

# NI43-101 TECHNICAL REPORT ON THE GOLCUK LICENCE, SIVAS PROVINCE, TURKEY

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Prepared For

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## 1 SUMMARY

This technical review of the Golcuk Property for Pasinex Resources Limited (Pasinex) was prepared in compliance with Canadian National Instrument 43-101 and its Form 43-101F1 format for Technical Reports (June 2011 version).

The review summarises the exploration data available from various historic assessments of the Golcuk licence area (the Property) in Turkey, as well as exploration work done by Pasinex from September 2012 to February 2013. In places the author has expressed his opinion with regard to information gained during a visit to the property in October 2012.

In Turkey all useful mineral substances occurring under the surface are the property of the State. An exploration licence is valid for 10 years and is renewable six times for the same period. It provides the company with the right to explore for and extract base and precious metals within the property. The licence is exclusive and transferable.

The Golcuk property, covering 40 square kilometres, lies in the Sivas Province of north central Turkey. The property is held under Licence number 61567 issued by General Directorate of Mining Affairs on the 31<sup>st</sup> July 2008 for the exploration of base and precious metals. This exploration licence was originally granted to Eurasia Madencilik Ltd. Şti. (Eurasia) on 25 December, 2003, and was assigned to Pasinex Arama ve Madencilik A.S. by Eurasia on 25 July, 2012. Eurasia is the Turkish subsidiary of Eurasian Minerals Inc., and Pasinex Arama ve Madencilik A. S. is the Turkish subsidiary of Pasinex.

Within seven years of receipt of an exploration licence, the licence holder (or transferee of the licence) must apply for an Operating Licence, and commence with mining on the property. Eurasia applied for an operating licence in November, 2007, and the licence to mine 9000 tons per year at Golcuk was granted on July 16, 2008. However, by the date of transfer of the exploration and operation licences to Pasinex, Eurasia had not initiated their planned mining operations on the property.

In order to avoid cancellation of the licence, Pasinex established from the Mining Directorate that production by Pasinex before September 30, 2012, (later extended) of a minimum of 90 tons from the planned and permitted underground mining area, and a further 810 tons by the 31<sup>st</sup> of July, 2013, would be sufficient for continued validity of the Golcuk licences to 31 July, 2014.

Pasinex contracted Mitto Madencilik to undertake the 90 tons of production, which was successfully completed. The production was accepted as satisfactory with respect to the first obligation mentioned above by the Mining Directorate in a report finalised on October 15, 2012.

While the Mining Law is not clear in this regard, according to assurances given to the author by the CEO of Pasinex, it is necessary for Pasinex to complete, annually, only 10% of the 9000 tons of annual production specified in the Eurasia's original production plan in order to maintain its exploration and production licences during future years. This amounts to 900 tons of production per year. It is Pasinex's intention to meet its obligations in this regard.

Pasinex' agreement with Eurasia requires:

1. Expenditure of US\$200 000 by the first anniversary of the completion date, with the money to be spent on fulfilling the outstanding Mining Obligations and a maximum of 750m of core drilling.
2. Expenditure of US\$250 000 by the second anniversary of the completion date and
3. Expenditure of US\$250 000 by the fourth anniversary of the completion date.
4. Reports on work done have to be submitted every six months to Eurasia.

A royalty of 2.9% NSR is payable to Eurasia. This may be reduced to a 2.0% NSR by a payment before February 2019 of US\$1 000 000.

The author believes that the agreements amongst Eurasia, Pasinex and the Government, together with the exploration carried out and planned by Pasinex, comply with the rules and regulations regarding mining and exploration in Turkey. However, the agreements and permits have not been legally tested (in court) as it is believed that such testing is beyond the scope of this technical report.

The property is some 120 kilometres east-northeast of the provincial capital of Sivas and is accessed by a secondary well maintained gravel road from the main tarred E88/D200 highway between Sivas and Erzurum. It has the climate of the Central Anatolian Region with warm to hot dry summers and cold snowy winters.

There are no perennial rivers on the property. The property is partly covered with boreal wet forest, conifers and birch and is dominantly pastoral. The soil in the area is thin (generally <10cm) soil with numerous bedrock fragments. There is a high probability of an earthquake of magnitude >7 occurring in a 50 year cycle and low landslide hazard. Water for mining would be available from underground sources. There is no electricity on site but a 154Kva line of the national grid crosses the property. A gas pipeline is proposed to pass within 32km of the licence indicating that additions to the infrastructure of the area are ongoing.

The exploration focus is on copper and silver mineralisation hosted in mafic volcanics. Copper mineralisation, mainly as malachite and chrysocolla derived from bornite and chalcocite, is present in outcrops over at least two kilometres of strike. Previously work had been carried out by Maden Tetkik ve Arama (MTA) and Etibank Arama ve Madencilik (Etibank), both Turkish para-statal organisations, Rio Tinto Turkey (Rio Tinto), Eurasia and Turmenka Madencilik Sanayi ve Ticaret (Turmenka).

In the 1970's Etibank carried out rock chip and geochemical soil sampling and in 1973 drilled a total of 1113m in six vertical and one inclined diamond core holes around the site of old workings. The best intersection was in borehole GS2 with 1.36%Cu over 34.0m from 85m. The geological logs record andesitic and basaltic volcanics, volcanic and diabase breccia with chalcopyrite, bornite and malachite mineralisation.

In the 1990's Rio Tinto carried out some exploration and drilled one hole, GD1, inclined to the west at 80° and drilled to a depth of 198.2m in the same area as the Etibank boreholes. The borehole returned an interval of 17m grading 1.17% Cu and 11.7g/t Ag.

In 2008, Turmenka drilled a total of 1863m in 13 core holes, all within the small area previously investigated by Etibank. Assay from eight holes yielded intersections of >1% Cu and >11g/t Ag including an intercept in borehole TGSJ-18 from 87.0m of 13.5m grading 2.6% Cu and 41.9g/t Ag.

In 2011 a total of 2856 geochemical soil samples were collected by Eurasia on a line spacing of 50m and sample spacing of 50m, covering some 7km<sup>2</sup> of the 40km<sup>2</sup> licence. The results using a >150ppm Cu contour showed three main anomalous areas, two of which have not yet been drilled.

Eurasia also carried out geological mapping of part of the soil sampled area at a scale of 1:5000, and a ground magnetic survey was carried out over the central part of the soil-sampled area by Wright Geophysics for Eurasia in July 2009. It was concluded that the interpretation of the magnetic and the mapped geology did not agree and further soil sampling and geological mapping was recommended.

According to the MTA 1:100,000 geological map (H39-Giresun), mineralisation at Golcuk occurs in Eocene-aged volcanoclastic rocks. These correspond with Eocene volcano-sedimentary sequences identified over a broad area in Turkey, and associated with a regional extensional regime bracketed in time by two compressional regimes. Modern literature on this volcano-sedimentary sequence names it as the Mucur Formation.

Tectonically, it should be noted that the property lies on the Anatolian block some 2-3km south of the North Anatolian Fault.

Also of note some 2.5km to the southeast of the property is the large (225 km<sup>2</sup>) Kosedag pluton. This Eocene multi-sourced syenite and quartz syenite was intruded into the basin hosting the Mucur Formation, and may have played a role in the genesis of mineralisation at Golcuk.

The main deposit type being explored for on the Golcuk property is copper with ancillary silver in basic to intermediate mafic volcanics and associated sediments, which corresponds to the United States Geological Survey (USGS) Deposit Model 23, "Basaltic Copper".

Exploration work carried out by Pasinex at Golcuk up until 28 February, 2013, excluding drilling, falls into the following categories:

- (1) Re-analysis of soil samples
- (2) Geological mapping
- (3) Outcrop sampling
- (4) Adit excavation

Less than half of the soil samples collected at Golcuk by the previous owner were analysed for elements other than copper. However, when the data available for these elements was plotted on a map,

patterns were apparent which might assist with better understanding the geology of the prospect. Pasinex therefore decided to recover from the previous owner, for the purpose of re-analysis for missing elements, those soil samples which were still in a suitable condition for analysis, and analysed them. The data may prove useful in discriminating different lithological units encountered during drilling on the property.

Detailed geological mapping of the Golcuk drilling area produced by Eurasia has been extended by Pasinex to cover both the Golcuk North and Golcuk West soil geochemical anomalies.

In November and December 2012 Pasinex carried out surface outcrop sampling in the Main Golcuk target area which broadly confirmed outcrop sampling results obtained by earlier workers in the area.

In early October, 2012, Pasinex commissioned the mining of a 12 meter-long 2m by 2m horizontal adit located at North 4450185 and East 400765 in order to fulfill the minimum Golcuk licence mining obligations for 2012/13. No economic mineralisation was encountered in this mining.

In December, 2012, boreholes PAS-01 and PAS-02 were sited to test for mineralisation plunging to the north-east of existing intersections of mineralisation.

Assay results for PAS-01 indicated two mineralised intersections at a 0.5% Cu cut-off: 3.50m from 174.70m grading 0.54% Cu and 9.70m from 203.70m grading 2.97%Cu, including 6.70m grading 3.7%Cu.

Borehole PAS-02 returned no significant intersections of mineralisation.

The author believes that the sample preparation, analysis and security measures implemented by Pasinex on the Golcuk project were adequate for the metals of interest, grades expected and encountered, and level of maturity of the project.

No information is available with respect to the sample preparation and security procedures adopted by workers on the property prior to Pasinex. However the following factors give the author comfort that the results reported for historical drilling accurately represent the Golcuk property:

- (I) The availability for inspection and sampling of half-core for all the Turmenka drill core;
- (II) The availability of all assay certificates from an internationally-reputable laboratory (ALS-Chemex) for samples analysed from Turmenka drilling;
- (III) Verification assays undertaken by the author and reported in Section 12 below.

The geology of the licence area was inspected during some foot traverses on the 29<sup>th</sup> and 30<sup>th</sup> October 2012. The geology was verified at selected sites during these traverses.

Quarter core was sampled by the author from borehole TGSJ-18 between 84.0m and 106.0m. Assay results confirm the previous Eurasia values.

During the field visit an apparent error was noted in the location of some of the drill collars, which does not compromise the geological investigation to date, and which Pasinex have corrected.

A metallurgical report prepared for Rio Tinto on samples from their single borehole at Golcuk indicated that, “the grain size and mode of occurrence of the copper sulphide minerals is highly variable, but in general, it should prove possible to produce an acceptable grade of concentrate from the material at a reasonably fine grind size”.

While the geology at Golcuk is sufficiently well understood to be able to apply an exploration model with considerable economic potential (the “Basaltic Copper Model”) to guide exploration, most of the property has not been subjected to geochemical or geophysical surveying, or mapping at better than a scale of 1:100,000. This provides the property with considerable potential for discovery of new centres of mineralisation not contiguous with the existing known mineralisation.

The two copper-in-soil geochemical anomalies that are not contiguous with the central, drilled, anomaly at Golcuk are examples of these, and both are certainly drilling targets.

As the structural controls on the known mineralisation have not yet been worked out, and the bodies of mineralisation identified to date are relatively narrow, the known mineralisation remains open in a number of directions.

Mineral resource and reserve estimates made previously by Eurasia to comply with the Golcuk property’s licencing conditions were considered inappropriate for the style of mineralisation and the amount of drilling completed at Golcuk. Currently the Golcuk property contains no resources or reserves compliant with the National Instrument 43-101 standard.

In the light of Pasinex’s intention to change to open pit mining to maintain the Golcuk licence, consideration should be given to applying for new mining permits located over cropping out mineralisation in order to maximise the likelihood of producing saleable material.

Pasinex’s Golcuk licence clearly covers an under-explored area with considerable potential for the discovery of economic deposits of copper. It has clearly not yet been subjected to 20<sup>th</sup> or 21<sup>st</sup> century best-practice exploration methods, and therefore constitutes an exploration property of considerable merit.

A budget of US\$800,000 is recommended for the next phase of exploration on the Golcuk property, divided between an airborne magnetics survey, soil sampling, geological mapping and drilling.

## 2 INTRODUCTION

This technical report has been commissioned by, and undertaken on behalf of, Pasinex Resources Limited (the Company).

The report has been prepared in compliance with Canadian National Instrument 43-101 (June 2011 version). It contains a review and evaluation of the historic data upon which the company decided to acquire the property, as well as of exploration carried out by the Company from September 2012 to February 2013.

The Golcuk licence area (the property) lies in the Eastern Pontides Metallogenic belt of northeast Turkey (Figure 1). It has been explored previously by MTV, Etibank, the Turkish State mining enterprise, Rio Tinto, Eurasia and Turmenka. These parties produced a limited number of documents used by the author, most of which are listed in Section 20 of this report. Section 20 also contains a list of other historic documents for some of which the existence still has to be verified and have not yet been studied.

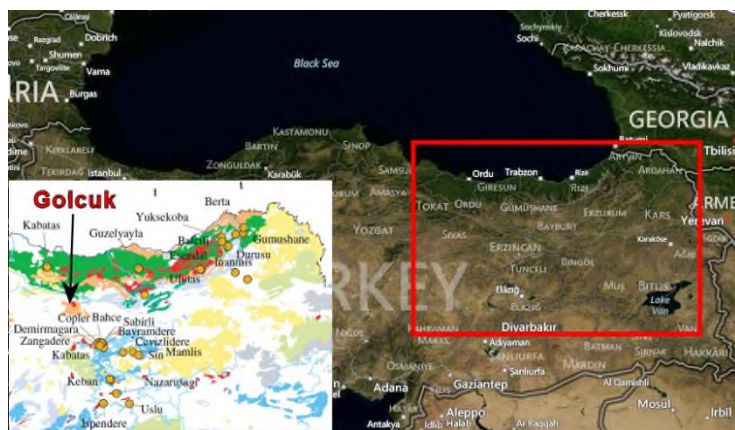


Figure 1: Location map

The author visited Turkey from 26 October to 1 November 2012, and the property on the 29th and 30th of October. His supporting observations are recorded in various sections of this report.

### **3 RELIANCE ON OTHER EXPERTS**

This report is based on a review of paper and digital data compiled by the company. The bulk of the data used by the company was extracted from reports and data files prepared by MTA, Etibank, Rio Tinto, Turmenka and Eurasia.

Data extracted from these files have varying supporting documentation regarding assay methods and quality assurance and control. With the exception of drill core sampled by the author as discussed in Section 12, these data have not been validated beyond confirmation by the author of their existence in the relevant reports, and judgement by the author after his visit to the property that they accord with the geological context of the area and with logical geological reasoning. Further validation is considered beyond the scope of this report. Such validation will be part of the first phase of exploration.

The five companies are, however well-known for having produced reports relating to the geology of the region and they are expected to have used at least 'acceptable practices' available at the time of the work. The apparent errors and omissions noted in their documentation, however, mean that all the reports on the property must be critically reviewed. In the above context, the author has relied on those reports as well as observations from a personal visit to the property and the core storage facility.

A number of the transcription errors found in the historic reports examined have been rectified. However no fundamental scientific weaknesses have been observed, although the geology of the property is far from being fully understood. The true nature of any body of mineralization is never known until the last tonne of ore has been mined out, by which time exploration has long since ceased. Exploration information relies on interpretation of a relatively small statistical sample of the deposit being studied; thus a variety of interpretations may be possible from the fragmentary data available. Investors should note that the statements and diagrams in this report are based on the best information available at the time, which may not necessarily be absolutely correct. Such statements and diagrams are subject to change or refinement as new exploration makes new data available, or new research alters prevailing geological concepts.

Appraisal of the information mentioned above forms the basis for this report.



## **4 PROPERTY DESCRIPTION AND LOCATION**

In Turkey all useful mineral substances occurring under the surface are the property of the State.

Mining activities in Turkey are regulated by the Mining Law No 3213 dated 15 June 1985 (amended in 2005 by Law 5177 and 2010 by Law 5995) (the Mining Law), together with the Implementation Regulation on Mining Activities dated 6 November 2010 (amended from time to time) (the Mining Regulation) and the Mining Activities Permit Regulation dated 21 June 2005 (amended from time to time) (Norton, 2013).

The Ministry of Energy and Natural Resources (MENR) is the ministry responsible for overseeing the mining industry. The General Directorate of Mining Affairs (the Mining Directorate), a department of MENR, grants licences and regulates mining activity.

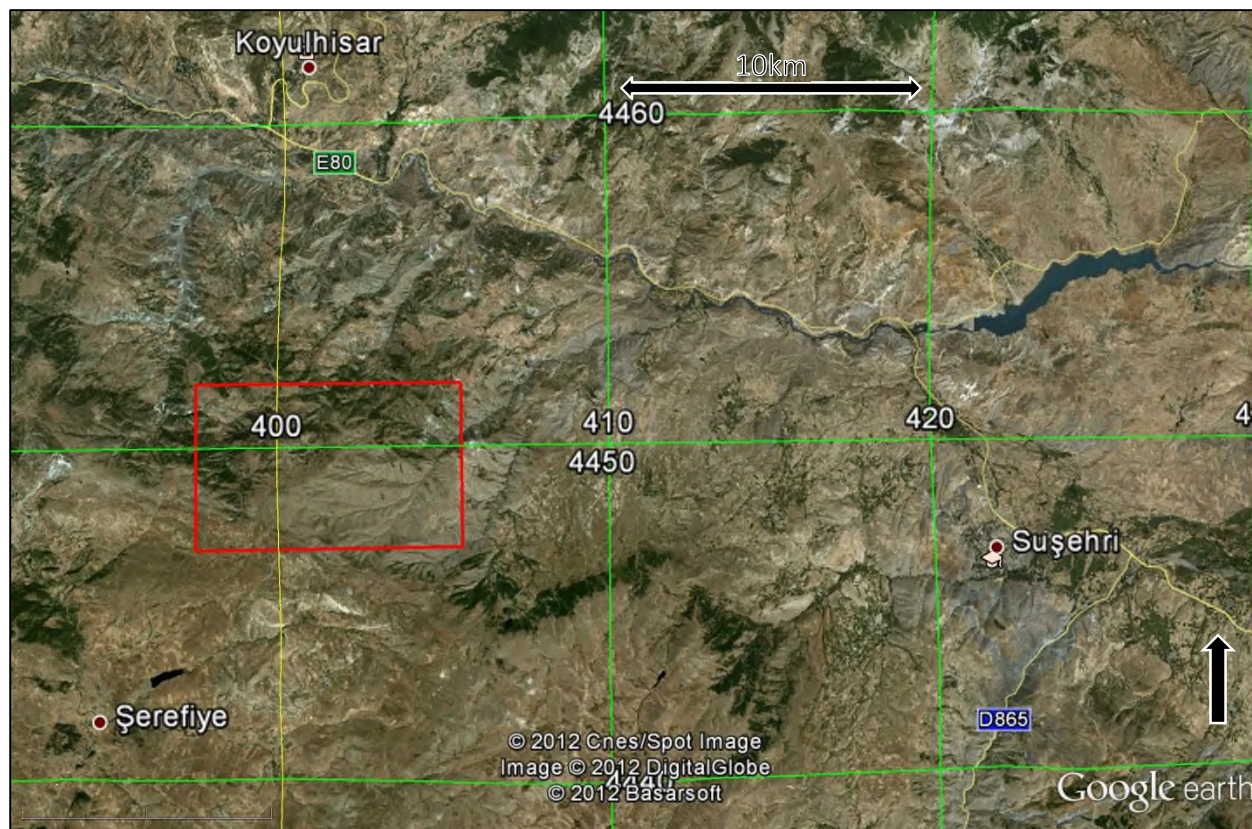
The Mining Law requires mining licences to be given according to certain mineral groups, and the licensing procedure for each class is slightly different. The Company's licence is for Operation of Group Four metals, which pertains to base and precious metals.

There are three types of licence granted for prospecting and operating mines under Turkish law: an exploration licence (enables holder to carry out exploration activities in a specific area), an operating licence (enables holder to carry out operational activities), and an operating permit (enables holder to operate a mine) (Norton, 2013).

An exploration licence is valid for 10 years and is renewable six times for the same period. It provides the company with the right to explore for and extract base and precious metals within the property.

The right is exclusive and transferable.

Pasinex' Golcuk Exploration Licence No 61567 (Appendix A) covers 40 square kilometres in the Sivas Province of Central Turkey. The detailed location of the licence is shown in Figure 2 (red polygon). Exploration Licence details and co-ordinates (UTM northern Zone 37 coordinate system; European Datum 1950) are listed in Tables 1 and 2 below.



**Figure 2: Location map of the Golcuk Exploration Licence.**

Licence No.	Erisim No.	Hectares	Status
61567	2486921	4000.01	Exploration Licence

**Table 1: Licence details of the Golcuk Exploration Licence.**

Name	East	North
1	397500	4452000
2	405500	4452000
3	405500	4447000
4	397500	4447000

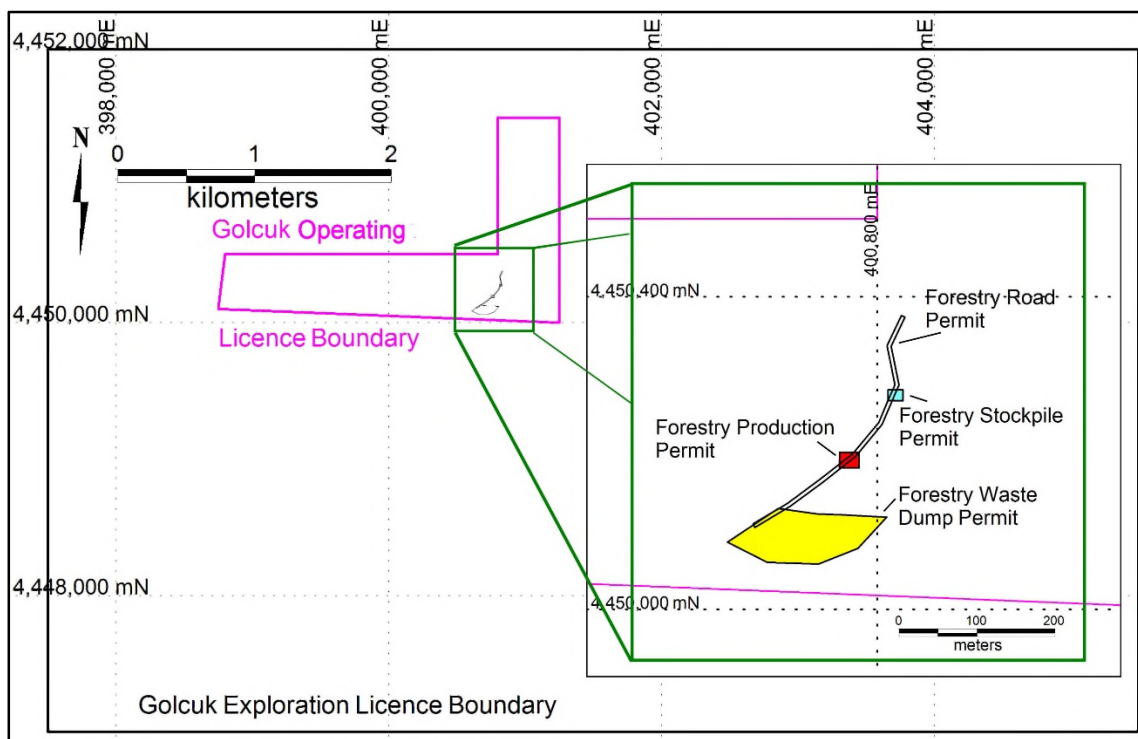
**Table 2: Golcuk Exploration Licence corner points in UTM zone 37 co-ordinates.**

This exploration licence was originally granted to Eurasia on 25 December, 2003, and was assigned to Pasinex Arama ve Madencilik A.S. by Eurasia on 25 July, 2012 (Dincer, Appendix B).

Within seven years of receipt of an exploration licence, the licence holder (or transferee of the licence) must apply for an Operating Licence, and commence with mining on the property.

In compliance with the law, Eurasia applied for an operating licence in November, 2007, and the licence was granted on July 16, 2008 (Mitto, Appendix C). This operating licence was also assigned to Pasinex (Appendix D).

The location of the Golcuk Operating Licence is shown in Figure 3. Operating Licence details and co-ordinates are listed in Tables 3 and 4 below.



**Figure 3: Location plan of the Golcuk Operating Licence and Forestry Permits within the Golcuk Exploration Licence.**

Licence No.	Erisim No.	Hectares	Status
61567	2486921	156.5	Operating Licence

**Table 3: Licence details of the Golcuk operation licence.**

Name	East	North
1	398800	4450500
2	400800	4450500
3	400800	4451500
4	401250	4451500
5	401250	4450000
6	398750	4450100

**Table 4: Golcuk Operation Licence corner points UTM zone 37 co-ordinates**

Holders of operating licences must apply to the relevant governmental authorities or the Mining Directorate for the necessary permits. An operating permit will only be granted if the operating licensee

obtains a positive environmental impact assessment (EIA) certificate (or a certificate stating that an EIA is not required), land ownership permits, workplace opening and operation licences and other special permits within three years from the effective date of the operating licence. Failure to do so will result in cancellation of the licence (Norton, 2013).

Consequently, also in compliance with the law, Eurasia applied for, and was granted, the necessary EIA exemption and operating (forestry) permits (Mitto, Appendix C). However, by the date of transfer of the exploration and operation licences to Pasinex, Eurasia had not initiated their planned mining operations on the property.

The four forestry permits (Appendix E) covering 10908.81m<sup>2</sup> are current and cover a production area, a road area, an ore dump area and a waste dump area. The permits also allow for drilling. These were therefore used for the Pasinex two-hole drill program described in Section 10.

In order to avoid cancellation of the licence, Pasinex established from the Mining Directorate that production by Pasinex before September 30, 2012 (later extended), of a minimum of 90 tons from the planned and permitted underground mining area, and a further 810 tons by the 31<sup>st</sup> of July, 2013, would be sufficient for continued validity of the Golcuk licences to 31 July, 2014

Pasinex contracted Mitto Madencilik to undertake the initial 90 tons of production, which was successfully completed. The production was accepted as satisfactory for licence extension to 31 July, 2013 by the Mining Directorate in a report finalised on October 15, 2012 (Dincer, Appendix B).

It is necessary for Pasinex to complete its compulsory production for 2013 and 2014 (as laid out in the Eurasia's original production plan (Appendix F)) in order to maintain its exploration and production licences during these years.

While the Mining Law is not clear in this regard, according to assurances given to the author by the CEO of Pasinex, it is necessary for Pasinex to complete, annually, only 10% of the 9000 tons of annual production specified in the Eurasia's original production plan (Appendix F) in order to maintain its exploration and production licences during future years. This amounts to 900 tons of production per year. It is Pasinex's intention to meet its obligations in this regard

In order to provide for greater flexibility in meeting its mining commitments, in 2012 Pasinex applied to the Mining Directorate for permission to conduct open pit instead of underground mining at Golcuk to meet its production commitments. This request was supported by the Mining Directorate, but the additional permitting required to allow open pit mining to begin had not been completed by Pasinex by February 28, 2013 (Dincer, Appendix B).

Pasinex' agreement with Eurasia requires:

1. Expenditure of US\$200 000 by the first anniversary of the completion date, with the money to be spent on fulfilling the outstanding Mining Obligations and a maximum of 750m of core drilling.
2. Expenditure of US\$250 000 by the second anniversary of the completion date and

3. Expenditure of US\$250 000 by the fourth anniversary of the completion date.
4. Reports on work done have to be submitted every six months to Eurasia.
5. A royalty of 2.9% NSR is payable to Eurasia and this may be reduced to a 2.0% royalty by payment of US\$1 000 000 before February 2019.

The author believes that the agreements amongst Eurasia, Pasinex and the Government, together with the exploration carried out and planned by Pasinex, comply with the rules and regulations regarding mining and exploration in Turkey. However, the agreements and permits have not been legally tested in court as it is believed that such testing is beyond the scope of this technical report.

The Turkish Government mining department, at the end of October 2012, put a halt on granting any new drilling permits for the next six months. This did not affect Pasinex's drill program.

## **5 ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOLOGY**

The property is some 120 kilometres east-northeast of the Provincial capital of Sivas and is accessed by a secondary well maintained gravel road from the main tarred E88/D200 highway between Sivas and Erzurum. The property is crossed by several graded and ungraded tracks. Access to the property is limited in winter, November to March, due to snow cover, although Pasinex was able to carry out its drilling during December and January, reportedly the months of highest snowfall.

The small pastoral settlement of Golcuk Y lies within the property some 13km south of the town of Koyulhisar. It is occupied only from the spring to the fall.

The property has the climate of the Central Anatolian Region with warm to hot dry summers and cold snowy winters. (Ref. Wikipedia 2013). There is no wet season, and the mean annual rainfall in the region is less than 440mm. The summer season is from June to September with temperatures reaching 25°C, average 15°C. The winter season is from November to February with an average temperature of -2 °C. The mean altitude of the property is about 1700m ranging from 1978m in the south to below 1400m in the north with numerous small steep (+20°slope) sided valleys.

There are no perennial rivers on the property. The property is partly covered with boreal wet forest, conifers and birch and is dominantly pastoral. The soil in the area is thin (generally <10cm) soil with numerous bedrock fragments. There is a high probability of an earthquake of magnitude >7 occurring in a 50 year cycle and low landslide hazard (Appendix E). Water for mining would be available from underground sources. There is no electricity on site but a 154Kva line of the national grid crosses the property. A gas pipeline is proposed to pass within 32km of the licence indicating that additions to the infrastructure of the area are ongoing.

The local economy is agrarian-based and is concentrated in the main valleys. The work force would be adequate for small scale mining purposes. The mining law makes provision for acquiring surface rights

for disposal of waste and tailings and there appear to be no environmental or other reasons why such applications would not be granted.

## 6 HISTORY

MTA, the Turkish government's General Directorate of Mineral Research and Exploration, conducted stream sediment sampling in the area during the 1970s and 1980s as a component of a country-wide, regional scale mineral assessment program, and discovered elevated levels of copper on the property.

Subsequently, at least 21 copper occurrences have been identified within the licence, mainly in the eastern part of the property. These include shallow workings attributed to the Romans and to 18<sup>th</sup> and 19<sup>th</sup> century miners. In recent times, the property has been explored by MTA, Etibank, Rio Tinto, Turmenka and Eurasia. The only recent mining activity on the licence is the excavation of an adit completed by Pasinex in October 2012 in compliance with licence requirements.

In the 1970's Etibank carried out rock chip and geochemical soil sampling and in 1973 drilled a total of 1113m in six vertical and one inclined (GS4) diamond core holes around the sites of the largest of the old workings. The best intersection was in borehole GS2 with 1.36%Cu over 34.0m from 85m. Core recovery was quite low averaging some 68% for all the holes. No assays were performed on the core of GS5 or GS6 although bornite and chalcopyrite were identified over several metres in the cores. Etibank did not assay for silver. A summary of the assay results is given below in Table 5.

Hole ID	From m	To m	Length m	Ave Cu%	Comment
GS-1	58.0	77.0	19.0	0.30	
GS-1	82.0	112.5	30.5	1.22	
GS-2	85.0	119.0	34.0	1.36	
GS-3	89.0	99.0	10.0	0.66	
GS-4	78.5	92.0	13.5	1.46	
GS-4	92.0	104.0	12.0	0.25	
GS-7	59.5	67.5	8.0	0.35	
GD-1	80.0	97.5	17.5	1.17	Rio Tinto

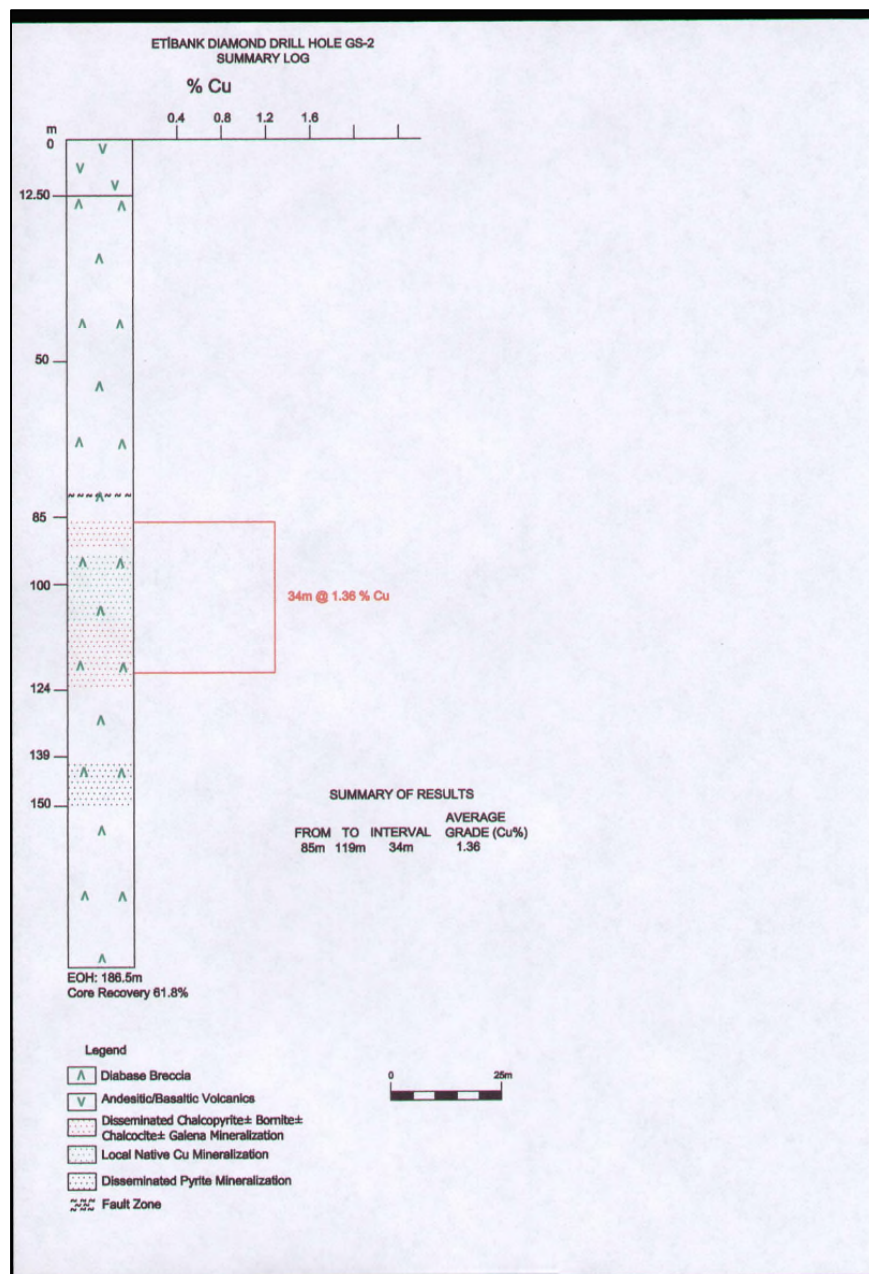
**Table 5: Significant results from Etibank and Rio Tinto drilling.**

The geological logs record andesitic and basaltic volcanics, volcanic and diabase breccia with chalcopyrite, bornite and malachite mineralisation. The log of GS2 is included as Figure 4. No core or individual sample assay values are available for examination for any of the Etibank holes. The assay value table appears to be consolidated data. Examination of the logs and summary assay values revealed some inconsistencies due to transcription errors which have now been resolved.

In the 1990's RioTinto carried out some exploration and drilled one hole, GD1, inclined to the west at 80° and drilled to a depth of 198.2m in the same area as the Etibank boreholes. The borehole returned an interval of 17m grading 1.17% Cu and 11.7g/t Ag. Detailed mineralogy and petrology were carried out

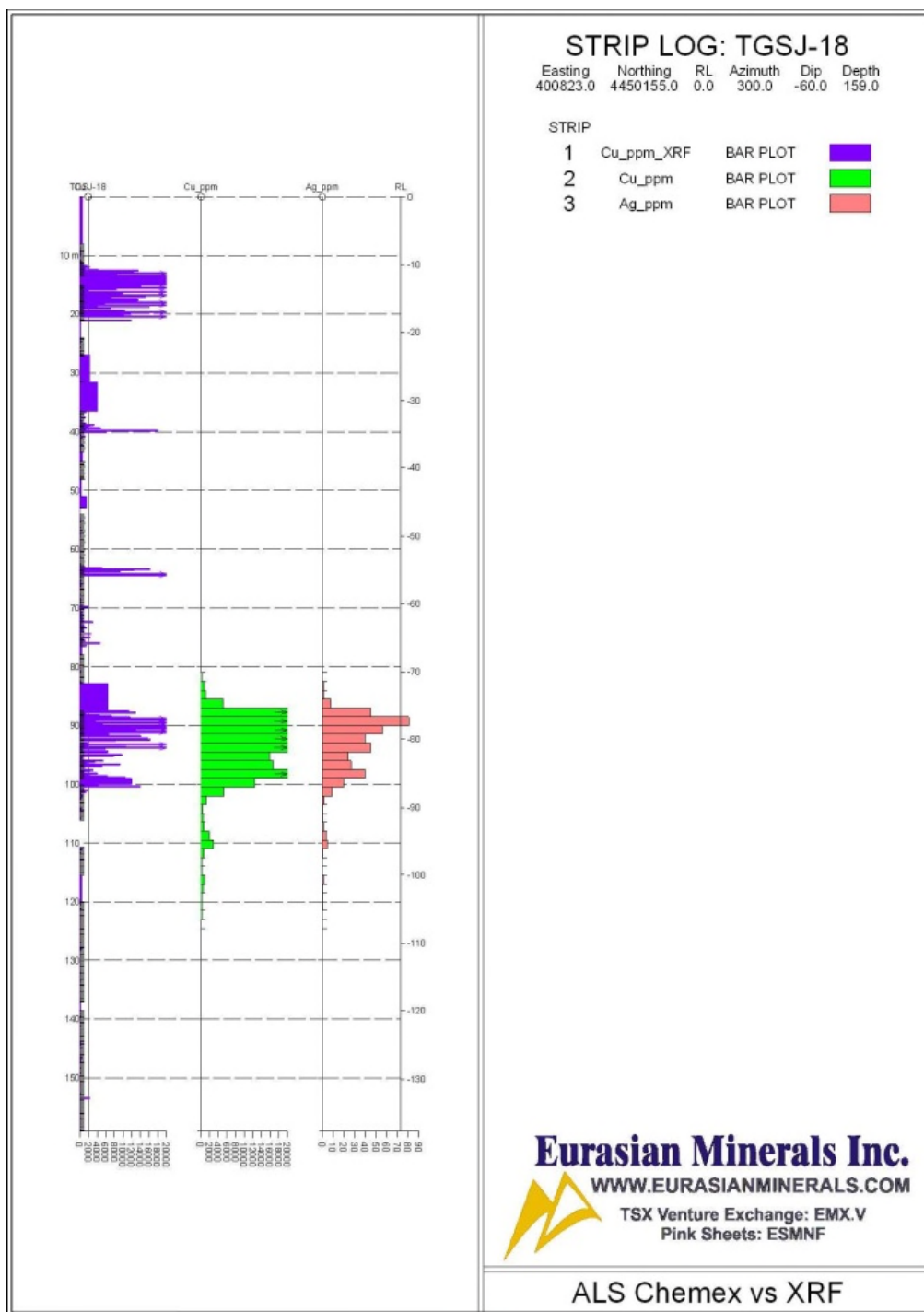


on selected rock and core samples. The various rocks are described as altered basalt breccia with minor copper mineralisation with basaltic fragments in a basaltic groundmass, auto-brecciated and hornblende andesite with kaolinised feldspars.



**Figure 4: Graphic log of Etibank Borehole GS-2.**

Eurasia obtained the property at an auction. They collected and carried out analysis on 15 rock chip samples from outcropping copper mineralisation that returned a best value of 4.28% Cu and 38.1g/t Ag. Eurasia leased the property to Turmenka in 2007.



**Figure 5: Graphic log of Turmenka Borehole TGSJ-18.**

Turmenka carried out a small amount of geochemical soil sampling. The data has not yet been recovered and has been superseded by Eurasia soil sampling conducted in 2011, as discussed below.



Turmenka drilled a total of 1863m in 13 core holes, all within the small area previously investigated by Etibank. Assay from eight holes yielded intersections of >1% Cu and >11g/t Ag including an intercept in borehole TGSJ-18 from 87.0m of 13.5m grading 2.6% Cu and 41.9g/t Ag (Figure 5 and Table 6). Figure 6 shows locations of all Turmenka and Etibank boreholes, as well as significant intersections in each hole.

Table 6 shows all intersection recorded by Turmenka and Eurasia who both used a sample length of 1.5m. No reports of core recoveries for the Turmenka boreholes have been seen. All intersections are given in drilled thickness. The few estimates of true thickness rely on information from interpreted sections and may not be reliable.

Hole_ID	From m	To m	Interval m	Cu % grade	Ag g/t grade
TGSJ-8	21.0	21.5	1.5	0.94	13.0
TGSJ-8	72.0	82.5	10.5	1.39	16.1
TGJS-8	87.0	100.5	13.5	1.60	20.9
TGSJ-9	36.0	37.5	1.5	0.79	14.5
TGJS-9	91.5	100.5	9.0	1.18	14.0
TGSJ-10	23.0	26.0	3.0	1.52	11.6
TGSJ-10	97.5	105.0	7.5	2.12	22.6
TGSJ-11	79.5	85.5	6.0	1.80	16.3
TGSJ-12	No significant values				
TGSJ-13	108.0	111.0	3.0	0.37	2.4
TGSJ-14	No significant values				
TGSJ-15	No significant values				
TGSJ-16	82.5	84.0	1.5	1.29	17.2
TGSJ-17	120.0	124.5	4.5	2.15	30.6
TGSJ-18	12.0	21.0	9.0	2.04	19.0
TGSJ-18	63.0	64.5	1.5	1.72	15.8
TGSJ-18	87.0	100.5	13.5	2.57	41.9
TGSJ-19	57.0	58.5	1.5	0.99	9.5
TGSJ-19	121.5	133.5	12.0	1.93	25.1
TGSJ-20	No significant values				

**Table 6: Significant results from Turmenka drilling.**

Cross sections constructed by Eurasia in 2011 propose continuity for 100m down-dip to the north west of several outcropping copper-silver mineralised areas. All the drilling has been carried out within a very small area of some 200m by 180m possibly based on the assumption that the mineralisation was confined to steeply north-north-westerly dipping structures.

In 2009 Eurasia regained complete control of the property from Turmenka and carried out further exploration. Using a hand-held XRF instrument they relogged all the Turmenka drill core and identified mineralisation in five boreholes where it had not been recorded previously. Twenty four samples were

collected and sent for analysis to ALS Chemex in Turkey. Two significant new intersections were revealed, 10.5m grading 1.39%Cu in TGSJ 8 and 9.0m grading 2.04%Cu in TGSJ 18.

A map showing the locations and significant grade intersections of all historical drill holes at Golcuk is presented in Figure 5.

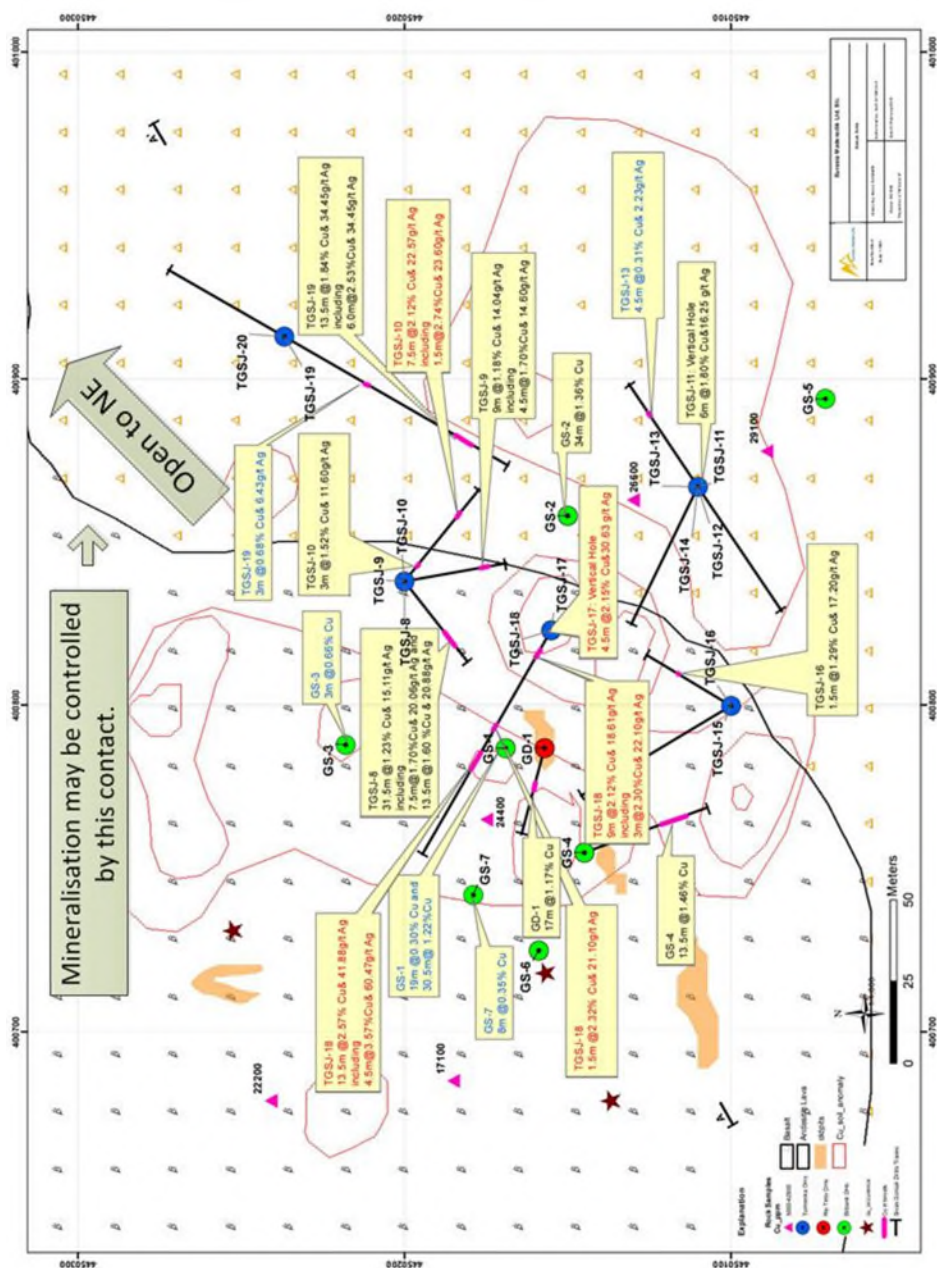
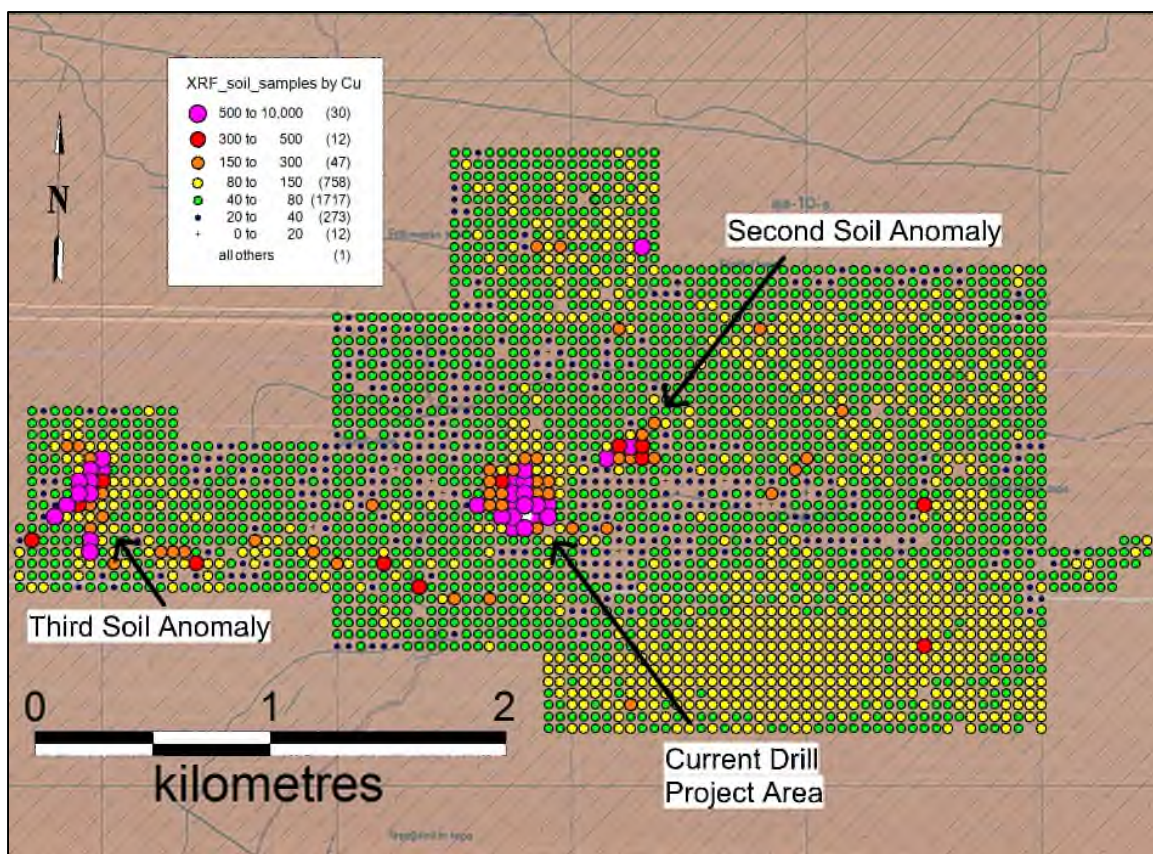


Figure 6: Map produced by Eurasia summarising significant results of historical drilling at Golcuk, with Pasinex observations in two grey boxes. Note northeast strike of surface mineralisation (orange polygons).

In 2011 a total of 2856 geochemical soil samples were collected by Eurasia on a line spacing of 50m and sample spacing of 50m, covering some 7km<sup>2</sup> of the 40km<sup>2</sup> licence. The samples were analysed using a hand-held XRF instrument. The results using a >150ppm Cu contour showed three main anomalous areas (Figure 7). These are each about 12 ha in extent and on an east to west strike of over two kilometres; the central anomaly overlies the main drilled area. In the south a much larger lower grade anomalous area is outlined and seems to be underlain by a different rock type judging by the colour change seen on the satellite imagery and Eurasia's geological mapping.



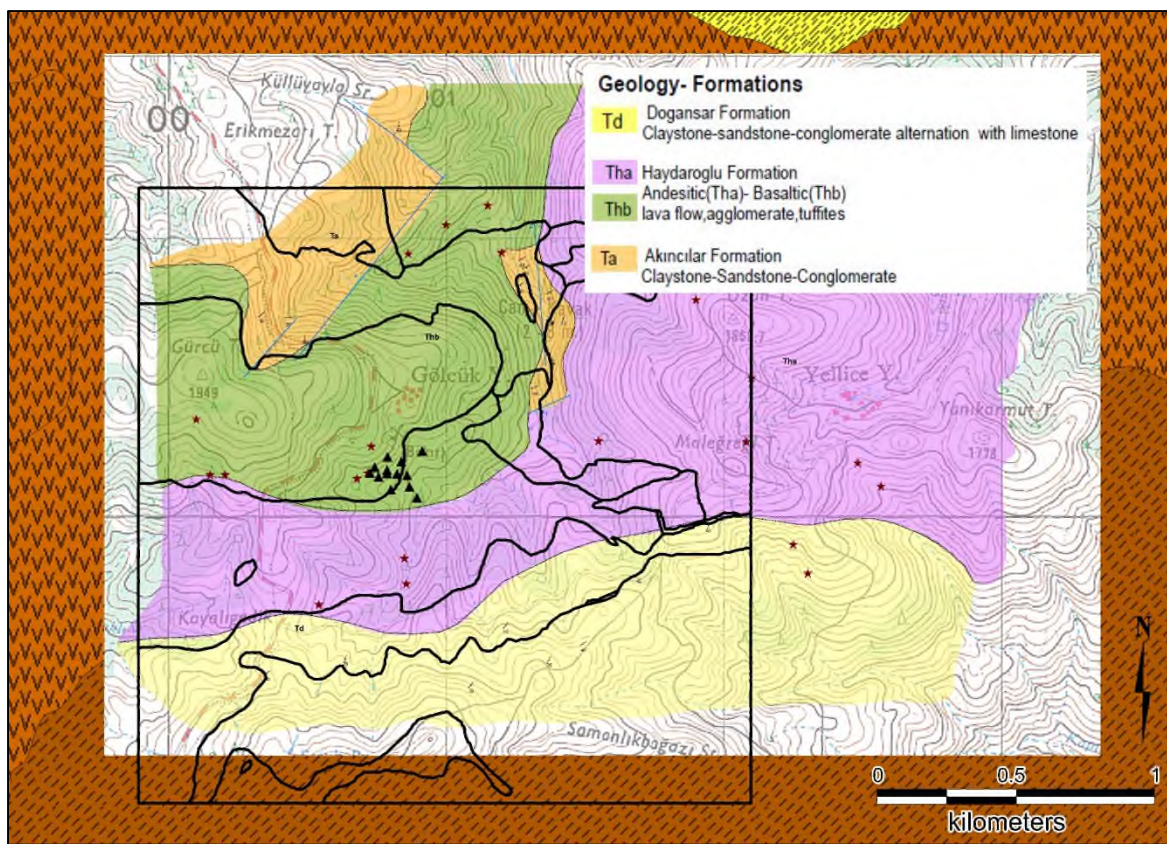
**Figure 7: Eurasia soil sampling results in ppm for copper at Golcuk.**

Eurasia carried out geological mapping of part of the soil sampled area at a scale of 1:5000. Their earliest map (coloured areas of Figure 8) was aligned with public domain nomenclature for geological units in the area. Subsequent more detailed geological mapping, which has been extended by Pasinex, is shown only in superimposed outline in Figure 8. A coloured version of this map, with legend, is presented in Figure 16.

The southern part of the area mapped is shown to be underlain by the Dogansar Formation of claystone-sandstone-conglomerate with limestone. Underlying most of the central mapped area is the Haydaroglu Formation divided into andesitic and basaltic lava flows, agglomerates and tuffites. Small areas of Akincilar Formation of claystone-sandstone and conglomerate were mapped in the north west of the sampled area.

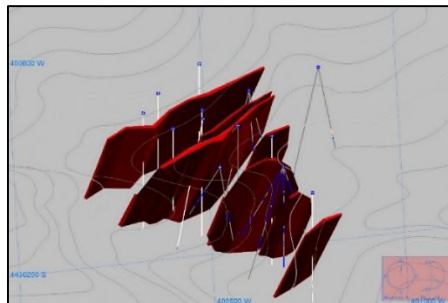


Most of the mineralisation is shown to occur in the andesitic rocks of the Haydaroglu Formation, although drill logs reportedly intersected mainly basalts. No structural information is shown on the map apart from some bedding plane dips and strikes in the Akincilar Formation sediments.



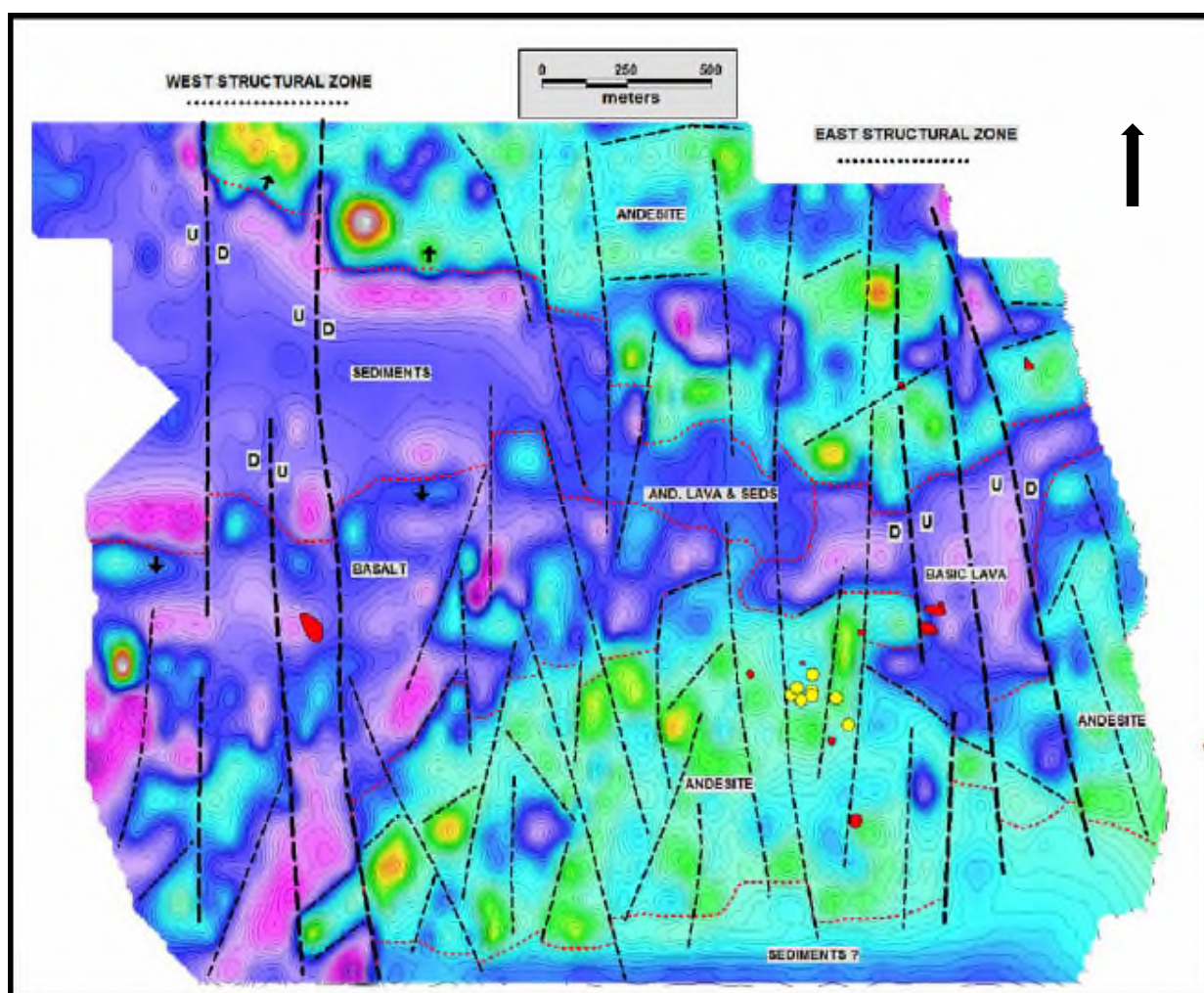
**Figure 8: First Eurasia geology map of the Golcuk prospect (light colours) overlain on the 1:100,000 MTA Map H39 Giresun, with later Eurasia mapping overlay (see Figure 16).**

Etibank, Turmenka and Eurasia all produced geological sections with different interpretations using the drill information. Eurasia also proposed 3D model of the drilled area as shown in Figure 9. Current re-evaluation of the drill data and cross-sections using 3D modelling indicate that the series of steep north-west dipping mineralised zones proposed by Eurasia is not the most probable scenario. Eurasia's systematic plotting error (see Appendix F) and the use of more than one cut-off mean that the values plotted on Figure 6 are incorrect but not by significant amounts. Correction of this work will form part of the first phase of Pasinex's exploration.



**Figure 9: One 3D interpretation of Golcuk mineralisation by Eurasia, not supported by this report.**

A ground magnetic survey was carried out over the central part of the soil-sampled area by Wright Geophysics for Eurasia in July 2009 (Figure 10).



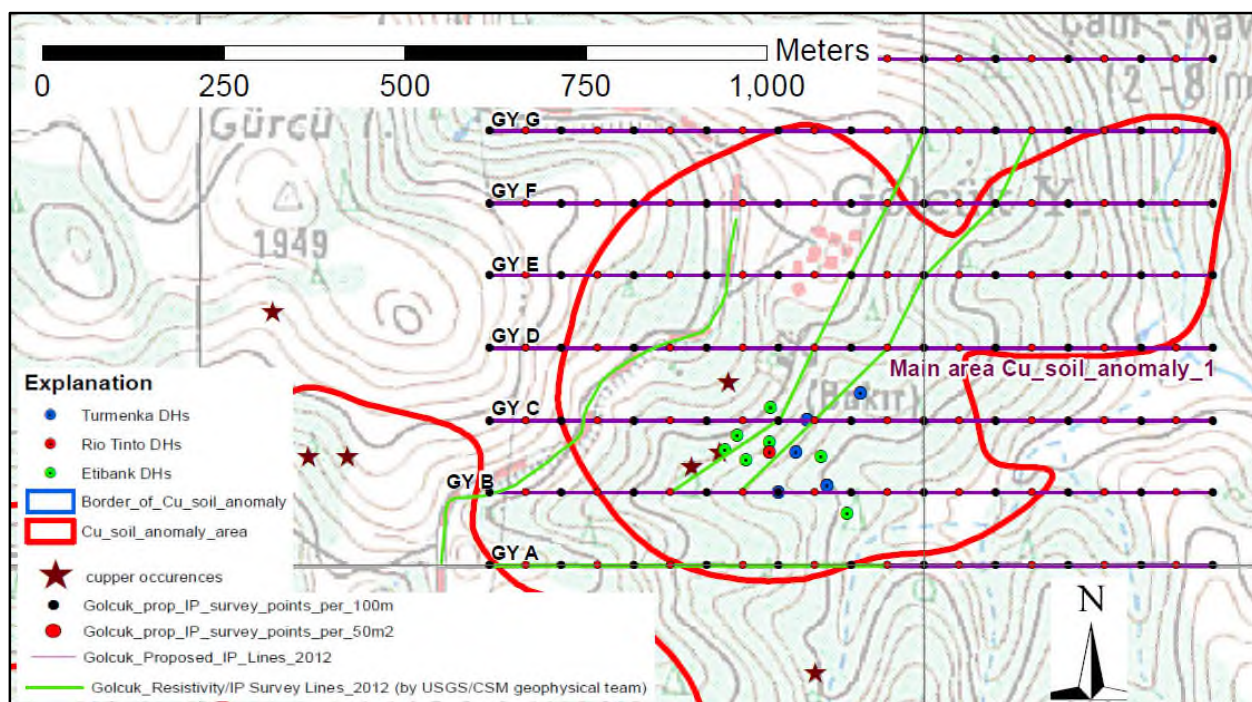
**Figure 10: Golcuk total field magnetic results with interpretation.**

The survey with east to west lines spaced at 100m and with sample points at 30m intervals had the object of mapping structures, lithologies and alteration. The interpreted geology was a non-magnetic



basal sequence of limestone and volcanics. The basal rocks are overlain by a sequence of moderately magnetic basalts and andesites with intercalated sediments cut by a series of north-south striking faults. In the report it was concluded that the interpretation of the magnetic and the mapped geology do not agree and further soil sampling and geological mapping is recommended together with field checking of the magnetic data. Pasinex believes that the interpretation did not take into account the alteration in which the magnetite of the basalts was oxidised to non-magnetic haematite seen in the core and described in the Rio Tinto reports (Reynolds, 1995).

Under a US Government aid scheme geophysicists were given practical training in conducting a Resistivity IP survey. The work was inside the Golcuk licence (Figure 11). A total of twenty one kilometre long east-west lines were proposed for the survey with a 50m station interval. Only three roughly NNE to SSW one kilometre lines were surveyed. The lines were not straight.

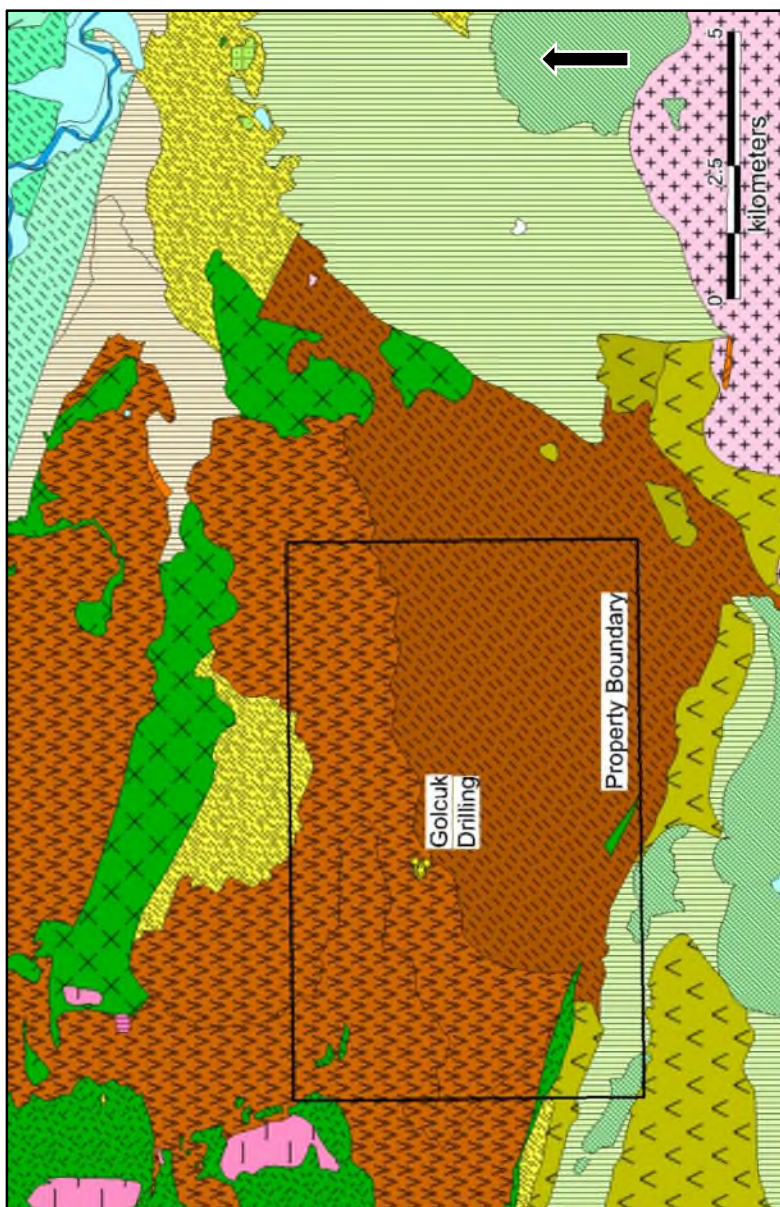


**Figure 11: Training IP lines (green) surveyed by the USGS over the main Golcuk mineralisation.**

Pasinex took over operatorship of the licence after agreement on terms for an option agreement in July 2012, which agreement was finalised in 2013.

## 7 GEOLOGICAL SETTING AND MINERALISATION

According to the MTA 1:100,000 geological map (H39-Giresun), mineralisation at Golcuk occurs in Eocene-aged volcanoclastic rocks (Figures 12 and 13). These correspond with Eocene volcano-sedimentary sequences identified over a broad area in Turkey, and associated with a regional extensional regime bracketed in time by two compressional regimes (Figure 14; Boztug, 2008). Modern literature on this volcano-sedimentary sequence names it as the Mucur Formation (Geneli, 2011), although it is not named as such on the H39-Giresun map, which is not accompanied by any explanatory text.



**Figure 12: Regional geology map of the Golcuk Property (from MTA Map H39 Giresun). The legend for this map is presented in the following figure.**

The sequence is pre-dated by the final collision between the southern Tauride-Anatolide platform and northern Eurasian plate in Late Palaeocene-Early Eocene times. It is post-dated by Oligocene to Late Miocene shortening resulting from convergence between Eurasia and Africa-Arabia. These volcano-sedimentary sequences occur primarily in E-W and NE-SW-orientated basins (Figure 14). Continued convergence from the Late Miocene initiated the dextral North Anatolian Fault Zone, setting off the westward escape of the Anatolian block (Figure 14).

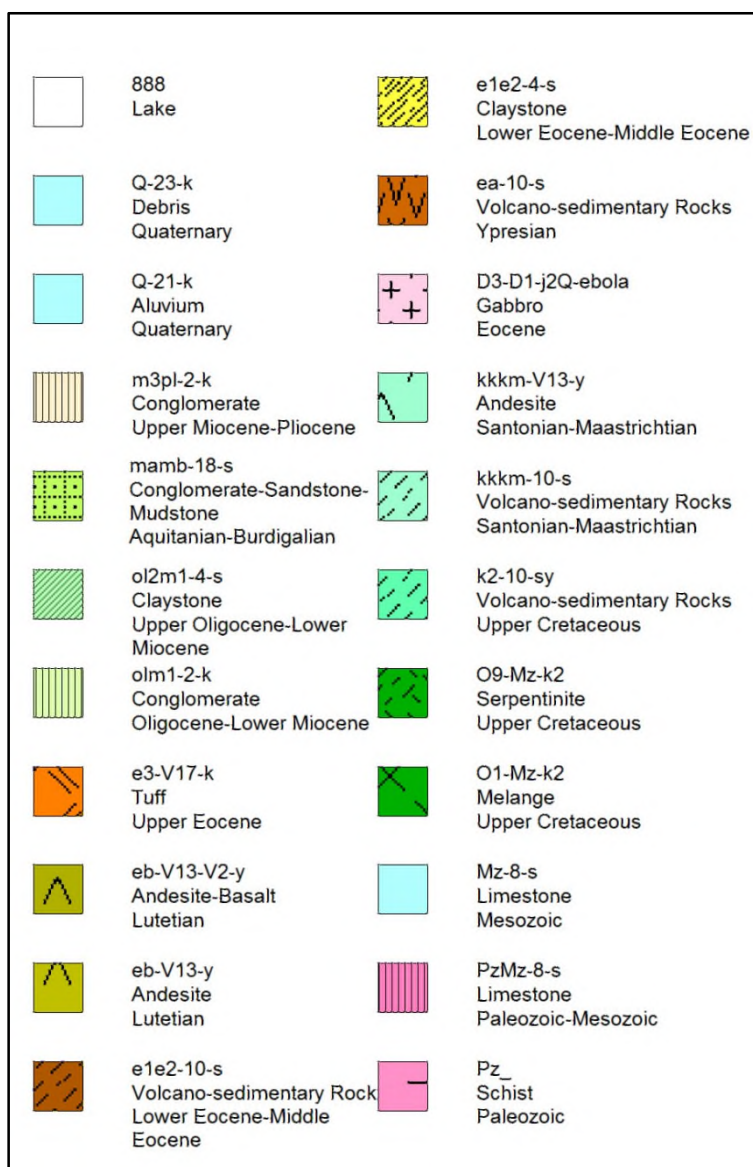
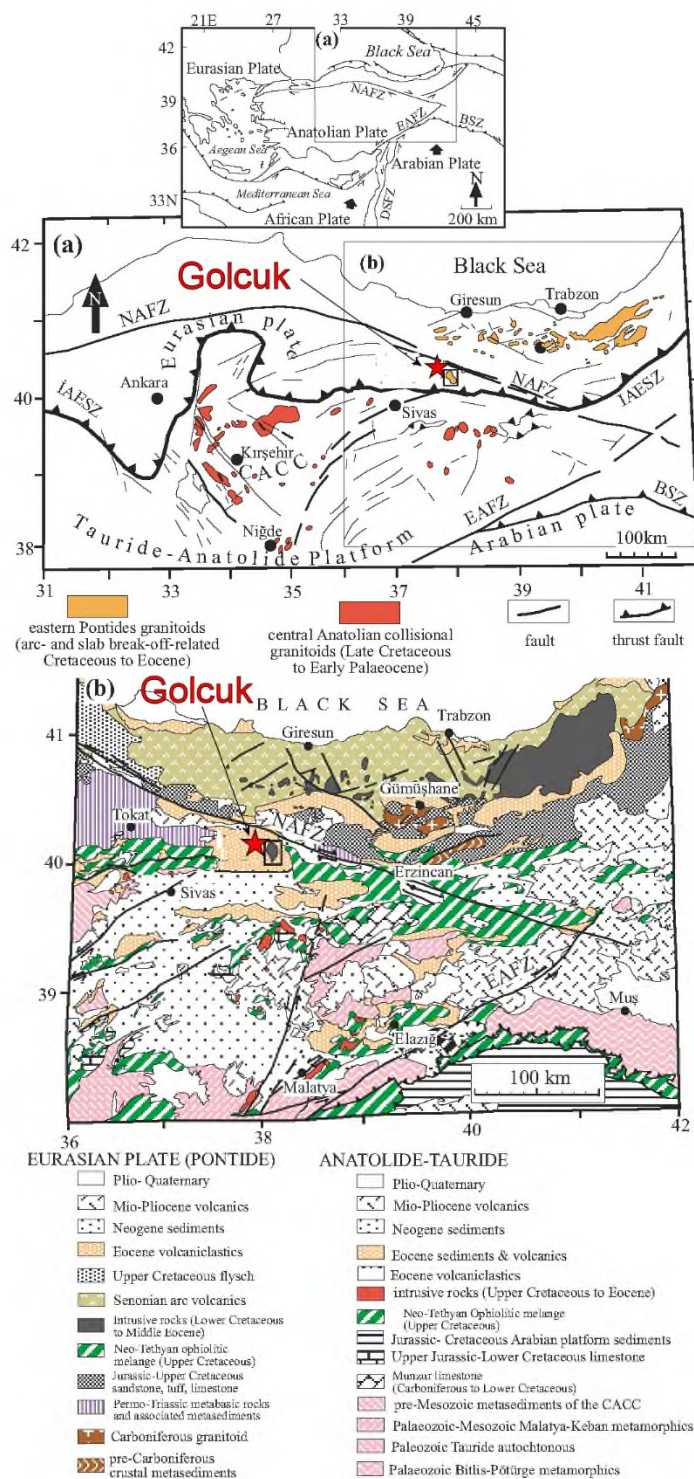


Figure 13: Legend for regional geology map of the Golcuk Property in previous figure.





**Figure 14: Location map and regional geological-geographical setting of the eastern Pontide and central Anatolian granitoids and surrounding region (Boztug, 2008). The upper inset shows the simplified regional tectonic setting of Turkey and adjacent areas. [NAFZ– North Anatolian Fault Zone; IAEZ– Izmir-Ankara-Erzincan Suture Zone; EAFZ– East Anatolian Fault Zone; BSZ– Bitlis Suture Zone; CACC– Central Anatolian Crystalline Complex; DSFZ– Dead Sea Fault Zone]**

The most comprehensive work on the volcanics of the Mucur Formation to date is reported in Geneli, 2011: “Petrology of the Eocene Volcanism in Central Anatolia: Implications for the Early Tertiary Evolution of the Central Anatolian Crystalline Complex”. In this PhD, the author reproduces Goncuoglu’s 1994 generalised section of the sedimentary cover over the Central Anatolian Crystalline Complex (CACC), which includes the Mucur Formation. This stratigraphic section is presented in Figure 15 below as the best representation of what may be expected in the Eocene volcanoclastic succession at Golcuk<sup>1</sup>.

Age and Formation			Lithology	Explanations
N e o g e n e	Lower-Middle Miocene	G ü m ü s y a z ı		Cover units
				Unconformity
				Conglomerate
				Cross bedded sandstone and conglomerate
				Gypsum and marl
				Marl with coal
E o c e n e	Eocene	M u c u r		Unconformity
				Green-pinkish and white marl
				Flysh
				Basaltic and andesitic volcanics
				White- grey fossiliferous reefal limestone
				Conglomerate- sandstone
				Unconformity
				White and pink fluvial limestone and marl
				Sandstone
				Volcanoclastic flysh with volcanic and metamorphic blocks
P a l e o g e n e	M.-Latest Paleocene	Y e s i l ö z		Unconformity
				Central Anatolian Crystalline Complex
				not to scale

**Figure 15: Mucur Formation stratigraphic column according to Goncuoglu (1994).**

Geneli’s 2011 description of the Mucur volcanics may be summarised as follows:

<sup>1</sup> This stratigraphic section in Figure 15 above erroneously places the Lower Maastrichian in the Paleogene (Cenozoic Era). It should be shown at the top of the Late Cretaceous (Mesozoic Era). This error does not diminish the relevance of the rest of the section.

“They are mainly sub-aqueous lava flows and sub-areal domes which are basic to intermediate and are classified as basalt, basaltic andesite and rarely alkali basalt and trachy-andesite. Their trace element geochemistry suggests interaction with (Late Cretaceous, in the area she studied) granitic host rocks in the course of their ascent, as well as derivation from a heterogeneous enriched lithospheric mantle source that had been metasomatized by subduction-related agents such as fluids and/or melts during a previous geodynamic event. Further, also based on their trace element and isotope geochemistry, these rocks can be considered as transitional between orogenic and anorogenic types in the context of Wilson and Lustrino (2007).

A two-stage lithospheric-delamination model is favored to explain the (first-phase acid) magmatism and (second stage basic) volcanism leading to emplacement of the Eocene Volcanics, both because of their wide spatial distribution and their distinctive geochemical properties.

In the field, they are found intercalated with volcano-sedimentary and sedimentary rocks characterized by different depositional environments, ranging from fluvial to shallow marine. They are exposed both as massive lava flows and pillow lavas. They are dark grey and black in color and highly altered. In general, the studied volcanic rocks are aphanitic and contain amygdales.”

Geological mapping carried out by Eurasia centred on the Golcuk property drilling confirms the presence of basalts, andesites, volcanoclastics and sediments in the drilled area (Figure 16). The basalts, andesites and volcanic breccias present in Golcuk drill core, however, appear to be much more altered (and mineralised) than any of those of the Mucur Formation described in Geneli (2011). This does not mean that they do not belong to the Mucur Formation. Rather, it emphasises the need, discussed in Sections 9 and 26 below, for more detailed mapping of the rest of the property, with attention being paid to altered and un-altered rocks, volcanics and sediments, and to how the stratigraphy matches, or does not match, that of other Eocene basins in Turkey.

Tectonically, it should be noted that the property lies on the Anatolian block some 2-3km south of the North Anatolian Fault. This block has moved westwards along the fault zone some 85km since collision with the African plate in late Palaeocene-early Eocene times (Figure 17).

Also of note some 2.5km to the southeast of the property is the large (225 km<sup>2</sup>) Kosedag pluton (Boztug, 2008). This Eocene multi-sourced syenite and quartz syenite was intruded into the basin hosting the Mucur Formation, and may have played a role in the genesis of mineralisation at Golcuk (Figure 12). The Kosedag pluton is described as a gabbro in the legend to the regional geology map presented in Figure 13 above.



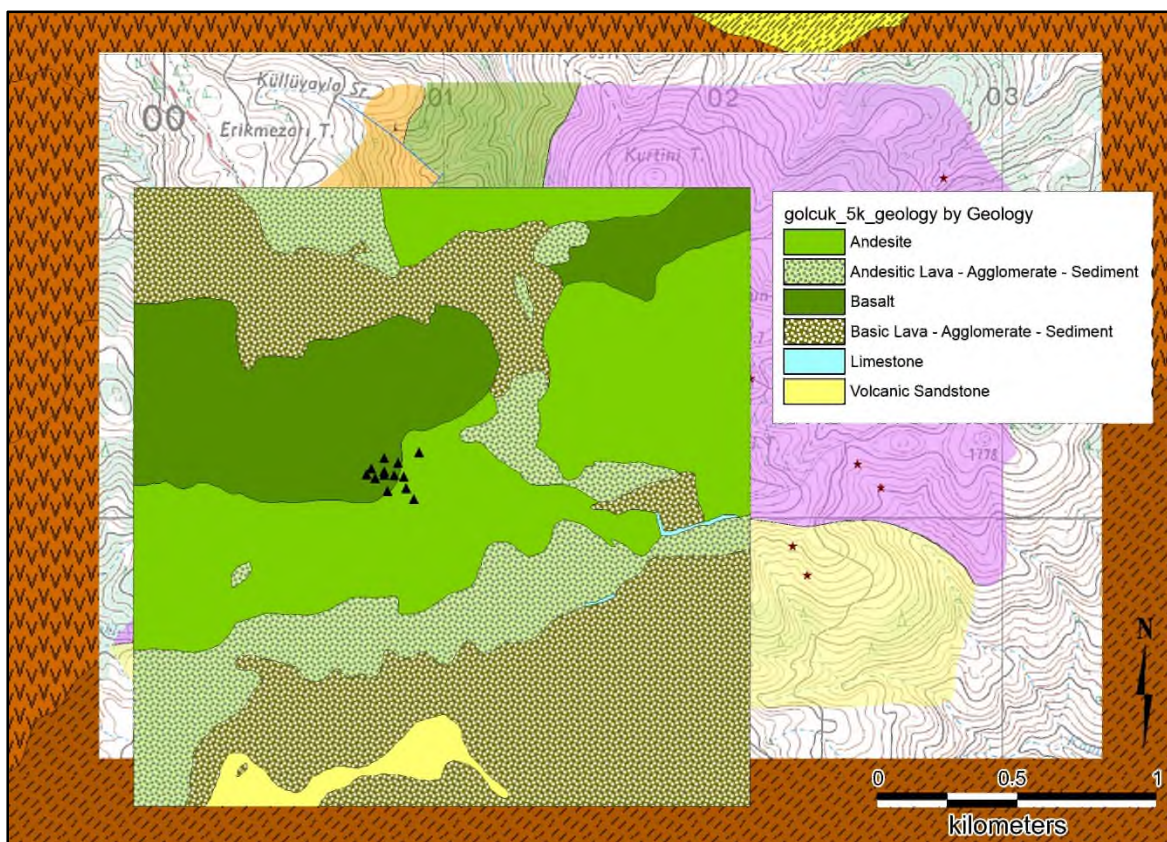


Figure 16: Final detailed geological map of the Golcuk drilling area produced by Eurasia, overlain on 1:100,000 MTA Map H39 Giresun shown in Figure 12.

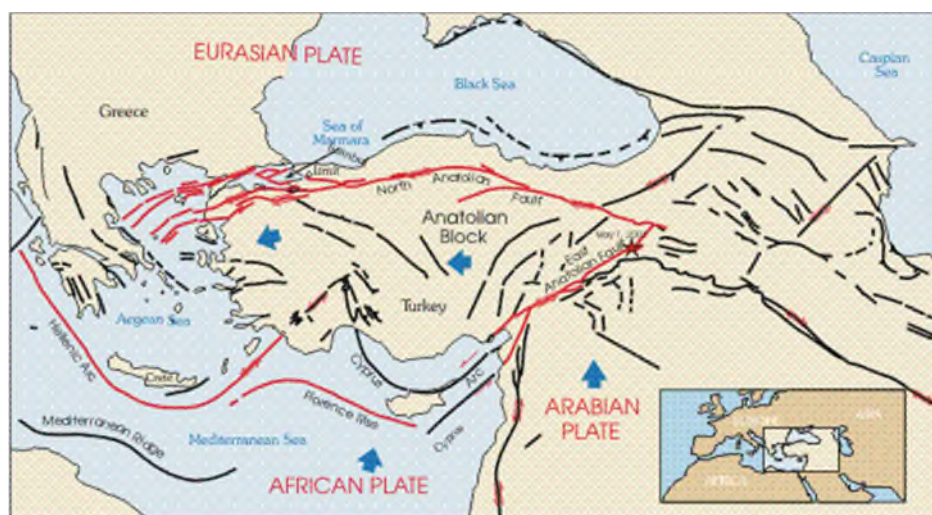


Figure 17: Turkey structural plate movement

## 8 DEPOSIT TYPES

The main deposit type being explored for on the Golcuk property is copper with ancillary silver in basic to intermediate mafic volcanics and associated sediments, which corresponds to the USGS Deposit Model 23, “Basaltic Copper” (Cox, 1986).

Discordant mineralisation and net veining is also present and could be evidence of hydrothermal breccias and local structural control of the mineralisation. There is also the possibility that, due to the proximity of the Kosedag pluton, the mineralisation could be of epithermal or porphyry-related origin.

Basaltic Copper deposits (also known as “Red Bed” copper deposits, and sometimes known as, or lumped together with, “Manto” deposits) may have diverse characteristics:

- (1) They may occur in a number of tectonic settings (eg: intra-continental rifts in Michigan or volcanic arcs in Chile);
- (2) They may occur in rocks of very different ages (Upper Precambrian in Michigan; Upper Triassic at Sustut) ;
- (3) They may be subject to stratum-related controls (eg: basaltic flow-tops in the Keweenawan Peninsula (Kantor, 2011));
- (4) They may be subject to structural controls (eg: vein swarms at Sustut (Figure 18); faults at El Soldado (Figure 19));
- (5) They may be subject to a combination of strata and fault control (Figure 20);
- (6) They may occur in the basaltic rocks, or sediments associated with them, or both (eg: Keweenawan Peninsula (Kantor, 2011);
- (7) They may be native copper only, sulphide copper only, or mixed (Figure 21);

This requires that the geologist exploring for economic centres of copper deposition in newly-discovered or only partially-explored areas of mineralisation such as Golcuk take into account, or test for, all these characteristics when attempting to vector in on the areas of highest grade and hence highest economic potential.

The presence on the Golcuk property of a number of the characteristics noted above is supportive of the Basaltic Copper Deposit Model, and its related models, providing the right conceptual context for exploration of the property.

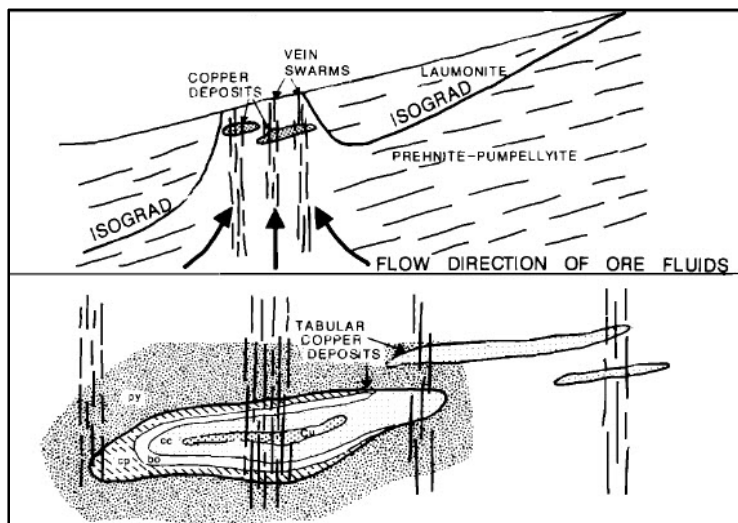


Figure 18: Schematic illustration of vein swarm control on copper deposition in the Sustut Basaltic Copper deposit (Wilton, 1988).

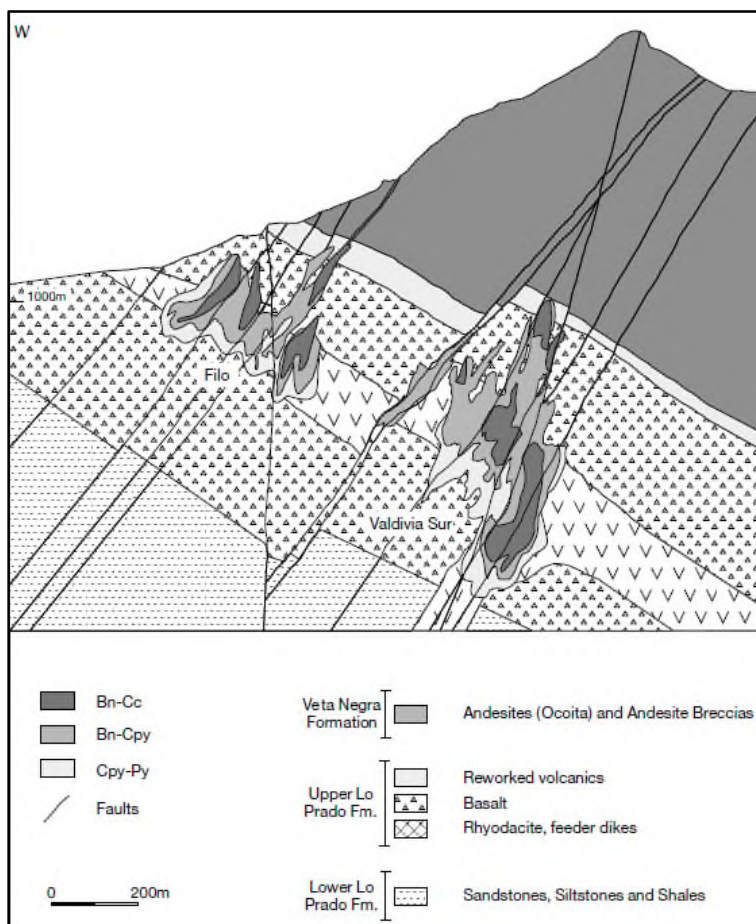


Figure 19: Schematic illustration of fault control on copper deposition in the Volcanic-Hosted El Soldado Manto-Type Copper deposit (Wilson, 2003). "V"s in section represent rhyodacite.



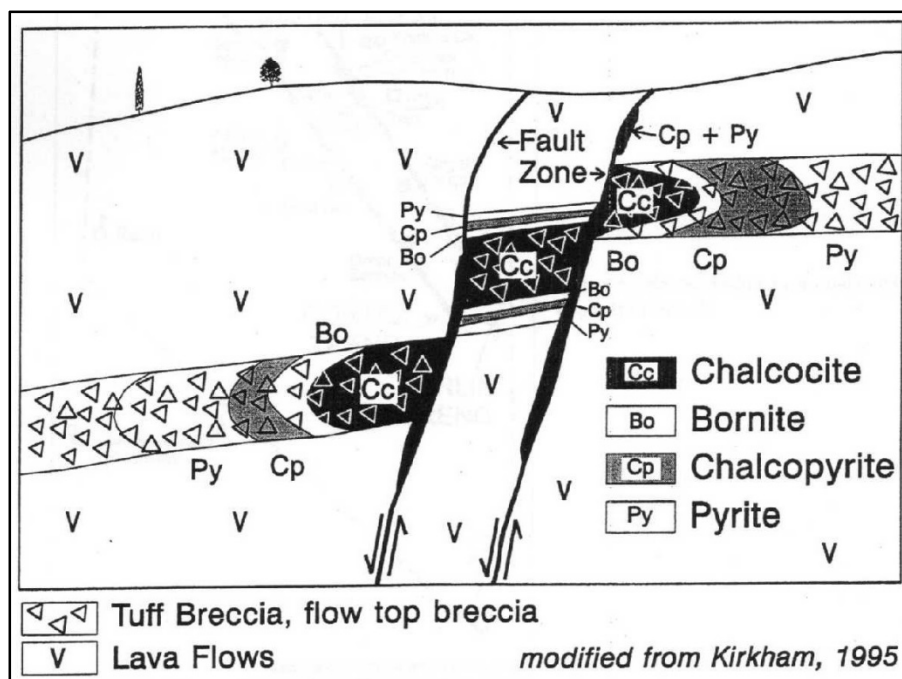


Figure 20: Schematic illustration of stratum and fault control on copper deposition in Volcanic Redbed Copper Deposits (Lefebure, 1998).

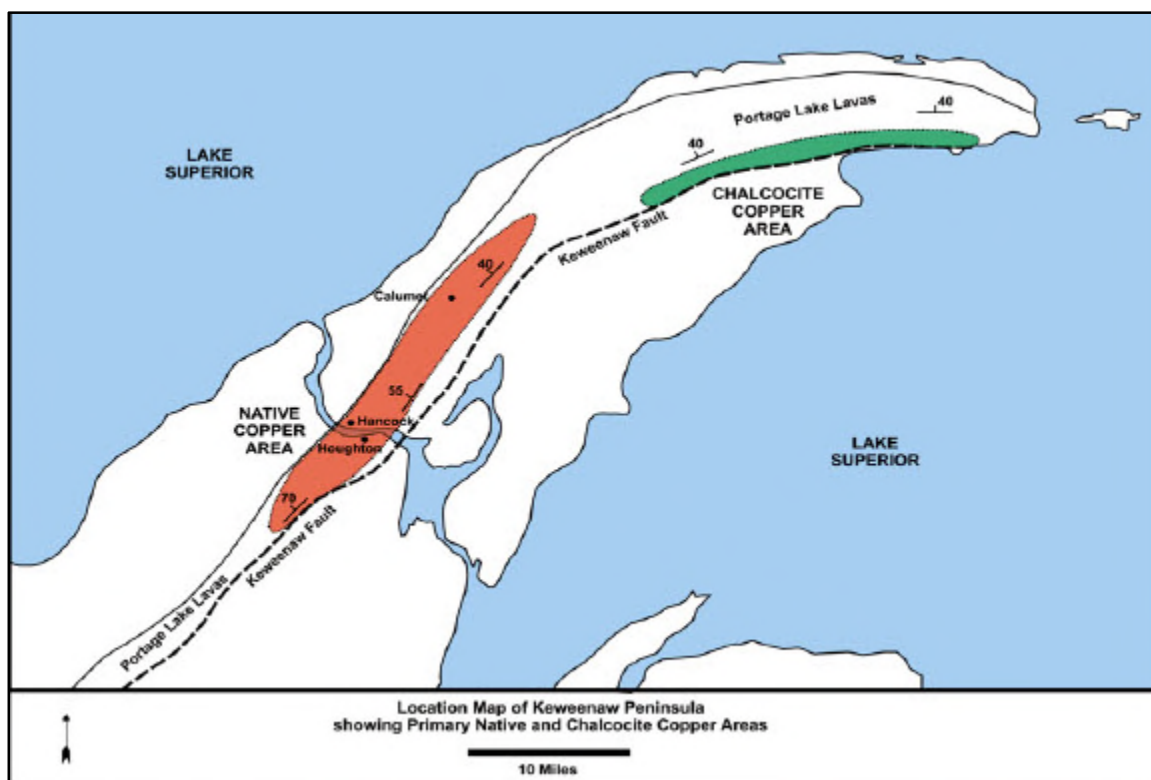


Figure 21: Map showing separation of native copper and sulphide copper deposition areas in the Basaltic Copper deposits of the Keweenaw Peninasula (Kantor, 2011).

## 9 EXPLORATION

Exploration work carried out by Pasinex at Golcuk up until 28 February, 2013, excluding drilling described in Section 10, falls into the following categories which are described in the sub-sections below:

- (1) Re-analysis of soil samples
- (2) Geological mapping
- (3) Outcrop sampling
- (4) Adit excavation

### 9.1 Re-Analysis of Soil Samples

Less than half of the soil samples collected at Golcuk by the previous owner were analysed for elements other than copper. However, when the data available for these elements was plotted on a map, patterns were apparent which might assist with better understanding the geology of the prospect. Pasinex therefore decided to recover from the previous owner, for the purpose of re-analysis for missing elements, those soil samples which were still in a suitable condition for analysis. (A number of sample bags had broken, resulting in loss of the sample.)

Figure 22 shows soil nickel values that were available prior to re-analysis by Pasinex, and Figure 23 shows the combined historical and Pasinex analyses. Figure 24, Figure 25 and Figure 26 show combined historical and Pasinex analyses for strontium, zirconium and manganese respectively. Figure 27 shows the (historical) copper values for comparison with the previous elemental plots.

Rock unit boundaries shown on all soil geochemistry plots are taken from the dateless 1:100,000 MTA Geological Map H39 "Giresun" shown in Figure 12, the legend of which provides the following unit descriptions:

Map Code	Unit Code	Description	Age
Ta	e1e2-4-s	Claystone	Lower Eocene-Middle Eocene
Td	e1e2-10-s	Volcano-sedimentary Rocks	Lower Eocene-Middle Eocene
Th	ea-10-s	Volcano-sedimentary Rocks	Ypresian (Basal Eocene)
Tth	ea-10-s	Volcano-sedimentary Rocks	Ypresian (Basal Eocene)



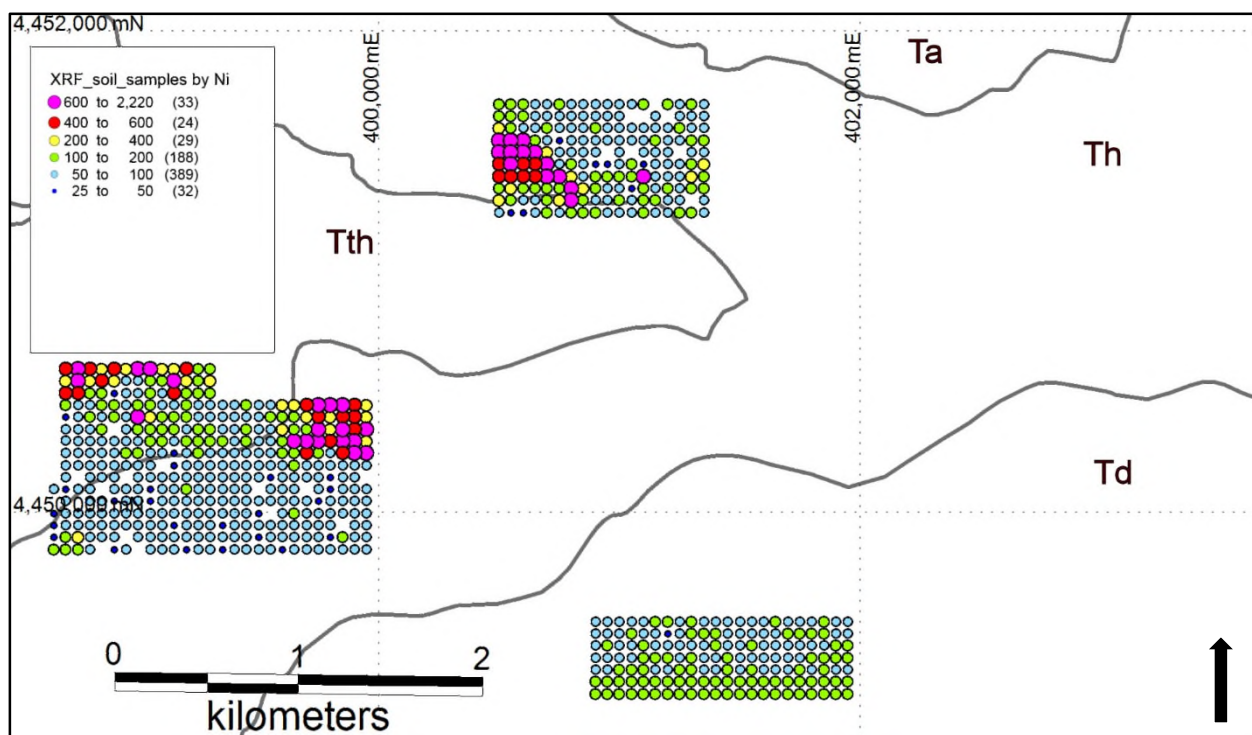


Figure 22: Nickel ppm in soils at Golcuk (historically available data).

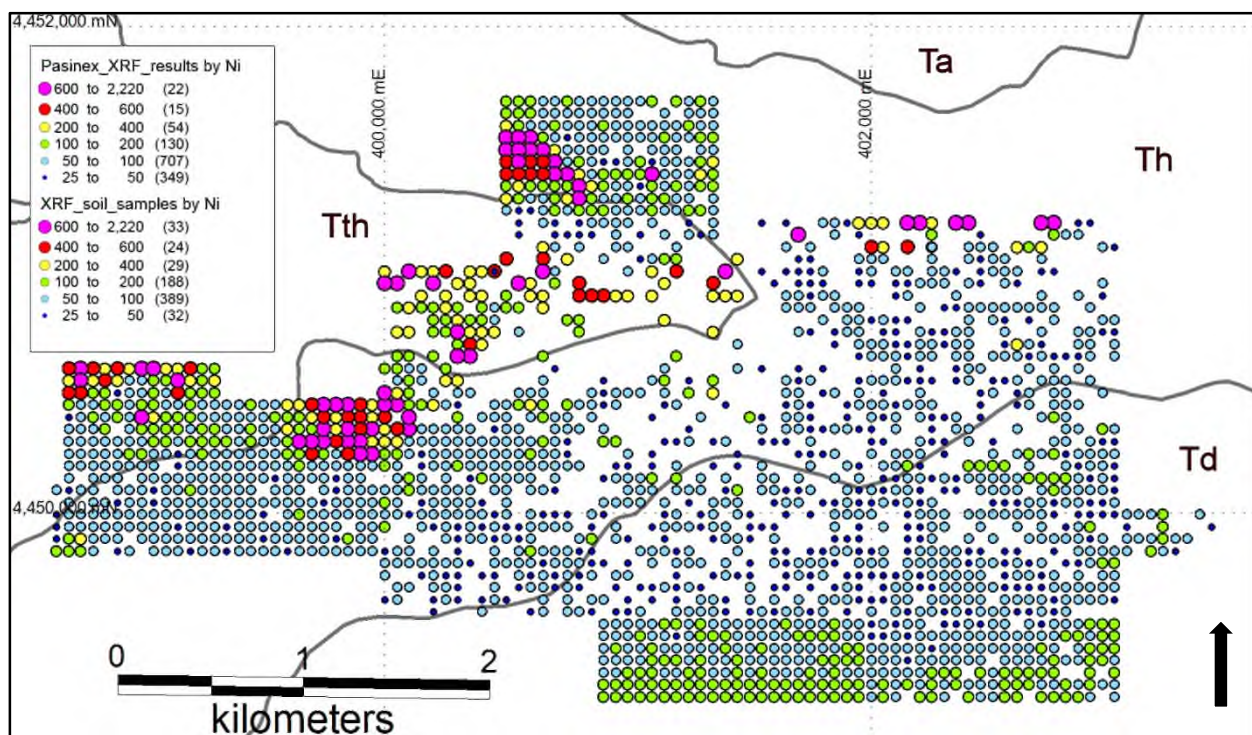


Figure 23: Nickel ppm in soils at Golcuk, including Pasinex determinations.



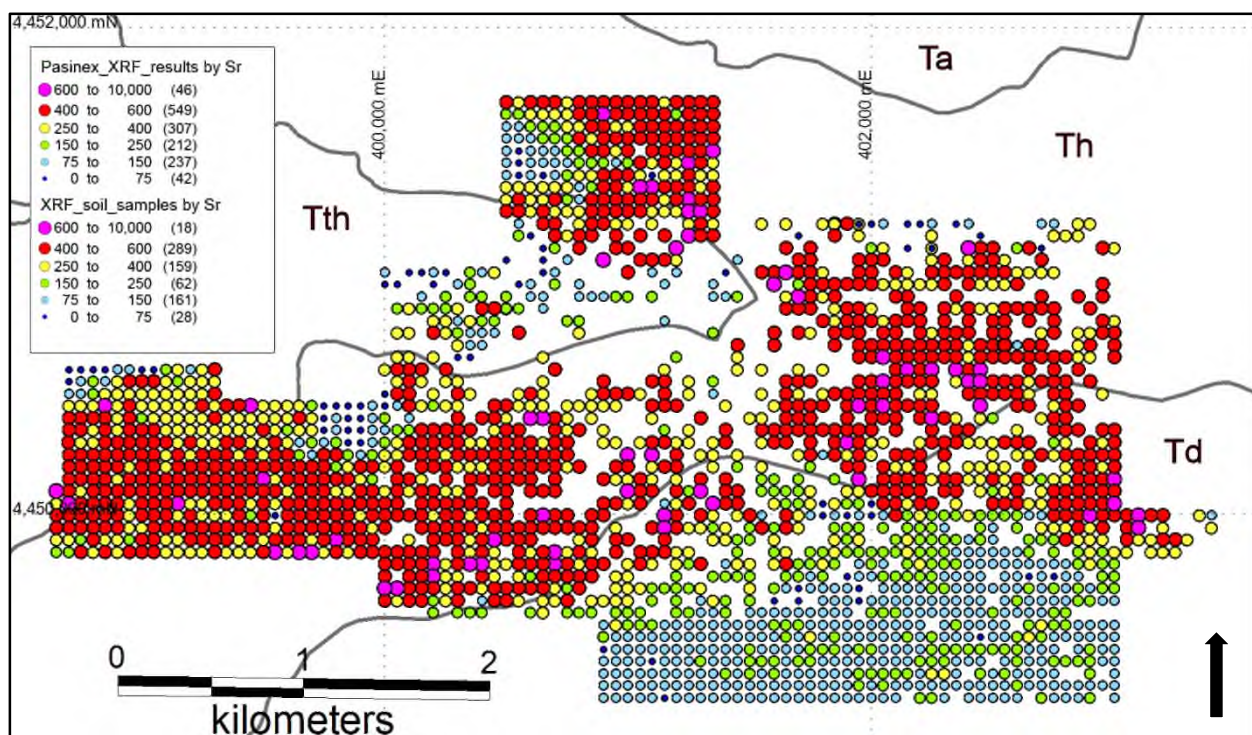


Figure 24: Strontium ppm in soils at Golcuk.

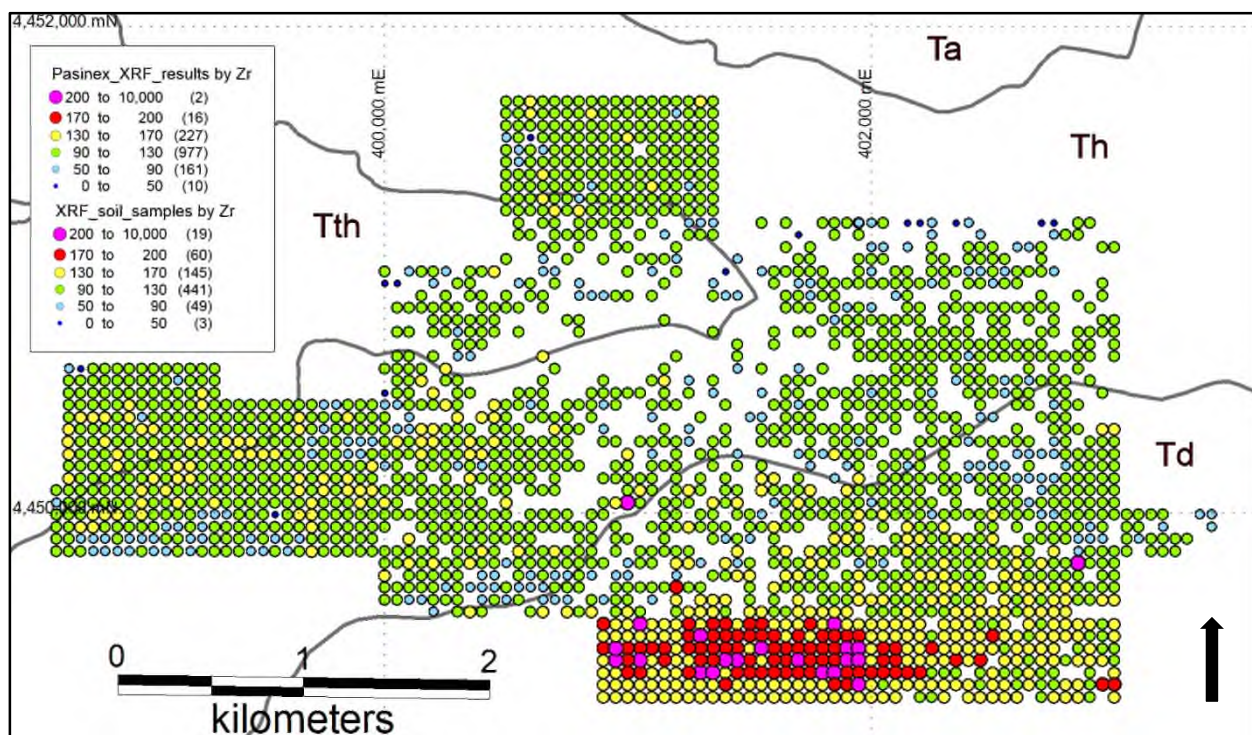


Figure 25: Zirconium ppm in soils at Golcuk.



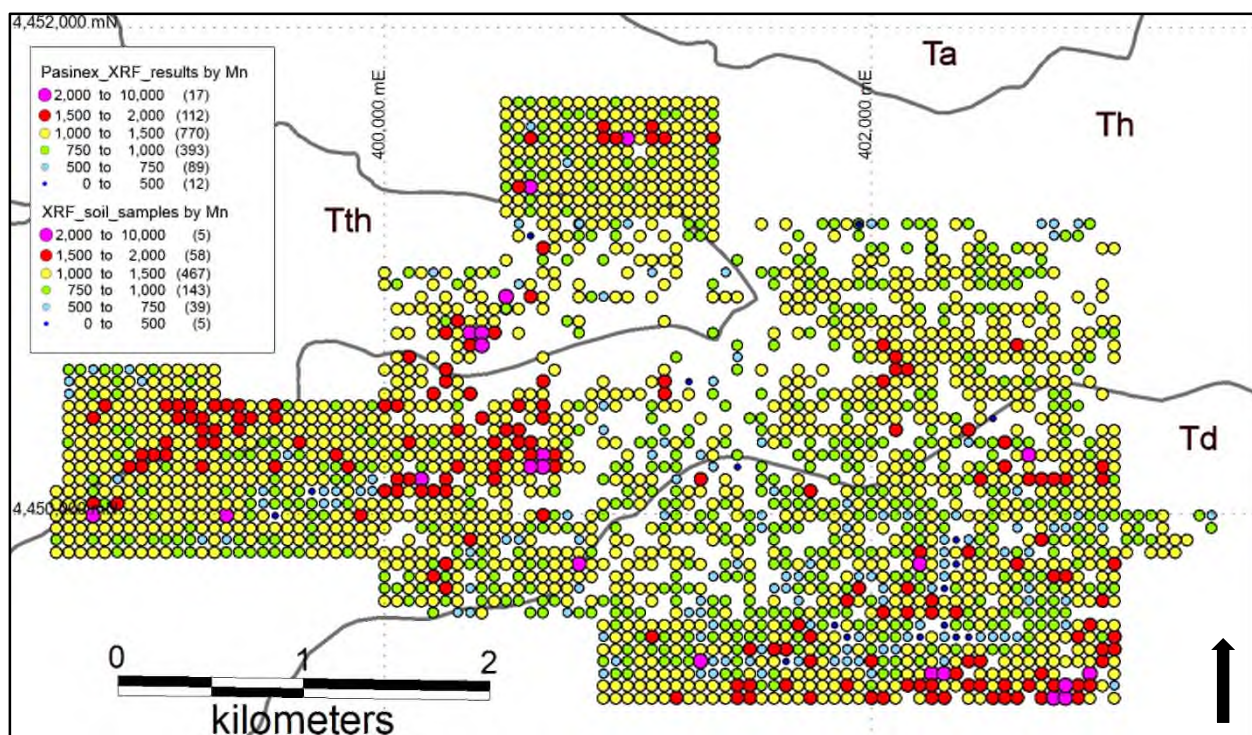


Figure 26: Manganese ppm in soils at Golcuk.

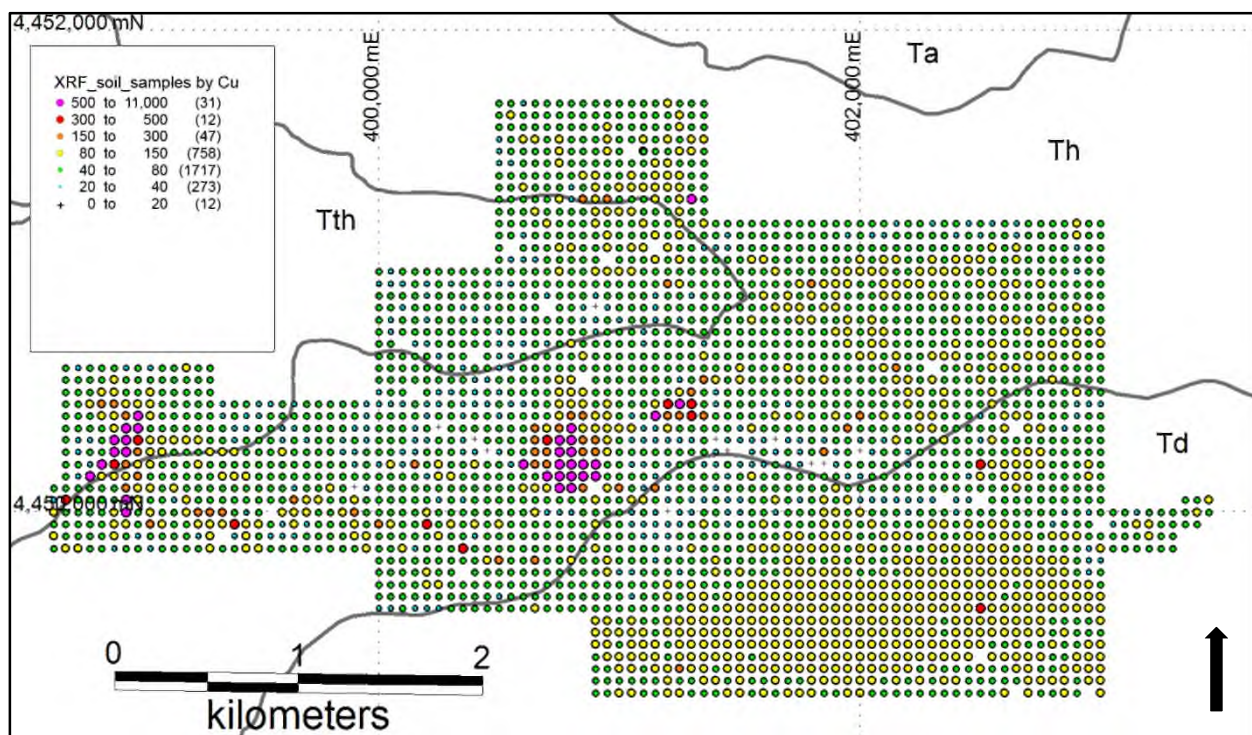


Figure 27: Copper ppm in soils at Golcuk.

It is clear from Figure 23 that there is a substantial variation in nickel values in the soil at Golcuk, likely reflective of the sub-cropping geology in the areas sampled. Of particular interest is the presence of areas greater than 500 meters in extent with nickel values above 400ppm (often above 600ppm), while most of the rest of the sampled area reports less than 100ppm nickel (often less than 50ppm). This leads to the expectation that nickel levels in drill core from sub-surface lithologies should show equivalent variation, which may be useful in discriminating layering in the drilled andesites and basalts which is not easily discernable by eye. It is with this consideration in mind that Pasinex has included nickel in their down hole borehole profiles (See Section 10).

Strontium levels presented in Figure 24 makes clear that there is often an inverse relationship between nickel and strontium in the soils at Golcuk, suggesting that strontium, too, may prove useful in discriminating different lithological units encountered during drilling on the property.

In Figure 25, zirconium shows a large coherent area of relatively elevated levels (>170ppm) within the Td Unit, against a background level over the remainder of the grid of 90 to 130ppm. While not a large difference, it is one almost certainly indicative of the presence of at least two sub-units within the Td Unit.

Manganese levels, on the other hand, as shown in Figure 26, vary somewhat randomly across the sampled area over the range 500 to 2,000ppm, with a couple of small clusters reaching above 2,000ppm. This level of variation is not uncommon in soils, and is likely to arise from pedological processes rather than from significantly different manganese levels in underlying lithologies.

## **9.2 Geological Mapping**

Detailed geological mapping of the Golcuk drilling area produced by Eurasia (Figure 16) has been extended by Pasinex to cover both the Golcuk North and Golcuk West soil geochemical anomalies, as shown in Figure 28 below.





### 9.3 Outcrop Sampling

In November and December 2012 Pasinex carried out surface outcrop sampling in the Main Golcuk target area which broadly confirmed outcrop sampling results obtained by earlier workers in the area.

Of particular note were the five lines shown in Figure 29 below and summarised in Table 7 which were systematically rock-chip sampled in order to estimate an average grade over a measurable distance.

It is significant that these rock-chip lines achieve comparable grades (e.g.: Line B: 2.4% Cu over 14m) to those measured in drill core, over comparable distances (e.g: Borehole TGSJ-18, which yielded 2.57% Cu over 13.5m – see Table 6 above).

Chip Line	Number of sample	Rock Type	Width (m)	Ave Cu grade(%)	Ave Ag grade (g/t)
A	2	Grey, greenish col, spotted hematitic, sericitic, and locally epidote altered andesitic basalt with patchy malachite fracture filled albite	5.0	1.7	21.50
B	7	Grey col, spotted epidote altered andesitic basalt with disseminated hematite including patchy and disseminated malachite.	14.0	2.4	23.36
C	6	Browish col, completely oxidized, sericitic basalt with disseminated and patchy malachite.	15.0	2.1	12.80
D	7	Dark grey col, sericitic basalt with disseminated hematite fracture filled albite and including disseminated and patchy malachite.	17.5	2.3	16.90
E	2	Dark grey col, rarely sericitic, spotted hematitic brecciated basalt with disseminated and patchy malachite	5.0	2.7	24.62

**Table 7: Description of rock-chip sampling lines at the Main Golcuk soil anomaly.**

Limited outcrop sampling was also carried out by Pasinex around the Main North (Figure 30) and Main West (Figure 31) soil copper anomalies which confirmed the presence of copper mineralisation in outcrop in these areas.

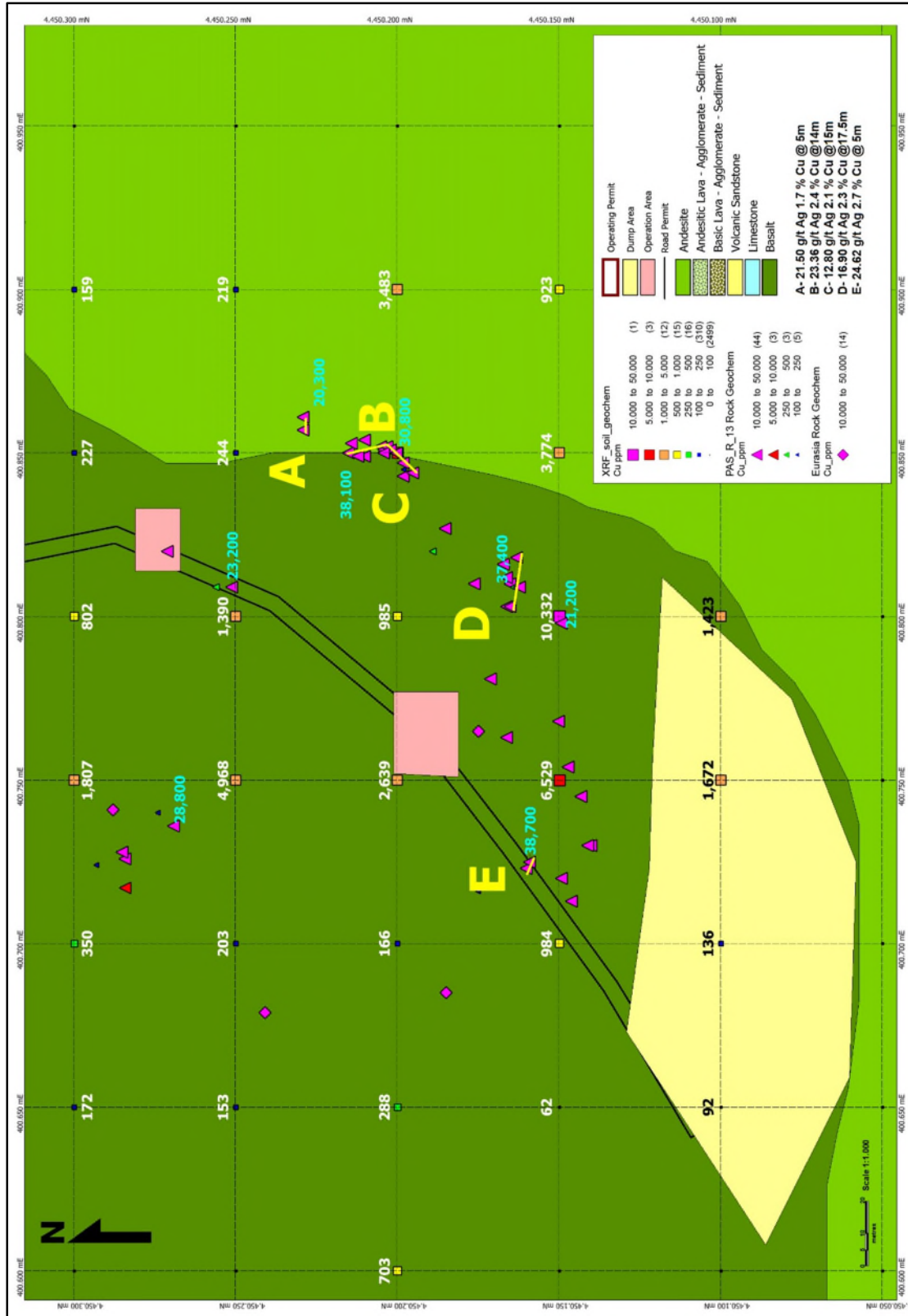


Figure 29: Location of rock-chip sampling lines at the Main Golcuk soil anomaly.



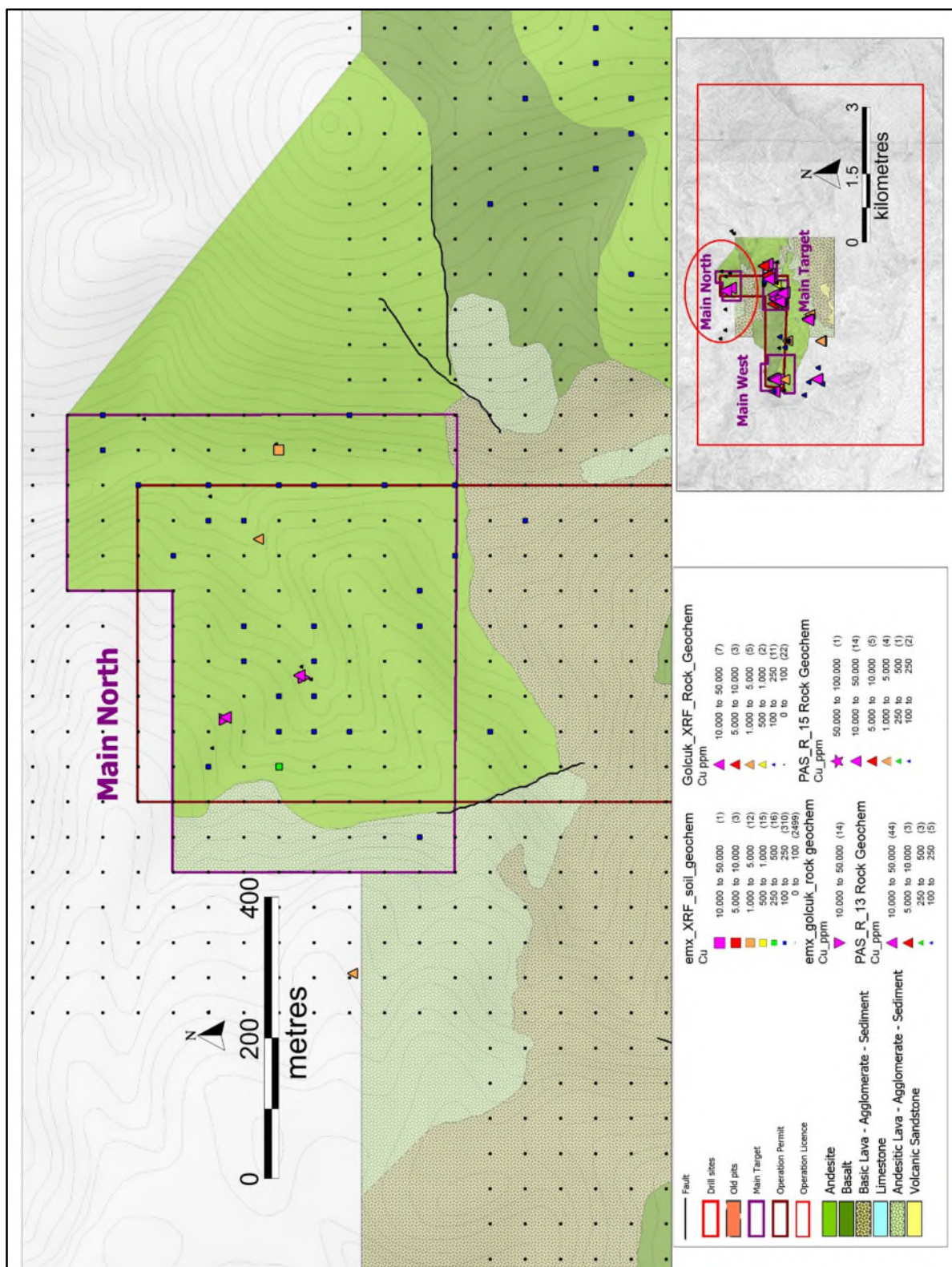


Figure 30: Copper results for outcrop sampling at the Golcuk Main North soil Cu anomaly.



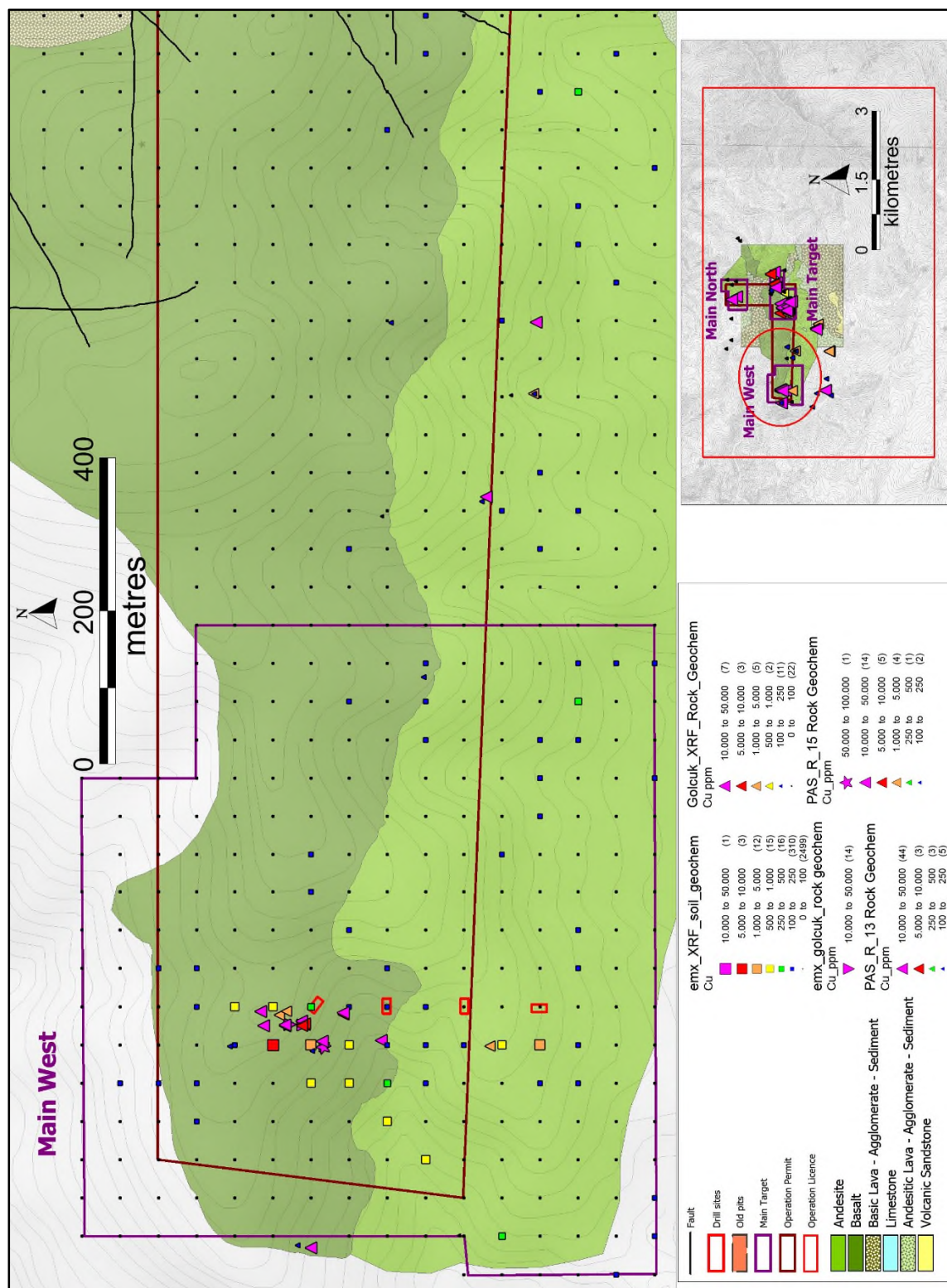


Figure 31: Copper results for outcrop sampling at the Golcuk Main West soil Cu anomaly.

## 9.4 Adit Excavation

In early October, 2012, Pasinex commissioned the mining of a 12 meter-long 2m by 2m horizontal adit located at North 4450185 and East 400765 in order to fulfill the minimum Golcuk licence mining obligations for 2012. Its location with respect to historical boreholes is shown in Figure 32 below.

The location of the adit had to be within a small “production area” permitted by the previous licence owner. Mining of the adit produced no economic mineralisation.

Pasinex geologists subsequently logged the entire 12 meters of adit as being in basalt showing very minor malachite staining associated with calcite veins. To check for copper mineralisation in the adit, five adit-wall samples were collected for every one meter of the adit, and analysed for copper by Niton XRF in the Pasinex laboratory in Horzum. Of these 60 samples, only six measured more than 0.1% Cu, being the following: 0.12% Cu in the first meter, 0.16% Cu in the second meter, 0.32% and 0.40% Cu in the fifth meter, 0.22% Cu in the seventh meter, 0.16% in the ninth meter. Most of the other 56 samples measured less than 0.03% Cu.

For geological interest, single spot samples were collected from five separate malachite-stained areas in the adit and these yielded the following copper results by Niton XRF: 3.54% Cu; 18.43% Cu; 3.48% Cu; 4.12% Cu and 0.28% Cu. While these are high levels of copper, the extent of the mineralisation they represent is not considered sufficient to upgrade any of the adit-mined material to any level close to an economic grade.

A photograph of the adit portal is shown in Figure 33.

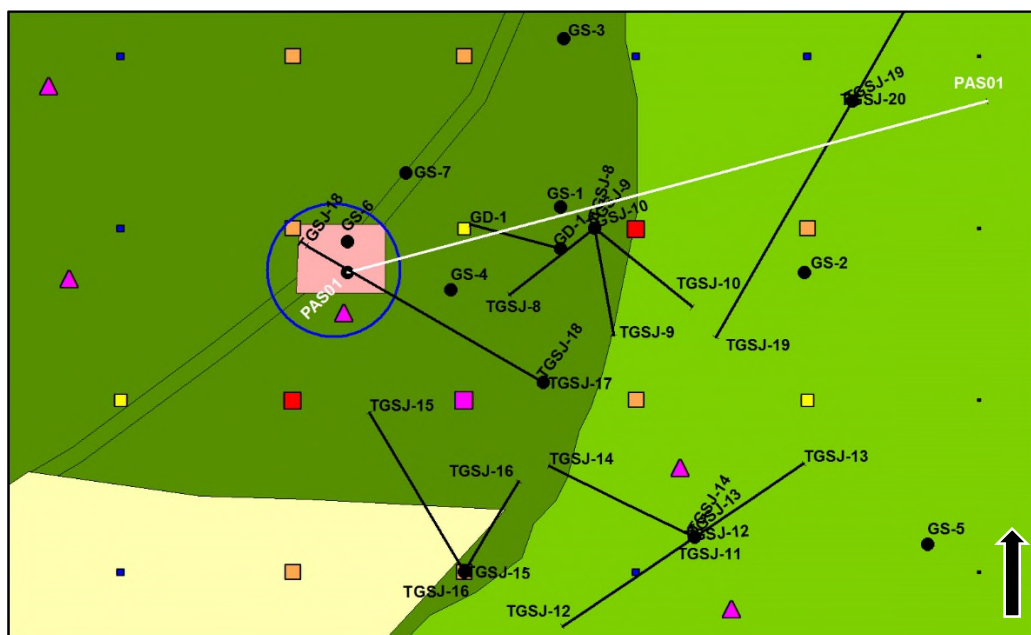


Figure 32: Location (center of blue circle) of 2012 Pasinex adit.



**Figure 33: Photograph of 2012 adit portal.**



## 10 DRILLING

After assuming operatorship of the project in mid-2012, Pasinex loaded all historical drilling results into the Discover 3D software system for analysis. Figure 34 below shows a plan view of pre-2012 drilling down-hole copper profiles with perspective comparable to Figure 6. Figure 35 shows a horizontal view from the north-west, also of the historical drilling copper profiles. Figures 36 and 37 show west-to-east (L-to-R) and south-to-north (L-to-R) sections respectively through the main mineralised zone at Golcuk.

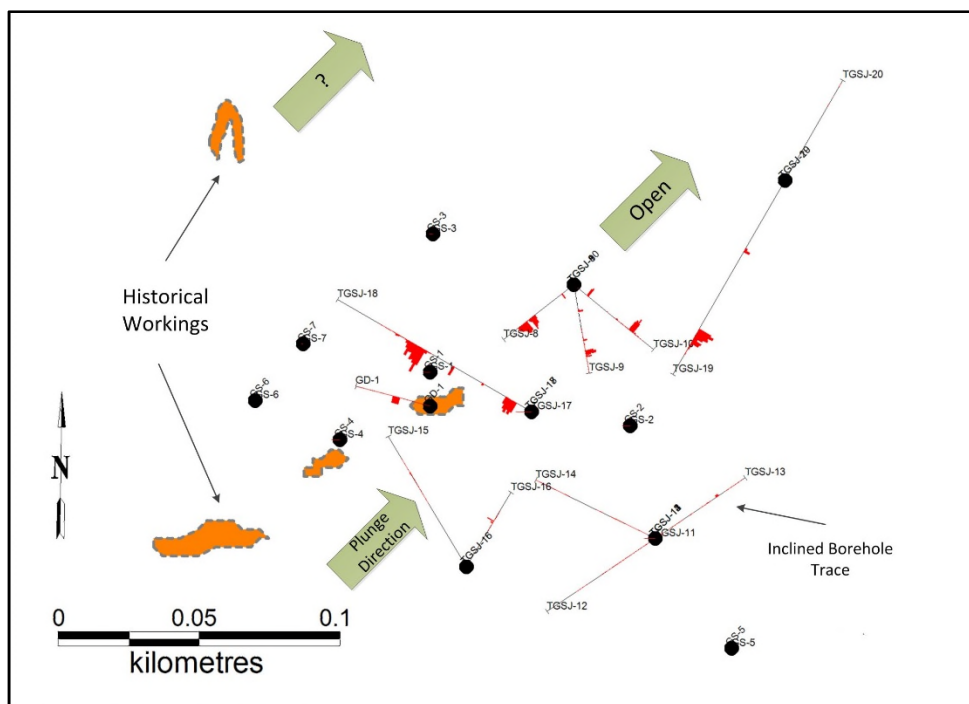


Figure 34: Plan view of pre-2012 drilling down-hole copper profiles at Golcuk.

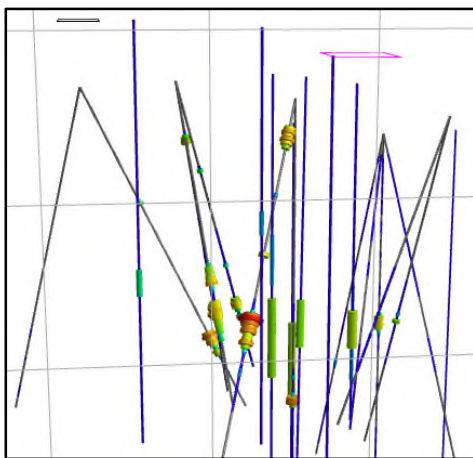


Figure 35: Horizontal view from the north-west of pre-2012 drilling down-hole copper profiles at Golcuk.

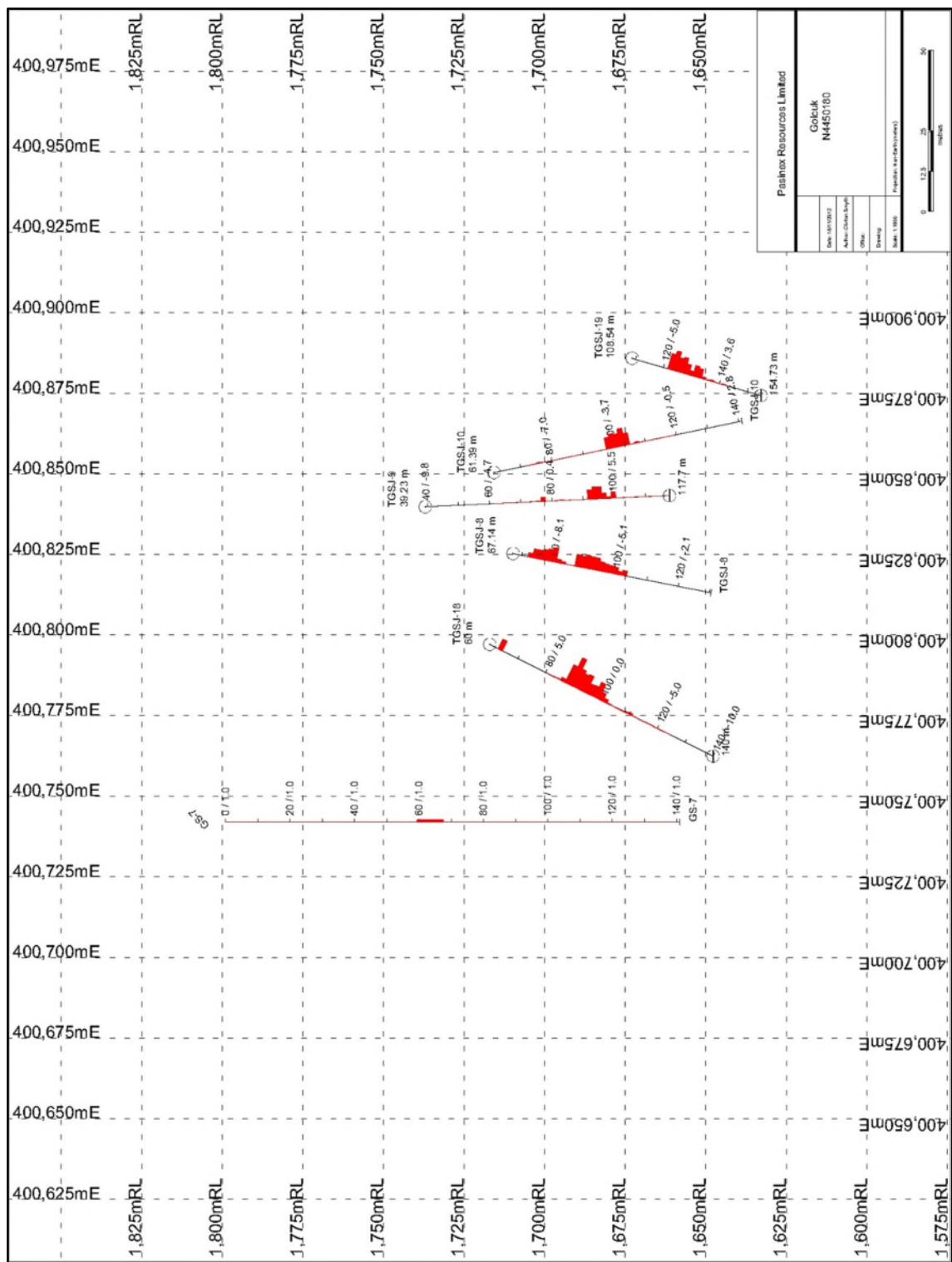
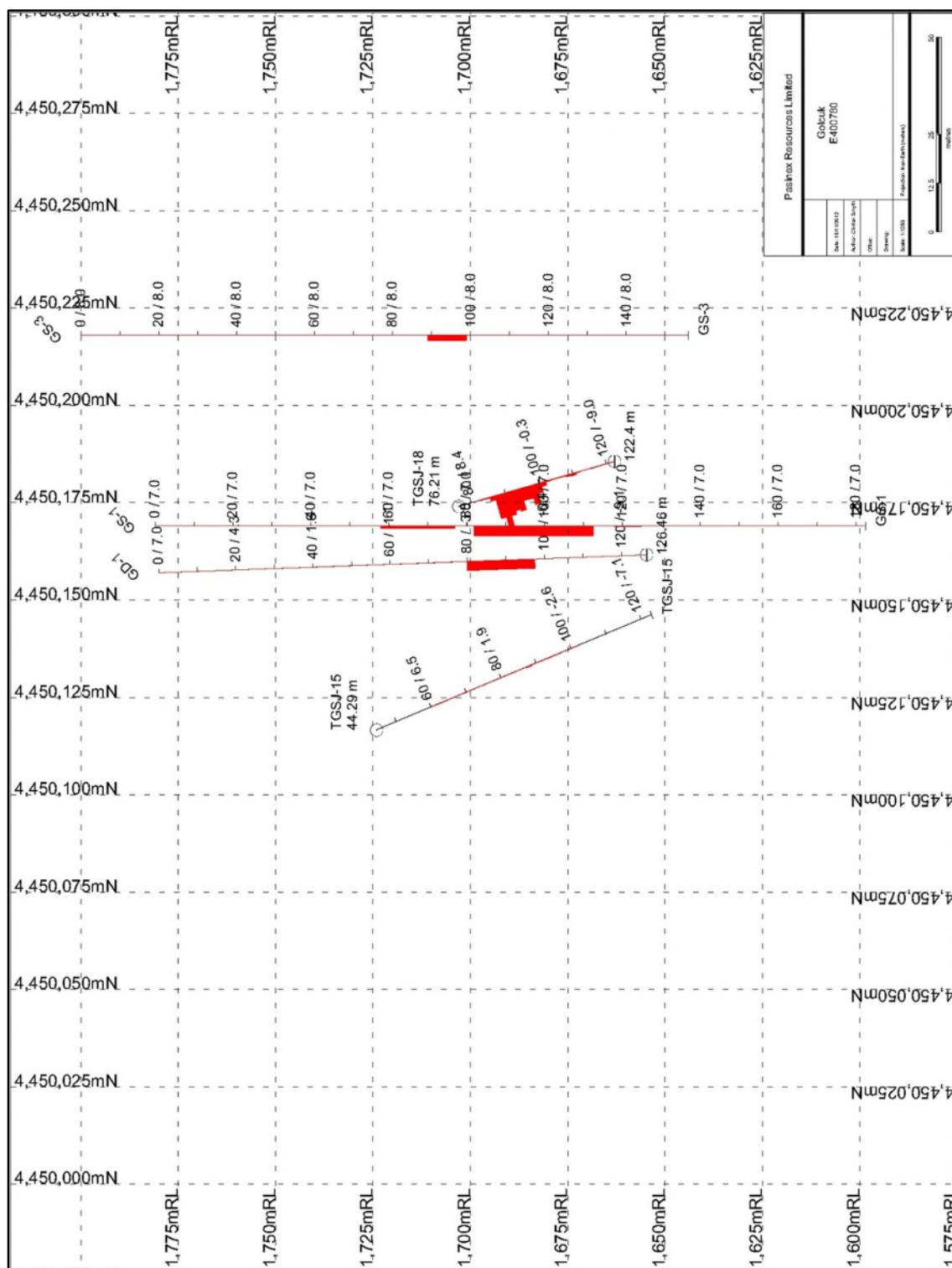


Figure 36: Down-hole copper profiles on the N4450180 West-to-East section through the main mineralised zone at Golcuk.



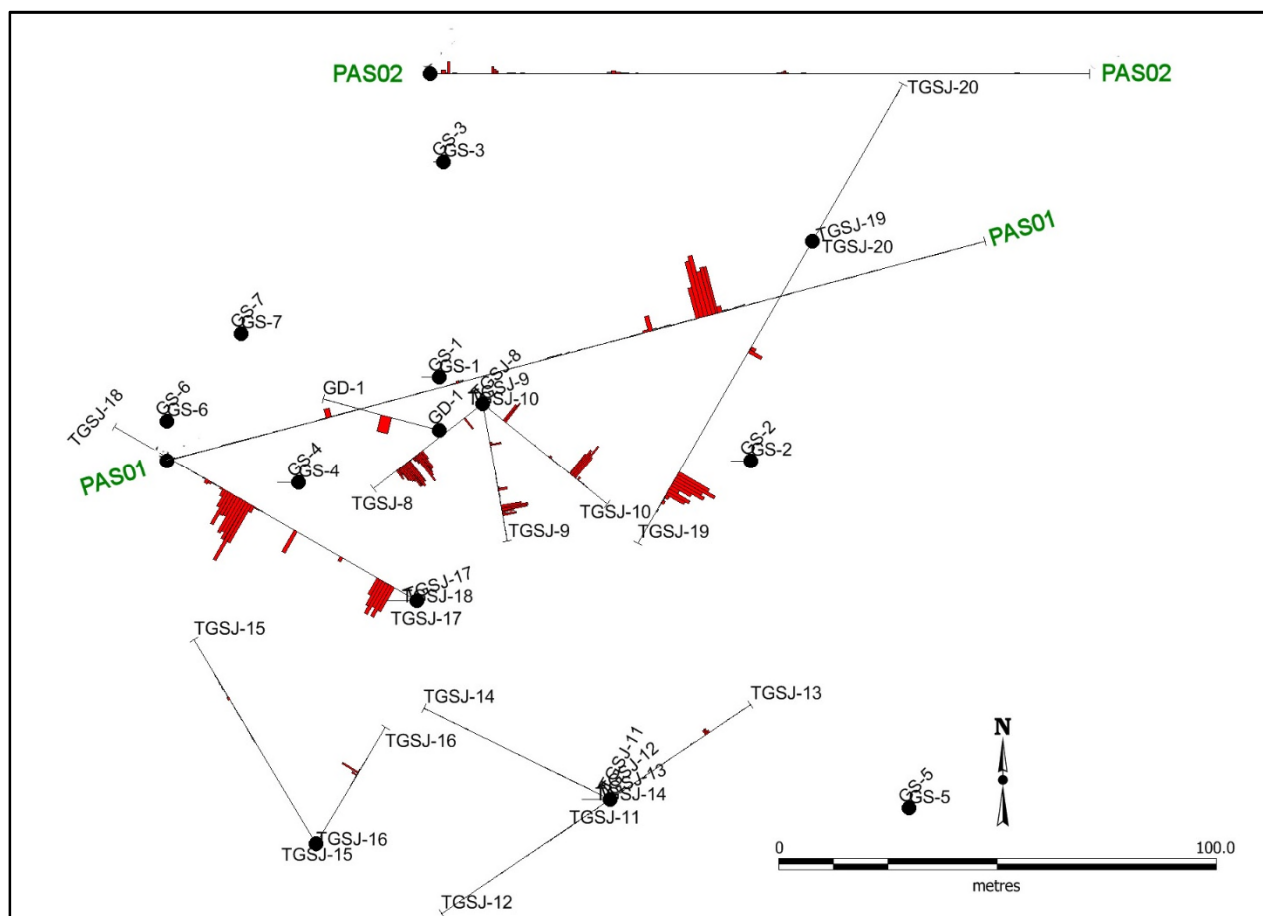


**Figure 37: Down-hole copper profiles on the E400780 South-to North section through the main mineralised zone at Golcuk.**

Based on these, and many other, views of the historical drilling data, Pasinex concluded that, unlike the interpretation presented in Figure 9, the copper mineralisation historically drilled at Golcuk was most likely sub-horizontal in orientation, with a plunge to the north-east. Boreholes PAS01 and PAS02 were therefore sited to test for mineralisation plunging to the north-east. The location and technical details for PAS01 and PAS02 are presented in Table 8 below, and their collars and drill hole traces, including copper profiles, are shown in Figure 38.

HoleID	Easting	Northing	Azimuth	Dip	Depth	Type	Start	Finish
PAS01	400,766	4,450,187	75	-50	342.40	HQ / NQ	30-Nov-13	9-Jan-13
PAS02	400,826	4,450,275	90	-60	336.00	HQ	15-Jan-13	14-Feb-13

**Table 8: Location and technical details for Pasinex boreholes PAS01 and PAS02.**



**Figure 38: Plan view of boreholes PAS01, PAS02 and pre-2012 drilling down-hole copper profiles at Golcuk.**

Drill hole PAS01 was collared in basalt, and remained in basalt to 187.40 metres. From 187.4 to the end of the hole (342.4m) the hole remained in andesite. No core was recovered between 261.50m and 273.50m, but overall recovery was some 79%. The entire hole was cut by diamond saw and sampled. All samples were taken in lengths between 1.00m and 1.50m and analysed at SGS Laboratories in

Ankara. Assay results indicated two mineralised intersections at a 0.5% Cu cut-off: 3.50m from 174.70m grading 0.54% Cu and 9.70m from 203.70m grading 2.97%Cu, including 6.70m grading 3.7%Cu.

Drillhole PAS02 was collared in basalt, and remained in basalt to 30.50 metres. From 30.50 meters to the end of the hole (336.00m) the hole remained in andesite, with only trace copper mineralisation. The entire hole was cut by diamond saw and sampled. All samples were taken in lengths between 1.00m and 1.50m and those from potentially mineralised intervals were analysed at SGS Laboratories in Ankara. The balance of the samples were analysed by Niton XRF in the Pasinex laboratory in Horzum.

Table 9 below lists which intervals of borehole PAS02 were analysed at SGS in Ankara, and which by Pasinex in Horzum.

From (m)	To (m)	Laboratory
0	40	SGS
40	80	Pasinex
80	145	SGS
145	150	Pasinex
150	170	SGS
170	200	Pasinex
200	250	SGS
250	336	Pasinex

**Table 9: Listing of intervals of borehole PAS02 analysed by different laboratories.**

In an attempt to investigate the controls on mineralisation, Pasinex geologists logged the following parameters visually down both boreholes, all of which have been plotted as profiles in Figure 40 and Figure 41 below, together with the elements Cu, Ag, As, Co, Ni, Zn, Pb and Ca, and magnetic susceptibility:

#### PARAMETER

#### LEGEND / Scale

Presence of brecciation	SUBU column yellow with black triangles
Presence of chalcopyrite	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)
Presence of bornite	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)
Presence of pyrite	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)
Presence of magnetite	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)
Presence of hematite	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)
Presence of chlorite	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)
Presence of epidote	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)
Presence of calcite veins	0 = none; 1 = low; 2 = Medium; 3 = High (incidence)

Evaluation of this data was incomplete at the time of writing of this report. Note that copper is plotted in two adjacent columns in the profiles, the first over the range 0 to 1000 ppm, and the second over the range 0 to 5% copper.

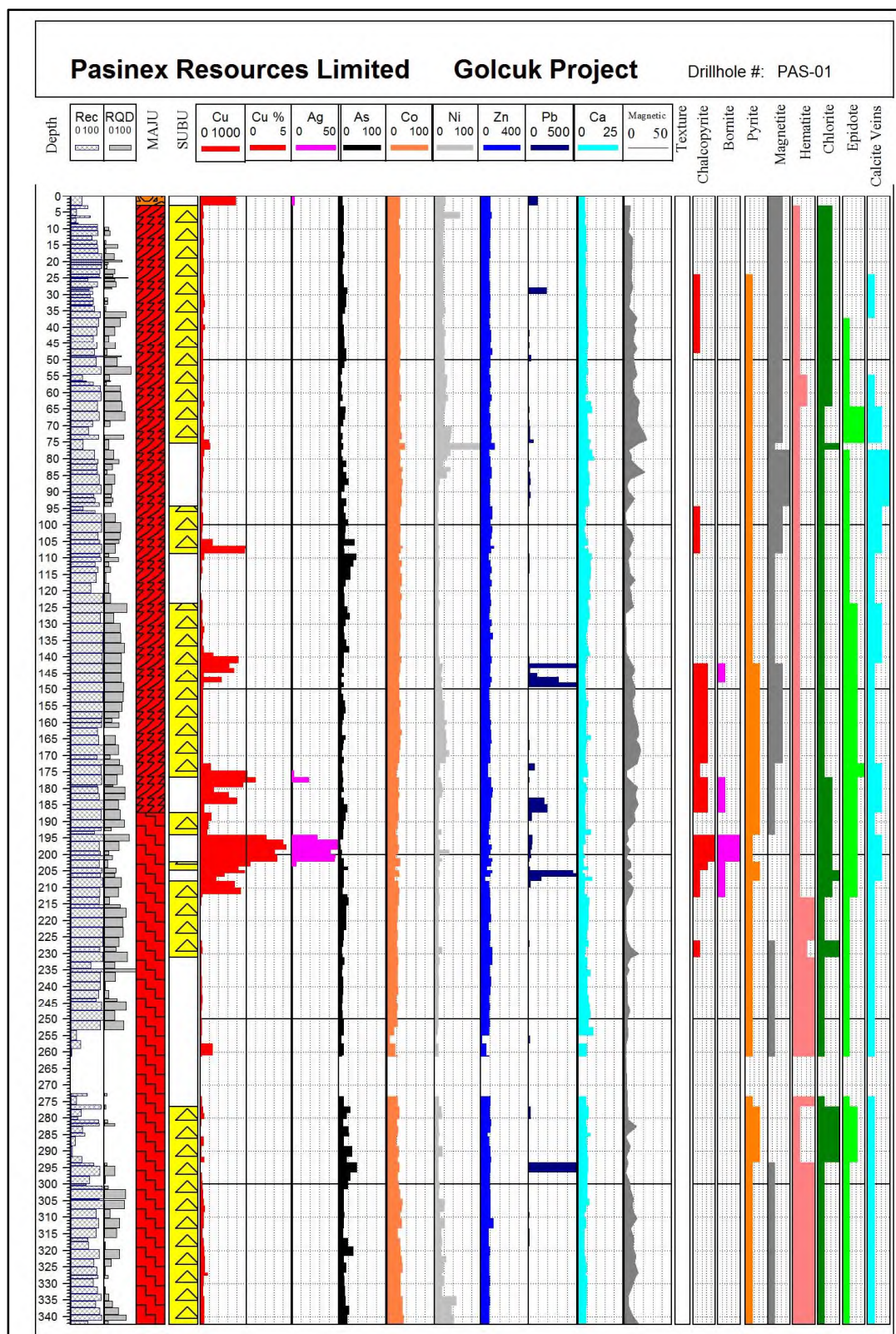
Special attention is being given by Pasinex to nickel calibration of the Niton XRF instrument used to analyse certain intervals of borehole PAS02 (Table 9). This is because it is clear from Figure 41 that Pasinex' Niton nickel values are consistently higher than the SGS nickel values. At the time of writing, Pasinex was of the view that the SGS nickel results were correct, and that the Niton XRF instrument was reading high in the low nickel ranges (below 150ppm nickel). This is an important problem for Pasinex to solve, as soil nickel values (Figure 23) suggest that there are high-nickel and low-nickel volcanic units present on the property – a distinction which may contribute to a better understanding of the volcanic stratigraphy of the property, which stratigraphy may exercise control on mineralisation.

Figure 39 below shows Pasinex drilling operations at Golcuk both before, and during, the snow of the winter of 2012/2013.



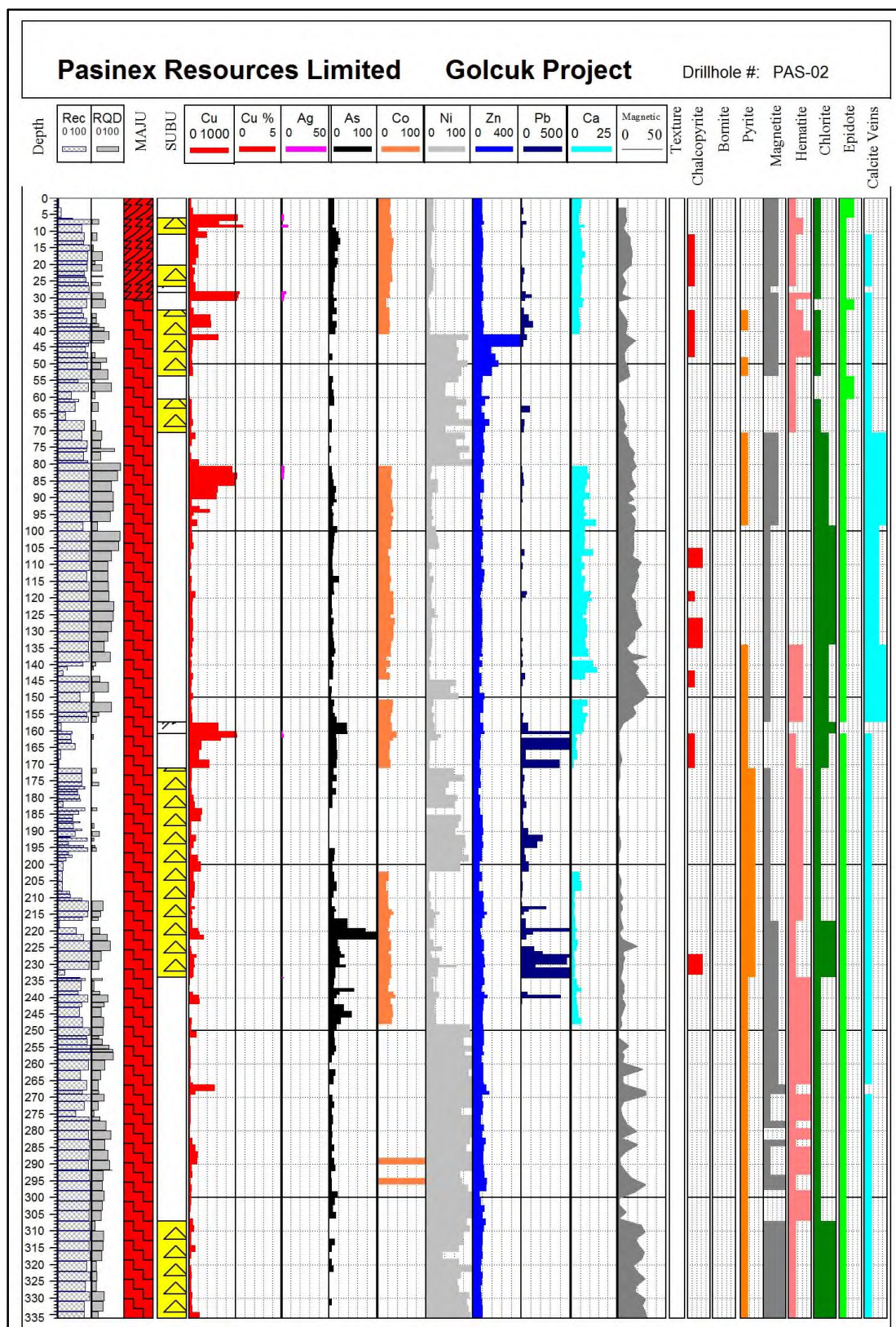
**Figure 39: Pasinex drilling operations at Golcuk.**





**Figure 40: Geochemical, magnetic susceptibility and mineralogical profiles for Borehole PAS01.**





**Figure 41: Geochemical, magnetic susceptibility and mineralogical profiles for Borehole PAS02.**

## 11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

No information is available with respect to the sample preparation and security procedures adopted by workers on the property prior to Pasinex. However the following factors give the author comfort that the results reported for historical drilling accurately represent the Golcuk property:

- (I) The availability for inspection and sampling of half-core for all the Turmenka drill core;
- (II) The availability of all assay certificates from an internationally-reputable laboratory (ALS-Chemex) for samples analysed from Turmenka drilling;
- (III) Verification assays undertaken by the author and reported in Section 12 below.

All Pasinex samples were prepared by Pasinex staff according to normal industry practice under well controlled working conditions (Figure 42), and submitted to an internationally-reputable laboratory (SGS) where they were subject to industry-best-practice quality control during analysis. No special security measures, other than storage of core and samples in locked premises (Figure 42), were taken by Pasinex to isolate samples from possible third-party tampering.

The author believes that the sample preparation, analysis and security measures implemented by Pasinex on the Golcuk project were adequate for the metals of interest, grades expected and encountered, and level of maturity of the project.



Figure 42: Pasinex core storage and sample preparation facility at Golcuk.

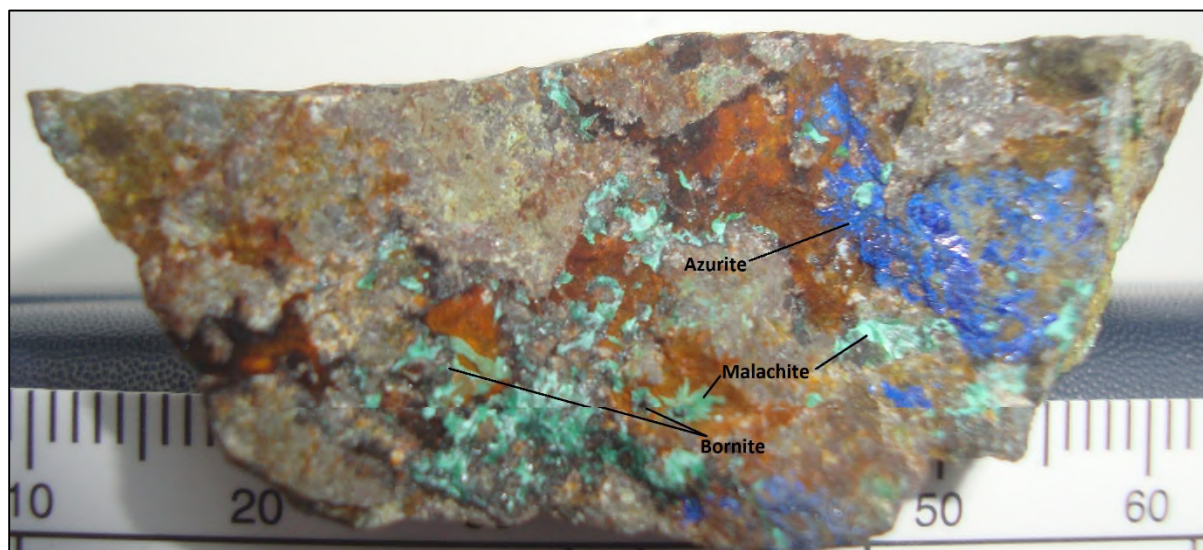


## 12 DATA VERIFICATION

Licence number 61567, dated 31 July 2008 was issued to Eurasia by the Minister of Mines under the Mining Code of Turkey giving Eurasia the right to prospect and mine for base and precious metals within the boundaries of the area. The document was examined by the author and conforms to the requirements of the minerals law. These rights have been transferred to Pasinex under the terms of their option agreement with Eurasia. Copies of the licences are attached as Appendices A, B and C. A legal opinion confirming ownership was obtained and is attached as Appendix D.

The geology of the Licence area was inspected during some foot traverses on the 29<sup>th</sup> and 30<sup>th</sup> October 2012. The geology was verified at selected sites during these traverses.

Verification of the form of mineralisation was carried out by collecting spot samples from sites of earlier exploration that, to the author, appeared in hand specimen to conform to the earlier descriptions of the mineralised rock. Detailed field examination with a lens of hand specimens of mineralised rock show them to contain copper mineralisation in the form of malachite, chrysocolla, azurite and bornite. Chalcocite and chalcopyrite are reported to be visible at the surface but were only seen in the drill cores by the author. Other copper minerals such chalcotrichite, tetrahedrite, cuprite and chalcantite were reported by previous workers. The mineralisation is fine-grained and mainly disseminated but in some areas is associated with net veining. The near surface “oxide” mineralisation is strongly developed on the surface of joints and fracture planes (Figure 43).



**Figure 43: Mineralised basaltic breccia from near the new Golcuk adit.**

Many of the rocks seem to be basaltic and andesitic volcanic breccias rather than simple basalt and andesite, the dominant rock names used in the field mapping and core logs of Etibank, Turmenka and Eurasia. The author's opinion also conforms to Rio Tinto's petrological description of the rocks in their borehole GD 1.

Quarter core was taken from borehole TGSJ-18 between 84.0m and 106.0m. Assay results confirm the previous Eurasia values (Table 10).

From (m)	To (m)	Cu% (Author & Pasinex)	Cu% ave. (Author & Pasinex)	Cu% (Eurasia)
84.0	85.5	0.113	0.113	0.103
85.5	86.0	0.286	1.545	0.508
86.0	86.5	1.440		
86.5	87.0	2.910		
87.0	87.5	3.730	3.113	3.050
87.5	88.0	2.950		
88.0	88.5	2.660		
88.5	89.0	4.620	4.003	4.610
89.0	89.5	3.460		
89.5	90.0	3.930		
90.0	90.5	2.890	3.160	3.060
90.5	91.0	3.170		
91.0	91.5	3.420		
91.5	92.0	2.740	2.573	2.590
92.0	92.5	3.250		
92.5	93.0	1.730		
93.0	93.5	2.640	2.323	2.810
93.5	94.0	1.730		
94.0	94.5	2.600		
94.5	95.0	3.360	1.726	1.590
95.0	95.5	1.090		
95.5	96.0	0.728		
96.0	96.5	3.070	1.726	1.670
96.5	97.0	1.245		
97.0	97.5	0.863		
97.5	98.0	0.725	1.718	2.530
98.0	98.5	2.210		
98.5	99.0	2.220		
99.0	99.5	2.760	1.554	1.250
99.5	100.0	1.300		
100.0	100.5	0.603		
100.5	101.0	0.681	0.498	0.522
101.0	101.5	0.588		
101.5	102.0	0.225		
102.0	102.5	0.135	0.102	0.111
102.5	103.0	0.083		
103.0	103.5	0.088		
103.5	104.0	0.003	0.029	0.034
104.0	104.5	0.049		
104.5	105.0	0.035		
105.0	105.5	0.007	0.211	0.042
105.5	106.0	0.415		

**Table 10: Borehole assay verification calculations.**

During the field visit an apparent error was noted in the location of some of the drill collars. Further investigation indicated a probable location displacement of some 44 to 66m to the south west. Details of this assumption are given in Appendix F.



**Figure 44: Photograph showing ancient slag pile and Borehole GS-5 collar location.**

The author is satisfied that all the above currently exist in a form readily available for inspection, and that they are of a quality that supports the takeover of management of the project by Pasinex using the methods described in this report.

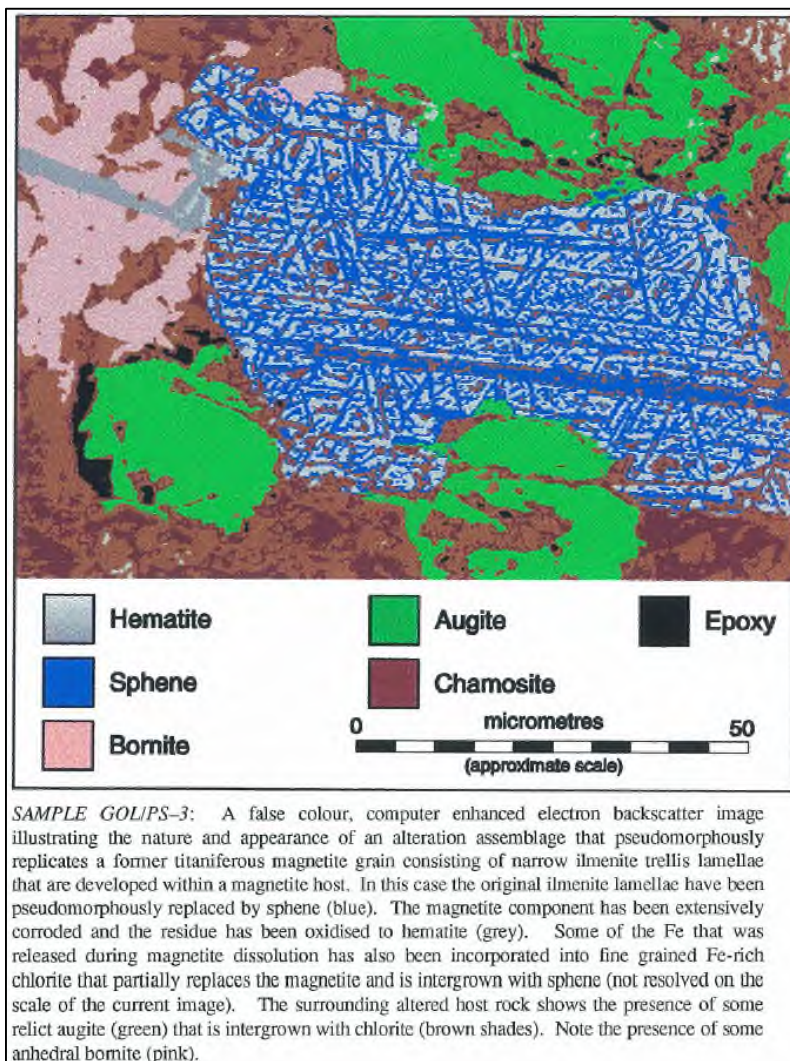
### **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

Rio Tinto in their petrological reports (Reynolds, 1995) indicated that, “the grain size and mode of occurrence of the copper sulphide minerals is highly variable, but in general, it should prove possible to produce an acceptable grade of concentrate from the material at a reasonably fine grind size. All the floatation recoveries from the Pasinex test work appeared to be somewhat low but were best in the lowest feed grade. The work was of a very preliminary nature and the report indicates that much more work needs to be done using different parameters.

In Reynolds’ report, a highly credible source, for Anamet he states; “It should be possible to obtain a reasonable degree of liberation at an appropriately fine grind size.” In sample 3 section 3.2 para 5 he



describes lamellar hematite intergrown with lamellae of sphene arranged in a triangular pattern and chamosite representing the altered remains of titaniferous magnetite that consisted of narrow illmenite oxidation exsolution lamellae that were developed parallel to the octahedral planes of their magnetite hosts. Alteration converted the magnetite to hematite plus possibly chamosite and the illmenite to sphene. Figure 5 of Reynold's report (reproduced as Figure 45 below) shows alteration of a titaniferous magnetite grain to haematite and sphene.



**Figure 45: Titaniferous magnetite replacement by hematite and sphene at Golcuk.**

Quarter core of borehole TGSJ- 9 from 91 to 100m was sent for mineralogical test-work to Hacettepe University of Istanbul laboratory in October 2012 (Appendix J). No conclusions were reported by the study, which, in the author's opinion was, in any event, not representative of the mineralisation being explored.

## **14 MINERAL RESOURCE ESTIMATES**

Mineral resource estimates made previously by Eurasia (Arioz, 2007) to comply with the Golcuk property's licencing conditions were considered inappropriate by Pasinex for the style of mineralisation and the amount of drilling completed.

The author agrees with this opinion, and believes that the Golcuk property has no mineral resources that comply with the National Instrument 43-101 standard.

## **15 MINERAL RESERVES ESTIMATES**

The Golcuk property is not considered to have any mineral reserves at the time of publication of this report.

## **16 ADJACENT PROPERTIES**

Pasinex knows of no exploration work on adjacent properties which is relevant to the exploration of the Golcuk property.

## **17 OTHER RELEVANT INFORMATION**

No relevant information.

## **18 INTERPRETATION AND CONCLUSIONS**

Judging by the records available to the author, prior to Pasinex taking ownership of the licence, little serious geological thinking appears to have been invested in trying to understand the surface copper mineralisation at Golcuk, and the encouraging drilling results associated with it, either in its broader geological context for target generation purposes, or in respect of structural controls on the known mineralisation which could guide future drilling.

This provides Pasinex with opportunities to gain insights with positive consequences for discovery where no attempts have been made to make them before.

While the geology at Golcuk is sufficiently well understood to be able to apply an exploration model with considerable economic potential (the "Basaltic Copper Model") to guide exploration, most of the property has not been subjected to geochemical or geophysical surveying, or mapping at better than a scale of 1:100,000. This provides the property with considerable potential for discovery of new centres of mineralisation not contiguous with the existing known mineralisation.

The two copper-in-soil geochemical anomalies that are not contiguous with the central, drilled, anomaly at Golcuk are examples of these, and both are certainly drilling targets.

The very small area of the property that has been explored in considerable detail because of the mineralisation it has been shown to host yields considerable evidence of copper with mineralogy and grades likely to make the copper easy to recover, should sufficiently large tonnages of such mineralisation be found. Further, the explored mineralisation appears to be sub-horizontal, occurring over thicknesses amenable to normal mining techniques, should sufficiently extensive continuous bodies of the same mineralisation be found.

As the structural controls on the known mineralisation have not yet been worked out, and the bodies of mineralisation identified to date are relatively narrow with respect to the spacing of drill holes on the margins of the drilled area, the known mineralisation remains open in a number of directions. In this regard, Pasinex faces the disadvantage that neither the core nor detailed logs are available for the first eight boreholes drilled at Golcuk. However Pasinex is attempting to make up for this by subjecting its own drill core to multi-element analysis and magnetic susceptibility survey, followed by detailed review of this data, in conjunction with surface geochemical and magnetics data.

The areas currently permitted for underground mining show little potential for economic mineral resources for open pit mining as they are too small.

Pasinex's Golcuk licence clearly covers an under-explored area with potential for the discovery of economic deposits of copper. It has clearly not yet been subjected to 20<sup>th</sup> or 21<sup>st</sup> century best-practice exploration methods, and therefore constitutes an exploration property of considerable merit.

## **19 RECOMMENDATIONS**

The author makes the following recommendations:

In the light of Pasinex's intention to change to open pit mining to maintain the licence, consideration should be given to applying for new mining permits located over cropping out mineralisation in order to maximise the likelihood of producing saleable material.

The whole of the licence should be soil sampled, together with detailed geological mapping.

An airborne magnetic survey of the whole licence, together with a limited amount of follow-up ground geophysics, should also be carried out.

Geological mapping (with associated prospecting for mineralised outcrop), of the entire property at a scale of at least 1:25,000 should be completed.

All the core of the available thirteen historical boreholes should be re-logged for interpretation alongside the two Pasinex boreholes, with data presented as in Figures 40 and 41, to facilitate interpretation.

At least four boreholes should be sited in and around the existing drilled area (approximate length = 200m each), based on understandings gained from integration of re-logged boreholes with Pasinex drilling results, to test for continuity of mineralisation in different directions.

Approximately 800 meters (over 5 or six holes) of drilling should be targeted on the Golcuk West copper-in-soil anomaly.

Approximately 800 meters (over 5 or six holes) of drilling should be targeted on the Golcuk North-East copper-in-soil anomaly.

Much of the Golcuk licence is accessible off-road by 4x4 vehicle with no or very limited road construction. Consequently, reverse circulation drilling is recommended for preliminary sub-surface exploration of additional copper-in-soil anomalies that are expected to arise from the recommended geochemical soil survey, as well as for structural targets which may be identified in the detailed mapping. One thousand meters of RC drilling is recommended for these purposes at this stage of the exploration program.

No.	Exploration Activity	Estimated Cost	Comment
1	Airborne magnetic survey of licence	\$82,000	2012 Fugro quotation +10% contingency
2	Inversion of magnetic susceptibility survey to 3D model, plus expert interpretation	\$10,000	
3	Complete soil sampling of entire property	\$160,000	8000 samples @ \$20/sample (collection and Niton XRF analysis)
4	Complete 1:25,000 geological mapping of property	\$10,000	6 man-weeks' fieldwork plus support
5	Re-log thirteen historical boreholes (inc. mag susc.)	\$10,000	6 man-weeks plus support
6	800m diamond drilling in Main Zone	\$120,000	\$150 per meter all-inclusive
7	800m diamond drilling in West Zone soil anomaly	\$120,000	\$150 per meter all-inclusive
8	800m diamond drilling in N-E Zone soil anomaly	\$120,000	\$150 per meter all-inclusive
9	1000m reverse-circulation drilling	\$100,000	\$100 per meter all-inclusive
10	Contingency (~10%)	\$68,000	
	<b>Total:</b>	<b>\$800,000</b>	

**Table 11: Recommended budget for the next phase of exploration at Golcuk.**

The scale of the budget for the exploration program expected to follow that recommended above and in Table 11 will be a function of the degree of success of the recommended program.



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## 21 CERTIFICATE OF AUTHOR, DATE AND SIGNATURE PAGE

I, Brian H. King, the author of this report entitled "NI43-101 TECHNICAL REPORT ON THE GOLCUK LICENCE, SIVAS PROVINCE, TURKEY", prepared for Pasinex Resources Limited and dated July 12, 2013, do hereby certify that:

1. I am a consulting geologist and my office address is: 20 Arnolds Close Barton on Sea, Hampshire, BH25 7JW, England.
2. I am a graduate of the University of London with a PhD in Geology granted in 1964.
3. I am registered as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (Registration Number 400238/06) and a Senior Fellow of the Geological Society (of London). I have worked as a geologist for a total of 49 years. My relevant experience for the purpose of this Technical Report is:
  - Multiple reviews and reports for the Anglo American Corporation of South Africa on numerous exploration and mining projects around the world for due diligence and regulatory requirements during the period 1990 to 1998;
  - Monitor, for the Anglo American Corporation's New Mining Business Division from 1990 to 1995, their exploration activities in Turkey;
  - Review and report, as a private consultant, on various exploration and mining projects around the world for due diligence and regulatory requirements during the period 1998 to 2012.
4. As part of my preparation for this report I visited the Golcuk Licence in Turkey for two days on the 29<sup>th</sup> and 30<sup>th</sup> of October, 2012
5. I am independent of the Issuer applying the test set out in Section 1.5 of National Instrument 43-101 (NI43-101) and have had no prior involvement with the Golcuk Project.
6. I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
7. To the best of my knowledge and belief, this technical report contains all the scientific and technical information that is required to make the report not misleading.
8. I consent to the filing of this report with any stock exchange or any regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the report.

Signed &amp; Sealed:

B. King  
Brian H. King, Nat Sci Pro

Dated 12 July, 2013

## **Appendix A      Golcuk Exploration Licence**





Ölçek : 1/105000



## **Appendix B      Biricik Bengisu Dinçer Legal Opinion on Golcuk Licence Status**

16.11.2012

**1) Legal Status of 61567 License Numbered Field Owned by Pasinex Exploration and Mining Corp.**

Mining license numbered 61567 located in Sivas province, Koyunhisar District, Gölcük village (the “License”) was assigned to Pasinex Arama ve Madencilik A.Ş. (“Pasinex”) by Eurasia Madencilik A.Ş. (“Eurasia”) on 25.07.2012.

In order the underground mine located at the above stated field to start production, operation permission was obtained by Eurasia from General Directorate of Mining Affairs on 04.11.2009. From this date on, no production has been done at that field. As this situation bears the risk of cancellation of the License pursuant to paragraph 12 of Article 24 of the Mining Law, Pasinex, which has taken over the License on 25.07.2012, performed a production of 16 tons via its subcontractor Mitto Madencilik. On 04.10.2012, the amount of production was accepted to be enough for continuity of the validity of the License with a report finalized on 15.10.2012 and prepared by a committee assigned to the field by the General Directorate of Mining Affairs (“Report”). By this means, license cancellation risk within the scope of article 24/12 of the Mining Law is eliminated for 2012. In 2013 and 2014 compulsory production amounts must also be accomplished.

According to information, which we get from Mitto Madencilik, Pasinex deems that it would be economically more suitable to perform the field operations with open cast method. There is no need to get an additional operating license for opening open cast (above ground) facility. According to paragraph 2 of article 34 of Mining Law Implementation Regulation, it would be enough to notify the General Directorate of Mining Affairs about the change in such production method and to obtain approval by submitting the a project which is suitable for the new situation.

Accordingly, with the aim of being able to produce with open cast method, Pasinex requested plantation change in operation method change for the related field on 02.10.2012. This request was considered to be suitable by the technical committee assigned to the field by the General Directorate of Mining Affairs and open cast production was permitted with the Report.

According to the testimony of officials of Mitto Madencilik, project for open cast facility was prepared, but it is not submitted to General Directorate of Mining Affairs yet. Environmental Impact Assessment Report and forestry permissions, which are needed for the open cast production facility to start production, will be obtained after

the project is submitted. Without the completion of related permissions, production in the open cast production facility is not possible.

## **2) Application for Temporary Suspension of Activities**

Pasinex applied to General Directorate of Mining Affairs for temporary suspension of activities with the letter dated 31.10.2012 and numbered 130229, but the application was not accepted by the General Directorate of Mining Affairs. Although it is not stated in the relevant legislation, officials of General Directorate of Mining Affairs decided that in order to evaluate applications for temporary suspension of activities, the license owners who made an application should guarantee to construct a mine enrichment facility within the one year term during which they will have the right to suspend the activities. Pursuant to this decision, license owners who will request temporary suspension of activities should make a commitment to construct a mine enrichment facility in order their request to be accepted by the General Directorate of Mining Affairs.

The issues expressed during the interview we had with the Head of the Department of License and Permissions in General Directorate of Mining Affairs Bülent Özçelik in order to be informed about the consequences of the breach of commitments that was given are submitted below for your information:


The studies performed in the field in relation to the commitment that was given will be assessed by the authorities of the General Directorate of Mining Affairs. Even if the commitment was not carried out, the General Directorate of Mining Affairs will not take any action to cancel the license if the studies that were performed points out that the license owner is trying to fulfill its commitment in good faith.

However, in the case no work has been performed in the field to fulfill the commitment, then as a result of breach of the given commitment the General Directorate of Mining Affairs will find a cause for the cancellation of the license, even though no sanction can be applied against the license owner according to the provisions of the mining legislation.

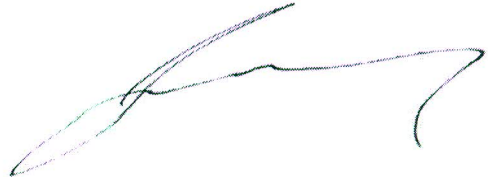
For Your Information,

Regards,

Ayşegül Yalcinmani



Bengisu Dinçer



## **Appendix C      Onur Keskin Report on Legal Background to Golcuk Licence Status**



**Legal Background of the Site with the License numbered 61567 in Gölcük Village of the Koyulhisar District in the Sivas Province belonging to Pasinex Arama ve Madencilik A.Ş. and the Procedures That Need To Be Performed**

The first application numbered 4222 dated 04.09.2002 was filed by Mineral Mad. San. Tic. Ltd. Şti for the site, the license numbered AR: 84465 was issued and transferred to Eurasia Mad. Ltd. Şti. on 25.12.2003, its operation project was provided with the petition dated 01.11.2007 and numbered 129050 and the operation license and permits were requested, the operation project was concluded with the approval dated 16.07.2008 and numbered 4729 and then took effect on 31.07.2008.

After the receipt of the Operation License, a delivery receipt report of the site was received from Karaçam sub-district directorate of the Koyulhisar Forestry Department. The letter of the Provincial Directorate of Environment and Forestry of the Sivas Governorship dated 14.10.2008 numbered 086 stating that the legislations of EIA regulation shall not be applied is present. Again, the permit of Non-sanitary Enterprises of the same site was received from the Sivas Special Provincial Administration with the decision dated 14.10.2008 numbered 2008/052.

Following the required permits, the operation permit was received on 04.11.2009 from the General Directorate of Mining Affairs and from this date production was not performed by Eurasia Madencilik. On 25.07.2012 the License was transferred to Pasinex Arama ve Madencilik A.Ş. and a request was made concerning the operating method amendment through the petition and its annexes dated 02.10.2012 and numbered 126419. Pursuant to the 3<sup>rd</sup> article No: 24/12 of the Law, as it is necessary to perform production within 3 years after the receipt of the operation permit, upon the transfer of the license, the License owner made an agreement with the Sub-contractor Firm and then performed 16- tons of production. During the production phase, in order to receive approval for the amendment of the method of operation and prove conducted production, the assignment of a Committee was performed based on the assignment approval dated 04.10.2012 and numbered 4931 and on 06.10.2012 the committee arrived at the site.

According to the Committee's enquiry and evaluation report it was determined that a 5-6- tons of production was performed on the site and that there was Cu at the rate of 2-2.5% in the all-in ore and that there was a gallery mouth where the new production was performed in the coordinates of Y: 400765 – X 4450189 and the ex-gallery entrance in the coordinates of Y: 400855 – X 4450200. In addition, it was stated that the site had no debts of fees and that environmental compliance guarantees were deposited and that the state's rights were arranged over 10% as it should be for the years during which production was not performed and that nothing was missing in the documents regarding the article numbered 29. Provisional Approval was issued with the Committee's assessment report and upon its being made official in November, our requests of production approval and amendment of the method of operation shall have been accepted.

After the arrival of the Committee, production was continued by the sub-contractor firm through the underground operation method. All-in copper production up to 16 tons was performed in total. As of 20.09.2012 technical supervisors commissioned in the site shall resign and a production map, a sales information form, and an activity information form shall be prepared and then submitted to the General Directorate of Mining Affairs.

In addition to the request of temporary intermission, the activities concerning the renewal of the permits of Non-Sanitary Enterprises, Ownership, and EIA for the open pit production shall be initiated.

Even if the production shall be accepted by the General Directorate of Mining Affairs for the year 2012 as well as the Committee's Approval that shall be issued, it will be necessary to perform production again for the years 2013 and 2014 according to the law.

It is hereby certified that the present document has been translated from the original Turkish text to English by AHMET ZAFER TÜRKİYİLMAZ, who is an officially certified translator.

It is hereby certified that the present document has been translated from the original English text to Turkish by AHMET ZAFER TÜRKİYİLMAZ, who is an officially certified translator.



**CANKAYA TERCÜME BÜROSU**

**M.DURU - CANER TÜRKİYİLMAZ Ortaklığı**

Tunalı Hilmi Cad. Kuşulu İş Merk. 123-A Kat: 4 No: 45  
Tel: (0.312) 466 66 85 Kavaklıdere / ANKARA  
Kavaklıdere V. D. 001 061 272 www.cankayatercume.com.tr

İş Bu Belge, Ben Yeminli Tercüman A. Zafer TÜRKİYİLMAZ Tarafından Aslına Uygun Olarak İngilizce'den Türkçe'ye Türkçe'den İngilizce'ye Çevrilmiştir.

İş Bu Belgenin İngilizce'den, Türkçe'ye Türkçe'den İngilizce'ye Dairemizde Kimliği Saklı Yeminli Mütercimimiz A. Zafer TÜRKİYİLMAZ Tarafından Tercüme Edilmiştir Onaylıdır.



The decision of temporary intermission shall be made clear within 3-4 months but a decision of one-year intermission shall be made from the date of request. In this case if the decision is made in this direction, then it shall be valid till /11/2013.

However, then in order to perform open pit production as it is necessary to renew the permits of Non-sanitary Enterprises, Ownership, and EIA, in case the request of temporary intermission is not satisfied and the permits are not renewed till /07/2013, performing underground production again in the pit shall be necessary.

In other words, if a decision of temporary intermission is not made, as it is necessary to perform production for the years 2013 and 2014, in case the permits are renewed, open pit or underground production shall be necessary but in case the permits are not renewed, underground production shall be necessary.

In case production is not performed till /11/2013, as the license shall be null and void, it is necessary to initiate production till /07/2013 at the latest by evaluating the above-mentioned conditions.

Signature  
Onur KESKİN  
Company Manager  
MITTO MADENCİLİK

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İş Bu Belgenin İngilizce'den Türkçe'ye/Türkçe'den İngilizce'ye Dairemizde Kimliği Saklı Yeminli Mütercimimiz A. Zafer TÜRKYILMAZ Tarafından Tercüme Edildiğini Onaylıyorum.

**Sivas İli, Koyulhisar İlçesi, Gölcük Köyü dahilinde bulunan Pasinex Arama ve Madencilik A.Ş. 'ye ait  
61567 Ruhsat Sayılı Sahanın Hukuki Geçmişi ve Yapılması Gerekenler**

Sahaya 04/09/2002 4222 tarih ve sayı ile Mineral İnş. Mad. San. Tic Ltd. Şti. Tarafından ilk müracatta bulunulmuş, AR: 84465 sayılı ruhsat düzenlenmiş, 25/12/2003 tarihinde Eurasia Mad. Ltd. Şti. uhdesine devri yapılmış, 01/11/2007 tarih ve 129050 sayılı dilekçe ile işletme projesi verilerek işletme ruhsatı ve izni talep edilmiş, işletme ruhsatı 16/07/2008 tarih ve 4729 sayılı Olur'a bağlanmış, 31/07/2008 tarihinde işletme ruhsatı yürürlüğe girmiştir.

İşletme Ruhsatının alınmasının ardından 18/05/2009 tarihinde Koyulhisar Orman Müdürlüğü Karaçam İşletme Şefliğinden saha teslim tesellüm tutanağı alınmıştır. Sivas Valiliği İl Çevre Orman Müdürlüğü'nün, ÇED yönetmelik hükümlerinin uygulanmayacağını belirten 14/10/2008 tarih ve No:086 sayılı yazısı mevcuttur. Yine aynı sahanın GSM izni Sivas İl Özel idaresinden 14/10/2008 tarih ve 2008/052 sayılı kararla alınmıştır.

Gerekli izinleri takiben Maden İşleri Genel Müdürlüğünden 04/11/2009 tarihinde işletme izni alınmış, bu tarihten itibaren Eurasia Madencilik tarafından hiç bir üretim gerçekleştirilmemiştir. 25/07/2012 tarihinde Ruhsat Pasinex Arama ve Madencilik A.Ş.'ye devredilmiş; 02/10/2012 tarih ve 126419 sayılı dilekçe ve ekleri ile işletme yöntem değişikliği talebinde bulunulmuştur. Kanunun 24/12 maddesi gereğince işletme izninin alınmasından sonraki 3 sene içinden üretim gerçekleştirilmesi zorunluluğu olduğundan ruhsat devirini takiben Ruhsat sahibi Taşeronla firma ile anlaşarak 16 tonluk bir üretim yapmıştır. Üretim aşamasında, işletme metod değişikliği Olur'u alınabilmesi ve yapılan üretimin kanıtlanması amacıyla 04/10/2012 tarih ve 4931 sayılı görevlendirme Olur'u ile Heyet görevlendirmesi alınmış; 06/10/2012 tarihinde sahaya heyet gelmiştir.

Heyet tetkik ve değerlendirme raporuna göre sahada 5-6 tonluk üretim yapıldığı, tüvenan cevherde %2-2,5 oranında Cu olduğu, Y:400765 – X 4450189 koordinatlarında yeni üretim yapılan galeri ağzı ile Y: 400855 – X:4450200 koordinatlarında eski galeri girişi olduğu tespitleri yapılmıştır. Ayrıca, sahanın harç borcu bulunmadığı gerekli çevre uyum teminatlarının yatırıldığı , üretim yapılmayan seneler için devlet haklarının, olması gerektiği gibi 10% üzerinden yapıldığı ve 29. Madde evraklarında bir eksiklik olmadığı belirtilmiştir. Geçici Olur Heyet değerlendirme raporu ile çıkmış olup; Kasım ayı içerisinde resmileşmesi ile, üretim onayı ve işletme metod değişikliği taleplerimiz kabul edilmiş olacaktır.

Heyet gelişinden sonra yeraltı işletme yöntemi ile üretime taşeron firma tarafından devam edilmiş. Toplamda 16 ton kadar tüvenan bakır üretimi yapılmıştır. 20/09/2012 itibarıyla sahada görevli teknik nezaretçi istifa edecek; imalat haritası, satış bilgi formu, faaliyet bilgi formu hazırlanıp MIGEM'e sunuacaktır. Bunu takiben faaliyet durdurma kararı alınacak, geçici tatil talebinde bulunulacaktır.

Geçici tatil talebiyle beraber, GSM, Mülkiyet ve ÇED izinlerinin, açık ocak üretimi için yenilenmesi çalışmalarına başlanacaktır.



Çıkacak Heyet Olur'uyla beraber 2012 senesi için üretim MİGEM tarafından kabul edilecek olsa da 2013 ve 2014 seneleri için yine üretim yapılması kanuna göre zorunlu olacaktır.

Geçici tatil kararı önümüzde 3-4 ay içinde netleşecek, ancak talebi yapacağımız tarihten itibaren 1 sene tatil kararı çıkacaktır. Bu durumda geçici tatil çıkarsa bu karar /11/2013 tarihine kadar geçerli olacaktır.

Öte yandan açık ocak üretimi yapılabilmesi için, GSM, Mülkiyet ve ÇED izinlerinin yenilenmesi gerektiğinden geçici tatil talebi alınamaması ve izinlerin /07/2013 tarihine kadar yenilenememesi durumunda ocakta yine yeraltı üretimi yapılması zorunlu olacaktır.

Başka bir deyişle, geçici tatil kararı alınamassa 2013 ve 2014 seneleri için üretim yapılması zorunlu olduğundan izinlerin yenilenebilmesi durumunda açık ocak veya yeraltı; izinlerin yenilenememesi durumunda ise zorunlu olarak yeraltı üretimi yapılması gerekecektir.

/11/2013 tarihine kadar üretim yapılmazsa ruhsat düşeceğinden üretim çalışmalarına yukarda bahsedilen koşullar değerlendirilerek en geç /07/2013 tarihinde başlanması gereklidir.

Onur KESKİN

Şirket Müdürü

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## **Appendix D      Golcuk Operating Licence**



**Ölçek : 1775000**

## **Appendix E      Golcuk Forestry Permits**



T.C.  
ORMAN VE SU İŞLERİ BAKANLIĞI  
Giresun Orm. Böl. Müd. Koyulhisar Orm. İşl. Müd.  
Karaçam Orm. İşl. Şef.

15.11.2012

Sayı: B.23.1.OGM.1.15.29.00-255.03/337  
Konu: 2012 Yılı Arazi İzin Bedelleri  
(6.040,13.-TL)

Mitto Madencilik A.Ş.  
Emek 4'üncü Cad. 22 Sokak No:17/ 8  
EMEK/ANKARA

Koyulhisar Orman İşletme Müdürlüğümüz Karaçam Orman İşletme Şefliğimiz sınırları dâhilinde kalan **Pasinex Arama ve Madencilik A.Ş.** adına (1781,51 m<sup>2</sup> Ulaşım yolu, 9127,30 m<sup>2</sup> Pasa döküm alanı) izni verilen toplam 10908,81 m<sup>2</sup> 'lik Alan ile ilgili izin başlangıç tarihi Kasım ayı içerisinde yer aldığından **2012 yılı Arazi İzin Bedeli Hesap cetveli aşağıya çıkarılmıştır.** Hesaplanmış olan KDV dahil **6.040,13.-TL**'nin 11.11.2012 İzin Başlangıç Tarihinden itibaren bir ay içerisinde (Not: Son ödeme tarihi 11.12.2012) aksaklığa meydan vermemek için T.C.Ziraat Bankası Giresun Şubesi Giresun Orman Bölge Müdürlüğü Özel Bütçe Muhasebe Birimi **TR94000100012338657425-5002** nolu hesabına Tanzim Edilen Hesap cetvellerinin yatırılması ve banka dekontlarının İşletme Müdürlüğümüzün **0346-3413617** nolu faksına faxlanması ile **banka dekontlarının İşletme Müdürlüğümüze gönderilmesini ;**

Bilgilerinize rica ederim.

Mesut KAYALI  
Karaçam Orman İşletme Şefi

**2012 YILI ARAZİ İZİN BEDELLERİ**

10908,81m<sup>2</sup>'lik 2012 Yılı Arazi İzin Bedeli

2011 YILI A.İ.B = 4990,49 -TL (Anapara)  
2012 YILI A.İ.B = 2011 Y.A.İ.B + 2011 Y.A.İ.BX ( ÜFE Kts. 2012 yılı Kasım ayında ÜFE'de bir önceki yılın aynı ayına göre değişim oranı % **2.57**)  
= 4990,49 -TL + 4990,49 -TL X 0,0257  
= **5.118,75.-TL** (2012 Yılı Anapara)

2012 Yılı Arazi İzin Bedeli = **5.118,75.-TL**  
%18 KDV = 921,38

**= 6.040,13.-TL** (Son Ödeme Tarihi = 11.12.2012)

Fax = 0312 - 222 - 11 - 53



Koyulhisar Orman İşletme Müdürlüğü  
Karaçam Orman İşletme Şefliği  
Pasinex Arama ve Madencilik A.Ş.'ye Teslim Edilen  
Sahanın Koordinatları

Pasa Sahası Kordinatları

Ada	Parsel	Alan	Pafta
PASA YOL		9317 00 189.70	
IZIN ALANI		9127.30	

NoktaNo	Y	X
PASA/1	400673.000	4450129.000
PASA/2	400673.655	4450128.908
PASA/3	400681.534	4450127.805
PASA/4	400723.000	4450122.000
PASA/5	400754.000	4450121.000
PASA/6	400812.000	4450118.000
PASA/7	400775.000	4450078.000
PASA/8	400725.000	4450058.000
PASA/9	400659.000	4450060.000
PASA/10	400608.000	4450086.000
PASA/11	400641.359	4450108.068
PASA/12	400665.126	4450123.791

Yol İzin Sahası Koordinatları

Ada	Parsel	Alan	Pafta
YOL		1751.51	

NoktaNo	Y	X
YOL/1	400630.741	4450376.070
YOL/2	400836.259	4450373.930
YOL/3	400817.614	4450336.678
YOL/4	400827.804	4450288.728
YOL/5	400825.148	4450281.000
YOL/6	400819.148	4450287.000
YOL/7	400808.150	4450238.883
YOL/8	400770.565	4450201.000
YOL/9	400771.732	4450195.198
YOL/10	400753.563	4450181.000
YOL/11	400730.512	4450163.000
YOL/12	400688.369	4450131.918
YOL/13	400681.534	4450127.805
YOL/14	400643.286	4450104.886
YOL/15	400641.359	4450108.068
YOL/16	400640.714	4450109.144
YOL/17	400665.126	4450123.791
YOL/18	400673.655	4450128.908
YOL/19	400685.611	4450136.082
YOL/20	400727.488	4450168.991
YOL/21	400751.226	4450185.518
YOL/22	400768.248	4450198.504
YOL/23	400770.069	4450201.000
YOL/24	400801.845	4450239.317
YOL/25	400814.000	4450287.980
YOL/26	400819.709	4450281.000
YOL/27	400822.398	4450287.271
YOL/28	400812.366	4450337.322



Teslim Eden  
Mesut KAYALI  
İşletme Şefi

Teslim Alan  
Pasinex Arama Madencilik A.Ş. adına

Arama ve Madencilik A.Ş.  
Koza Sok. No. 53/5 Gaziantep - Çankaya  
Tel: 0312 441 13 18 Fax: 441 43 48 ANKARA  
Sığmenler Vefatı Dairesi 722 847 2123

## İNCELEME RAPORU (Maden Alt Yapı İzni)

ORKABİS Numarası	:	0306-25
İzin Sahibi	:	Pasinex Arama ve Madencilik A.Ş.
T.C.Kimlik No/ Vergi Sicil No	:	Seğmenler D.V. 7220472123
İli - İlçesi - Köyü	:	Sivas-Koyulhisar-Gölcük
İzin Konusu	:	10.908,81 m <sup>2</sup> (1781,51 m <sup>2</sup> Ulaşım yolu, 9127,30 m <sup>2</sup> Pasa döküm alanı)
Maden İşletme (m <sup>2</sup> )	:	10.908,81 m <sup>2</sup>
Ruhsat/Sertifika/Belge Numarası	:	Ruhsat :61567 Erişim No:2486921
Orman Bölge Müdürlüğü	:	Giresun
Orman İşletme Müdürlüğü	:	Koyulhisar
Orman İşletme Şefliği	:	Karaçam
Serisi ve Bölme Numaraları	:	Karaçam Serisi 153 Nolu Bölme
İzin Başlangıç-Bitiş Tarihi	:	31.10.2008-31.07.2018
Olur Tarihi ve Numarası	:	11.11.2008/1680

Yukarıda ayrıntılarıyla açıklanan ve Bölge Müdürlüğümüzün 28.09.2012 tarih ve 1682 sayılı emir ekinde gelen **Pasinex Arama ve Madencilik A.Ş.'ye** ait 31.10.2008/1404 olur nolu Maden İşletme İzni **komisyonumuzca** gerek evrak gerekse izin sahası arazi üzerinde incelenmiş olup, herhangi bir usulsüzlük ve taahhüt senedi hükümlerine aykırı bir durum olmadığı tespit edilmiştir.

Orman dışında yapılması mümkün olmayan faaliyetin gerçekleşmesinde Kamu yararı görüldüğünden, İdaremiz şartlarının kabul edildiğine dair Taahhüt senedi verildiğinden ve teminat yatırıldığından dolayı İR-61567 ruhsat nolu Bakır madeni sahasında 9.127,30m<sup>2</sup>'lik alanda pasa döküm alanı, 1.781,51 m<sup>2</sup>'lik alanda ulaşım yolu olmak üzere toplam **10.908,81 m<sup>2</sup>'lik** alanda 6831 sayılı Orman Kanununun 16.maddesine göre verilmesinde sakınca olmadığına dair işbu rapor tarafımızdan düzenlenmiştir. **07/11/2012**

**Başkan**  
Nizamettin EGEPEHLİVAN  
İşletme Mtd. Yrd

**Üye**  
Mesut KAYALI  
İşletme Şefi

**Üye**  
Yunus Emre GİZLENCİ  
İşletme Şefi



**SAHA TESLİM TESELLÜM TUTANAĞI**

İL: SİVAS

İLÇESİ: KOYULHISAR

KÖYÜ: GÖLCÜK

Orman Bölge Müdürlüğü : GİRESUN

Orman İşletme Müdürlüğü : KOYULHISAR

Orman İşletme Şefliği : KARAÇAM  
Serisi : KARAÇAM

Bölme Nosu: 153

Tesisin Adı ; Alanı :

Pasinex Arama ve Madencilik A.Ş.

Bakır Madeni Altyapı Tesisi ,10908,81 M2

( 9127,300M2 Pasa döküm alanı,1781,51 M2 lik alanda ulaşım yolu )

Giresun Orman Bölge Müdürlüğü Koyulhisar Orman İşletme Müdürlüğü Karaçam Orman İşletme Şefliği sınırları dahilinde, Amasya Orman Bölge Müdürlüğünün 11.11.2008 gün ve 1680 sayılı Olur'larıyla Eurasia Madencilik Ltd. Şti ne İR-61567 ruhsat nolu Bakır madeni sahasında 9.127,300m<sup>2</sup>lik alanda pasa döküm alanı,1.781,51 m<sup>2</sup>lik alanda ulaşım yolu olmak üzere toplam 10.908,81 m<sup>2</sup>lik alanda 31.07.2018 tarihine kadar izin verilen (EK: 1 ) de koordinatları belirtilen İR:61567 ruhsat nolu saha Eurasia Madencilik Ltd. Şti tarafından 3213 sayılı Maden Kanunundan doğan tüm hak ve vecibeleri ile birlikte aynen ve tamamen Kanunun 5'inci maddesi uyarınca Pasinex Arama ve Madencilik A.Ş. 'ye devir edilmiştir. Orman Kanununun 16. maddesi uygulama yönetmeliğinin 13. Maddesi gereği yeni ruhsat sahipleri adına verilen izinlerin devri devir alanın noterden düzenlenmiş taahhüt senedi vermesi ve teminat yatırması üzerine yukarıda bahsedilen saha Pasinex Arama ve Madencilik A.Ş. 'ye teslim edilmiştir.

İş bu teslim tesellüm tutanağı tanzim edilmiştir. 09/10/2012

Teslim Eden  
Mesr. BAYALI  
Karaçam Orman İşletme Şefi

Teslim Alan  
Pasinex Arama ve Madencilik A.Ş.

(Tc. Kim No: Pasinex)

Pasinex Arama ve Madencilik A.Ş.  
Sok. No. 55/5 Gaziosmanpaşa Çankaya  
0312 441 13 18 Faks +41 13 16 ANKARA  
E-posta: Yrd. Dairesi: 122 047 2123



## İNCELEME RAPORU (Maden İşletme İzni)

ORKABİS Numarası	:	0306-108
İzin Sahibi	:	Pasinex Arama ve Madencilik A.Ş.
T.C.Kimlik No/ Vergi Sicil No	:	Seğmenler D.V. 7220472123
İli - İlçesi - Köyü	:	Sivas-Koyulhisar-Gölcük
İzin Konusu	:	Bakır Madeni İşletme İzni
Maden İşletme (m <sup>2</sup> )	:	556,50m <sup>2</sup>
Ruhsat/Sertifika/Belge Numarası	:	Ruhsat: 61567 Erişim No:2486921
Orman Bölge Müdürlüğü	:	Giresun
Orman İşletme Müdürlüğü	:	Koyulhisar
Orman İşletme Şefliği	:	Karaçam
Serisi ve Bölme Numaraları	:	Karaçam Serisi 153 Nolu Bölme
İzin Başlangıç-Bitiş Tarihi	:	31.10.2008-31.07.2018
Olur Tarihi ve Numarası	:	31.10.2008/1404

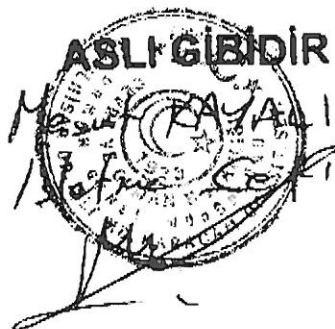
Yukarıda ayrıntılarıyla açıklanan ve Bölge Müdürlüğümüzün 28.09.2012 tarih ve 1682 sayılı emir ekinde gelen **Pasinex Arama ve Madencilik A.Ş.**'ye ait 31.10.2008/1404 olur nolu Maden İşletme İzni **komisyonumuzca** gerek evrak gerekse izin sahası arazi üzerinde incelenmiş olup, herhangi bir usulsüzlük ve taahhüt senedi hükümlerine aykırı bir durum olmadığı tespit edilmiştir.

Orman dışında yapılması mümkün olmayan faaliyetin gerçekleşmesinde Kamu yararı görüldüğünden, İdaremiz şartlarının kabul edildiğine dair Taahhüt senedi verildiğinden ve teminat yatırıldığından dolayı **İR-61567 ruhsat nolu 556,50 m<sup>2</sup>** lik Bakır Madeni Kapalı İşletme sahasının 6831 sayılı Orman Kanununun 16.maddesine göre verilmesinde sakınca olmadığına dair işbu rapor tarafımızdan düzenlenmiştir. **07/11/2012**

**Başkan**  
Nizamettin EGEPEHLİVAN  
İşletme Müd. Yrd

**Üye**  
Mesut KAYALI  
İşletme Şefi

**Üye**  
Yunus Emre GİZLENCİ  
İşletme Şefi





**SAHA TESLİM TESELLÜM TUTANAĞI**

İLİ: SIVAS

İLÇESİ: KOYULHISAR

KÖYÜ: GÖLCÜK

Orman Bölge Müdürlüğü : GİRESUN

Orman İşletme Müdürlüğü : KOYULHISAR

Orman İşletme Şefliği : KARAÇAM  
Serisi : KARAÇAM

Bölme Nosu: :153

Tesisin Adı ; Alanı :  
Pasinex Arama ve Madencilik A.Ş.  
Bakır Madeni İşletmesi 556,50 m<sup>2</sup>

Giresun Orman Bölge Müdürlüğü Koyulhisar Orman İşletme Müdürlüğü Karaçam Orman İşletme Şefliği sınırları dahilinde, Amasya Orman Bölge Müdürlüğü'nün 30.10.2008 gün ve 1404 sayılı Olur'lariyle Eurasia Madencilik Ltd. Şti ne İR-61567 ruhsat nolu Bakır Madeni sahasında 556,50 m<sup>2</sup> lik alanda Bakır Madeni Kapalı İşletme için 31.07.2018 tarihine kadar izin verilen aşağıda koordinatları belirtilen İR:61567 ve vecibeleri ile birlikte aynen ve tamamen Kanunun 5'inci maddesi uyarınca Pasinex Arama ve Madencilik A.Ş. 'ye devir edilmiştir. Orman Kanununun 16. maddesi uygulama yönetmeliğinin 13. Maddesi gereği yeni ruhsat sahipleri adına verilen izinlerin devri devir alanın noterden düzenlenmiş taahhüt senedi vermesi ve teminat yatırması üzerine yukarıda bahsedilen saha Pasinex Arama ve Madencilik A.Ş. 'ye teslim edilmiştir.

NoktaNo	Y	X
ISLETME1/1	400814.000	4450281.000
ISLETME1/2	400819.709	4450281.000
ISLETME1/3	400825.148	4450281.000
ISLETME1/4	400833.000	4450281.000
ISLETME1/5	400833.000	4450267.000
ISLETME1/6	400819.148	4450267.000
ISLETME1/7	400814.000	4450267.000
ISLETME1/8	400814.000	4450267.680
ISLETME2/1	400752.000	4450201.000
ISLETME2/2	400770.069	4450201.000
ISLETME2/3	400776.583	4450201.000
ISLETME2/4	400777.000	4450201.000
ISLETME2/5	400777.000	4450181.000
ISLETME2/6	400753.583	4450181.000
ISLETME2/7	400751.000	4450181.000
ISLETME2/8	400751.226	4450185.518

İş bu teslim tesellüm tutanağı tanzim edilmiştir...../..../2012

Teslim Eden  
Mesut KAYALI  
Karaçam Orman İşletme Şefi

Teslim Alan  
Pasinex Arama ve Madencilik A.Ş.

(T.C. Kuvvetli ve Halkın İhtiyarlığı A.Ş.)  
Kuvvetli ve Halkın İhtiyarlığı A.Ş. - Çankaya  
Tel: 0312 441 15 16 Fax: 441 13 19 ANKARA  
Söğütözü Yerli Çarşı 722 047 2123



**REPUBLIC OF TURKEY**

**MINISTRY OF FORESTRY AND WATER AFFAIRS**

**Giresun Regional Directorate of Forestry, Koyulhisar Forestry Operation Directorate,  
Karaçam Sub-District Directorate**

**15.11.2012**

**Number:** B.23.1.06M.1.15.29.00-255.03/397

**Issue:** 2012 Prices of Field Permission

Mitto Mining Corp.

Emek 4'üncü Cad. 22. Sokak. No:17/8

EMEK/ANKARA

The area which is located in Koyulhisar Forestry Operation Directorate, Karaçam Sub-District Directorate and its permission was given to **Pasinex Exploration and Mining Corp.** (1781,51 m2 access road 9127,30 m2 Waste area) and it is total of 10908,81 m2. Area's permission date is started from November, so **2012 calculation sheet of Prices of Field Permissions is stated below.** In order not to allow any flaw, V.A.T. included **6.040,13 TL** should be paid into T.C. Ziraat Bankası Giresun Şubesi Orman Bölge Müdürlüğü Özel Bütçe Muhasebe Birimi **TR94000100012338657425-5002 IBAN** numbered account between the permission start date 11.11.2012 and the final day of payment 11.12.2012, and bank receipts should be faxed to 0346-3413617 numbered fax of our Forestry Operation Directorate.

For Your Information,

Mesut KAYALI

Head of Forestry Operation

**2012 Prices of Field Permission:**

10908,81 m2 2012 Price of Field Permission

2011 Price of Field Permission = 4990,49 TL (Capital)

2012 Price of Field Permission = 2011 P.F.P. + 2011 PPI %2,57

= 4990,49TL + (4990,49 × 0,0257)

= 5.118.75 TL (2012 Capital)

2012 Price of Field Permission = 5.118.75 TL

%18 V.A.T = 921,38 TL  
= 6.040.13 TL

**Koyulhisar Forestry Operation Directorate, Karaçam Sub-District Directorate,**

**Coordinates of the Area Which Was Delivered to Pasinex Exploration and Mining Corp.**

Coordinates of Waste Field

Insular	Parcel	Area	Die Plate
Waste		9317 00	
Road		189 70	
Permission Area		9127 30	

Point number	Y	X
Waste/1	400673 000	4450129 000
Waste/2	400673 655	4450128 908
Waste/3	400681 534	4450127 805
Waste/4	400723 000	4450122 000
Waste/5	400754 000	4450121 000
Waste/6	400812 000	4450118 000
Waste/7	400775 000	4450078 000
Waste/8	400725 000	4450058 000
Waste/9	400659 000	4450060 000
Waste/10	400608 000	4450086 000
Waste/11	400641 359	4450108 066
Waste/12	400665 126	4450123 791

Coordinates of Road Permission Field

Insular	Parcel	Area	Die Plate
Road		1781 61	

NoktaNo	Y	X
YOL/1	400830.741	4450378.070
YOL/2	400836.259	4450373.930
YOL/3	400817.614	4450338.678
YOL/4	400827.804	4450288.728
YOL/5	400825.148	4450281.000
YOL/6	400819.148	4450287.000
YOL/7	400806.158	4450238.883
YOL/8	400778.568	4450201.000
YOL/9	400771.752	4450195.198
YOL/10	400753.563	4450181.000
YOL/11	400730.512	4450153.008
YOL/12	400688.369	4450131.918
YOL/13	400681.534	4450127.805
YOL/14	400643.288	4450104.886
YOL/15	400641.359	4450108.088
YOL/16	400640.714	4450109.144
YOL/17	400685.126	4450123.791
YOL/18	400673.655	4450128.808
YOL/19	400685.811	4450138.082
YOL/20	400727.488	4450168.991
YOL/21	400751.226	4450185.518
YOL/22	400788.248	4450198.504
YOL/23	400770.069	4450201.000
YOL/24	400801.845	4450238.317
YOL/25	400814.000	4450287.980
YOL/26	400819.709	4450281.000
YOL/27	400822.398	4450287.271
YOL/28	400812.388	4450337.322

Deliverer:

Recipient:

Mesut KAYALI

Pasinex Exploration and Mining Corp

Head of Operation

### Examination Report

#### (Permission of Mineral Substructure)

ORKABIS Number:	0306-25
Permission Owner	<b>Pasinex Exploration and Mining Corp.</b>
ID Number / Tax Register No:	Seğmenler D. V. 7220472123
Province / District / Village:	Sivas – Koyulhisar – Gölcük
Permission Issue:	10.908,81 m2 (1781,51 m2 Road 9127,30 m2 Waste)
Mineral Plantation (m2):	10.908.81 m2
License / Certificate / Document Number:	License: 61567 Access Number: 248921
Regional Directorate of Forestry:	<b>Giresun</b>
Forestry Operation Directorate:	<b>Koyulhisar</b>
Forest Sub-District Directorate:	<b>Karaçam</b>
Serial and Section Numbers:	Karaçam Serial 153 numbered Section
Permission Start/End Dates:	31.10.2008 – 31.07.2018
Confirmation Date and Number:	<b>11.11.2008 / 1680</b>

The area which is specified in details above is belonged to **Pasinex Exploration and Mining Corp** and its mineral plantation permission is given by our Regional Directorate with 31.10.2008/1404 numbered confirmation on the date of 28.09.2012 and 1682 numbered appointment. Moreover, our committee has found no irregularity according to written contract.



Public interest was seen so our Regional Directorate has given the right for constructing a plantation site in forest area. In IR-61567 license numbered field 9.127,30 m2 waste land, 1.781,51 m2 access road total **10.908,81** m2 area is given to Pasinex According to 6831 numbered Forestry Law and its 16<sup>th</sup> clause. Hereby, there is no irregularity and this report prepared by our Regional Directorate. **07/11/2012**

<b>President</b>	<b>Member</b>	<b>Member</b>
Nizamettin EGEPEHLİVAN	Mesut KAYALI	Yunus Emre GİZLENCİ
<b>Directorate Sub-manager</b>	<b>Directorate Chief</b>	<b>Directorate Chief</b>

#### **FIELD DELIVERY RECEIPT REPORT**

<b>Province: SIVAS</b>	<b>Regional Directorate of Forestry: GİRESUN</b>
<b>District: KOYULHISAR</b>	<b>Forestry Operation Directorate: KOYULHİSAR</b>
<b>Village: GOLCUK</b>	<b>Forest Sub-District Directorate: KARAÇAM</b>
	<b>Serial: KARAÇAM</b>
	<b>Region Number: 153</b>

**Recipient:**

**Pasinex Exploration and Mining Corp.**

**Copper Mine Substructure Plantation, 10908,81 M2**

**(9127,300M2 Waste Land, 1781,51 M2 Access Road)**

**Giresun** Regional Directorate of Forestry, **Koyulhisar** Forestry Operation Directorate, Karaçam Sub-District Directorate, Amasya Regional Directorate of Forestry, with **11.11.2008** date and **1680** numbered confirmation 9.127,300 m2 waste land 1.781,51 m2 access road toatal **10.908,81** m2 area's copper mineral license was give to **Eurasia Mining Corp** with IR.61567 license number on the date of 31.07.2008. Moreover, **according to every rights which is provided by Mineral Laws and its 5<sup>th</sup> article this license was transferred to Pasinex Exploration and Mining Corp, and according to 16<sup>th</sup> article of Forestry Law and according to governing regulation's 13<sup>th</sup> article given permissions and transfer area's right which are on the name of license owners, were transferred to Pasinex Exploration and Mining Corp by notary and a commitment report was prepared.**

Hereby, this field delivery receipt report was prepared. 09/10/2012

Deliverer:

Mesut KAYALI

Head of Karaçam Forest Sub-District Directorate

Recipient:

Pasinex Exploration and Mining Corp

### **Examination Report**

**(Permission of Mineral Plantation)**

<b>ORKABIS Number:</b>	0306-108
<b>Permission Owner</b>	<b>Pasinex Exploration and Mining Corp.</b>
<b>ID Number / Tax Register No:</b>	Seğmenler D. V. 7220472123
<b>Province / District / Village:</b>	Sivas – Koyulhisar – Gölcük
<b>Permission Issue:</b>	Copper Mine Plantation Permission
<b>Mineral Plantation (m2):</b>	556,50m2
<b>License / Certificate / Document Number:</b>	License: 61567 Access Number: 248921
<b>Regional Directorate of Forestry:</b>	<b>Giresun</b>
<b>Forestry Operation Directorate:</b>	<b>Koyulhisar</b>
<b>Forest Sub-District Directorate:</b>	<b>Karaçam</b>
<b>Serial and Section Numbers:</b>	Karaçam Serial 153 numbered Section
<b>Permission Start/End Dates:</b>	31.10.2008 – 31.07.2018

<b>Confirmation Date and Number:</b>	31.10 2008/1404
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The area which is specified in details above is belonged to **Pasinex Exploration and Mining Corp** and its mineral plantation permission is given by our Regional Directorate with 31.10.2008/1404 numbered confirmation on the date of 28.09.2012 and 1682 numbered appointment. Moreover, our committee has found no irregularity according to written contract.

Public interest was seen so our Regional Directorate has given the right for constructing a plantation site in forest area. In IR-61567 license numbered field 556,50 m2 underground copper mine plantation permission was given to Pasinex According to 6831 numbered Forestry Law and its 16<sup>th</sup> clause. Hereby, there is no irregularity and this report prepared by our Regional Directorate. **07/11/2012**

<b>President</b>	<b>Member</b>	<b>Member</b>
Nizamettin EGEPEHLİVAN	Mesut KAYALI	Yunus Emre GİZLENCİ
<b>Directorate Sub-manager</b>	<b>Directorate Chief</b>	<b>Directorate Chief</b>

### FIELD DELIVERY RECEIPT REPORT

<b>Province: SIVAS</b>	<b>Regional Directorate of Forestry: GİRESUN</b>
<b>District: KOYULHISAR</b>	<b>Forestry Operation Directorate: KOYULHİSAR</b>
<b>Village: GOLCUK</b>	<b>Forest Sub-District Directorate: KARAÇAM</b>
	<b>Serial: KARAÇAM</b>
	<b>Region Number: 153</b>
	<b>Recipient:</b>

**Pasinex Exploration and Mining Corp.**

**Copper Mine Plantation, 556,50 m2**

**Giresun** Regional Directorate of Forestry, **Koyulhisar** Forestry Operation Directorate, Karaçam Sub-District Directorate, Amasya Regional Directorate of Forestry, with **11.11.2008** date and **1404** numbered confirmation **556,50 m2** area's copper mineral underground plantation license was give to **Eurasia Mining Corp** with IR.61567 license number on the date of 31.07.2008 (Coordinates are given below.). Moreover, **according to every rights which is provided by Mineral Laws and its 3213<sup>th</sup> article this license was transferred to Pasinex Exploration and Mining Corp, and according to all of the 5<sup>th</sup> article of the law and according to governing regulation's 13<sup>th</sup> article given permissions and transfer area's right which are on the name of license owners, were transferred to Pasinex Exploration and Mining Corp by notary, because a commitment report was prepared and collateral was paid.**

Point Number	Y	X
Plantation 1/1	400814.000	4450281.000
Plantation 1/2	400819.709	4450281.000
Plantation 1/3	400825.148	4450281.000
Plantation 1/4	400833.000	4450281.000
Plantation 1/5	400833.000	4450267.000
Plantation 1/6	400819.148	4450267.000
Plantation 1/7	400814.000	4450267.000
Plantation 1/8	400814.000	4450267.660
Plantation 2/1	400757.000	4450201.000
Plantation 2/2	400770.069	4450201.000
Plantation 2/3	400776.565	4450201.000
Plantation 2/4	400777.000	4450201.000
Plantation 2/5	400777.000	4450181.000
Plantation 2/6	400763.563	4450181.000
Plantation 2/7	400751.000	4450181.000
Plantation 2/8	400751.226	4450185.518

Hereby, this field delivery receipt report was prepared. 09/10/2012

Deliverer:

Mesut KAYALI

Head of Karaçam Forest Sub-District Directorate

Recipient:

Pasinex Exploration and Mining Corp



**Appendix F      Annual Production Commitment made by Eurasia Madencilik  
A.S. for the Golcuk Project**

Atım Başına Cevher Üretimi	= 63,64 ton
Yıllık Atım Sayısı	= 9.000 ton / 63,64 ton
	= 142 atım
Yıllık Dinamit İhtiyacı	= 142 atım x 55 kg
	= 7.810 kg dinamit
Yıllık İnfilaklı Fıtl İhtiyacı	= 142 atım x 5 m
	= 710 m Fıtl
Yıllık Elk. Kapsül İhtiyacı	= 150 Adet
Yıllık Excel Kapsül İhtiyacı	= 142 Atım x 51 Delik
	= 7.242 Adet

**4.4.1.3. Üretim – Pasa Miktarı:** Ruhsat alanında yıllık % 2-2,5 tenörlü 9.000 ton Bakır (Cu) üretilmesi planlanmaktadır. Cevher tüvenan olarak üretileninden % 20 civarında pasa beklenmektedir. Oluşan pasanın bir kısmı, galerilerde dolgu malzemesi olarak kullanılacak bir kısmı yerüstünde uygun alana toplanacaktır.

**4.4.2. Üretimin Çevreye Olan Olası Etkileri ve Alınacak Önlemler.** Proje konusu alanda olası çevresel etkiler toz ve gürültü başlığında açıklanmıştır.

**Toz Emisyonu:**

Üretilen malzeme miktarı	: 9.000 ton/yıl
Üretimde emisyon faktörü	: 0.08 kg/ton
Çalışma Süresi	: Yılda 6 ay, ayda 25 gün, günde 8 saat
Üretimde Oluşacak Toz Emisyonu	: 9.000 ton x 0.08 kg/ton x (1/150 gün) x (1/8 saat)
	: 0,60 kg/saat

Ruhsat alanı içerisinde ocak üretiminde oluşacak toz emisyonu 0,60 kg/saat olup, 02.11.1986 tarih ve 19269 sayılı Resmi Gazete’ de yayımlanan “Hava kalitesinin korunması yönetmeliği-Ek:2’ de verilen baca dışındaki yerlerden yayılan emisyon değerleri arasında toz için tespit edilmiş olan 15 kg/saat değerinin çok altında kalmaktadır.

**Gürültü Yayılımı:**

Proje alanında yapılacak maden işletme faaliyeti sırasında gürültü oluşturacak kaynaklar ve gürültü düzeyleri aşağıda verilmiştir.

**İşletmedeki gürültü kaynakları ve gürültü düzeyleri**

Ünite	Gürültü düzeyi (dBA)
<b>YERALTI</b>	
1. Martoperfaratör	125
2. Patlatma	140
3. Kompresör	115
4. Tabanca	125
5. Yükleme	115
<b>YERÜSTÜ</b>	
6. Fan	85
7. Lastik tekerlekli yükleyici	115
8. Kamyon	85

Tabloda verilen kaynaklardan (1) ve (2) münferit gürültü kaynağı olarak ayrı ayrı zamanlarda geçici olarak kaynak oluşturacak; (3) ve (4) birlikte; (5) münferit; Yerüstü faaliyetlerinde (6) ile işaretlenen hemen hemen sürekli, (7) ve (8) sevkiyat için kamyon yüklenmesi sırasında gürültü kaynağı olarak etkiyecektir. Buna göre; birlikte gürültü neşreden kaynakların oluşturduğu eşdeğer gürültü seviyesi ( $L_{eq}$ ) ayrı ayrı hesaplanarak, belirli etki mesafelerindeki değişimleri verilmiştir.

## Appendix G Earthquake Risk at Golcuk

Golcuk falls close to one of the areas of higher seismic activity in Turkey (Figure 46).

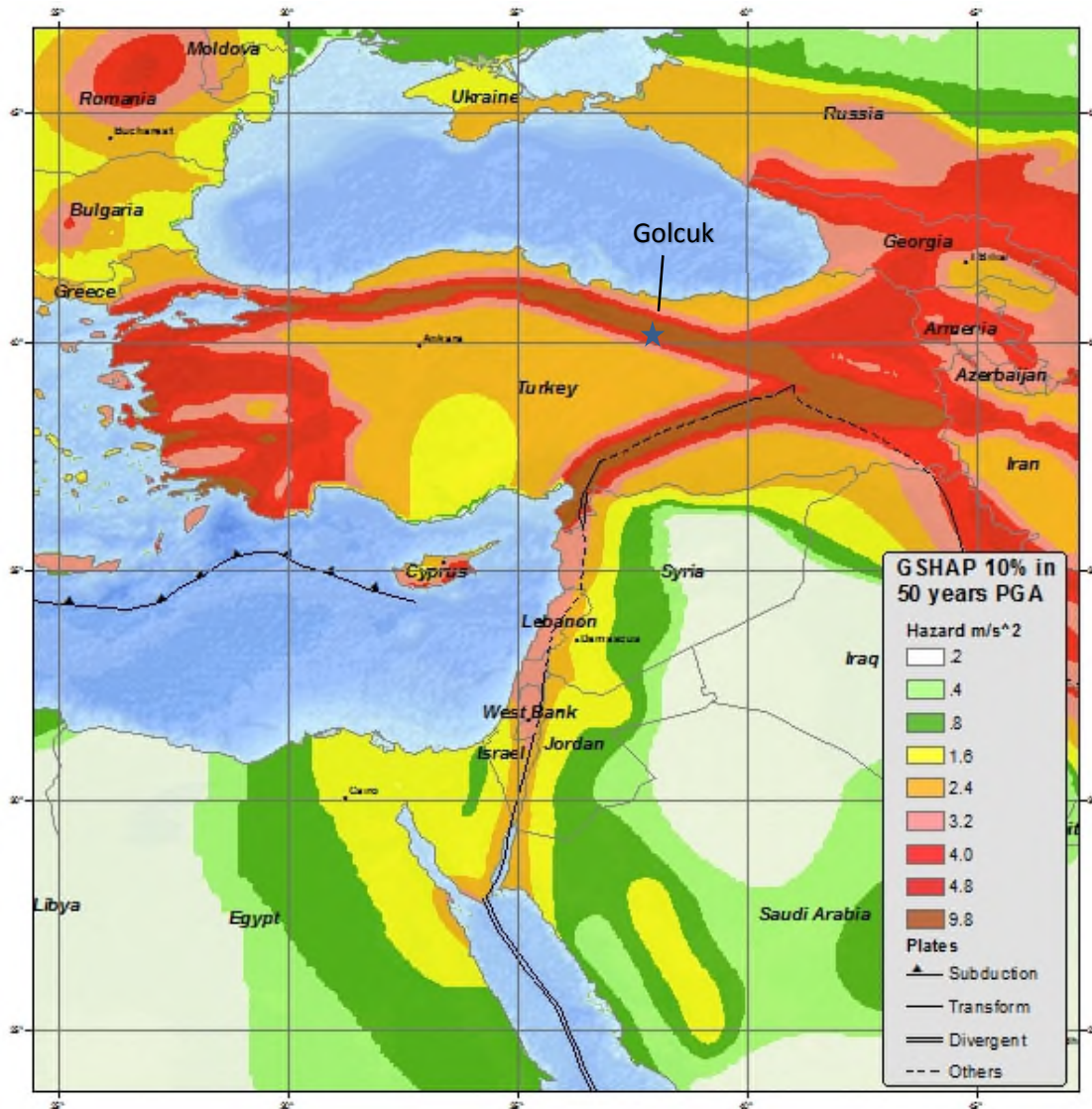


Figure 46: USGS Seismic Hazard Map of Turkey.

Some 91 earthquakes greater than magnitude 4.0 on the open-ended Richter scale were recorded in Sivas Province between 1901 and 1999 (No Author, 2010).

In the period 1920-40 epicentres of four earthquakes were within 5km (100km<sup>2</sup>) of the licence (Figure 47) including one >6 (Figure 48) and a further four, including one >6, since 1901 within 25km (2500km<sup>2</sup>).

This is a higher density than most of the rest of the province, with about one per 320km<sup>2</sup> since 1901.



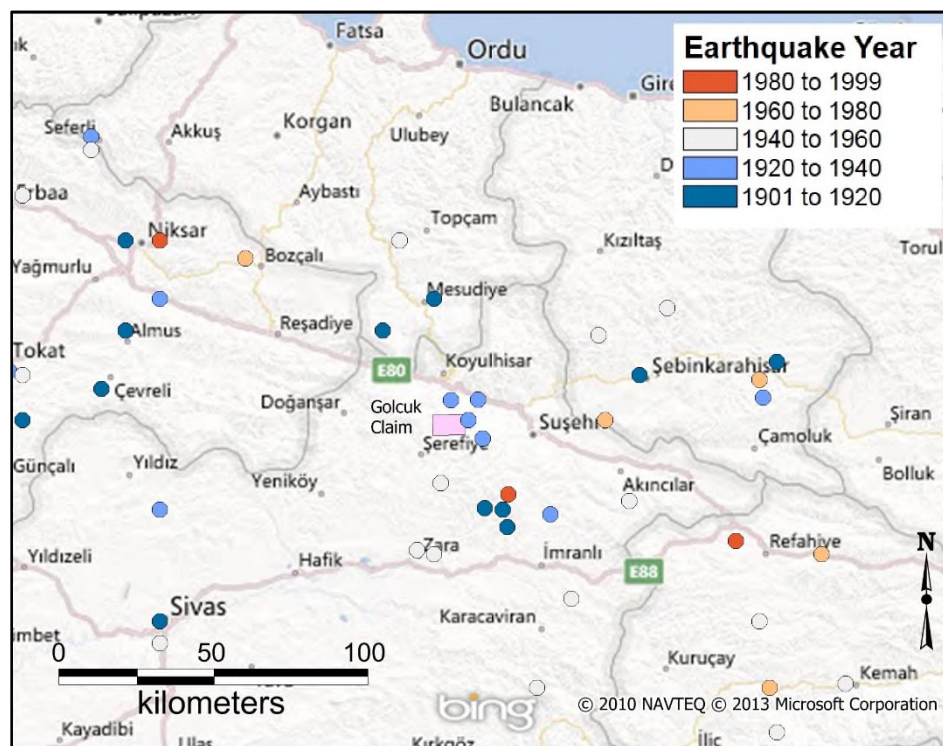


Figure 47: Earthquake epicentres in north-central Turkey (by year).

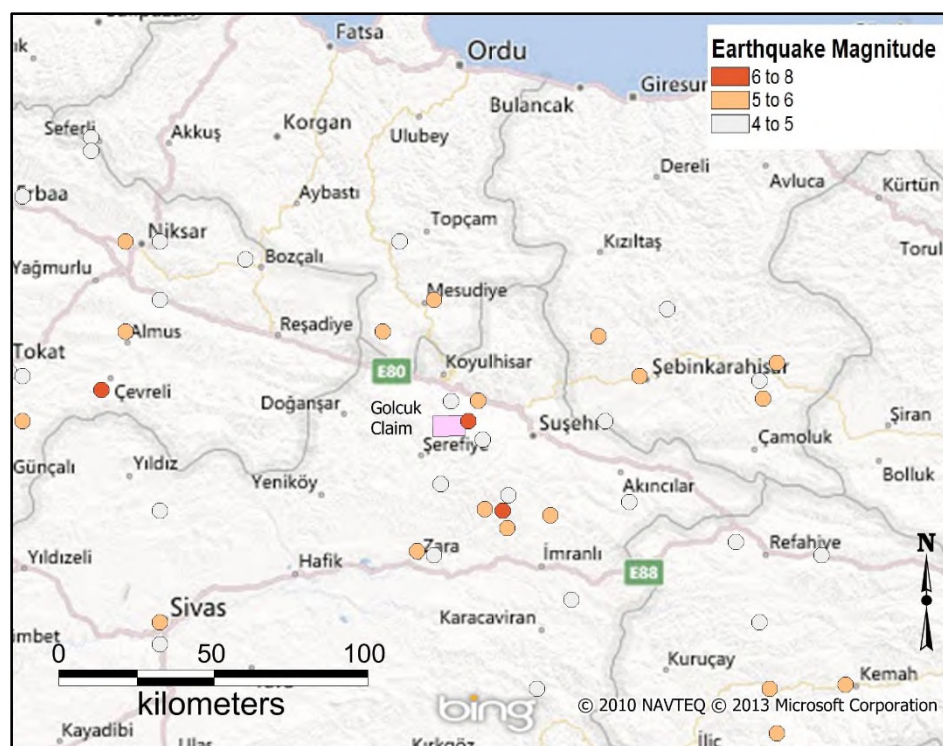
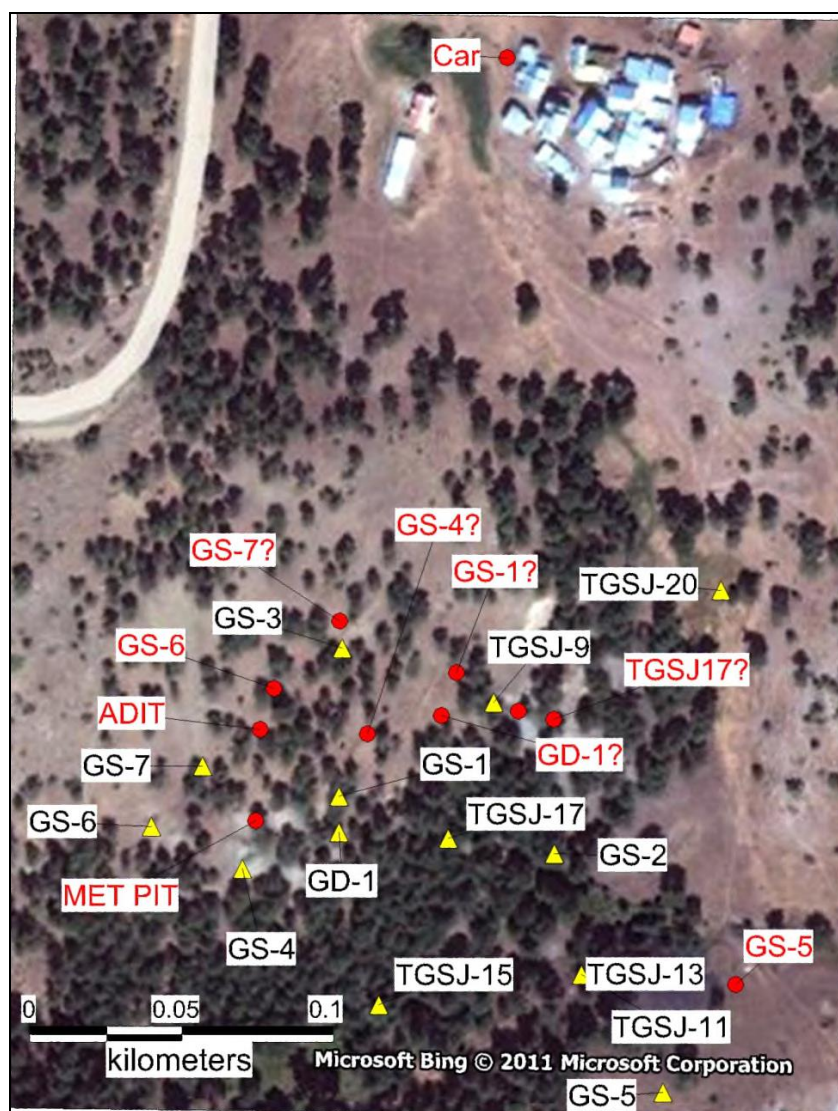


Figure 48: Earthquake epicentres in north-central Turkey (by magnitude).



## Appendix H Note on Errors in Golcuk Historical Drilling Collar Locations

During the field visit, in a traverse from the Golcuk Y village, several borehole collars were located and their positions recorded by a GPS instrument, a Garmin Model 530HCx, as listed in Table 12 below. The starting station (Station 1, named “CAR”, which plots within 5m of its parked position) and Station 6 could later be positively identified on Google Earth and Bing imagery, as shown in Figure 49 below. One borehole collar, GS6, was positively identified by the inscription on its concrete cap but could not be located on the imagery.



**Figure 49: Eurasia drill collar locations (yellow) and GPS stations visited (red) by the author plotted on a georeferenced Microsoft Bing image of Golcuk drilling area.**

When the Eurasia collar locations (yellow) were plotted together with the author’s locations (red) (Figure 49) it became evident that corresponding locations were not co-incident.

Station 1 was the field vehicle whose position was known in relation to the building in Golcuk Y, adjacent to where it was parked, and it plots within 5m of its true position. Station 6 is the concrete block foundation we believe used for Etibank borehole GS-5. On the 1:2000 scale Eurasia “Sivas Golcuk Geology” map dated 10 December 2007 (that shows hand drawn field mapping with notes and borehole locations), GS-5 is plotted at the base of, and on the southern side of, the slag dump. On the Bing image in Figure 49, the Eurasia collar plots at least 22m south of the slag dump, and 53m to the south-south-west of the concrete base believed to be the actual site. Pasinex’s plotting put the GS-5 collar between the slag dump and the visible concrete drill machine foundation, that is, within 6m of its actual site.

It is concluded that Eurasia’s co-ordinates are displaced between 44m and 66m south-south-west of their true positions. This needs to be corrected in all drilling data sets obtained from Eurasia.

#	Longitude (degrees)	Latitude (degrees)	Station Name	Matching Eurasia Station	Displacement (metres)	Displacement Direction	Comment
1	37.833851	40.194665	ADIT				Not relevant
2	37.834775	40.196677	Car				Correctly located on satellite image
3	37.834555	40.194713	GD-1?	GD-1	52	South-west	Evidence of drill hole
4	37.834611	40.194843	GS-1?	GS-1	56	South-west	Evidence of drill hole
5	37.834270	40.194657	GS-4?	GS-4	61	South-west	Evidence of drill hole
6	37.835709	40.193923	GS-5	GS-5	44	South-west	Concrete drill pad in place visible on imagery
7	37.833904	40.194787	GS-6	GS-6	62	South-west	Collar name in concrete
8	37.834156	40.194991	GS-7?	GS-7	66	South-west	Concrete drill pad in place
9	37.834991	40.194706	TGSJ17?	TGSJ-17	54	South-west	Evidence of drill hole
10	37.812887	40.195700	MAIN PIT				Not relevant
11	37.833839	40.194393	MET SAMPLE PIT				Not relevant
12	37.834854	40.194731	OLD MINE 1				Not relevant

**Table 12: Results of field checking of Golcuk borehole collar coordinates.**

## **Appendix I      Assay Certificate for Borehole Check Analyses**



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06700 GOP CANKAYA  
ANKARA ANKARA

Page: 1  
Finalized Date: 2- DEC- 2012  
This copy reported on  
12- DEC- 2012  
Account: PASRES

**minerals**

## CERTIFICATE IZ12268806

Project: TARGET GEN- PAS/R/08

P.O. No.: TI12- 7197

This report is for 42 Drill Core samples submitted to our lab in Izmir, IZMIR, Turkey  
on 15- NOV- 2012.

The following have access to data associated with this certificate:

CLINTON SMYTH

BARIS G. YILDIRIM

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
PUL- QC	Pulverizing QC Test
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 32	Pulverize 1000g to 85% < 75 um

ANALYTICAL PROCEDURES	
ALS CODE	DESCRIPTION
ME- OG46	Ore Grade Elements - AquaRegia
	INSTRUMENT
	ICP- AES

To: PASINEX RESOURCES LIMITED  
ATTN: BARIS G. YILDIRIM  
KOZA SOK 53/5  
06700 GOP CANKAYA  
ANKARA ANKARA

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



Project: TARGET GEN- PAS/R/08

**CERTIFICATE OF ANALYSIS IZ12268806**

Sample Description	Method Analyte Units LOR	WEI: 21 Recvd Wt. kg 0.02	ME- OG46 Ag ppm 1	ME- OG46 As % 0.01	ME- OG46 Cd % 0.01	ME- OG46 Co % 0.001	ME- OG46 Cu % 0.001	ME- OG46 Fe % 0.01	ME- OG46 Mn % 0.01	ME- OG46 Mo % 0.001	ME- OG46 Ni % 0.001	ME- OG46 Pb % 0.001	ME- OG46 S % 0.01	ME- OG46 Zn % 0.001
PR1301		0.35	2	<0.01	<0.01	0.002	0.113	5.01	0.10	<0.001	0.007	0.002	0.04	0.007
PR1302		0.38	4	<0.01	<0.01	0.002	0.286	4.78	0.11	<0.001	0.007	0.001	0.10	0.007
PR1303		0.66	24	<0.01	<0.01	0.002	1.440	4.98	0.10	<0.001	0.001	0.001	0.60	0.006
PR1304		0.30	48	<0.01	<0.01	0.001	2.91	5.66	0.10	<0.001	0.001	0.001	1.21	0.005
PR1305		0.37	60	<0.01	<0.01	0.001	3.73	5.20	0.09	<0.001	0.001	0.001	1.39	0.003
PR1306		0.51	39	<0.01	<0.01	0.002	2.95	5.33	0.10	<0.001	<0.001	0.001	1.09	0.006
PR1307		0.35	40	<0.01	<0.01	0.001	2.66	5.47	0.10	<0.001	<0.001	0.001	0.87	0.006
PR1308		0.42	74	<0.01	<0.01	0.002	4.62	5.50	0.11	<0.001	0.002	0.002	1.55	0.008
PR1309		0.54	54	<0.01	<0.01	0.002	3.46	4.68	0.11	<0.001	0.001	0.001	1.09	0.007
PR1310		0.52	62	<0.01	<0.01	0.002	3.93	5.35	0.11	<0.001	0.001	0.001	1.39	0.006
PR1311		0.57	47	<0.01	<0.01	<0.001	2.89	3.34	0.06	<0.001	0.001	0.002	1.26	<0.001
PR1312		0.53	55	<0.01	<0.01	<0.001	3.17	1.86	0.05	<0.001	<0.001	0.001	0.96	<0.001
PR1313		0.51	54	<0.01	<0.01	0.002	3.42	4.36	0.09	<0.001	<0.001	0.001	1.65	0.004
PR1314		0.48	43	<0.01	<0.01	0.001	2.74	4.93	0.10	<0.001	<0.001	0.001	1.50	0.005
PR1315		0.34	43	<0.01	<0.01	0.001	3.25	4.57	0.06	<0.001	<0.001	0.001	0.93	0.001
PR1316		0.46	25	<0.01	<0.01	0.001	1.730	4.60	0.07	<0.001	<0.001	0.001	0.58	0.002
PR1317		0.48	39	<0.01	<0.01	0.002	2.64	5.84	0.12	<0.001	0.001	<0.001	1.00	0.006
PR1318		0.39	27	<0.01	<0.01	0.002	1.730	5.00	0.13	<0.001	0.001	0.001	0.60	0.008
PR1319		0.32	40	<0.01	<0.01	0.002	2.60	5.76	0.13	<0.001	0.001	0.001	0.84	0.007
PR1320		0.54	52	<0.01	<0.01	0.002	3.36	5.54	0.10	<0.001	<0.001	<0.001	1.07	0.006
PR1321		0.45	17	<0.01	<0.01	0.002	1.090	5.66	0.12	<0.001	<0.001	<0.001	0.38	0.009
PR1322		0.40	11	<0.01	<0.01	0.002	0.728	5.33	0.13	<0.001	0.001	<0.001	0.26	0.009
PR1323		0.32	44	<0.01	<0.01	0.002	3.07	5.23	0.12	<0.001	<0.001	<0.001	1.25	0.006
PR1324		0.32	16	<0.01	<0.01	0.002	1.245	4.95	0.12	<0.001	<0.001	<0.001	0.78	0.008
PR1325		0.59	13	<0.01	<0.01	<0.001	0.863	2.84	0.08	<0.001	<0.001	0.001	0.24	0.001
PR1326		0.31	10	<0.01	<0.01	0.001	0.725	4.17	0.08	<0.001	0.001	0.001	0.21	0.003
PR1327		0.61	32	<0.01	<0.01	0.001	2.21	4.01	0.08	<0.001	0.001	<0.001	0.63	0.004
PR1328		0.41	32	<0.01	<0.01	0.001	2.22	4.22	0.08	<0.001	<0.001	<0.001	0.65	0.004
PR1329		0.42	45	<0.01	<0.01	0.001	2.76	3.85	0.08	<0.001	<0.001	0.001	0.78	0.003
PR1330		0.44	20	<0.01	<0.01	0.002	1.300	3.99	0.10	<0.001	0.001	0.001	0.39	0.006
PR1331		0.53	11	<0.01	<0.01	0.002	0.603	4.77	0.13	<0.001	0.001	<0.001	0.19	0.008
PR1332		0.49	13	<0.01	<0.01	0.002	0.681	4.31	0.10	<0.001	0.001	<0.001	0.24	0.006
PR1333		0.66	11	<0.01	<0.01	0.001	0.588	4.01	0.09	<0.001	0.001	0.001	0.33	0.004
PR1334		0.75	4	<0.01	<0.01	0.002	0.225	4.91	0.15	<0.001	0.001	<0.001	0.12	0.009
PR1335		0.19	2	<0.01	<0.01	0.002	0.135	5.75	0.17	<0.001	0.002	0.001	0.08	0.011
PR1336		0.39	1	<0.01	<0.01	0.002	0.083	5.58	0.14	<0.001	0.002	<0.001	0.05	0.010
PR1337		0.45	1	<0.01	<0.01	0.003	0.088	5.00	0.14	<0.001	0.002	<0.001	0.05	0.012
PR1338		0.49	<1	0.02	<0.01	0.002	0.003	2.75	0.10	<0.001	0.002	<0.001	0.01	0.001
PR1339		0.49	1	0.01	<0.01	0.002	0.049	3.93	0.11	<0.001	0.002	<0.001	0.05	0.005
PR1340		0.57	<1	<0.01	<0.01	0.003	0.035	5.73	0.14	<0.001	0.003	<0.001	0.05	0.010



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Page: 3 - A  
Total # Pages: 3 (A)  
Finalized Date: 2- DEC- 2012  
Account: PASRES

Project: TARGET GEN- PAS/R/08

## CERTIFICATE OF ANALYSIS IZ12268806

Sample Description	Method Analyte Units LOR	WEI- 21 Recd Wt. kg 0.02	ME- OG46 Ag ppm 1	ME- OG46 As % 0.01	ME- OG46 Cd % 0.01	ME- OG46 Co % 0.001	ME- OG46 Cu % 0.001	ME- OG46 Fe % 0.01	ME- OG46 Mn % 0.01	ME- OG46 Mo % 0.001	ME- OG46 Ni % 0.001	ME- OG46 Pb % 0.001	ME- OG46 S % 0.01	ME- OG46 Zn % 0.001
PR1341		0.52	<1	<0.01	<0.01	0.003	0.007	5.51	0.15	<0.001	0.004	<0.001	0.02	0.010
PR1342		0.45	8	<0.01	<0.01	0.003	0.415	5.03	0.13	<0.001	0.002	<0.001	0.20	0.008