/A]:  +0.000e+000 +8.057e+000 +4.115e+001 +6.308e+001 +8.119e+001
+9.093e+001 +9.336e+001 +9.381e+001 +9.376e+001 +9.351e+001 +9.323e+001
+9.292e+001 +9.252e+001 +9.208e+001 +9.181e+001 +9.169e+001 +9.174e+001
+9.205e+001 +9.252e+001 +9.305e+001 +9.379e+001 +9.464e+001 +9.516e+001
+9.534e+001 +9.506e+001 +9.380e+001 +9.190e+001 +8.961e+001 +8.603e+001
+8.098e+001 +7.620e+001 +7.180e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.950e-001 +7.060e-001
+2.900e-001 +8.000e-002 +1.500e-002 -7.000e-003 -1.500e-002 -2.000e-002
-2.300e-002 -2.300e-002 -2.000e-002 -1.200e-002 -3.000e-003 +9.000e-003
+2.400e-002 +3.500e-002 +4.200e-002 +4.400e-002 +3.800e-002 +2.200e-002
+1.000e-015 -3.900e-002 -9.500e-002 -1.470e-001 -1.920e-001 -2.440e-001
-2.980e-001 -3.360e-001 -3.660e-001
  90.6804     77.46
  90.6804     14.24
  94.9964     52.00
  33.9089     73.85
  11.0087 10000000000.00
<Date: Tue Jul 01 13:19:21 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN VILLAGE, FENCES
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0114-B       /  50.0/  50.0/   1.0/  562762.000/ 3918416.000/
34.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=227.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.179e+000 +1.869e+001 +3.007e+001
+3.528e+001 +3.681e+001 +3.734e+001 +3.754e+001 +3.737e+001 +3.706e+001
+3.676e+001 +3.644e+001 +3.616e+001 +3.606e+001 +3.605e+001 +3.616e+001
+3.639e+001 +3.665e+001 +3.691e+001 +3.725e+001 +3.761e+001 +3.784e+001
+3.795e+001 +3.795e+001 +3.770e+001 +3.728e+001 +3.676e+001 +3.591e+001
+3.463e+001 +3.329e+001 +3.189e+001 +2.980e+001 +2.679e+001 +2.385e+001
+2.113e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.760e-001
+4.110e-001 +1.510e-001 +6.200e-002 +5.000e-003 -3.400e-002 -5.000e-002
-5.100e-002 -4.300e-002 -2.600e-002 -8.000e-003 +7.000e-003 +2.300e-002
+3.700e-002 +4.600e-002 +5.000e-002 +4.900e-002 +4.100e-002 +2.800e-002
+1.100e-002 -1.500e-002 -5.100e-002 -8.300e-002 -1.120e-001 -1.500e-001
-2.000e-001 -2.500e-001 -3.020e-001 -3.720e-001 -4.410e-001 -4.760e-001
-4.910e-001
  36.1588     56.49
  36.1588     17.39
  34.8664     25.57
  12.8928     54.16
```

```
   3.0185 10000000000.00
<Date: Tue Jul 01 13:53:43 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 800M SOUTH OF PANORMOS
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0115-B       /  50.0/  50.0/   1.0/  562939.000/ 3918324.000/
39.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=325.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.351e+001 +4.363e+001 +6.094e+001
+7.327e+001 +7.892e+001 +8.149e+001 +8.243e+001 +8.138e+001 +7.952e+001
+7.770e+001 +7.555e+001 +7.347e+001 +7.203e+001 +7.093e+001 +6.963e+001
+6.815e+001 +6.694e+001 +6.596e+001 +6.485e+001 +6.374e+001 +6.294e+001
+6.234e+001 +6.165e+001 +6.078e+001 +5.986e+001 +5.879e+001 +5.699e+001
+5.424e+001 +5.154e+001 +4.909e+001 +4.605e+001 +4.245e+001 +3.918e+001
+3.594e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.290e-001
+5.220e-001 +2.830e-001 +1.370e-001 +4.000e-003 -9.700e-002 -1.400e-001
-1.500e-001 -1.410e-001 -1.210e-001 -1.080e-001 -1.030e-001 -1.020e-001
-1.030e-001 -1.020e-001 -9.800e-002 -9.000e-002 -7.800e-002 -6.900e-002
-6.400e-002 -6.500e-002 -8.000e-002 -1.080e-001 -1.450e-001 -1.980e-001
-2.550e-001 -2.910e-001 -3.100e-001 -3.310e-001 -3.680e-001 -4.150e-001
-4.520e-001
  76.3298     51.12
  24.5230     11.45
  85.4210     36.83
  29.9564     88.79
   8.0299 10000000000.00
<Date: Tue Jul 01 14:29:27 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 900M SOUTH-EAST OF PANORMOS
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0116-D       /  50.0/  50.0/   1.0/  562523.000/ 3918515.000/
31.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=297.00
S  [V/A]:  +0.000e+000 +0.000e+000 +9.181e+000 +2.531e+001 +3.646e+001
+4.240e+001 +4.479e+001 +4.601e+001 +4.685e+001 +4.725e+001 +4.725e+001
+4.715e+001 +4.702e+001 +4.693e+001 +4.689e+001 +4.687e+001 +4.678e+001
+4.655e+001 +4.622e+001 +4.586e+001 +4.531e+001 +4.454e+001 +4.382e+001
+4.313e+001 +4.220e+001 +4.094e+001 +3.971e+001 +3.845e+001 +3.658e+001
+3.393e+001 +3.136e+001 +2.896e+001 +2.591e+001 +2.240e+001 +1.964e+001
+1.745e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.310e-001
+4.260e-001 +2.220e-001 +1.360e-001 +6.900e-002 +1.800e-002 -7.000e-003
-1.500e-002 -1.200e-002 -7.000e-003 -4.000e-003 -7.000e-003 -1.700e-002
-3.300e-002 -4.800e-002 -6.000e-002 -7.500e-002 -9.000e-002 -1.020e-001
-1.140e-001 -1.320e-001 -1.620e-001 -1.960e-001 -2.350e-001 -2.910e-001
-3.570e-001 -4.030e-001 -4.320e-001 -4.570e-001 -4.730e-001 -4.800e-001
-4.850e-001
  45.3471     44.08
  45.3471      2.49
  43.8136     19.89
  18.0684     60.75
   3.0000 10000000000.00
<Date: Wed Jul 02 09:20:36 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 700M SOUTH OF PANORMOS
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0117-D       /  50.0/  50.0/   1.0/  562060.000/ 3918469.000/
23.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=308.00
S  [V/A]:  +8.093e+000 +8.885e+000 +1.162e+001 +1.458e+001 +1.823e+001
+2.176e+001 +2.399e+001 +2.525e+001 +2.610e+001 +2.634e+001 +2.618e+001
+2.597e+001 +2.577e+001 +2.573e+001 +2.590e+001 +2.619e+001 +2.668e+001
+2.737e+001 +2.798e+001 +2.848e+001 +2.907e+001 +2.970e+001 +3.024e+001
+3.072e+001 +3.130e+001 +3.182e+001 +3.200e+001 +3.187e+001 +3.134e+001
```

```
+3.024e+001 +2.899e+001 +2.770e+001 +2.585e+001 +2.325e+001 +2.072e+001
+1.836e+001
Err[V/A]:  +1.680e-001 -7.010e-001 -8.410e-001 -8.210e-001 +7.310e-001
+5.600e-001 +3.930e-001 +2.520e-001 +1.120e-001 +1.000e-003 -4.500e-002
-4.900e-002 -2.500e-002 +1.700e-002 +5.800e-002 +8.700e-002 +1.120e-001
+1.260e-001 +1.250e-001 +1.180e-001 +1.100e-001 +1.060e-001 +1.060e-001
+1.060e-001 +9.300e-002 +5.400e-002 +1.000e-003 -5.700e-002 -1.300e-001
-2.070e-001 -2.630e-001 -3.110e-001 -3.740e-001 -4.390e-001 -4.750e-001
-4.910e-001
  26.0444     32.80
  26.0444      8.72
 100.0498     23.04
  18.5268     70.46
   3.0569 10000000000.00
<Date: Wed Jul 02 10:11:17 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 900M SW OF PANORMOS, POWERLINE
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0118-D       /  50.0/  50.0/   1.0/  562328.000/ 3918486.000/
25.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=147.00
S  [V/A]:  +0.000e+000 +1.730e+001 +4.020e+001 +5.176e+001 +5.800e+001
+5.876e+001 +5.724e+001 +5.556e+001 +5.357e+001 +5.152e+001 +5.014e+001
+4.917e+001 +4.820e+001 +4.740e+001 +4.692e+001 +4.665e+001 +4.648e+001
+4.652e+001 +4.670e+001 +4.695e+001 +4.724e+001 +4.736e+001 +4.708e+001
+4.647e+001 +4.526e+001 +4.338e+001 +4.166e+001 +4.016e+001 +3.839e+001
+3.642e+001 +3.481e+001 +3.338e+001 +3.151e+001 +2.916e+001 +2.711e+001
+2.537e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -7.720e-001 +3.090e-001
-5.200e-002 -1.620e-001 -1.840e-001 -1.800e-001 -1.610e-001 -1.380e-001
-1.180e-001 -9.500e-002 -6.800e-002 -4.800e-002 -3.000e-002 -9.000e-003
+1.400e-002 +3.000e-002 +3.600e-002 +2.400e-002 -1.400e-002 -6.500e-002
-1.150e-001 -1.700e-001 -2.140e-001 -2.330e-001 -2.390e-001 -2.410e-001
-2.460e-001 -2.590e-001 -2.800e-001 -3.120e-001 -3.480e-001 -3.710e-001
-3.850e-001
  54.7726     28.95
   4.0592      1.00
  69.6357     19.37
  41.3310     53.23
  14.6683 10000000000.00
<Date: Wed Jul 02 10:45:25 2008
<Time Range=6 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: 800M SW OF PANORMOS, POWERLINE
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0119-B       /  50.0/  50.0/   1.0/  561697.000/ 3918376.000/
18.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=245.00
S  [V/A]:  +6.070e+001 +5.483e+001 +5.221e+001 +5.062e+001 +4.903e+001
+4.754e+001 +4.653e+001 +4.586e+001 +4.524e+001 +4.487e+001 +4.478e+001
+4.483e+001 +4.505e+001 +4.547e+001 +4.601e+001 +4.662e+001 +4.757e+001
+4.897e+001 +5.034e+001 +5.159e+001 +5.308e+001 +5.442e+001 +5.497e+001
+5.492e+001 +5.418e+001 +5.248e+001 +5.045e+001 +4.821e+001 +4.483e+001
+4.020e+001 +3.614e+001 +3.282e+001 +2.922e+001 +2.592e+001 +2.391e+001
+2.268e+001
Err[V/A]:  +3.780e-001 +2.730e-001 +1.940e-001 +1.630e-001 -1.420e-001
-1.210e-001 -1.010e-001 -8.200e-002 -5.600e-002 -2.300e-002 -1.000e-003
+1.600e-002 +3.500e-002 +5.700e-002 +7.900e-002 +9.900e-002 +1.250e-001
+1.510e-001 +1.640e-001 +1.630e-001 +1.410e-001 +8.700e-002 +2.400e-002
-3.700e-002 -1.110e-001 -1.920e-001 -2.580e-001 -3.170e-001 -3.820e-001
-4.320e-001 -4.520e-001 -4.550e-001 -4.450e-001 -4.100e-001 -3.540e-001
-2.850e-001
  45.9898     57.27
 192.9748     31.13
  14.6816     45.85
  14.6816      1.00
   3.6250 10000000000.00
```

```
<Date: Wed Jul 02 11:34:25 2008
<Time Range=6 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: 700M EAST OF SPRINGS,POWERLINE
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0120-C       /  50.0/  50.0/   1.0/  561834.000/ 3918378.000/
33.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=215.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.075e+001 +2.468e+001 +3.864e+001
+5.071e+001 +5.685e+001 +5.933e+001 +5.988e+001 +5.883e+001 +5.756e+001
+5.637e+001 +5.473e+001 +5.260e+001 +5.070e+001 +4.918e+001 +4.757e+001
+4.622e+001 +4.549e+001 +4.507e+001 +4.463e+001 +4.396e+001 +4.303e+001
+4.191e+001 +4.015e+001 +3.775e+001 +3.569e+001 +3.388e+001 +3.158e+001
+2.858e+001 +2.567e+001 +2.290e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.880e-001
+6.980e-001 +4.030e-001 +1.690e-001 -1.300e-002 -1.030e-001 -1.290e-001
-1.460e-001 -1.690e-001 -1.940e-001 -2.010e-001 -1.900e-001 -1.590e-001
-1.130e-001 -7.700e-002 -5.900e-002 -6.300e-002 -1.010e-001 -1.520e-001
-2.010e-001 -2.500e-001 -2.890e-001 -3.100e-001 -3.290e-001 -3.670e-001
-4.260e-001 -4.670e-001 -4.870e-001
  59.8354     34.60
  17.3363     11.74
  84.2302     20.26
  22.2186     42.01
   6.6274 10000000000.00
<Date: Wed Jul 02 12:10:48 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: 700M EAST OF SPRINGS,POWERLINE
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0121         /  50.0/  50.0/   1.0/  561502.000/ 3918532.000/
14.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 95.00
S  [V/A]:  +0.000e+000 +1.083e+001 +2.944e+001 +3.719e+001 +3.978e+001
+3.841e+001 +3.635e+001 +3.460e+001 +3.269e+001 +3.080e+001 +2.948e+001
+2.856e+001 +2.769e+001 +2.702e+001 +2.670e+001 +2.660e+001 +2.665e+001
+2.694e+001 +2.737e+001 +2.786e+001 +2.864e+001 +2.976e+001 +3.084e+001
+3.181e+001 +3.296e+001 +3.394e+001 +3.413e+001 +3.364e+001 +3.211e+001
+2.919e+001 +2.618e+001 +2.343e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -7.040e-001 +1.010e-001
-2.180e-001 -2.780e-001 -2.800e-001 -2.660e-001 -2.420e-001 -2.150e-001
-1.850e-001 -1.420e-001 -9.000e-002 -4.500e-002 -1.000e-002 +3.000e-002
+7.500e-002 +1.080e-001 +1.360e-001 +1.680e-001 +1.970e-001 +2.100e-001
+2.050e-001 +1.710e-001 +8.200e-002 -3.800e-002 -1.680e-001 -3.160e-001
-4.240e-001 -4.660e-001 -4.830e-001
  35.0303     15.58
  15.7869     10.13
  36.6517     82.24
  36.6517      1.98
   3.0000 10000000000.00
<Date: Wed Jul 02 12:40:35 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: 500M E OF SPRINGS, NEXT RIVER
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0122-A       /  50.0/  50.0/   1.0/  561411.000/ 3918613.000/
13.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 46.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.386e+001 +2.442e+001 +2.959e+001
+3.040e+001 +2.977e+001 +2.906e+001 +2.823e+001 +2.745e+001 +2.691e+001
+2.657e+001 +2.629e+001 +2.618e+001 +2.627e+001 +2.648e+001 +2.689e+001
+2.756e+001 +2.824e+001 +2.889e+001 +2.974e+001 +3.075e+001 +3.159e+001
+3.231e+001 +3.316e+001 +3.409e+001 +3.474e+001 +3.515e+001 +3.537e+001
+3.513e+001 +3.446e+001 +3.354e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +5.010e-001
-9.000e-003 -1.310e-001 -1.490e-001 -1.390e-001 -1.180e-001 -9.700e-002
-7.300e-002 -3.900e-002 +2.000e-003 +3.800e-002 +6.800e-002 +1.010e-001
+1.310e-001 +1.490e-001 +1.580e-001 +1.610e-001 +1.600e-001 +1.550e-001
```

```
+1.500e-001 +1.410e-001 +1.220e-001 +9.500e-002 +6.100e-002 +3.000e-003
-7.700e-002 -1.490e-001 -2.100e-001
  28.6990     19.19
  17.5377      8.57
  48.6706     58.86
  30.0963     68.31
  10.7890 10000000000.00
<Date: Wed Jul 02 13:30:25 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: 400M E OF SPRINGS, NEXT RIVER
<Place: GLYKIA VRISI
<*****************************************************************************
*********
#GEOSEC: 0123-B       /  50.0/  50.0/   1.0/  561140.000/ 3918506.000/
7.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=139.00
S  [V/A]:  +0.000e+000 +1.214e+001 +2.665e+001 +3.308e+001 +3.569e+001
+3.470e+001 +3.265e+001 +3.076e+001 +2.871e+001 +2.692e+001 +2.592e+001
+2.539e+001 +2.513e+001 +2.527e+001 +2.568e+001 +2.618e+001 +2.694e+001
+2.792e+001 +2.880e+001 +2.958e+001 +3.056e+001 +3.169e+001 +3.254e+001
+3.313e+001 +3.360e+001 +3.375e+001 +3.362e+001 +3.343e+001 +3.320e+001
+3.306e+001 +3.299e+001 +3.282e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -6.870e-001 +1.370e-001
-2.220e-001 -3.140e-001 -3.250e-001 -2.990e-001 -2.360e-001 -1.670e-001
-9.900e-002 -1.800e-002 +6.200e-002 +1.130e-001 +1.430e-001 +1.640e-001
+1.760e-001 +1.800e-001 +1.810e-001 +1.780e-001 +1.640e-001 +1.390e-001
+1.040e-001 +5.200e-002 -3.000e-003 -3.200e-002 -3.900e-002 -3.000e-002
-1.700e-002 -2.500e-002 -4.500e-002
  31.9611     14.54
  15.1391     10.27
  67.5119     46.21
  26.7088     72.95
  34.3146 10000000000.00
<Date: Wed Jul 02 14:30:55 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: 170M E OF SPRINGS, NEXT RIVER
<Place: GLYKIA VRISI
<*****************************************************************************
*********
#GEOSEC: 0124-B       /  50.0/  50.0/   1.0/  561019.000/ 3918234.000/
30.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=248.00
S  [V/A]:  +0.000e+000 +8.850e+000 +3.869e+001 +5.662e+001 +6.941e+001
+7.500e+001 +7.571e+001 +7.494e+001 +7.283e+001 +6.874e+001 +6.413e+001
+5.971e+001 +5.432e+001 +4.887e+001 +4.523e+001 +4.289e+001 +4.090e+001
+3.966e+001 +3.930e+001 +3.934e+001 +3.966e+001 +4.022e+001 +4.079e+001
+4.138e+001 +4.235e+001 +4.396e+001 +4.576e+001 +4.761e+001 +4.996e+001
+5.169e+001 +5.086e+001 +4.774e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.830e-001 +5.940e-001
+1.760e-001 -1.200e-002 -1.030e-001 -1.970e-001 -3.010e-001 -3.650e-001
-3.940e-001 -4.030e-001 -3.840e-001 -3.430e-001 -2.880e-001 -2.020e-001
-9.500e-002 -2.100e-002 +2.400e-002 +5.600e-002 +7.600e-002 +9.100e-002
+1.130e-001 +1.520e-001 +2.100e-001 +2.530e-001 +2.670e-001 +2.200e-001
+2.300e-002 -2.600e-001 -4.360e-001
  66.4620     31.33
  14.7935     15.14
  74.7526     93.63
  20.2809     47.39
   3.0000 10000000000.00
<Date: Thu Jul 03 08:00:09 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: 80M S OF SALTY SPRING
<Place: GLYKIA VRISI
<*****************************************************************************
*********
#GEOSEC: 0125-D       /  50.0/  50.0/   1.0/  561137.000/ 3918351.000/
28.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=150.00
S  [V/A]:  +0.000e+000 +1.929e+001 +5.420e+001 +7.722e+001 +9.356e+001
+9.586e+001 +9.030e+001 +8.405e+001 +7.644e+001 +6.836e+001 +6.227e+001
+5.752e+001 +5.228e+001 +4.706e+001 +4.338e+001 +4.077e+001 +3.818e+001
```

```
+3.602e+001 +3.485e+001 +3.426e+001 +3.402e+001 +3.433e+001 +3.497e+001
+3.572e+001 +3.679e+001 +3.818e+001 +3.944e+001 +4.068e+001 +4.251e+001
+4.519e+001 +4.786e+001 +5.037e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.740e-001 +4.970e-001
-1.260e-001 -3.390e-001 -3.860e-001 -4.010e-001 -4.070e-001 -4.090e-001
-4.080e-001 -4.030e-001 -3.900e-001 -3.690e-001 -3.420e-001 -2.940e-001
-2.210e-001 -1.480e-001 -8.100e-002 +1.000e-015 +7.900e-002 +1.280e-001
+1.540e-001 +1.710e-001 +1.850e-001 +2.020e-001 +2.260e-001 +2.660e-001
+3.110e-001 +3.350e-001 +3.470e-001
  78.7026     26.90
  13.5677     13.87
  39.5674     21.66
  39.5674      4.67
 100.0000 10000000000.00
<Date: Thu Jul 03 08:35:20 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 120M EAST OF SALTY SPRING
<Place: GLYKIA VRISI
<*****************************************************************************
*********
#GEOSEC: 0126         /  50.0/  50.0/   1.0/  560780.000/ 3918513.000/
14.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=263.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +8.896e+000 +1.743e+001
+2.145e+001 +2.317e+001 +2.441e+001 +2.601e+001 +2.808e+001 +2.996e+001
+3.164e+001 +3.362e+001 +3.561e+001 +3.685e+001 +3.751e+001 +3.783e+001
+3.762e+001 +3.708e+001 +3.641e+001 +3.538e+001 +3.385e+001 +3.232e+001
+3.086e+001 +2.901e+001 +2.705e+001 +2.580e+001 +2.509e+001 +2.478e+001
+2.524e+001 +2.632e+001 +2.776e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.990e-001
+5.600e-001 +3.520e-001 +3.220e-001 +3.320e-001 +3.460e-001 +3.480e-001
+3.350e-001 +2.970e-001 +2.280e-001 +1.550e-001 +8.800e-002 +1.200e-002
-5.900e-002 -1.050e-001 -1.380e-001 -1.800e-001 -2.320e-001 -2.730e-001
-2.990e-001 -3.080e-001 -2.810e-001 -2.210e-001 -1.350e-001 +4.000e-003
+1.760e-001 +3.050e-001 +4.020e-001
  26.2916      6.51
  18.3841      5.08
  86.4627     29.43
  17.5396     78.43
 100.0000 10000000000.00
<Date: Thu Jul 03 09:17:39 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 240M NORTH OF SWEET SPRING
<Place: GLYKIA VRISI
<*****************************************************************************
*********
#GEOSEC: 0127-B       /  50.0/  50.0/   1.0/  561448.000/ 3917729.000/
40.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=127.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.853e+000 +1.800e+001 +3.107e+001
+4.245e+001 +5.043e+001 +5.654e+001 +6.300e+001 +6.862e+001 +7.148e+001
+7.273e+001 +7.321e+001 +7.291e+001 +7.238e+001 +7.186e+001 +7.123e+001
+7.056e+001 +7.010e+001 +6.978e+001 +6.944e+001 +6.906e+001 +6.865e+001
+6.811e+001 +6.712e+001 +6.531e+001 +6.324e+001 +6.105e+001 +5.792e+001
+5.395e+001 +5.056e+001 +4.772e+001 +4.440e+001 +4.084e+001 +3.807e+001
+3.575e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.970e-001
+7.960e-001 +6.720e-001 +5.770e-001 +4.540e-001 +2.960e-001 +1.660e-001
+7.900e-002 +1.000e-002 -3.200e-002 -4.600e-002 -4.900e-002 -4.700e-002
-4.200e-002 -3.500e-002 -3.000e-002 -2.700e-002 -3.100e-002 -4.500e-002
-6.700e-002 -1.050e-001 -1.610e-001 -2.100e-001 -2.500e-001 -2.910e-001
-3.230e-001 -3.390e-001 -3.460e-001 -3.490e-001 -3.520e-001 -3.590e-001
-3.690e-001
  13.5155      2.98
 400.0000     25.46
  52.4352     64.07
  55.4863     52.37
  13.9312 10000000000.00
<Date: Thu Jul 03 10:36:34 2008
<Time Range=6 Current= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
```

```
<Remark: 400M EAST OF G-50
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0128-B       /  50.0/  50.0/   1.0/  561620.000/ 3917868.000/
21.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 68.00
S  [V/A]:  +0.000e+000 +0.000e+000 +7.200e+000 +1.675e+001 +2.108e+001
+2.167e+001 +2.132e+001 +2.098e+001 +2.076e+001 +2.076e+001 +2.097e+001
+2.128e+001 +2.185e+001 +2.273e+001 +2.365e+001 +2.455e+001 +2.575e+001
+2.724e+001 +2.853e+001 +2.964e+001 +3.099e+001 +3.252e+001 +3.378e+001
+3.485e+001 +3.612e+001 +3.749e+001 +3.840e+001 +3.897e+001 +3.929e+001
+3.910e+001 +3.852e+001 +3.776e+001 +3.660e+001 +3.505e+001 +3.369e+001
+3.249e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +5.720e-001
+5.000e-003 -9.400e-002 -7.900e-002 -2.900e-002 +3.000e-002 +7.900e-002
+1.180e-001 +1.640e-001 +2.080e-001 +2.370e-001 +2.530e-001 +2.630e-001
+2.650e-001 +2.600e-001 +2.510e-001 +2.390e-001 +2.250e-001 +2.150e-001
+2.060e-001 +1.900e-001 +1.590e-001 +1.200e-001 +7.600e-002 +1.400e-002
-5.900e-002 -1.140e-001 -1.520e-001 -1.860e-001 -2.140e-001 -2.300e-001
-2.420e-001
  22.6686     15.11
   8.6129      1.93
  57.2893     36.75
  48.8298     88.48
  16.7377 10000000000.00
<Date: Thu Jul 03 11:16:53 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 500M NORTH OF G-52
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0129-B       /  50.0/  50.0/   1.0/  561780.000/ 3917814.000/
19.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=249.00
S  [V/A]:  +0.000e+000 +2.574e+001 +4.682e+001 +5.439e+001 +5.450e+001
+4.977e+001 +4.570e+001 +4.299e+001 +4.067e+001 +3.920e+001 +3.879e+001
+3.897e+001 +3.974e+001 +4.134e+001 +4.317e+001 +4.499e+001 +4.748e+001
+5.056e+001 +5.319e+001 +5.549e+001 +5.835e+001 +6.172e+001 +6.461e+001
+6.715e+001 +7.040e+001 +7.435e+001 +7.759e+001 +8.019e+001 +8.266e+001
+8.375e+001 +8.284e+001 +8.090e+001 +7.772e+001 +7.409e+001 +7.193e+001
+7.110e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.900e-001 -4.400e-001 -1.740e-001
-3.590e-001 -3.550e-001 -3.070e-001 -2.220e-001 -1.080e-001 -1.100e-002
+6.500e-002 +1.450e-001 +2.180e-001 +2.610e-001 +2.820e-001 +2.930e-001
+2.920e-001 +2.860e-001 +2.790e-001 +2.720e-001 +2.650e-001 +2.620e-001
+2.610e-001 +2.600e-001 +2.540e-001 +2.360e-001 +2.000e-001 +1.210e-001
-6.000e-003 -1.170e-001 -1.860e-001 -2.190e-001 -1.940e-001 -1.220e-001
-3.800e-002
  54.8178     17.42
   6.9880      2.42
 127.1128    100.00
 100.0000    100.00
  32.8957 10000000000.00
<Date: Thu Jul 03 12:12:55 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 500M NE OF G-52
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0130-B       /  50.0/  50.0/   1.0/  562017.000/ 3917796.000/
21.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=129.00
S  [V/A]:  +0.000e+000 +0.000e+000 +9.540e+000 +1.536e+001 +1.874e+001
+1.976e+001 +1.957e+001 +1.917e+001 +1.872e+001 +1.842e+001 +1.847e+001
+1.872e+001 +1.929e+001 +2.028e+001 +2.134e+001 +2.237e+001 +2.376e+001
+2.545e+001 +2.688e+001 +2.806e+001 +2.943e+001 +3.083e+001 +3.180e+001
+3.244e+001 +3.297e+001 +3.318e+001 +3.299e+001 +3.256e+001 +3.171e+001
+3.033e+001 +2.898e+001 +2.777e+001 +2.634e+001 +2.488e+001 +2.392e+001
+2.333e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.950e-001 +5.530e-001
```

```
+7.400e-002 -9.400e-002 -1.260e-001 -1.000e-001 -2.500e-002 +5.400e-002
+1.220e-001 +1.970e-001 +2.630e-001 +2.990e-001 +3.170e-001 +3.230e-001
+3.150e-001 +2.970e-001 +2.760e-001 +2.440e-001 +1.990e-001 +1.570e-001
+1.170e-001 +6.300e-002 -5.000e-003 -6.400e-002 -1.160e-001 -1.760e-001
-2.310e-001 -2.620e-001 -2.730e-001 -2.680e-001 -2.380e-001 -1.930e-001
-1.440e-001
  20.0081     17.46
  19.8427      1.00
  19.8427      3.34
  60.0995     67.07
  13.4400 10000000000.00
<Date: Thu Jul 03 12:47:23 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ON BARSUKOV'S 25M-LOOP PROFILE
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0131-B       /  50.0/  50.0/   1.0/  562212.000/ 3917821.000/
18.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=215.00
S  [V/A]:  +0.000e+000 +1.790e+001 +3.129e+001 +3.610e+001 +3.742e+001
+3.675e+001 +3.592e+001 +3.538e+001 +3.494e+001 +3.472e+001 +3.471e+001
+3.485e+001 +3.513e+001 +3.556e+001 +3.595e+001 +3.623e+001 +3.645e+001
+3.645e+001 +3.622e+001 +3.583e+001 +3.512e+001 +3.400e+001 +3.285e+001
+3.177e+001 +3.036e+001 +2.872e+001 +2.746e+001 +2.647e+001 +2.539e+001
+2.437e+001 +2.369e+001 +2.321e+001 +2.267e+001 +2.198e+001 +2.117e+001
+2.018e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.850e-001 -4.830e-001 +5.500e-002
-1.010e-001 -1.070e-001 -8.200e-002 -4.900e-002 -1.300e-002 +1.400e-002
+3.400e-002 +5.000e-002 +6.100e-002 +5.600e-002 +4.400e-002 +1.800e-002
-2.000e-002 -5.700e-002 -9.000e-002 -1.310e-001 -1.760e-001 -2.080e-001
-2.290e-001 -2.450e-001 -2.500e-001 -2.440e-001 -2.310e-001 -2.080e-001
-1.760e-001 -1.510e-001 -1.360e-001 -1.390e-001 -1.830e-001 -2.610e-001
-3.340e-001
  34.6607     18.70
  29.9671      1.10
  29.9671      2.22
  36.8010     36.29
  14.9362 10000000000.00
<Date: Thu Jul 03 13:14:49 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EASTERN OF BARSUKOV'S PROFILE
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0132-A       /  50.0/  50.0/   1.0/  562520.000/ 3917914.000/
20.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=258.00
S  [V/A]:  +6.001e+001 +3.637e+001 +2.497e+001 +1.869e+001 +1.380e+001
+1.048e+001 +8.863e+000 +8.006e+000 +7.362e+000 +6.969e+000 +6.810e+000
+6.755e+000 +6.746e+000 +6.795e+000 +6.869e+000 +6.947e+000 +7.059e+000
+7.194e+000 +7.303e+000 +7.397e+000 +7.515e+000 +7.688e+000 +7.900e+000
+8.158e+000 +8.611e+000 +9.368e+000 +1.018e+001 +1.098e+001 +1.199e+001
+1.295e+001 +1.339e+001 +1.349e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +5.000e-001 +5.000e-001 -5.000e-001
-4.960e-001 -4.740e-001 -4.200e-001 -3.140e-001 -1.790e-001 -8.800e-002
-3.300e-002 +1.200e-002 +5.000e-002 +7.000e-002 +8.200e-002 +9.000e-002
+8.900e-002 +8.800e-002 +8.800e-002 +9.900e-002 +1.370e-001 +1.910e-001
+2.540e-001 +3.400e-001 +4.280e-001 +4.730e-001 +4.740e-001 +4.160e-001
+2.720e-001 +1.200e-001 -1.200e-002
   9.3643      1.11
   7.1613     15.85
   7.1613      2.37
   8.6767      9.33
  37.1754 10000000000.00
<Date: Thu Jul 03 14:14:50 2008
<Time Range=5 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 900M WESTERN OF ROUMELI
<Place: ROUMELI
<********************************************************************************
```

```
*********
#GEOSEC: 0133-A       /  50.0/  50.0/   1.0/  562733.000/ 3917961.000/
23.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=154.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.505e+001 +3.388e+001 +4.414e+001
+4.422e+001 +4.094e+001 +3.812e+001 +3.543e+001 +3.335e+001 +3.226e+001
+3.163e+001 +3.115e+001 +3.090e+001 +3.091e+001 +3.106e+001 +3.142e+001
+3.203e+001 +3.265e+001 +3.320e+001 +3.387e+001 +3.465e+001 +3.538e+001
+3.618e+001 +3.748e+001 +3.947e+001 +4.127e+001 +4.259e+001 +4.322e+001
+4.181e+001 +3.895e+001 +3.583e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +5.960e-001
-2.120e-001 -3.630e-001 -3.570e-001 -3.010e-001 -2.180e-001 -1.530e-001
-1.080e-001 -6.200e-002 -1.600e-002 +1.900e-002 +4.700e-002 +7.800e-002
+1.030e-001 +1.130e-001 +1.140e-001 +1.110e-001 +1.170e-001 +1.390e-001
+1.720e-001 +2.200e-001 +2.540e-001 +2.360e-001 +1.550e-001 -3.100e-002
-2.770e-001 -4.000e-001 -4.520e-001
  63.6185      7.23
  24.3934     22.98
  46.9131     72.30
  31.4218     47.25
   3.0000 10000000000.00
<Date: Thu Jul 03 14:54:30 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 700M WEST OF ROUMELI VILLAGE
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0134-C       /  50.0/  50.0/   1.0/  562291.000/ 3917906.000/
26.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=208.00
S  [V/A]:  +4.686e+001 +5.396e+001 +5.395e+001 +5.169e+001 +4.786e+001
+4.310e+001 +3.925e+001 +3.617e+001 +3.275e+001 +2.954e+001 +2.755e+001
+2.634e+001 +2.546e+001 +2.517e+001 +2.547e+001 +2.608e+001 +2.724e+001
+2.909e+001 +3.093e+001 +3.264e+001 +3.475e+001 +3.698e+001 +3.851e+001
+3.951e+001 +4.033e+001 +4.069e+001 +4.056e+001 +4.020e+001 +3.957e+001
+3.873e+001 +3.804e+001 +3.744e+001 +3.663e+001 +3.544e+001 +3.412e+001
+3.272e+001
Err[V/A]:  -6.770e-001 -2.270e-001 +1.320e-001 +2.780e-001 -3.510e-001
-3.870e-001 -4.020e-001 -4.070e-001 -3.980e-001 -3.620e-001 -3.050e-001
-2.320e-001 -1.230e-001 +1.200e-002 +1.180e-001 +1.950e-001 +2.710e-001
+3.290e-001 +3.500e-001 +3.470e-001 +3.190e-001 +2.620e-001 +2.030e-001
+1.480e-001 +8.200e-002 +9.000e-003 -4.200e-002 -7.400e-002 -9.600e-002
-1.050e-001 -1.080e-001 -1.150e-001 -1.390e-001 -1.890e-001 -2.440e-001
-2.920e-001
  65.1981      7.90
  18.5626     13.62
  18.8025      6.30
 100.0000     68.39
  22.1861 10000000000.00
<Date: Fri Jul 04 07:50:43 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES IN LOOP, NEAR STREET
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0135-C       /  50.0/  50.0/   1.0/  562940.000/ 3917999.000/
23.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=251.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.860e+001 +2.875e+001 +3.238e+001
+3.122e+001 +2.932e+001 +2.782e+001 +2.638e+001 +2.519e+001 +2.456e+001
+2.424e+001 +2.406e+001 +2.408e+001 +2.422e+001 +2.437e+001 +2.455e+001
+2.471e+001 +2.479e+001 +2.481e+001 +2.482e+001 +2.483e+001 +2.489e+001
+2.501e+001 +2.527e+001 +2.576e+001 +2.633e+001 +2.696e+001 +2.788e+001
+2.918e+001 +3.043e+001 +3.166e+001 +3.332e+001 +3.537e+001 +3.679e+001
+3.727e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.820e-001 +2.280e-001
-2.390e-001 -2.990e-001 -2.820e-001 -2.350e-001 -1.690e-001 -1.110e-001
-6.600e-002 -1.900e-002 +2.000e-002 +3.800e-002 +4.200e-002 +3.600e-002
+2.400e-002 +1.200e-002 +4.000e-003 +2.000e-003 +9.000e-003 +2.400e-002
+4.400e-002 +7.400e-002 +1.140e-001 +1.460e-001 +1.730e-001 +2.030e-001
+2.330e-001 +2.560e-001 +2.740e-001 +2.840e-001 +2.550e-001 +1.550e-001
```

```
+2.400e-002
  42.3453      5.07
  20.1514     16.39
  28.1950     59.17
  28.1950     16.05
  96.1926 10000000000.00
<Date: Fri Jul 04 08:17:29 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES IN LOOP, 170M W OF G-63
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0136-B       /  50.0/  50.0/   1.0/  563133.000/ 3918035.000/
21.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=150.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.144e+001 +2.025e+001 +2.363e+001
+2.345e+001 +2.262e+001 +2.202e+001 +2.154e+001 +2.127e+001 +2.125e+001
+2.135e+001 +2.159e+001 +2.197e+001 +2.233e+001 +2.263e+001 +2.297e+001
+2.331e+001 +2.356e+001 +2.379e+001 +2.410e+001 +2.455e+001 +2.500e+001
+2.543e+001 +2.599e+001 +2.658e+001 +2.697e+001 +2.721e+001 +2.743e+001
+2.770e+001 +2.807e+001 +2.860e+001 +2.960e+001 +3.136e+001 +3.326e+001
+3.500e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +3.640e-001
-1.190e-001 -1.750e-001 -1.420e-001 -8.800e-002 -3.000e-002 +1.500e-002
+4.500e-002 +7.100e-002 +8.900e-002 +9.100e-002 +8.600e-002 +7.700e-002
+6.700e-002 +6.500e-002 +7.000e-002 +8.100e-002 +9.900e-002 +1.130e-001
+1.190e-001 +1.150e-001 +9.600e-002 +7.300e-002 +5.500e-002 +4.700e-002
+6.500e-002 +1.050e-001 +1.580e-001 +2.320e-001 +3.080e-001 +3.380e-001
+3.430e-001
  26.8890      3.63
  20.2573     18.01
  31.6690     99.89
  31.6690     25.09
 100.0000 10000000000.00
<Date: Fri Jul 04 09:14:03 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO G-63,  IN VILLAGE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0137-B       /  50.0/  50.0/   1.0/  563556.000/ 3918127.000/
28.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=143.00
S  [V/A]:  +0.000e+000 +2.712e+000 +1.305e+001 +1.772e+001 +2.010e+001
+2.090e+001 +2.094e+001 +2.079e+001 +2.050e+001 +2.017e+001 +2.000e+001
+1.997e+001 +2.009e+001 +2.044e+001 +2.087e+001 +2.132e+001 +2.191e+001
+2.262e+001 +2.320e+001 +2.369e+001 +2.426e+001 +2.488e+001 +2.536e+001
+2.572e+001 +2.602e+001 +2.603e+001 +2.567e+001 +2.510e+001 +2.413e+001
+2.284e+001 +2.180e+001 +2.102e+001 +2.023e+001 +1.954e+001 +1.907e+001
+1.862e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.280e-001 +3.840e-001
+8.200e-002 -1.900e-002 -5.900e-002 -7.500e-002 -5.900e-002 -2.700e-002
+8.000e-003 +5.600e-002 +1.030e-001 +1.320e-001 +1.470e-001 +1.520e-001
+1.510e-001 +1.440e-001 +1.370e-001 +1.280e-001 +1.180e-001 +1.040e-001
+8.200e-002 +3.600e-002 -4.400e-002 -1.200e-001 -1.800e-001 -2.300e-001
-2.540e-001 -2.470e-001 -2.250e-001 -1.880e-001 -1.530e-001 -1.520e-001
-1.680e-001
  20.8501     30.16
  53.3389     13.97
  30.0857     19.49
  30.0857     16.96
  11.5004 10000000000.00
<Date: Fri Jul 04 09:58:28 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN ROUMELI VILLAGE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0138-B       /  50.0/  50.0/   1.0/  563725.000/ 3917991.000/
45.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 81.00
```

```
S  [V/A]:  +4.282e+000 +3.956e+000 +5.668e+000 +7.835e+000 +1.068e+001
+1.362e+001 +1.551e+001 +1.667e+001 +1.764e+001 +1.831e+001 +1.866e+001
+1.889e+001 +1.915e+001 +1.949e+001 +1.981e+001 +2.010e+001 +2.048e+001
+2.094e+001 +2.135e+001 +2.173e+001 +2.224e+001 +2.291e+001 +2.354e+001
+2.416e+001 +2.505e+001 +2.627e+001 +2.745e+001 +2.860e+001 +3.011e+001
+3.187e+001 +3.312e+001 +3.387e+001 +3.417e+001 +3.347e+001 +3.196e+001
+3.007e+001
Err[V/A]:  +5.000e-001 -6.810e-001 -8.910e-001 -8.870e-001 +8.410e-001
+6.930e-001 +5.140e-001 +3.680e-001 +2.340e-001 +1.350e-001 +9.300e-002
+7.900e-002 +8.000e-002 +8.900e-002 +9.500e-002 +1.000e-001 +1.060e-001
+1.110e-001 +1.170e-001 +1.240e-001 +1.360e-001 +1.520e-001 +1.700e-001
+1.880e-001 +2.130e-001 +2.440e-001 +2.670e-001 +2.790e-001 +2.780e-001
+2.460e-001 +1.870e-001 +1.080e-001 -2.000e-002 -1.880e-001 -3.130e-001
-3.940e-001
  15.3554      5.42
  23.6722     35.00
  37.7194     44.95
  50.1158    100.00
   4.1019 10000000000.00
<Date: Fri Jul 04 10:26:24 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN ROUMELI VILLAGE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0139-C       /  50.0/  50.0/   1.0/  564084.000/ 3918031.000/
34.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=311.00
S  [V/A]:  +0.000e+000 +1.699e+000 +2.894e+001 +4.519e+001 +5.674e+001
+6.283e+001 +6.493e+001 +6.574e+001 +6.593e+001 +6.536e+001 +6.447e+001
+6.357e+001 +6.254e+001 +6.169e+001 +6.136e+001 +6.140e+001 +6.184e+001
+6.287e+001 +6.411e+001 +6.542e+001 +6.731e+001 +6.982e+001 +7.213e+001
+7.417e+001 +7.658e+001 +7.884e+001 +7.980e+001 +7.968e+001 +7.806e+001
+7.398e+001 +6.891e+001 +6.359e+001 +5.626e+001 +4.741e+001 +4.034e+001
+3.477e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.950e-001 +6.610e-001
+2.870e-001 +1.220e-001 +5.000e-002 -1.000e-002 -6.000e-002 -8.500e-002
-9.100e-002 -7.800e-002 -4.600e-002 -1.100e-002 +2.000e-002 +5.800e-002
+9.800e-002 +1.270e-001 +1.470e-001 +1.670e-001 +1.830e-001 +1.900e-001
+1.850e-001 +1.610e-001 +1.030e-001 +2.800e-002 -5.800e-002 -1.790e-001
-3.110e-001 -3.950e-001 -4.420e-001 -4.750e-001 -4.900e-001 -4.950e-001
-4.970e-001
  63.1169     71.62
  80.3178     80.79
   7.7353     17.60
  11.5662     17.48
   1.5614 10000000000.00
<Date: Fri Jul 04 10:57:54 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN ROUMELI VILLAGE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0140-C       /  50.0/  50.0/   1.0/  564560.000/ 3917920.000/
62.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=978.00
S  [V/A]:  +2.455e+001 +1.714e+001 +1.469e+001 +1.384e+001 +1.344e+001
+1.313e+001 +1.263e+001 +1.199e+001 +1.099e+001 +9.730e+000 +8.732e+000
+8.010e+000 +7.326e+000 +6.805e+000 +6.577e+000 +6.513e+000 +6.575e+000
+6.820e+000 +7.166e+000 +7.575e+000 +8.236e+000 +9.279e+000 +1.043e+001
+1.168e+001 +1.363e+001 +1.656e+001 +1.954e+001 +2.243e+001 +2.611e+001
+2.982e+001 +3.190e+001 +3.277e+001 +3.271e+001 +3.139e+001 +2.967e+001
+2.805e+001
Err[V/A]:  +5.000e-001 +4.950e-001 +4.070e-001 +2.360e-001 -1.200e-001
-1.560e-001 -2.550e-001 -3.360e-001 -4.010e-001 -4.330e-001 -4.330e-001
-4.130e-001 -3.580e-001 -2.490e-001 -1.230e-001 -1.300e-002 +1.100e-001
+2.340e-001 +3.270e-001 +3.990e-001 +4.810e-001 +5.680e-001 +6.300e-001
+6.760e-001 +7.180e-001 +7.450e-001 +7.460e-001 +7.210e-001 +6.430e-001
+4.740e-001 +2.770e-001 +9.800e-002 -9.800e-002 -2.550e-001 -3.200e-001
-3.510e-001
```

```
   8.2547     22.22
 200.0000     85.77
 156.4119     37.11
 156.4119     14.34
   1.0000 10000000000.00
<Date: Fri Jul 04 11:30:13 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EASTERN OF  ROUMELI VILLAGE
<Place: ROUMELI
<***************************************************************************
*********
#GEOSEC: 0141-B       /  50.0/  50.0/   1.0/  564339.000/ 3917893.000/
57.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=663.00
S  [V/A]:  +0.000e+000 +6.689e+000 +1.014e+001 +1.183e+001 +1.289e+001
+1.308e+001 +1.258e+001 +1.185e+001 +1.077e+001 +9.546e+000 +8.724e+000
+8.225e+000 +7.872e+000 +7.783e+000 +7.946e+000 +8.229e+000 +8.772e+000
+9.674e+000 +1.068e+001 +1.177e+001 +1.342e+001 +1.586e+001 +1.834e+001
+2.077e+001 +2.401e+001 +2.788e+001 +3.087e+001 +3.321e+001 +3.553e+001
+3.700e+001 +3.683e+001 +3.566e+001 +3.334e+001 +3.011e+001 +2.742e+001
+2.521e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.560e-001 -5.880e-001 +2.450e-001
-8.400e-002 -2.750e-001 -3.650e-001 -4.100e-001 -4.110e-001 -3.690e-001
-2.920e-001 -1.500e-001 +4.000e-002 +1.820e-001 +2.840e-001 +3.900e-001
+4.890e-001 +5.570e-001 +6.040e-001 +6.500e-001 +6.850e-001 +6.950e-001
+6.860e-001 +6.510e-001 +5.810e-001 +5.040e-001 +4.230e-001 +2.890e-001
+7.500e-002 -1.300e-001 -2.700e-001 -3.650e-001 -4.100e-001 -4.260e-001
-4.350e-001
   9.6897     19.59
 285.0710     99.85
 130.2786     11.68
 130.2786     13.45
   2.2887 10000000000.00
<Date: Fri Jul 04 11:56:01 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EASTERN OF  ROUMELI VILLAGE
<Place: ROUMELI
<***************************************************************************
*********
#GEOSEC: 0142-B       /  50.0/  50.0/   1.0/  564801.000/ 3917916.000/
49.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=248.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.724e+000 +1.268e+001 +1.852e+001
+2.184e+001 +2.375e+001 +2.522e+001 +2.703e+001 +2.916e+001 +3.099e+001
+3.256e+001 +3.441e+001 +3.634e+001 +3.765e+001 +3.849e+001 +3.911e+001
+3.931e+001 +3.912e+001 +3.872e+001 +3.801e+001 +3.683e+001 +3.556e+001
+3.424e+001 +3.235e+001 +2.980e+001 +2.750e+001 +2.539e+001 +2.270e+001
+1.958e+001 +1.709e+001 +1.508e+001 +1.284e+001 +1.058e+001 +8.968e+000
+7.763e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.440e-001
+5.150e-001 +3.900e-001 +3.580e-001 +3.440e-001 +3.340e-001 +3.230e-001
+3.070e-001 +2.760e-001 +2.260e-001 +1.730e-001 +1.220e-001 +5.900e-002
-5.000e-003 -5.000e-002 -8.500e-002 -1.250e-001 -1.770e-001 -2.230e-001
-2.650e-001 -3.160e-001 -3.690e-001 -4.060e-001 -4.330e-001 -4.580e-001
-4.760e-001 -4.850e-001 -4.890e-001 -4.920e-001 -4.940e-001 -4.950e-001
-4.960e-001
  24.6120     14.31
 193.7436     17.89
  19.7292     33.49
   4.4253     19.29
   1.0000 10000000000.00
<Date: Fri Jul 04 12:21:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 470M NE OF G-81
<Place: ACHLADES
<***************************************************************************
*********
#GEOSEC: 0143-C       /  50.0/  50.0/   1.0/  565013.000/ 3917822.000/
53.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=119.00
S  [V/A]:  +0.000e+000 +1.440e-001 +1.596e+001 +2.403e+001 +2.786e+001
```

```
+2.802e+001 +2.675e+001 +2.529e+001 +2.345e+001 +2.152e+001 +2.019e+001
+1.926e+001 +1.841e+001 +1.774e+001 +1.742e+001 +1.730e+001 +1.733e+001
+1.761e+001 +1.807e+001 +1.863e+001 +1.956e+001 +2.101e+001 +2.257e+001
+2.419e+001 +2.656e+001 +2.978e+001 +3.268e+001 +3.516e+001 +3.782e+001
+3.977e+001 +4.013e+001 +3.952e+001 +3.790e+001 +3.531e+001 +3.290e+001
+3.080e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.810e-001 +3.740e-001
-1.230e-001 -2.800e-001 -3.280e-001 -3.420e-001 -3.290e-001 -3.000e-001
-2.620e-001 -2.060e-001 -1.340e-001 -7.200e-002 -2.200e-002 +4.200e-002
+1.160e-001 +1.800e-001 +2.340e-001 +3.000e-001 +3.720e-001 +4.260e-001
+4.630e-001 +4.950e-001 +5.060e-001 +4.850e-001 +4.350e-001 +3.240e-001
+1.390e-001 -3.200e-002 -1.600e-001 -2.660e-001 -3.350e-001 -3.670e-001
-3.860e-001
  28.3715      7.31
  14.7373     26.19
 200.0000    125.60
   5.6735 10000000000.00
<Date: Fri Jul 04 13:18:57 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 200M NW OF G-81
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0144-B       /  50.0/  50.0/   1.0/  565291.000/ 3917871.000/
50.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 65.00
S  [V/A]:  +0.000e+000 +3.144e+000 +1.290e+001 +1.808e+001 +2.180e+001
+2.446e+001 +2.603e+001 +2.706e+001 +2.802e+001 +2.878e+001 +2.921e+001
+2.947e+001 +2.970e+001 +2.985e+001 +2.986e+001 +2.978e+001 +2.954e+001
+2.910e+001 +2.859e+001 +2.808e+001 +2.734e+001 +2.633e+001 +2.532e+001
+2.434e+001 +2.299e+001 +2.129e+001 +1.989e+001 +1.872e+001 +1.741e+001
+1.612e+001 +1.525e+001 +1.466e+001 +1.412e+001 +1.378e+001 +1.375e+001
+1.395e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.680e-001 +6.160e-001
+3.860e-001 +2.780e-001 +2.150e-001 +1.550e-001 +1.020e-001 +7.000e-002
+5.100e-002 +3.400e-002 +1.200e-002 -9.000e-003 -3.000e-002 -5.800e-002
-8.900e-002 -1.130e-001 -1.330e-001 -1.610e-001 -2.000e-001 -2.380e-001
-2.710e-001 -3.080e-001 -3.390e-001 -3.520e-001 -3.530e-001 -3.410e-001
-3.110e-001 -2.740e-001 -2.320e-001 -1.640e-001 -6.100e-002 +4.900e-002
+1.520e-001
  24.0866      8.05
  35.7429     21.17
  17.8383     35.57
   7.2654     59.04
 100.0000 10000000000.00
<Date: Fri Jul 04 13:51:31 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR G-81, FENCES, POWER LINES
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0145-B       /  50.0/  50.0/   1.0/  565519.000/ 3917766.000/
54.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=195.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.539e+001 +2.560e+001 +3.139e+001
+3.341e+001 +3.354e+001 +3.317e+001 +3.244e+001 +3.142e+001 +3.051e+001
+2.976e+001 +2.891e+001 +2.806e+001 +2.749e+001 +2.711e+001 +2.676e+001
+2.654e+001 +2.648e+001 +2.651e+001 +2.665e+001 +2.694e+001 +2.728e+001
+2.766e+001 +2.825e+001 +2.916e+001 +3.015e+001 +3.122e+001 +3.283e+001
+3.512e+001 +3.733e+001 +3.936e+001 +4.188e+001 +4.446e+001 +4.593e+001
+4.642e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.970e-001 +5.750e-001
+1.320e-001 -2.900e-002 -9.000e-002 -1.290e-001 -1.540e-001 -1.610e-001
-1.580e-001 -1.480e-001 -1.270e-001 -1.040e-001 -8.400e-002 -5.700e-002
-2.600e-002 -1.000e-003 +1.900e-002 +4.000e-002 +6.500e-002 +8.500e-002
+1.040e-001 +1.350e-001 +1.770e-001 +2.180e-001 +2.550e-001 +2.970e-001
+3.350e-001 +3.500e-001 +3.470e-001 +3.140e-001 +2.340e-001 +1.270e-001
+1.700e-002
  31.6015     17.20
  22.2653     31.39
```

```
  51.3509    119.92
 100.0000    104.40
   1.6644 10000000000.00
<Date: Fri Jul 04 14:24:33 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 250M EAST OF G-81, POWER LINES
<Place: SIRIPIDIANA
<*****************************************************************************
*********
#GEOSEC: 0146-B       /  50.0/  50.0/   1.0/  565669.000/ 3917813.000/
67.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=187.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.486e+001 +2.394e+001 +2.989e+001
+3.337e+001 +3.510e+001 +3.612e+001 +3.682e+001 +3.698e+001 +3.663e+001
+3.604e+001 +3.509e+001 +3.383e+001 +3.272e+001 +3.181e+001 +3.077e+001
+2.975e+001 +2.908e+001 +2.864e+001 +2.827e+001 +2.802e+001 +2.795e+001
+2.799e+001 +2.817e+001 +2.864e+001 +2.930e+001 +3.013e+001 +3.152e+001
+3.368e+001 +3.590e+001 +3.801e+001 +4.060e+001 +4.308e+001 +4.431e+001
+4.470e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.960e-001 +6.630e-001
+3.480e-001 +2.180e-001 +1.450e-001 +6.300e-002 -2.100e-002 -8.200e-002
-1.230e-001 -1.550e-001 -1.780e-001 -1.850e-001 -1.820e-001 -1.690e-001
-1.440e-001 -1.160e-001 -9.000e-002 -5.900e-002 -2.700e-002 -2.000e-003
+2.100e-002 +5.700e-002 +1.100e-001 +1.650e-001 +2.170e-001 +2.800e-001
+3.410e-001 +3.700e-001 +3.680e-001 +3.240e-001 +2.200e-001 +1.090e-001
+1.200e-002
  34.5895     30.31
  19.2108     27.73
  51.0888     77.63
 100.0000    127.20
   2.8751 10000000000.00
<Date: Fri Jul 04 14:55:43 2008
<Time Range=6 Currrent= 3.60 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR STREET, POWER LINES
<Place: SIRIPIDIANA
<*****************************************************************************
*********
#GEOSEC: 0147-B       /  50.0/  50.0/   1.0/  563677.000/ 3914933.000/
41.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 96.00
S  [V/A]:  +6.025e+001 +4.729e+001 +4.182e+001 +3.919e+001 +3.749e+001
+3.659e+001 +3.612e+001 +3.576e+001 +3.521e+001 +3.441e+001 +3.364e+001
+3.301e+001 +3.233e+001 +3.170e+001 +3.133e+001 +3.109e+001 +3.084e+001
+3.058e+001 +3.034e+001 +3.010e+001 +2.973e+001 +2.923e+001 +2.874e+001
+2.828e+001 +2.768e+001 +2.696e+001 +2.638e+001 +2.588e+001 +2.528e+001
+2.453e+001 +2.379e+001 +2.300e+001
Err[V/A]:  +4.980e-001 +4.680e-001 +3.820e-001 +2.750e-001 -1.600e-001
-8.500e-002 -6.500e-002 -7.100e-002 -9.300e-002 -1.160e-001 -1.240e-001
-1.180e-001 -1.030e-001 -7.900e-002 -6.000e-002 -4.900e-002 -4.200e-002
-4.400e-002 -5.100e-002 -6.100e-002 -7.500e-002 -9.100e-002 -1.050e-001
-1.140e-001 -1.220e-001 -1.270e-001 -1.280e-001 -1.300e-001 -1.380e-001
-1.620e-001 -2.010e-001 -2.410e-001
  35.7845     14.07
  26.4569     44.58
  26.4569      6.48
  17.2883     57.04
  12.9405 10000000000.00
<Date: Mon Jul 07 07:44:49 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR STREET, POWER LINES
<Place: PERAMA
<*****************************************************************************
*********
#GEOSEC: 0148-B       /  50.0/  50.0/   1.0/  563297.000/ 3915034.000/
52.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=241.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.421e+000 +1.947e+001 +2.476e+001
+2.532e+001 +2.432e+001 +2.327e+001 +2.206e+001 +2.092e+001 +2.023e+001
+1.982e+001 +1.956e+001 +1.958e+001 +1.984e+001 +2.022e+001 +2.088e+001
+2.187e+001 +2.286e+001 +2.379e+001 +2.502e+001 +2.648e+001 +2.772e+001
+2.877e+001 +3.003e+001 +3.142e+001 +3.243e+001 +3.317e+001 +3.383e+001
```

```
+3.416e+001 +3.408e+001 +3.379e+001 +3.331e+001 +3.277e+001 +3.246e+001
+3.231e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +5.820e-001
-7.400e-002 -2.340e-001 -2.590e-001 -2.470e-001 -2.050e-001 -1.560e-001
-1.060e-001 -3.700e-002 +4.400e-002 +1.040e-001 +1.490e-001 +1.970e-001
+2.390e-001 +2.620e-001 +2.720e-001 +2.730e-001 +2.670e-001 +2.560e-001
+2.450e-001 +2.270e-001 +2.010e-001 +1.700e-001 +1.350e-001 +8.100e-002
+1.300e-002 -3.800e-002 -6.800e-002 -8.000e-002 -6.700e-002 -4.400e-002
-2.200e-002
  21.3425     38.47
 200.0000     42.66
 200.0000      4.52
  26.3378 10000000000.00
<Date: Mon Jul 07 08:52:14 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR IRAKLIS FACTORY
<Place: PERAMA
<********************************************************************************
*********
#GEOSEC: 0149-B       /  50.0/  50.0/   1.0/  563094.000/ 3915118.000/
53.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 80.00
S  [V/A]:  +1.207e+001 +9.636e+000 +1.001e+001 +1.103e+001 +1.239e+001
+1.357e+001 +1.402e+001 +1.408e+001 +1.386e+001 +1.347e+001 +1.319e+001
+1.304e+001 +1.301e+001 +1.316e+001 +1.344e+001 +1.378e+001 +1.433e+001
+1.511e+001 +1.590e+001 +1.665e+001 +1.767e+001 +1.896e+001 +2.010e+001
+2.109e+001 +2.232e+001 +2.372e+001 +2.482e+001 +2.573e+001 +2.680e+001
+2.798e+001 +2.887e+001 +2.956e+001 +3.025e+001 +3.075e+001 +3.081e+001
+3.056e+001
Err[V/A]:  +5.000e-001 +2.490e-001 -3.690e-001 -5.100e-001 +4.520e-001
+2.670e-001 +9.300e-002 -2.500e-002 -1.040e-001 -1.230e-001 -9.500e-002
-4.700e-002 +2.000e-002 +9.000e-002 +1.470e-001 +1.890e-001 +2.310e-001
+2.720e-001 +2.990e-001 +3.160e-001 +3.270e-001 +3.310e-001 +3.260e-001
+3.160e-001 +2.990e-001 +2.740e-001 +2.540e-001 +2.370e-001 +2.180e-001
+1.950e-001 +1.720e-001 +1.480e-001 +1.070e-001 +4.300e-002 -2.600e-002
-9.000e-002
  14.1277     27.51
 200.0000     28.39
  35.7740     93.68
  35.6846     55.74
  19.5204 10000000000.00
<Date: Mon Jul 07 09:35:36 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR IRAKLIS FACTORY
<Place: PERAMA
<********************************************************************************
*********
#GEOSEC: 0150-B       /  50.0/  50.0/   1.0/  562873.000/ 3915175.000/
50.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=420.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.092e+001 +2.205e+001 +2.785e+001
+2.956e+001 +2.968e+001 +2.953e+001 +2.925e+001 +2.877e+001 +2.826e+001
+2.776e+001 +2.714e+001 +2.657e+001 +2.630e+001 +2.629e+001 +2.658e+001
+2.737e+001 +2.836e+001 +2.942e+001 +3.088e+001 +3.255e+001 +3.371e+001
+3.440e+001 +3.478e+001 +3.452e+001 +3.378e+001 +3.273e+001 +3.090e+001
+2.812e+001 +2.549e+001 +2.324e+001 +2.071e+001 +1.830e+001 +1.678e+001
+1.580e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -6.200e-001
-1.270e-001 -7.000e-003 -4.000e-002 -6.300e-002 -8.900e-002 -1.090e-001
-1.190e-001 -1.120e-001 -7.800e-002 -2.800e-002 +2.600e-002 +9.800e-002
+1.770e-001 +2.280e-001 +2.540e-001 +2.590e-001 +2.260e-001 +1.690e-001
+1.040e-001 +1.600e-002 -8.700e-002 -1.720e-001 -2.480e-001 -3.370e-001
-4.100e-001 -4.410e-001 -4.500e-001 -4.460e-001 -4.210e-001 -3.790e-001
-3.250e-001
  28.6305    100.00
   2.2605     17.08
   2.2497      5.81
   2.2497      5.81
   1.0000 10000000000.00
<Date: Mon Jul 07 10:10:39 2008
```

```
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINES
<Place: PERAMA
<*******************************************************************************
*********
#GEOSEC: 0151-D       /  50.0/  50.0/   1.0/  561951.000/ 3915410.000/
71.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=220.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +8.415e+000 +1.549e+001
+1.892e+001 +2.005e+001 +2.044e+001 +2.047e+001 +2.020e+001 +1.989e+001
+1.963e+001 +1.933e+001 +1.906e+001 +1.886e+001 +1.870e+001 +1.850e+001
+1.829e+001 +1.812e+001 +1.803e+001 +1.799e+001 +1.809e+001 +1.832e+001
+1.867e+001 +1.928e+001 +2.033e+001 +2.147e+001 +2.265e+001 +2.430e+001
+2.627e+001 +2.758e+001 +2.809e+001 +2.757e+001 +2.521e+001 +2.220e+001
+1.930e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.960e-001
+5.080e-001 +2.050e-001 +7.100e-002 -2.500e-002 -7.400e-002 -8.700e-002
-8.600e-002 -7.600e-002 -6.300e-002 -5.800e-002 -5.800e-002 -5.800e-002
-5.400e-002 -4.400e-002 -2.600e-002 +6.000e-003 +5.400e-002 +1.040e-001
+1.520e-001 +2.140e-001 +2.860e-001 +3.360e-001 +3.670e-001 +3.730e-001
+3.190e-001 +1.990e-001 +2.300e-002 -2.440e-001 -4.400e-001 -4.880e-001
-4.970e-001
  19.4391     19.24
  16.8520     41.86
  75.7508     47.27
  75.7508     31.93
   1.0000 10000000000.00
<Date: Mon Jul 07 10:44:21 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINE
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0152-B       /  50.0/  50.0/   1.0/  562147.000/ 3915278.000/
68.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=119.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.740e+000 +9.752e+000 +1.483e+001
+1.705e+001 +1.767e+001 +1.782e+001 +1.773e+001 +1.746e+001 +1.721e+001
+1.704e+001 +1.690e+001 +1.684e+001 +1.687e+001 +1.695e+001 +1.709e+001
+1.732e+001 +1.755e+001 +1.778e+001 +1.810e+001 +1.850e+001 +1.883e+001
+1.910e+001 +1.934e+001 +1.944e+001 +1.931e+001 +1.902e+001 +1.842e+001
+1.740e+001 +1.630e+001 +1.520e+001 +1.372e+001 +1.193e+001 +1.049e+001
+9.361e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.530e-001
+3.600e-001 +1.160e-001 +1.600e-002 -4.700e-002 -7.500e-002 -7.300e-002
-5.700e-002 -3.200e-002 -2.000e-003 +2.200e-002 +3.800e-002 +5.400e-002
+7.200e-002 +8.400e-002 +9.300e-002 +1.030e-001 +1.060e-001 +1.000e-001
+8.400e-002 +5.000e-002 -1.000e-002 -7.400e-002 -1.360e-001 -2.150e-001
-3.030e-001 -3.670e-001 -4.100e-001 -4.460e-001 -4.690e-001 -4.770e-001
-4.810e-001
  17.0774     16.22
  17.6501     41.31
  12.4933     22.65
   3.0000     18.04
   1.0000 10000000000.00
<Date: Mon Jul 07 11:05:33 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 300M EAST OF AGGELIANA VILLAGE
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0153-C       /  50.0/  50.0/   1.0/  562334.000/ 3915224.000/
61.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 76.00
S  [V/A]:  +5.984e+000 +4.524e+000 +5.353e+000 +6.677e+000 +8.445e+000
+1.012e+001 +1.098e+001 +1.134e+001 +1.143e+001 +1.129e+001 +1.113e+001
+1.102e+001 +1.094e+001 +1.097e+001 +1.111e+001 +1.127e+001 +1.156e+001
+1.198e+001 +1.241e+001 +1.281e+001 +1.337e+001 +1.407e+001 +1.470e+001
+1.525e+001 +1.594e+001 +1.669e+001 +1.720e+001 +1.753e+001 +1.775e+001
+1.775e+001 +1.754e+001 +1.725e+001 +1.676e+001 +1.604e+001 +1.528e+001
+1.446e+001
```

```
Err[V/A]:  +5.000e-001 +9.000e-003 -7.780e-001 -8.230e-001 +7.470e-001
+5.320e-001 +3.010e-001 +1.320e-001 -5.000e-003 -7.100e-002 -7.300e-002
-5.400e-002 -1.400e-002 +4.500e-002 +8.500e-002 +1.170e-001 +1.550e-001
+1.890e-001 +2.100e-001 +2.240e-001 +2.380e-001 +2.490e-001 +2.520e-001
+2.480e-001 +2.330e-001 +1.970e-001 +1.530e-001 +1.040e-001 +3.700e-002
-3.900e-002 -9.400e-002 -1.340e-001 -1.800e-001 -2.400e-001 -3.030e-001
-3.580e-001
  11.5892     23.04
  26.3494     44.78
  26.3494     21.98
   5.6243     58.63
   1.7152 10000000000.00
<Date: Mon Jul 07 11:35:16 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 570M EAST OF AGGELIANA VILLAGE
<Place: AGGELIANA
<*****************************************************************************
*********
#GEOSEC: 0154-B       /  50.0/  50.0/   1.0/  562662.000/ 3915230.000/
58.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=372.00
S  [V/A]:  +0.000e+000 +0.000e+000 +7.752e+000 +1.447e+001 +1.820e+001
+1.937e+001 +1.928e+001 +1.884e+001 +1.814e+001 +1.735e+001 +1.681e+001
+1.651e+001 +1.635e+001 +1.639e+001 +1.661e+001 +1.692e+001 +1.741e+001
+1.817e+001 +1.893e+001 +1.970e+001 +2.080e+001 +2.228e+001 +2.368e+001
+2.493e+001 +2.637e+001 +2.758e+001 +2.793e+001 +2.770e+001 +2.691e+001
+2.561e+001 +2.437e+001 +2.317e+001 +2.138e+001 +1.863e+001 +1.589e+001
+1.344e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.160e-001
+1.070e-001 -9.000e-002 -1.660e-001 -1.950e-001 -1.830e-001 -1.430e-001
-9.000e-002 -2.300e-002 +4.700e-002 +1.020e-001 +1.400e-001 +1.800e-001
+2.220e-001 +2.530e-001 +2.790e-001 +3.090e-001 +3.350e-001 +3.420e-001
+3.260e-001 +2.660e-001 +1.380e-001 +5.000e-003 -1.030e-001 -1.930e-001
-2.520e-001 -2.920e-001 -3.430e-001 -4.220e-001 -4.830e-001 -4.970e-001
-5.000e-001
  17.5837     34.60
 124.3272     38.12
  16.4051     18.17
   4.6098     31.89
   1.0000 10000000000.00
<Date: Mon Jul 07 12:13:44 2008
<Time Range=6 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 870M EAST OF AGGELIANA VILLAGE
<Place: AGGELIANA
<*****************************************************************************
*********
#GEOSEC: 0155-B       /  50.0/  50.0/   1.0/  562775.000/ 3915068.000/
57.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=131.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.535e+000 +1.449e+001 +2.110e+001
+2.364e+001 +2.423e+001 +2.435e+001 +2.439e+001 +2.442e+001 +2.451e+001
+2.470e+001 +2.507e+001 +2.574e+001 +2.650e+001 +2.728e+001 +2.838e+001
+2.984e+001 +3.116e+001 +3.231e+001 +3.365e+001 +3.494e+001 +3.566e+001
+3.594e+001 +3.584e+001 +3.521e+001 +3.438e+001 +3.350e+001 +3.224e+001
+3.057e+001 +2.904e+001 +2.764e+001 +2.585e+001 +2.374e+001 +2.198e+001
+2.047e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.200e-001
+2.850e-001 +7.700e-002 +2.100e-002 +7.000e-003 +1.400e-002 +3.800e-002
+6.500e-002 +1.020e-001 +1.470e-001 +1.810e-001 +2.060e-001 +2.270e-001
+2.430e-001 +2.450e-001 +2.350e-001 +2.050e-001 +1.470e-001 +8.300e-002
+2.300e-002 -4.800e-002 -1.160e-001 -1.590e-001 -1.890e-001 -2.240e-001
-2.630e-001 -2.940e-001 -3.170e-001 -3.420e-001 -3.660e-001 -3.860e-001
-4.030e-001
  25.0604     23.57
  49.0827     64.06
   8.9753     51.80
   3.1049     38.34
   1.1485 10000000000.00
<Date: Mon Jul 07 12:51:44 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
```

```
<Remark: NEAR WELLS
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0156-C       /  50.0/  50.0/   1.0/  563019.000/ 3915327.000/
41.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=626.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.264e+001 +2.247e+001 +2.710e+001
+2.771e+001 +2.688e+001 +2.584e+001 +2.443e+001 +2.280e+001 +2.155e+001
+2.058e+001 +1.957e+001 +1.866e+001 +1.808e+001 +1.772e+001 +1.745e+001
+1.736e+001 +1.747e+001 +1.768e+001 +1.808e+001 +1.873e+001 +1.938e+001
+2.001e+001 +2.086e+001 +2.195e+001 +2.293e+001 +2.382e+001 +2.494e+001
+2.620e+001 +2.719e+001 +2.800e+001 +2.904e+001 +3.046e+001 +3.189e+001
+3.316e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +4.850e-001
-4.500e-002 -2.010e-001 -2.520e-001 -2.800e-001 -2.890e-001 -2.830e-001
-2.680e-001 -2.380e-001 -1.950e-001 -1.530e-001 -1.110e-001 -5.700e-002
+8.000e-003 +6.000e-002 +1.020e-001 +1.470e-001 +1.860e-001 +2.090e-001
+2.230e-001 +2.370e-001 +2.490e-001 +2.560e-001 +2.560e-001 +2.470e-001
+2.260e-001 +2.080e-001 +2.030e-001 +2.170e-001 +2.490e-001 +2.650e-001
+2.660e-001
  19.5671     62.30
 200.0000     65.72
  25.4326     99.62
 100.0000    100.00
   8.1718 10000000000.00
<Date: Mon Jul 07 14:06:45 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR WELLS
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0157-B       /  50.0/  50.0/   1.0/  562946.000/ 3914898.000/
70.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=192.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.416e+001 +2.475e+001 +3.019e+001
+3.158e+001 +3.137e+001 +3.099e+001 +3.058e+001 +3.032e+001 +3.036e+001
+3.065e+001 +3.132e+001 +3.257e+001 +3.399e+001 +3.545e+001 +3.750e+001
+4.012e+001 +4.235e+001 +4.420e+001 +4.632e+001 +4.843e+001 +4.991e+001
+5.097e+001 +5.205e+001 +5.297e+001 +5.346e+001 +5.374e+001 +5.401e+001
+5.446e+001 +5.512e+001 +5.596e+001 +5.724e+001 +5.856e+001 +5.860e+001
+5.702e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +5.400e-001
+6.700e-002 -5.800e-002 -7.400e-002 -5.500e-002 -1.400e-002 +3.700e-002
+8.700e-002 +1.490e-001 +2.160e-001 +2.620e-001 +2.900e-001 +3.090e-001
+3.110e-001 +2.960e-001 +2.730e-001 +2.370e-001 +1.930e-001 +1.590e-001
+1.320e-001 +1.020e-001 +6.900e-002 +4.500e-002 +3.300e-002 +3.400e-002
+5.700e-002 +8.900e-002 +1.150e-001 +1.200e-001 +5.300e-002 -9.900e-002
-2.580e-001
  31.9213     30.59
 200.0000     30.12
 200.0000      1.19
  58.8632 10000000000.00
<Date: Mon Jul 07 14:33:31 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SE OF WELL-10
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0158-B       /  50.0/  50.0/   1.0/  563205.000/ 3914846.000/
57.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=105.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.974e+000 +1.646e+001 +2.185e+001
+2.388e+001 +2.434e+001 +2.440e+001 +2.434e+001 +2.423e+001 +2.419e+001
+2.428e+001 +2.457e+001 +2.517e+001 +2.590e+001 +2.665e+001 +2.774e+001
+2.917e+001 +3.046e+001 +3.160e+001 +3.301e+001 +3.455e+001 +3.571e+001
+3.658e+001 +3.746e+001 +3.821e+001 +3.861e+001 +3.882e+001 +3.892e+001
+3.890e+001 +3.882e+001 +3.875e+001 +3.867e+001 +3.841e+001 +3.772e+001
+3.639e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.200e-001
+2.250e-001 +5.400e-002 +2.000e-003 -1.700e-002 -1.500e-002 +1.000e-002
```

```
+4.300e-002 +8.800e-002 +1.410e-001 +1.790e-001 +2.050e-001 +2.280e-001
+2.440e-001 +2.480e-001 +2.440e-001 +2.300e-001 +2.050e-001 +1.770e-001
+1.500e-001 +1.160e-001 +7.800e-002 +4.900e-002 +2.700e-002 +6.000e-003
-8.000e-003 -1.200e-002 -1.200e-002 -2.100e-002 -7.400e-002 -1.770e-001
-2.830e-001
  25.1333     27.57
  67.4777     46.44
  67.4777     14.33
  28.9317    160.43
   8.8197 10000000000.00
<Date: Mon Jul 07 15:05:02 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: OLIVE TREES
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0159-C       /  50.0/  50.0/   1.0/  563371.000/ 3914879.000/
53.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=140.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.599e+000 +1.249e+001 +1.660e+001
+1.841e+001 +1.894e+001 +1.909e+001 +1.919e+001 +1.932e+001 +1.954e+001
+1.989e+001 +2.051e+001 +2.151e+001 +2.257e+001 +2.358e+001 +2.492e+001
+2.646e+001 +2.765e+001 +2.853e+001 +2.945e+001 +3.033e+001 +3.100e+001
+3.157e+001 +3.230e+001 +3.311e+001 +3.366e+001 +3.399e+001 +3.421e+001
+3.433e+001 +3.445e+001 +3.465e+001 +3.509e+001 +3.574e+001 +3.614e+001
+3.605e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.350e-001
+2.770e-001 +9.700e-002 +4.100e-002 +2.900e-002 +4.900e-002 +9.200e-002
+1.390e-001 +1.940e-001 +2.490e-001 +2.810e-001 +2.940e-001 +2.910e-001
+2.660e-001 +2.310e-001 +1.970e-001 +1.610e-001 +1.340e-001 +1.260e-001
+1.270e-001 +1.240e-001 +1.080e-001 +8.100e-002 +5.400e-002 +2.700e-002
+1.900e-002 +3.200e-002 +5.500e-002 +8.000e-002 +7.700e-002 +2.100e-002
-5.400e-002
  20.3660     20.15
  58.8600     32.92
  58.8600      6.26
  32.6057     50.69
  39.8862 10000000000.00
<Date: Mon Jul 07 15:51:29 2008
<Time Range=6 Currrent= 2.80 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINES
<Place: PERAMA
<*******************************************************************************
*********
#GEOSEC: 0160-A       /  50.0/  50.0/   1.0/  563562.000/ 3914735.000/
46.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=158.00
S  [V/A]:  +0.000e+000 +5.141e+000 +2.171e+001 +3.181e+001 +3.948e+001
+4.388e+001 +4.501e+001 +4.484e+001 +4.379e+001 +4.208e+001 +4.058e+001
+3.933e+001 +3.792e+001 +3.653e+001 +3.558e+001 +3.497e+001 +3.446e+001
+3.424e+001 +3.437e+001 +3.468e+001 +3.532e+001 +3.633e+001 +3.731e+001
+3.819e+001 +3.923e+001 +4.032e+001 +4.111e+001 +4.178e+001 +4.268e+001
+4.403e+001 +4.553e+001 +4.716e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.850e-001 +6.490e-001
+2.730e-001 +4.900e-002 -7.000e-002 -1.490e-001 -1.880e-001 -1.980e-001
-1.960e-001 -1.840e-001 -1.590e-001 -1.310e-001 -1.010e-001 -5.700e-002
-2.000e-003 +4.400e-002 +8.000e-002 +1.180e-001 +1.470e-001 +1.580e-001
+1.550e-001 +1.420e-001 +1.230e-001 +1.130e-001 +1.160e-001 +1.350e-001
+1.760e-001 +2.190e-001 +2.590e-001
  43.5318     21.05
  25.8259     30.97
 133.7985     46.87
  32.3619    136.52
   1.0000 10000000000.00
<Date: Mon Jul 07 16:14:58 2008
<Time Range=5 Currrent= 3.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINES, FENCES
<Place: PERAMA
<*******************************************************************************
*********
```

```
#GEOSEC: 0161-C       /  50.0/  50.0/   1.0/  563458.000/ 3916768.000/
30.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 73.00
S  [V/A]:  +0.000e+000 +2.599e+001 +4.146e+001 +4.768e+001 +4.952e+001
+4.753e+001 +4.442e+001 +4.138e+001 +3.753e+001 +3.338e+001 +3.041e+001
+2.832e+001 +2.629e+001 +2.463e+001 +2.372e+001 +2.325e+001 +2.300e+001
+2.309e+001 +2.344e+001 +2.393e+001 +2.474e+001 +2.594e+001 +2.714e+001
+2.827e+001 +2.978e+001 +3.160e+001 +3.305e+001 +3.419e+001 +3.533e+001
+3.616e+001 +3.631e+001 +3.599e+001 +3.499e+001 +3.295e+001 +3.058e+001
+2.813e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.650e-001 -4.790e-001 +1.400e-002
-2.580e-001 -3.490e-001 -3.870e-001 -4.100e-001 -4.120e-001 -3.960e-001
-3.690e-001 -3.190e-001 -2.430e-001 -1.670e-001 -1.020e-001 -2.400e-002
+5.700e-002 +1.170e-001 +1.610e-001 +2.040e-001 +2.450e-001 +2.680e-001
+2.800e-001 +2.830e-001 +2.700e-001 +2.450e-001 +2.100e-001 +1.510e-001
+6.500e-002 -2.100e-002 -1.040e-001 -2.120e-001 -3.280e-001 -4.050e-001
-4.490e-001
  42.5430     14.12
  14.2309     21.36
 134.0584     63.01
  18.8482     80.85
   3.0583 10000000000.00
<Date: Tue Jul 08 07:37:32 2008
<Time Range=6 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0162-B       /  50.0/  50.0/   1.0/  563675.000/ 3916722.000/
29.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 76.00
S  [V/A]:  +0.000e+000 +1.453e+001 +3.779e+001 +4.845e+001 +5.280e+001
+5.138e+001 +4.818e+001 +4.505e+001 +4.116e+001 +3.692e+001 +3.382e+001
+3.155e+001 +2.925e+001 +2.725e+001 +2.605e+001 +2.532e+001 +2.475e+001
+2.445e+001 +2.446e+001 +2.463e+001 +2.501e+001 +2.568e+001 +2.642e+001
+2.717e+001 +2.824e+001 +2.963e+001 +3.085e+001 +3.191e+001 +3.318e+001
+3.451e+001 +3.538e+001 +3.585e+001 +3.597e+001 +3.531e+001 +3.406e+001
+3.257e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -7.440e-001 +1.640e-001
-2.280e-001 -3.360e-001 -3.720e-001 -3.920e-001 -3.960e-001 -3.860e-001
-3.670e-001 -3.300e-001 -2.720e-001 -2.120e-001 -1.590e-001 -9.400e-002
-2.500e-002 +2.600e-002 +6.400e-002 +1.060e-001 +1.490e-001 +1.800e-001
+2.020e-001 +2.210e-001 +2.330e-001 +2.330e-001 +2.250e-001 +2.050e-001
+1.660e-001 +1.180e-001 +6.000e-002 -3.300e-002 -1.540e-001 -2.480e-001
-3.150e-001
  44.5620     16.19
  14.1606     18.82
  56.3695     78.32
  35.9988     82.60
   8.6291 10000000000.00
<Date: Tue Jul 08 08:00:58 2008
<Time Range=6 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0163-C       /  50.0/  50.0/   1.0/  563891.000/ 3916743.000/
31.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 51.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.618e+001 +2.623e+001 +3.142e+001
+3.257e+001 +3.183e+001 +3.069e+001 +2.897e+001 +2.680e+001 +2.505e+001
+2.369e+001 +2.227e+001 +2.098e+001 +2.015e+001 +1.961e+001 +1.913e+001
+1.879e+001 +1.866e+001 +1.863e+001 +1.870e+001 +1.890e+001 +1.915e+001
+1.942e+001 +1.982e+001 +2.041e+001 +2.097e+001 +2.152e+001 +2.224e+001
+2.305e+001 +2.360e+001 +2.390e+001 +2.395e+001 +2.352e+001 +2.279e+001
+2.194e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.950e-001 +4.930e-001
+2.000e-003 -1.750e-001 -2.460e-001 -2.970e-001 -3.250e-001 -3.280e-001
-3.150e-001 -2.850e-001 -2.410e-001 -1.980e-001 -1.590e-001 -1.120e-001
-6.200e-002 -2.400e-002 +5.000e-003 +3.400e-002 +6.500e-002 +8.700e-002
+1.050e-001 +1.270e-001 +1.520e-001 +1.700e-001 +1.800e-001 +1.790e-001
```

```
+1.550e-001 +1.110e-001 +5.300e-002 -3.400e-002 -1.400e-001 -2.160e-001
-2.700e-001
  27.4450     15.98
  10.9199     12.74
  26.6164     52.25
  30.4677     78.82
   5.5463 10000000000.00
<Date: Tue Jul 08 08:26:53 2008
<Time Range=6 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0164-C       /  50.0/  50.0/   1.0/  564102.000/ 3916749.000/
31.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 42.00
S  [V/A]:  +0.000e+000 +1.041e+000 +1.691e+001 +2.371e+001 +2.608e+001
+2.550e+001 +2.437e+001 +2.341e+001 +2.235e+001 +2.136e+001 +2.071e+001
+2.027e+001 +1.987e+001 +1.955e+001 +1.936e+001 +1.923e+001 +1.907e+001
+1.889e+001 +1.874e+001 +1.861e+001 +1.848e+001 +1.838e+001 +1.835e+001
+1.839e+001 +1.850e+001 +1.873e+001 +1.897e+001 +1.921e+001 +1.951e+001
+1.985e+001 +2.008e+001 +2.022e+001 +2.028e+001 +2.016e+001 +1.984e+001
+1.940e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.350e-001 +1.970e-001
-1.710e-001 -2.350e-001 -2.350e-001 -2.160e-001 -1.840e-001 -1.540e-001
-1.250e-001 -9.400e-002 -6.600e-002 -5.100e-002 -4.600e-002 -4.600e-002
-4.600e-002 -4.600e-002 -4.300e-002 -3.400e-002 -1.600e-002 +4.000e-003
+2.300e-002 +4.600e-002 +6.900e-002 +8.200e-002 +8.700e-002 +8.600e-002
+7.500e-002 +5.700e-002 +3.400e-002 -5.000e-003 -6.400e-002 -1.250e-001
-1.800e-001
  23.6069     10.33
  14.6761      8.37
  18.4325     57.52
  27.4743     68.25
   9.4051 10000000000.00
<Date: Tue Jul 08 08:45:38 2008
<Time Range=6 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO STREAM
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0165-A       /  50.0/  50.0/   1.0/  564315.000/ 3916758.000/
33.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 84.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.297e+000 +1.576e+001 +2.178e+001
+2.466e+001 +2.551e+001 +2.565e+001 +2.524e+001 +2.435e+001 +2.340e+001
+2.258e+001 +2.162e+001 +2.069e+001 +2.003e+001 +1.958e+001 +1.914e+001
+1.879e+001 +1.861e+001 +1.853e+001 +1.853e+001 +1.866e+001 +1.884e+001
+1.904e+001 +1.932e+001 +1.961e+001 +1.979e+001 +1.986e+001 +1.984e+001
+1.966e+001 +1.938e+001 +1.905e+001 +1.855e+001 +1.783e+001 +1.709e+001
+1.635e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.880e-001
+3.290e-001 +1.010e-001 -1.900e-002 -1.210e-001 -1.910e-001 -2.200e-001
-2.240e-001 -2.140e-001 -1.890e-001 -1.640e-001 -1.400e-001 -1.080e-001
-7.100e-002 -4.100e-002 -1.500e-002 +1.500e-002 +4.600e-002 +6.600e-002
+7.600e-002 +7.700e-002 +6.300e-002 +3.900e-002 +1.200e-002 -2.500e-002
-6.700e-002 -1.010e-001 -1.290e-001 -1.670e-001 -2.150e-001 -2.590e-001
-2.970e-001
  22.9473     20.27
  10.4890     10.22
  24.4436     38.43
  17.7354     47.51
   7.5761 10000000000.00
<Date: Tue Jul 08 09:01:30 2008
<Time Range=6 Currrent= 3.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO STREAM
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0166-C       /  50.0/  50.0/   1.0/  564523.000/ 3916834.000/
```

```
35.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 66.00
S  [V/A]:  +0.000e+000 +2.371e+001 +5.254e+001 +6.833e+001 +7.716e+001
+7.781e+001 +7.509e+001 +7.203e+001 +6.807e+001 +6.349e+001 +5.993e+001
+5.716e+001 +5.419e+001 +5.141e+001 +4.954e+001 +4.824e+001 +4.693e+001
+4.574e+001 +4.495e+001 +4.437e+001 +4.372e+001 +4.297e+001 +4.230e+001
+4.162e+001 +4.061e+001 +3.914e+001 +3.768e+001 +3.624e+001 +3.429e+001
+3.182e+001 +2.966e+001 +2.774e+001 +2.532e+001 +2.242e+001 +1.993e+001
+1.778e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -7.890e-001 +3.190e-001
-8.800e-002 -2.180e-001 -2.590e-001 -2.820e-001 -2.930e-001 -2.890e-001
-2.780e-001 -2.540e-001 -2.190e-001 -1.880e-001 -1.640e-001 -1.370e-001
-1.110e-001 -9.500e-002 -8.600e-002 -8.200e-002 -8.800e-002 -1.020e-001
-1.220e-001 -1.530e-001 -1.970e-001 -2.350e-001 -2.670e-001 -3.030e-001
-3.400e-001 -3.680e-001 -3.920e-001 -4.210e-001 -4.520e-001 -4.730e-001
-4.850e-001
  70.8483     24.69
  22.4834      7.54
  30.7850     62.85
   6.6708     44.16
   1.6083 10000000000.00
<Date: Tue Jul 08 09:22:57 2008
<Time Range=6 Currrent= 3.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO STREAM
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0167-A       /  50.0/  50.0/   1.0/  564775.000/ 3916886.000/
35.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=150.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.276e+000 +1.200e+001 +1.695e+001
+1.884e+001 +1.943e+001 +1.974e+001 +2.005e+001 +2.037e+001 +2.064e+001
+2.086e+001 +2.113e+001 +2.141e+001 +2.159e+001 +2.170e+001 +2.176e+001
+2.179e+001 +2.183e+001 +2.189e+001 +2.205e+001 +2.234e+001 +2.263e+001
+2.290e+001 +2.315e+001 +2.328e+001 +2.321e+001 +2.302e+001 +2.270e+001
+2.233e+001 +2.214e+001 +2.211e+001 +2.225e+001 +2.261e+001 +2.295e+001
+2.311e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.940e-001
+2.880e-001 +1.280e-001 +9.100e-002 +7.800e-002 +7.400e-002 +7.200e-002
+7.000e-002 +6.700e-002 +5.500e-002 +3.900e-002 +2.500e-002 +1.200e-002
+9.000e-003 +1.600e-002 +2.900e-002 +5.100e-002 +7.100e-002 +7.800e-002
+7.200e-002 +4.700e-002 +1.000e-003 -3.900e-002 -6.600e-002 -7.900e-002
-6.400e-002 -2.900e-002 +1.000e-002 +5.600e-002 +8.400e-002 +6.500e-002
+2.700e-002
  17.1228      3.34
  22.8637     49.02
  29.4356     19.79
  19.1770 10000000000.00
<Date: Tue Jul 08 09:42:08 2008
<Time Range=6 Currrent= 3.30 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO STREAM
<Place: ACHLADES
<*******************************************************************************
*********
#GEOSEC: 0168-B       /  50.0/  50.0/   1.0/  564988.000/ 3916967.000/
38.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=135.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.603e+000 +1.305e+001 +2.032e+001
+2.332e+001 +2.423e+001 +2.462e+001 +2.492e+001 +2.516e+001 +2.533e+001
+2.547e+001 +2.569e+001 +2.596e+001 +2.619e+001 +2.639e+001 +2.658e+001
+2.676e+001 +2.685e+001 +2.690e+001 +2.692e+001 +2.687e+001 +2.676e+001
+2.659e+001 +2.630e+001 +2.583e+001 +2.536e+001 +2.491e+001 +2.433e+001
+2.367e+001 +2.316e+001 +2.276e+001 +2.233e+001 +2.187e+001 +2.141e+001
+2.083e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.620e-001
+3.640e-001 +1.470e-001 +8.400e-002 +5.500e-002 +4.100e-002 +3.700e-002
+4.100e-002 +4.800e-002 +5.100e-002 +5.100e-002 +4.600e-002 +3.700e-002
+2.600e-002 +1.700e-002 +9.000e-003 -2.000e-003 -1.800e-002 -3.500e-002
-5.200e-002 -7.400e-002 -9.800e-002 -1.150e-001 -1.250e-001 -1.310e-001
-1.300e-001 -1.220e-001 -1.130e-001 -1.040e-001 -1.150e-001 -1.560e-001
-2.070e-001
```

```
  13.5029      1.00
  27.4264     60.11
  19.6913     30.29
  15.7386     38.92
  17.4045 10000000000.00
<Date: Tue Jul 08 10:08:58 2008
<Time Range=6 Currrent= 3.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO STREAM
<Place: ACHLADES
<****************************************************************************
*********
#GEOSEC: 0169-B       /  50.0/  50.0/   1.0/  565171.000/ 3917046.000/
40.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=465.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.577e+000 +2.197e+001 +2.792e+001
+2.830e+001 +2.756e+001 +2.716e+001 +2.715e+001 +2.755e+001 +2.807e+001
+2.856e+001 +2.918e+001 +2.988e+001 +3.050e+001 +3.106e+001 +3.177e+001
+3.246e+001 +3.277e+001 +3.278e+001 +3.247e+001 +3.186e+001 +3.136e+001
+3.103e+001 +3.080e+001 +3.070e+001 +3.066e+001 +3.055e+001 +3.028e+001
+2.978e+001 +2.924e+001 +2.874e+001 +2.811e+001 +2.739e+001 +2.680e+001
+2.627e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +5.690e-001
-5.100e-002 -1.130e-001 -5.200e-002 +3.000e-002 +8.800e-002 +1.100e-001
+1.150e-001 +1.150e-001 +1.150e-001 +1.210e-001 +1.240e-001 +1.150e-001
+7.800e-002 +2.700e-002 -2.300e-002 -7.100e-002 -9.200e-002 -8.200e-002
-5.900e-002 -2.900e-002 -1.200e-002 -1.800e-002 -3.600e-002 -6.500e-002
-9.500e-002 -1.120e-001 -1.200e-001 -1.240e-001 -1.270e-001 -1.320e-001
-1.390e-001
  27.1867     11.04
  34.2490     52.97
  34.2490      1.01
  24.1841    200.00
  50.0000 10000000000.00
<Date: Tue Jul 08 10:32:54 2008
<Time Range=6 Currrent= 2.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO STREAM
<Place: ACHLADES
<****************************************************************************
*********
#GEOSEC: 0170-B       /  50.0/  50.0/   1.0/  563251.000/ 3916812.000/
29.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=186.00
S  [V/A]:  +0.000e+000 +6.281e+000 +2.989e+001 +4.094e+001 +4.506e+001
+4.260e+001 +3.856e+001 +3.496e+001 +3.098e+001 +2.715e+001 +2.459e+001
+2.284e+001 +2.115e+001 +1.975e+001 +1.895e+001 +1.851e+001 +1.823e+001
+1.825e+001 +1.854e+001 +1.899e+001 +1.981e+001 +2.115e+001 +2.262e+001
+2.415e+001 +2.631e+001 +2.905e+001 +3.116e+001 +3.259e+001 +3.350e+001
+3.317e+001 +3.196e+001 +3.050e+001 +2.847e+001 +2.601e+001 +2.397e+001
+2.220e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.180e-001 +1.310e-001
-3.450e-001 -4.300e-001 -4.460e-001 -4.440e-001 -4.300e-001 -4.070e-001
-3.770e-001 -3.290e-001 -2.580e-001 -1.880e-001 -1.240e-001 -4.200e-002
+5.200e-002 +1.300e-001 +1.950e-001 +2.690e-001 +3.480e-001 +4.020e-001
+4.350e-001 +4.500e-001 +4.200e-001 +3.460e-001 +2.360e-001 +6.100e-002
-1.390e-001 -2.560e-001 -3.140e-001 -3.530e-001 -3.800e-001 -4.020e-001
-4.210e-001
 100.0000      6.97
  13.6908     28.51
 200.0000     60.16
 100.0000     34.46
   3.0000 10000000000.00
<Date: Tue Jul 08 11:52:14 2008
<Time Range=6 Currrent= 2.20 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO THE MAIN ROAD
<Place: ROUMELI
<****************************************************************************
*********
#GEOSEC: 0171-A       /  50.0/  50.0/   1.0/  561260.000/ 3914381.000/
91.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=116.00
S  [V/A]:  +0.000e+000 +0.000e+000 +7.620e+000 +2.287e+001 +3.244e+001
```

```
+3.612e+001 +3.677e+001 +3.684e+001 +3.674e+001 +3.655e+001 +3.639e+001
+3.623e+001 +3.608e+001 +3.594e+001 +3.588e+001 +3.586e+001 +3.588e+001
+3.593e+001 +3.604e+001 +3.618e+001 +3.639e+001 +3.660e+001 +3.658e+001
+3.633e+001 +3.562e+001 +3.428e+001 +3.291e+001 +3.169e+001 +3.028e+001
+2.892e+001 +2.803e+001 +2.739e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.980e-001
+2.550e-001 +5.000e-002 +1.000e-015 -1.900e-002 -2.400e-002 -2.700e-002
-2.700e-002 -2.100e-002 -1.300e-002 -7.000e-003 -1.000e-003 +5.000e-003
+1.300e-002 +2.200e-002 +2.900e-002 +3.000e-002 +1.100e-002 -2.700e-002
-7.600e-002 -1.430e-001 -2.070e-001 -2.380e-001 -2.430e-001 -2.290e-001
-1.960e-001 -1.660e-001 -1.430e-001
  36.1625     28.75
  33.8426     79.26
   6.1294     12.09
   6.1294      1.27
  27.4107 10000000000.00
<Date: Tue Jul 08 12:35:39 2008
<Time Range=5 Currrent= 2.60 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN VILLAGE,POWERLINES,FENCES
<Place: ALEXANDROU HANI
<*******************************************************************************
*********
#GEOSEC: 0172-A       /  50.0/  50.0/   1.0/  561519.000/ 3914280.000/
94.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=163.00
S  [V/A]:  +6.999e+001 +4.803e+001 +3.778e+001 +3.229e+001 +2.829e+001
+2.595e+001 +2.510e+001 +2.493e+001 +2.517e+001 +2.589e+001 +2.673e+001
+2.758e+001 +2.871e+001 +3.006e+001 +3.119e+001 +3.211e+001 +3.320e+001
+3.438e+001 +3.529e+001 +3.598e+001 +3.672e+001 +3.733e+001 +3.758e+001
+3.758e+001 +3.729e+001 +3.663e+001 +3.593e+001 +3.529e+001 +3.453e+001
+3.364e+001 +3.275e+001 +3.169e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +4.960e-001 +4.780e-001 -4.050e-001
-2.480e-001 -1.030e-001 -1.000e-003 +8.700e-002 +1.570e-001 +1.940e-001
+2.100e-001 +2.160e-001 +2.120e-001 +2.020e-001 +1.910e-001 +1.770e-001
+1.580e-001 +1.410e-001 +1.240e-001 +9.800e-002 +5.800e-002 +1.800e-002
-2.000e-002 -6.400e-002 -1.010e-001 -1.170e-001 -1.210e-001 -1.240e-001
-1.420e-001 -1.890e-001 -2.420e-001
 100.0000      1.23
  24.6281     18.05
  58.9224     45.82
  24.6543 10000000000.00
<Date: Tue Jul 08 13:01:35 2008
<Time Range=5 Currrent= 2.20 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN VILLAGE,POWERLINES,FENCES
<Place: ALEXANDROU HANI
<*******************************************************************************
*********
#GEOSEC: 0173-B       /  50.0/  50.0/   1.0/  561729.000/ 3914500.000/
86.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=136.00
S  [V/A]:  +0.000e+000 +9.008e+000 +1.408e+001 +1.643e+001 +1.798e+001
+1.885e+001 +1.919e+001 +1.927e+001 +1.927e+001 +1.925e+001 +1.930e+001
+1.948e+001 +1.982e+001 +2.039e+001 +2.094e+001 +2.144e+001 +2.201e+001
+2.264e+001 +2.313e+001 +2.353e+001 +2.398e+001 +2.436e+001 +2.447e+001
+2.437e+001 +2.398e+001 +2.325e+001 +2.252e+001 +2.186e+001 +2.105e+001
+2.014e+001 +1.938e+001 +1.871e+001 +1.786e+001 +1.685e+001 +1.602e+001
+1.536e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.650e-001 -5.940e-001 +3.180e-001
+1.440e-001 +5.700e-002 +1.400e-002 -2.000e-003 +6.000e-003 +4.000e-002
+7.600e-002 +1.140e-001 +1.450e-001 +1.550e-001 +1.520e-001 +1.410e-001
+1.290e-001 +1.210e-001 +1.130e-001 +9.200e-002 +4.900e-002 -3.000e-003
-5.600e-002 -1.160e-001 -1.670e-001 -1.910e-001 -2.010e-001 -2.060e-001
-2.120e-001 -2.230e-001 -2.360e-001 -2.550e-001 -2.700e-001 -2.710e-001
-2.660e-001
  19.8087     18.91
  29.3506     45.56
  11.7119     32.65
   9.1915    194.16
   1.0000 10000000000.00
<Date: Mon Jul 14 08:00:45 2008
```

```
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF THE VILLAGE
<Place: ALEXANDROU HANI
<*******************************************************************************
*********
#GEOSEC: 0174-B       /  50.0/  50.0/   1.0/  562007.000/ 3914478.000/
91.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=153.00
S  [V/A]:  +5.649e+000 +3.335e+000 +3.527e+000 +4.354e+000 +5.635e+000
+6.994e+000 +7.840e+000 +8.349e+000 +8.774e+000 +9.128e+000 +9.398e+000
+9.642e+000 +9.960e+000 +1.036e+001 +1.072e+001 +1.103e+001 +1.143e+001
+1.191e+001 +1.235e+001 +1.275e+001 +1.330e+001 +1.401e+001 +1.466e+001
+1.524e+001 +1.594e+001 +1.667e+001 +1.712e+001 +1.740e+001 +1.762e+001
+1.783e+001 +1.806e+001 +1.834e+001 +1.878e+001 +1.933e+001 +1.962e+001
+1.956e+001
Err[V/A]:  +5.000e-001 +4.660e-001 -6.550e-001 -8.270e-001 +7.940e-001
+6.400e-001 +4.590e-001 +3.250e-001 +2.210e-001 +1.710e-001 +1.660e-001
+1.720e-001 +1.810e-001 +1.890e-001 +1.920e-001 +1.950e-001 +1.960e-001
+2.030e-001 +2.120e-001 +2.230e-001 +2.400e-001 +2.560e-001 +2.620e-001
+2.570e-001 +2.320e-001 +1.830e-001 +1.330e-001 +9.400e-002 +6.600e-002
+6.700e-002 +9.100e-002 +1.180e-001 +1.370e-001 +1.120e-001 +2.900e-002
-7.200e-002
  10.2320     15.13
  23.9993     50.09
  23.9993     11.86
  21.3294 10000000000.00
<Date: Mon Jul 14 08:41:01 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF THE VILLAGE
<Place: ALEXANDROU HANI
<*******************************************************************************
*********
#GEOSEC: 0175-B       /  50.0/  50.0/   1.0/  562207.000/ 3914480.000/
85.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=169.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.014e+000 +1.652e+001 +2.315e+001
+2.631e+001 +2.749e+001 +2.801e+001 +2.827e+001 +2.817e+001 +2.784e+001
+2.748e+001 +2.699e+001 +2.650e+001 +2.620e+001 +2.608e+001 +2.610e+001
+2.639e+001 +2.684e+001 +2.739e+001 +2.822e+001 +2.933e+001 +3.031e+001
+3.113e+001 +3.206e+001 +3.297e+001 +3.356e+001 +3.395e+001 +3.428e+001
+3.443e+001 +3.435e+001 +3.415e+001 +3.379e+001 +3.334e+001 +3.305e+001
+3.295e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.010e-001
+3.610e-001 +1.700e-001 +8.700e-002 +1.700e-002 -4.300e-002 -7.600e-002
-9.200e-002 -9.200e-002 -7.500e-002 -4.800e-002 -1.600e-002 +2.700e-002
+7.900e-002 +1.200e-001 +1.500e-001 +1.760e-001 +1.890e-001 +1.870e-001
+1.740e-001 +1.510e-001 +1.190e-001 +9.200e-002 +6.900e-002 +3.900e-002
+2.000e-003 -2.800e-002 -4.900e-002 -6.300e-002 -5.900e-002 -3.500e-002
-5.000e-003
  27.2187     41.08
  27.2187     13.00
  98.1146     44.94
  26.3273 10000000000.00
<Date: Mon Jul 14 09:07:00 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF THE VILLAGE
<Place: ALEXANDROU HANI
<*******************************************************************************
*********
#GEOSEC: 0176-B       /  50.0/  50.0/   1.0/  562474.000/ 3914521.000/
81.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 76.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.793e+000 +1.825e+001 +2.508e+001
+2.690e+001 +2.676e+001 +2.630e+001 +2.565e+001 +2.483e+001 +2.409e+001
+2.345e+001 +2.269e+001 +2.192e+001 +2.143e+001 +2.117e+001 +2.106e+001
+2.121e+001 +2.152e+001 +2.187e+001 +2.226e+001 +2.240e+001 +2.205e+001
+2.135e+001 +2.003e+001 +1.811e+001 +1.643e+001 +1.503e+001 +1.341e+001
+1.177e+001 +1.061e+001 +9.784e+000 +8.976e+000 +8.318e+000 +7.990e+000
+7.866e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.420e-001
+1.210e-001 -7.200e-002 -1.190e-001 -1.380e-001 -1.570e-001 -1.700e-001
```

```
-1.740e-001 -1.680e-001 -1.420e-001 -1.020e-001 -5.900e-002 +1.000e-015
+6.300e-002 +9.800e-002 +1.040e-001 +6.700e-002 -3.600e-002 -1.590e-001
-2.630e-001 -3.560e-001 -4.140e-001 -4.370e-001 -4.460e-001 -4.490e-001
-4.450e-001 -4.320e-001 -4.110e-001 -3.640e-001 -2.740e-001 -1.640e-001
-5.000e-002
  24.3363     17.20
  14.6635     24.14
 148.4346     18.11
   2.7590     42.94
 100.0000 10000000000.00
<Date: Mon Jul 14 09:35:24 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH OF G-59
<Place: ALEXANDROU HANI
<*****************************************************************************
*********
#GEOSEC: 0177-C       /  50.0/  50.0/   1.0/  562888.000/ 3914506.000/
64.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=111.00
S  [V/A]:  +1.381e+001 +9.602e+000 +8.966e+000 +9.363e+000 +1.032e+001
+1.145e+001 +1.219e+001 +1.265e+001 +1.307e+001 +1.347e+001 +1.382e+001
+1.419e+001 +1.473e+001 +1.547e+001 +1.618e+001 +1.684e+001 +1.769e+001
+1.874e+001 +1.966e+001 +2.050e+001 +2.157e+001 +2.284e+001 +2.388e+001
+2.470e+001 +2.560e+001 +2.644e+001 +2.699e+001 +2.738e+001 +2.783e+001
+2.835e+001 +2.883e+001 +2.929e+001 +2.992e+001 +3.068e+001 +3.131e+001
+3.180e+001
Err[V/A]:  +5.000e-001 +4.770e-001 +1.200e-002 -3.380e-001 +4.340e-001
+3.680e-001 +2.730e-001 +2.030e-001 +1.550e-001 +1.430e-001 +1.590e-001
+1.850e-001 +2.150e-001 +2.430e-001 +2.590e-001 +2.660e-001 +2.700e-001
+2.740e-001 +2.760e-001 +2.780e-001 +2.760e-001 +2.630e-001 +2.420e-001
+2.160e-001 +1.790e-001 +1.370e-001 +1.100e-001 +9.600e-002 +9.100e-002
+9.500e-002 +1.050e-001 +1.140e-001 +1.210e-001 +1.210e-001 +1.130e-001
+1.040e-001
  14.6213     15.19
  14.6213      1.00
  39.1775     19.13
  45.6013     17.32
  34.7968 10000000000.00
<Date: Mon Jul 14 10:07:38 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST OF PERAMA
<Place: PERAMA
<*****************************************************************************
*********
#GEOSEC: 0178-B       /  50.0/  50.0/   1.0/  563284.000/ 3914741.000/
65.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=130.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.770e-001 +8.229e+000 +1.406e+001
+1.691e+001 +1.782e+001 +1.816e+001 +1.829e+001 +1.836e+001 +1.847e+001
+1.862e+001 +1.892e+001 +1.940e+001 +1.990e+001 +2.034e+001 +2.093e+001
+2.159e+001 +2.214e+001 +2.259e+001 +2.315e+001 +2.384e+001 +2.446e+001
+2.504e+001 +2.580e+001 +2.672e+001 +2.745e+001 +2.806e+001 +2.877e+001
+2.961e+001 +3.038e+001 +3.110e+001 +3.199e+001 +3.276e+001 +3.271e+001
+3.181e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.900e-001
+4.740e-001 +1.910e-001 +8.300e-002 +2.800e-002 +2.600e-002 +4.400e-002
+6.900e-002 +1.020e-001 +1.330e-001 +1.480e-001 +1.530e-001 +1.530e-001
+1.470e-001 +1.410e-001 +1.380e-001 +1.390e-001 +1.470e-001 +1.560e-001
+1.630e-001 +1.680e-001 +1.640e-001 +1.540e-001 +1.460e-001 +1.410e-001
+1.460e-001 +1.560e-001 +1.600e-001 +1.390e-001 +4.800e-002 -1.070e-001
-2.580e-001
  18.7173     17.49
  30.7835     62.32
  48.1645     41.84
  14.7350     90.09
   1.0000 10000000000.00
<Date: Mon Jul 14 10:37:39 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NW OF PERAMA
<Place: PERAMA
```

```
<*****************************************************************************
*********
#GEOSEC: 0179-C       /  50.0/  50.0/   1.0/  563669.000/ 3914610.000/
48.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=183.00
S  [V/A]:  +1.288e+001 +2.199e+001 +2.715e+001 +2.960e+001 +3.050e+001
+2.958e+001 +2.802e+001 +2.661e+001 +2.510e+001 +2.387e+001 +2.327e+001
+2.304e+001 +2.308e+001 +2.348e+001 +2.402e+001 +2.460e+001 +2.536e+001
+2.623e+001 +2.687e+001 +2.735e+001 +2.783e+001 +2.829e+001 +2.862e+001
+2.890e+001 +2.925e+001 +2.969e+001 +3.007e+001 +3.039e+001 +3.073e+001
+3.098e+001 +3.098e+001 +3.073e+001
Err[V/A]:  -9.000e-001 -8.640e-001 -6.220e-001 -3.240e-001 +1.400e-002
-2.090e-001 -2.820e-001 -2.880e-001 -2.530e-001 -1.770e-001 -1.010e-001
-3.200e-002 +4.300e-002 +1.080e-001 +1.470e-001 +1.640e-001 +1.660e-001
+1.500e-001 +1.290e-001 +1.100e-001 +8.900e-002 +7.400e-002 +6.800e-002
+6.700e-002 +7.000e-002 +7.400e-002 +7.300e-002 +6.800e-002 +5.200e-002
+1.900e-002 -3.000e-002 -8.200e-002
  30.5814      7.33
  19.9994     13.05
  19.9994      1.00
  35.9659    190.84
  50.0000 10000000000.00
<Date: Mon Jul 14 11:17:45 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF PERAMA
<Place: PERAMA
<*****************************************************************************
*********
#GEOSEC: 0180-A       /  50.0/  50.0/   1.0/  563970.000/ 3914510.000/
50.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 88.00
S  [V/A]:  +4.549e+001 +4.575e+001 +4.569e+001 +4.497e+001 +4.308e+001
+4.017e+001 +3.767e+001 +3.575e+001 +3.386e+001 +3.221e+001 +3.117e+001
+3.039e+001 +2.944e+001 +2.827e+001 +2.720e+001 +2.623e+001 +2.499e+001
+2.353e+001 +2.230e+001 +2.124e+001 +1.993e+001 +1.842e+001 +1.718e+001
+1.617e+001 +1.500e+001 +1.378e+001 +1.292e+001 +1.228e+001 +1.162e+001
+1.102e+001 +1.064e+001 +1.038e+001
Err[V/A]:  -3.700e-002 -6.000e-003 +5.200e-002 +1.420e-001 -2.370e-001
-2.930e-001 -3.020e-001 -2.830e-001 -2.440e-001 -1.970e-001 -1.700e-001
-1.650e-001 -1.770e-001 -2.010e-001 -2.230e-001 -2.410e-001 -2.590e-001
-2.780e-001 -2.930e-001 -3.070e-001 -3.250e-001 -3.420e-001 -3.530e-001
-3.570e-001 -3.550e-001 -3.420e-001 -3.230e-001 -3.000e-001 -2.650e-001
-2.200e-001 -1.820e-001 -1.500e-001
  36.6340     12.90
  16.6683     12.24
  16.0701      6.23
  16.0701      6.23
   5.8824 10000000000.00
<Date: Mon Jul 14 11:55:40 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES,BETWEEN RIVER-MAIN ROAD
<Place: PERAMA
<*****************************************************************************
*********
#GEOSEC: 0181         /  50.0/  50.0/   1.0/  563855.000/ 3915893.000/
69.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=123.00
S  [V/A]:  +0.000e+000 +3.014e+001 +6.374e+001 +8.726e+001 +1.078e+002
+1.211e+002 +1.277e+002 +1.327e+002 +1.391e+002 +1.463e+002 +1.509e+002
+1.528e+002 +1.517e+002 +1.458e+002 +1.379e+002 +1.298e+002 +1.190e+002
+1.062e+002 +9.603e+001 +8.782e+001 +7.856e+001 +6.903e+001 +6.208e+001
+5.681e+001 +5.114e+001 +4.552e+001 +4.158e+001 +3.854e+001 +3.512e+001
+3.140e+001 +2.835e+001 +2.569e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.650e-001 +6.550e-001
+3.650e-001 +2.550e-001 +2.400e-001 +2.380e-001 +1.990e-001 +1.220e-001
+2.600e-002 -1.070e-001 -2.430e-001 -3.250e-001 -3.700e-001 -4.040e-001
-4.270e-001 -4.380e-001 -4.430e-001 -4.450e-001 -4.450e-001 -4.420e-001
-4.380e-001 -4.300e-001 -4.200e-001 -4.120e-001 -4.090e-001 -4.130e-001
-4.300e-001 -4.510e-001 -4.670e-001
  53.0341      3.76
 167.4669     59.13
```

```
  16.0578     25.63
  16.0578      1.27
   9.0174 10000000000.00
<Date: Mon Jul 14 12:59:42 2008
<Time Range=5 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0182-A       /  50.0/  50.0/   1.0/  563702.000/ 3915971.000/
68.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=252.00
S  [V/A]:  +0.000e+000 +2.204e+001 +5.626e+001 +8.273e+001 +1.117e+002
+1.375e+002 +1.515e+002 +1.588e+002 +1.634e+002 +1.643e+002 +1.616e+002
+1.565e+002 +1.474e+002 +1.344e+002 +1.230e+002 +1.140e+002 +1.041e+002
+9.433e+001 +8.726e+001 +8.169e+001 +7.522e+001 +6.816e+001 +6.265e+001
+5.825e+001 +5.332e+001 +4.821e+001 +4.449e+001 +4.152e+001 +3.810e+001
+3.427e+001 +3.107e+001 +2.826e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.940e-001 +8.190e-001
+5.990e-001 +3.780e-001 +2.280e-001 +9.300e-002 -4.200e-002 -1.540e-001
-2.460e-001 -3.320e-001 -3.870e-001 -4.040e-001 -4.030e-001 -3.940e-001
-3.800e-001 -3.750e-001 -3.760e-001 -3.840e-001 -3.930e-001 -3.970e-001
-3.980e-001 -3.950e-001 -3.900e-001 -3.870e-001 -3.890e-001 -3.980e-001
-4.200e-001 -4.440e-001 -4.620e-001
  48.8670      3.51
 200.0000     52.05
  18.7544     23.36
  26.8429     21.12
   9.1065 10000000000.00
<Date: Mon Jul 14 13:29:42 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0183-A       /  50.0/  50.0/   1.0/  563517.000/ 3915845.000/
79.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=492.00
S  [V/A]:  +0.000e+000 +4.090e-001 +1.868e+001 +3.460e+001 +5.376e+001
+7.853e+001 +1.027e+002 +1.258e+002 +1.560e+002 +1.905e+002 +2.162e+002
+2.339e+002 +2.467e+002 +2.455e+002 +2.320e+002 +2.152e+002 +1.926e+002
+1.684e+002 +1.513e+002 +1.388e+002 +1.254e+002 +1.117e+002 +1.010e+002
+9.206e+001 +8.160e+001 +7.059e+001 +6.292e+001 +5.740e+001 +5.205e+001
+4.774e+001 +4.559e+001 +4.475e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -8.950e-001
-8.740e-001 -8.520e-001 -8.250e-001 +7.700e-001 +6.690e-001 +5.460e-001
+3.970e-001 +1.430e-001 -1.820e-001 -3.590e-001 -4.220e-001 -4.470e-001
-4.480e-001 -4.400e-001 -4.310e-001 -4.250e-001 -4.300e-001 -4.420e-001
-4.530e-001 -4.620e-001 -4.620e-001 -4.540e-001 -4.360e-001 -3.940e-001
-3.050e-001 -1.880e-001 -6.300e-002
  67.8693      6.56
 300.0000     77.27
  51.7197      6.11
  51.7197      1.00
  16.3390 10000000000.00
<Date: Mon Jul 14 13:58:05 2008
<Time Range=5 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ON THE CROSSROAD TO ACHLADES
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0184-A       /  50.0/  50.0/   1.0/  563303.000/ 3915903.000/
72.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=154.00
S  [V/A]:  +1.813e+000 +9.454e+000 +1.503e+001 +1.858e+001 +2.148e+001
+2.352e+001 +2.475e+001 +2.583e+001 +2.740e+001 +2.985e+001 +3.251e+001
+3.525e+001 +3.919e+001 +4.440e+001 +4.909e+001 +5.309e+001 +5.779e+001
+6.258e+001 +6.577e+001 +6.780e+001 +6.934e+001 +6.982e+001 +6.921e+001
+6.798e+001 +6.562e+001 +6.176e+001 +5.788e+001 +5.425e+001 +4.981e+001
+4.523e+001 +4.218e+001 +4.026e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.850e-001 -7.510e-001 +5.080e-001
```

+3.150e-001 +2.660e-001 +2.820e-001 +3.370e-001 +4.160e-001 +4.730e-001
+5.080e-001 +5.300e-001 +5.290e-001 +5.050e-001 +4.680e-001 +4.080e-001
+3.220e-001 +2.420e-001 +1.700e-001 +8.300e-002 -1.300e-002 -9.000e-002
-1.540e-001 -2.300e-001 -3.080e-001 -3.550e-001 -3.800e-001 -3.870e-001
-3.670e-001 -3.210e-001 -2.610e-001
  27.2866   15.69
 300.0000   67.14
  19.1618   15.45
  39.3421   33.39
  16.9411 10000000000.00
<Date: Mon Jul 14 14:32:09 2008
<Time Range=5 Currrent= 3.20 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: ON THE CROSSROAD TO ACHLADES
<Place: SOLOCHIANA
<***
****
#GEOSEC: 0185-C   / 50.0/ 50.0/   1.0/ 563096.000/ 3915864.000/
47.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=417.00
S [V/A]: +0.000e+000 +0.000e+000 +0.000e+000 +4.649e+000 +1.435e+001
+2.266e+001 +2.850e+001 +3.336e+001 +3.951e+001 +4.721e+001 +5.411e+001
+6.026e+001 +6.773e+001 +7.539e+001 +8.029e+001 +8.303e+001 +8.469e+001
+8.472e+001 +8.367e+001 +8.224e+001 +7.996e+001 +7.668e+001 +7.353e+001
+7.064e+001 +6.708e+001 +6.316e+001 +6.024e+001 +5.789e+001 +5.501e+001
+5.136e+001 +4.787e+001 +4.456e+001 +4.031e+001 +3.551e+001 +3.194e+001
+2.929e+001
Err[V/A]: -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.770e-001 +7.930e-001 +7.380e-001 +6.960e-001 +6.610e-001 +6.300e-001
+5.940e-001 +5.240e-001 +4.070e-001 +2.820e-001 +1.740e-001 +5.900e-002
-3.900e-002 -9.600e-002 -1.340e-001 -1.740e-001 -2.160e-001 -2.460e-001
-2.620e-001 -2.690e-001 -2.640e-001 -2.580e-001 -2.610e-001 -2.830e-001
-3.310e-001 -3.770e-001 -4.100e-001 -4.350e-001 -4.450e-001 -4.410e-001
-4.320e-001
  24.9026   8.87
 300.0000   59.92
  24.8929   41.75
  26.4917   52.89
   5.3639 10000000000.00
<Date: Mon Jul 14 15:03:46 2008
<Time Range=6 Currrent= 2.80 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: ON THE CROSSROAD TO ACHLADES
<Place: SOLOCHIANA
<***
****
#GEOSEC: 0186-B   / 50.0/ 50.0/   1.0/ 562931.000/ 3915895.000/
39.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=224.00
S [V/A]: +0.000e+000 +0.000e+000 +1.034e+001 +1.685e+001 +2.180e+001
+2.580e+001 +2.872e+001 +3.127e+001 +3.461e+001 +3.891e+001 +4.289e+001
+4.660e+001 +5.143e+001 +5.705e+001 +6.149e+001 +6.482e+001 +6.819e+001
+7.113e+001 +7.289e+001 +7.392e+001 +7.443e+001 +7.347e+001 +7.104e+001
+6.787e+001 +6.308e+001 +5.719e+001 +5.264e+001 +4.901e+001 +4.483e+001
+4.013e+001 +3.618e+001 +3.276e+001 +2.865e+001 +2.425e+001 +2.106e+001
+1.872e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +7.600e-001
+5.680e-001 +5.050e-001 +4.930e-001 +4.930e-001 +4.990e-001 +5.020e-001
+4.990e-001 +4.780e-001 +4.310e-001 +3.730e-001 +3.140e-001 +2.420e-001
+1.690e-001 +1.170e-001 +7.000e-002 -9.000e-003 -1.340e-001 -2.440e-001
-3.170e-001 -3.680e-001 -3.910e-001 -3.950e-001 -3.970e-001 -4.070e-001
-4.310e-001 -4.520e-001 -4.680e-001 -4.790e-001 -4.840e-001 -4.830e-001
-4.810e-001
  29.8322   13.76
 242.3667   58.34
  13.0362   3.05
  17.4707   49.63
   2.9441 10000000000.00
<Date: Mon Jul 14 15:36:59 2008
<Time Range=6 Currrent= 2.60 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NEAR THE GREEN-HOUSE
<Place: AGGELIANA

```
<*********************************************************************************
*********
#GEOSEC: 0187-B        /  50.0/  50.0/   1.0/  562672.000/ 3915904.000/
41.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=        0.000 DH=        0.000/rms=387.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.546e+001 +4.969e+001 +7.125e+001
+8.695e+001 +9.524e+001 +1.005e+002 +1.053e+002 +1.087e+002 +1.097e+002
+1.097e+002 +1.091e+002 +1.078e+002 +1.061e+002 +1.041e+002 +1.004e+002
+9.456e+001 +8.846e+001 +8.254e+001 +7.464e+001 +6.511e+001 +5.725e+001
+5.083e+001 +4.355e+001 +3.607e+001 +3.075e+001 +2.670e+001 +2.236e+001
+1.814e+001 +1.520e+001 +1.306e+001 +1.085e+001 +8.765e+000 +7.349e+000
+6.323e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.480e-001
+5.770e-001 +3.860e-001 +2.890e-001 +1.980e-001 +9.500e-002 +2.500e-002
-1.500e-002 -4.400e-002 -7.400e-002 -1.110e-001 -1.580e-001 -2.280e-001
-3.080e-001 -3.650e-001 -4.050e-001 -4.410e-001 -4.670e-001 -4.790e-001
-4.850e-001 -4.900e-001 -4.920e-001 -4.940e-001 -4.950e-001 -4.960e-001
-4.970e-001 +4.970e-001 -4.970e-001 +4.970e-001 +4.970e-001 +4.970e-001
+4.970e-001
  23.5550      2.03
 139.1313     47.79
  21.3224     28.39
   3.0000     43.89
 100.0000 10000000000.00
<Date: Mon Jul 14 16:03:32 2008
<Time Range=6 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES, NOT SQUARE
<Place: AGGELIANA
<*********************************************************************************
*********
#GEOSEC: 0188-B        /  50.0/  50.0/   1.0/  562534.000/ 3915853.000/
66.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=        0.000 DH=        0.000/rms=498.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.182e+001 +2.442e+001
+3.594e+001 +4.526e+001 +5.398e+001 +6.607e+001 +8.178e+001 +9.523e+001
+1.059e+002 +1.166e+002 +1.250e+002 +1.293e+002 +1.313e+002 +1.324e+002
+1.323e+002 +1.314e+002 +1.301e+002 +1.277e+002 +1.240e+002 +1.201e+002
+1.162e+002 +1.110e+002 +1.046e+002 +9.946e+001 +9.520e+001 +9.039e+001
+8.557e+001 +8.220e+001 +7.974e+001 +7.713e+001 +7.429e+001 +7.163e+001
+6.877e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
-8.630e-001 -8.120e-001 +7.900e-001 +7.680e-001 +7.220e-001 +6.500e-001
+5.550e-001 +4.130e-001 +2.510e-001 +1.430e-001 +7.800e-002 +2.300e-002
-2.300e-002 -5.500e-002 -8.300e-002 -1.200e-001 -1.640e-001 -2.000e-001
-2.270e-001 -2.530e-001 -2.710e-001 -2.770e-001 -2.740e-001 -2.610e-001
-2.370e-001 -2.120e-001 -1.930e-001 -1.800e-001 -1.930e-001 -2.360e-001
-2.850e-001
  16.6742      3.38
 300.0000     71.68
  69.7179     50.84
  69.7179     19.16
  46.0063 10000000000.00
<Date: Mon Jul 14 16:29:59 2008
<Time Range=6 Currrent= 2.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES, STEEP TERAIN
<Place: AGGELIANA
<*********************************************************************************
*********
#GEOSEC: 0189-B        /  50.0/  50.0/   1.0/  562278.000/ 3915801.000/
71.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=        0.000 DH=        0.000/rms=167.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.219e+000 +1.333e+001 +2.223e+001
+2.733e+001 +2.983e+001 +3.139e+001 +3.291e+001 +3.430e+001 +3.525e+001
+3.604e+001 +3.707e+001 +3.847e+001 +3.987e+001 +4.124e+001 +4.312e+001
+4.547e+001 +4.739e+001 +4.883e+001 +5.006e+001 +5.031e+001 +4.925e+001
+4.736e+001 +4.390e+001 +3.876e+001 +3.417e+001 +3.023e+001 +2.568e+001
+2.102e+001 +1.766e+001 +1.516e+001 +1.254e+001 +1.003e+001 +8.348e+000
+7.146e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.890e-001
+5.790e-001 +3.710e-001 +2.820e-001 +2.190e-001 +1.690e-001 +1.490e-001
+1.490e-001 +1.630e-001 +1.900e-001 +2.160e-001 +2.340e-001 +2.480e-001
```

```
+2.430e-001 +2.180e-001 +1.740e-001 +8.600e-002 -5.700e-002 -1.950e-001
-3.050e-001 -4.020e-001 -4.600e-001 -4.810e-001 -4.890e-001 -4.930e-001
-4.960e-001 -4.970e-001 +4.970e-001 +4.980e-001 +4.980e-001 +4.980e-001
+4.970e-001
  21.2377      6.05
  73.1848      7.55
  73.1848      4.22
  39.5244     64.27
   1.3179 10000000000.00
<Date: Tue Jul 15 07:32:50 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0190-B       /  50.0/  50.0/   1.0/  562217.000/ 3915987.000/
71.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=326.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +9.875e+000 +1.786e+001
+2.215e+001 +2.401e+001 +2.501e+001 +2.589e+001 +2.664e+001 +2.720e+001
+2.775e+001 +2.855e+001 +2.976e+001 +3.102e+001 +3.228e+001 +3.409e+001
+3.658e+001 +3.903e+001 +4.144e+001 +4.487e+001 +4.947e+001 +5.372e+001
+5.750e+001 +6.203e+001 +6.658e+001 +6.935e+001 +7.088e+001 +7.164e+001
+7.109e+001 +6.961e+001 +6.767e+001 +6.444e+001 +5.949e+001 +5.444e+001
+4.955e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.960e-001
+5.770e-001 +3.250e-001 +2.200e-001 +1.570e-001 +1.240e-001 +1.250e-001
+1.420e-001 +1.730e-001 +2.160e-001 +2.510e-001 +2.780e-001 +3.110e-001
+3.480e-001 +3.780e-001 +4.040e-001 +4.310e-001 +4.480e-001 +4.450e-001
+4.240e-001 +3.710e-001 +2.810e-001 +1.910e-001 +1.100e-001 +1.500e-002
-8.400e-002 -1.590e-001 -2.210e-001 -2.970e-001 -3.800e-001 -4.350e-001
-4.650e-001
  26.9369     13.53
  20.0161      5.76
 114.4385     97.83
 100.0000     83.19
  12.2774 10000000000.00
<Date: Tue Jul 15 07:53:28 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0191-B       /  50.0/  50.0/   1.0/  562022.000/ 3916054.000/
65.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 96.00
S  [V/A]:  +0.000e+000 +2.140e-001 +2.224e+001 +3.498e+001 +4.377e+001
+4.950e+001 +5.313e+001 +5.614e+001 +6.002e+001 +6.472e+001 +6.882e+001
+7.246e+001 +7.712e+001 +8.282e+001 +8.785e+001 +9.222e+001 +9.753e+001
+1.031e+002 +1.067e+002 +1.088e+002 +1.098e+002 +1.085e+002 +1.057e+002
+1.023e+002 +9.715e+001 +9.019e+001 +8.400e+001 +7.847e+001 +7.161e+001
+6.380e+001 +5.759e+001 +5.259e+001 +4.694e+001 +4.114e+001 +3.696e+001
+3.382e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.950e-001 +6.790e-001
+4.210e-001 +3.480e-001 +3.380e-001 +3.380e-001 +3.350e-001 +3.310e-001
+3.290e-001 +3.290e-001 +3.280e-001 +3.230e-001 +3.120e-001 +2.840e-001
+2.290e-001 +1.640e-001 +9.400e-002 +1.000e-015 -1.080e-001 -1.850e-001
-2.400e-001 -2.930e-001 -3.410e-001 -3.720e-001 -3.940e-001 -4.150e-001
-4.330e-001 -4.430e-001 -4.480e-001 -4.500e-001 -4.490e-001 -4.440e-001
-4.390e-001
  53.9941      5.92
  10.0162      1.15
 145.1583    100.00
  25.5151     55.17
   7.4525 10000000000.00
<Date: Tue Jul 15 08:21:16 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN OLIVE TREES, FENCES
<Place: AGGELIANA
<*******************************************************************************
```

```
*********
#GEOSEC: 0192-B        /  50.0/  50.0/   1.0/  562082.000/ 3915860.000/
70.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=259.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.764e+001 +2.993e+001 +3.882e+001
+4.503e+001 +4.892e+001 +5.193e+001 +5.528e+001 +5.863e+001 +6.093e+001
+6.259e+001 +6.438e+001 +6.638e+001 +6.819e+001 +6.990e+001 +7.226e+001
+7.527e+001 +7.791e+001 +8.017e+001 +8.287e+001 +8.585e+001 +8.816e+001
+8.992e+001 +9.153e+001 +9.204e+001 +9.093e+001 +8.886e+001 +8.527e+001
+8.046e+001 +7.647e+001 +7.315e+001 +6.902e+001 +6.350e+001 +5.775e+001
+5.187e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +7.460e-001
+4.880e-001 +3.870e-001 +3.420e-001 +2.940e-001 +2.370e-001 +1.930e-001
+1.660e-001 +1.490e-001 +1.500e-001 +1.610e-001 +1.740e-001 +1.890e-001
+1.970e-001 +1.960e-001 +1.890e-001 +1.780e-001 +1.620e-001 +1.450e-001
+1.200e-001 +6.600e-002 -2.800e-002 -1.170e-001 -1.860e-001 -2.410e-001
-2.700e-001 -2.780e-001 -2.880e-001 -3.220e-001 -3.940e-001 -4.540e-001
-4.840e-001
  42.4808     10.13
  42.4808      1.00
 100.2964    100.00
  91.6662     76.03
  18.4126 10000000000.00
<Date: Tue Jul 15 08:46:47 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF AGGELIANA
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0193          /  50.0/  50.0/   1.0/  561758.000/ 3915772.000/
115.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=188.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.616e+000 +1.921e+001 +2.948e+001
+3.250e+001 +3.243e+001 +3.219e+001 +3.218e+001 +3.279e+001 +3.379e+001
+3.498e+001 +3.684e+001 +3.958e+001 +4.244e+001 +4.531e+001 +4.950e+001
+5.535e+001 +6.108e+001 +6.655e+001 +7.378e+001 +8.229e+001 +8.883e+001
+9.368e+001 +9.844e+001 +1.024e+002 +1.046e+002 +1.058e+002 +1.061e+002
+1.040e+002 +9.935e+001 +9.279e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.420e-001
+1.810e-001 -3.100e-002 -2.600e-002 +4.000e-002 +1.310e-001 +1.990e-001
+2.490e-001 +3.020e-001 +3.580e-001 +4.020e-001 +4.370e-001 +4.750e-001
+5.100e-001 +5.270e-001 +5.280e-001 +5.080e-001 +4.540e-001 +3.860e-001
+3.170e-001 +2.350e-001 +1.540e-001 +9.900e-002 +4.900e-002 -3.600e-002
-1.850e-001 -3.310e-001 -4.250e-001
  34.4524     25.45
 400.0000    100.00
  69.4914     44.61
  21.6796     69.75
   3.0000 10000000000.00
<Date: Tue Jul 15 09:10:02 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF AGGELIANA, FENCES
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0194-B        /  50.0/  50.0/   1.0/  561679.000/ 3915991.000/
107.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=430.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.568e+001 +3.917e+001 +6.076e+001
+7.899e+001 +9.081e+001 +9.971e+001 +1.095e+002 +1.189e+002 +1.249e+002
+1.288e+002 +1.328e+002 +1.372e+002 +1.409e+002 +1.440e+002 +1.473e+002
+1.498e+002 +1.503e+002 +1.498e+002 +1.477e+002 +1.437e+002 +1.389e+002
+1.336e+002 +1.258e+002 +1.153e+002 +1.064e+002 +9.898e+001 +9.090e+001
+8.328e+001 +7.825e+001 +7.456e+001 +7.017e+001 +6.409e+001 +5.744e+001
+5.056e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.850e-001
+7.240e-001 +5.810e-001 +5.010e-001 +4.160e-001 +3.130e-001 +2.330e-001
+1.860e-001 +1.600e-001 +1.540e-001 +1.500e-001 +1.370e-001 +1.040e-001
+4.900e-002 -4.000e-003 -4.900e-002 -1.030e-001 -1.670e-001 -2.230e-001
```

```
-2.740e-001 -3.300e-001 -3.750e-001 -3.930e-001 -3.930e-001 -3.760e-001
-3.410e-001 -3.110e-001 -3.030e-001 -3.380e-001 -4.210e-001 -4.770e-001
-4.950e-001
  56.9571      1.00
   9.6654      1.02
 231.1973     67.49
  95.4364     84.87
  24.4474 10000000000.00
<Date: Tue Jul 15 10:44:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF AGGELIANA
<Place: AGGELIANA
<*************************************************************************
*********
#GEOSEC: 0195-B       /  50.0/  50.0/   1.0/  561670.000/ 3916274.000/
65.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=189.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.866e+000 +1.701e+001 +2.393e+001
+2.708e+001 +2.816e+001 +2.864e+001 +2.889e+001 +2.900e+001 +2.907e+001
+2.917e+001 +2.947e+001 +3.009e+001 +3.089e+001 +3.178e+001 +3.314e+001
+3.508e+001 +3.694e+001 +3.866e+001 +4.083e+001 +4.317e+001 +4.484e+001
+4.600e+001 +4.713e+001 +4.822e+001 +4.912e+001 +4.998e+001 +5.113e+001
+5.233e+001 +5.298e+001 +5.316e+001 +5.296e+001 +5.253e+001 +5.244e+001
+5.288e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.020e-001
+3.410e-001 +1.510e-001 +8.000e-002 +3.300e-002 +1.500e-002 +1.900e-002
+3.800e-002 +7.600e-002 +1.270e-001 +1.720e-001 +2.080e-001 +2.480e-001
+2.830e-001 +2.990e-001 +3.000e-001 +2.830e-001 +2.410e-001 +1.960e-001
+1.570e-001 +1.240e-001 +1.100e-001 +1.150e-001 +1.230e-001 +1.210e-001
+9.100e-002 +4.600e-002 +3.000e-003 -3.000e-002 -2.400e-002 +2.600e-002
+8.800e-002
  17.5266      1.73
  33.5799     37.79
 200.3506     53.47
  31.3916     23.58
  55.6375 10000000000.00
<Date: Tue Jul 15 11:16:42 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF AGGELIANA
<Place: AGGELIANA
<*************************************************************************
*********
#GEOSEC: 0196-B       /  50.0/  50.0/   1.0/  561456.000/ 3916302.000/
61.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=101.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.194e+001 +3.386e+001 +4.063e+001
+4.305e+001 +4.361e+001 +4.382e+001 +4.402e+001 +4.423e+001 +4.440e+001
+4.456e+001 +4.482e+001 +4.521e+001 +4.560e+001 +4.596e+001 +4.639e+001
+4.681e+001 +4.700e+001 +4.702e+001 +4.683e+001 +4.633e+001 +4.575e+001
+4.523e+001 +4.467e+001 +4.425e+001 +4.415e+001 +4.419e+001 +4.425e+001
+4.396e+001 +4.315e+001 +4.193e+001 +3.986e+001 +3.695e+001 +3.436e+001
+3.215e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.900e-001 +5.290e-001
+1.500e-001 +4.800e-002 +2.700e-002 +2.300e-002 +2.200e-002 +2.300e-002
+2.800e-002 +3.600e-002 +4.600e-002 +5.200e-002 +5.300e-002 +4.800e-002
+3.200e-002 +1.300e-002 -9.000e-003 -3.700e-002 -6.400e-002 -7.600e-002
-7.500e-002 -5.900e-002 -2.800e-002 -3.000e-003 +7.000e-003 -1.100e-002
-7.500e-002 -1.540e-001 -2.250e-001 -2.950e-001 -3.460e-001 -3.700e-001
-3.850e-001
  36.3886      1.01
  41.7987      5.35
  46.7150     80.36
  26.9872    100.00
   4.9100 10000000000.00
<Date: Tue Jul 15 11:45:53 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH OF AGGELIANA
<Place: AGGELIANA
<*************************************************************************
*********
```

#GEOSEC: 0197-B / 50.0/ 50.0/ 1.0/ 561478.000/ 3915963.000/ 102.0/32/5/0/22222 SPM=0 K= 0.000e+000 H= 0.000 DH= 0.000/rms=114.00
S [V/A]: +0.000e+000 +0.000e+000 +1.624e+000 +1.883e+001 +3.256e+001 +4.148e+001 +4.665e+001 +5.074e+001 +5.592e+001 +6.237e+001 +6.792e+001 +7.262e+001 +7.805e+001 +8.349e+001 +8.709e+001 +8.934e+001 +9.112e+001 +9.196e+001 +9.189e+001 +9.140e+001 +9.030e+001 +8.817e+001 +8.546e+001 +8.229e+001 +7.733e+001 +7.049e+001 +6.458e+001 +5.962e+001 +5.402e+001 +4.839e+001 +4.438e+001 +4.132e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.950e-001 +6.730e-001 +5.210e-001 +4.820e-001 +4.710e-001 +4.570e-001 +4.320e-001 +3.990e-001 +3.460e-001 +2.720e-001 +2.020e-001 +1.440e-001 +7.900e-002 +1.800e-002 -2.200e-002 -5.100e-002 -9.000e-002 -1.500e-001 -2.140e-001 -2.760e-001 -3.420e-001 -3.930e-001 -4.140e-001 -4.210e-001 -4.180e-001 -4.080e-001 -3.990e-001 -3.920e-001
48.5387 4.52
7.5925 1.11
176.2003 56.74
44.2293 64.17
10.3884 10000000000.00
<Date: Tue Jul 15 12:18:39 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff= 6 Ampl=OFF
<Remark: NORTH OF AGGELIANA,POWER LINES
<Place: AGGELIANA
<***
#GEOSEC: 0198-C / 50.0/ 50.0/ 1.0/ 561558.000/ 3915873.000/ 119.0/32/5/0/22222 SPM=0 K= 0.000e+000 H= 0.000 DH= 0.000/rms=301.00
S [V/A]: +0.000e+000 +0.000e+000 +1.289e+000 +5.625e+000 +1.172e+001 +1.872e+001 +2.431e+001 +2.909e+001 +3.517e+001 +4.290e+001 +4.998e+001 +5.654e+001 +6.507e+001 +7.499e+001 +8.264e+001 +8.801e+001 +9.269e+001 +9.540e+001 +9.601e+001 +9.591e+001 +9.559e+001 +9.544e+001 +9.553e+001 +9.554e+001 +9.511e+001 +9.354e+001 +9.136e+001 +8.907e+001 +8.633e+001 +8.419e+001 +8.403e+001 +8.558e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +9.000e-001 +8.860e-001 +8.330e-001 +7.850e-001 +7.430e-001 +7.090e-001 +6.850e-001 +6.630e-001 +6.220e-001 +5.480e-001 +4.540e-001 +3.510e-001 +2.160e-001 +8.300e-002 +1.300e-002 -1.200e-002 -1.400e-002 -1.000e-003 +3.000e-003 -1.100e-002 -5.100e-002 -1.130e-001 -1.550e-001 -1.700e-001 -1.480e-001 -6.200e-002 +6.300e-002 +1.890e-001
22.8933 1.22
5.4693 1.45
400.0000 61.74
63.2321 45.15
80.4036 10000000000.00
<Date: Tue Jul 15 13:08:25 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff= 6 Ampl=OFF
<Remark: NORTH OF AGGELIANA,POWER LINES
<Place: AGGELIANA
<***
#GEOSEC: 0199 / 50.0/ 50.0/ 1.0/ 561166.000/ 3915884.000/ 95.0/32/5/0/22222 SPM=0 K= 0.000e+000 H= 0.000 DH= 0.000/rms=158.00
S [V/A]: +0.000e+000 +0.000e+000 +1.743e+001 +3.306e+001 +4.421e+001 +5.000e+001 +5.184e+001 +5.253e+001 +5.299e+001 +5.340e+001 +5.372e+001 +5.401e+001 +5.433e+001 +5.467e+001 +5.490e+001 +5.507e+001 +5.523e+001 +5.531e+001 +5.521e+001 +5.493e+001 +5.432e+001 +5.327e+001 +5.223e+001 +5.134e+001 +5.037e+001 +4.958e+001 +4.925e+001 +4.915e+001 +4.915e+001 +4.889e+001 +4.796e+001 +4.623e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.570e-001 +3.330e-001 +1.320e-001 +6.700e-002 +4.100e-002 +3.500e-002 +3.500e-002 +3.400e-002 +3.100e-002 +2.700e-002 +2.200e-002 +1.900e-002 +1.200e-002 -3.000e-003 -2.300e-002 -4.700e-002 -7.700e-002 -1.050e-001 -1.160e-001 -1.120e-001 -9.200e-002 -5.700e-002 -2.600e-002 -8.000e-003 -1.200e-002 -7.300e-002 -1.830e-001 -2.890e-001
100.0000 3.67
12.6017 1.00

```
  58.4641     62.67
  33.1213     19.92
  44.0087 10000000000.00
<Date: Tue Jul 15 14:17:37 2008
<Time Range=5 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 400M EAST OF G-12
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0200-A       /  50.0/  50.0/   1.0/  561364.000/ 3915805.000/
106.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=593.00
S  [V/A]:  +9.769e+000 +1.654e+001 +2.164e+001 +2.517e+001 +2.819e+001
+3.027e+001 +3.115e+001 +3.149e+001 +3.160e+001 +3.154e+001 +3.146e+001
+3.144e+001 +3.151e+001 +3.181e+001 +3.232e+001 +3.297e+001 +3.409e+001
+3.587e+001 +3.775e+001 +3.962e+001 +4.215e+001 +4.527e+001 +4.786e+001
+5.005e+001 +5.267e+001 +5.572e+001 +5.822e+001 +6.038e+001 +6.297e+001
+6.564e+001 +6.731e+001 +6.808e+001
Err[V/A]:  -9.000e-001 -8.790e-001 -7.770e-001 -6.200e-001 +4.120e-001
+2.190e-001 +1.070e-001 +4.600e-002 +5.000e-003 -1.200e-002 -9.000e-003
+3.000e-003 +2.800e-002 +7.100e-002 +1.140e-001 +1.570e-001 +2.110e-001
+2.690e-001 +3.070e-001 +3.270e-001 +3.350e-001 +3.260e-001 +3.080e-001
+2.910e-001 +2.740e-001 +2.610e-001 +2.520e-001 +2.410e-001 +2.180e-001
+1.720e-001 +1.110e-001 +4.600e-002
  29.8626     15.71
  29.8626      1.46
  46.9963     21.85
  46.9963      1.00
 100.0000 10000000000.00
<Date: Tue Jul 15 14:43:54 2008
<Time Range=5 Currrent= 3.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWERLINES, NOT SQUARE
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0201-D       /  50.0/  50.0/   1.0/  560979.000/ 3915906.000/
97.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=144.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.396e+001 +2.631e+001 +3.399e+001
+3.785e+001 +3.957e+001 +4.076e+001 +4.204e+001 +4.347e+001 +4.465e+001
+4.568e+001 +4.703e+001 +4.870e+001 +5.019e+001 +5.145e+001 +5.292e+001
+5.436e+001 +5.523e+001 +5.567e+001 +5.584e+001 +5.550e+001 +5.484e+001
+5.401e+001 +5.271e+001 +5.088e+001 +4.924e+001 +4.787e+001 +4.641e+001
+4.529e+001 +4.495e+001 +4.513e+001 +4.585e+001 +4.694e+001 +4.724e+001
+4.624e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.050e-001
+3.280e-001 +2.070e-001 +1.750e-001 +1.580e-001 +1.510e-001 +1.500e-001
+1.540e-001 +1.620e-001 +1.690e-001 +1.690e-001 +1.620e-001 +1.430e-001
+1.090e-001 +7.200e-002 +3.800e-002 -5.000e-003 -5.200e-002 -8.800e-002
-1.180e-001 -1.500e-001 -1.780e-001 -1.880e-001 -1.800e-001 -1.460e-001
-7.800e-002 -5.000e-003 +5.600e-002 +1.010e-001 +7.200e-002 -6.300e-002
-2.220e-001
  98.4885      4.27
   6.3771      1.00
  62.8512     88.57
  27.5035     66.91
  84.8314 10000000000.00
<Date: Tue Jul 15 15:21:23 2008
<Time Range=6 Currrent= 3.20 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWERLINES, 260M NE OF G-12
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0202-B       /  50.0/  50.0/   1.0/  561033.000/ 3916183.000/
98.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=260.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.441e+000 +2.064e+001 +3.343e+001
+4.096e+001 +4.436e+001 +4.627e+001 +4.769e+001 +4.834e+001 +4.832e+001
+4.816e+001 +4.797e+001 +4.796e+001 +4.810e+001 +4.828e+001 +4.845e+001
+4.852e+001 +4.842e+001 +4.820e+001 +4.778e+001 +4.705e+001 +4.624e+001
```

```
+4.541e+001 +4.424e+001 +4.281e+001 +4.169e+001 +4.087e+001 +4.011e+001
+3.960e+001 +3.936e+001 +3.909e+001 +3.833e+001 +3.644e+001 +3.397e+001
+3.141e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.850e-001
+5.590e-001 +3.270e-001 +2.160e-001 +1.140e-001 +2.700e-002 -1.300e-002
-2.200e-002 -1.200e-002 +9.000e-003 +2.100e-002 +2.300e-002 +1.400e-002
-4.000e-003 -2.200e-002 -3.900e-002 -6.100e-002 -8.900e-002 -1.130e-001
-1.320e-001 -1.490e-001 -1.550e-001 -1.440e-001 -1.220e-001 -8.500e-002
-4.800e-002 -4.200e-002 -7.500e-002 -1.690e-001 -3.040e-001 -3.900e-001
-4.360e-001
   9.9652      1.16
 400.0000      3.84
  50.4235     56.66
  31.6262    100.00
  24.6791 10000000000.00
<Date: Tue Jul 15 15:47:56 2008
<Time Range=6 Currrent= 3.20 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 500M NE OF G-12
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0203-C       /  50.0/  50.0/   1.0/  560782.000/ 3916084.000/
97.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=232.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.161e+000 +1.494e+001 +2.353e+001
+2.893e+001 +3.193e+001 +3.413e+001 +3.656e+001 +3.908e+001 +4.091e+001
+4.226e+001 +4.362e+001 +4.472e+001 +4.525e+001 +4.541e+001 +4.533e+001
+4.501e+001 +4.468e+001 +4.442e+001 +4.413e+001 +4.376e+001 +4.332e+001
+4.280e+001 +4.197e+001 +4.086e+001 +3.998e+001 +3.937e+001 +3.893e+001
+3.895e+001 +3.938e+001 +3.993e+001 +4.044e+001 +3.990e+001 +3.771e+001
+3.444e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.800e-001
+6.000e-001 +4.390e-001 +3.770e-001 +3.250e-001 +2.740e-001 +2.310e-001
+1.940e-001 +1.470e-001 +9.100e-002 +4.400e-002 +9.000e-003 -2.100e-002
-3.900e-002 -4.100e-002 -3.900e-002 -3.900e-002 -5.100e-002 -7.200e-002
-9.500e-002 -1.180e-001 -1.280e-001 -1.150e-001 -8.600e-002 -3.300e-002
+3.700e-002 +8.100e-002 +8.400e-002 +8.000e-003 -2.030e-001 -3.940e-001
-4.760e-001
   8.0527      1.49
 122.4452      5.21
  55.4540     36.98
  32.2629      9.63
  34.9391 10000000000.00
<Date: Tue Jul 15 16:18:40 2008
<Time Range=6 Currrent= 2.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: 320M NORTH OF G-12
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0204-C       /  50.0/  50.0/   1.0/  561068.000/ 3916073.000/
86.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=313.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.348e+000 +1.248e+001 +1.744e+001
+1.986e+001 +2.103e+001 +2.189e+001 +2.300e+001 +2.443e+001 +2.572e+001
+2.687e+001 +2.830e+001 +2.983e+001 +3.085e+001 +3.147e+001 +3.189e+001
+3.199e+001 +3.192e+001 +3.188e+001 +3.192e+001 +3.216e+001 +3.247e+001
+3.281e+001 +3.327e+001 +3.387e+001 +3.442e+001 +3.494e+001 +3.567e+001
+3.655e+001 +3.724e+001 +3.771e+001 +3.802e+001 +3.789e+001 +3.739e+001
+3.673e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.000e-001
+3.980e-001 +2.710e-001 +2.530e-001 +2.630e-001 +2.770e-001 +2.830e-001
+2.800e-001 +2.620e-001 +2.170e-001 +1.600e-001 +1.070e-001 +4.600e-002
+1.000e-015 -1.100e-002 -2.000e-003 +2.100e-002 +4.800e-002 +6.500e-002
+7.400e-002 +8.200e-002 +9.100e-002 +1.010e-001 +1.100e-001 +1.170e-001
+1.140e-001 +9.700e-002 +6.800e-002 +1.700e-002 -5.100e-002 -1.010e-001
-1.390e-001
 100.0000      2.37
   4.6146      1.00
  37.2720    100.00
  48.0428    100.00
```

```
  23.3394 10000000000.00
<Date: Tue Jul 15 16:51:08 2008
<Time Range=6 Currrent= 2.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINES
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0205         /  50.0/  50.0/   1.0/  560701.000/ 3919367.000/
16.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=703.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.701e+000 +6.691e+000
+1.257e+001 +1.693e+001 +2.019e+001 +2.378e+001 +2.758e+001 +3.063e+001
+3.331e+001 +3.685e+001 +4.132e+001 +4.520e+001 +4.810e+001 +5.020e+001
+4.946e+001 +4.642e+001 +4.284e+001 +3.820e+001 +3.325e+001 +2.961e+001
+2.677e+001 +2.350e+001 +1.991e+001 +1.715e+001 +1.496e+001 +1.259e+001
+1.035e+001 +8.894e+000 +7.908e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.980e-001 +8.480e-001 +7.590e-001 +6.540e-001 +5.620e-001 +5.200e-001
+5.060e-001 +5.020e-001 +4.870e-001 +4.350e-001 +3.280e-001 +9.400e-002
-2.230e-001 -3.820e-001 -4.340e-001 -4.540e-001 -4.590e-001 -4.610e-001
-4.660e-001 -4.760e-001 -4.860e-001 -4.910e-001 -4.940e-001 -4.940e-001
-4.920e-001 -4.860e-001 -4.770e-001
  21.8208     12.89
 200.0000     29.63
   5.4873     13.07
   1.0000 10000000000.00
<Date: Thu Jul 17 07:14:47 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, NATIONAL ROAD
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0207-B       /  50.0/  50.0/   1.0/  561108.000/ 3919373.000/
14.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=217.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.281e+001 +2.613e+001
+3.753e+001 +4.558e+001 +5.186e+001 +5.840e+001 +6.326e+001 +6.418e+001
+6.265e+001 +5.864e+001 +5.252e+001 +4.713e+001 +4.281e+001 +3.797e+001
+3.318e+001 +2.984e+001 +2.741e+001 +2.490e+001 +2.255e+001 +2.096e+001
+1.981e+001 +1.857e+001 +1.724e+001 +1.615e+001 +1.516e+001 +1.385e+001
+1.223e+001 +1.090e+001 +9.826e+000 +8.637e+000 +7.466e+000 +6.658e+000
+6.070e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.370e-001 +7.230e-001 +6.250e-001 +4.680e-001 +2.080e-001 -4.900e-002
-2.360e-001 -3.660e-001 -4.290e-001 -4.490e-001 -4.540e-001 -4.540e-001
-4.470e-001 -4.370e-001 -4.240e-001 -4.030e-001 -3.750e-001 -3.490e-001
-3.310e-001 -3.200e-001 -3.280e-001 -3.530e-001 -3.840e-001 -4.210e-001
-4.510e-001 -4.640e-001 -4.690e-001 -4.680e-001 -4.620e-001 -4.540e-001
-4.440e-001
  26.7592      7.79
 200.0000     24.35
   5.1817     38.94
   1.0000 10000000000.00
<Date: Thu Jul 17 07:58:57 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NATIONAL ROAD, BY THE SEA
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0208-C       /  50.0/  50.0/   1.0/  561407.000/ 3919381.000/
6.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=245.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.043e+001 +2.228e+001
+3.123e+001 +3.700e+001 +4.130e+001 +4.577e+001 +4.955e+001 +5.128e+001
+5.174e+001 +5.126e+001 +4.958e+001 +4.749e+001 +4.530e+001 +4.220e+001
+3.821e+001 +3.477e+001 +3.185e+001 +2.844e+001 +2.484e+001 +2.218e+001
+2.013e+001 +1.787e+001 +1.555e+001 +1.387e+001 +1.256e+001 +1.112e+001
+9.644e+000 +8.569e+000 +7.743e+000 +6.838e+000 +5.913e+000 +5.228e+000
+4.689e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.080e-001 +6.600e-001 +5.580e-001 +4.310e-001 +2.650e-001 +1.200e-001
```

```
+1.000e-002 -1.000e-001 -1.990e-001 -2.650e-001 -3.140e-001 -3.640e-001
-4.060e-001 -4.300e-001 -4.420e-001 -4.500e-001 -4.550e-001 -4.560e-001
-4.570e-001 -4.570e-001 -4.580e-001 -4.600e-001 -4.610e-001 -4.620e-001
-4.630e-001 -4.640e-001 -4.640e-001 -4.650e-001 -4.680e-001 -4.720e-001
-4.750e-001
  16.7813      3.58
  74.7534     30.78
   4.9186     19.47
   1.3077 10000000000.00
<Date: Thu Jul 17 08:30:45 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO HOTEL, BY THE SEA
<Place: PANORMOS
<*****************************************************************************
*********
#GEOSEC: 0209-B       /  50.0/  50.0/   1.0/  561615.000/ 3919326.000/
7.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=277.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.962e+001 +5.031e+001 +7.921e+001
+9.541e+001 +9.584e+001 +9.100e+001 +8.216e+001 +7.060e+001 +6.117e+001
+5.377e+001 +4.578e+001 +3.805e+001 +3.263e+001 +2.867e+001 +2.445e+001
+2.031e+001 +1.737e+001 +1.519e+001 +1.289e+001 +1.072e+001 +9.272e+000
+8.260e+000 +7.267e+000 +6.407e+000 +5.902e+000 +5.592e+000 +5.350e+000
+5.243e+000 +5.281e+000 +5.396e+000 +5.630e+000 +6.003e+000 +6.369e+000
+6.711e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.760e-001
+3.590e-001 -1.630e-001 -3.580e-001 -4.410e-001 -4.740e-001 -4.840e-001
-4.870e-001 -4.890e-001 -4.890e-001 -4.890e-001 -4.890e-001 -4.890e-001
-4.910e-001 -4.910e-001 -4.920e-001 -4.910e-001 -4.880e-001 -4.830e-001
-4.750e-001 -4.570e-001 -4.170e-001 -3.600e-001 -2.880e-001 -1.740e-001
-2.200e-002 +1.000e-001 +1.890e-001 +2.680e-001 +3.230e-001 +3.440e-001
+3.540e-001
  27.2298      4.32
 200.0000     17.99
   2.5504     12.07
   1.0000      5.22
  24.0000 10000000000.00
<Date: Thu Jul 17 08:58:22 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BY THE SEA, POWERLINES
<Place: PANORMOS
<*****************************************************************************
*********
#GEOSEC: 0210-C       /  50.0/  50.0/   1.0/  561885.000/ 3919523.000/
4.0/40/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=126.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.520e-001 +1.709e+001 +3.153e+001
+4.191e+001 +4.794e+001 +5.165e+001 +5.412e+001 +5.370e+001 +5.092e+001
+4.735e+001 +4.226e+001 +3.620e+001 +3.140e+001 +2.769e+001 +2.366e+001
+1.974e+001 +1.705e+001 +1.510e+001 +1.309e+001 +1.122e+001 +9.974e+000
+9.089e+000 +8.192e+000 +7.359e+000 +6.806e+000 +6.399e+000 +5.969e+000
+5.541e+000 +5.232e+000 +4.997e+000 +4.749e+000 +4.521e+000 +4.380e+000
+4.289e+000 +4.200e+000 +4.087e+000 +3.942e+000 +3.755e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.990e-001
+7.370e-001 +5.270e-001 +3.550e-001 +1.130e-001 -1.750e-001 -3.430e-001
-4.170e-001 -4.580e-001 -4.780e-001 -4.850e-001 -4.870e-001 -4.880e-001
-4.870e-001 -4.850e-001 -4.830e-001 -4.770e-001 -4.670e-001 -4.550e-001
-4.420e-001 -4.210e-001 -3.930e-001 -3.690e-001 -3.510e-001 -3.310e-001
-3.120e-001 -2.960e-001 -2.780e-001 -2.490e-001 -2.030e-001 -1.600e-001
-1.310e-001 -1.240e-001 -1.720e-001 -2.600e-001 -3.400e-001
  28.2993      9.75
 120.0000     13.94
   2.2744     10.14
   1.7855      4.00
   3.0029 10000000000.00
<Date: Thu Jul 17 09:29:47 2008
<Time Range=7 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BY THE SEA, FENCES, NEAR HOUSE
<Place: PANORMOS
<*****************************************************************************
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*********
#GEOSEC: 0211-C       /  50.0/  50.0/   1.0/  562050.000/ 3919482.000/
10.0/40/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=227.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.792e+001 +3.505e+001
+4.696e+001 +5.307e+001 +5.642e+001 +5.859e+001 +5.870e+001 +5.724e+001
+5.524e+001 +5.228e+001 +4.864e+001 +4.562e+001 +4.316e+001 +4.029e+001
+3.719e+001 +3.479e+001 +3.282e+001 +3.052e+001 +2.802e+001 +2.608e+001
+2.452e+001 +2.277e+001 +2.094e+001 +1.961e+001 +1.856e+001 +1.738e+001
+1.614e+001 +1.519e+001 +1.442e+001 +1.354e+001 +1.260e+001 +1.186e+001
+1.125e+001 +1.048e+001 +9.497e+000 +8.559e+000 +7.665e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.990e-001
+7.280e-001 +4.700e-001 +2.940e-001 +1.090e-001 -7.300e-002 -1.860e-001
-2.480e-001 -2.910e-001 -3.160e-001 -3.270e-001 -3.310e-001 -3.340e-001
-3.370e-001 -3.410e-001 -3.460e-001 -3.510e-001 -3.560e-001 -3.580e-001
-3.560e-001 -3.510e-001 -3.430e-001 -3.350e-001 -3.290e-001 -3.230e-001
-3.190e-001 -3.180e-001 -3.160e-001 -3.150e-001 -3.140e-001 -3.200e-001
-3.330e-001 -3.670e-001 -4.210e-001 -4.630e-001 -4.840e-001
  38.1572     10.97
 120.0000     18.80
  11.7849     33.14
   5.4889     61.20
   1.7986 10000000000.00
<Date: Thu Jul 17 09:56:15 2008
<Time Range=7 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BY THE SEA, FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0212-B       /  50.0/  50.0/   1.0/  562245.000/ 3919353.000/
12.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=128.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.979e+000 +1.774e+001 +2.825e+001
+3.514e+001 +3.895e+001 +4.156e+001 +4.428e+001 +4.698e+001 +4.895e+001
+5.052e+001 +5.235e+001 +5.431e+001 +5.568e+001 +5.640e+001 +5.640e+001
+5.473e+001 +5.191e+001 +4.869e+001 +4.417e+001 +3.887e+001 +3.475e+001
+3.155e+001 +2.801e+001 +2.436e+001 +2.167e+001 +1.952e+001 +1.709e+001
+1.457e+001 +1.274e+001 +1.139e+001 +9.978e+000 +8.683e+000 +7.856e+000
+7.310e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.840e-001
+6.220e-001 +4.430e-001 +3.600e-001 +2.970e-001 +2.460e-001 +2.160e-001
+2.000e-001 +1.840e-001 +1.570e-001 +1.120e-001 +4.800e-002 -6.700e-002
-2.230e-001 -3.310e-001 -3.920e-001 -4.310e-001 -4.500e-001 -4.550e-001
-4.560e-001 -4.570e-001 -4.610e-001 -4.660e-001 -4.710e-001 -4.750e-001
-4.790e-001 -4.780e-001 -4.760e-001 -4.670e-001 -4.470e-001 -4.160e-001
-3.770e-001
  29.9995      9.58
 120.0000     20.18
  25.7504     28.59
   2.5451     19.48
   1.3374 10000000000.00
<Date: Thu Jul 17 10:25:21 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BY THE SEA, CLUB MARINE HOTEL
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0213-B       /  50.0/  50.0/   1.0/  562468.000/ 3919393.000/
8.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=227.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +4.802e+000 +1.271e+001
+1.978e+001 +2.428e+001 +2.748e+001 +3.098e+001 +3.475e+001 +3.776e+001
+4.022e+001 +4.290e+001 +4.506e+001 +4.565e+001 +4.507e+001 +4.307e+001
+3.949e+001 +3.602e+001 +3.301e+001 +2.945e+001 +2.568e+001 +2.288e+001
+2.072e+001 +1.838e+001 +1.606e+001 +1.447e+001 +1.329e+001 +1.206e+001
+1.087e+001 +1.002e+001 +9.332e+000 +8.513e+000 +7.546e+000 +6.713e+000
+5.989e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.670e-001 +7.270e-001 +6.160e-001 +5.280e-001 +4.600e-001 +4.160e-001
+3.720e-001 +2.900e-001 +1.460e-001 -1.300e-002 -1.570e-001 -2.970e-001
-3.900e-001 -4.270e-001 -4.420e-001 -4.520e-001 -4.580e-001 -4.600e-001
```

```
-4.590e-001 -4.560e-001 -4.480e-001 -4.380e-001 -4.260e-001 -4.110e-001
-3.960e-001 -3.920e-001 -3.990e-001 -4.200e-001 -4.510e-001 -4.720e-001
-4.850e-001
  18.5815      6.87
 100.0000     20.81
  20.3607     17.26
   2.6158     36.76
   1.0000 10000000000.00
<Date: Thu Jul 17 11:41:07 2008
<Time Range=6 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BY SEA, IN VILLAGE, POWERLINES
<Place: PANORMOS
<*****************************************************************************
*********
#GEOSEC: 0214         /  50.0/  50.0/   1.0/  562621.000/ 3919365.000/
12.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=902.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000
+1.908e+001 +4.541e+001 +5.470e+001 +5.413e+001 +5.006e+001 +4.716e+001
+4.505e+001 +4.257e+001 +3.933e+001 +3.603e+001 +3.285e+001 +2.870e+001
+2.409e+001 +2.071e+001 +1.825e+001 +1.573e+001 +1.340e+001 +1.183e+001
+1.067e+001 +9.398e+000 +8.071e+000 +7.078e+000 +6.290e+000 +5.420e+000
+4.554e+000 +3.940e+000 +3.481e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -1.000e-015 -1.000e-015 -9.000e-001
+9.000e-001 +9.000e-001 +5.530e-001 -1.910e-001 -3.100e-001 -2.890e-001
-2.800e-001 -3.060e-001 -3.700e-001 -4.270e-001 -4.600e-001 -4.800e-001
-4.870e-001 -4.880e-001 -4.860e-001 -4.810e-001 -4.740e-001 -4.680e-001
-4.660e-001 -4.690e-001 -4.750e-001 -4.800e-001 -4.840e-001 -4.860e-001
-4.860e-001 -4.870e-001 -4.870e-001
  23.2257      6.37
 100.0000     14.94
   5.1628      8.80
   1.2930      5.76
   1.0000 10000000000.00
<Date: Thu Jul 17 12:05:49 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: AROUND THE CHURCH, IN VILLAGE
<Place: PANORMOS
<*****************************************************************************
*********
#GEOSEC: 0215-A       /  50.0/  50.0/   1.0/  562902.000/ 3919428.000/
33.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=383.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.423e+001 +3.551e+001
+5.178e+001 +6.150e+001 +6.843e+001 +7.551e+001 +8.039e+001 +8.063e+001
+7.814e+001 +7.298e+001 +6.619e+001 +6.089e+001 +5.698e+001 +5.295e+001
+4.928e+001 +4.690e+001 +4.526e+001 +4.362e+001 +4.204e+001 +4.082e+001
+3.971e+001 +3.817e+001 +3.599e+001 +3.384e+001 +3.174e+001 +2.886e+001
+2.520e+001 +2.199e+001 +1.922e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.290e-001 +6.570e-001 +5.430e-001 +3.910e-001 +1.390e-001 -1.040e-001
-2.610e-001 -3.540e-001 -3.850e-001 -3.800e-001 -3.630e-001 -3.310e-001
-2.870e-001 -2.470e-001 -2.160e-001 -1.870e-001 -1.710e-001 -1.760e-001
-1.960e-001 -2.370e-001 -2.970e-001 -3.490e-001 -3.910e-001 -4.360e-001
-4.720e-001 -4.880e-001 -4.950e-001
  29.7541      5.89
 160.0000     31.13
  14.7406     34.30
  26.4046     24.80
   1.6839 10000000000.00
<Date: Thu Jul 17 12:30:20 2008
<Time Range=5 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: BY THE SEA, IN VILLAGE,ON HILL
<Place: PANORMOS
<*****************************************************************************
*********
#GEOSEC: 0216-B       /  50.0/  50.0/   1.0/  563085.000/ 3919517.000/
57.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=407.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.020e+001 +4.917e+001 +8.036e+001
+1.098e+002 +1.267e+002 +1.356e+002 +1.406e+002 +1.403e+002 +1.373e+002
```

```
+1.342e+002 +1.309e+002 +1.283e+002 +1.269e+002 +1.259e+002 +1.241e+002
+1.208e+002 +1.166e+002 +1.122e+002 +1.060e+002 +9.843e+001 +9.224e+001
+8.728e+001 +8.184e+001 +7.657e+001 +7.313e+001 +7.073e+001 +6.835e+001
+6.592e+001 +6.359e+001 +6.093e+001 +5.644e+001 +4.960e+001 +4.320e+001
+3.778e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.950e-001
+7.680e-001 +5.270e-001 +3.120e-001 +9.600e-002 -7.200e-002 -1.350e-001
-1.410e-001 -1.160e-001 -7.700e-002 -5.900e-002 -6.600e-002 -1.020e-001
-1.670e-001 -2.240e-001 -2.660e-001 -3.040e-001 -3.270e-001 -3.320e-001
-3.270e-001 -3.070e-001 -2.720e-001 -2.360e-001 -2.040e-001 -1.800e-001
-1.890e-001 -2.410e-001 -3.170e-001 -4.090e-001 -4.700e-001 -4.880e-001
-4.950e-001
  38.1481      3.33
 200.0000     45.12
  61.9273     61.20
  16.4583     86.20
   1.1622 10000000000.00
<Date: Thu Jul 17 13:03:40 2008
<Time Range=6 Currrent= 3.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ON HILLS, EAST OF PANORMOS
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0217-C       /  50.0/  50.0/   1.0/  563236.000/ 3919392.000/
67.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=161.00
S  [V/A]:  +0.000e+000 +5.018e+000 +4.231e+001 +6.807e+001 +9.064e+001
+1.042e+002 +1.090e+002 +1.110e+002 +1.120e+002 +1.114e+002 +1.096e+002
+1.074e+002 +1.045e+002 +1.015e+002 +9.939e+001 +9.801e+001 +9.673e+001
+9.563e+001 +9.477e+001 +9.391e+001 +9.252e+001 +9.020e+001 +8.755e+001
+8.468e+001 +8.041e+001 +7.459e+001 +6.947e+001 +6.500e+001 +5.966e+001
+5.374e+001 +4.894e+001 +4.483e+001 +3.977e+001 +3.409e+001 +2.977e+001
+2.652e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +7.650e-001
+3.830e-001 +1.710e-001 +8.500e-002 +1.400e-002 -6.100e-002 -1.120e-001
-1.370e-001 -1.430e-001 -1.280e-001 -1.050e-001 -8.500e-002 -6.500e-002
-5.400e-002 -5.800e-002 -7.200e-002 -1.010e-001 -1.490e-001 -1.970e-001
-2.420e-001 -2.940e-001 -3.420e-001 -3.690e-001 -3.830e-001 -3.960e-001
-4.130e-001 -4.310e-001 -4.490e-001 -4.660e-001 -4.780e-001 -4.800e-001
-4.800e-001
  32.1982      3.17
 200.0000     30.97
  58.3363     83.62
   8.0361     45.81
   1.9792 10000000000.00
<Date: Thu Jul 17 13:50:09 2008
<Time Range=6 Currrent= 2.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF PANORMOS, AT SHEPERT'S
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0218-B       /  50.0/  50.0/   1.0/  563551.000/ 3919455.000/
78.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=563.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.963e+001 +7.374e+001 +1.138e+002
+1.527e+002 +1.767e+002 +1.927e+002 +2.081e+002 +2.185e+002 +2.191e+002
+2.141e+002 +2.035e+002 +1.893e+002 +1.783e+002 +1.702e+002 +1.618e+002
+1.533e+002 +1.463e+002 +1.397e+002 +1.305e+002 +1.184e+002 +1.073e+002
+9.744e+001 +8.516e+001 +7.129e+001 +6.075e+001 +5.249e+001 +4.356e+001
+3.494e+001 +2.905e+001 +2.482e+001 +2.051e+001 +1.650e+001 +1.381e+001
+1.187e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.880e-001
+7.570e-001 +5.760e-001 +4.520e-001 +3.110e-001 +1.090e-001 -7.600e-002
-2.000e-001 -2.810e-001 -3.070e-001 -2.960e-001 -2.750e-001 -2.530e-001
-2.500e-001 -2.720e-001 -3.080e-001 -3.590e-001 -4.110e-001 -4.450e-001
-4.650e-001 -4.810e-001 -4.910e-001 -4.950e-001 -4.960e-001 -4.970e-001
-4.980e-001 -4.980e-001 -4.980e-001 -4.980e-001 -4.970e-001 -4.970e-001
-4.970e-001
  44.0755      2.80
 250.0000     63.32
```

```
  18.8613     31.39
   6.0360      6.15
   1.0000 10000000000.00
<Date: Thu Jul 17 14:35:08 2008
<Time Range=6 Currrent= 2.80 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF PANORMOS
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0219-A       /  50.0/  50.0/   1.0/  563791.000/ 3919413.000/
93.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=920.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.901e+001 +5.563e+001 +8.332e+001
+1.084e+002 +1.243e+002 +1.362e+002 +1.503e+002 +1.667e+002 +1.798e+002
+1.897e+002 +1.997e+002 +2.082e+002 +2.132e+002 +2.166e+002 +2.204e+002
+2.249e+002 +2.292e+002 +2.332e+002 +2.384e+002 +2.439e+002 +2.470e+002
+2.479e+002 +2.456e+002 +2.371e+002 +2.253e+002 +2.122e+002 +1.940e+002
+1.726e+002 +1.561e+002 +1.433e+002
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.790e-001
+7.220e-001 +5.720e-001 +5.040e-001 +4.640e-001 +4.220e-001 +3.700e-001
+3.130e-001 +2.380e-001 +1.640e-001 +1.210e-001 +1.020e-001 +9.700e-002
+1.040e-001 +1.150e-001 +1.210e-001 +1.160e-001 +9.100e-002 +4.800e-002
-1.000e-002 -1.060e-001 -2.310e-001 -3.210e-001 -3.750e-001 -4.140e-001
-4.320e-001 -4.340e-001 -4.320e-001
  69.9391      6.73
 250.0000    100.00
 200.0000     90.88
  27.3907     62.61
   3.1627 10000000000.00
<Date: Thu Jul 17 15:05:23 2008
<Time Range=5 Currrent= 2.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF PANORMOS, ON HILLS
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0220-C       /  50.0/  50.0/   1.0/  563992.000/ 3919444.000/
76.0/40/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=428.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.598e+001 +4.191e+001 +6.771e+001
+9.211e+001 +1.093e+002 +1.223e+002 +1.360e+002 +1.473e+002 +1.522e+002
+1.533e+002 +1.518e+002 +1.477e+002 +1.430e+002 +1.383e+002 +1.317e+002
+1.231e+002 +1.152e+002 +1.078e+002 +9.836e+001 +8.710e+001 +7.782e+001
+7.013e+001 +6.123e+001 +5.187e+001 +4.515e+001 +4.009e+001 +3.484e+001
+3.001e+001 +2.694e+001 +2.491e+001 +2.311e+001 +2.186e+001 +2.142e+001
+2.142e+001 +2.177e+001 +2.234e+001 +2.242e+001 +2.175e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.940e-001
+7.920e-001 +6.670e-001 +5.700e-001 +4.400e-001 +2.610e-001 +1.090e-001
+3.000e-003 -8.900e-002 -1.580e-001 -2.000e-001 -2.320e-001 -2.720e-001
-3.190e-001 -3.580e-001 -3.880e-001 -4.200e-001 -4.460e-001 -4.620e-001
-4.710e-001 -4.780e-001 -4.820e-001 -4.830e-001 -4.810e-001 -4.750e-001
-4.590e-001 -4.320e-001 -3.920e-001 -3.150e-001 -1.830e-001 -5.600e-002
+4.200e-002 +1.090e-001 +6.800e-002 -1.030e-001 -2.870e-001
  52.7544      7.18
 250.0000     56.24
  22.6852     44.87
   3.5293     20.87
  50.0000 10000000000.00
<Date: Fri Jul 18 07:27:35 2008
<Time Range=7 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST OF PANORMOS, ON HILLS
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0221-B       /  50.0/  50.0/   1.0/  564214.000/ 3919455.000/
75.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=549.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.035e+001 +4.471e+001 +7.017e+001
+9.579e+001 +1.138e+002 +1.264e+002 +1.380e+002 +1.460e+002 +1.493e+002
+1.509e+002 +1.528e+002 +1.560e+002 +1.598e+002 +1.635e+002 +1.680e+002
+1.714e+002 +1.716e+002 +1.692e+002 +1.631e+002 +1.527e+002 +1.427e+002
+1.342e+002 +1.245e+002 +1.150e+002 +1.086e+002 +1.038e+002 +9.852e+001
```

+9.280e+001 +8.815e+001 +8.424e+001 +7.949e+001 +7.363e+001 +6.781e+001
+6.167e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.910e-001
+7.960e-001 +6.550e-001 +5.200e-001 +3.520e-001 +1.850e-001 +9.700e-002
+7.000e-002 +8.100e-002 +1.200e-001 +1.480e-001 +1.530e-001 +1.250e-001
+4.700e-002 -5.000e-002 -1.430e-001 -2.430e-001 -3.200e-001 -3.510e-001
-3.580e-001 -3.470e-001 -3.190e-001 -2.940e-001 -2.780e-001 -2.700e-001
-2.740e-001 -2.820e-001 -2.910e-001 -3.120e-001 -3.650e-001 -4.300e-001
-4.710e-001
53.5079   6.85
250.0000   78.10
77.8790   61.37
77.8790   4.00
35.2402 10000000000.00
<Date: Fri Jul 18 08:09:49 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: WEST OF SKEPASTI, ON HILLS
<Place: SKEPASTI
<**
****
#GEOSEC: 0222-C   / 50.0/ 50.0/   1.0/ 564371.000/ 3919535.000/
67.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=342.00
S [V/A]: +0.000e+000 +0.000e+000 +3.172e+001 +5.669e+001 +8.289e+001
+1.074e+002 +1.229e+002 +1.331e+002 +1.426e+002 +1.507e+002 +1.559e+002
+1.595e+002 +1.629e+002 +1.653e+002 +1.656e+002 +1.646e+002 +1.618e+002
+1.574e+002 +1.533e+002 +1.499e+002 +1.459e+002 +1.412e+002 +1.369e+002
+1.326e+002 +1.268e+002 +1.197e+002 +1.142e+002 +1.100e+002 +1.057e+002
+1.018e+002 +9.923e+001 +9.712e+001 +9.405e+001 +8.884e+001 +8.261e+001
+7.590e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.720e-001
+7.150e-001 +5.400e-001 +4.150e-001 +3.040e-001 +2.170e-001 +1.680e-001
+1.340e-001 +9.300e-002 +3.700e-002 -1.800e-002 -6.500e-002 -1.120e-001
-1.420e-001 -1.500e-001 -1.490e-001 -1.510e-001 -1.680e-001 -1.950e-001
-2.220e-001 -2.470e-001 -2.580e-001 -2.510e-001 -2.310e-001 -1.980e-001
-1.620e-001 -1.470e-001 -1.600e-001 -2.160e-001 -3.190e-001 -4.040e-001
-4.540e-001
41.0808   4.38
250.0000   71.35
80.6436   100.00
50.0000   100.00
39.7391 10000000000.00
<Date: Fri Jul 18 08:35:54 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: WEST OF SKEPASTI, ON HILLS
<Place: SKEPASTI
<**
****
#GEOSEC: 0223-B   / 50.0/ 50.0/   1.0/ 564606.000/ 3919664.000/
93.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=760.00
S [V/A]: +0.000e+000 +0.000e+000 +4.423e+000 +2.118e+001 +3.426e+001
+4.349e+001 +4.950e+001 +5.456e+001 +6.131e+001 +7.019e+001 +7.857e+001
+8.641e+001 +9.668e+001 +1.089e+002 +1.189e+002 +1.267e+002 +1.348e+002
+1.414e+002 +1.444e+002 +1.449e+002 +1.432e+002 +1.389e+002 +1.343e+002
+1.304e+002 +1.263e+002 +1.232e+002 +1.222e+002 +1.223e+002 +1.230e+002
+1.229e+002 +1.212e+002 +1.182e+002 +1.135e+002 +1.081e+002 +1.050e+002
+1.040e+002
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.880e-001
+6.880e-001 +5.740e-001 +5.500e-001 +5.530e-001 +5.600e-001 +5.620e-001
+5.560e-001 +5.340e-001 +4.900e-001 +4.350e-001 +3.740e-001 +2.860e-001
+1.700e-001 +6.900e-002 -1.500e-002 -1.030e-001 -1.710e-001 -1.940e-001
-1.880e-001 -1.490e-001 -7.900e-002 -1.800e-002 +1.700e-002 +1.500e-002
-4.700e-002 -1.290e-001 -1.900e-001 -2.220e-001 -1.940e-001 -1.140e-001
-1.900e-002
32.5550   7.76
250.0000   100.00
91.2782   100.00
50.0000   100.00
43.3882 10000000000.00

```
<Date: Fri Jul 18 09:13:18 2008
<Time Range=6 Currrent= 3.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NW OF SKEPASTI, ON HILLS
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0224-B       /  50.0/  50.0/   1.0/  564795.000/ 3919601.000/
88.0/36/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=431.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.620e+001 +3.022e+001 +4.288e+001
+5.286e+001 +5.808e+001 +6.092e+001 +6.327e+001 +6.560e+001 +6.792e+001
+7.047e+001 +7.442e+001 +7.999e+001 +8.511e+001 +8.925e+001 +9.332e+001
+9.578e+001 +9.587e+001 +9.489e+001 +9.294e+001 +9.046e+001 +8.869e+001
+8.761e+001 +8.701e+001 +8.751e+001 +8.892e+001 +9.079e+001 +9.361e+001
+9.688e+001 +9.879e+001 +9.938e+001 +9.864e+001 +9.628e+001 +9.386e+001
+9.202e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.470e-001
+5.960e-001 +3.760e-001 +2.510e-001 +1.820e-001 +1.810e-001 +2.190e-001
+2.630e-001 +3.100e-001 +3.380e-001 +3.260e-001 +2.820e-001 +1.890e-001
+6.000e-002 -3.600e-002 -9.100e-002 -1.220e-001 -1.210e-001 -9.800e-002
-6.400e-002 -8.000e-003 +6.500e-002 +1.210e-001 +1.560e-001 +1.690e-001
+1.390e-001 +7.500e-002 +4.000e-003 -7.700e-002 -1.340e-001 -1.400e-001
-1.290e-001
  45.6021     12.08
 155.3427     34.87
  93.9233 10000000000.00
<Date: Fri Jul 18 10:06:30 2008
<Time Range=6 Currrent= 3.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NW OF SKEPASTI, ON HILLS
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0225-B       /  50.0/  50.0/   1.0/  565023.000/ 3919572.000/
82.0/36/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=554.00
S  [V/A]:  +0.000e+000 +7.723e+000 +3.578e+001 +5.334e+001 +6.810e+001
+7.868e+001 +8.450e+001 +8.839e+001 +9.251e+001 +9.664e+001 +9.957e+001
+1.017e+002 +1.037e+002 +1.049e+002 +1.049e+002 +1.040e+002 +1.020e+002
+9.897e+001 +9.632e+001 +9.422e+001 +9.205e+001 +9.012e+001 +8.890e+001
+8.807e+001 +8.730e+001 +8.684e+001 +8.697e+001 +8.758e+001 +8.910e+001
+9.199e+001 +9.512e+001 +9.792e+001 +1.005e+002 +1.006e+002 +9.712e+001
+9.181e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.910e-001 +7.260e-001
+4.560e-001 +3.180e-001 +2.590e-001 +2.190e-001 +1.820e-001 +1.510e-001
+1.240e-001 +8.300e-002 +2.400e-002 -3.200e-002 -7.900e-002 -1.240e-001
-1.500e-001 -1.510e-001 -1.390e-001 -1.160e-001 -9.000e-002 -7.100e-002
-5.800e-002 -3.800e-002 -7.000e-003 +3.000e-002 +7.000e-002 +1.240e-001
+1.770e-001 +1.970e-001 +1.760e-001 +8.100e-002 -1.110e-001 -2.790e-001
-3.850e-001
  50.9069      8.87
 250.0000     21.10
  87.0703 10000000000.00
<Date: Fri Jul 18 10:43:52 2008
<Time Range=6 Currrent= 3.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NW OF SKEPASTI, HILLS, FENCES
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0226-B       /  50.0/  50.0/   1.0/  565229.000/ 3919588.000/
69.0/36/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=231.00
S  [V/A]:  +0.000e+000 +0.000e+000 +7.000e+000 +2.134e+001 +3.043e+001
+3.485e+001 +3.690e+001 +3.847e+001 +4.056e+001 +4.330e+001 +4.581e+001
+4.805e+001 +5.085e+001 +5.394e+001 +5.631e+001 +5.805e+001 +5.981e+001
+6.131e+001 +6.214e+001 +6.259e+001 +6.288e+001 +6.292e+001 +6.266e+001
+6.213e+001 +6.097e+001 +5.869e+001 +5.610e+001 +5.351e+001 +5.016e+001
+4.648e+001 +4.379e+001 +4.179e+001 +3.962e+001 +3.716e+001 +3.476e+001
+3.220e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.170e-001
+4.080e-001 +2.760e-001 +2.640e-001 +2.820e-001 +3.010e-001 +3.070e-001
+3.040e-001 +2.890e-001 +2.570e-001 +2.210e-001 +1.870e-001 +1.440e-001
```

+9.700e-002 +6.300e-002 +3.900e-002 +1.500e-002 -1.200e-002 -4.200e-002
-7.900e-002 -1.400e-001 -2.190e-001 -2.750e-001 -3.070e-001 -3.240e-001
-3.190e-001 -3.020e-001 -2.850e-001 -2.810e-001 -3.170e-001 -3.820e-001
-4.350e-001
  26.2802   5.90
  73.5849   99.94
  18.0192 10000000000.00
<Date: Fri Jul 18 11:52:07 2008
<Time Range=6 Currrent= 2.90 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NW OF SKEPASTI, FENCES
<Place: SKEPASTI
<***
****
#GEOSEC: 0227-B   / 50.0/ 50.0/   1.0/ 565429.000/ 3919631.000/
80.0/36/3/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=571.00
S [V/A]: +0.000e+000 +0.000e+000 +7.030e-001 +1.760e+001 +3.213e+001
+4.310e+001 +5.051e+001 +5.663e+001 +6.422e+001 +7.304e+001 +8.005e+001
+8.552e+001 +9.135e+001 +9.651e+001 +9.924e+001 +1.002e+002 +9.986e+001
+9.782e+001 +9.551e+001 +9.350e+001 +9.125e+001 +8.899e+001 +8.718e+001
+8.545e+001 +8.288e+001 +7.906e+001 +7.528e+001 +7.169e+001 +6.714e+001
+6.207e+001 +5.830e+001 +5.547e+001 +5.244e+001 +4.905e+001 +4.572e+001
+4.205e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.980e-001
+7.710e-001 +6.540e-001 +6.040e-001 +5.610e-001 +5.030e-001 +4.430e-001
+3.840e-001 +3.060e-001 +2.040e-001 +1.090e-001 +2.800e-002 -5.700e-002
-1.200e-001 -1.400e-001 -1.390e-001 -1.280e-001 -1.200e-001 -1.280e-001
-1.500e-001 -1.910e-001 -2.460e-001 -2.870e-001 -3.130e-001 -3.300e-001
-3.290e-001 -3.150e-001 -2.990e-001 -2.920e-001 -3.290e-001 -4.000e-001
-4.530e-001
   7.0089   1.09
 148.0112   85.61
  32.2245 10000000000.00
<Date: Fri Jul 18 12:22:39 2008
<Time Range=6 Currrent= 2.60 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NORTH OF SKEPASTI, FENCES
<Place: SKEPASTI
<***
****
#GEOSEC: 0228-B   / 50.0/ 50.0/   1.0/ 565614.000/ 3919551.000/
74.0/36/3/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=139.00
S [V/A]: +0.000e+000 +0.000e+000 +0.000e+000 +6.443e+000 +1.449e+001
+2.098e+001 +2.539e+001 +2.897e+001 +3.334e+001 +3.864e+001 +4.325e+001
+4.727e+001 +5.200e+001 +5.660e+001 +5.931e+001 +6.062e+001 +6.101e+001
+6.015e+001 +5.875e+001 +5.725e+001 +5.520e+001 +5.268e+001 +5.051e+001
+4.861e+001 +4.628e+001 +4.363e+001 +4.158e+001 +3.992e+001 +3.805e+001
+3.610e+001 +3.463e+001 +3.346e+001 +3.211e+001 +3.066e+001 +2.956e+001
+2.872e+001
Err[V/A]: -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.380e-001 +7.240e-001 +6.610e-001 +6.150e-001 +5.780e-001 +5.460e-001
+5.090e-001 +4.370e-001 +3.200e-001 +2.010e-001 +9.800e-002 -1.300e-002
-1.050e-001 -1.560e-001 -1.830e-001 -2.060e-001 -2.260e-001 -2.410e-001
-2.510e-001 -2.600e-001 -2.640e-001 -2.620e-001 -2.570e-001 -2.480e-001
-2.360e-001 -2.280e-001 -2.230e-001 -2.190e-001 -2.110e-001 -1.980e-001
-1.840e-001
   5.6921   1.37
 102.3357   57.63
  21.0980 10000000000.00
<Date: Fri Jul 18 13:01:46 2008
<Time Range=6 Currrent= 2.60 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NORTH OF SKEPASTI, FENCES
<Place: SKEPASTI
<***
****
#GEOSEC: 0229-B   / 50.0/ 50.0/   1.0/ 565911.000/ 3919527.000/
106.0/36/5/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=
0.000/rms=238.00
S [V/A]: +0.000e+000 +0.000e+000 +9.625e+000 +2.905e+001 +4.732e+001
+6.437e+001 +7.671e+001 +8.609e+001 +9.553e+001 +1.022e+002 +1.040e+002

```
+1.034e+002 +1.011e+002 +9.766e+001 +9.450e+001 +9.171e+001 +8.813e+001
+8.387e+001 +8.029e+001 +7.719e+001 +7.330e+001 +6.861e+001 +6.461e+001
+6.124e+001 +5.742e+001 +5.374e+001 +5.151e+001 +5.018e+001 +4.926e+001
+4.895e+001 +4.907e+001 +4.922e+001 +4.919e+001 +4.867e+001 +4.787e+001
+4.709e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.940e-001
+7.960e-001 +6.780e-001 +5.730e-001 +4.130e-001 +1.920e-001 +2.400e-002
-7.500e-002 -1.400e-001 -1.740e-001 -1.900e-001 -2.030e-001 -2.180e-001
-2.340e-001 -2.460e-001 -2.590e-001 -2.790e-001 -3.040e-001 -3.200e-001
-3.220e-001 -3.070e-001 -2.620e-001 -2.040e-001 -1.440e-001 -7.000e-002
-6.000e-003 +1.800e-002 +1.000e-002 -2.600e-002 -7.700e-002 -1.050e-001
-1.190e-001
   6.9412      1.00
 250.0000     41.16
  40.1374     69.16
  11.7919     11.59
  66.4156 10000000000.00
<Date: Fri Jul 18 13:38:25 2008
<Time Range=6 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF SKEPASTI, FENCES
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0230-C        /  50.0/  50.0/   1.0/  565966.000/ 3918980.000/
97.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=348.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.113e+001 +3.545e+001 +4.523e+001
+5.126e+001 +5.496e+001 +5.822e+001 +6.268e+001 +6.861e+001 +7.393e+001
+7.859e+001 +8.405e+001 +8.954e+001 +9.314e+001 +9.537e+001 +9.704e+001
+9.758e+001 +9.700e+001 +9.594e+001 +9.423e+001 +9.215e+001 +9.058e+001
+8.928e+001 +8.733e+001 +8.363e+001 +7.876e+001 +7.314e+001 +6.499e+001
+5.511e+001 +4.739e+001 +4.143e+001 +3.500e+001 +2.862e+001 +2.405e+001
+2.056e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +7.070e-001
+4.210e-001 +3.530e-001 +3.600e-001 +3.830e-001 +3.970e-001 +3.920e-001
+3.710e-001 +3.250e-001 +2.550e-001 +1.890e-001 +1.310e-001 +6.400e-002
-7.000e-003 -5.600e-002 -8.600e-002 -1.040e-001 -1.040e-001 -1.000e-001
-1.090e-001 -1.600e-001 -2.680e-001 -3.680e-001 -4.310e-001 -4.700e-001
-4.860e-001 -4.910e-001 -4.930e-001 -4.940e-001 -4.960e-001 -4.970e-001
-4.980e-001
   7.8574      1.05
 126.1336     55.15
  64.1192     41.99
  12.0879     39.68
   1.0000 10000000000.00
<Date: Fri Jul 18 14:30:15 2008
<Time Range=6 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NE OF SKEPASTI, FENCES
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0231          /  50.0/  50.0/   1.0/  565039.000/ 3918947.000/
60.0/32/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=354.00
S  [V/A]:  +9.827e+000 +2.479e+001 +3.566e+001 +4.347e+001 +5.113e+001
+5.749e+001 +6.095e+001 +6.295e+001 +6.474e+001 +6.643e+001 +6.752e+001
+6.792e+001 +6.715e+001 +6.406e+001 +5.980e+001 +5.550e+001 +4.992e+001
+4.371e+001 +3.902e+001 +3.540e+001 +3.145e+001 +2.754e+001 +2.479e+001
+2.276e+001 +2.061e+001 +1.848e+001 +1.692e+001 +1.564e+001 +1.405e+001
+1.210e+001 +1.042e+001 +9.001e+000
Err[V/A]:  -9.000e-001 -9.000e-001 -8.600e-001 -7.490e-001 +5.780e-001
+3.800e-001 +2.480e-001 +1.770e-001 +1.340e-001 +1.040e-001 +6.300e-002
-7.000e-003 -1.360e-001 -2.880e-001 -3.760e-001 -4.170e-001 -4.410e-001
-4.530e-001 -4.560e-001 -4.560e-001 -4.530e-001 -4.460e-001 -4.380e-001
-4.290e-001 -4.170e-001 -4.090e-001 -4.130e-001 -4.280e-001 -4.550e-001
-4.820e-001 -4.930e-001 -4.980e-001
  54.7952     41.08
   3.6851     27.58
   1.0000 10000000000.00
<Date: Fri Jul 18 15:12:13 2008
```

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<Time Range=5 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO NATIONAL ROAD
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0243         /  50.0/  50.0/   1.0/  567736.000/ 3917789.000/
88.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=734.00
S  [V/A]:  +2.001e+001 +8.054e+001 +1.376e+002 +1.991e+002 +2.870e+002
+3.809e+002 +4.340e+002 +4.654e+002 +4.971e+002 +5.278e+002 +5.416e+002
+5.397e+002 +5.198e+002 +4.814e+002 +4.456e+002 +4.171e+002 +3.861e+002
+3.556e+002 +3.325e+002 +3.125e+002 +2.862e+002 +2.530e+002 +2.245e+002
+2.008e+002 +1.741e+002 +1.475e+002 +1.293e+002 +1.159e+002 +1.016e+002
+8.722e+001 +7.617e+001 +6.705e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.990e-001 -8.960e-001 +8.730e-001
+7.300e-001 +5.080e-001 +3.810e-001 +3.050e-001 +2.020e-001 +5.400e-002
-1.040e-001 -2.600e-001 -3.490e-001 -3.710e-001 -3.680e-001 -3.520e-001
-3.410e-001 -3.500e-001 -3.760e-001 -4.160e-001 -4.540e-001 -4.710e-001
-4.780e-001 -4.810e-001 -4.790e-001 -4.760e-001 -4.730e-001 -4.720e-001
-4.770e-001 -4.850e-001 -4.910e-001
 185.7845     12.04
 800.0001     95.81
  48.3508     60.30
   8.3750 10000000000.00
<Date: Wed Aug 27 08:55:35 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: PHYLLITES
<Place: EXADIS
<********************************************************************************
*********
#GEOSEC: 0244-C       /  50.0/  50.0/   1.0/  567678.000/ 3917554.000/
99.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=822.00
S  [V/A]:  +3.557e+002 +3.578e+002 +3.815e+002 +4.177e+002 +4.832e+002
+5.868e+002 +6.858e+002 +7.632e+002 +8.266e+002 +8.458e+002 +8.305e+002
+8.073e+002 +7.749e+002 +7.341e+002 +6.936e+002 +6.525e+002 +5.936e+002
+5.180e+002 +4.531e+002 +3.981e+002 +3.334e+002 +2.650e+002 +2.155e+002
+1.794e+002 +1.427e+002 +1.096e+002 +8.871e+001 +7.422e+001 +5.991e+001
+4.700e+001 +3.847e+001 +3.239e+001 +2.615e+001 +2.028e+001 +1.633e+001
+1.352e+001
Err[V/A]:  +1.350e-001 -1.790e-001 -4.010e-001 -5.440e-001 +6.490e-001
+6.840e-001 +6.350e-001 +5.110e-001 +2.670e-001 -9.000e-003 -1.460e-001
-1.960e-001 -2.270e-001 -2.710e-001 -3.280e-001 -3.810e-001 -4.330e-001
-4.690e-001 -4.850e-001 -4.920e-001 -4.970e-001 -4.990e-001 -4.990e-001
-5.000e-001 -5.000e-001 -5.000e-001 -4.990e-001 -4.990e-001 -4.990e-001
-4.990e-001 -4.990e-001 -4.990e-001 -4.990e-001 -5.000e-001 -5.000e-001
-5.000e-001
 144.8709      2.39
 800.0001    125.41
  35.0405     36.26
   2.9131 10000000000.00
<Date: Wed Aug 27 09:36:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES, PHYLLITES
<Place: EXADIS
<********************************************************************************
*********
#GEOSEC: 0245-B       /  50.0/  50.0/   1.0/  566897.000/ 3916920.000/
78.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=1083.00
S  [V/A]:  +1.648e+002 +2.503e+002 +3.545e+002 +4.804e+002 +6.896e+002
+9.923e+002 +1.242e+003 +1.405e+003 +1.503e+003 +1.477e+003 +1.377e+003
+1.266e+003 +1.124e+003 +9.710e+002 +8.585e+002 +7.752e+002 +6.867e+002
+6.002e+002 +5.372e+002 +4.868e+002 +4.270e+002 +3.596e+002 +3.067e+002
+2.654e+002 +2.212e+002 +1.793e+002 +1.518e+002 +1.321e+002 +1.119e+002
+9.269e+001 +7.919e+001 +6.905e+001 +5.819e+001 +4.756e+001 +4.019e+001
+3.481e+001
Err[V/A]:  -8.720e-001 -8.820e-001 -8.870e-001 -8.900e-001 +8.860e-001
+8.540e-001 +7.460e-001 +5.310e-001 +1.500e-001 -2.390e-001 -3.900e-001
-4.370e-001 -4.570e-001 -4.640e-001 -4.630e-001 -4.600e-001 -4.550e-001
```

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-4.520e-001 -4.550e-001 -4.640e-001 -4.780e-001 -4.900e-001 -4.940e-001
-4.960e-001 -4.960e-001 -4.960e-001 -4.940e-001 -4.930e-001 -4.920e-001
-4.920e-001 -4.930e-001 -4.940e-001 -4.950e-001 -4.950e-001 -4.950e-001
-4.950e-001
 981.1902     85.86
1000.0001     51.61
  16.7784     33.33
   2.6332 10000000000.00
<Date: Wed Aug 27 10:05:33 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES, NEXT TO G-05
<Place: EXADIS
<*******************************************************************************
*********
#GEOSEC: 0246-B       /  50.0/  50.0/   1.0/  566799.000/ 3917110.000/
68.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=467.00
S  [V/A]:  +8.037e+001 +1.534e+002 +2.351e+002 +3.267e+002 +4.538e+002
+5.719e+002 +6.220e+002 +6.394e+002 +6.413e+002 +6.207e+002 +5.861e+002
+5.479e+002 +4.968e+002 +4.398e+002 +3.967e+002 +3.642e+002 +3.290e+002
+2.934e+002 +2.663e+002 +2.443e+002 +2.177e+002 +1.877e+002 +1.638e+002
+1.445e+002 +1.229e+002 +1.010e+002 +8.564e+001 +7.408e+001 +6.180e+001
+4.990e+001 +4.168e+001 +3.571e+001 +2.961e+001 +2.401e+001 +2.036e+001
+1.785e+001
Err[V/A]:  -9.000e-001 -8.990e-001 -8.960e-001 -8.900e-001 +8.450e-001
+6.040e-001 +2.910e-001 +1.020e-001 -6.200e-002 -2.310e-001 -3.380e-001
-3.910e-001 -4.220e-001 -4.330e-001 -4.320e-001 -4.280e-001 -4.230e-001
-4.230e-001 -4.300e-001 -4.420e-001 -4.590e-001 -4.760e-001 -4.850e-001
-4.890e-001 -4.920e-001 -4.940e-001 -4.950e-001 -4.960e-001 -4.970e-001
-4.970e-001 -4.970e-001 -4.970e-001 -4.970e-001 -4.950e-001 -4.930e-001
-4.890e-001
 600.0001     21.12
 400.0000     72.69
  11.6683     29.26
   1.0065 10000000000.00
<Date: Wed Aug 27 10:31:20 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR TO G-05
<Place: EXADIS
<*******************************************************************************
*********
#GEOSEC: 0247-C       /  50.0/  50.0/   1.0/  566886.000/ 3917313.000/
67.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=406.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.177e+001 +3.345e+001 +5.161e+001
+6.553e+001 +7.480e+001 +8.254e+001 +9.236e+001 +1.039e+002 +1.130e+002
+1.204e+002 +1.293e+002 +1.406e+002 +1.519e+002 +1.631e+002 +1.789e+002
+1.982e+002 +2.123e+002 +2.204e+002 +2.234e+002 +2.181e+002 +2.090e+002
+1.995e+002 +1.864e+002 +1.687e+002 +1.523e+002 +1.373e+002 +1.189e+002
+9.942e+001 +8.525e+001 +7.463e+001 +6.327e+001 +5.187e+001 +4.350e+001
+3.700e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.810e-001
+6.920e-001 +5.810e-001 +5.460e-001 +5.160e-001 +4.680e-001 +4.190e-001
+3.870e-001 +3.780e-001 +4.010e-001 +4.360e-001 +4.620e-001 +4.680e-001
+4.180e-001 +3.130e-001 +1.740e-001 -1.400e-002 -1.830e-001 -2.650e-001
-3.110e-001 -3.620e-001 -4.200e-001 -4.560e-001 -4.740e-001 -4.850e-001
-4.900e-001 -4.910e-001 -4.920e-001 -4.930e-001 -4.960e-001 -4.980e-001
-4.990e-001
  18.7771      2.91
 262.5205    143.98
   7.2530     35.78
   1.0658 10000000000.00
<Date: Wed Aug 27 11:06:08 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR TO G-80
<Place: EXADIS
<*******************************************************************************
*********
#GEOSEC: 0248-B       /  50.0/  50.0/   1.0/  566949.000/ 3917435.000/
68.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=695.00
```

```
S  [V/A]:  +0.000e+000 +0.000e+000 +1.756e+000 +6.161e+000 +1.158e+001
+1.720e+001 +2.143e+001 +2.486e+001 +2.920e+001 +3.479e+001 +4.019e+001
+4.551e+001 +5.308e+001 +6.338e+001 +7.340e+001 +8.289e+001 +9.579e+001
+1.117e+002 +1.243e+002 +1.329e+002 +1.389e+002 +1.395e+002 +1.362e+002
+1.322e+002 +1.265e+002 +1.192e+002 +1.122e+002 +1.052e+002 +9.547e+001
+8.353e+001 +7.380e+001 +6.596e+001 +5.714e+001 +4.791e+001 +4.089e+001
+3.528e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +9.000e-001
+8.610e-001 +7.750e-001 +7.150e-001 +6.810e-001 +6.710e-001 +6.750e-001
+6.820e-001 +6.880e-001 +6.890e-001 +6.840e-001 +6.750e-001 +6.520e-001
+5.920e-001 +4.910e-001 +3.510e-001 +1.420e-001 -6.700e-002 -1.710e-001
-2.140e-001 -2.480e-001 -2.970e-001 -3.480e-001 -3.940e-001 -4.360e-001
-4.630e-001 -4.740e-001 -4.800e-001 -4.850e-001 -4.900e-001 -4.950e-001
-4.970e-001
  26.4239     11.03
 400.0000    119.78
   8.4665     51.10
   1.0330 10000000000.00
<Date: Wed Aug 27 11:28:43 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-80
<Place: EXADIS
<********************************************************************************
*********
#GEOSEC: 0249-A       /  50.0/  50.0/   1.0/  567137.000/ 3917552.000/
71.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=194.00
S  [V/A]:  +0.000e+000 +1.639e+001 +4.747e+001 +6.777e+001 +8.570e+001
+9.882e+001 +1.061e+002 +1.110e+002 +1.161e+002 +1.215e+002 +1.261e+002
+1.305e+002 +1.373e+002 +1.470e+002 +1.560e+002 +1.630e+002 +1.690e+002
+1.709e+002 +1.689e+002 +1.660e+002 +1.625e+002 +1.596e+002 +1.584e+002
+1.579e+002 +1.571e+002 +1.542e+002 +1.487e+002 +1.411e+002 +1.283e+002
+1.105e+002 +9.510e+001 +8.261e+001 +6.892e+001 +5.569e+001 +4.682e+001
+4.057e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.830e-001 +7.130e-001
+4.510e-001 +3.170e-001 +2.590e-001 +2.220e-001 +2.060e-001 +2.170e-001
+2.460e-001 +2.920e-001 +3.240e-001 +3.080e-001 +2.500e-001 +1.320e-001
-1.300e-002 -9.400e-002 -1.180e-001 -1.040e-001 -6.300e-002 -3.200e-002
-2.400e-002 -5.700e-002 -1.560e-001 -2.720e-001 -3.680e-001 -4.450e-001
-4.820e-001 -4.920e-001 -4.950e-001 -4.970e-001 -4.970e-001 -4.960e-001
-4.940e-001
  79.7008     12.87
 203.0022    107.41
  24.0545     66.52
   1.0000 10000000000.00
<Date: Wed Aug 27 11:51:12 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-44
<Place: EXADIS
<********************************************************************************
*********
#GEOSEC: 0250-A       /  50.0/  50.0/   1.0/  567121.000/ 3917807.000/
84.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=460.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.313e+001 +2.218e+001 +2.808e+001
+3.141e+001 +3.295e+001 +3.381e+001 +3.451e+001 +3.495e+001 +3.514e+001
+3.527e+001 +3.548e+001 +3.594e+001 +3.659e+001 +3.737e+001 +3.864e+001
+4.053e+001 +4.236e+001 +4.406e+001 +4.620e+001 +4.868e+001 +5.076e+001
+5.265e+001 +5.534e+001 +5.939e+001 +6.384e+001 +6.870e+001 +7.595e+001
+8.515e+001 +9.151e+001 +9.430e+001 +9.328e+001 +8.718e+001 +8.011e+001
+7.357e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +6.840e-001
+3.440e-001 +2.020e-001 +1.380e-001 +8.500e-002 +4.300e-002 +2.700e-002
+2.800e-002 +4.600e-002 +8.400e-002 +1.250e-001 +1.620e-001 +2.040e-001
+2.410e-001 +2.590e-001 +2.620e-001 +2.560e-001 +2.450e-001 +2.450e-001
+2.600e-001 +3.010e-001 +3.730e-001 +4.410e-001 +4.910e-001 +5.130e-001
+4.540e-001 +3.000e-001 +8.600e-002 -1.810e-001 -3.580e-001 -4.180e-001
-4.460e-001
  35.1746     34.93
 114.8141    198.25
```

```
 114.8141     32.88
   2.7831 10000000000.00
<Date: Wed Aug 27 12:15:04 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-44
<Place: EXADIS
<*******************************************************************************
*********
#GEOSEC: 0251-B       /  50.0/  50.0/   1.0/  567384.000/ 3917818.000/
94.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=250.00
S  [V/A]:  +1.082e+001 +7.574e+000 +7.692e+000 +8.785e+000 +1.067e+001
+1.301e+001 +1.476e+001 +1.608e+001 +1.749e+001 +1.900e+001 +2.026e+001
+2.142e+001 +2.306e+001 +2.529e+001 +2.756e+001 +2.977e+001 +3.285e+001
+3.685e+001 +4.038e+001 +4.342e+001 +4.704e+001 +5.104e+001 +5.432e+001
+5.730e+001 +6.144e+001 +6.723e+001 +7.289e+001 +7.842e+001 +8.590e+001
+9.502e+001 +1.021e+002 +1.068e+002 +1.089e+002 +1.036e+002 +9.314e+001
+8.158e+001
Err[V/A]:  +5.000e-001 +4.160e-001 -4.230e-001 -6.890e-001 +7.170e-001
+6.400e-001 +5.410e-001 +4.620e-001 +3.930e-001 +3.570e-001 +3.520e-001
+3.670e-001 +3.990e-001 +4.400e-001 +4.720e-001 +4.910e-001 +5.040e-001
+4.980e-001 +4.760e-001 +4.450e-001 +4.030e-001 +3.640e-001 +3.530e-001
+3.630e-001 +3.930e-001 +4.330e-001 +4.600e-001 +4.720e-001 +4.680e-001
+4.300e-001 +3.500e-001 +2.160e-001 -5.600e-002 -3.750e-001 -4.780e-001
-4.970e-001
  18.2783     13.43
 129.2388    168.29
  61.7004     96.79
   1.3138 10000000000.00
<Date: Wed Aug 27 12:39:07 2008
<Time Range=6 Currrent= 3.60 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-40
<Place: EXADIS
<*******************************************************************************
*********
#GEOSEC: 0252-B       /  49.0/  49.0/   1.0/  567648.000/ 3917801.000/
87.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=771.00
S  [V/A]:  +0.000e+000 +6.943e+000 +4.767e+001 +8.052e+001 +1.178e+002
+1.518e+002 +1.725e+002 +1.866e+002 +2.002e+002 +2.082e+002 +2.075e+002
+2.028e+002 +1.944e+002 +1.827e+002 +1.715e+002 +1.605e+002 +1.450e+002
+1.257e+002 +1.099e+002 +9.730e+001 +8.356e+001 +7.004e+001 +6.047e+001
+5.325e+001 +4.541e+001 +3.749e+001 +3.190e+001 +2.771e+001 +2.335e+001
+1.929e+001 +1.662e+001 +1.477e+001 +1.294e+001 +1.129e+001 +1.021e+001
+9.404e+000
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.710e-001
+7.000e-001 +5.260e-001 +4.160e-001 +2.750e-001 +7.200e-002 -9.000e-002
-1.820e-001 -2.450e-001 -2.990e-001 -3.510e-001 -3.990e-001 -4.440e-001
-4.720e-001 -4.820e-001 -4.850e-001 -4.870e-001 -4.870e-001 -4.880e-001
-4.890e-001 -4.910e-001 -4.930e-001 -4.940e-001 -4.940e-001 -4.930e-001
-4.910e-001 -4.860e-001 -4.790e-001 -4.660e-001 -4.460e-001 -4.310e-001
-4.200e-001
  78.1320     10.21
 800.0001     34.30
  39.8814     30.53
   2.2333 10000000000.00
<Date: Wed Aug 27 14:11:17 2008
<Time Range=6 Currrent= 3.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINE, FENCES, NOT SQUARE
<Place: EXADIS
<*******************************************************************************
*********
#GEOSEC: 0253-B       /  50.0/  50.0/   1.0/  567498.000/ 3917386.000/
84.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=720.00
S  [V/A]:  +0.000e+000 +4.104e+001 +9.497e+001 +1.515e+002 +2.356e+002
+3.326e+002 +3.931e+002 +4.309e+002 +4.681e+002 +5.021e+002 +5.230e+002
+5.373e+002 +5.535e+002 +5.697e+002 +5.731e+002 +5.597e+002 +5.175e+002
+4.442e+002 +3.794e+002 +3.285e+002 +2.750e+002 +2.245e+002 +1.902e+002
+1.652e+002 +1.391e+002 +1.141e+002 +9.730e+001 +8.508e+001 +7.249e+001
+6.057e+001 +5.226e+001 +4.597e+001 +3.903e+001 +3.179e+001 +2.637e+001
```

+2.220e+001
Err[V/A]: -9.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.930e-001
+8.100e-001 +6.200e-001 +4.770e-001 +3.660e-001 +2.660e-001 +2.000e-001
+1.700e-001 +1.500e-001 +8.100e-002 -7.200e-002 -2.630e-001 -4.290e-001
-4.850e-001 -4.940e-001 -4.950e-001 -4.950e-001 -4.950e-001 -4.940e-001
-4.940e-001 -4.940e-001 -4.930e-001 -4.930e-001 -4.910e-001 -4.900e-001
-4.880e-001 -4.890e-001 -4.910e-001 -4.940e-001 -4.970e-001 -4.990e-001
-4.990e-001
  70.6028   4.17
 800.0001   90.90
  72.9355   36.39
   3.3216 10000000000.00
<Date: Thu Aug 28 08:34:02 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: POWER-LINES
<Place: EXADIS
<***
****
#GEOSEC: 0254-B   / 50.0/ 50.0/   1.0/ 567274.000/ 3917331.000/
78.0/36/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=439.00
S [V/A]: +0.000e+000 +3.496e+001 +8.232e+001 +1.251e+002 +1.754e+002
+2.166e+002 +2.355e+002 +2.457e+002 +2.544e+002 +2.584e+002 +2.551e+002
+2.475e+002 +2.346e+002 +2.187e+002 +2.071e+002 +1.993e+002 +1.919e+002
+1.854e+002 +1.800e+002 +1.744e+002 +1.655e+002 +1.524e+002 +1.398e+002
+1.285e+002 +1.144e+002 +9.825e+001 +8.562e+001 +7.530e+001 +6.361e+001
+5.171e+001 +4.324e+001 +3.700e+001 +3.050e+001 +2.432e+001 +2.009e+001
+1.700e+001
Err[V/A]: -9.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +8.420e-001
+5.770e-001 +3.370e-001 +2.260e-001 +1.310e-001 -7.000e-003 -1.380e-001
-2.280e-001 -2.840e-001 -2.920e-001 -2.640e-001 -2.260e-001 -1.830e-001
-1.650e-001 -1.890e-001 -2.370e-001 -3.080e-001 -3.780e-001 -4.180e-001
-4.420e-001 -4.620e-001 -4.780e-001 -4.870e-001 -4.910e-001 -4.950e-001
-4.970e-001 -4.970e-001 -4.980e-001 -4.980e-001 -4.980e-001 -4.990e-001
-4.990e-001
  37.8121   2.13
 340.4859   68.63
  28.3362   51.78
   1.0000 10000000000.00
<Date: Thu Aug 28 09:00:01 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: POWER-LINES, FENCES, NEXT G-44
<Place: EXADIS
<***
****
#GEOSEC: 0255-B   / 50.0/ 50.0/   1.0/ 567457.000/ 3917212.000/
100.0/36/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=
0.000/rms=552.00
S [V/A]: +5.882e+002 +5.503e+002 +5.479e+002 +5.627e+002 +5.988e+002
+6.616e+002 +7.255e+002 +7.815e+002 +8.406e+002 +8.807e+002 +8.865e+002
+8.748e+002 +8.455e+002 +7.959e+002 +7.418e+002 +6.884e+002 +6.173e+002
+5.356e+002 +4.734e+002 +4.258e+002 +3.744e+002 +3.235e+002 +2.870e+002
+2.593e+002 +2.294e+002 +1.992e+002 +1.775e+002 +1.603e+002 +1.407e+002
+1.192e+002 +1.023e+002 +8.871e+001 +7.347e+001 +5.829e+001 +4.786e+001
+4.042e+001
Err[V/A]: +3.290e-001 +1.190e-001 -7.400e-002 -2.180e-001 +3.490e-001
+4.350e-001 +4.480e-001 +4.080e-001 +2.960e-001 +1.170e-001 -3.100e-002
-1.300e-001 -2.220e-001 -3.120e-001 -3.780e-001 -4.200e-001 -4.500e-001
-4.650e-001 -4.680e-001 -4.680e-001 -4.670e-001 -4.650e-001 -4.640e-001
-4.620e-001 -4.610e-001 -4.610e-001 -4.630e-001 -4.670e-001 -4.760e-001
-4.870e-001 -4.930e-001 -4.960e-001 -4.980e-001 -4.990e-001 -4.990e-001
-4.990e-001
 436.3016   14.50
 818.9946   127.20
  18.9373   55.00
   2.3563 10000000000.00
<Date: Thu Aug 28 09:28:49 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: POWER-LINES, NEAR ROAD

```
<Place: EXADIS
<*****************************************************************************
*********
#GEOSEC: 0256         /  50.0/  50.0/   1.0/  567306.000/ 3917026.000/
104.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=1071.00
S  [V/A]:  +1.278e+002 +2.103e+002 +3.147e+002 +4.506e+002 +6.973e+002
+1.069e+003 +1.334e+003 +1.475e+003 +1.572e+003 +1.625e+003 +1.620e+003
+1.575e+003 +1.479e+003 +1.338e+003 +1.216e+003 +1.118e+003 +1.011e+003
+9.045e+002 +8.285e+002 +7.696e+002 +7.014e+002 +6.237e+002 +5.583e+002
+5.022e+002 +4.356e+002 +3.650e+002 +3.143e+002 +2.757e+002 +2.343e+002
+1.927e+002 +1.623e+002 +1.387e+002
Err[V/A]:  -8.920e-001 -8.950e-001 -8.970e-001 -8.980e-001 +8.970e-001
+8.690e-001 +7.090e-001 +4.640e-001 +2.440e-001 +5.900e-002 -1.060e-001
-2.400e-001 -3.480e-001 -4.060e-001 -4.230e-001 -4.250e-001 -4.190e-001
-4.080e-001 -4.020e-001 -4.030e-001 -4.170e-001 -4.420e-001 -4.620e-001
-4.750e-001 -4.840e-001 -4.880e-001 -4.900e-001 -4.910e-001 -4.930e-001
-4.950e-001 -4.970e-001 -4.980e-001
 431.4059     13.46
2000.0002    161.80
  39.3190     68.96
   2.4042 10000000000.00
<Date: Thu Aug 28 09:50:46 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-56, NEAR ROAD
<Place: EXADIS
<*****************************************************************************
*********
#GEOSEC: 0257         /  50.0/  50.0/   1.0/  567157.000/ 3916729.000/
90.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=1481.00
S  [V/A]:  +2.025e+002 +2.730e+002 +3.554e+002 +4.513e+002 +6.088e+002
+8.538e+002 +1.087e+003 +1.251e+003 +1.323e+003 +1.221e+003 +1.073e+003
+9.483e+002 +8.201e+002 +7.085e+002 +6.403e+002 +5.968e+002 +5.562e+002
+5.198e+002 +4.917e+002 +4.649e+002 +4.257e+002 +3.726e+002 +3.263e+002
+2.884e+002 +2.468e+002 +2.065e+002 +1.797e+002 +1.602e+002 +1.400e+002
+1.198e+002 +1.046e+002 +9.204e+001
Err[V/A]:  -7.700e-001 -8.190e-001 -8.460e-001 -8.600e-001 +8.670e-001
+8.540e-001 +7.830e-001 +5.540e-001 -1.600e-002 -4.260e-001 -4.770e-001
-4.810e-001 -4.730e-001 -4.470e-001 -4.090e-001 -3.670e-001 -3.190e-001
-2.950e-001 -3.170e-001 -3.640e-001 -4.250e-001 -4.680e-001 -4.830e-001
-4.870e-001 -4.880e-001 -4.850e-001 -4.810e-001 -4.780e-001 -4.750e-001
-4.780e-001 -4.860e-001 -4.920e-001
 956.2624     97.47
 956.2624     31.30
  60.5455     74.77
   8.6447 10000000000.00
<Date: Thu Aug 28 10:47:30 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO G-56, NEAR ROAD
<Place: EXADIS
<*****************************************************************************
*********
#GEOSEC: 0258-B       /  50.0/  50.0/   1.0/  566916.000/ 3916818.000/
78.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=431.00
S  [V/A]:  +3.508e+002 +3.197e+002 +3.100e+002 +3.100e+002 +3.180e+002
+3.354e+002 +3.541e+002 +3.707e+002 +3.883e+002 +4.000e+002 +4.006e+002
+3.948e+002 +3.813e+002 +3.596e+002 +3.377e+002 +3.177e+002 +2.928e+002
+2.654e+002 +2.450e+002 +2.295e+002 +2.125e+002 +1.949e+002 +1.811e+002
+1.692e+002 +1.543e+002 +1.364e+002 +1.216e+002 +1.091e+002 +9.442e+001
+7.912e+001 +6.807e+001 +5.987e+001 +5.138e+001 +4.347e+001 +3.827e+001
+3.465e+001
Err[V/A]:  +3.770e-001 +2.220e-001 +6.700e-002 -5.600e-002 +1.720e-001
+2.570e-001 +2.830e-001 +2.640e-001 +1.920e-001 +6.600e-002 -4.900e-002
-1.360e-001 -2.200e-001 -2.930e-001 -3.370e-001 -3.630e-001 -3.800e-001
-3.840e-001 -3.770e-001 -3.680e-001 -3.590e-001 -3.610e-001 -3.730e-001
-3.930e-001 -4.210e-001 -4.500e-001 -4.680e-001 -4.780e-001 -4.850e-001
-4.890e-001 -4.890e-001 -4.890e-001 -4.850e-001 -4.780e-001 -4.670e-001
```

```
-4.530e-001
 343.0099     85.88
 343.0099     17.03
  28.9360     62.77
   3.2609 10000000000.00
<Date: Thu Aug 28 11:17:52 2008
<Time Range=6 Currrent= 3.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO G-05, NEAR ROAD
<Place: EXADIS
<*************************************************************************
*********
#GEOSEC: 0259--B      /  50.0/  50.0/   1.0/  566713.000/ 3916850.000/
67.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=615.00
S  [V/A]:  +6.553e+001 +1.307e+002 +1.947e+002 +2.555e+002 +3.209e+002
+3.646e+002 +3.809e+002 +3.910e+002 +4.048e+002 +4.217e+002 +4.303e+002
+4.290e+002 +4.136e+002 +3.813e+002 +3.495e+002 +3.236e+002 +2.953e+002
+2.682e+002 +2.494e+002 +2.351e+002 +2.187e+002 +2.001e+002 +1.844e+002
+1.707e+002 +1.537e+002 +1.342e+002 +1.189e+002 +1.065e+002 +9.249e+001
+7.804e+001 +6.753e+001 +5.956e+001 +5.094e+001 +4.228e+001 +3.597e+001
+3.112e+001
Err[V/A]:  -9.000e-001 -8.990e-001 -8.880e-001 -8.520e-001 +6.890e-001
+3.600e-001 +1.950e-001 +1.720e-001 +1.830e-001 +1.470e-001 +4.100e-002
-1.000e-001 -2.650e-001 -3.720e-001 -4.040e-001 -4.060e-001 -3.920e-001
-3.690e-001 -3.520e-001 -3.470e-001 -3.550e-001 -3.780e-001 -4.020e-001
-4.230e-001 -4.440e-001 -4.620e-001 -4.720e-001 -4.770e-001 -4.820e-001
-4.850e-001 -4.870e-001 -4.880e-001 -4.900e-001 -4.920e-001 -4.950e-001
-4.960e-001
  34.4021      0.48
 400.0000    101.02
  30.2111     62.73
   3.4846 10000000000.00
<Date: Thu Aug 28 11:54:05 2008
<Time Range=6 Currrent= 3.30 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-09, POWER-LINES
<Place: ACHLADES
<*************************************************************************
*********
#GEOSEC: 0260-B       /  50.0/  50.0/   1.0/  566520.000/ 3916846.000/
62.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=836.00
S  [V/A]:  +0.000e+000 +4.625e+001 +1.022e+002 +1.644e+002 +2.643e+002
+3.838e+002 +4.364e+002 +4.426e+002 +4.282e+002 +4.071e+002 +3.934e+002
+3.852e+002 +3.790e+002 +3.753e+002 +3.732e+002 +3.706e+002 +3.645e+002
+3.512e+002 +3.342e+002 +3.160e+002 +2.906e+002 +2.596e+002 +2.342e+002
+2.131e+002 +1.885e+002 +1.617e+002 +1.416e+002 +1.256e+002 +1.081e+002
+9.052e+001 +7.807e+001 +6.873e+001 +5.865e+001 +4.846e+001 +4.094e+001
+3.507e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.960e-001
+7.930e-001 +3.470e-001 -3.000e-002 -1.940e-001 -2.020e-001 -1.600e-001
-1.150e-001 -6.900e-002 -3.900e-002 -4.000e-002 -6.700e-002 -1.310e-001
-2.270e-001 -3.050e-001 -3.580e-001 -4.010e-001 -4.310e-001 -4.460e-001
-4.560e-001 -4.670e-001 -4.760e-001 -4.820e-001 -4.850e-001 -4.870e-001
-4.880e-001 -4.890e-001 -4.890e-001 -4.910e-001 -4.940e-001 -4.970e-001
-4.980e-001
  43.1417      0.35
 400.0000    101.94
  66.8537     66.14
   5.0600 10000000000.00
<Date: Thu Aug 28 13:00:48 2008
<Time Range=6 Currrent= 3.20 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST TO G-09, NEAR ROAD
<Place: ACHLADES
<*************************************************************************
*********
#GEOSEC: 0261-B       /  50.0/  50.0/   1.0/  566286.000/ 3916923.000/
53.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=566.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.151e+001 +3.924e+001 +5.689e+001
+7.380e+001 +8.551e+001 +9.383e+001 +1.022e+002 +1.103e+002 +1.166e+002
+1.222e+002 +1.301e+002 +1.411e+002 +1.519e+002 +1.619e+002 +1.742e+002
```

```
+1.866e+002 +1.940e+002 +1.978e+002 +1.996e+002 +1.983e+002 +1.949e+002
+1.902e+002 +1.816e+002 +1.671e+002 +1.519e+002 +1.375e+002 +1.198e+002
+1.009e+002 +8.732e+001 +7.718e+001 +6.638e+001 +5.550e+001 +4.740e+001
+4.099e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.700e-001
+7.320e-001 +5.920e-001 +4.850e-001 +3.860e-001 +3.190e-001 +3.030e-001
+3.160e-001 +3.480e-001 +3.880e-001 +4.060e-001 +3.990e-001 +3.570e-001
+2.690e-001 +1.750e-001 +9.500e-002 +1.100e-002 -6.900e-002 -1.350e-001
-2.010e-001 -2.950e-001 -3.950e-001 -4.460e-001 -4.690e-001 -4.810e-001
-4.860e-001 -4.860e-001 -4.860e-001 -4.870e-001 -4.910e-001 -4.940e-001
-4.970e-001
  27.4812      3.25
 200.0000    146.01
  15.2753     41.12
   2.2350 10000000000.00
<Date: Thu Aug 28 13:38:24 2008
<Time Range=6 Currrent= 3.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST TO G-09, NEAR ROAD
<Place: ACHLADES
<*********************************************************************************
*********
#GEOSEC: 0262-B        /  50.0/  50.0/   1.0/  566072.000/ 3916885.000/
53.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=329.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.366e+001 +2.408e+001 +3.298e+001
+4.128e+001 +4.831e+001 +5.504e+001 +6.474e+001 +7.840e+001 +9.185e+001
+1.045e+002 +1.206e+002 +1.373e+002 +1.480e+002 +1.542e+002 +1.589e+002
+1.613e+002 +1.614e+002 +1.599e+002 +1.561e+002 +1.488e+002 +1.405e+002
+1.323e+002 +1.212e+002 +1.075e+002 +9.629e+001 +8.684e+001 +7.580e+001
+6.412e+001 +5.545e+001 +4.885e+001 +4.183e+001 +3.508e+001 +3.053e+001
+2.730e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.350e-001
+7.140e-001 +6.820e-001 +6.860e-001 +7.010e-001 +7.100e-001 +7.030e-001
+6.780e-001 +6.100e-001 +4.770e-001 +3.360e-001 +2.250e-001 +1.220e-001
+3.400e-002 -3.100e-002 -9.300e-002 -1.760e-001 -2.680e-001 -3.310e-001
-3.740e-001 -4.130e-001 -4.440e-001 -4.610e-001 -4.710e-001 -4.790e-001
-4.850e-001 -4.880e-001 -4.880e-001 -4.880e-001 -4.850e-001 -4.800e-001
-4.740e-001
  23.2315      5.56
 500.0001     86.57
  28.7814     58.49
   3.3778 10000000000.00
<Date: Thu Aug 28 14:00:10 2008
<Time Range=6 Currrent= 2.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST TO ACHLADES, NEAR ROAD
<Place: ACHLADES
<*********************************************************************************
*********
#GEOSEC: 0263-C        /  50.0/  50.0/   1.0/  565900.000/ 3916966.000/
54.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=660.00
S  [V/A]:  +7.039e+001 +5.213e+001 +4.390e+001 +3.987e+001 +3.721e+001
+3.618e+001 +3.634e+001 +3.706e+001 +3.849e+001 +4.080e+001 +4.322e+001
+4.560e+001 +4.885e+001 +5.290e+001 +5.644e+001 +5.951e+001 +6.333e+001
+6.769e+001 +7.106e+001 +7.349e+001 +7.553e+001 +7.619e+001 +7.540e+001
+7.406e+001 +7.211e+001 +7.014e+001 +6.916e+001 +6.881e+001 +6.872e+001
+6.791e+001 +6.509e+001 +6.026e+001
Err[V/A]:  +5.000e-001 +4.930e-001 +4.570e-001 +3.740e-001 -2.220e-001
-4.100e-002 +7.900e-002 +1.570e-001 +2.280e-001 +2.910e-001 +3.300e-001
+3.500e-001 +3.620e-001 +3.600e-001 +3.510e-001 +3.410e-001 +3.240e-001
+2.930e-001 +2.500e-001 +1.940e-001 +1.010e-001 -1.400e-002 -9.400e-002
-1.330e-001 -1.400e-001 -1.050e-001 -5.700e-002 -2.200e-002 -3.100e-002
-1.600e-001 -3.460e-001 -4.550e-001
  42.2984     25.22
 200.0000     64.41
  26.0908    103.66
   1.7665 10000000000.00
<Date: Thu Aug 28 14:26:54 2008
<Time Range=5 Currrent= 2.50 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST TO ACHLADES, CROSS-ROAD
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<Place: ACHLADES
<*******************************************************************************
*********
#GEOSEC: 0264-A       /  50.0/  50.0/   1.0/  565931.000/ 3917316.000/
68.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=545.00
S  [V/A]:  +4.891e+001 +2.793e+001 +1.844e+001 +1.359e+001 +1.026e+001
+8.456e+000 +7.904e+000 +7.791e+000 +7.869e+000 +8.057e+000 +8.225e+000
+8.358e+000 +8.537e+000 +8.797e+000 +9.091e+000 +9.406e+000 +9.887e+000
+1.058e+001 +1.127e+001 +1.194e+001 +1.289e+001 +1.418e+001 +1.547e+001
+1.678e+001 +1.872e+001 +2.148e+001 +2.404e+001 +2.620e+001 +2.810e+001
+2.813e+001 +2.609e+001 +2.340e+001 +1.981e+001 +1.606e+001 +1.350e+001
+1.170e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +5.000e-001 +5.000e-001 -4.980e-001
-4.280e-001 -2.040e-001 -2.600e-002 +7.900e-002 +1.130e-001 +1.100e-001
+1.100e-001 +1.280e-001 +1.660e-001 +2.090e-001 +2.480e-001 +2.920e-001
+3.370e-001 +3.680e-001 +3.910e-001 +4.180e-001 +4.570e-001 +4.950e-001
+5.300e-001 +5.670e-001 +5.870e-001 +5.600e-001 +4.680e-001 +2.110e-001
-2.270e-001 -4.400e-001 -4.850e-001 -4.950e-001 -4.960e-001 -4.960e-001
-4.940e-001
   9.7603     18.19
   9.7603      3.62
 131.6335     82.77
   1.0000 10000000000.00
<Date: Fri Aug 29 08:39:41 2008
<Time Range=6 Currrent= 2.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO SIRIPIDIANA
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0265-D       /  50.0/  50.0/   1.0/  566171.000/ 3917360.000/
80.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=698.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.620e-001 +6.465e+000 +1.034e+001
+1.205e+001 +1.285e+001 +1.344e+001 +1.413e+001 +1.492e+001 +1.560e+001
+1.622e+001 +1.708e+001 +1.831e+001 +1.960e+001 +2.096e+001 +2.306e+001
+2.627e+001 +2.975e+001 +3.345e+001 +3.904e+001 +4.700e+001 +5.460e+001
+6.132e+001 +6.883e+001 +7.488e+001 +7.696e+001 +7.679e+001 +7.466e+001
+7.033e+001 +6.563e+001 +6.097e+001 +5.463e+001 +4.673e+001 +4.001e+001
+3.439e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.740e-001
+4.520e-001 +3.020e-001 +2.690e-001 +2.530e-001 +2.460e-001 +2.490e-001
+2.650e-001 +2.970e-001 +3.500e-001 +4.040e-001 +4.560e-001 +5.230e-001
+5.960e-001 +6.480e-001 +6.830e-001 +7.080e-001 +7.120e-001 +6.860e-001
+6.270e-001 +4.940e-001 +2.670e-001 +6.700e-002 -7.900e-002 -2.100e-001
-3.160e-001 -3.800e-001 -4.230e-001 -4.610e-001 -4.860e-001 -4.950e-001
-4.980e-001
  16.4410     14.98
  16.4410      0.83
 200.0000    155.61
   2.2065 10000000000.00
<Date: Fri Aug 29 09:07:04 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SE TO SIRIPIDIANA
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0266-C       /  50.0/  50.0/   1.0/  566622.000/ 3917443.000/
84.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=747.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +3.816e+000 +2.098e+001
+2.752e+001 +2.855e+001 +2.894e+001 +2.969e+001 +3.118e+001 +3.285e+001
+3.454e+001 +3.684e+001 +3.982e+001 +4.265e+001 +4.536e+001 +4.922e+001
+5.452e+001 +5.964e+001 +6.442e+001 +7.049e+001 +7.710e+001 +8.169e+001
+8.474e+001 +8.744e+001 +8.956e+001 +9.075e+001 +9.133e+001 +9.089e+001
+8.742e+001 +8.124e+001 +7.379e+001 +6.317e+001 +5.081e+001 +4.162e+001
+3.481e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+5.640e-001 +1.360e-001 +1.080e-001 +1.760e-001 +2.580e-001 +3.050e-001
+3.290e-001 +3.480e-001 +3.670e-001 +3.880e-001 +4.110e-001 +4.420e-001
+4.730e-001 +4.850e-001 +4.780e-001 +4.430e-001 +3.670e-001 +2.860e-001
```

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+2.160e-001 +1.480e-001 +9.500e-002 +6.000e-002 +1.200e-002 -1.020e-001
-2.920e-001 -4.220e-001 -4.750e-001 -4.940e-001 -4.980e-001 -4.990e-001
-5.000e-001
  30.6518     18.53
  30.6518      0.25
 161.7199    160.33
  10.4786 10000000000.00
<Date: Fri Aug 29 09:32:46 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES, NORTH TO G-06
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0267-A       /  50.0/  50.0/   1.0/  566477.000/ 3917495.000/
73.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=736.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.413e+001 +2.323e+001
+2.469e+001 +2.333e+001 +2.184e+001 +2.014e+001 +1.850e+001 +1.741e+001
+1.666e+001 +1.597e+001 +1.548e+001 +1.533e+001 +1.539e+001 +1.570e+001
+1.644e+001 +1.741e+001 +1.853e+001 +2.034e+001 +2.317e+001 +2.624e+001
+2.944e+001 +3.410e+001 +4.033e+001 +4.572e+001 +5.031e+001 +5.570e+001
+6.170e+001 +6.660e+001 +7.052e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.590e-001
-4.700e-002 -3.220e-001 -3.570e-001 -3.500e-001 -3.220e-001 -2.870e-001
-2.470e-001 -1.850e-001 -9.800e-002 -1.200e-002 +6.500e-002 +1.630e-001
+2.770e-001 +3.680e-001 +4.410e-001 +5.220e-001 +5.980e-001 +6.460e-001
+6.700e-001 +6.770e-001 +6.530e-001 +6.070e-001 +5.550e-001 +4.960e-001
+4.430e-001 +4.000e-001 +3.560e-001
  17.7247     25.11
  17.7247      6.41
 400.0000    157.97
   1.0000 10000000000.00
<Date: Fri Aug 29 09:54:58 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES, NORTH TO G-06
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0268-B       /  50.0/  50.0/   1.0/  566233.000/ 3917168.000/
82.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=761.00
S  [V/A]:  +4.200e-001 +5.391e+000 +9.958e+000 +1.339e+001 +1.653e+001
+1.868e+001 +1.950e+001 +1.971e+001 +1.965e+001 +1.949e+001 +1.945e+001
+1.959e+001 +1.995e+001 +2.067e+001 +2.144e+001 +2.220e+001 +2.325e+001
+2.464e+001 +2.603e+001 +2.748e+001 +2.975e+001 +3.334e+001 +3.744e+001
+4.203e+001 +4.944e+001 +6.105e+001 +7.289e+001 +8.396e+001 +9.621e+001
+1.047e+002 +1.056e+002 +1.025e+002 +9.429e+001 +8.009e+001 +6.633e+001
+5.478e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.990e-001 -8.580e-001 +6.610e-001
+3.480e-001 +1.400e-001 +3.100e-002 -2.600e-002 -2.400e-002 +2.100e-002
+7.100e-002 +1.310e-001 +1.890e-001 +2.220e-001 +2.420e-001 +2.620e-001
+2.940e-001 +3.360e-001 +3.850e-001 +4.610e-001 +5.570e-001 +6.340e-001
+6.920e-001 +7.440e-001 +7.730e-001 +7.630e-001 +7.080e-001 +5.420e-001
+2.130e-001 -8.800e-002 -2.950e-001 -4.440e-001 -4.940e-001 -4.990e-001
-5.000e-001
  20.8130     21.56
  20.8130      2.71
 200.0000    197.53
   1.0000 10000000000.00
<Date: Fri Aug 29 10:48:56 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: WEST TO G-06
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0269-B       /  50.0/  50.0/   1.0/  566382.000/ 3917117.000/
88.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=737.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +2.431e+000 +7.804e+000
+1.313e+001 +1.680e+001 +1.958e+001 +2.289e+001 +2.697e+001 +3.080e+001
+3.463e+001 +4.021e+001 +4.826e+001 +5.679e+001 +6.555e+001 +7.846e+001
```

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+9.600e+001 +1.114e+002 +1.235e+002 +1.349e+002 +1.418e+002 +1.434e+002
+1.429e+002 +1.410e+002 +1.375e+002 +1.328e+002 +1.269e+002 +1.172e+002
+1.032e+002 +9.072e+001 +8.035e+001 +6.865e+001 +5.682e+001 +4.831e+001
+4.185e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.890e-001 +8.010e-001 +7.180e-001 +6.610e-001 +6.380e-001 +6.450e-001
+6.620e-001 +6.880e-001 +7.180e-001 +7.400e-001 +7.530e-001 +7.540e-001
+7.240e-001 +6.560e-001 +5.480e-001 +3.620e-001 +1.440e-001 +1.600e-002
-4.600e-002 -9.500e-002 -1.640e-001 -2.460e-001 -3.280e-001 -4.120e-001
-4.630e-001 -4.810e-001 -4.870e-001 -4.910e-001 -4.930e-001 -4.950e-001
-4.960e-001
  13.6653      5.61
  13.6653      0.25
 400.0000    170.50
   9.1361 10000000000.00
<Date: Fri Aug 29 11:10:27 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SW TO G-06
<Place: SIRIPIDIANA
<*******************************************************************************
*********
#GEOSEC: 0270-B       /  50.0/  50.0/   1.0/  565764.000/ 3917145.000/
44.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=292.00
S  [V/A]:  +6.945e+000 +6.019e+000 +7.231e+000 +8.846e+000 +1.085e+001
+1.272e+001 +1.372e+001 +1.423e+001 +1.462e+001 +1.502e+001 +1.548e+001
+1.605e+001 +1.702e+001 +1.857e+001 +2.023e+001 +2.192e+001 +2.435e+001
+2.762e+001 +3.069e+001 +3.354e+001 +3.729e+001 +4.194e+001 +4.606e+001
+4.976e+001 +5.444e+001 +5.970e+001 +6.333e+001 +6.564e+001 +6.725e+001
+6.763e+001 +6.692e+001 +6.550e+001 +6.232e+001 +5.622e+001 +4.951e+001
+4.327e+001
Err[V/A]:  +5.000e-001 -2.510e-001 -7.680e-001 -7.870e-001 +6.910e-001
+4.870e-001 +3.020e-001 +1.910e-001 +1.330e-001 +1.480e-001 +2.050e-001
+2.700e-001 +3.510e-001 +4.300e-001 +4.810e-001 +5.120e-001 +5.360e-001
+5.490e-001 +5.480e-001 +5.410e-001 +5.280e-001 +5.110e-001 +4.960e-001
+4.810e-001 +4.480e-001 +3.770e-001 +2.880e-001 +1.950e-001 +8.600e-002
-2.100e-002 -1.080e-001 -2.000e-001 -3.350e-001 -4.490e-001 -4.860e-001
-4.960e-001
  16.5074     16.54
 200.0000     53.18
 116.8896    123.27
   8.1107 10000000000.00
<Date: Fri Aug 29 12:03:18 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO SIRIPIDIANA
<Place: ACHLADES
<*******************************************************************************
*********
#GEOSEC: 0271-C       /  50.0/  50.0/   1.0/  565663.000/ 3917035.000/
47.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=204.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.008e+000 +1.681e+001 +2.214e+001
+2.483e+001 +2.626e+001 +2.744e+001 +2.908e+001 +3.130e+001 +3.337e+001
+3.527e+001 +3.762e+001 +4.020e+001 +4.213e+001 +4.353e+001 +4.490e+001
+4.601e+001 +4.663e+001 +4.707e+001 +4.763e+001 +4.860e+001 +4.989e+001
+5.146e+001 +5.403e+001 +5.778e+001 +6.114e+001 +6.384e+001 +6.629e+001
+6.711e+001 +6.583e+001 +6.338e+001 +5.900e+001 +5.256e+001 +4.656e+001
+4.125e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.340e-001
+3.700e-001 +2.800e-001 +2.830e-001 +3.110e-001 +3.390e-001 +3.500e-001
+3.460e-001 +3.250e-001 +2.840e-001 +2.390e-001 +1.970e-001 +1.460e-001
+9.600e-002 +7.000e-002 +6.500e-002 +8.100e-002 +1.290e-001 +1.840e-001
+2.370e-001 +2.900e-001 +3.210e-001 +3.070e-001 +2.550e-001 +1.410e-001
-3.500e-002 -1.870e-001 -2.950e-001 -3.880e-001 -4.510e-001 -4.780e-001
-4.900e-001
  24.3753      8.96
  65.0906     43.46
  54.4721    144.12
   1.5846 10000000000.00
<Date: Fri Aug 29 12:28:27 2008
```

```
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST TO ACHLADES
<Place: ACHLADES
<********************************************************************************
*********
#GEOSEC: 0272-C       /  50.0/  50.0/   1.0/  565390.000/ 3917065.000/
41.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=257.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.909e+000 +2.378e+001 +3.514e+001
+4.020e+001 +4.136e+001 +4.157e+001 +4.150e+001 +4.138e+001 +4.145e+001
+4.167e+001 +4.225e+001 +4.333e+001 +4.459e+001 +4.585e+001 +4.760e+001
+4.972e+001 +5.146e+001 +5.284e+001 +5.434e+001 +5.570e+001 +5.634e+001
+5.632e+001 +5.515e+001 +5.180e+001 +4.761e+001 +4.342e+001 +3.821e+001
+3.277e+001 +2.892e+001 +2.606e+001 +2.291e+001 +1.946e+001 +1.661e+001
+1.417e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.380e-001
+3.330e-001 +8.700e-002 +1.300e-002 -1.100e-002 -1.000e-003 +2.400e-002
+5.400e-002 +9.600e-002 +1.440e-001 +1.760e-001 +1.960e-001 +2.070e-001
+2.030e-001 +1.880e-001 +1.690e-001 +1.390e-001 +9.100e-002 +3.000e-002
-5.500e-002 -1.960e-001 -3.520e-001 -4.280e-001 -4.580e-001 -4.710e-001
-4.720e-001 -4.690e-001 -4.690e-001 -4.750e-001 -4.880e-001 -4.960e-001
-4.990e-001
  41.4847     24.87
  57.2402     70.34
   5.1889     22.53
   1.4637 10000000000.00
<Date: Fri Aug 29 12:53:09 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST TO ACHLADES
<Place: ACHLADES
<********************************************************************************
*********
#GEOSEC: 0273-B       /  50.0/  50.0/   1.0/  566902.000/ 3917692.000/
82.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=2851.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.812e+000 +1.025e+001 +1.328e+001
+1.381e+001 +1.323e+001 +1.252e+001 +1.170e+001 +1.096e+001 +1.055e+001
+1.036e+001 +1.036e+001 +1.066e+001 +1.122e+001 +1.193e+001 +1.318e+001
+1.530e+001 +1.777e+001 +2.057e+001 +2.512e+001 +3.243e+001 +4.065e+001
+4.950e+001 +6.257e+001 +7.941e+001 +9.221e+001 +1.008e+002 +1.070e+002
+1.073e+002 +1.021e+002 +9.442e+001 +8.261e+001 +6.769e+001 +5.563e+001
+4.612e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.340e-001
-5.000e-002 -2.700e-001 -3.120e-001 -2.980e-001 -2.400e-001 -1.590e-001
-6.600e-002 +6.300e-002 +2.180e-001 +3.470e-001 +4.490e-001 +5.620e-001
+6.680e-001 +7.350e-001 +7.780e-001 +8.150e-001 +8.410e-001 +8.510e-001
+8.500e-001 +8.310e-001 +7.620e-001 +6.330e-001 +4.570e-001 +1.840e-001
-1.520e-001 -3.600e-001 -4.480e-001 -4.870e-001 -4.980e-001 -4.990e-001
-5.000e-001
  18.3185     22.30
 400.0000    165.16
 400.0000     13.90
   1.0000 10000000000.00
<Date: Fri Aug 29 13:39:24 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-80
<Place: EXADIS
<********************************************************************************
*********
#GEOSEC: 0274-B       /  50.0/  50.0/   1.0/  566469.000/ 3917695.000/
77.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=332.00
S  [V/A]:  +1.783e+001 +1.116e+001 +9.181e+000 +8.734e+000 +8.929e+000
+9.474e+000 +9.870e+000 +1.007e+001 +1.013e+001 +1.001e+001 +9.826e+000
+9.666e+000 +9.493e+000 +9.392e+000 +9.388e+000 +9.467e+000 +9.647e+000
+9.980e+000 +1.035e+001 +1.072e+001 +1.123e+001 +1.184e+001 +1.230e+001
+1.259e+001 +1.272e+001 +1.252e+001 +1.210e+001 +1.166e+001 +1.110e+001
+1.061e+001 +1.038e+001 +1.032e+001 +1.038e+001 +1.052e+001 +1.050e+001
+1.020e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +4.290e-001 +1.050e-001 +1.760e-001
```

```
+2.310e-001 +1.690e-001 +8.300e-002 -1.100e-002 -8.100e-002 -1.050e-001
-1.030e-001 -7.600e-002 -2.500e-002 +3.000e-002 +7.800e-002 +1.320e-001
+1.880e-001 +2.250e-001 +2.470e-001 +2.540e-001 +2.350e-001 +1.860e-001
+1.140e-001 -4.000e-003 -1.420e-001 -2.210e-001 -2.490e-001 -2.350e-001
-1.680e-001 -8.200e-002 -7.000e-003 +5.000e-002 +2.300e-002 -1.110e-001
-2.620e-001
   9.8992     20.37
   9.8992      5.66
 112.0514     15.90
   7.4881 10000000000.00
<Date: Fri Aug 29 14:07:42 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ES TO SIRIPIDIANA
<Place: SIRIPIDIANA
<********************************************************************************
*********
#GEOSEC: 0275-B       /  50.0/  50.0/   1.0/  566098.000/ 3917718.000/
57.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=426.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +3.471e+000 +2.716e+001
+3.831e+001 +3.976e+001 +3.911e+001 +3.781e+001 +3.613e+001 +3.470e+001
+3.346e+001 +3.203e+001 +3.070e+001 +2.999e+001 +2.976e+001 +2.996e+001
+3.088e+001 +3.216e+001 +3.358e+001 +3.564e+001 +3.830e+001 +4.061e+001
+4.259e+001 +4.503e+001 +4.793e+001 +5.038e+001 +5.242e+001 +5.429e+001
+5.440e+001 +5.206e+001 +4.852e+001 +4.328e+001 +3.740e+001 +3.331e+001
+3.049e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+6.520e-001 +3.300e-002 -1.350e-001 -1.860e-001 -2.090e-001 -2.230e-001
-2.270e-001 -2.110e-001 -1.610e-001 -8.900e-002 -1.200e-002 +8.800e-002
+1.940e-001 +2.640e-001 +3.040e-001 +3.300e-001 +3.350e-001 +3.250e-001
+3.120e-001 +3.000e-001 +2.920e-001 +2.780e-001 +2.360e-001 +1.100e-001
-1.360e-001 -3.330e-001 -4.220e-001 -4.590e-001 -4.630e-001 -4.500e-001
-4.290e-001
  35.7115     28.15
   7.8002      4.08
 110.7950    127.79
   4.3501 10000000000.00
<Date: Fri Aug 29 14:31:45 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ES TO SIRIPIDIANA
<Place: SIRIPIDIANA
<********************************************************************************
*********
#GEOSEC: G10-01-C     /  50.0/  50.0/   1.0/  563084.000/ 3915426.000/
36.0/40/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=141.00
S  [V/A]:  +0.000e+000 +6.700e-001 +1.930e+001 +2.792e+001 +3.158e+001
+3.182e+001 +3.106e+001 +3.026e+001 +2.930e+001 +2.824e+001 +2.741e+001
+2.674e+001 +2.592e+001 +2.492e+001 +2.403e+001 +2.324e+001 +2.225e+001
+2.115e+001 +2.033e+001 +1.971e+001 +1.910e+001 +1.860e+001 +1.836e+001
+1.829e+001 +1.838e+001 +1.876e+001 +1.933e+001 +2.002e+001 +2.117e+001
+2.288e+001 +2.455e+001 +2.602e+001 +2.764e+001 +2.889e+001 +2.930e+001
+2.928e+001 +2.891e+001 +2.810e+001 +2.701e+001 +2.563e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.620e-001 +3.210e-001
-5.600e-002 -1.450e-001 -1.620e-001 -1.650e-001 -1.640e-001 -1.620e-001
-1.630e-001 -1.730e-001 -1.920e-001 -2.090e-001 -2.220e-001 -2.300e-001
-2.260e-001 -2.100e-001 -1.880e-001 -1.520e-001 -9.900e-002 -4.900e-002
-2.000e-003 +6.200e-002 +1.410e-001 +2.100e-001 +2.690e-001 +3.330e-001
+3.820e-001 +3.890e-001 +3.600e-001 +2.770e-001 +1.440e-001 +3.500e-002
-3.600e-002 -1.020e-001 -1.840e-001 -2.780e-001 -3.590e-001
  28.5612     16.00
  15.4418     49.47
  80.0000     73.27
  80.0000     79.47
   4.7070 10000000000.00
<Date: Tue May 20 13:35:49 2008
<Time Range=7 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark:
<Place: PERAMA
<********************************************************************************
```

```
*********
#GEOSEC: G59-01-B     /  50.0/  50.0/   1.0/  562482.000/ 3914600.000/
74.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=105.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.301e+000 +1.209e+001 +1.724e+001
+1.921e+001 +1.965e+001 +1.969e+001 +1.958e+001 +1.935e+001 +1.914e+001
+1.899e+001 +1.883e+001 +1.866e+001 +1.852e+001 +1.843e+001 +1.838e+001
+1.850e+001 +1.881e+001 +1.928e+001 +2.013e+001 +2.146e+001 +2.278e+001
+2.396e+001 +2.535e+001 +2.670e+001 +2.749e+001 +2.788e+001 +2.793e+001
+2.734e+001 +2.638e+001 +2.530e+001 +2.383e+001 +2.206e+001 +2.052e+001
+1.909e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.020e-001
+2.690e-001 +6.300e-002 -5.000e-003 -4.100e-002 -5.800e-002 -5.700e-002
-5.000e-002 -4.400e-002 -4.200e-002 -3.800e-002 -2.500e-002 +6.000e-003
+6.700e-002 +1.350e-001 +1.990e-001 +2.690e-001 +3.230e-001 +3.380e-001
+3.240e-001 +2.800e-001 +2.060e-001 +1.320e-001 +5.800e-002 -4.300e-002
-1.600e-001 -2.380e-001 -2.830e-001 -3.170e-001 -3.470e-001 -3.810e-001
-4.120e-001
  19.3000     15.30
  18.1000     22.10
  57.8000     39.40
  80.0000     34.90
   6.1600 10000000000.00
<Date: Tue May 20 14:20:28 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark:
<Place: PERAMA
<*******************************************************************************
*********
#GEOSEC: G59-02-B     /  50.0/  50.0/   1.0/  562453.000/ 3914711.000/
71.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=259.00
S  [V/A]:  +1.284e+001 +8.737e+000 +7.988e+000 +8.234e+000 +9.011e+000
+1.001e+001 +1.071e+001 +1.113e+001 +1.148e+001 +1.169e+001 +1.179e+001
+1.184e+001 +1.190e+001 +1.201e+001 +1.215e+001 +1.233e+001 +1.266e+001
+1.326e+001 +1.399e+001 +1.481e+001 +1.611e+001 +1.800e+001 +1.981e+001
+2.142e+001 +2.331e+001 +2.518e+001 +2.645e+001 +2.743e+001 +2.855e+001
+2.974e+001 +3.053e+001 +3.096e+001 +3.112e+001 +3.082e+001 +3.029e+001
+2.972e+001
Err[V/A]:  +5.000e-001 +4.880e-001 +9.700e-002 -2.880e-001 +4.210e-001
+3.840e-001 +2.890e-001 +2.030e-001 +1.240e-001 +6.400e-002 +3.700e-002
+3.000e-002 +3.500e-002 +5.500e-002 +8.500e-002 +1.230e-001 +1.820e-001
+2.660e-001 +3.420e-001 +4.040e-001 +4.660e-001 +5.050e-001 +5.040e-001
+4.730e-001 +4.060e-001 +3.200e-001 +2.640e-001 +2.350e-001 +2.110e-001
+1.730e-001 +1.230e-001 +6.600e-002 -6.000e-003 -7.700e-002 -1.170e-001
-1.430e-001
  11.9000      8.46
  14.7000     17.60
  80.0000     50.70
  80.0000     46.70
  19.0000 10000000000.00
<Date: Tue May 20 14:47:03 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark:
<Place: PERAMA
<*******************************************************************************
*********
#GEOSEC: G63-50-1A    /  50.0/  50.0/   1.0/  563256.000/ 3918071.000/
26.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=192.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +5.778e+000 +1.264e+001
+1.673e+001 +1.784e+001 +1.792e+001 +1.757e+001 +1.716e+001 +1.696e+001
+1.697e+001 +1.717e+001 +1.764e+001 +1.818e+001 +1.871e+001 +1.940e+001
+2.024e+001 +2.096e+001 +2.161e+001 +2.249e+001 +2.360e+001 +2.455e+001
+2.530e+001 +2.603e+001 +2.647e+001 +2.650e+001 +2.636e+001 +2.608e+001
+2.572e+001 +2.541e+001 +2.508e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+6.270e-001 +1.710e-001 -3.100e-002 -1.060e-001 -8.500e-002 -2.800e-002
+3.200e-002 +9.500e-002 +1.520e-001 +1.830e-001 +1.950e-001 +2.010e-001
+2.020e-001 +2.050e-001 +2.130e-001 +2.250e-001 +2.300e-001 +2.170e-001
+1.850e-001 +1.230e-001 +4.100e-002 -1.700e-002 -4.800e-002 -6.400e-002
```

```
-7.000e-002 -8.100e-002 -9.600e-002
  14.1184      2.00
  19.3571     27.57
  56.1832     39.49
  22.1273     27.29
  16.2847 10000000000.00
<Date: Tue May 20 12:15:51 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark:  NEXT TO VILLAGE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: G63-50-1B-2  /  50.0/  50.0/   1.0/  563241.000/ 3918110.000/
25.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=108.00
S  [V/A]:  +0.000e+000 +6.350e+000 +2.775e+001 +3.729e+001 +4.123e+001
+4.104e+001 +3.993e+001 +3.911e+001 +3.841e+001 +3.802e+001 +3.800e+001
+3.822e+001 +3.871e+001 +3.956e+001 +4.046e+001 +4.130e+001 +4.238e+001
+4.365e+001 +4.470e+001 +4.560e+001 +4.669e+001 +4.794e+001 +4.893e+001
+4.971e+001 +5.050e+001 +5.106e+001 +5.108e+001 +5.069e+001 +4.957e+001
+4.726e+001 +4.450e+001 +4.163e+001 +3.773e+001 +3.313e+001 +2.960e+001
+2.695e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.050e-001 +2.440e-001
-8.900e-002 -1.360e-001 -1.140e-001 -7.200e-002 -2.300e-002 +1.900e-002
+5.200e-002 +8.600e-002 +1.170e-001 +1.340e-001 +1.410e-001 +1.430e-001
+1.400e-001 +1.370e-001 +1.340e-001 +1.300e-001 +1.240e-001 +1.140e-001
+1.000e-001 +7.300e-002 +2.600e-002 -2.700e-002 -8.600e-002 -1.710e-001
-2.750e-001 -3.510e-001 -4.000e-001 -4.350e-001 -4.520e-001 -4.540e-001
-4.500e-001
  64.0000      3.59
  34.5000     21.10
  58.0000     79.40
  18.4000     59.00
   3.1700 10000000000.00
<Date: Tue May 20 12:30:03 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NO FENSES
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: PAN-001      /  25.0/  25.0/   1.0/  561994.000/ 3917768.000/
24.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=236.00
S  [V/A]:  +8.246e+000 +8.345e+000 +8.621e+000 +8.898e+000 +9.254e+000
+9.673e+000 +1.003e+001 +1.037e+001 +1.084e+001 +1.147e+001 +1.208e+001
+1.264e+001 +1.338e+001 +1.422e+001 +1.487e+001 +1.534e+001 +1.575e+001
+1.592e+001 +1.575e+001 +1.538e+001 +1.467e+001 +1.360e+001 +1.265e+001
+1.185e+001 +1.098e+001 +1.017e+001 +9.667e+000 +9.345e+000 +9.049e+000
+8.743e+000 +8.396e+000 +7.944e+000
Err[V/A]:  -1.700e-002 +1.150e-001 +1.800e-001 +1.950e-001 +1.990e-001
+1.990e-001 +2.070e-001 +2.230e-001 +2.470e-001 +2.750e-001 +2.940e-001
+3.010e-001 +2.960e-001 +2.690e-001 +2.300e-001 +1.810e-001 +1.030e-001
-1.000e-002 -1.150e-001 -2.020e-001 -2.860e-001 -3.450e-001 -3.670e-001
-3.670e-001 -3.470e-001 -3.000e-001 -2.480e-001 -2.020e-001 -1.710e-001
-1.990e-001 -2.880e-001 -3.720e-001
  10.1729      9.74
  37.5968     18.58
   5.9187     10.00
   4.4480 10000000000.00
<Date: Thu May 22 10:50:07 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<*******************************************************************************
*********
#GEOSEC: PAN-002      /  25.0/  25.0/   1.0/  562014.000/ 3917788.000/
24.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=246.00
S  [V/A]:  +5.490e+000 +6.754e+000 +7.529e+000 +7.988e+000 +8.320e+000
+8.501e+000 +8.578e+000 +8.659e+000 +8.815e+000 +9.131e+000 +9.526e+000
+9.968e+000 +1.065e+001 +1.163e+001 +1.262e+001 +1.357e+001 +1.486e+001
```

+1.643e+001 +1.769e+001 +1.864e+001 +1.953e+001 +2.008e+001 +2.013e+001
+1.990e+001 +1.933e+001 +1.834e+001 +1.731e+001 +1.628e+001 +1.485e+001
+1.306e+001 +1.152e+001 +1.022e+001
Err[V/A]: +7.650e-001 +6.010e-001 +4.260e-001 +2.850e-001 +1.560e-001
+7.100e-002 +5.600e-002 +7.700e-002 +1.280e-001 +2.050e-001 +2.700e-001
+3.220e-001 +3.760e-001 +4.240e-001 +4.530e-001 +4.660e-001 +4.630e-001
+4.300e-001 +3.760e-001 +3.070e-001 +2.020e-001 +6.900e-002 -3.600e-002
-1.150e-001 -1.980e-001 -2.790e-001 -3.370e-001 -3.820e-001 -4.260e-001
-4.620e-001 -4.790e-001 -4.880e-001
   8.9897   11.32
 102.7062   20.90
  17.9368   31.25
   2.3264 10000000000.00
<Date: Thu May 22 10:57:12 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=   3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<**
#GEOSEC: PAN-003   / 25.0/ 25.0/   1.0/ 562034.000/ 3917803.000/
21.0/32/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=170.00
S [V/A]: +9.655e+000 +9.832e+000 +9.954e+000 +9.971e+000 +9.913e+000
+9.775e+000 +9.657e+000 +9.607e+000 +9.632e+000 +9.811e+000 +1.010e+001
+1.044e+001 +1.099e+001 +1.180e+001 +1.262e+001 +1.341e+001 +1.449e+001
+1.586e+001 +1.709e+001 +1.823e+001 +1.977e+001 +2.181e+001 +2.374e+001
+2.549e+001 +2.757e+001 +2.943e+001 +3.016e+001 +3.017e+001 +2.956e+001
+2.844e+001 +2.752e+001 +2.688e+001
Err[V/A]: +8.000e-002 +6.900e-002 +3.500e-002 -8.000e-003 -4.500e-002
-6.500e-002 -4.900e-002 -1.200e-002 +4.800e-002 +1.290e-001 +1.950e-001
+2.470e-001 +3.030e-001 +3.540e-001 +3.850e-001 +4.010e-001 +4.110e-001
+4.150e-001 +4.170e-001 +4.230e-001 +4.380e-001 +4.570e-001 +4.600e-001
+4.390e-001 +3.680e-001 +2.210e-001 +6.900e-002 -5.100e-002 -1.460e-001
-1.860e-001 -1.720e-001 -1.430e-001
  10.1736   10.53
  18.3549   10.00
 153.5381   70.45
  10.9425 10000000000.00
<Date: Thu May 22 11:02:29 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=   3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<**
#GEOSEC: PAN-004-A   / 25.0/ 25.0/   1.0/ 562051.000/ 3917849.000/
16.0/32/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=228.00
S [V/A]: +1.693e+001 +1.791e+001 +1.834e+001 +1.847e+001 +1.839e+001
+1.812e+001 +1.789e+001 +1.774e+001 +1.768e+001 +1.782e+001 +1.808e+001
+1.838e+001 +1.877e+001 +1.920e+001 +1.954e+001 +1.981e+001 +2.015e+001
+2.055e+001 +2.085e+001 +2.101e+001 +2.099e+001 +2.059e+001 +1.995e+001
+1.924e+001 +1.824e+001 +1.693e+001 +1.575e+001 +1.465e+001 +1.320e+001
+1.145e+001 +1.002e+001 +8.861e+000
Err[V/A]: +2.880e-001 +1.700e-001 +7.900e-002 +1.300e-002 -4.300e-002
-6.900e-002 -6.200e-002 -3.700e-002 +8.000e-003 +6.200e-002 +9.600e-002
+1.120e-001 +1.140e-001 +1.050e-001 +9.600e-002 +9.400e-002 +9.600e-002
+9.000e-002 +6.800e-002 +2.700e-002 -4.700e-002 -1.420e-001 -2.100e-001
-2.550e-001 -2.980e-001 -3.430e-001 -3.820e-001 -4.150e-001 -4.490e-001
-4.730e-001 -4.830e-001 -4.880e-001
  18.1833   5.20
  18.3122   10.00
  20.2754   42.79
   2.5161 10000000000.00
<Date: Thu May 22 11:11:10 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=   3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<**
#GEOSEC: PAN-005   / 25.0/ 25.0/   1.0/ 562081.000/ 3917866.000/

```
17.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=119.00
S  [V/A]:  +1.346e+001 +1.518e+001 +1.574e+001 +1.582e+001 +1.567e+001
+1.539e+001 +1.519e+001 +1.511e+001 +1.512e+001 +1.529e+001 +1.556e+001
+1.586e+001 +1.630e+001 +1.684e+001 +1.730e+001 +1.767e+001 +1.809e+001
+1.848e+001 +1.873e+001 +1.888e+001 +1.898e+001 +1.899e+001 +1.891e+001
+1.878e+001 +1.855e+001 +1.817e+001 +1.777e+001 +1.736e+001 +1.679e+001
+1.610e+001 +1.556e+001 +1.518e+001
Err[V/A]:  +5.850e-001 +3.150e-001 +1.020e-001 -6.000e-003 -6.400e-002
-7.600e-002 -5.300e-002 -1.900e-002 +2.700e-002 +7.900e-002 +1.150e-001
+1.370e-001 +1.530e-001 +1.570e-001 +1.490e-001 +1.370e-001 +1.180e-001
+9.000e-002 +6.600e-002 +4.300e-002 +1.600e-002 -1.300e-002 -3.600e-002
-5.600e-002 -8.300e-002 -1.170e-001 -1.460e-001 -1.690e-001 -1.890e-001
-1.940e-001 -1.800e-001 -1.600e-001
  15.8911      4.49
  15.2368     11.31
  25.4133     32.71
  11.1063 10000000000.00
<Date: Thu May 22 11:17:57 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<*********************************************************************************
*********
#GEOSEC: PAN-006-A    /  25.0/  25.0/   1.0/  562103.000/ 3917880.000/
15.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=195.00
S  [V/A]:  +2.116e+001 +2.136e+001 +2.132e+001 +2.120e+001 +2.095e+001
+2.064e+001 +2.043e+001 +2.032e+001 +2.033e+001 +2.053e+001 +2.084e+001
+2.119e+001 +2.168e+001 +2.225e+001 +2.271e+001 +2.308e+001 +2.350e+001
+2.397e+001 +2.433e+001 +2.458e+001 +2.480e+001 +2.488e+001 +2.481e+001
+2.467e+001 +2.445e+001 +2.414e+001 +2.382e+001 +2.346e+001 +2.277e+001
+2.148e+001 +1.991e+001 +1.824e+001
Err[V/A]:  +6.400e-002 +1.300e-002 -2.300e-002 -4.700e-002 -6.500e-002
-6.100e-002 -4.400e-002 -1.800e-002 +2.200e-002 +6.900e-002 +1.010e-001
+1.180e-001 +1.250e-001 +1.210e-001 +1.130e-001 +1.060e-001 +1.000e-001
+9.100e-002 +7.800e-002 +6.100e-002 +3.400e-002 -2.000e-003 -2.800e-002
-4.400e-002 -5.600e-002 -7.100e-002 -9.300e-002 -1.320e-001 -2.120e-001
-3.280e-001 -4.120e-001 -4.580e-001
  30.9312      2.17
  18.2693     10.00
  27.2065     63.88
   9.3408 10000000000.00
<Date: Thu May 22 11:25:08 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<*********************************************************************************
*********
#GEOSEC: PAN-007-A    /  25.0/  25.0/   1.0/  562122.000/ 3917920.000/
14.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=283.00
S  [V/A]:  +2.521e+001 +2.426e+001 +2.342e+001 +2.285e+001 +2.241e+001
+2.222e+001 +2.218e+001 +2.211e+001 +2.182e+001 +2.119e+001 +2.053e+001
+2.001e+001 +1.957e+001 +1.940e+001 +1.956e+001 +1.985e+001 +2.031e+001
+2.087e+001 +2.131e+001 +2.170e+001 +2.227e+001 +2.315e+001 +2.408e+001
+2.496e+001 +2.595e+001 +2.656e+001 +2.633e+001 +2.555e+001 +2.402e+001
+2.189e+001 +2.014e+001 +1.880e+001
Err[V/A]:  -1.450e-001 -1.660e-001 -1.600e-001 -1.260e-001 -7.000e-002
-2.200e-002 -1.600e-002 -4.400e-002 -1.010e-001 -1.580e-001 -1.710e-001
-1.480e-001 -8.500e-002 +7.000e-003 +7.500e-002 +1.120e-001 +1.290e-001
+1.260e-001 +1.230e-001 +1.330e-001 +1.650e-001 +2.110e-001 +2.370e-001
+2.300e-001 +1.680e-001 +2.200e-002 -1.330e-001 -2.520e-001 -3.430e-001
-3.860e-001 -3.910e-001 -3.840e-001
  28.2053      3.76
  18.8329     30.46
  39.3705     57.10
   3.3990 10000000000.00
<Date: Thu May 22 11:34:26 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=60 Deff=    3 Ampl=OFF
<Remark:
```

```
<Place: PQNORMOS
<********************************************************************************
*********
#GEOSEC: PAN-008-A    /  25.0/  25.0/   1.0/  562135.000/ 3917934.000/
12.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=253.00
S  [V/A]:  +3.436e+001 +3.568e+001 +3.599e+001 +3.575e+001 +3.507e+001
+3.403e+001 +3.315e+001 +3.243e+001 +3.163e+001 +3.083e+001 +3.028e+001
+2.991e+001 +2.959e+001 +2.944e+001 +2.946e+001 +2.955e+001 +2.969e+001
+2.977e+001 +2.964e+001 +2.933e+001 +2.867e+001 +2.760e+001 +2.655e+001
+2.557e+001 +2.428e+001 +2.259e+001 +2.097e+001 +1.941e+001 +1.737e+001
+1.505e+001 +1.332e+001 +1.204e+001
Err[V/A]:  +2.140e-001 +9.300e-002 -2.000e-003 -6.700e-002 -1.150e-001
-1.380e-001 -1.410e-001 -1.370e-001 -1.260e-001 -1.100e-001 -9.100e-002
-7.100e-002 -4.300e-002 -1.000e-002 +1.300e-002 +2.400e-002 +2.000e-002
-8.000e-003 -5.100e-002 -9.600e-002 -1.510e-001 -2.010e-001 -2.320e-001
-2.540e-001 -2.900e-001 -3.450e-001 -3.940e-001 -4.290e-001 -4.550e-001
-4.660e-001 -4.660e-001 -4.620e-001
  44.9881      2.22
  31.9729     12.06
  23.2369     51.47
   3.4734 10000000000.00
<Date: Thu May 22 11:42:04 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<********************************************************************************
*********
#GEOSEC: PAN-009      /  25.0/  25.0/   1.0/  562157.000/ 3917985.000/
14.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=269.00
S  [V/A]:  +2.104e+001 +2.245e+001 +2.340e+001 +2.407e+001 +2.471e+001
+2.525e+001 +2.560e+001 +2.585e+001 +2.615e+001 +2.654e+001 +2.689e+001
+2.721e+001 +2.758e+001 +2.795e+001 +2.818e+001 +2.829e+001 +2.834e+001
+2.828e+001 +2.816e+001 +2.802e+001 +2.781e+001 +2.755e+001 +2.733e+001
+2.712e+001 +2.683e+001 +2.637e+001 +2.583e+001 +2.521e+001 +2.423e+001
+2.282e+001 +2.151e+001 +2.035e+001
Err[V/A]:  +2.890e-001 +2.330e-001 +1.890e-001 +1.540e-001 +1.170e-001
+8.600e-002 +6.900e-002 +6.400e-002 +6.600e-002 +7.200e-002 +7.700e-002
+7.800e-002 +7.000e-002 +5.400e-002 +3.600e-002 +2.000e-002 +1.000e-003
-1.800e-002 -3.000e-002 -3.800e-002 -4.300e-002 -4.700e-002 -5.100e-002
-5.600e-002 -7.100e-002 -1.040e-001 -1.440e-001 -1.870e-001 -2.400e-001
-2.930e-001 -3.240e-001 -3.450e-001
  24.9824      2.00
  25.2060     10.00
  29.5267     57.54
  12.7918 10000000000.00
<Date: Thu May 22 11:52:45 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<********************************************************************************
*********
#GEOSEC: PAN-010-A    /  25.0/  25.0/   1.0/  562181.000/ 3918017.000/
14.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=253.00
S  [V/A]:  +2.214e+001 +2.283e+001 +2.294e+001 +2.280e+001 +2.248e+001
+2.209e+001 +2.184e+001 +2.174e+001 +2.176e+001 +2.201e+001 +2.236e+001
+2.272e+001 +2.321e+001 +2.375e+001 +2.412e+001 +2.437e+001 +2.457e+001
+2.467e+001 +2.462e+001 +2.450e+001 +2.425e+001 +2.385e+001 +2.348e+001
+2.315e+001 +2.270e+001 +2.200e+001 +2.117e+001 +2.023e+001 +1.883e+001
+1.708e+001 +1.570e+001 +1.468e+001
Err[V/A]:  +1.810e-001 +7.000e-002 -9.000e-003 -5.300e-002 -7.500e-002
-7.000e-002 -4.500e-002 -1.400e-002 +2.700e-002 +7.300e-002 +1.000e-001
+1.130e-001 +1.140e-001 +9.900e-002 +7.900e-002 +5.900e-002 +3.300e-002
+3.000e-003 -2.300e-002 -4.500e-002 -6.800e-002 -8.600e-002 -9.500e-002
-1.040e-001 -1.290e-001 -1.870e-001 -2.550e-001 -3.150e-001 -3.670e-001
-3.930e-001 -3.890e-001 -3.740e-001
  28.9811      2.00
  20.6892     10.00
  24.9904     52.15
```

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   6.7139 10000000000.00
<Date: Thu May 22 12:00:59 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=60 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<*******************************************************************************
*********
#GEOSEC: PAN-011      /  25.0/  25.0/   1.0/  562210.000/ 3918021.000/
15.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=167.00
S  [V/A]:  +2.377e+001 +2.415e+001 +2.371e+001 +2.298e+001 +2.188e+001
+2.060e+001 +1.970e+001 +1.911e+001 +1.862e+001 +1.837e+001 +1.839e+001
+1.855e+001 +1.889e+001 +1.942e+001 +1.995e+001 +2.042e+001 +2.104e+001
+2.176e+001 +2.236e+001 +2.287e+001 +2.349e+001 +2.418e+001 +2.473e+001
+2.517e+001 +2.561e+001 +2.587e+001 +2.573e+001 +2.526e+001 +2.421e+001
+2.243e+001 +2.069e+001 +1.916e+001
Err[V/A]:  +1.520e-001 -2.400e-002 -1.440e-001 -2.090e-001 -2.450e-001
-2.420e-001 -2.110e-001 -1.680e-001 -1.040e-001 -2.500e-002 +3.500e-002
+7.700e-002 +1.150e-001 +1.440e-001 +1.570e-001 +1.630e-001 +1.640e-001
+1.610e-001 +1.560e-001 +1.510e-001 +1.450e-001 +1.360e-001 +1.260e-001
+1.110e-001 +7.600e-002 +4.000e-003 -8.300e-002 -1.730e-001 -2.770e-001
-3.620e-001 -4.010e-001 -4.220e-001
  31.1274      4.62
  14.6906     11.53
  30.8376     75.36
   5.5824 10000000000.00
<Date: Thu May 22 12:07:18 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=60 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<*******************************************************************************
*********
#GEOSEC: PAN-012      /  25.0/  25.0/   1.0/  561967.000/ 3917733.000/
28.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=166.00
S  [V/A]:  +1.277e+001 +1.580e+001 +1.795e+001 +1.959e+001 +2.133e+001
+2.295e+001 +2.397e+001 +2.465e+001 +2.529e+001 +2.592e+001 +2.641e+001
+2.683e+001 +2.733e+001 +2.788e+001 +2.830e+001 +2.865e+001 +2.907e+001
+2.958e+001 +3.003e+001 +3.040e+001 +3.079e+001 +3.108e+001 +3.110e+001
+3.096e+001 +3.059e+001 +2.998e+001 +2.943e+001 +2.899e+001 +2.848e+001
+2.783e+001 +2.704e+001 +2.597e+001
Err[V/A]:  +7.580e-001 +6.410e-001 +5.340e-001 +4.570e-001 +3.700e-001
+2.750e-001 +2.060e-001 +1.610e-001 +1.270e-001 +1.110e-001 +1.060e-001
+1.040e-001 +9.900e-002 +9.100e-002 +8.500e-002 +8.200e-002 +8.300e-002
+8.600e-002 +8.600e-002 +7.900e-002 +6.000e-002 +2.300e-002 -1.500e-002
-4.800e-002 -8.100e-002 -1.030e-001 -1.060e-001 -1.020e-001 -1.050e-001
-1.420e-001 -2.190e-001 -2.980e-001
  11.2356      2.00
  33.6509     57.74
  26.7248     31.00
  16.4703 10000000000.00
<Date: Thu May 22 12:50:21 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=60 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<*******************************************************************************
*********
#GEOSEC: PAN-013      /  25.0/  25.0/   1.0/  561955.000/ 3917706.000/
29.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 99.00
S  [V/A]:  +9.643e+000 +1.261e+001 +1.456e+001 +1.602e+001 +1.764e+001
+1.943e+001 +2.093e+001 +2.226e+001 +2.393e+001 +2.592e+001 +2.753e+001
+2.882e+001 +3.018e+001 +3.135e+001 +3.196e+001 +3.222e+001 +3.225e+001
+3.193e+001 +3.138e+001 +3.068e+001 +2.955e+001 +2.797e+001 +2.656e+001
+2.537e+001 +2.399e+001 +2.251e+001 +2.139e+001 +2.044e+001 +1.925e+001
+1.781e+001 +1.656e+001 +1.546e+001
Err[V/A]:  +8.440e-001 +7.180e-001 +5.780e-001 +4.970e-001 +4.380e-001
+4.010e-001 +3.860e-001 +3.790e-001 +3.670e-001 +3.460e-001 +3.150e-001
+2.770e-001 +2.190e-001 +1.430e-001 +8.100e-002 +3.300e-002 -1.900e-002
-7.800e-002 -1.290e-001 -1.750e-001 -2.250e-001 -2.660e-001 -2.840e-001
-2.880e-001 -2.840e-001 -2.800e-001 -2.830e-001 -2.940e-001 -3.170e-001
```

-3.490e-001 -3.750e-001 -3.940e-001
  10.2510   2.90
  45.1311   38.08
  11.9909   36.13
   6.6225 10000000000.00
<Date: Thu May 22 12:56:36 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=60 Deff=   3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<***
****
#GEOSEC: PAN-014-A   / 25.0/ 25.0/   1.0/ 561929.000/ 3917694.000/
33.0/32/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=188.00
S [V/A]: +1.466e+001 +1.773e+001 +2.069e+001 +2.360e+001 +2.760e+001
+3.267e+001 +3.686e+001 +3.997e+001 +4.272e+001 +4.418e+001 +4.419e+001
+4.359e+001 +4.241e+001 +4.075e+001 +3.921e+001 +3.779e+001 +3.589e+001
+3.345e+001 +3.125e+001 +2.930e+001 +2.688e+001 +2.412e+001 +2.191e+001
+2.012e+001 +1.806e+001 +1.589e+001 +1.429e+001 +1.303e+001 +1.164e+001
+1.017e+001 +9.051e+000 +8.135e+000
Err[V/A]: +6.530e-001 +6.600e-001 +6.670e-001 +6.690e-001 +6.570e-001
+6.130e-001 +5.340e-001 +4.260e-001 +2.600e-001 +7.200e-002 -5.000e-002
-1.170e-001 -1.660e-001 -2.010e-001 -2.260e-001 -2.500e-001 -2.850e-001
-3.270e-001 -3.580e-001 -3.790e-001 -4.010e-001 -4.190e-001 -4.300e-001
-4.360e-001 -4.420e-001 -4.460e-001 -4.470e-001 -4.490e-001 -4.510e-001
-4.580e-001 -4.670e-001 -4.750e-001
   9.5391   2.47
 164.0945   23.90
  10.2777   26.00
   2.0981 10000000000.00
<Date: Thu May 22 13:04:47 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=   3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<***
****
#GEOSEC: PAN-015-A   / 25.0/ 25.0/   1.0/ 561912.000/ 3917672.000/
37.0/32/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=222.00
S [V/A]: +4.996e+001 +6.136e+001 +7.238e+001 +8.237e+001 +9.337e+001
+1.011e+002 +1.018e+002 +9.895e+001 +9.333e+001 +8.643e+001 +8.139e+001
+7.772e+001 +7.390e+001 +7.014e+001 +6.734e+001 +6.514e+001 +6.263e+001
+5.996e+001 +5.792e+001 +5.628e+001 +5.442e+001 +5.243e+001 +5.089e+001
+4.961e+001 +4.799e+001 +4.588e+001 +4.382e+001 +4.177e+001 +3.895e+001
+3.552e+001 +3.278e+001 +3.064e+001
Err[V/A]: +6.900e-001 +6.910e-001 +6.760e-001 +6.220e-001 -4.720e-001
-1.810e-001 +8.200e-002 -2.300e-001 -3.030e-001 -3.130e-001 -2.940e-001
-2.720e-001 -2.490e-001 -2.300e-001 -2.200e-001 -2.130e-001 -2.060e-001
-1.990e-001 -1.920e-001 -1.870e-001 -1.800e-001 -1.730e-001 -1.710e-001
-1.750e-001 -1.940e-001 -2.340e-001 -2.790e-001 -3.180e-001 -3.570e-001
-3.810e-001 -3.840e-001 -3.790e-001
  18.6733   2.00
 200.0000   26.56
  32.6044   88.14
  10.1654 10000000000.00
<Date: Thu May 22 13:16:03 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=   3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<***
****
#GEOSEC: PAN-016   / 25.0/ 25.0/   1.0/ 561902.000/ 3917648.000/
38.0/32/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=282.00
S [V/A]: +5.709e+001 +6.508e+001 +7.319e+001 +8.085e+001 +8.976e+001
+9.665e+001 +9.762e+001 +9.517e+001 +8.976e+001 +8.268e+001 +7.725e+001
+7.310e+001 +6.856e+001 +6.383e+001 +6.014e+001 +5.718e+001 +5.374e+001
+5.004e+001 +4.718e+001 +4.487e+001 +4.219e+001 +3.926e+001 +3.691e+001
+3.493e+001 +3.249e+001 +2.962e+001 +2.721e+001 +2.509e+001 +2.246e+001
+1.943e+001 +1.699e+001 +1.499e+001
Err[V/A]: +4.670e-001 +5.220e-001 +5.450e-001 +5.220e-001 +4.170e-001

```
+1.790e-001 -6.500e-002 -2.220e-001 -3.110e-001 -3.370e-001 -3.310e-001
-3.210e-001 -3.120e-001 -3.080e-001 -3.080e-001 -3.090e-001 -3.090e-001
-3.090e-001 -3.080e-001 -3.080e-001 -3.110e-001 -3.170e-001 -3.270e-001
-3.400e-001 -3.600e-001 -3.880e-001 -4.130e-001 -4.340e-001 -4.560e-001
-4.740e-001 -4.840e-001 -4.900e-001
  18.6240      2.00
 200.0000     28.15
  17.7899     48.07
   3.3993 10000000000.00
<Date: Thu May 22 13:23:01 2008
<Time Range=5 Currrent= 1.00 Stack= 5 Filter=50 Deff=    3 Ampl=OFF
<Remark:
<Place: PQNORMOS
<*****************************************************************************
*********
#GEOSEC: 0084         /  50.0/  50.0/   1.0/  562877.000/ 3917044.000/
30.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 67.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.276e+001 +1.990e+001
+2.023e+001 +1.869e+001 +1.738e+001 +1.615e+001 +1.521e+001 +1.470e+001
+1.445e+001 +1.432e+001 +1.438e+001 +1.459e+001 +1.486e+001 +1.533e+001
+1.602e+001 +1.670e+001 +1.735e+001 +1.820e+001 +1.923e+001 +2.010e+001
+2.085e+001 +2.180e+001 +2.296e+001 +2.394e+001 +2.482e+001 +2.589e+001
+2.707e+001 +2.795e+001 +2.860e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +8.140e-001
-1.930e-001 -3.680e-001 -3.600e-001 -3.020e-001 -2.180e-001 -1.470e-001
-8.500e-002 -1.600e-002 +5.300e-002 +1.070e-001 +1.470e-001 +1.880e-001
+2.260e-001 +2.490e-001 +2.590e-001 +2.630e-001 +2.580e-001 +2.520e-001
+2.480e-001 +2.460e-001 +2.460e-001 +2.440e-001 +2.390e-001 +2.260e-001
+2.000e-001 +1.710e-001 +1.420e-001
 200.0000      1.44
  13.6033     24.38
 154.5246     12.32
  39.7449 10000000000.00
<Date: Tue Jul 22 11:38:44 2008
<Time Range=5 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO  BOREHOLE, NEAR RIVER
<Place: ROUMELI
<*****************************************************************************
*********
#GEOSEC: 0232         /  50.0/  50.0/   1.0/  564853.000/ 3919004.000/
59.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=222.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +5.805e+000 +1.879e+001
+2.913e+001 +3.616e+001 +4.196e+001 +4.902e+001 +5.672e+001 +6.190e+001
+6.490e+001 +6.656e+001 +6.605e+001 +6.414e+001 +6.181e+001 +5.831e+001
+5.378e+001 +4.988e+001 +4.657e+001 +4.262e+001 +3.835e+001 +3.511e+001
+3.262e+001 +2.999e+001 +2.761e+001 +2.620e+001 +2.533e+001 +2.453e+001
+2.349e+001 +2.199e+001 +2.000e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.700e-001 +7.720e-001 +7.090e-001 +6.380e-001 +5.210e-001 +3.780e-001
+2.310e-001 +5.600e-002 -1.070e-001 -2.050e-001 -2.630e-001 -3.150e-001
-3.550e-001 -3.770e-001 -3.890e-001 -4.000e-001 -4.060e-001 -4.040e-001
-3.940e-001 -3.670e-001 -3.120e-001 -2.510e-001 -2.010e-001 -1.890e-001
-2.820e-001 -4.120e-001 -4.780e-001
  11.6389      2.94
 200.0000     36.31
  19.4282     10.05
  12.0634    150.00
  19.1460 10000000000.00
<Date: Tue Jul 22 07:13:40 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO NATIONAL ROAD
<Place: SKEPASTI
<*****************************************************************************
*********
#GEOSEC: 0233         /  50.0/  50.0/   1.0/  565614.000/ 3919097.000/
77.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=275.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.074e+001 +5.372e+001 +7.675e+001
+9.701e+001 +1.094e+002 +1.179e+002 +1.265e+002 +1.347e+002 +1.399e+002
```

```
+1.431e+002 +1.452e+002 +1.450e+002 +1.429e+002 +1.398e+002 +1.346e+002
+1.271e+002 +1.201e+002 +1.137e+002 +1.054e+002 +9.560e+001 +8.748e+001
+8.068e+001 +7.268e+001 +6.401e+001 +5.750e+001 +5.229e+001 +4.634e+001
+3.996e+001 +3.494e+001 +3.083e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.580e-001
+6.700e-001 +5.020e-001 +4.030e-001 +3.220e-001 +2.440e-001 +1.770e-001
+1.170e-001 +4.000e-002 -4.900e-002 -1.190e-001 -1.710e-001 -2.270e-001
-2.800e-001 -3.170e-001 -3.430e-001 -3.710e-001 -3.980e-001 -4.160e-001
-4.270e-001 -4.370e-001 -4.460e-001 -4.510e-001 -4.560e-001 -4.640e-001
-4.750e-001 -4.840e-001 -4.900e-001
  19.8073      1.80
 200.0000     47.50
  81.7778     33.39
  14.1003     38.53
   3.7541 10000000000.00
<Date: Tue Jul 22 07:46:10 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN SKEPASTI VILLAGE
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0234         /  49.0/  49.0/   1.0/  564567.000/ 3918978.000/
50.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=293.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.497e+000 +2.187e+001 +4.258e+001
+6.255e+001 +7.718e+001 +8.842e+001 +1.000e+002 +1.090e+002 +1.120e+002
+1.117e+002 +1.087e+002 +1.035e+002 +9.888e+001 +9.496e+001 +9.021e+001
+8.469e+001 +7.998e+001 +7.583e+001 +7.063e+001 +6.463e+001 +5.979e+001
+5.584e+001 +5.130e+001 +4.645e+001 +4.282e+001 +3.989e+001 +3.651e+001
+3.280e+001 +2.981e+001 +2.726e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +9.000e-001
+8.540e-001 +7.500e-001 +6.460e-001 +4.880e-001 +2.590e-001 +6.000e-002
-7.800e-002 -1.810e-001 -2.350e-001 -2.520e-001 -2.590e-001 -2.710e-001
-2.910e-001 -3.120e-001 -3.320e-001 -3.530e-001 -3.710e-001 -3.810e-001
-3.850e-001 -3.880e-001 -3.900e-001 -3.920e-001 -3.950e-001 -4.030e-001
-4.180e-001 -4.350e-001 -4.500e-001
  12.9158      2.22
 400.0000     43.72
  22.8701     45.30
   5.4682     39.63
   1.3795 10000000000.00
<Date: Tue Jul 22 08:24:51 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NOT SQUARE, POWERLINES, FENCES
<Place: SKEPASTI
<********************************************************************************
*********
#GEOSEC: 0235         /  49.0/  49.0/   1.0/  564172.000/ 3919071.000/
72.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=335.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.947e+000 +1.739e+001 +3.065e+001
+4.124e+001 +4.916e+001 +5.645e+001 +6.677e+001 +8.105e+001 +9.447e+001
+1.063e+002 +1.201e+002 +1.326e+002 +1.389e+002 +1.407e+002 +1.387e+002
+1.326e+002 +1.264e+002 +1.212e+002 +1.156e+002 +1.102e+002 +1.060e+002
+1.022e+002 +9.696e+001 +9.011e+001 +8.433e+001 +7.942e+001 +7.345e+001
+6.613e+001 +5.924e+001 +5.265e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.980e-001
+7.900e-001 +7.180e-001 +7.070e-001 +7.110e-001 +7.050e-001 +6.770e-001
+6.250e-001 +5.210e-001 +3.470e-001 +1.670e-001 +1.300e-002 -1.400e-001
-2.380e-001 -2.630e-001 -2.570e-001 -2.350e-001 -2.190e-001 -2.280e-001
-2.540e-001 -2.940e-001 -3.300e-001 -3.470e-001 -3.600e-001 -3.860e-001
-4.330e-001 -4.710e-001 -4.900e-001
  12.1710      2.61
 400.0000     74.31
  30.2976     56.51
   9.4799     38.37
   1.3347 10000000000.00
<Date: Tue Jul 22 08:56:22 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN WATER-MELONS
```

```
<Place: SKEPASTI
<*******************************************************************************
*********
#GEOSEC: 0236-A       /  50.0/  50.0/   1.0/  563709.000/ 3919056.000/
59.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=241.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.668e+001 +3.849e+001 +5.935e+001
+7.779e+001 +8.969e+001 +9.800e+001 +1.062e+002 +1.128e+002 +1.156e+002
+1.163e+002 +1.152e+002 +1.116e+002 +1.068e+002 +1.015e+002 +9.357e+001
+8.349e+001 +7.526e+001 +6.881e+001 +6.192e+001 +5.543e+001 +5.111e+001
+4.805e+001 +4.491e+001 +4.186e+001 +3.966e+001 +3.788e+001 +3.575e+001
+3.330e+001 +3.124e+001 +2.942e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.850e-001
+7.350e-001 +5.750e-001 +4.630e-001 +3.420e-001 +2.000e-001 +8.500e-002
-3.000e-003 -9.700e-002 -1.980e-001 -2.780e-001 -3.410e-001 -3.970e-001
-4.310e-001 -4.400e-001 -4.380e-001 -4.260e-001 -4.000e-001 -3.730e-001
-3.470e-001 -3.200e-001 -2.980e-001 -2.900e-001 -2.910e-001 -3.020e-001
-3.210e-001 -3.420e-001 -3.620e-001
   8.3895      1.17
 308.8628     39.23
  43.5443     20.47
  16.5785 10000000000.00
<Date: Tue Jul 22 09:46:26 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWRLINES, NEAR NATIONAL ROAD
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0237-A       /  50.0/  50.0/   1.0/  563201.000/ 3919146.000/
49.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=301.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.332e+001 +3.212e+001 +4.705e+001
+5.752e+001 +6.355e+001 +6.798e+001 +7.270e+001 +7.674e+001 +7.851e+001
+7.904e+001 +7.890e+001 +7.837e+001 +7.780e+001 +7.707e+001 +7.544e+001
+7.199e+001 +6.775e+001 +6.334e+001 +5.746e+001 +5.069e+001 +4.544e+001
+4.134e+001 +3.677e+001 +3.198e+001 +2.839e+001 +2.546e+001 +2.207e+001
+1.844e+001 +1.567e+001 +1.351e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.580e-001
+5.950e-001 +4.430e-001 +3.760e-001 +2.970e-001 +1.810e-001 +8.300e-002
+2.000e-002 -2.000e-002 -3.700e-002 -5.400e-002 -8.800e-002 -1.640e-001
-2.730e-001 -3.510e-001 -3.970e-001 -4.290e-001 -4.460e-001 -4.510e-001
-4.530e-001 -4.560e-001 -4.630e-001 -4.700e-001 -4.770e-001 -4.850e-001
-4.920e-001 -4.950e-001 -4.970e-001
  26.1484      3.74
 112.9799     39.95
  17.0770     29.97
   2.2677 10000000000.00
<Date: Tue Jul 22 10:13:18 2008
<Time Range=5 Currrent= 3.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWRLINES, FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0238-B       /  50.0/  50.0/   1.0/  562921.000/ 3919122.000/
35.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=464.00
S  [V/A]:  +3.526e+001 +4.891e+001 +5.638e+001 +6.035e+001 +6.250e+001
+6.240e+001 +6.132e+001 +6.031e+001 +5.944e+001 +5.890e+001 +5.857e+001
+5.804e+001 +5.679e+001 +5.434e+001 +5.160e+001 +4.898e+001 +4.558e+001
+4.152e+001 +3.802e+001 +3.493e+001 +3.104e+001 +2.661e+001 +2.318e+001
+2.057e+001 +1.785e+001 +1.537e+001 +1.386e+001 +1.288e+001 +1.201e+001
+1.137e+001 +1.103e+001 +1.078e+001 +1.038e+001 +9.558e+000 +8.518e+000
+7.450e+000
Err[V/A]:  -8.740e-001 -7.230e-001 -4.790e-001 -2.820e-001 +8.700e-002
-5.400e-002 -9.800e-002 -9.100e-002 -6.000e-002 -3.600e-002 -4.700e-002
-8.600e-002 -1.580e-001 -2.420e-001 -2.960e-001 -3.280e-001 -3.580e-001
-3.910e-001 -4.190e-001 -4.420e-001 -4.640e-001 -4.780e-001 -4.830e-001
-4.820e-001 -4.750e-001 -4.550e-001 -4.220e-001 -3.770e-001 -3.010e-001
-2.090e-001 -1.640e-001 -1.780e-001 -2.780e-001 -4.210e-001 -4.820e-001
-4.970e-001
 200.0000      3.30
```

```
  45.3032     28.03
  17.1705     13.55
   3.9172 10000000000.00
<Date: Tue Jul 22 12:27:44 2008
<Time Range=6 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWERLINES, NEXT TO ROAD
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0239-A       /  50.0/  50.0/   1.0/  562717.000/ 3918971.000/
47.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=181.00
S  [V/A]:  +5.753e+001 +4.081e+001 +3.342e+001 +2.970e+001 +2.724e+001
+2.603e+001 +2.571e+001 +2.577e+001 +2.598e+001 +2.634e+001 +2.663e+001
+2.682e+001 +2.694e+001 +2.695e+001 +2.686e+001 +2.676e+001 +2.657e+001
+2.626e+001 +2.584e+001 +2.532e+001 +2.444e+001 +2.315e+001 +2.193e+001
+2.083e+001 +1.944e+001 +1.777e+001 +1.635e+001 +1.512e+001 +1.366e+001
+1.216e+001 +1.115e+001 +1.049e+001
Err[V/A]:  +5.000e-001 +4.980e-001 +4.800e-001 +4.220e-001 -2.860e-001
-1.220e-001 -2.200e-002 +2.700e-002 +5.300e-002 +6.200e-002 +5.300e-002
+3.700e-002 +1.400e-002 -9.000e-003 -2.300e-002 -3.300e-002 -4.700e-002
-7.700e-002 -1.180e-001 -1.620e-001 -2.170e-001 -2.710e-001 -3.030e-001
-3.250e-001 -3.500e-001 -3.830e-001 -4.070e-001 -4.210e-001 -4.270e-001
-4.140e-001 -3.810e-001 -3.370e-001
  28.4732      2.53
  24.9093     35.21
   9.3147     23.86
   2.9346 10000000000.00
<Date: Tue Jul 22 13:03:45 2008
<Time Range=5 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWERLINES, FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0240-A       /  50.0/  50.0/   1.0/  562334.000/ 3918875.000/
50.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 83.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.490e+000 +1.433e+001
+1.931e+001 +2.004e+001 +2.015e+001 +2.027e+001 +2.061e+001 +2.102e+001
+2.141e+001 +2.192e+001 +2.255e+001 +2.311e+001 +2.364e+001 +2.439e+001
+2.547e+001 +2.659e+001 +2.776e+001 +2.947e+001 +3.181e+001 +3.392e+001
+3.567e+001 +3.744e+001 +3.851e+001 +3.842e+001 +3.774e+001 +3.641e+001
+3.461e+001 +3.312e+001 +3.191e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+5.990e-001 +1.080e-001 +3.300e-002 +5.400e-002 +9.500e-002 +1.170e-001
+1.250e-001 +1.310e-001 +1.380e-001 +1.480e-001 +1.620e-001 +1.880e-001
+2.290e-001 +2.690e-001 +3.040e-001 +3.400e-001 +3.600e-001 +3.480e-001
+3.050e-001 +2.070e-001 +5.400e-002 -7.300e-002 -1.550e-001 -2.130e-001
-2.390e-001 -2.420e-001 -2.400e-001
  19.5353      7.37
  26.9223     31.34
 133.4679     66.54
  11.4496 10000000000.00
<Date: Tue Jul 22 13:34:01 2008
<Time Range=5 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0241-A       /  50.0/  50.0/   1.0/  561725.000/ 3918946.000/
48.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 97.00
S  [V/A]:  +2.878e+001 +1.856e+001 +1.468e+001 +1.310e+001 +1.236e+001
+1.222e+001 +1.226e+001 +1.226e+001 +1.216e+001 +1.191e+001 +1.163e+001
+1.138e+001 +1.112e+001 +1.092e+001 +1.087e+001 +1.092e+001 +1.113e+001
+1.158e+001 +1.212e+001 +1.272e+001 +1.363e+001 +1.490e+001 +1.610e+001
+1.721e+001 +1.855e+001 +1.990e+001 +2.063e+001 +2.089e+001 +2.066e+001
+1.970e+001 +1.844e+001 +1.710e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +4.870e-001 +3.900e-001 -1.690e-001
-1.100e-002 +8.000e-003 -2.000e-002 -6.700e-002 -1.150e-001 -1.350e-001
-1.330e-001 -1.080e-001 -5.400e-002 +7.000e-003 +6.600e-002 +1.430e-001
```

```
+2.300e-001 +2.940e-001 +3.430e-001 +3.890e-001 +4.210e-001 +4.300e-001
+4.170e-001 +3.680e-001 +2.660e-001 +1.450e-001 +1.900e-002 -1.380e-001
-2.900e-001 -3.790e-001 -4.290e-001
  11.8250     30.43
 400.0000     12.87
 200.0000     44.74
   2.7459 10000000000.00
<Date: Tue Jul 22 14:07:54 2008
<Time Range=5 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWERLINES
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0242-A       /  50.0/  50.0/   1.0/  561948.000/ 3918970.000/
46.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=352.00
S  [V/A]:  +6.460e-001 +5.030e+000 +8.416e+000 +1.048e+001 +1.185e+001
+1.216e+001 +1.186e+001 +1.147e+001 +1.104e+001 +1.083e+001 +1.091e+001
+1.119e+001 +1.176e+001 +1.273e+001 +1.385e+001 +1.501e+001 +1.673e+001
+1.917e+001 +2.151e+001 +2.368e+001 +2.637e+001 +2.920e+001 +3.115e+001
+3.258e+001 +3.426e+001 +3.646e+001 +3.853e+001 +4.027e+001 +4.171e+001
+4.118e+001 +3.849e+001 +3.493e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.920e-001 -7.400e-001 +3.530e-001
-2.300e-002 -1.720e-001 -1.990e-001 -1.450e-001 -1.800e-002 +1.080e-001
+2.110e-001 +3.130e-001 +4.120e-001 +4.770e-001 +5.200e-001 +5.590e-001
+5.850e-001 +5.850e-001 +5.630e-001 +5.050e-001 +4.090e-001 +3.310e-001
+2.900e-001 +2.850e-001 +3.070e-001 +3.070e-001 +2.530e-001 +7.700e-002
-2.330e-001 -4.170e-001 -4.800e-001
   9.5578      0.25
  13.2412     17.39
 200.0000     86.73
  17.6383 10000000000.00
<Date: Tue Jul 22 14:34:34 2008
<Time Range=5 Currrent= 2.40 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWERLINE
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0276         /  50.0/  50.0/   1.0/  562413.000/ 3917590.000/
23.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=176.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.164e+001 +2.096e+001 +2.421e+001
+2.330e+001 +2.188e+001 +2.092e+001 +2.017e+001 +1.977e+001 +1.970e+001
+1.979e+001 +2.001e+001 +2.039e+001 +2.078e+001 +2.114e+001 +2.160e+001
+2.216e+001 +2.263e+001 +2.306e+001 +2.360e+001 +2.421e+001 +2.464e+001
+2.486e+001 +2.483e+001 +2.426e+001 +2.338e+001 +2.240e+001 +2.108e+001
+1.961e+001 +1.859e+001 +1.793e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +2.840e-001
-2.430e-001 -2.800e-001 -2.280e-001 -1.430e-001 -5.200e-002 +6.000e-003
+4.300e-002 +7.400e-002 +1.000e-001 +1.130e-001 +1.190e-001 +1.210e-001
+1.230e-001 +1.250e-001 +1.280e-001 +1.270e-001 +1.130e-001 +8.000e-002
+3.100e-002 -5.500e-002 -1.670e-001 -2.440e-001 -2.880e-001 -3.110e-001
-2.990e-001 -2.590e-001 -2.090e-001
 200.0000      0.45
  20.2203     36.54
  99.8330     28.56
   8.4308 10000000000.00
<Date: Mon Sep 15 08:53:36 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWER-LINES
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0277         /  50.0/  50.0/   1.0/  562294.000/ 3917437.000/
28.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 92.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.560e-001 +5.241e+000
+7.242e+000 +7.569e+000 +7.586e+000 +7.586e+000 +7.639e+000 +7.761e+000
+7.947e+000 +8.260e+000 +8.734e+000 +9.241e+000 +9.757e+000 +1.051e+001
+1.158e+001 +1.265e+001 +1.373e+001 +1.524e+001 +1.723e+001 +1.899e+001
+2.049e+001 +2.211e+001 +2.331e+001 +2.344e+001 +2.288e+001 +2.154e+001
```

```
+1.957e+001 +1.800e+001 +1.686e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+6.410e-001 +1.140e-001 +8.000e-003 +1.500e-002 +6.300e-002 +1.250e-001
+1.790e-001 +2.330e-001 +2.900e-001 +3.360e-001 +3.710e-001 +4.140e-001
+4.610e-001 +4.950e-001 +5.180e-001 +5.330e-001 +5.280e-001 +5.000e-001
+4.490e-001 +3.370e-001 +1.330e-001 -7.400e-002 -2.310e-001 -3.440e-001
-3.900e-001 -3.850e-001 -3.640e-001
   2.7033      0.28
  10.4962     19.60
 200.0000     62.44
   2.6731 10000000000.00
<Date: Mon Sep 15 09:16:02 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0278         /  50.0/  50.0/   1.0/  562170.000/ 3917615.000/
23.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 98.00
S  [V/A]:  +4.127e+001 +2.750e+001 +2.181e+001 +1.924e+001 +1.782e+001
+1.746e+001 +1.771e+001 +1.813e+001 +1.874e+001 +1.954e+001 +2.026e+001
+2.088e+001 +2.170e+001 +2.270e+001 +2.360e+001 +2.442e+001 +2.550e+001
+2.687e+001 +2.814e+001 +2.932e+001 +3.091e+001 +3.295e+001 +3.474e+001
+3.629e+001 +3.803e+001 +3.951e+001 +3.996e+001 +3.968e+001 +3.852e+001
+3.636e+001 +3.424e+001 +3.236e+001
Err[V/A]:  +5.000e-001 +5.000e-001 +4.900e-001 +4.230e-001 -2.260e-001
+2.000e-003 +1.150e-001 +1.600e-001 +1.820e-001 +1.960e-001 +2.000e-001
+2.030e-001 +2.100e-001 +2.160e-001 +2.240e-001 +2.320e-001 +2.420e-001
+2.570e-001 +2.700e-001 +2.820e-001 +2.950e-001 +3.030e-001 +2.970e-001
+2.770e-001 +2.240e-001 +1.200e-001 +5.000e-003 -1.010e-001 -2.110e-001
-2.910e-001 -3.280e-001 -3.500e-001
   6.3546      0.29
  22.1479     19.38
  52.5151    105.65
   6.5324 10000000000.00
<Date: Mon Sep 15 09:34:02 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCE, POWER-LINE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0279         /  50.0/  50.0/   1.0/  562019.000/ 3917469.000/
43.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=175.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.680e+001 +3.150e+001 +4.479e+001
+5.720e+001 +6.701e+001 +7.576e+001 +8.728e+001 +1.011e+002 +1.116e+002
+1.188e+002 +1.245e+002 +1.270e+002 +1.268e+002 +1.256e+002 +1.235e+002
+1.209e+002 +1.186e+002 +1.167e+002 +1.141e+002 +1.108e+002 +1.079e+002
+1.055e+002 +1.026e+002 +9.952e+001 +9.714e+001 +9.503e+001 +9.199e+001
+8.716e+001 +8.148e+001 +7.523e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.600e-001
+7.330e-001 +6.690e-001 +6.450e-001 +6.150e-001 +5.470e-001 +4.480e-001
+3.320e-001 +1.800e-001 +3.700e-002 -4.100e-002 -7.700e-002 -9.700e-002
-1.060e-001 -1.110e-001 -1.190e-001 -1.310e-001 -1.450e-001 -1.530e-001
-1.530e-001 -1.490e-001 -1.430e-001 -1.450e-001 -1.620e-001 -2.110e-001
-3.030e-001 -3.890e-001 -4.440e-001
   3.4949      0.57
 388.8855     24.34
 200.0000     41.26
  61.4015    138.14
  17.2671 10000000000.00
<Date: Mon Sep 15 09:54:53 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWER-LINE
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0280-A       /  50.0/  50.0/   1.0/  562003.000/ 3917252.000/
42.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=228.00
```

```
S  [V/A]:  +0.000e+000 +0.000e+000 +1.149e+001 +2.164e+001 +2.662e+001
+2.772e+001 +2.753e+001 +2.724e+001 +2.698e+001 +2.684e+001 +2.691e+001
+2.714e+001 +2.764e+001 +2.851e+001 +2.949e+001 +3.047e+001 +3.183e+001
+3.356e+001 +3.510e+001 +3.645e+001 +3.818e+001 +4.035e+001 +4.236e+001
+4.428e+001 +4.689e+001 +5.010e+001 +5.253e+001 +5.417e+001 +5.525e+001
+5.498e+001 +5.363e+001 +5.183e+001 +4.896e+001 +4.466e+001 +4.013e+001
+3.557e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +5.490e-001
+5.900e-002 -5.300e-002 -6.000e-002 -3.800e-002 -3.000e-003 +3.800e-002
+7.600e-002 +1.220e-001 +1.720e-001 +2.070e-001 +2.280e-001 +2.440e-001
+2.530e-001 +2.550e-001 +2.550e-001 +2.590e-001 +2.720e-001 +2.890e-001
+3.050e-001 +3.130e-001 +2.920e-001 +2.400e-001 +1.660e-001 +4.800e-002
-9.100e-002 -1.880e-001 -2.560e-001 -3.330e-001 -4.190e-001 -4.720e-001
-4.920e-001
   4.1727      0.51
  49.3292     10.00
  27.9183     21.37
  83.4259    142.72
   7.8487 10000000000.00
<Date: Mon Sep 15 10:15:26 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0281         /  50.0/  50.0/   1.0/  561778.000/ 3917258.000/
41.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 97.00
S  [V/A]:  +5.139e+000 +7.045e+000 +9.175e+000 +1.089e+001 +1.254e+001
+1.377e+001 +1.434e+001 +1.461e+001 +1.477e+001 +1.490e+001 +1.506e+001
+1.528e+001 +1.565e+001 +1.625e+001 +1.687e+001 +1.746e+001 +1.823e+001
+1.916e+001 +1.996e+001 +2.067e+001 +2.160e+001 +2.277e+001 +2.381e+001
+2.468e+001 +2.564e+001 +2.635e+001 +2.644e+001 +2.611e+001 +2.522e+001
+2.370e+001 +2.223e+001 +2.092e+001
Err[V/A]:  -8.020e-001 -8.260e-001 -7.940e-001 -6.890e-001 +5.060e-001
+2.920e-001 +1.620e-001 +9.100e-002 +5.000e-002 +5.200e-002 +7.900e-002
+1.120e-001 +1.530e-001 +1.950e-001 +2.210e-001 +2.330e-001 +2.370e-001
+2.360e-001 +2.360e-001 +2.390e-001 +2.470e-001 +2.540e-001 +2.500e-001
+2.300e-001 +1.750e-001 +7.200e-002 -3.700e-002 -1.340e-001 -2.330e-001
-3.080e-001 -3.450e-001 -3.670e-001
   4.1217      0.49
  20.4243     10.00
  16.4391     12.12
  38.3007     72.75
   5.6951 10000000000.00
<Date: Mon Sep 15 11:19:53 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: IN GRAPES, FENCES
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0282         /  49.0/  49.0/   1.0/  561538.000/ 3917285.000/
41.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=187.00
S  [V/A]:  +0.000e+000 +1.572e+000 +1.680e+001 +2.370e+001 +2.665e+001
+2.690e+001 +2.635e+001 +2.576e+001 +2.512e+001 +2.454e+001 +2.430e+001
+2.428e+001 +2.452e+001 +2.514e+001 +2.592e+001 +2.672e+001 +2.782e+001
+2.910e+001 +3.004e+001 +3.066e+001 +3.108e+001 +3.105e+001 +3.059e+001
+2.989e+001 +2.864e+001 +2.668e+001 +2.471e+001 +2.284e+001 +2.048e+001
+1.790e+001 +1.602e+001 +1.466e+001 +1.332e+001 +1.222e+001 +1.165e+001
+1.140e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.490e-001 +3.120e-001
-4.300e-002 -1.260e-001 -1.360e-001 -1.200e-001 -7.800e-002 -2.900e-002
+2.000e-002 +8.500e-002 +1.480e-001 +1.900e-001 +2.120e-001 +2.180e-001
+1.980e-001 +1.590e-001 +1.100e-001 +3.900e-002 -5.000e-002 -1.250e-001
-1.880e-001 -2.660e-001 -3.480e-001 -3.990e-001 -4.290e-001 -4.480e-001
-4.540e-001 -4.470e-001 -4.310e-001 -3.910e-001 -3.080e-001 -2.020e-001
-8.900e-002
  14.3404      0.41
  28.3865     10.70
```

```
  20.2267     10.00
  36.4419     49.99
   3.8501 10000000000.00
<Date: Mon Sep 15 12:21:11 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NOT SQUARE
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0283-A       /  50.0/  50.0/   1.0/  561765.000/ 3917668.000/
24.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=124.00
S  [V/A]:  +0.000e+000 +2.125e+001 +3.827e+001 +4.478e+001 +4.664e+001
+4.575e+001 +4.479e+001 +4.440e+001 +4.452e+001 +4.545e+001 +4.684e+001
+4.844e+001 +5.092e+001 +5.445e+001 +5.792e+001 +6.117e+001 +6.542e+001
+7.054e+001 +7.480e+001 +7.840e+001 +8.273e+001 +8.759e+001 +9.150e+001
+9.474e+001 +9.848e+001 +1.023e+002 +1.045e+002 +1.057e+002 +1.058e+002
+1.040e+002 +1.012e+002 +9.806e+001 +9.369e+001 +8.788e+001 +8.210e+001
+7.608e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.900e-001 -5.240e-001 +6.500e-002
-9.900e-002 -8.100e-002 -2.400e-002 +5.200e-002 +1.350e-001 +1.960e-001
+2.410e-001 +2.870e-001 +3.270e-001 +3.500e-001 +3.570e-001 +3.540e-001
+3.400e-001 +3.210e-001 +3.040e-001 +2.830e-001 +2.610e-001 +2.430e-001
+2.260e-001 +1.990e-001 +1.540e-001 +1.010e-001 +4.400e-002 -3.600e-002
-1.250e-001 -1.850e-001 -2.230e-001 -2.630e-001 -3.200e-001 -3.830e-001
-4.320e-001
 139.4967      3.69
  37.0237     19.55
 200.0000     87.06
  94.2233    142.28
  24.1395 10000000000.00
<Date: Mon Sep 15 12:56:48 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ONLY OLIVE TREES
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0284-B       /  50.0/  50.0/   1.0/  561285.000/ 3918218.000/
22.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=383.00
S  [V/A]:  +6.220e-001 +2.050e+001 +3.045e+001 +3.472e+001 +3.669e+001
+3.691e+001 +3.663e+001 +3.647e+001 +3.640e+001 +3.640e+001 +3.626e+001
+3.588e+001 +3.510e+001 +3.397e+001 +3.305e+001 +3.244e+001 +3.200e+001
+3.190e+001 +3.210e+001 +3.240e+001 +3.287e+001 +3.352e+001 +3.415e+001
+3.480e+001 +3.581e+001 +3.735e+001 +3.891e+001 +4.035e+001 +4.194e+001
+4.289e+001 +4.253e+001 +4.143e+001 +3.951e+001 +3.731e+001 +3.603e+001
+3.553e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.350e-001 -4.880e-001 +1.530e-001
-1.100e-002 -3.300e-002 -1.900e-002 -6.000e-003 -1.200e-002 -4.800e-002
-9.200e-002 -1.340e-001 -1.530e-001 -1.380e-001 -1.020e-001 -4.800e-002
+1.300e-002 +5.100e-002 +7.200e-002 +8.700e-002 +1.020e-001 +1.200e-001
+1.430e-001 +1.800e-001 +2.230e-001 +2.430e-001 +2.330e-001 +1.660e-001
+2.300e-002 -1.190e-001 -2.110e-001 -2.550e-001 -2.270e-001 -1.440e-001
-4.600e-002
  34.2145     83.34
 110.6951    114.79
   1.7584     10.10
 200.0000    150.00
   9.6346 10000000000.00
<Date: Mon Sep 15 14:08:49 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0285-B       /  50.0/  50.0/   1.0/  561478.000/ 3918104.000/
21.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=111.00
S  [V/A]:  +0.000e+000 +5.460e-001 +7.897e+000 +1.123e+001 +1.298e+001
+1.383e+001 +1.431e+001 +1.471e+001 +1.521e+001 +1.585e+001 +1.648e+001
+1.710e+001 +1.797e+001 +1.908e+001 +2.009e+001 +2.095e+001 +2.200e+001
```

```
+2.321e+001 +2.426e+001 +2.523e+001 +2.658e+001 +2.840e+001 +3.013e+001
+3.172e+001 +3.375e+001 +3.604e+001 +3.772e+001 +3.894e+001 +4.002e+001
+4.061e+001 +4.047e+001 +3.990e+001 +3.865e+001 +3.657e+001 +3.452e+001
+3.269e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.610e-001 +4.650e-001
+2.200e-001 +1.760e-001 +1.730e-001 +1.810e-001 +2.040e-001 +2.300e-001
+2.510e-001 +2.720e-001 +2.840e-001 +2.820e-001 +2.730e-001 +2.610e-001
+2.530e-001 +2.580e-001 +2.730e-001 +2.980e-001 +3.250e-001 +3.390e-001
+3.400e-001 +3.240e-001 +2.860e-001 +2.390e-001 +1.880e-001 +1.160e-001
+2.100e-002 -6.200e-002 -1.330e-001 -2.120e-001 -2.820e-001 -3.190e-001
-3.410e-001
  16.9534     16.33
  52.3237    135.08
   8.6117     37.61
   4.2988     50.87
   1.0000 10000000000.00
<Date: Mon Sep 15 14:34:23 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0286-A       /  50.0/  50.0/   1.0/  561649.000/ 3918105.000/
20.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=289.00
S  [V/A]:  +0.000e+000 +0.000e+000 +3.519e+000 +9.891e+000 +1.612e+001
+2.076e+001 +2.288e+001 +2.381e+001 +2.425e+001 +2.433e+001 +2.436e+001
+2.455e+001 +2.501e+001 +2.587e+001 +2.681e+001 +2.771e+001 +2.894e+001
+3.058e+001 +3.222e+001 +3.392e+001 +3.641e+001 +3.968e+001 +4.235e+001
+4.426e+001 +4.591e+001 +4.698e+001 +4.760e+001 +4.820e+001 +4.905e+001
+4.977e+001 +4.962e+001 +4.871e+001 +4.663e+001 +4.319e+001 +3.964e+001
+3.610e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.910e-001
+6.520e-001 +3.590e-001 +1.800e-001 +5.800e-002 +1.100e-002 +3.200e-002
+7.300e-002 +1.280e-001 +1.830e-001 +2.130e-001 +2.290e-001 +2.480e-001
+2.810e-001 +3.210e-001 +3.570e-001 +3.870e-001 +3.810e-001 +3.290e-001
+2.550e-001 +1.610e-001 +9.300e-002 +8.300e-002 +9.200e-002 +8.600e-002
+2.300e-002 -7.700e-002 -1.760e-001 -2.800e-001 -3.710e-001 -4.310e-001
-4.660e-001
  24.7469     24.01
  77.8949     99.89
  12.2748     75.76
   1.0000 10000000000.00
<Date: Mon Sep 15 14:58:57 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, NEXT TO RIVER
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0287-B       /  50.0/  50.0/   1.0/  562346.000/ 3918269.000/
38.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=201.00
S  [V/A]:  +8.383e+001 +7.037e+001 +6.531e+001 +6.349e+001 +6.302e+001
+6.358e+001 +6.384e+001 +6.340e+001 +6.173e+001 +5.861e+001 +5.573e+001
+5.349e+001 +5.133e+001 +4.970e+001 +4.895e+001 +4.860e+001 +4.836e+001
+4.815e+001 +4.789e+001 +4.757e+001 +4.703e+001 +4.624e+001 +4.547e+001
+4.472e+001 +4.362e+001 +4.194e+001 +4.011e+001 +3.813e+001 +3.525e+001
+3.146e+001 +2.820e+001 +2.547e+001 +2.235e+001 +1.913e+001 +1.681e+001
+1.504e+001
Err[V/A]:  +4.830e-001 +3.910e-001 +2.350e-001 +1.030e-001 -1.000e-003
+2.900e-002 -1.400e-002 -8.700e-002 -1.810e-001 -2.460e-001 -2.570e-001
-2.360e-001 -1.850e-001 -1.160e-001 -6.600e-002 -3.900e-002 -2.400e-002
-2.700e-002 -3.900e-002 -5.400e-002 -7.200e-002 -9.000e-002 -1.060e-001
-1.240e-001 -1.590e-001 -2.210e-001 -2.830e-001 -3.390e-001 -3.960e-001
-4.390e-001 -4.590e-001 -4.680e-001 -4.730e-001 -4.750e-001 -4.760e-001
-4.760e-001
  68.1007     17.71
  36.0858     45.03
  22.7077     48.34
   2.6186 10000000000.00
```

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<Date: Tue Sep 16 08:17:57 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER LINES, NEXT TO ROAD
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0288-A       /  50.0/  50.0/   1.0/  561915.000/ 3918150.000/
17.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=103.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.189e+000 +1.447e+001 +1.808e+001
+1.996e+001 +2.104e+001 +2.190e+001 +2.299e+001 +2.438e+001 +2.564e+001
+2.682e+001 +2.843e+001 +3.042e+001 +3.215e+001 +3.355e+001 +3.510e+001
+3.650e+001 +3.731e+001 +3.775e+001 +3.801e+001 +3.799e+001 +3.774e+001
+3.740e+001 +3.686e+001 +3.616e+001 +3.558e+001 +3.507e+001 +3.441e+001
+3.345e+001 +3.236e+001 +3.113e+001 +2.923e+001 +2.666e+001 +2.446e+001
+2.267e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +6.510e-001
+3.350e-001 +2.600e-001 +2.500e-001 +2.580e-001 +2.720e-001 +2.850e-001
+2.980e-001 +3.110e-001 +3.100e-001 +2.940e-001 +2.670e-001 +2.190e-001
+1.550e-001 +1.020e-001 +6.200e-002 +1.900e-002 -2.200e-002 -5.100e-002
-7.100e-002 -8.600e-002 -9.500e-002 -9.700e-002 -1.020e-001 -1.200e-001
-1.650e-001 -2.230e-001 -2.810e-001 -3.440e-001 -3.900e-001 -4.060e-001
-4.120e-001
  22.7962     12.89
  56.7504     50.34
  19.1996     90.78
   3.9042 10000000000.00
<Date: Tue Sep 16 09:01:25 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0289-A       /  50.0/  50.0/   1.0/  562052.000/ 3918309.000/
22.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=249.00
S  [V/A]:  +0.000e+000 +6.048e+000 +1.680e+001 +2.074e+001 +2.208e+001
+2.206e+001 +2.187e+001 +2.181e+001 +2.190e+001 +2.224e+001 +2.274e+001
+2.330e+001 +2.417e+001 +2.536e+001 +2.642e+001 +2.728e+001 +2.817e+001
+2.885e+001 +2.910e+001 +2.912e+001 +2.899e+001 +2.880e+001 +2.874e+001
+2.885e+001 +2.926e+001 +3.017e+001 +3.128e+001 +3.244e+001 +3.396e+001
+3.542e+001 +3.595e+001 +3.570e+001 +3.458e+001 +3.260e+001 +3.087e+001
+2.958e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -6.620e-001 +1.570e-001
-2.700e-002 -3.100e-002 +1.000e-015 +4.600e-002 +1.010e-001 +1.430e-001
+1.770e-001 +2.120e-001 +2.290e-001 +2.230e-001 +1.980e-001 +1.480e-001
+7.900e-002 +2.500e-002 -8.000e-003 -2.800e-002 -2.100e-002 +9.000e-003
+5.000e-002 +1.110e-001 +1.840e-001 +2.310e-001 +2.500e-001 +2.300e-001
+1.400e-001 +1.500e-002 -1.060e-001 -2.190e-001 -2.810e-001 -2.810e-001
-2.610e-001
  23.1947     18.98
  51.0468     11.28
  32.5658    150.00
   4.0000 10000000000.00
<Date: Tue Sep 16 09:22:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWERLINES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0290-A       /  50.0/  50.0/   1.0/  561535.000/ 3915121.000/
89.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=155.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.456e+000 +1.161e+001 +1.670e+001
+2.018e+001 +2.184e+001 +2.272e+001 +2.333e+001 +2.369e+001 +2.385e+001
+2.395e+001 +2.407e+001 +2.423e+001 +2.436e+001 +2.447e+001 +2.461e+001
+2.481e+001 +2.505e+001 +2.533e+001 +2.583e+001 +2.662e+001 +2.748e+001
+2.836e+001 +2.964e+001 +3.135e+001 +3.289e+001 +3.425e+001 +3.581e+001
+3.713e+001 +3.749e+001 +3.708e+001 +3.567e+001 +3.303e+001 +3.044e+001
+2.820e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.460e-001
```

```
+5.390e-001 +3.180e-001 +1.980e-001 +1.070e-001 +5.200e-002 +3.200e-002
+2.800e-002 +2.900e-002 +3.100e-002 +3.100e-002 +3.100e-002 +3.500e-002
+4.900e-002 +6.800e-002 +9.200e-002 +1.260e-001 +1.680e-001 +2.010e-001
+2.270e-001 +2.540e-001 +2.730e-001 +2.760e-001 +2.620e-001 +2.140e-001
+1.110e-001 -1.400e-002 -1.380e-001 -2.700e-001 -3.650e-001 -4.010e-001
-4.180e-001
  13.8250      1.69
  26.8906     53.29
  58.0233    109.44
   4.5379 10000000000.00
<Date: Tue Sep 16 10:11:23 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWERLINES, IN VILLAGE
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0291-B       /  50.0/  50.0/   1.0/  561668.000/ 3915426.000/
90.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 83.00
S  [V/A]:  +4.128e+001 +3.944e+001 +3.908e+001 +3.887e+001 +3.836e+001
+3.738e+001 +3.628e+001 +3.524e+001 +3.394e+001 +3.244e+001 +3.129e+001
+3.037e+001 +2.933e+001 +2.825e+001 +2.745e+001 +2.688e+001 +2.630e+001
+2.588e+001 +2.578e+001 +2.591e+001 +2.637e+001 +2.734e+001 +2.850e+001
+2.973e+001 +3.143e+001 +3.356e+001 +3.529e+001 +3.669e+001 +3.814e+001
+3.911e+001 +3.887e+001 +3.753e+001
Err[V/A]:  +2.280e-001 +9.800e-002 +3.700e-002 +4.600e-002 -8.600e-002
-1.360e-001 -1.680e-001 -1.840e-001 -1.950e-001 -1.970e-001 -1.930e-001
-1.870e-001 -1.790e-001 -1.660e-001 -1.500e-001 -1.320e-001 -9.900e-002
-4.700e-002 +8.000e-003 +6.300e-002 +1.340e-001 +2.110e-001 +2.630e-001
+2.920e-001 +3.070e-001 +2.990e-001 +2.760e-001 +2.420e-001 +1.730e-001
+3.600e-002 -1.450e-001 -3.030e-001
  35.8783     12.65
  22.2982     40.80
 143.1713     95.52
   6.7816 10000000000.00
<Date: Tue Sep 16 10:43:07 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWERLINES, IN VILLAGE, PUMP
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0292-B       /  49.0/  49.0/   1.0/  561519.000/ 3915680.000/
107.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=205.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.825e+001 +4.595e+001 +5.804e+001
+6.267e+001 +6.245e+001 +6.098e+001 +5.838e+001 +5.503e+001 +5.249e+001
+5.073e+001 +4.923e+001 +4.833e+001 +4.813e+001 +4.817e+001 +4.832e+001
+4.832e+001 +4.799e+001 +4.738e+001 +4.614e+001 +4.400e+001 +4.159e+001
+3.910e+001 +3.562e+001 +3.124e+001 +2.770e+001 +2.484e+001 +2.170e+001
+1.861e+001 +1.645e+001 +1.483e+001 +1.307e+001 +1.128e+001 +9.950e+000
+8.921e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.970e-001 +6.420e-001
+1.380e-001 -9.000e-002 -1.800e-001 -2.350e-001 -2.510e-001 -2.310e-001
-1.910e-001 -1.270e-001 -5.300e-002 -8.000e-003 +1.100e-002 +9.000e-003
-2.200e-002 -6.500e-002 -1.130e-001 -1.810e-001 -2.650e-001 -3.330e-001
-3.830e-001 -4.290e-001 -4.590e-001 -4.710e-001 -4.740e-001 -4.740e-001
-4.710e-001 -4.690e-001 -4.670e-001 -4.670e-001 -4.700e-001 -4.730e-001
-4.750e-001
  58.7773     21.09
  31.1070     21.91
  24.6041     33.03
   2.0389 10000000000.00
<Date: Tue Sep 16 11:19:05 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWERLINES, NOT SQUARE, FENCES
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0293-A       /  50.0/  50.0/   1.0/  561094.000/ 3915749.000/
```

```
85.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=297.00
S  [V/A]:  +0.000e+000 +2.661e+001 +5.572e+001 +7.406e+001 +8.892e+001
+9.875e+001 +1.042e+002 +1.083e+002 +1.131e+002 +1.183e+002 +1.219e+002
+1.245e+002 +1.265e+002 +1.273e+002 +1.263e+002 +1.241e+002 +1.195e+002
+1.118e+002 +1.039e+002 +9.655e+001 +8.726e+001 +7.688e+001 +6.895e+001
+6.280e+001 +5.609e+001 +4.939e+001 +4.467e+001 +4.107e+001 +3.711e+001
+3.303e+001 +2.992e+001 +2.742e+001 +2.449e+001 +2.126e+001 +1.871e+001
+1.662e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.410e-001 +5.960e-001
+3.470e-001 +2.570e-001 +2.330e-001 +2.160e-001 +1.860e-001 +1.510e-001
+1.140e-001 +6.200e-002 -1.100e-002 -8.500e-002 -1.560e-001 -2.450e-001
-3.310e-001 -3.830e-001 -4.120e-001 -4.340e-001 -4.460e-001 -4.500e-001
-4.490e-001 -4.450e-001 -4.390e-001 -4.330e-001 -4.290e-001 -4.270e-001
-4.290e-001 -4.360e-001 -4.430e-001 -4.550e-001 -4.690e-001 -4.790e-001
-4.860e-001
 100.8773     35.94
 386.3859     30.71
  15.1154     36.47
   5.3400 10000000000.00
<Date: Tue Sep 16 11:45:15 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR LITTLE RIVER
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0294-B       /  50.0/  50.0/   1.0/  560757.000/ 3915883.000/
65.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 92.00
S  [V/A]:  +0.000e+000 +4.920e-001 +2.357e+001 +3.547e+001 +4.123e+001
+4.172e+001 +4.044e+001 +3.918e+001 +3.779e+001 +3.646e+001 +3.570e+001
+3.526e+001 +3.501e+001 +3.509e+001 +3.541e+001 +3.581e+001 +3.641e+001
+3.714e+001 +3.768e+001 +3.804e+001 +3.831e+001 +3.834e+001 +3.816e+001
+3.789e+001 +3.748e+001 +3.698e+001 +3.661e+001 +3.634e+001 +3.607e+001
+3.583e+001 +3.566e+001 +3.550e+001 +3.523e+001 +3.472e+001 +3.401e+001
+3.308e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.810e-001 +3.900e-001
-6.800e-002 -1.790e-001 -1.890e-001 -1.730e-001 -1.370e-001 -9.800e-002
-6.200e-002 -1.600e-002 +3.300e-002 +6.500e-002 +8.300e-002 +9.400e-002
+9.000e-002 +7.500e-002 +5.400e-002 +2.300e-002 -1.300e-002 -3.900e-002
-5.400e-002 -6.300e-002 -6.200e-002 -5.500e-002 -4.700e-002 -3.700e-002
-3.000e-002 -3.000e-002 -3.700e-002 -5.600e-002 -9.800e-002 -1.560e-001
-2.140e-001
  39.4465     20.03
  21.1808     10.00
  78.4025     25.36
  30.4203 10000000000.00
<Date: Tue Sep 16 12:22:05 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR G-12 DRILL
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0295-B       /  50.0/  50.0/   1.0/  561182.000/ 3915571.000/
98.0/32/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=288.00
S  [V/A]:  +0.000e+000 +7.446e+000 +3.346e+001 +4.869e+001 +5.906e+001
+6.234e+001 +6.135e+001 +5.973e+001 +5.805e+001 +5.710e+001 +5.716e+001
+5.760e+001 +5.841e+001 +5.924e+001 +5.960e+001 +5.964e+001 +5.944e+001
+5.919e+001 +5.920e+001 +5.951e+001 +6.030e+001 +6.159e+001 +6.254e+001
+6.289e+001 +6.235e+001 +6.037e+001 +5.820e+001 +5.644e+001 +5.496e+001
+5.471e+001 +5.603e+001 +5.847e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.800e-001 +5.440e-001
+5.800e-002 -1.290e-001 -1.570e-001 -1.140e-001 -3.100e-002 +3.100e-002
+6.300e-002 +7.200e-002 +4.900e-002 +1.800e-002 -6.000e-003 -2.000e-002
-9.000e-003 +2.000e-002 +5.300e-002 +8.700e-002 +9.600e-002 +6.200e-002
-1.000e-003 -9.800e-002 -1.840e-001 -2.060e-001 -1.790e-001 -9.000e-002
+6.700e-002 +2.210e-001 +3.510e-001
  58.9127     57.65
  66.1541     58.46
  35.5053 10000000000.00
```

```
<Date: Tue Sep 16 13:28:16 2008
<Time Range=5 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES, FENCES
<Place: AGGELIANA
<*********************************************************************************
*********
#GEOSEC: 0296-B       /  50.0/  50.0/   1.0/  560978.000/ 3915555.000/
93.0/35/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=135.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.758e+000 +1.241e+001 +1.986e+001
+2.473e+001 +2.745e+001 +2.939e+001 +3.156e+001 +3.402e+001 +3.604e+001
+3.774e+001 +3.977e+001 +4.195e+001 +4.358e+001 +4.480e+001 +4.610e+001
+4.736e+001 +4.826e+001 +4.894e+001 +4.964e+001 +5.024e+001 +5.047e+001
+5.046e+001 +5.018e+001 +4.967e+001 +4.931e+001 +4.919e+001 +4.936e+001
+4.996e+001 +5.054e+001 +5.084e+001 +5.057e+001 +4.904e+001 +4.677e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.850e-001
+6.260e-001 +4.550e-001 +3.870e-001 +3.480e-001 +3.230e-001 +3.050e-001
+2.890e-001 +2.660e-001 +2.310e-001 +1.990e-001 +1.730e-001 +1.450e-001
+1.190e-001 +1.020e-001 +8.900e-002 +7.000e-002 +4.100e-002 +1.100e-002
-1.500e-002 -4.000e-002 -4.600e-002 -2.900e-002 -1.000e-003 +3.800e-002
+6.400e-002 +5.300e-002 +9.000e-003 -8.500e-002 -2.110e-001 -3.030e-001
   1.9123      0.25
  50.8254     24.43
  75.7182     25.28
  48.4566 10000000000.00
<Date: Tue Sep 16 13:57:05 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: ON THE HILL
<Place: AGGELIANA
<*********************************************************************************
*********
#GEOSEC: 0297-A       /  50.0/  50.0/   1.0/  560304.000/ 3917574.000/
76.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=148.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.193e+001 +3.330e+001 +5.154e+001
+6.574e+001 +7.497e+001 +8.233e+001 +9.123e+001 +1.012e+002 +1.086e+002
+1.142e+002 +1.202e+002 +1.264e+002 +1.314e+002 +1.355e+002 +1.402e+002
+1.444e+002 +1.461e+002 +1.455e+002 +1.417e+002 +1.328e+002 +1.223e+002
+1.120e+002 +9.867e+001 +8.341e+001 +7.189e+001 +6.291e+001 +5.322e+001
+4.381e+001 +3.732e+001 +3.260e+001 +2.771e+001 +2.305e+001 +1.984e+001
+1.747e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.820e-001
+6.950e-001 +5.680e-001 +5.170e-001 +4.720e-001 +4.100e-001 +3.490e-001
+3.000e-001 +2.560e-001 +2.260e-001 +2.120e-001 +1.980e-001 +1.670e-001
+1.020e-001 +1.700e-002 -8.200e-002 -2.170e-001 -3.480e-001 -4.190e-001
-4.530e-001 -4.750e-001 -4.860e-001 -4.910e-001 -4.920e-001 -4.930e-001
-4.930e-001 -4.930e-001 -4.920e-001 -4.910e-001 -4.900e-001 -4.890e-001
-4.890e-001
  11.0195      1.51
 208.3373     70.48
  35.0161     45.55
   1.7631 10000000000.00
<Date: Thu Sep 18 08:53:01 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: AGGELIANA
<*********************************************************************************
*********
#GEOSEC: 0298-A       /  50.0/  50.0/   1.0/  560574.000/ 3917639.000/
80.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=219.00
S  [V/A]:  +0.000e+000 +1.029e+001 +5.140e+001 +8.391e+001 +1.193e+002
+1.478e+002 +1.608e+002 +1.673e+002 +1.721e+002 +1.753e+002 +1.762e+002
+1.760e+002 +1.743e+002 +1.703e+002 +1.652e+002 +1.599e+002 +1.528e+002
+1.454e+002 +1.407e+002 +1.381e+002 +1.368e+002 +1.371e+002 +1.376e+002
+1.372e+002 +1.341e+002 +1.259e+002 +1.158e+002 +1.059e+002 +9.338e+001
+8.000e+001 +7.018e+001 +6.269e+001 +5.442e+001 +4.573e+001 +3.906e+001
+3.370e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +8.500e-001
+5.840e-001 +3.300e-001 +2.020e-001 +1.180e-001 +5.400e-002 +9.000e-003
-2.900e-002 -8.000e-002 -1.430e-001 -1.930e-001 -2.220e-001 -2.320e-001
```

```
-2.050e-001 -1.530e-001 -9.300e-002 -2.400e-002 +1.800e-002 +1.000e-015
-6.900e-002 -2.030e-001 -3.510e-001 -4.240e-001 -4.540e-001 -4.700e-001
-4.760e-001 -4.770e-001 -4.790e-001 -4.830e-001 -4.900e-001 -4.950e-001
-4.970e-001
  16.2598      1.19
 278.9301     58.12
  64.2664    110.26
   3.5615 10000000000.00
<Date: Thu Sep 18 09:29:33 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0299-A       /  50.0/  50.0/   1.0/  560715.000/ 3917843.000/
68.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=291.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.928e+001 +4.209e+001 +6.402e+001
+8.396e+001 +9.810e+001 +1.096e+002 +1.235e+002 +1.391e+002 +1.502e+002
+1.575e+002 +1.629e+002 +1.646e+002 +1.637e+002 +1.621e+002 +1.599e+002
+1.569e+002 +1.535e+002 +1.495e+002 +1.431e+002 +1.340e+002 +1.257e+002
+1.185e+002 +1.099e+002 +1.004e+002 +9.303e+001 +8.702e+001 +8.004e+001
+7.253e+001 +6.678e+001 +6.222e+001 +5.702e+001 +5.129e+001 +4.651e+001
+4.224e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.830e-001
+7.510e-001 +6.420e-001 +5.860e-001 +5.330e-001 +4.530e-001 +3.550e-001
+2.500e-001 +1.210e-001 +6.000e-003 -5.000e-002 -7.000e-002 -8.400e-002
-1.100e-001 -1.520e-001 -2.000e-001 -2.600e-001 -3.120e-001 -3.400e-001
-3.530e-001 -3.630e-001 -3.710e-001 -3.760e-001 -3.810e-001 -3.870e-001
-3.910e-001 -3.920e-001 -3.940e-001 -4.000e-001 -4.200e-001 -4.450e-001
-4.650e-001
  14.5401      1.80
 300.0000     70.69
  60.4188     75.79
  17.0491 10000000000.00
<Date: Thu Sep 18 09:50:09 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0300-A       /  50.0/  50.0/   1.0/  560849.000/ 3918027.000/
46.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=104.00
S  [V/A]:  +1.825e+002 +1.667e+002 +1.616e+002 +1.611e+002 +1.634e+002
+1.677e+002 +1.706e+002 +1.709e+002 +1.678e+002 +1.598e+002 +1.515e+002
+1.444e+002 +1.366e+002 +1.291e+002 +1.235e+002 +1.189e+002 +1.129e+002
+1.053e+002 +9.854e+001 +9.261e+001 +8.533e+001 +7.715e+001 +7.068e+001
+6.544e+001 +5.942e+001 +5.294e+001 +4.799e+001 +4.394e+001 +3.918e+001
+3.396e+001 +2.990e+001 +2.663e+001 +2.296e+001 +1.918e+001 +1.642e+001
+1.431e+001
Err[V/A]:  +3.690e-001 +2.190e-001 +7.700e-002 -2.100e-002 +9.000e-002
+1.000e-001 +4.800e-002 -3.700e-002 -1.530e-001 -2.490e-001 -2.830e-001
-2.830e-001 -2.650e-001 -2.450e-001 -2.420e-001 -2.540e-001 -2.830e-001
-3.210e-001 -3.480e-001 -3.680e-001 -3.850e-001 -4.000e-001 -4.080e-001
-4.140e-001 -4.200e-001 -4.280e-001 -4.360e-001 -4.450e-001 -4.570e-001
-4.690e-001 -4.770e-001 -4.830e-001 -4.870e-001 -4.900e-001 -4.930e-001
-4.940e-001
 153.8239     48.26
  29.5561     39.10
   4.6059     30.11
   1.0000 10000000000.00
<Date: Thu Sep 18 10:10:03 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0301-A       /  50.0/  50.0/   1.0/  561174.000/ 3918116.000/
16.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=356.00
```

```
S  [V/A]:  +0.000e+000 +0.000e+000 +1.511e+001 +2.660e+001 +3.164e+001
+3.171e+001 +3.051e+001 +2.946e+001 +2.838e+001 +2.746e+001 +2.687e+001
+2.649e+001 +2.614e+001 +2.579e+001 +2.551e+001 +2.527e+001 +2.497e+001
+2.466e+001 +2.450e+001 +2.444e+001 +2.450e+001 +2.476e+001 +2.512e+001
+2.550e+001 +2.607e+001 +2.684e+001 +2.756e+001 +2.823e+001 +2.910e+001
+3.008e+001 +3.076e+001 +3.116e+001 +3.130e+001 +3.088e+001 +3.009e+001
+2.921e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +4.240e-001
-1.080e-001 -2.050e-001 -2.020e-001 -1.710e-001 -1.330e-001 -1.050e-001
-8.400e-002 -6.900e-002 -6.300e-002 -6.400e-002 -6.500e-002 -6.300e-002
-4.900e-002 -2.700e-002 -2.000e-003 +3.200e-002 +6.900e-002 +9.500e-002
+1.130e-001 +1.310e-001 +1.490e-001 +1.610e-001 +1.670e-001 +1.650e-001
+1.460e-001 +1.090e-001 +6.000e-002 -1.700e-002 -1.120e-001 -1.760e-001
-2.200e-001
  25.9772     90.62
 117.9494    102.33
   2.3366     10.00
  49.9983     18.77
  50.0000 10000000000.00
<Date: Thu Sep 18 11:06:30 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0302-A       /  50.0/  50.0/   1.0/  561234.000/ 3917965.000/
19.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=149.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.083e+001 +2.105e+001 +2.476e+001
+2.412e+001 +2.294e+001 +2.219e+001 +2.168e+001 +2.155e+001 +2.172e+001
+2.206e+001 +2.262e+001 +2.347e+001 +2.426e+001 +2.498e+001 +2.585e+001
+2.680e+001 +2.751e+001 +2.805e+001 +2.863e+001 +2.918e+001 +2.955e+001
+2.980e+001 +2.999e+001 +2.997e+001 +2.969e+001 +2.922e+001 +2.830e+001
+2.680e+001 +2.527e+001 +2.383e+001 +2.199e+001 +1.989e+001 +1.820e+001
+1.680e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +3.500e-001
-1.900e-001 -2.250e-001 -1.670e-001 -7.700e-002 +1.200e-002 +7.500e-002
+1.180e-001 +1.540e-001 +1.820e-001 +1.930e-001 +1.930e-001 +1.820e-001
+1.620e-001 +1.410e-001 +1.240e-001 +1.040e-001 +8.300e-002 +6.500e-002
+4.700e-002 +1.700e-002 -3.100e-002 -8.400e-002 -1.390e-001 -2.100e-001
-2.840e-001 -3.310e-001 -3.600e-001 -3.840e-001 -4.030e-001 -4.150e-001
-4.250e-001
  23.0563     23.30
  39.9014     55.29
   6.1206     10.00
  31.2429     30.70
   3.8764 10000000000.00
<Date: Thu Sep 18 11:34:59 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0303-B       /  50.0/  50.0/   1.0/  561176.000/ 3917718.000/
25.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=183.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.310e+001 +2.400e+001 +3.047e+001
+3.365e+001 +3.527e+001 +3.662e+001 +3.841e+001 +4.075e+001 +4.291e+001
+4.486e+001 +4.727e+001 +4.990e+001 +5.178e+001 +5.304e+001 +5.407e+001
+5.458e+001 +5.455e+001 +5.422e+001 +5.344e+001 +5.187e+001 +4.984e+001
+4.755e+001 +4.414e+001 +3.971e+001 +3.611e+001 +3.325e+001 +3.020e+001
+2.747e+001 +2.586e+001 +2.497e+001 +2.447e+001 +2.468e+001 +2.543e+001
+2.634e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +6.730e-001
+3.200e-001 +2.400e-001 +2.400e-001 +2.560e-001 +2.760e-001 +2.860e-001
+2.840e-001 +2.670e-001 +2.300e-001 +1.840e-001 +1.370e-001 +7.900e-002
+1.900e-002 -2.400e-002 -5.900e-002 -1.100e-001 -1.870e-001 -2.620e-001
-3.230e-001 -3.790e-001 -4.160e-001 -4.260e-001 -4.220e-001 -4.010e-001
-3.470e-001 -2.720e-001 -1.790e-001 -4.100e-002 +1.160e-001 +2.100e-001
+2.660e-001
```

  30.8992   8.87
  67.0570   55.59
  21.3386   30.05
   9.7913   49.01
 200.0000 10000000000.00
<Date: Thu Sep 18 11:57:52 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NEXT TO MARGARITIANOS RIVER
<Place: PANORMOS
<***
****
#GEOSEC: 0304-A   / 50.0/ 50.0/   1.0/ 560851.000/ 3917696.000/
53.0/36/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=253.00
S [V/A]: +0.000e+000 +0.000e+000 +5.202e+000 +2.535e+001 +4.425e+001
+6.089e+001 +7.194e+001 +7.991e+001 +8.812e+001 +9.569e+001 +1.003e+002
+1.030e+002 +1.048e+002 +1.049e+002 +1.035e+002 +1.013e+002 +9.758e+001
+9.195e+001 +8.651e+001 +8.163e+001 +7.584e+001 +7.000e+001 +6.614e+001
+6.363e+001 +6.147e+001 +5.996e+001 +5.913e+001 +5.829e+001 +5.660e+001
+5.317e+001 +4.915e+001 +4.522e+001 +4.037e+001 +3.526e+001 +3.166e+001
+2.902e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.980e-001
+7.950e-001 +6.470e-001 +5.380e-001 +4.250e-001 +3.080e-001 +2.150e-001
+1.390e-001 +5.100e-002 -4.200e-002 -1.120e-001 -1.670e-001 -2.310e-001
-2.940e-001 -3.310e-001 -3.470e-001 -3.450e-001 -3.180e-001 -2.730e-001
-2.220e-001 -1.560e-001 -9.900e-002 -9.100e-002 -1.270e-001 -2.200e-001
-3.400e-001 -4.090e-001 -4.390e-001 -4.520e-001 -4.510e-001 -4.430e-001
-4.330e-001
  14.5098   2.13
 191.3100   54.67
  26.9229   108.70
   3.2568 10000000000.00
<Date: Thu Sep 18 13:36:02 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: SW TO G-50
<Place: PANORMOS
<***
****
#GEOSEC: 0305-A   / 50.0/ 50.0/   1.0/ 560303.000/ 3917103.000/
86.0/36/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms=186.00
S [V/A]: +0.000e+000 +0.000e+000 +3.779e+001 +6.860e+001 +1.023e+002
+1.327e+002 +1.506e+002 +1.621e+002 +1.722e+002 +1.784e+002 +1.794e+002
+1.785e+002 +1.768e+002 +1.755e+002 +1.752e+002 +1.751e+002 +1.747e+002
+1.728e+002 +1.695e+002 +1.650e+002 +1.570e+002 +1.440e+002 +1.304e+002
+1.178e+002 +1.022e+002 +8.530e+001 +7.319e+001 +6.408e+001 +5.451e+001
+4.543e+001 +3.924e+001 +3.474e+001 +3.003e+001 +2.542e+001 +2.208e+001
+1.945e+001
Err[V/A]: +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.770e-001
+7.050e-001 +5.110e-001 +3.800e-001 +2.410e-001 +9.100e-002 -4.000e-003
-4.300e-002 -4.500e-002 -2.200e-002 -6.000e-003 -8.000e-003 -3.200e-002
-8.500e-002 -1.470e-001 -2.150e-001 -3.080e-001 -4.020e-001 -4.510e-001
-4.730e-001 -4.850e-001 -4.900e-001 -4.910e-001 -4.910e-001 -4.900e-001
-4.890e-001 -4.860e-001 -4.840e-001 -4.830e-001 -4.840e-001 -4.870e-001
-4.900e-001
  29.6411   3.39
 500.0001   50.13
  59.3348   65.80
   2.7847 10000000000.00
<Date: Thu Sep 18 14:16:48 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=   6 Ampl=OFF
<Remark: NORTH TO G-17
<Place: PANORMOS
<***
****
#GEOSEC: 0306-A   / 50.0/ 50.0/   1.0/ 560518.000/ 3917272.000/
86.0/36/4/0/22222 SPM=0 K= 0.000e+000 H=   0.000 DH=   0.000/rms= 86.00
S [V/A]: +0.000e+000 +0.000e+000 +2.649e+001 +4.583e+001 +6.255e+001
+7.557e+001 +8.376e+001 +9.005e+001 +9.751e+001 +1.060e+002 +1.129e+002
+1.185e+002 +1.251e+002 +1.321e+002 +1.368e+002 +1.397e+002 +1.411e+002

```
+1.388e+002 +1.336e+002 +1.270e+002 +1.167e+002 +1.033e+002 +9.178e+001
+8.233e+001 +7.158e+001 +6.054e+001 +5.272e+001 +4.680e+001 +4.051e+001
+3.445e+001 +3.030e+001 +2.729e+001 +2.419e+001 +2.124e+001 +1.916e+001
+1.753e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.170e-001
+5.870e-001 +4.630e-001 +4.160e-001 +3.840e-001 +3.530e-001 +3.260e-001
+3.020e-001 +2.720e-001 +2.250e-001 +1.690e-001 +1.010e-001 -8.000e-003
-1.540e-001 -2.690e-001 -3.470e-001 -4.110e-001 -4.520e-001 -4.680e-001
-4.760e-001 -4.800e-001 -4.830e-001 -4.830e-001 -4.830e-001 -4.810e-001
-4.770e-001 -4.710e-001 -4.650e-001 -4.550e-001 -4.440e-001 -4.410e-001
-4.420e-001
  12.6463      1.42
 180.1776     69.78
  29.3674     30.85
   3.9886 10000000000.00
<Date: Thu Sep 18 14:38:00 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NORTH TO G-17
<Place: PANORMOS
<*******************************************************************************
*********
#GEOSEC: 0307-A       /  50.0/  50.0/   1.0/  560553.000/ 3916602.000/
70.0/33/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=634.00
S  [V/A]:  +0.000e+000 +1.910e+001 +4.053e+001 +5.184e+001 +5.893e+001
+6.158e+001 +6.186e+001 +6.163e+001 +6.121e+001 +6.065e+001 +6.018e+001
+5.985e+001 +5.961e+001 +5.967e+001 +6.002e+001 +6.055e+001 +6.142e+001
+6.271e+001 +6.399e+001 +6.526e+001 +6.715e+001 +6.997e+001 +7.308e+001
+7.649e+001 +8.193e+001 +9.058e+001 +1.001e+002 +1.105e+002 +1.266e+002
+1.506e+002 +1.752e+002 +1.999e+002 +2.346e+002
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -7.760e-001 +3.970e-001
+9.800e-002 -2.000e-003 -2.900e-002 -3.900e-002 -4.300e-002 -4.000e-002
-3.000e-002 -9.000e-003 +2.100e-002 +4.800e-002 +6.800e-002 +8.900e-002
+1.100e-001 +1.270e-001 +1.460e-001 +1.770e-001 +2.270e-001 +2.810e-001
+3.350e-001 +4.100e-001 +4.990e-001 +5.690e-001 +6.200e-001 +6.690e-001
+7.040e-001 +7.180e-001 +7.200e-001 +7.190e-001
  34.1942      0.96
  63.6837     70.63
1000.0001 10000000000.00
<Date: Fri Sep 19 08:27:53 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: EAST TO G-17
<Place: AGGELIANA
<*******************************************************************************
*********
#GEOSEC: 0308         /  50.0/  50.0/   1.0/  560931.000/ 3916889.000/
75.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=472.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.288e+001 +3.034e+001 +4.819e+001
+6.714e+001 +8.288e+001 +9.657e+001 +1.134e+002 +1.315e+002 +1.441e+002
+1.523e+002 +1.591e+002 +1.633e+002 +1.647e+002 +1.649e+002 +1.637e+002
+1.606e+002 +1.567e+002 +1.527e+002 +1.473e+002 +1.406e+002 +1.349e+002
+1.300e+002 +1.238e+002 +1.168e+002 +1.112e+002 +1.065e+002 +1.008e+002
+9.383e+001 +8.737e+001 +8.133e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.940e-001
+8.350e-001 +7.720e-001 +7.210e-001 +6.490e-001 +5.340e-001 +4.100e-001
+2.990e-001 +1.830e-001 +8.500e-002 +2.600e-002 -1.500e-002 -6.400e-002
-1.190e-001 -1.570e-001 -1.820e-001 -2.040e-001 -2.230e-001 -2.370e-001
-2.480e-001 -2.580e-001 -2.660e-001 -2.700e-001 -2.770e-001 -2.980e-001
-3.380e-001 -3.790e-001 -4.110e-001
  36.5338      6.59
 500.0001     64.48
  73.4195    105.59
  33.5466 10000000000.00
<Date: Fri Sep 19 08:58:04 2008
<Time Range=5 Currrent= 2.10 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO MARGARITIANOS
<Place: AGGELIANA
<*******************************************************************************
*********
```

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#GEOSEC: 0309-A       /  50.0/  50.0/   1.0/  561066.000/ 3916973.000/
49.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=684.00
S  [V/A]:  +1.720e-001 +5.649e+001 +1.047e+002 +1.503e+002 +2.073e+002
+2.601e+002 +2.868e+002 +2.994e+002 +3.059e+002 +3.047e+002 +2.993e+002
+2.934e+002 +2.866e+002 +2.803e+002 +2.763e+002 +2.731e+002 +2.686e+002
+2.616e+002 +2.542e+002 +2.471e+002 +2.375e+002 +2.256e+002 +2.148e+002
+2.045e+002 +1.900e+002 +1.706e+002 +1.535e+002 +1.389e+002 +1.220e+002
+1.051e+002 +9.329e+001 +8.464e+001 +7.547e+001 +6.611e+001 +5.878e+001
+5.254e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.930e-001 +8.400e-001
+6.230e-001 +3.680e-001 +1.980e-001 +5.200e-002 -6.400e-002 -1.160e-001
-1.280e-001 -1.160e-001 -9.200e-002 -8.000e-002 -8.500e-002 -1.080e-001
-1.460e-001 -1.770e-001 -1.990e-001 -2.230e-001 -2.530e-001 -2.870e-001
-3.270e-001 -3.800e-001 -4.300e-001 -4.550e-001 -4.660e-001 -4.700e-001
-4.670e-001 -4.610e-001 -4.550e-001 -4.510e-001 -4.580e-001 -4.710e-001
-4.820e-001
 278.7476     98.22
  91.9230     71.82
  25.6268     32.29
   9.1381 10000000000.00
<Date: Fri Sep 19 09:27:10 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES
<Place: AGGELIANA
<********************************************************************************
*********
#GEOSEC: 0310-A       /  50.0/  50.0/   1.0/  562179.000/ 3918779.000/
39.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=381.00
S  [V/A]:  +0.000e+000 +5.524e+000 +1.641e+001 +2.441e+001 +3.198e+001
+3.816e+001 +4.158e+001 +4.342e+001 +4.460e+001 +4.498e+001 +4.488e+001
+4.468e+001 +4.442e+001 +4.412e+001 +4.378e+001 +4.335e+001 +4.256e+001
+4.133e+001 +4.010e+001 +3.898e+001 +3.757e+001 +3.592e+001 +3.449e+001
+3.315e+001 +3.127e+001 +2.866e+001 +2.617e+001 +2.386e+001 +2.098e+001
+1.782e+001 +1.549e+001 +1.375e+001 +1.196e+001 +1.031e+001 +9.259e+000
+8.552e+000
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.930e-001 +7.780e-001
+5.360e-001 +3.430e-001 +2.110e-001 +9.300e-002 +1.100e-002 -2.200e-002
-3.100e-002 -3.200e-002 -3.900e-002 -5.700e-002 -8.300e-002 -1.190e-001
-1.570e-001 -1.800e-001 -1.920e-001 -2.030e-001 -2.180e-001 -2.410e-001
-2.730e-001 -3.270e-001 -3.920e-001 -4.340e-001 -4.590e-001 -4.750e-001
-4.820e-001 -4.840e-001 -4.820e-001 -4.750e-001 -4.590e-001 -4.340e-001
-4.020e-001
  19.4935      1.38
  46.6329     38.59
  12.2629     38.29
   1.3076 10000000000.00
<Date: Fri Sep 19 10:40:30 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES IN LOOP, FENCES
<Place: PANORMOS
<********************************************************************************
*********
#GEOSEC: 0311-B       /  50.0/  50.0/   1.0/  561565.000/ 3919088.000/
35.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=232.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000 +1.004e+001
+1.606e+001 +1.886e+001 +2.085e+001 +2.330e+001 +2.643e+001 +2.935e+001
+3.206e+001 +3.557e+001 +3.954e+001 +4.244e+001 +4.430e+001 +4.554e+001
+4.549e+001 +4.445e+001 +4.310e+001 +4.118e+001 +3.885e+001 +3.690e+001
+3.519e+001 +3.299e+001 +3.015e+001 +2.760e+001 +2.529e+001 +2.247e+001
+1.942e+001 +1.720e+001 +1.556e+001 +1.386e+001 +1.225e+001 +1.112e+001
+1.024e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -1.000e-015 -9.000e-001 +9.000e-001
+8.570e-001 +6.280e-001 +5.480e-001 +5.280e-001 +5.290e-001 +5.310e-001
+5.230e-001 +4.940e-001 +4.250e-001 +3.320e-001 +2.260e-001 +8.000e-002
-7.600e-002 -1.710e-001 -2.190e-001 -2.510e-001 -2.710e-001 -2.860e-001
-3.070e-001 -3.430e-001 -3.910e-001 -4.260e-001 -4.470e-001 -4.610e-001
-4.670e-001 -4.650e-001 -4.590e-001 -4.470e-001 -4.320e-001 -4.270e-001
-4.260e-001
```

```
  17.9103      8.27
 100.0000     23.05
 107.9211     18.85
   8.9092     36.66
   2.0554 10000000000.00
<Date: Fri Sep 19 11:26:20 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: POWER-LINES, FENCES, NAT.ROAD
<Place: PANORMOS
<*****************************************************************************
*********
#GEOSEC: 0312-A       /  50.0/  50.0/   1.0/  561007.000/ 3919229.000/
39.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=640.00
S  [V/A]:  +0.000e+000 +4.186e+000 +1.377e+001 +2.158e+001 +2.991e+001
+3.821e+001 +4.428e+001 +4.881e+001 +5.344e+001 +5.747e+001 +6.021e+001
+6.251e+001 +6.572e+001 +7.001e+001 +7.348e+001 +7.538e+001 +7.522e+001
+7.122e+001 +6.590e+001 +6.103e+001 +5.550e+001 +5.022e+001 +4.666e+001
+4.397e+001 +4.076e+001 +3.665e+001 +3.283e+001 +2.930e+001 +2.498e+001
+2.047e+001 +1.733e+001 +1.510e+001 +1.293e+001 +1.107e+001 +9.962e+000
+9.285e+000
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.980e-001 +8.490e-001
+7.200e-001 +6.030e-001 +5.050e-001 +3.910e-001 +2.870e-001 +2.500e-001
+2.550e-001 +2.800e-001 +2.820e-001 +2.180e-001 +9.000e-002 -1.270e-001
-3.230e-001 -3.950e-001 -4.110e-001 -4.030e-001 -3.770e-001 -3.560e-001
-3.550e-001 -3.820e-001 -4.350e-001 -4.690e-001 -4.850e-001 -4.920e-001
-4.950e-001 -4.940e-001 -4.910e-001 -4.830e-001 -4.610e-001 -4.190e-001
-3.590e-001
  27.2612      5.85
  99.2604     35.80
  38.1822     21.04
   4.6540     24.70
   1.0000 10000000000.00
<Date: Fri Sep 19 11:57:29 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NATIONAL ROAD
<Place: PANORMOS
<*****************************************************************************
*********
#GEOSEC: 0313-B       /  50.0/  50.0/   1.0/  563183.000/ 3918618.000/
37.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=156.00
S  [V/A]:  +0.000e+000 +3.545e+000 +2.689e+001 +4.070e+001 +5.118e+001
+5.772e+001 +6.065e+001 +6.219e+001 +6.344e+001 +6.445e+001 +6.525e+001
+6.604e+001 +6.727e+001 +6.893e+001 +7.028e+001 +7.111e+001 +7.149e+001
+7.074e+001 +6.920e+001 +6.735e+001 +6.460e+001 +6.099e+001 +5.779e+001
+5.494e+001 +5.136e+001 +4.712e+001 +4.365e+001 +4.069e+001 +3.717e+001
+3.334e+001 +3.039e+001 +2.807e+001 +2.547e+001 +2.281e+001 +2.083e+001
+1.928e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.920e-001 +6.830e-001
+3.630e-001 +2.040e-001 +1.340e-001 +9.000e-002 +7.100e-002 +7.500e-002
+8.900e-002 +1.080e-001 +1.130e-001 +9.400e-002 +5.700e-002 -8.000e-003
-9.300e-002 -1.560e-001 -1.990e-001 -2.400e-001 -2.750e-001 -3.000e-001
-3.200e-001 -3.430e-001 -3.670e-001 -3.840e-001 -3.960e-001 -4.070e-001
-4.150e-001 -4.190e-001 -4.190e-001 -4.170e-001 -4.140e-001 -4.130e-001
-4.140e-001
  47.2826      5.69
  72.1353     65.17
  15.4362     45.68
   5.6257 10000000000.00
<Date: Fri Sep 19 12:35:56 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO NATIONAL ROAD
<Place: ROUMELI
<*****************************************************************************
*********
#GEOSEC: 0314-A       /  50.0/  50.0/   1.0/  563442.000/ 3918718.000/
30.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=107.00
S  [V/A]:  +0.000e+000 +0.000e+000 +4.996e+000 +1.650e+001 +2.324e+001
+2.582e+001 +2.646e+001 +2.668e+001 +2.683e+001 +2.689e+001 +2.691e+001
```

```
+2.697e+001 +2.711e+001 +2.745e+001 +2.790e+001 +2.839e+001 +2.915e+001
+3.019e+001 +3.116e+001 +3.202e+001 +3.315e+001 +3.456e+001 +3.589e+001
+3.718e+001 +3.892e+001 +4.100e+001 +4.250e+001 +4.343e+001 +4.393e+001
+4.358e+001 +4.269e+001 +4.162e+001 +3.999e+001 +3.752e+001 +3.474e+001
+3.170e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +7.910e-001
+2.700e-001 +8.800e-002 +4.200e-002 +2.000e-002 +7.000e-003 +1.000e-002
+2.200e-002 +4.300e-002 +7.700e-002 +1.070e-001 +1.310e-001 +1.570e-001
+1.760e-001 +1.840e-001 +1.890e-001 +1.960e-001 +2.110e-001 +2.300e-001
+2.450e-001 +2.510e-001 +2.280e-001 +1.780e-001 +1.110e-001 +1.600e-002
-8.400e-002 -1.480e-001 -1.910e-001 -2.490e-001 -3.380e-001 -4.190e-001
-4.670e-001
  11.9971      0.61
  29.4570     33.69
  57.9055    126.95
   9.0518 10000000000.00
<Date: Fri Sep 19 12:59:03 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO NATIONAL ROAD
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0315-B       /  50.0/  50.0/   1.0/  563688.000/ 3918750.000/
33.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=147.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000 +1.368e+000
+1.040e+001 +1.575e+001 +1.940e+001 +2.328e+001 +2.732e+001 +3.043e+001
+3.298e+001 +3.590e+001 +3.889e+001 +4.099e+001 +4.242e+001 +4.372e+001
+4.472e+001 +4.526e+001 +4.560e+001 +4.587e+001 +4.592e+001 +4.555e+001
+4.482e+001 +4.332e+001 +4.083e+001 +3.842e+001 +3.628e+001 +3.379e+001
+3.130e+001 +2.961e+001 +2.840e+001 +2.712e+001 +2.569e+001 +2.427e+001
+2.272e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -1.000e-015 -9.000e-001 +9.000e-001
+9.000e-001 +8.890e-001 +8.090e-001 +6.950e-001 +5.850e-001 +5.150e-001
+4.650e-001 +4.030e-001 +3.270e-001 +2.590e-001 +2.020e-001 +1.400e-001
+8.800e-002 +5.900e-002 +4.300e-002 +2.000e-002 -2.400e-002 -8.100e-002
-1.440e-001 -2.240e-001 -2.960e-001 -3.310e-001 -3.430e-001 -3.370e-001
-3.110e-001 -2.810e-001 -2.570e-001 -2.460e-001 -2.780e-001 -3.440e-001
-4.040e-001
   4.7214      1.61
 119.7299     27.27
  39.2906     63.07
  12.0282 10000000000.00
<Date: Fri Sep 19 14:07:12 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWERLINES
<Place: ROUMELI
<********************************************************************************
*********
#GEOSEC: 0316-A       /  50.0/  50.0/   1.0/  563889.000/ 3918795.000/
44.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=218.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.264e+000 +1.429e+001
+2.400e+001 +2.947e+001 +3.315e+001 +3.679e+001 +4.004e+001 +4.214e+001
+4.368e+001 +4.549e+001 +4.781e+001 +5.016e+001 +5.247e+001 +5.571e+001
+5.972e+001 +6.290e+001 +6.516e+001 +6.703e+001 +6.771e+001 +6.721e+001
+6.619e+001 +6.442e+001 +6.181e+001 +5.935e+001 +5.709e+001 +5.425e+001
+5.106e+001 +4.858e+001 +4.658e+001 +4.419e+001 +4.122e+001 +3.832e+001
+3.537e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 +9.000e-001
+8.810e-001 +7.170e-001 +5.780e-001 +4.440e-001 +3.230e-001 +2.560e-001
+2.270e-001 +2.250e-001 +2.530e-001 +2.850e-001 +3.090e-001 +3.230e-001
+3.080e-001 +2.650e-001 +2.020e-001 +1.070e-001 -1.000e-003 -7.700e-002
-1.250e-001 -1.700e-001 -2.130e-001 -2.400e-001 -2.580e-001 -2.690e-001
-2.710e-001 -2.690e-001 -2.710e-001 -2.890e-001 -3.380e-001 -3.970e-001
-4.410e-001
   8.3327      1.67
  75.7730     52.15
  97.6866     54.41
  16.4812    107.67
```

```
   4.1657 10000000000.00
<Date: Fri Sep 19 14:29:00 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO NATIONAL ROAD
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0317-A       /  50.0/  50.0/   1.0/  564065.000/ 3917742.000/
61.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=924.00
S  [V/A]:  +1.326e+001 +1.022e+001 +1.023e+001 +1.100e+001 +1.209e+001
+1.296e+001 +1.306e+001 +1.275e+001 +1.198e+001 +1.084e+001 +9.894e+000
+9.186e+000 +8.490e+000 +7.928e+000 +7.641e+000 +7.514e+000 +7.483e+000
+7.620e+000 +7.876e+000 +8.204e+000 +8.777e+000 +9.727e+000 +1.083e+001
+1.207e+001 +1.405e+001 +1.708e+001 +2.009e+001 +2.278e+001 +2.555e+001
+2.715e+001 +2.705e+001 +2.619e+001 +2.445e+001 +2.178e+001 +1.927e+001
+1.710e+001
Err[V/A]:  +5.000e-001 +3.570e-001 -2.260e-001 -4.120e-001 +3.680e-001
+1.560e-001 -6.500e-002 -2.210e-001 -3.380e-001 -3.930e-001 -3.990e-001
-3.800e-001 -3.330e-001 -2.470e-001 -1.550e-001 -7.300e-002 +2.900e-002
+1.450e-001 +2.360e-001 +3.140e-001 +4.110e-001 +5.200e-001 +6.020e-001
+6.620e-001 +7.160e-001 +7.420e-001 +7.220e-001 +6.480e-001 +4.520e-001
+1.230e-001 -1.290e-001 -2.740e-001 -3.840e-001 -4.520e-001 -4.780e-001
-4.880e-001
   8.9412      8.12
   9.8586     19.21
 200.0000     97.51
   1.0000 10000000000.00
<Date: Fri Sep 19 15:03:44 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO NATIONAL ROAD
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0318-A       /  50.0/  50.0/   1.0/  564412.000/ 3917700.000/
47.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=116.00
S  [V/A]:  +0.000e+000 +0.000e+000 +5.520e-001 +9.128e+000 +1.517e+001
+1.869e+001 +2.067e+001 +2.220e+001 +2.403e+001 +2.611e+001 +2.785e+001
+2.931e+001 +3.101e+001 +3.280e+001 +3.410e+001 +3.507e+001 +3.611e+001
+3.712e+001 +3.784e+001 +3.839e+001 +3.897e+001 +3.945e+001 +3.964e+001
+3.958e+001 +3.921e+001 +3.828e+001 +3.707e+001 +3.566e+001 +3.346e+001
+3.032e+001 +2.739e+001 +2.481e+001 +2.171e+001 +1.836e+001 +1.585e+001
+1.389e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.890e-001
+6.070e-001 +4.560e-001 +4.120e-001 +3.830e-001 +3.570e-001 +3.360e-001
+3.140e-001 +2.820e-001 +2.400e-001 +2.040e-001 +1.760e-001 +1.470e-001
+1.210e-001 +1.050e-001 +9.200e-002 +7.300e-002 +4.200e-002 +8.000e-003
-2.900e-002 -8.200e-002 -1.540e-001 -2.200e-001 -2.820e-001 -3.540e-001
-4.180e-001 -4.510e-001 -4.670e-001 -4.790e-001 -4.860e-001 -4.900e-001
-4.920e-001
  18.9891      6.83
  48.1872     47.44
  27.2906     16.80
  12.0019     42.06
   1.2373 10000000000.00
<Date: Fri Sep 19 15:26:47 2008
<Time Range=6 Currrent= 1.90 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO NATIONAL ROAD
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0319-A       /  50.0/  50.0/   1.0/  564859.000/ 3917633.000/
46.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 93.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.800e-002 +4.252e+000 +6.827e+000
+7.696e+000 +7.719e+000 +7.526e+000 +7.207e+000 +6.873e+000 +6.667e+000
+6.568e+000 +6.537e+000 +6.585e+000 +6.678e+000 +6.800e+000 +6.980e+000
+7.248e+000 +7.517e+000 +7.792e+000 +8.195e+000 +8.769e+000 +9.357e+000
+9.956e+000 +1.083e+001 +1.208e+001 +1.329e+001 +1.447e+001 +1.604e+001
+1.791e+001 +1.936e+001 +2.040e+001 +2.130e+001 +2.184e+001 +2.197e+001
```

```
+2.198e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.670e-001
+2.370e-001 -8.000e-002 -1.840e-001 -2.130e-001 -1.860e-001 -1.300e-001
-6.600e-002 +3.000e-003 +6.000e-002 +1.040e-001 +1.320e-001 +1.610e-001
+1.970e-001 +2.280e-001 +2.570e-001 +2.960e-001 +3.450e-001 +3.870e-001
+4.230e-001 +4.640e-001 +5.030e-001 +5.240e-001 +5.280e-001 +5.130e-001
+4.610e-001 +3.870e-001 +3.010e-001 +1.870e-001 +7.400e-002 +1.700e-002
-1.300e-002
   7.3543      6.98
   7.5207     14.60
  23.1418     13.15
 200.0000    102.10
   8.4715 10000000000.00
<Date: Fri Sep 19 15:49:25 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: SOUTH TO NATIONAL ROAD
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0329-A       /  50.0/  50.0/   1.0/  565210.000/ 3918636.000/
53.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=187.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000 +6.471e+000
+1.137e+001 +1.357e+001 +1.523e+001 +1.743e+001 +2.034e+001 +2.314e+001
+2.582e+001 +2.946e+001 +3.402e+001 +3.797e+001 +4.132e+001 +4.537e+001
+4.997e+001 +5.377e+001 +5.696e+001 +6.067e+001 +6.428e+001 +6.639e+001
+6.737e+001 +6.746e+001 +6.616e+001 +6.423e+001 +6.211e+001 +5.904e+001
+5.490e+001 +5.087e+001 +4.691e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -1.000e-015 -9.000e-001 +9.000e-001
+8.820e-001 +6.800e-001 +6.200e-001 +6.140e-001 +6.190e-001 +6.230e-001
+6.210e-001 +6.100e-001 +5.780e-001 +5.400e-001 +5.030e-001 +4.600e-001
+4.200e-001 +3.900e-001 +3.610e-001 +3.110e-001 +2.280e-001 +1.410e-001
+5.900e-002 -4.000e-002 -1.370e-001 -1.980e-001 -2.410e-001 -2.890e-001
-3.490e-001 -4.020e-001 -4.410e-001
  15.8972      9.18
 200.0000     18.96
 200.0000     46.28
  38.8033     76.92
   9.1050 10000000000.00
<Date: Fri Oct 10 13:08:59 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR NATIONAL ROAD
<Place: SKEPASTI
<*******************************************************************************
*********
#GEOSEC: 0330-B       /  50.0/  50.0/   1.0/  564905.000/ 3918653.000/
39.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=216.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.610e-001 +1.424e+001 +2.658e+001
+3.606e+001 +4.197e+001 +4.631e+001 +5.103e+001 +5.569e+001 +5.878e+001
+6.077e+001 +6.242e+001 +6.343e+001 +6.372e+001 +6.368e+001 +6.337e+001
+6.268e+001 +6.186e+001 +6.096e+001 +5.964e+001 +5.791e+001 +5.640e+001
+5.512e+001 +5.358e+001 +5.173e+001 +5.005e+001 +4.841e+001 +4.618e+001
+4.347e+001 +4.134e+001 +3.979e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.990e-001
+7.720e-001 +6.120e-001 +5.200e-001 +4.320e-001 +3.360e-001 +2.530e-001
+1.860e-001 +1.130e-001 +4.900e-002 +1.000e-002 -1.500e-002 -3.900e-002
-6.600e-002 -8.900e-002 -1.090e-001 -1.300e-001 -1.470e-001 -1.530e-001
-1.550e-001 -1.610e-001 -1.790e-001 -2.050e-001 -2.320e-001 -2.600e-001
-2.720e-001 -2.590e-001 -2.360e-001
  23.4822      6.11
 200.0000     17.60
  73.2239     23.00
  38.2835     65.63
  22.1913 10000000000.00
<Date: Fri Oct 10 13:28:35 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR NATIONAL ROAD
<Place: SKEPASTI
<*******************************************************************************
```

```
*********
#GEOSEC: 0326-A       /  50.0/  50.0/   1.0/  563412.000/ 3917599.000/
84.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=      0.000 DH=
0.000/rms=1121.00
S  [V/A]:  +3.110e-001 +4.878e+001 +8.809e+001 +1.240e+002 +1.697e+002
+2.149e+002 +2.366e+002 +2.423e+002 +2.391e+002 +2.294e+002 +2.201e+002
+2.114e+002 +1.991e+002 +1.819e+002 +1.656e+002 +1.517e+002 +1.354e+002
+1.192e+002 +1.082e+002 +1.003e+002 +9.224e+001 +8.428e+001 +7.813e+001
+7.288e+001 +6.636e+001 +5.886e+001 +5.316e+001 +4.875e+001 +4.410e+001
+3.974e+001 +3.677e+001 +3.448e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.900e-001 +8.400e-001
+6.310e-001 +3.060e-001 +5.100e-002 -1.250e-001 -2.040e-001 -2.360e-001
-2.710e-001 -3.290e-001 -3.930e-001 -4.270e-001 -4.410e-001 -4.440e-001
-4.340e-001 -4.160e-001 -3.960e-001 -3.760e-001 -3.690e-001 -3.800e-001
-3.980e-001 -4.200e-001 -4.350e-001 -4.380e-001 -4.320e-001 -4.150e-001
-3.890e-001 -3.730e-001 -3.660e-001
 200.0000      1.05
 200.0000     21.22
 200.0000     44.67
  19.0843     58.68
   7.8809 10000000000.00
<Date: Fri Oct 10 11:36:15 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWER-LINES
<Place: ROUMELI
<****************************************************************************
*********
#GEOSEC: 0327-B       /  50.0/  50.0/   1.0/  563247.000/ 3917493.000/
82.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=      0.000 DH=      0.000/rms=222.00
S  [V/A]:  +0.000e+000 +4.395e+000 +2.809e+001 +4.368e+001 +5.831e+001
+7.220e+001 +8.319e+001 +9.309e+001 +1.064e+002 +1.233e+002 +1.377e+002
+1.491e+002 +1.606e+002 +1.692e+002 +1.724e+002 +1.728e+002 +1.712e+002
+1.670e+002 +1.620e+002 +1.563e+002 +1.477e+002 +1.356e+002 +1.245e+002
+1.148e+002 +1.034e+002 +9.121e+001 +8.236e+001 +7.548e+001 +6.786e+001
+5.986e+001 +5.361e+001 +4.842e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.970e-001 +8.150e-001
+6.810e-001 +6.260e-001 +6.120e-001 +6.020e-001 +5.730e-001 +5.180e-001
+4.430e-001 +3.220e-001 +1.700e-001 +5.800e-002 -1.500e-002 -8.300e-002
-1.490e-001 -2.050e-001 -2.570e-001 -3.210e-001 -3.800e-001 -4.120e-001
-4.280e-001 -4.370e-001 -4.390e-001 -4.380e-001 -4.370e-001 -4.390e-001
-4.480e-001 -4.590e-001 -4.690e-001
   5.0037      0.53
 111.7470      5.10
 300.0000     79.69
  38.6949     51.31
  10.6027 10000000000.00
<Date: Fri Oct 10 12:01:36 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWER-LINES
<Place: ROUMELI
<****************************************************************************
*********
#GEOSEC: 0325-A       /  50.0/  50.0/   1.0/  562913.000/ 3917726.000/
82.0/32/5/0/22222 SPM=0 K=  0.000e+000 H=      0.000 DH=      0.000/rms=577.00
S  [V/A]:  +0.000e+000 +0.000e+000 +6.890e-001 +1.163e+001 +2.449e+001
+3.767e+001 +4.846e+001 +5.811e+001 +7.084e+001 +8.688e+001 +1.005e+002
+1.112e+002 +1.212e+002 +1.263e+002 +1.250e+002 +1.206e+002 +1.129e+002
+1.030e+002 +9.512e+001 +8.894e+001 +8.201e+001 +7.447e+001 +6.824e+001
+6.283e+001 +5.619e+001 +4.892e+001 +4.368e+001 +3.983e+001 +3.601e+001
+3.277e+001 +3.093e+001 +2.987e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +9.000e-001
+8.790e-001 +8.290e-001 +7.930e-001 +7.570e-001 +7.040e-001 +6.300e-001
+5.250e-001 +3.320e-001 +5.700e-002 -1.560e-001 -2.740e-001 -3.460e-001
-3.760e-001 -3.790e-001 -3.770e-001 -3.790e-001 -3.950e-001 -4.170e-001
-4.360e-001 -4.510e-001 -4.580e-001 -4.530e-001 -4.390e-001 -4.060e-001
-3.410e-001 -2.660e-001 -1.900e-001
   5.0388      0.86
  71.9999      1.91
```

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 300.0000     62.52
  15.9957     35.28
   8.6874 10000000000.00
<Date: Fri Oct 10 11:11:27 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: FENCES, POWER-LINES
<Place: ROUMELI
<*****************************************************************************
*********
#GEOSEC: 0324-B       /  50.0/  50.0/   1.0/  562801.000/ 3917433.000/
23.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=320.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.794e+001 +3.302e+001 +3.937e+001
+3.749e+001 +3.394e+001 +3.109e+001 +2.830e+001 +2.589e+001 +2.436e+001
+2.330e+001 +2.225e+001 +2.129e+001 +2.064e+001 +2.018e+001 +1.969e+001
+1.917e+001 +1.874e+001 +1.832e+001 +1.774e+001 +1.694e+001 +1.618e+001
+1.548e+001 +1.457e+001 +1.345e+001 +1.252e+001 +1.175e+001 +1.084e+001
+9.904e+000 +9.207e+000 +8.635e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +3.390e-001
-3.350e-001 -4.160e-001 -4.100e-001 -3.760e-001 -3.270e-001 -2.870e-001
-2.560e-001 -2.210e-001 -1.860e-001 -1.600e-001 -1.420e-001 -1.300e-001
-1.300e-001 -1.420e-001 -1.620e-001 -1.940e-001 -2.340e-001 -2.660e-001
-2.920e-001 -3.210e-001 -3.480e-001 -3.640e-001 -3.720e-001 -3.720e-001
-3.660e-001 -3.660e-001 -3.720e-001
  33.3778      2.95
  38.3607      6.54
  13.2566     34.00
   5.0000 10000000000.00
<Date: Fri Oct 10 10:26:48 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR STANI
<Place: ROUMELI
<*****************************************************************************
*********
#GEOSEC: 0320-B       /  50.0/  50.0/   1.0/  563382.000/ 3916638.000/
0.0/36/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=262.00
S  [V/A]:  +1.712e+001 +2.630e+001 +3.298e+001 +3.755e+001 +4.145e+001
+4.326e+001 +4.260e+001 +4.066e+001 +3.730e+001 +3.315e+001 +3.015e+001
+2.812e+001 +2.635e+001 +2.521e+001 +2.488e+001 +2.494e+001 +2.528e+001
+2.571e+001 +2.578e+001 +2.547e+001 +2.459e+001 +2.308e+001 +2.162e+001
+2.031e+001 +1.867e+001 +1.670e+001 +1.509e+001 +1.376e+001 +1.229e+001
+1.088e+001 +9.949e+000 +9.316e+000 +8.700e+000 +8.115e+000 +7.633e+000
+7.148e+000
Err[V/A]:  -8.950e-001 -8.440e-001 -7.140e-001 -5.560e-001 +3.290e-001
+3.700e-002 -1.900e-001 -3.230e-001 -3.960e-001 -4.150e-001 -3.950e-001
-3.520e-001 -2.660e-001 -1.340e-001 -2.500e-002 +4.300e-002 +7.800e-002
+4.500e-002 -3.800e-002 -1.320e-001 -2.350e-001 -3.120e-001 -3.490e-001
-3.730e-001 -4.000e-001 -4.280e-001 -4.430e-001 -4.480e-001 -4.430e-001
-4.230e-001 -3.920e-001 -3.590e-001 -3.220e-001 -3.130e-001 -3.510e-001
-3.970e-001
  35.2381     19.27
   7.6176      7.34
  50.0000     23.63
   2.9452 10000000000.00
<Date: Fri Oct 10 08:33:10 2008
<Time Range=6 Currrent= 3.70 Stack= 6 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO ROAD
<Place: SOLOCHIANA
<*****************************************************************************
*********
#GEOSEC: 0328-A       /  50.0/  50.0/   1.0/  562919.000/ 3916940.000/
26.0/32/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=179.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.448e+001 +2.740e+001 +3.269e+001
+3.153e+001 +2.913e+001 +2.726e+001 +2.550e+001 +2.411e+001 +2.334e+001
+2.290e+001 +2.257e+001 +2.237e+001 +2.232e+001 +2.229e+001 +2.227e+001
+2.220e+001 +2.211e+001 +2.202e+001 +2.191e+001 +2.182e+001 +2.181e+001
+2.184e+001 +2.190e+001 +2.192e+001 +2.179e+001 +2.152e+001 +2.098e+001
+2.017e+001 +1.953e+001 +1.911e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +3.640e-001
```

```
-2.770e-001 -3.560e-001 -3.370e-001 -2.810e-001 -2.070e-001 -1.490e-001
-1.050e-001 -6.200e-002 -2.700e-002 -1.100e-002 -7.000e-003 -1.000e-002
-1.900e-002 -2.700e-002 -2.900e-002 -2.400e-002 -1.100e-002 +3.000e-003
+1.200e-002 +1.100e-002 -1.700e-002 -6.300e-002 -1.110e-001 -1.610e-001
-1.850e-001 -1.640e-001 -1.270e-001
 200.0000      1.67
  33.9825      1.48
  20.0876     96.08
   7.6701 10000000000.00
<Date: Fri Oct 10 12:32:12 2008
<Time Range=5 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR RIVER
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0321-B       /  50.0/  50.0/   1.0/  563217.000/ 3916479.000/
37.0/35/4/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=458.00
S  [V/A]:  +0.000e+000 +4.169e+001 +7.657e+001 +1.036e+002 +1.305e+002
+1.497e+002 +1.562e+002 +1.568e+002 +1.527e+002 +1.432e+002 +1.331e+002
+1.240e+002 +1.133e+002 +1.024e+002 +9.455e+001 +8.881e+001 +8.272e+001
+7.680e+001 +7.262e+001 +6.949e+001 +6.612e+001 +6.281e+001 +6.046e+001
+5.868e+001 +5.671e+001 +5.454e+001 +5.269e+001 +5.094e+001 +4.850e+001
+4.528e+001 +4.241e+001 +3.995e+001 +3.713e+001 +3.435e+001 +3.258e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -8.990e-001 -8.660e-001 +7.030e-001
+3.740e-001 +1.150e-001 -5.200e-002 -2.030e-001 -3.170e-001 -3.680e-001
-3.880e-001 -3.930e-001 -3.830e-001 -3.670e-001 -3.510e-001 -3.300e-001
-3.060e-001 -2.850e-001 -2.690e-001 -2.480e-001 -2.240e-001 -2.050e-001
-1.920e-001 -1.840e-001 -1.910e-001 -2.110e-001 -2.380e-001 -2.790e-001
-3.210e-001 -3.450e-001 -3.520e-001 -3.440e-001 -3.070e-001 -2.610e-001
 134.3537     49.79
  11.2452      5.09
  36.3089     85.31
  12.9827 10000000000.00
<Date: Fri Oct 10 09:03:53 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEXT TO ROAD
<Place: SOLOCHIANA
<*******************************************************************************
*********
#GEOSEC: 0322-A       /  50.0/  50.0/   1.0/  563021.000/ 3916564.000/
68.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=597.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.374e+001 +5.076e+001 +8.270e+001
+1.199e+002 +1.481e+002 +1.668e+002 +1.805e+002 +1.847e+002 +1.813e+002
+1.750e+002 +1.648e+002 +1.513e+002 +1.397e+002 +1.304e+002 +1.197e+002
+1.088e+002 +1.006e+002 +9.424e+001 +8.697e+001 +7.918e+001 +7.309e+001
+6.814e+001 +6.232e+001 +5.580e+001 +5.055e+001 +4.600e+001 +4.038e+001
+3.399e+001 +2.900e+001 +2.510e+001 +2.094e+001 +1.700e+001 +1.440e+001
+1.260e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 +8.970e-001
+8.500e-001 +7.260e-001 +5.400e-001 +2.660e-001 -1.000e-002 -1.690e-001
-2.560e-001 -3.220e-001 -3.640e-001 -3.800e-001 -3.840e-001 -3.830e-001
-3.780e-001 -3.740e-001 -3.730e-001 -3.750e-001 -3.800e-001 -3.870e-001
-3.940e-001 -4.060e-001 -4.250e-001 -4.440e-001 -4.610e-001 -4.780e-001
-4.900e-001 -4.940e-001 -4.960e-001 -4.960e-001 -4.950e-001 -4.930e-001
-4.900e-001
  50.2311      5.58
 300.0000     51.02
  20.6251     11.67
  11.9231     37.57
   1.0295 10000000000.00
<Date: Fri Oct 10 09:28:06 2008
<Time Range=6 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR STANI
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0323-A       /  50.0/  50.0/   1.0/  562863.000/ 3916526.000/
69.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=321.00
```

```
S  [V/A]:  +0.000e+000 +2.862e+001 +7.319e+001 +1.134e+002 +1.642e+002
+2.130e+002 +2.374e+002 +2.471e+002 +2.491e+002 +2.426e+002 +2.326e+002
+2.221e+002 +2.079e+002 +1.905e+002 +1.754e+002 +1.625e+002 +1.473e+002
+1.312e+002 +1.194e+002 +1.105e+002 +1.010e+002 +9.183e+001 +8.539e+001
+8.060e+001 +7.549e+001 +7.031e+001 +6.641e+001 +6.308e+001 +5.884e+001
+5.363e+001 +4.919e+001 +4.549e+001 +4.133e+001 +3.724e+001 +3.451e+001
+3.262e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.990e-001 +8.700e-001
+6.780e-001 +3.820e-001 +1.570e-001 -3.500e-002 -1.790e-001 -2.550e-001
-2.970e-001 -3.360e-001 -3.720e-001 -3.960e-001 -4.110e-001 -4.200e-001
-4.210e-001 -4.150e-001 -4.060e-001 -3.910e-001 -3.700e-001 -3.510e-001
-3.350e-001 -3.170e-001 -3.060e-001 -3.100e-001 -3.260e-001 -3.570e-001
-3.910e-001 -4.100e-001 -4.160e-001 -4.100e-001 -3.870e-001 -3.550e-001
-3.190e-001
  67.9591      3.71
 300.0000     59.19
  31.3752     33.04
  23.3282     71.25
   7.5400 10000000000.00
<Date: Fri Oct 10 09:51:00 2008
<Time Range=6 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR STANI
<Place: ROUMELI
<*******************************************************************************
*********
#GEOSEC: 0332         /  50.0/  50.0/   1.0/  558599.000/ 3918271.000/
41.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=121.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.134e+001 +2.174e+001
+2.744e+001 +2.999e+001 +3.148e+001 +3.293e+001 +3.438e+001 +3.559e+001
+3.678e+001 +3.858e+001 +4.119e+001 +4.376e+001 +4.603e+001 +4.860e+001
+5.057e+001 +5.088e+001 +5.009e+001 +4.802e+001 +4.478e+001 +4.192e+001
+3.957e+001 +3.694e+001 +3.427e+001 +3.237e+001 +3.089e+001 +2.924e+001
+2.748e+001 +2.604e+001 +2.478e+001 +2.317e+001 +2.126e+001 +1.974e+001
+1.858e+001
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 -8.980e-001
+6.150e-001 +3.670e-001 +2.690e-001 +2.160e-001 +1.950e-001 +2.050e-001
+2.330e-001 +2.780e-001 +3.200e-001 +3.330e-001 +3.160e-001 +2.470e-001
+1.060e-001 -4.200e-002 -1.610e-001 -2.630e-001 -3.230e-001 -3.400e-001
-3.390e-001 -3.290e-001 -3.120e-001 -2.980e-001 -2.880e-001 -2.800e-001
-2.840e-001 -2.980e-001 -3.180e-001 -3.440e-001 -3.620e-001 -3.610e-001
-3.510e-001
  25.7049      6.75
  50.1184     27.72
 100.0000     30.95
   9.9546     86.68
   2.5396 10000000000.00
<Date: Tue Nov 25 08:45:20 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: PHYLLITES
<Place: BEFORE RIVER
<*******************************************************************************
*********
#GEOSEC: 0333         /  50.0/  50.0/   1.0/  559158.000/ 3919367.000/
14.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=136.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.476e+000 +2.675e+001 +3.915e+001
+4.536e+001 +4.809e+001 +5.025e+001 +5.346e+001 +5.809e+001 +6.257e+001
+6.644e+001 +7.039e+001 +7.224e+001 +7.056e+001 +6.687e+001 +6.039e+001
+5.189e+001 +4.502e+001 +3.962e+001 +3.372e+001 +2.788e+001 +2.375e+001
+2.070e+001 +1.749e+001 +1.440e+001 +1.232e+001 +1.080e+001 +9.238e+000
+7.772e+000 +6.785e+000 +6.079e+000 +5.361e+000 +4.696e+000 +4.258e+000
+3.951e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -8.380e-001
+4.300e-001 +2.860e-001 +2.920e-001 +3.400e-001 +3.830e-001 +3.880e-001
+3.470e-001 +2.230e-001 -1.700e-002 -2.440e-001 -3.760e-001 -4.500e-001
-4.790e-001 -4.860e-001 -4.890e-001 -4.910e-001 -4.920e-001 -4.930e-001
-4.930e-001 -4.930e-001 -4.920e-001 -4.910e-001 -4.900e-001 -4.870e-001
-4.830e-001 -4.780e-001 -4.710e-001 -4.600e-001 -4.400e-001 -4.180e-001
-3.930e-001
```

```
  34.1371      7.15
  71.8947     24.60
  18.1943     12.65
   1.0000     10.00
   1.0000 10000000000.00
<Date: Tue Nov 25 09:11:32 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR COAST
<Place: AFTER RIVER
<*******************************************************************************
*********
#GEOSEC: 0334         /  50.0/  50.0/   1.0/  559349.000/ 3919354.000/
13.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 41.00
S  [V/A]:  +0.000e+000 +0.000e+000 +2.965e+000 +1.779e+001 +2.856e+001
+3.457e+001 +3.727e+001 +3.885e+001 +4.033e+001 +4.162e+001 +4.239e+001
+4.283e+001 +4.301e+001 +4.264e+001 +4.173e+001 +4.051e+001 +3.848e+001
+3.562e+001 +3.303e+001 +3.078e+001 +2.809e+001 +2.518e+001 +2.295e+001
+2.120e+001 +1.924e+001 +1.719e+001 +1.568e+001 +1.449e+001 +1.314e+001
+1.174e+001 +1.068e+001 +9.855e+000 +8.941e+000 +8.016e+000 +7.352e+000
+6.857e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -8.810e-001
+5.330e-001 +3.150e-001 +2.290e-001 +1.720e-001 +1.220e-001 +8.400e-002
+4.800e-002 -7.000e-003 -8.600e-002 -1.620e-001 -2.260e-001 -2.940e-001
-3.510e-001 -3.800e-001 -3.960e-001 -4.080e-001 -4.150e-001 -4.170e-001
-4.180e-001 -4.180e-001 -4.180e-001 -4.180e-001 -4.180e-001 -4.200e-001
-4.210e-001 -4.220e-001 -4.210e-001 -4.170e-001 -4.080e-001 -3.960e-001
-3.830e-001
  29.1644      6.29
  48.5281     23.31
  13.8544     16.99
   3.8036     26.32
   2.0372 10000000000.00
<Date: Tue Nov 25 09:35:49 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR COAST
<Place: AFTER RIVER
<*******************************************************************************
*********
#GEOSEC: 0335-A       /  50.0/  50.0/   1.0/  559450.000/ 3919384.000/
14.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 39.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.010e+001 +3.223e+001 +4.871e+001
+5.731e+001 +5.980e+001 +6.038e+001 +5.999e+001 +5.822e+001 +5.594e+001
+5.362e+001 +5.061e+001 +4.722e+001 +4.456e+001 +4.247e+001 +4.004e+001
+3.733e+001 +3.506e+001 +3.303e+001 +3.040e+001 +2.723e+001 +2.459e+001
+2.242e+001 +1.995e+001 +1.741e+001 +1.560e+001 +1.422e+001 +1.273e+001
+1.126e+001 +1.020e+001 +9.396e+000 +8.535e+000 +7.674e+000 +7.050e+000
+6.565e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -8.580e-001
+4.160e-001 +1.360e-001 +1.800e-002 -8.200e-002 -1.800e-001 -2.400e-001
-2.720e-001 -2.920e-001 -2.990e-001 -2.970e-001 -2.950e-001 -2.990e-001
-3.140e-001 -3.380e-001 -3.640e-001 -3.970e-001 -4.270e-001 -4.430e-001
-4.510e-001 -4.540e-001 -4.530e-001 -4.500e-001 -4.470e-001 -4.410e-001
-4.350e-001 -4.280e-001 -4.210e-001 -4.120e-001 -4.020e-001 -3.960e-001
-3.930e-001
  44.4496      4.53
  56.7744     24.00
  11.3481     23.77
   2.9676     10.00
   2.2959 10000000000.00
<Date: Tue Nov 25 09:52:06 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR COAST
<Place: AFTER RIVER
<*******************************************************************************
*********
#GEOSEC: 0336-A       /  50.0/  50.0/   1.0/  559917.000/ 3919419.000/
14.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=185.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.690e+000 +9.434e+000
```

```
+1.775e+001 +2.357e+001 +2.783e+001 +3.227e+001 +3.627e+001 +3.865e+001
+4.008e+001 +4.116e+001 +4.153e+001 +4.110e+001 +4.018e+001 +3.836e+001
+3.552e+001 +3.283e+001 +3.045e+001 +2.758e+001 +2.446e+001 +2.207e+001
+2.019e+001 +1.807e+001 +1.585e+001 +1.423e+001 +1.295e+001 +1.153e+001
+1.010e+001 +9.060e+000 +8.283e+000 +7.460e+000 +6.664e+000 +6.115e+000
+5.711e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 -9.000e-001
+8.980e-001 +8.350e-001 +7.290e-001 +5.850e-001 +4.150e-001 +2.870e-001
+1.950e-001 +9.700e-002 -1.300e-002 -1.100e-001 -1.930e-001 -2.830e-001
-3.560e-001 -3.930e-001 -4.120e-001 -4.260e-001 -4.350e-001 -4.400e-001
-4.430e-001 -4.460e-001 -4.490e-001 -4.510e-001 -4.520e-001 -4.530e-001
-4.500e-001 -4.460e-001 -4.400e-001 -4.280e-001 -4.100e-001 -3.930e-001
-3.760e-001
  20.1859      8.04
 100.0000     24.19
   7.6970     13.95
   3.3318     13.25
   1.7661 10000000000.00
<Date: Tue Nov 25 10:12:31 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR COAST
<Place: AFTER RIVER
<*******************************************************************************
*********
#GEOSEC: 0337         /  50.0/  50.0/   1.0/  560099.000/ 3919448.000/
15.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms= 97.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +1.362e+000 +5.563e+000
+9.326e+000 +1.192e+001 +1.386e+001 +1.603e+001 +1.842e+001 +2.044e+001
+2.224e+001 +2.454e+001 +2.714e+001 +2.889e+001 +2.973e+001 +2.964e+001
+2.807e+001 +2.603e+001 +2.410e+001 +2.178e+001 +1.934e+001 +1.757e+001
+1.622e+001 +1.479e+001 +1.337e+001 +1.239e+001 +1.163e+001 +1.077e+001
+9.830e+000 +9.077e+000 +8.448e+000 +7.701e+000 +6.888e+000 +6.270e+000
+5.788e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 -9.000e-001
+8.880e-001 +7.970e-001 +7.010e-001 +6.110e-001 +5.480e-001 +5.190e-001
+5.020e-001 +4.720e-001 +3.940e-001 +2.640e-001 +9.900e-002 -1.290e-001
-3.190e-001 -3.920e-001 -4.170e-001 -4.280e-001 -4.270e-001 -4.220e-001
-4.140e-001 -4.010e-001 -3.830e-001 -3.710e-001 -3.650e-001 -3.670e-001
-3.780e-001 -3.910e-001 -4.020e-001 -4.130e-001 -4.200e-001 -4.210e-001
-4.200e-001
  13.7735      8.31
  74.3127     23.24
   7.4730     10.00
   2.9419     37.00
   1.0000 10000000000.00
<Date: Tue Nov 25 10:29:42 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR COAST
<Place: AFTER RIVER
<*******************************************************************************
*********
#GEOSEC: 0338-A       /  50.0/  50.0/   1.0/  560320.000/ 3919434.000/
12.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=165.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +0.000e+000 +5.337e+000
+1.145e+001 +1.574e+001 +1.903e+001 +2.288e+001 +2.748e+001 +3.161e+001
+3.545e+001 +4.047e+001 +4.616e+001 +5.006e+001 +5.203e+001 +5.227e+001
+4.966e+001 +4.595e+001 +4.230e+001 +3.772e+001 +3.271e+001 +2.889e+001
+2.589e+001 +2.256e+001 +1.917e+001 +1.675e+001 +1.492e+001 +1.297e+001
+1.106e+001 +9.744e+000 +8.775e+000 +7.765e+000 +6.797e+000 +6.127e+000
+5.630e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001
+9.000e-001 +8.630e-001 +7.920e-001 +7.210e-001 +6.730e-001 +6.510e-001
+6.340e-001 +5.930e-001 +4.940e-001 +3.420e-001 +1.550e-001 -1.010e-001
-3.190e-001 -4.050e-001 -4.370e-001 -4.560e-001 -4.670e-001 -4.720e-001
-4.750e-001 -4.780e-001 -4.800e-001 -4.800e-001 -4.800e-001 -4.780e-001
-4.750e-001 -4.710e-001 -4.660e-001 -4.580e-001 -4.460e-001 -4.370e-001
-4.280e-001
  15.1879      6.38
```

```
 100.0000     28.27
 100.0000     13.30
   2.3430     15.32
   1.2501 10000000000.00
<Date: Tue Nov 25 10:49:36 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR COAST
<Place: AFTER RIVER
<*******************************************************************************
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#GEOSEC: 0340         /  50.0/  50.0/   1.0/  560700.000/ 3918704.000/
55.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=178.00
S  [V/A]:  +0.000e+000 +1.035e+001 +4.269e+001 +6.357e+001 +8.076e+001
+9.085e+001 +9.420e+001 +9.517e+001 +9.506e+001 +9.357e+001 +9.148e+001
+8.915e+001 +8.559e+001 +8.044e+001 +7.513e+001 +7.003e+001 +6.329e+001
+5.547e+001 +4.946e+001 +4.486e+001 +4.001e+001 +3.548e+001 +3.252e+001
+3.050e+001 +2.858e+001 +2.699e+001 +2.610e+001 +2.555e+001 +2.506e+001
+2.458e+001 +2.416e+001 +2.375e+001 +2.318e+001 +2.249e+001 +2.197e+001
+2.162e+001
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.910e-001 -6.940e-001
+3.230e-001 +1.230e-001 +3.300e-002 -3.700e-002 -1.020e-001 -1.480e-001
-1.870e-001 -2.410e-001 -3.100e-001 -3.670e-001 -4.050e-001 -4.360e-001
-4.530e-001 -4.570e-001 -4.530e-001 -4.420e-001 -4.170e-001 -3.850e-001
-3.490e-001 -2.940e-001 -2.220e-001 -1.670e-001 -1.290e-001 -1.020e-001
-9.700e-002 -1.100e-001 -1.260e-001 -1.400e-001 -1.400e-001 -1.210e-001
-9.500e-002
  49.1226      1.99
  94.5733     34.20
  23.0942     21.76
   5.5623     10.00
  23.0175 10000000000.00
<Date: Tue Nov 25 12:03:08 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: PHYLLITES
<Place: KATAPATIMENA
<*******************************************************************************
*********
#GEOSEC: 0344-A       /  50.0/  50.0/   1.0/  560534.000/ 3919257.000/
40.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=101.00
S  [V/A]:  +0.000e+000 +3.037e+000 +2.238e+001 +3.489e+001 +4.615e+001
+5.651e+001 +6.459e+001 +7.181e+001 +8.152e+001 +9.440e+001 +1.064e+002
+1.169e+002 +1.289e+002 +1.383e+002 +1.400e+002 +1.363e+002 +1.266e+002
+1.110e+002 +9.704e+001 +8.564e+001 +7.310e+001 +6.092e+001 +5.254e+001
+4.644e+001 +4.001e+001 +3.369e+001 +2.925e+001 +2.586e+001 +2.219e+001
+1.858e+001 +1.605e+001 +1.420e+001 +1.228e+001 +1.047e+001 +9.230e+000
+8.332e+000
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.970e-001 -8.020e-001
+6.570e-001 +6.000e-001 +5.870e-001 +5.890e-001 +5.900e-001 +5.730e-001
+5.300e-001 +4.160e-001 +1.880e-001 -6.500e-002 -2.630e-001 -4.050e-001
-4.670e-001 -4.830e-001 -4.880e-001 -4.890e-001 -4.890e-001 -4.870e-001
-4.860e-001 -4.850e-001 -4.850e-001 -4.860e-001 -4.870e-001 -4.870e-001
-4.870e-001 -4.860e-001 -4.850e-001 -4.810e-001 -4.750e-001 -4.680e-001
-4.620e-001
  24.3030      4.18
 192.8514     48.93
  99.8110     12.52
   2.3477     19.04
   1.1687 10000000000.00
<Date: Tue Nov 25 13:47:00 2008
<Time Range=6 Currrent= 2.00 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: PHYLLITES
<Place: KATAPATIMENA-COAST
<*******************************************************************************
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#GEOSEC: 0339-A       /  50.0/  50.0/   1.0/  560510.000/ 3919427.000/
17.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=168.00
S  [V/A]:  +0.000e+000 +0.000e+000 +0.000e+000 +5.710e-001 +6.037e+000
+1.297e+001 +1.842e+001 +2.298e+001 +2.870e+001 +3.606e+001 +4.286e+001
```

```
+4.888e+001 +5.536e+001 +5.923e+001 +5.823e+001 +5.486e+001 +4.904e+001
+4.180e+001 +3.618e+001 +3.187e+001 +2.724e+001 +2.280e+001 +1.975e+001
+1.755e+001 +1.527e+001 +1.310e+001 +1.163e+001 +1.053e+001 +9.349e+000
+8.173e+000 +7.320e+000 +6.665e+000 +5.946e+000 +5.216e+000 +4.680e+000
+4.266e+000
Err[V/A]:  -1.000e-015 -1.000e-015 -9.000e-001 -9.000e-001 -9.000e-001
+9.000e-001 +8.820e-001 +8.420e-001 +7.980e-001 +7.610e-001 +7.240e-001
+6.570e-001 +4.740e-001 +9.300e-002 -2.470e-001 -3.990e-001 -4.620e-001
-4.820e-001 -4.870e-001 -4.880e-001 -4.880e-001 -4.860e-001 -4.840e-001
-4.800e-001 -4.750e-001 -4.690e-001 -4.630e-001 -4.590e-001 -4.560e-001
-4.530e-001 -4.520e-001 -4.510e-001 -4.500e-001 -4.490e-001 -4.490e-001
-4.500e-001
  12.8490      5.15
 250.0000     34.26
   1.4867     10.00
   1.9017     12.08
   1.0000 10000000000.00
<Date: Tue Nov 25 11:13:54 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: NEAR COAST
<Place: AFTER RIVER
<********************************************************************************
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#GEOSEC: 0343-A       /  50.0/  50.0/   1.0/  560724.000/ 3919235.000/
40.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=208.00
S  [V/A]:  +0.000e+000 +3.964e+000 +1.321e+001 +2.033e+001 +2.749e+001
+3.429e+001 +3.934e+001 +4.353e+001 +4.880e+001 +5.539e+001 +6.135e+001
+6.668e+001 +7.312e+001 +7.934e+001 +8.259e+001 +8.337e+001 +8.165e+001
+7.640e+001 +7.024e+001 +6.431e+001 +5.684e+001 +4.857e+001 +4.227e+001
+3.735e+001 +3.193e+001 +2.643e+001 +2.257e+001 +1.966e+001 +1.662e+001
+1.376e+001 +1.187e+001 +1.056e+001 +9.280e+000 +8.180e+000 +7.528e+000
+7.131e+000
Err[V/A]:  -9.000e-001 -9.000e-001 -9.000e-001 -8.970e-001 -8.270e-001
+6.830e-001 +5.950e-001 +5.560e-001 +5.350e-001 +5.240e-001 +5.120e-001
+4.880e-001 +4.240e-001 +2.950e-001 +1.390e-001 -1.700e-002 -2.020e-001
-3.530e-001 -4.200e-001 -4.500e-001 -4.690e-001 -4.800e-001 -4.850e-001
-4.870e-001 -4.900e-001 -4.920e-001 -4.930e-001 -4.930e-001 -4.930e-001
-4.900e-001 -4.850e-001 -4.770e-001 -4.590e-001 -4.190e-001 -3.610e-001
-2.910e-001
  20.6955      4.74
 115.5725     42.77
  22.2610     10.00
   3.0611     10.00
   1.2572 10000000000.00
<Date: Tue Nov 25 13:27:36 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: PHYLLITES
<Place: KATAPATIMENA-COAST
<********************************************************************************
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#GEOSEC: 0341-A       /  50.0/  50.0/   1.0/  561089.000/ 3918832.000/
50.0/36/5/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=120.00
S  [V/A]:  +0.000e+000 +0.000e+000 +8.056e+000 +2.353e+001 +3.337e+001
+3.769e+001 +3.900e+001 +3.954e+001 +3.992e+001 +4.012e+001 +4.018e+001
+4.019e+001 +4.023e+001 +4.034e+001 +4.051e+001 +4.069e+001 +4.094e+001
+4.122e+001 +4.141e+001 +4.153e+001 +4.161e+001 +4.158e+001 +4.147e+001
+4.137e+001 +4.129e+001 +4.138e+001 +4.166e+001 +4.205e+001 +4.264e+001
+4.327e+001 +4.350e+001 +4.336e+001 +4.269e+001 +4.137e+001 +4.003e+001
+3.891e+001
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -8.060e-001
+3.250e-001 +1.300e-001 +7.100e-002 +3.700e-002 +1.500e-002 +5.000e-003
+3.000e-003 +9.000e-003 +1.900e-002 +2.700e-002 +3.200e-002 +3.300e-002
+3.000e-002 +2.400e-002 +1.600e-002 +4.000e-003 -1.000e-002 -1.600e-002
-1.400e-002 -1.000e-003 +2.700e-002 +5.300e-002 +7.100e-002 +7.500e-002
+5.000e-002 +2.000e-003 -5.200e-002 -1.170e-001 -1.710e-001 -1.880e-001
-1.910e-001
  23.7020      1.03
  42.0853    131.71
```

```
  49.0102    134.41
   3.0896     11.15
 100.0000 10000000000.00
<Date: Tue Nov 25 12:28:35 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: PHYLLITES
<Place: KATAPATIMENA
<****************************************************************************
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#GEOSEC: 0342         /  50.0/  50.0/   1.0/  561459.000/ 3918999.000/
67.0/36/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=       0.000/rms=304.00
S  [V/A]:  +0.000e+000 +0.000e+000 +1.396e+001 +2.802e+001 +3.634e+001
+3.931e+001 +3.957e+001 +3.917e+001 +3.833e+001 +3.704e+001 +3.590e+001
+3.488e+001 +3.360e+001 +3.194e+001 +3.022e+001 +2.843e+001 +2.578e+001
+2.225e+001 +1.920e+001 +1.668e+001 +1.388e+001 +1.112e+001 +9.230e+000
+7.870e+000 +6.480e+000 +5.184e+000 +4.331e+000 +3.717e+000 +3.093e+000
+2.515e+000 +2.129e+000 +1.855e+000 +1.576e+000 +1.316e+000 +1.141e+000
+1.015e+000
Err[V/A]:  +5.000e-001 -9.000e-001 -9.000e-001 -9.000e-001 -6.800e-001
+1.700e-001 -1.800e-002 -8.600e-002 -1.330e-001 -1.640e-001 -1.780e-001
-1.890e-001 -2.120e-001 -2.620e-001 -3.250e-001 -3.850e-001 -4.440e-001
-4.800e-001 -4.910e-001 -4.950e-001 -4.970e-001 -4.980e-001 -4.980e-001
-4.980e-001 -4.980e-001 -4.980e-001 -4.970e-001 -4.970e-001 -4.960e-001
-4.950e-001 -4.940e-001 -4.930e-001 -4.910e-001 -4.870e-001 -4.830e-001
-4.790e-001
  28.9401     13.61
   4.8509     10.00
   0.2000 10000000000.00
<Date: Tue Nov 25 12:52:14 2008
<Time Range=6 Currrent= 3.70 Stack= 5 Filter=50 Deff=    6 Ampl=OFF
<Remark: PHYLLITES
<Place: KATAPATIMENA
<****************************************************************************
*********
#GEOSEC: 0331-A       /  50.0/  50.0/   1.0/  565350.000/ 3914318.000/
131.0/28/3/0/22222 SPM=0 K=  0.000e+000 H=       0.000 DH=
0.000/rms=499.00
S  [V/A]:  +1.060e+002 +1.768e+002 +2.643e+002 +3.784e+002 +5.915e+002
+8.981e+002 +1.003e+003 +9.310e+002 +7.795e+002 +6.272e+002 +5.318e+002
+4.685e+002 +4.085e+002 +3.573e+002 +3.251e+002 +3.033e+002 +2.809e+002
+2.578e+002 +2.383e+002 +2.199e+002 +1.950e+002 +1.646e+002 +1.403e+002
+1.216e+002 +1.022e+002 +8.446e+001 +7.343e+001 +6.601e+001
Err[V/A]:  -8.950e-001 -8.950e-001 -8.970e-001 -8.980e-001 -8.970e-001
+8.030e-001 +1.100e-002 -4.600e-001 -4.940e-001 -4.940e-001 -4.890e-001
-4.800e-001 -4.630e-001 -4.320e-001 -4.000e-001 -3.740e-001 -3.560e-001
-3.670e-001 -4.020e-001 -4.390e-001 -4.720e-001 -4.890e-001 -4.940e-001
-4.950e-001 -4.930e-001 -4.880e-001 -4.780e-001 -4.620e-001
 863.6017     77.13
  23.6960     39.27
   1.6462 10000000000.00
<Date: Thu Nov 13 11:03:52 2008
<Time Range=4 Currrent= 1.00 Stack= 5 Filter=50 Deff=    5 Ampl=OFF
<Remark: TEST IONIAN DOLOM
<Place: CLOSE-TO MELIDONI
<****************************************************************************
*********
```