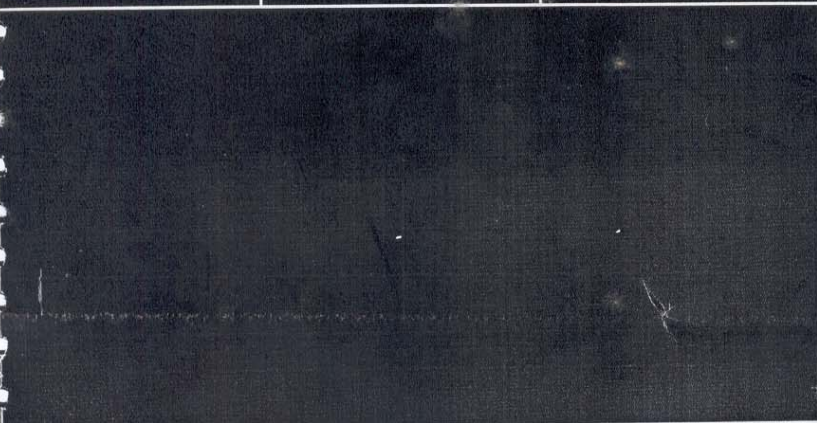


RAJ 10

Rajasthan  
39

# FINAL REPORT: RP1/2004.

OCTOBER 20 2005 to OCTOBER 19, 2008



CROWN MINING PVT. LTD

**ANNUAL REPORT OF RECONNAISSANCE  
WORK DONE BY CROWN MINING  
PRIVATE LIMITED**

**(See Rule 7 (1) vi of MCR, 1960)**

**(From 20 October 2005 to 19 October 2006).**

**A. INTRODUCTION -**

A total area of 1905 km<sup>2</sup> has been granted to Crown Mining Private Limited for reconnaissance of Lead, Zinc, Copper, Gold, Silver, Nickel, Cadmium, Cobalt and Precious Stones. The area lies in the districts of Bhilwara, Rajsamand, Udaipur and Chittorgarh of Rajasthan. The lease has been granted contiguous for 3 years vide the Rajasthan, State Government Order No. F.18(20)Mines/Gr.2/2004 dated 01.08.2005 (R. P. executed on 20.10.2005).

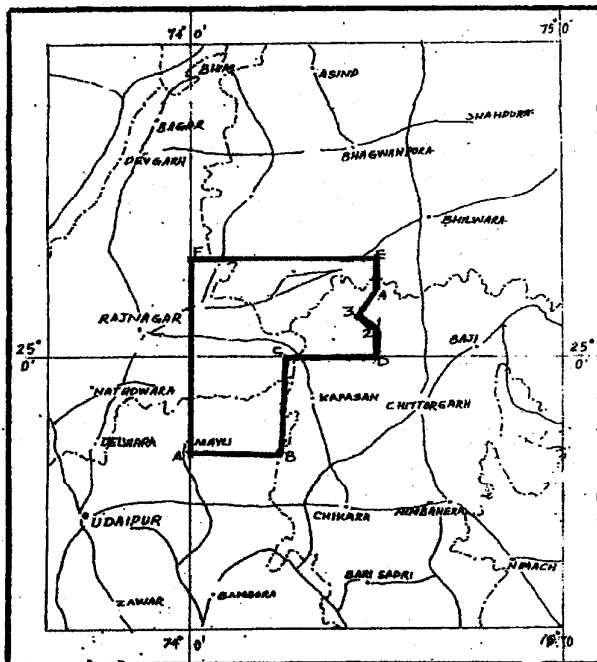
This report summarises the reconnaissance work carried out during the period of 12 months from October, 20, 2005 to October 2006.

The details of the RP area are shown on the attached location map (Fig. 1).

.....2/-

DWG/GEN/33/10-2005  
 MAP SHOWING R.P. AREA (R.P. I/2064) FOR MINERAL LEAD, ZINC, COPPER, GOLD, SILVER, NICKEL, COBALT, PRECIOUS STONE AND ASSOCIATED MINERAL FOR AERIAL PROSPECTING IN DISTRICT BHILWARA, RAJASAMAND, CHITTORGARH AND UDAIPUR IN FAVOUR OF M/S CROWN MINING PVT. LTD.

SCALE:- 1cm = 10 km.



AREA = 1905 SQ. KM.

PILERS	DESCRIPTION REPORT	LATITUDE
A	74°-00'-00"	24°-45'-00"
B	74°-15'-00"	25°-00'-00"
C	74°-30'-00"	25°-00'-00"
D	74°-30'-00"	25°-05'-40"
E	74°-28'-53'-42"	25°-04'-10'-76"
F	74°-25'-43'-10"	25°-06'-43'-64"
	74°-34'-00"	25°-12'-05"
	74°-30'-00"	25°-15'-00"
	74°-00'-00"	25°-15'-00"

AREA = 1905 SQ. KM.

PREPARED BY: TRAUGHTSMAN  
 COMPILED BY: ST. TRAUGHTSMAN HEAD DEPARTMENT  
 CHECKED BY: ST. TRAUGHTSMAN HEAD DEPARTMENT  
 SUPTD. MINING ENGINEER (H.Q.)

:: 2 :

## **B. GEOLOGY OF THE AREA**

### **(i) Location:**

Area covers a total of approximately 1905 Km<sup>2</sup> within the districts of Rajsamand, Bhilwara, Chittorgarh and Udaipur in Rajasthan. The area is bounded by the following coordinates: A (24° 45'N: 74° 00'E), B (24° 45'N:74° 15'E), C (25° 00'N:74° 15'E), D (25° 00'N: 74° 30'E), E (25° 15'N: 74° 30'E) and F (25° 15'N: 74° 00'E). The area falls in topographic sheets 45K/4, 45K/8 and 45L/1.

### **(ii) Approach:**

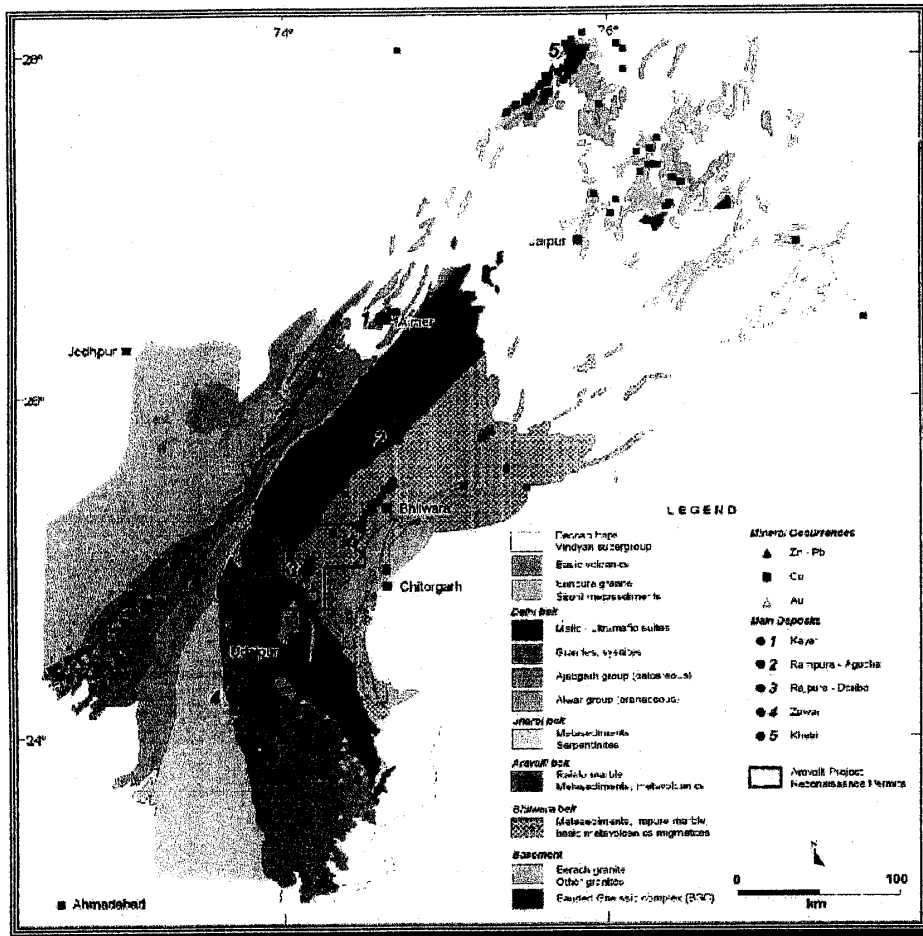
The south-western corner of the area, (A), is located 37 kilometres north east of the city of Udaipur and the north east extremity, (E), 17 kilometres south west of the town of Bhilwara. The area is traversed by numerous sealed roads and the railway line from Udaipur to Chittorgarh. The area is surrounded by the major Pb/Zn mining centre of M/s HZL.

### **(iii) Topography:**

The area lies on the eastern margin of the main Aravalli Range and the dominant river Banas drain eastwards. Topographic heights range from approximately 630 meters to a low of 500 meters along the main drainage of the Banas River.

.....3/-

A regional scale geological map, showing the Reconnaissance Permit locations of the area is shown below:

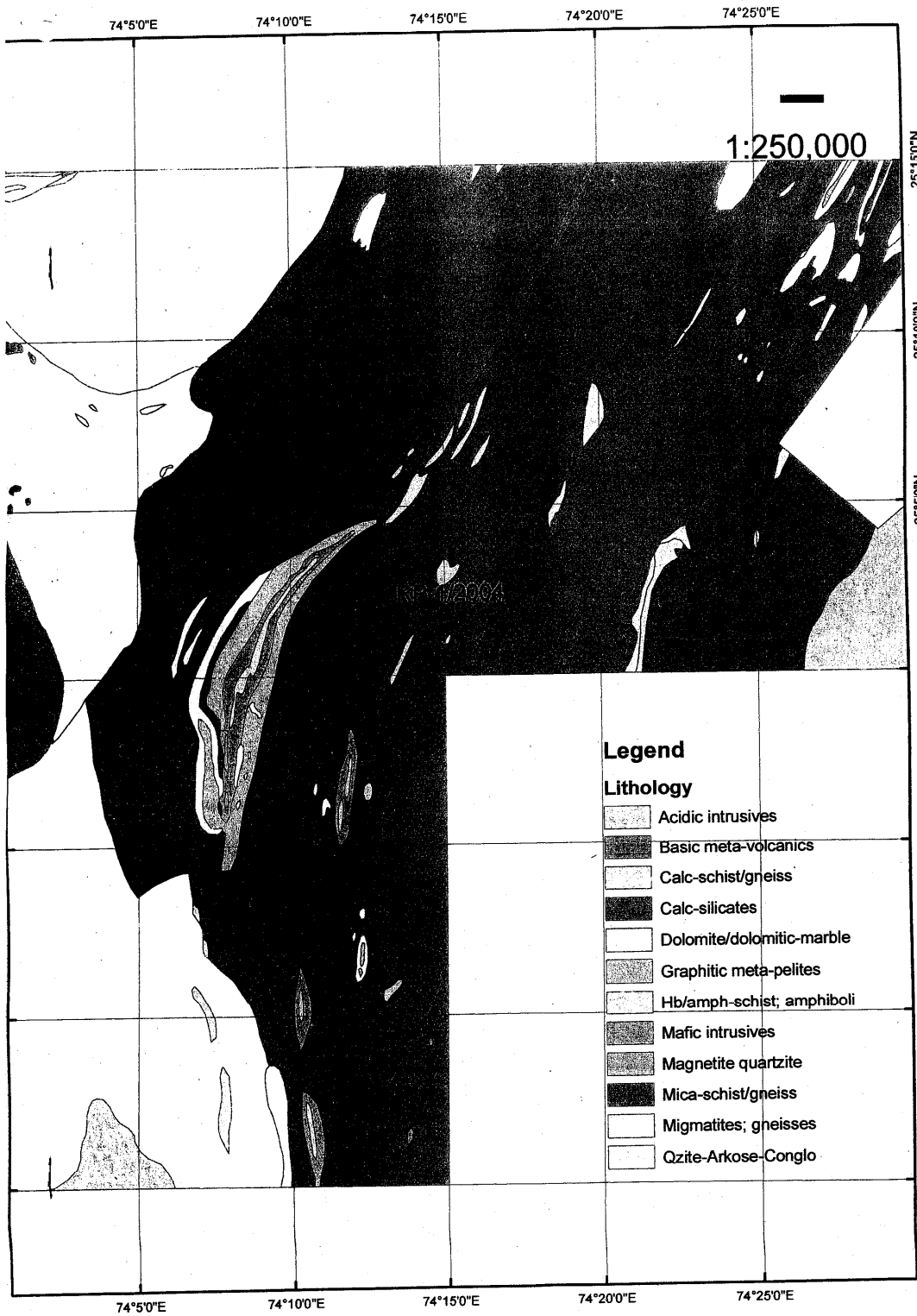


**(iv) GEOLOGY :**

The area includes meta-volcano-sedimentary folded sequence of Bhilwara Supergroup of rocks belonging to Paleo-Proterozoic age. The Bhilwara Supergroup rocks over lie an older sequence of basement rocks belonging to Mangalwar complex of Archean age. These rocks extend over 18 km. in strike length and are termed as Rajpura-Dariba-Surwas Group of rocks which was earlier called as Dariba-Bethumbi Group due to their continuity up to Surawas in NE.

The meta-volcano-sedimentary rocks are host for significant Pb/Zn/Ag mineralization at Rajpura-Dariba. This belt is significant because probably it hosts oldest 1.8 Ga sedex type Pb-Zn deposit. Surface indications of basemetal mineralization are found in the form of extensive gossan at Dariba. Some boreholes drilled by GSI have indicated that the calc-silicate and graphite mica schist host rocks are not exposed and these rocks occur 150 m. below surface under the cover of chert and tuffaceous mica schist. This area has witnessed ancient mining and exploration history Dariba mines are probably worlds oldest mines and smelting site. Timber used for support in the mines has given 2100-2500 years BP carbon dates.

.....4/-



At Rajpura-Dariba basement rocks are composed of quartzo feldspathic banded garnetiferous gneiss and migmatized mica schist. The cover rocks comprise metachert-interlayered with tuffaceous mica schist, calcareous mica schist  $\pm$  graphite, calc-silicate (calcitic-dolomitic) marble, meta marl, carbonaceous mica schist, dolomitic marble with bands of amphibolite. The linearity of this belt in NE-SW direction bear evidence of inter continental rift related development resulting in grabens in which Bhilwara meta sedimentaries were deposited.

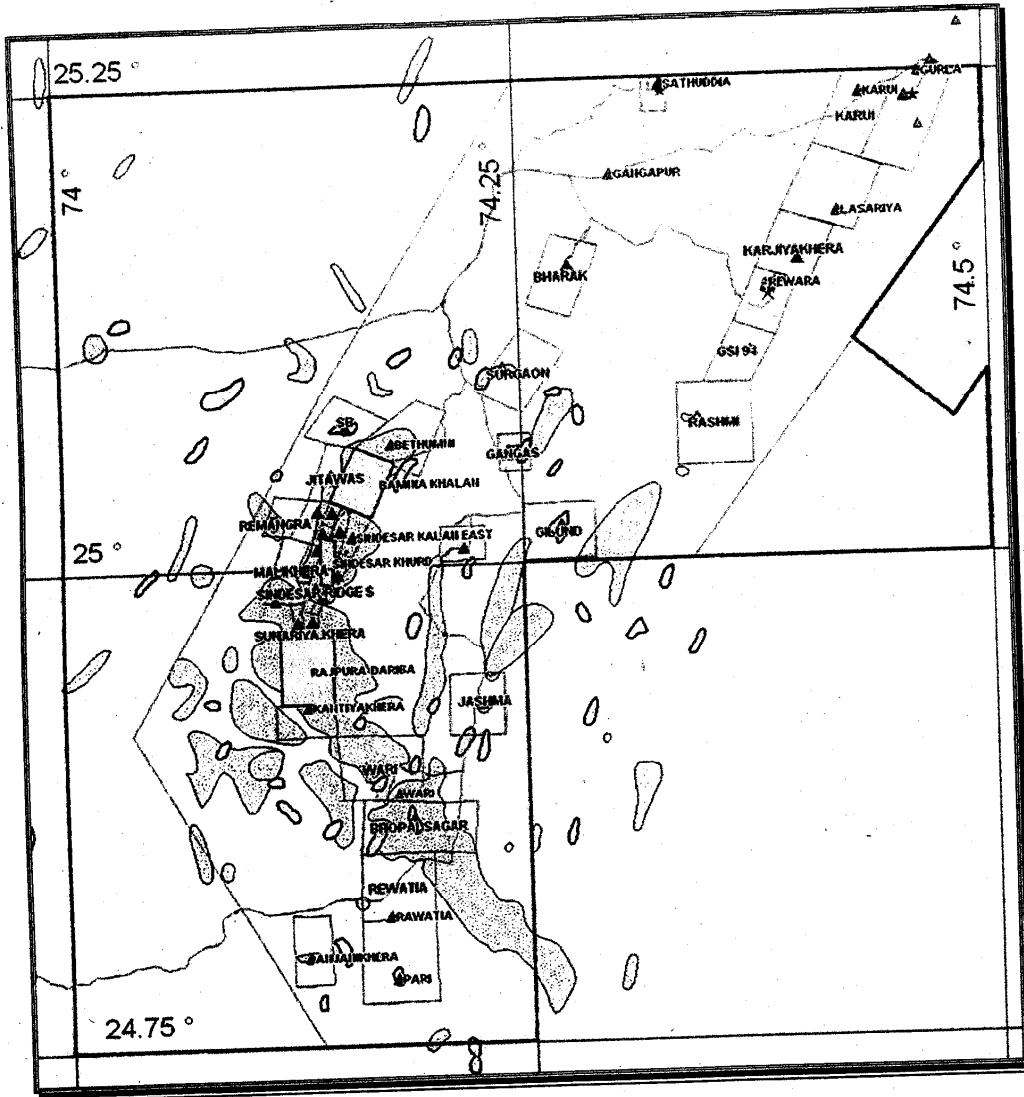
In the southern part Pur-Banera formations comprising chemogenic and clastic meta sediments conglomerate, garnetiferous mica schist, calc-gneiss, B.M.Q. and dolomitic marble with sporadic sulphides. The BMQ is associated with Cu and Pb-Zn sulphides.

#### **(v) STRUCTURE :**

At Sindesar Khurd on the surface earliest folds are isoclinal folds ( $F_1$ ). The subsurface exploration data has revealed presence of concealed north-northeast to south-south west trending broad open symmetric antiform ( $F_2$ ) with sub-horizontal to gently plunging axis. The hinge of the antiform lies below 100 m. from surface. The ore body constitute western limb. Later  $F_3$  structures have produced warps having roughly E-W trending axis. These warps control culmination of ore zones in certain parts and depressions in the other parts and have also restricted length of ore lenses from 600 to 800 m.

.....5/-





**(vi) A model of basin evolution and metallogeny :**

Heron (1953), Gupta BC (1934) and Roy (1988) considered that the Rajpura-Dariba sedimentary basin in the Bhilwara tract to be an eastern arm of the main Aravalli. Where as other workers Sinha Roy (1989) have considered evolution of Bhilwara belt separately like as a pull-apart basin and Deb & Sarkar (1990, 1998) as an aulacogen. But there is one thing common in these different models i.e. role of intercontinental rifting as a mechanism of basin development. Intercontinental rifting of the Archean basement commenced after the emplacement of the Berach granite between 2.6 to 2.4 Ga marking culmination of the process of cratonization of basement.

Rifting failed along the north-eastern arm leaving behind sporadic remnants of the oceanic crust within the supra crustal sediments deposited in the Bhilwara belt and movement along these fractures resulted in half grabens in which the supracrustals were deposited. The lateral extent of these sediments were restricted because of close spaced linear fractures. Movement along the fractures resulted in the elevated slices. This movement resulted in presence of basement slices in the intervening sedimentary zones. As a result in the present day we see basement rocks in between linearly occurring volcano sedimentary zones deposited in grabens. The rifting produced a fracture system in the undulated basement gneisses.

.....6/-

In these linear narrow rifts carbonate sand facies platform sediments were deposited in a relatively thick sequence of argillaceous sediments grading into rhythmic alternations of shale and lime mudstone. & some mafic volcanism becoming felsic with time. Euxinic conditions prevailed resulting in to prolific carbonaceous meta sediments. Well defined sedimentary features are noticed in the stratiform ores indicating deposition of metals in pre-lithification time. The mineralization in the vein ore of Dariba belt can be considered as a "vent complex" in sedex deposit through which the hydrothermal fluids emanated.

### C. PROSPECTING WORK DONE :

During the period reconnoitry traverses were taken up covering an area of 350 sq.km. and 310 Nos. of geochemical samples were collected around Mavali, Railmagra and Kapanan. Besides in an area of 5 sq.km. mapping work was also done. In these areas reconnoitry field traverses were taken up to understand geological set up, lithological configuration and indications of basemetal mineralization. The lithounits of Rajpura-Dariba-Surawas belt were examined. Rock types comprise meta-chert interlayered with tuffaceous mica schist, calcareous mica schist, graphitic mica schist, staurolite-garnet mica schist, calc-silicate dolstone, meta-marl, dolstone with bands of amphibolite, conglomerate and migmatized gneisses. These rocks are intruded by quartz veins. (Map enclosed Fig. 2).

Contd.....7/-

Sindesar Khurd Block forms a part of Dariba-Bethumbi metalotect. The lithounits of the block have been grouped under Rajpur-Dariba Group forming a part of Bhilwara Supergroup. Outcrops are scanty in Sindesar Khurd block and the geology is inferred on the basis of bedrock samples collected from dug wells. The major part of the block is covered by transported and debris soil.

Ground magnetic survey will be conducted after procurement of airborne magnetic data from concerned government agencies. (DMG)

#### **D. FUTURE WORK PLAN**

The future exploration programme will include :

- a) scout drilling, pitting and trenching
- b) closer grid high resolution airborne geophysical mapping if feasible or
- c) ground geophysical and geochemical, structural/lithological mapping works
- d) Chemical analysis, detailed petrological and mineralogical works for understanding of mineralisation history and controls.

In case a workable deposit is likely to be located, the detailed works would lead to stage of pre-feasibility and data would be used for preparation of feasibility report.

.....8/-

Some samples were collected from the RP area, which are being analysed, and we are planning to collect some more samples in the coming season.

**E. EXPENDITURE:**

Out of committed expenditure for 1st year Rs. 70,40,000/- a total expenditure for Rs. 70,50,000/- has been done till September 06. The details are as follows:

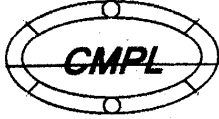
1<sup>st</sup> Quarter Rs. 6,56,480/- 2<sup>nd</sup> Quarter Rs. 9,84,720/-  
3<sup>rd</sup> Quarter Rs. 7,67,278/- 4<sup>th</sup> Quarter Rs. 46,50,000/-

Item wise details are as:

<b>Crown RP</b>	<b>(USD)</b>
GSI Reports	68,102.00
Geochemistry	35,103.00
Geophysics	27,818.00
Travel/vehicles/accommodation	18,435.11
Freight/Shipping/Courier	4,192.00
Utilities	3,037.11
Employee costs	2,769.18
Insurance	286.15
Taxes/fees	677.45
<b>TOTAL</b>	<b>1,60,420.00</b>

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# *Annexure 2*



**CROWN MINING PVT. LTD.**

**ANNUAL REPORT**

**FROM**

**01 OCTOBER 06 TO 30 SEPTEMBER 07**

**AREA OF 1905 SQ. KM. AT**

**BHILWARA, RAJSAMAND,**

**CHITTORGARH & UDAIPUR**

**DISTRICTS**

**IN**

**RAJASTHAN.**

**ANNUAL REPORT OF RECONNAISSANCE**

**WORK DONE BY CROWN MINING**

**PRIVATE LIMITED**

**(See Rule 7 (1) vi of MCR, 1960)**

**(From October 2006 to September 2007).**

**A. INTRODUCTION -**

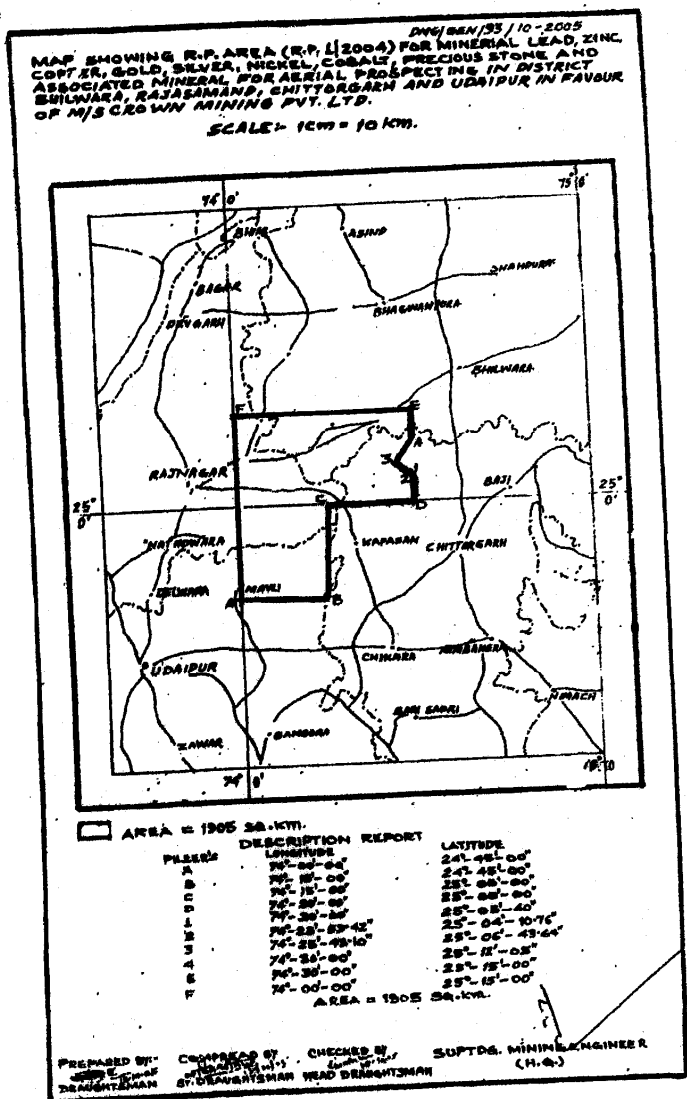
A total area of 1905 km<sup>2</sup> has been granted to Crown Mining Private Limited for reconnaissance of Lead, Zinc, Copper, Gold, Silver, Nickel, Cadmium, Cobalt and Precious Stones. The area lies in the districts of Bhilwara, Rajsamand, Udaipur and Chittorgarh of Rajasthan. The lease has been granted contiguous for 3 years vide the Rajasthan, State Government Order No. F.18(20)Mines/Gr.2/2004 dated 01.08.2005 (R. P. executed on 20.10.2005).

This report summarises the reconnaissance/prospecting work carried out during the period of 12 months from i.e. October, 2006 to September'2007.

The details of the RP area are shown on the attached location map (Fig. 1).



F28-1



## **B. GEOLOGY OF THE AREA**

### **(i) Location:**

Area covers a total of approximately 1905 Km<sup>2</sup> within the districts of Rajsamand, Bhilwara, Chittorgarh and Udaipur in Rajasthan. The area is bounded by the following coordinates: A (24° 45'N: 74° 00'E), B (24° 45'N: 74° 15'E), C (25° 00'N: 74° 15'E), D (25° 00'N: 74° 30'E), E (25° 15'N: 74° 30'E) and F (25° 15'N: 74° 00'E). The area falls in Survey of India Topographic sheet Nos 45K/4, 45K/8 and 45L/1.

### **(ii) Approach:**

The south-western corner of the area, (A), is located 37 kilometres north east of the Udaipur city and the north east extremity, (E) is 17 kilometers south west of the town of Bhilwara. The area is traversed by numerous Tar/mettled roads and the Broad Gauge Railway line from Udaipur to Chittorgarh is also passes in the area . The area is surrounded by the major Rajpura-Dariba- Sindeshwar Pb/Zn mining of M/s HZL/Vedanta .

### **(iii) Topography:**

The area lies on the eastern margin of the main Aravalli Range and the dominant river Banas drain eastwards. Topographic heights range from approximately 630 meters to as low as 500 meters along the main drainage of the Banas River.

### **(iv) Geology:**

Rajasthan holds nearly 90% of the known economically viable lead – zinc resources of the country. These resources are located in the Aravalli hills and plains. The rock types belongs to Lower Proterozoic and Archaean age and are called Aravalli Super Group of rocks , Mangalwar

complex and Bhilwara Super Group of rocks respectively . The banded Gneissic complex(BGC)/ Mangalwar complex of Archaean age forms basement on which Aravalli Super Group rocks were deposited . Bhilwara Super Group of rocks occur as relief meta-sedimentary rocks within Mangalwar complex. Famous Zawar Pb-Zn mines is located in Aravalli Super Group of rocks and Agucha and Rajpura – Dariba Pb – Zn mines are located in Bhilwara Super Group of rocks.

The area includes meta-volcano-sedimentary folded sequence of Bhilwara Supergroup of rocks belonging to Paleo-Proterozoic age. The Bhilwara Supergroup rocks over lies an older sequence of basement rocks belonging to Mangalwar complex of Archean age. These rocks extend over 18 km. in strike length and are termed as Rajpura-Dariba- Surwas Group of rocks due to their continuity up to Surawas in NE which was earlier called as Dariba-Bethumbi Group.

The meta-volcano-sedimentary rocks are host for significant Pb/Zn/Ag mineralization at Rajpura-Dariba. This belt is significant because probably it hosts oldest 1.8 Ga sedex type Pb-Zn deposit. Surface indications of basemetal mineralization are found in the form of extensive gossan at Dariba. Some boreholes drilled by GSI have indicated that the calc-silicate and graphite mica schist host rocks are not exposed and these rocks occur 150 m. below surface under the cover of chert and tuffaceous mica schist. This area has witnessed ancient mining and exploration history. Dariba mines are probably worlds oldest mines and smelting site. Timber used for support in the mines has given 2100-2500 years BP carbon dates.

In the present area Rajpura – Dariba mines , Sindesar Khurd and Bamania deposits of Pb and Zn are located . Other important Pb-Zn prospects in the the present RP area are at Rewara, Karjia Khera , Wari, Bhupalsagar, Ladani , Bharak- Baghera, Sanklhli , Rampura, Kaladhubi-Bethumbi and Satdhubia.

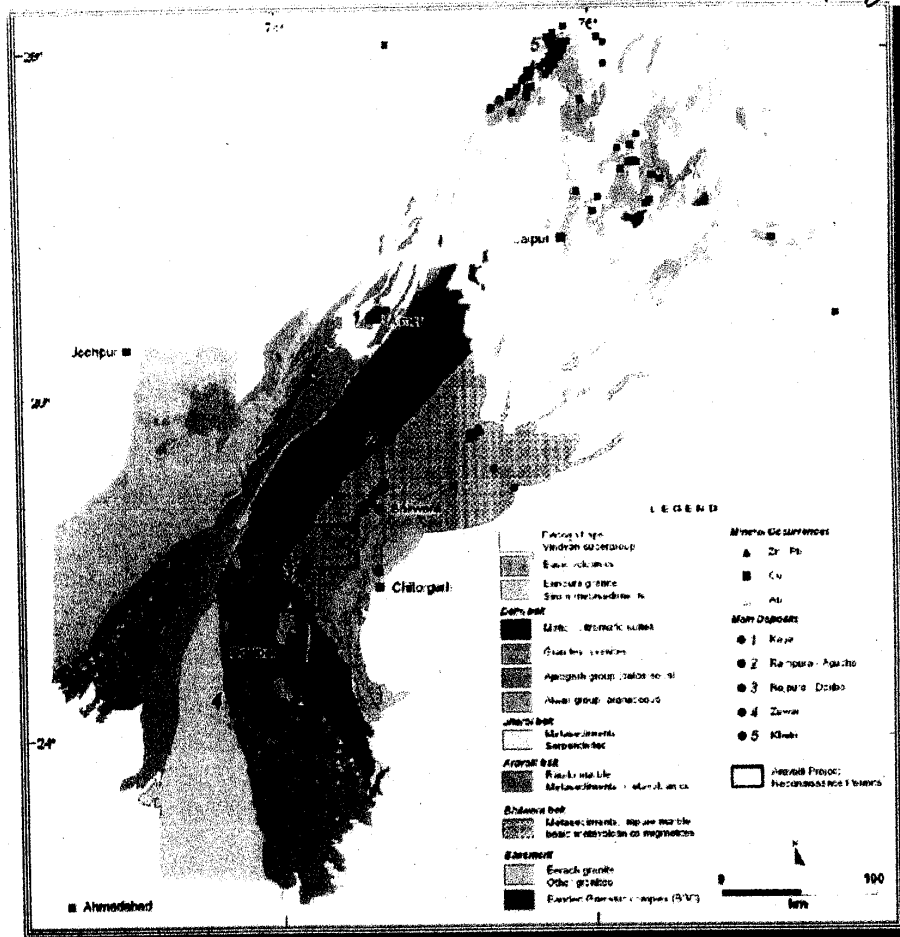
At Rajpura-Dariba basement rocks are composed of quartzo feldspathic banded garnetiferous gneiss and migmatized mica schist. The

cover rocks comprise metachert- interlayered with tuffaceous mica schist, calcareous mica schist  $\pm$  graphite, calc-silicate (calcitic-dolomitic) marble, meta marl, carbonaceous mica schist, dolomitic marble with bands of amphibolite. The linearity of this belt in NE-SW direction bear evidence of inter continental rift related development resulting in wal grabens in which Bhilwara meta sedimentaries were deposited.

In the southern part Pur-Banera formations comprising chemogenic and clastic meta sediments conglomerate, garnetiferous mica schist, calc-gneiss, B.M.Q. and dolomitic marble with sporadic sulphides. The BMQ is associated with Cu and Pb-Zn sulphides.

In addition to Pb-Zn sedex style deposit numerous occurrences of generally smaller stratiform copper deposit such as Sattudhia, Wari, Rewara, Gurlah, Karjiakakhera etc. also exist.

A regional scale geological map, showing the Reconnaissance Permit locations of the area is shown below: (Fig 2)



(v) **Structure:**

At Sindesar Khurd on the surface earliest folds are isoclinal folds (F<sub>1</sub>). The subsurface exploration data has revealed presence of concealed north-northeast to south-south west trending broad open symmetric antiform (F<sub>2</sub>) with sub-horizontal to gently plunging axis. The hinge of the antiform lies below 100 m. from surface. The ore body constitute western limb. Later F<sub>3</sub> structures have produced warps having roughly E-W trending axis. These warps control culmination of ore zones in certain

the other parts and have also restricted length of ore lenses from 600 to 800 m.

**(vi) A model of basin evolution and metallogeny :**

Heron (1953), Gupta BC (1934) and Roy (1988) considered that the Rajpura-Dariba sedimentary basin in the Bhilwara tract to be an eastern arm of the main Aravalli whereas other workers Sinha Roy (1989) have considered evolution of Bhilwara belt separately like as a pull-apart basin and Deb & Sarkar (1990, 1998) as an aulacogen. But there is one thing common in these different models i.e. role of intercontinental rifting as a mechanism of basin development. Intercontinental rifting of the Archean basement commenced after the emplacement of the Berach granite between 2.6 to 2.4 Ga marking culmination of the process of cratonization of basement.

Rifting failed along the north-eastern arm leaving behind sporadic remnants of the oceanic crust within the supra crustal sediments deposited in the Bhilwara belt and movement along these fractures resulted in half grabens in which the supracrustals were deposited. The lateral extent of these sediments were restricted because of close spaced linear fractures. Movement along the fractures resulted in the elevated slices. This movement resulted in presence of basement slices in the intervening sedimentary zones. As a result in the present day we see basement rocks in between linearly occurring volcano sedimentary zones deposited in grabens. The rifting produced a fracture system in the undulated basement gneisses.

In these linear narrow rifts carbonate sand facies platform sediments were deposited in a relatively thick sequence of argillaceous sediments grading into rhythmic alternations of shale and lime mudstone. & some mafic volcanism becoming felsic with time. Euxinic conditions prevailed resulting in to prolific carbonaceous meta sediments. Well defined sedimentary features are noticed in the stratiform ores indicating deposition of metals in pre-lithification time. The mineralization in the vein ore of Dariba belt can be

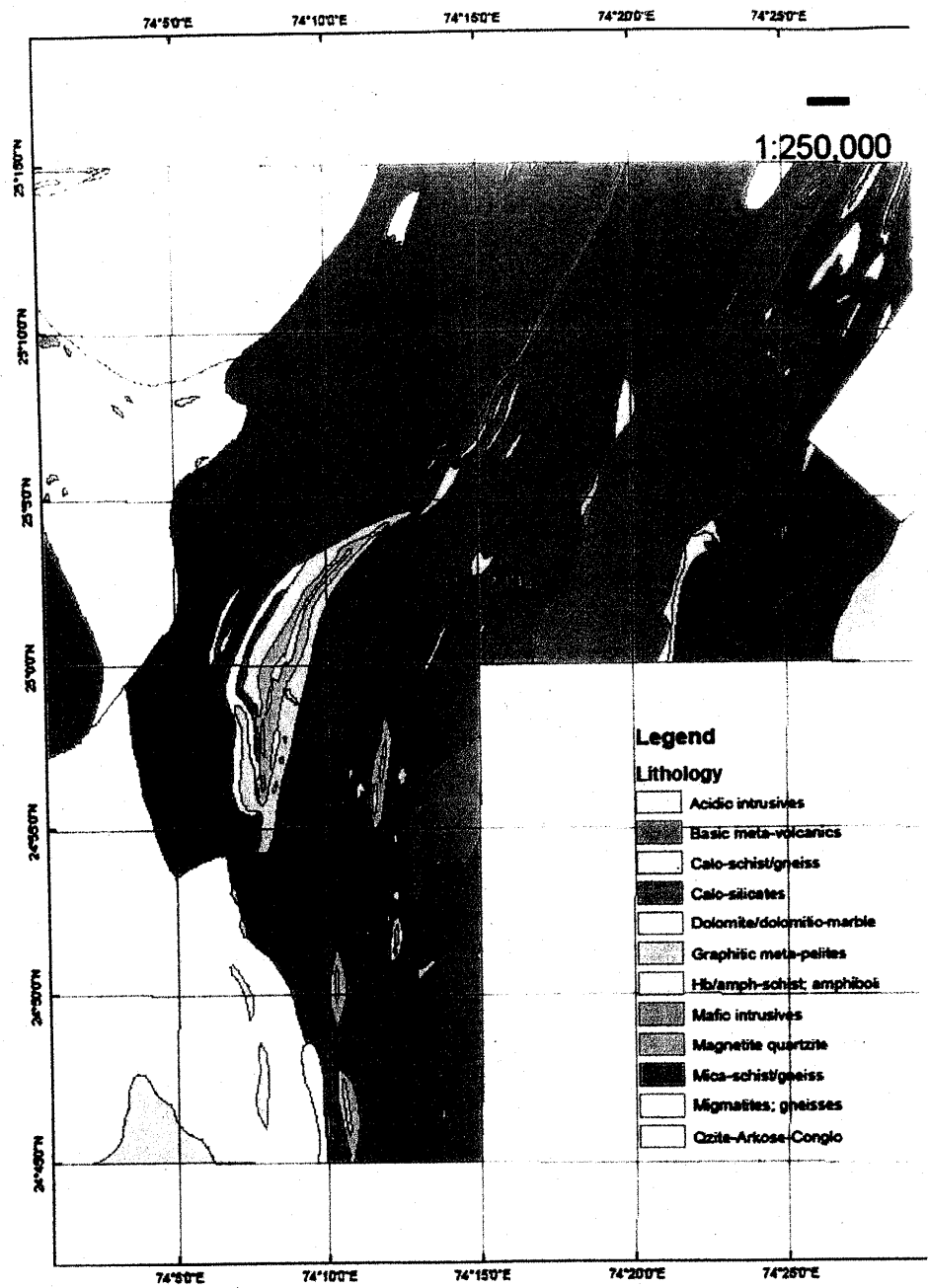
considered as a "vent complex" in sedex deposit through which the hydrothermal fluids emanated.

### **C. PROSPECTING WORK DONE :**

During the period Oct'05 to Sept'06 reconnaissance traverses were taken up covering an area of 350 sq.km. and 310 Nos. of geochemical samples were collected around Mavali, Railmagra and Kapasan. Besides an area of 5 sq.km. mapping work was also done. In the year Oct'06 to Sept'07 reconnaissance traverses in an area of 300 sqkm & 5.00 sq. Km. regional mapping around Sattdundia & Rewara areas was taken up, 352 spot samples were also collected. Besides, a total of 10 Rc drill holes with a cumulative metreage of 1364m were completed in Sattdundia area, from Rc drill holes 285 nos. chip samples each of 1mtr. length was also collected. Reconnaissance traverses were taken around Bharak , Rewara , Karjia khera , Rampura , Baghera, Sattdundia, Banera to Gangapur etc. areas. In these areas reconnaissance field traverses were taken up to understand geological set up, lithological configuration and indications of basemetal mineralization. The lithounits of Rajpura-Dariba-Surawas belt were examined. Rock types comprise meta-chert interlayered with tuffaceous mica schist, calcareous mica schist, graphitic mica schist, staurolite-garnet mica schist, calc-silicate dolstone, meta-marl, dolstone with bands of amphibolite, conglomerate and migmatized gneisses. These rocks are intruded by quartz veins. (Map enclosed Fig. 3). The details of the work is enclosed Report on findings of mineral resources for the period is enclosed in performa as appendix 4.

Sindesar Khurd Block forms a part of Dariba-Bethumbi metalotect. The lithounits of the block have been grouped under Rajpur-Dariba Group forming a part of Bhilwara Supergroup. Outcrops are scanty in

Fig 3





Sindesar Khurd block and the geology is inferred on the basis of bedrock samples collected from dug wells. The major part of the block is covered by transported and debris soil.

During this year land sat imageries were also studied , check traverses were taken and new structural interpretation of landsat imagery was confirmed by field checks .

These areas were earlier covered under aeromagnetic survey and followed by ground geochemical studies and drilled by Geological Survey of India (AMSE) . Quartz-mica schists , magnetitic quartzite and dolomite are host rocks at these prospects and these rocks exhibit limonites and gossan . Old working are also noticed in these . Slag dump is also seen strewn over these areas.

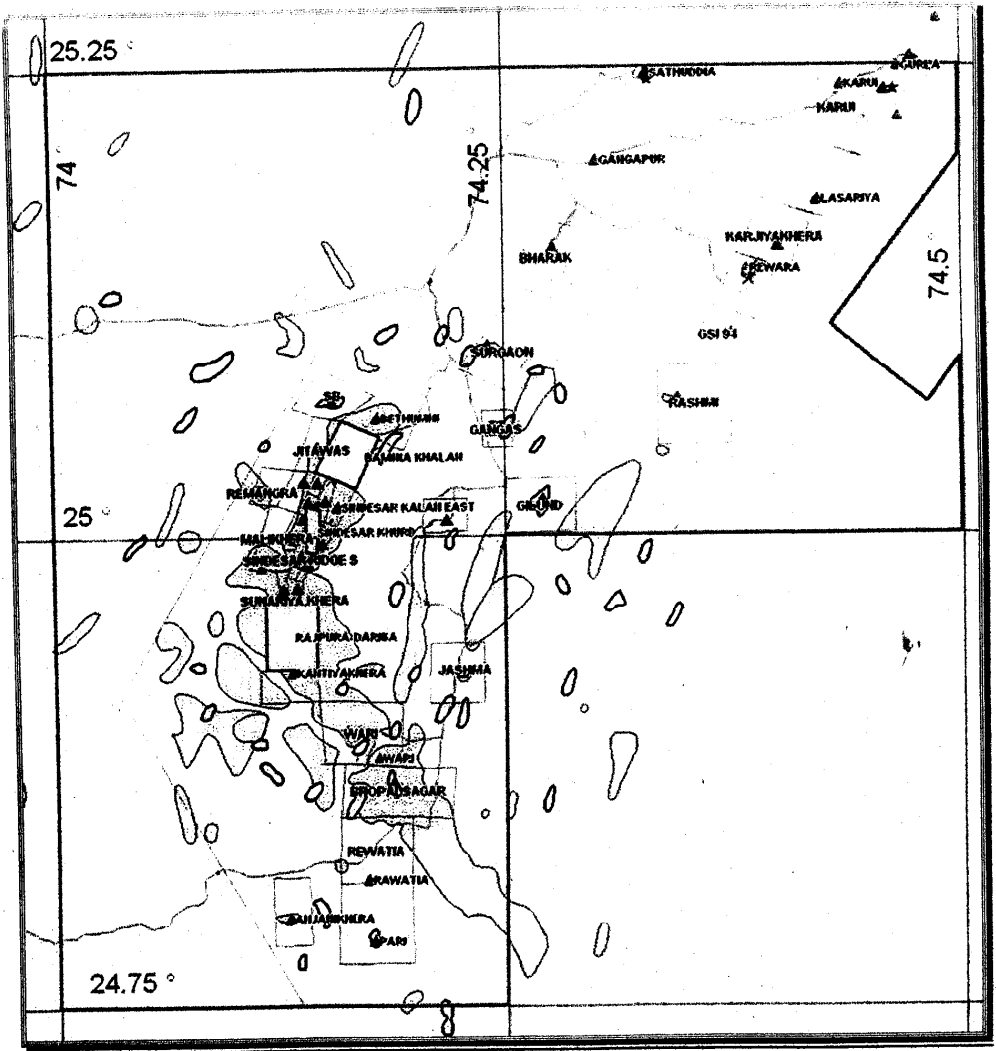
On the basis of study of landsat imageries of Rajpura area new shear zones have been identified which have been confirmed on the ground . Limonites & fault breccia's (Gossan zone) have been noticed in the shear zones. Study of aerial photographs is also done for part of the area. These structures may holds potential for ore of Pb and Zn . In some areas wall rock alteration features have been also observed indicating presence of subsurface Pb-Zn lodes. Shaft like structures are seen at Satdhundia. Regarding these shafts it is reported that these have underground connections and water in the wells does not exhaust. The area has been drilled by the GSI.

At Rampura magnetite \ quartzite indicates malachite coatings and limonites on the surface and the prospect has been drilled by GSI.

At places occurrences old working around Bharak ,Gurla, Pur etc. are noticed. Slag dump is also seen strewn over these areas. The area has been drilled by the GSI & DMG.

At Bharak, Gurla, Pur magnetic quartzite & dolomite limestone indicates malachite coatings and limonites on the surface and the prospect has been drilled by GSI & DMG regional mapping around Rewara, Sattdudiya has been done .

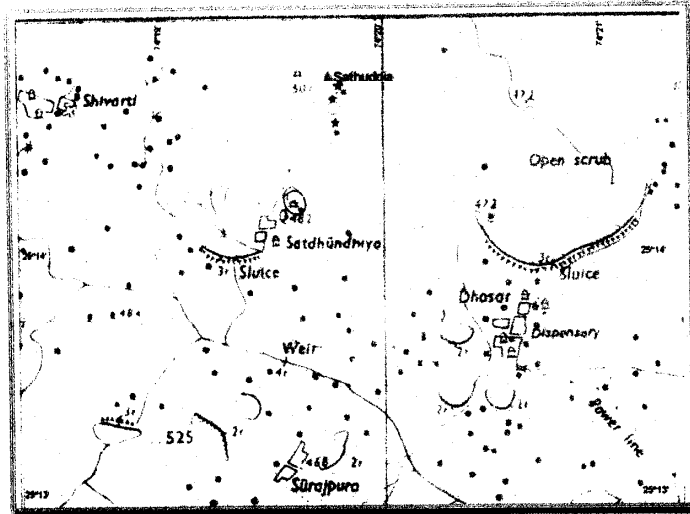
In the area a number of blocks which have evidence of either lead-zinc or copper mineralisation. The map also shows the excised mining leases held by HZL-Vedanta (in green stipple) in the centre, as well as widespread geochemically anomalous zones (in purple stipple). Fig 4:



The range and number of existing prospects within the RP dictated that the company commence evaluation of these mineralised zones

by systematic widely-spaced reconnaissance drilling; this program was designed specifically to target strike extensions of mineralisation exploited by ancient miners, which are usually characterised by a series of old workings and shafts, slag heaps and waste dumps.

This process commenced in the northern part of the RP, in the area centred on the village of Sathuddia, shown below: (FB 5)



A total of 10 RC drill holes (ARC 001 to ARC 010) with a cumulative metrage of 1364m were completed in the Sathuddia area, before heavy rains and very poor access conditions caused the temporary suspension of the drill evaluation program.

#### D. Details of geochemical sampling in RP 1/2004.

Geochemical samples (bed rock) were collected from the R.P. area no 1/2004 covering parts Rajsamand , Bhilwara, Chittorgarh & Udaipur districts of Rajasthan . These areas pertaining to RP 1/2004 fall in Survey of India toposheet no. 45 K/4 & 8 & L/1.

During the period from October 2005 to September 2006 a total of 310 nos of samples were collected . Similarly during the year 2006-07 (Oct'06 to Sept'07 ) 352 Nos of samples were collected from the covered area i.e. Rewara , Karjia ka khera , Bharak , Gurla , Banera , Gangapur , Kunwariya , Rampura.

Samples have been collected from different lithounits of Mangalwar complex (basemetal complex) , Bhilwara Super Group of rocks (cover rock sequences) basement Gneisses cover rock sequences such as dolomites, quartzite, Magnetite quartzite and intrusive pegmatites , aplites and quartz veins .

The geochemical samples were collected from road cuttings , nalah sections , well sections and available rock out crops. The distance between samples were not uniform . Grid could not be followed as area is covered by soil chips were collected from approximately 1 sqkm. area for each sample .

These samples will be analysed for basemetals associated elements , rara earths, Sn & w . In the present area lepidolite lithium bearing mica has been reported thus samples have been collected from pegmatites also.

The analytical data will be interpreted for primary geochemical dispersion pattern . Lithological and structural data will be useful for modifying existing maps. Samples locations have been plotted on the Survey of India maps. From each location samples of different lithounits were plotted .

Sample no and details (for year 2006-07) of each sample are given in the and sample locations have been plotted on the maps which are also enclosed (Appendix no. 3). From RC drill holes 285 nos. of 1 mtr. each have been collected and analysed by Nitron portable XRF unit the results are appended in (appendix no. 2) .

Results for the mineralised intercept from the first RC drill hole of the drilling program are tabulated below in Table no.1:

Table no.1

ARC001	%	A1156	154	155	LOD	0.02	3.25	0.212	95.74	0.468
ARC001	%	A1157	155	156	LOD	0.02	2.57	0.174	96.85	0.368
ARC001	%	A1158	156	157	0.03	0.008	2.55	0.117	96.41	0.289
ARC001	%	A1159	157	158	0.12	0.018	5.25	0.204	93.59	0.352
ARC001	%	A1160	158	159	0.2	0.022	3.62	0.161	95.48	0.305
ARC001	%	A1161	159	160	0.2	0.02	4.13	0.156	94.86	0.29
ARC001	%	A1162	160	161	0.11	0.019	3.74	0.182	95.53	0.335
ARC001	%	A1163	161	162	0.11	0.014	2.9	0.118	96.04	0.273
ARC001	%	A1164	162	163	0.37	0.035	5.96	0.245	92.39	0.436
ARC001	%	A1165	163	164	0.54	0.038	4.55	0.184	93.63	0.377
ARC001	%	A1166	164	165	1.27	0.074	5.78	0.236	92.01	0.427
ARC001	%	A1167	165	166	0.67	0.049	5.13	0.218	92.87	0.431
ARC001	%	A1168	166	167	1.35	0.078	7.14	0.272	90.38	0.467
ARC001	%	A1169	167	168	0.49	0.037	6.71	0.235	91.75	0.381
ARC001	%	A1170	168	169	0.3	0.033	5.86	0.253	92.71	0.444
ARC001	%	A1171	169	170	0.58	0.034	3.92	0.144	94.86	0.268
ARC001	%	A1172	170	171	2.92	0.148	5.32	0.237	91.23	0.447
ARC001	%	A1173	171	172	2.56	0.103	4.54	0.169	92.53	0.314
ARC001	%	A1174	172	173	2.38	0.105	3.55	0.159	93.14	0.375
ARC001	%	A2077	173	174	0.04	0.009	2.36	0.108	96.62	0.273
ARC001	%	A2078	174	175	0.03	0.007	1.84	0.083	97.29	0.228
ARC001	%	A2079	175	176	0.02	0.008	1.34	0.086	97.92	0.256
ARC001	%	A2080	176	177	LOD	0.01	1.36	0.104	97.81	0.326
ARC001	%	A2081	177	178	LOD	0.02	1.53	0.141	97.75	0.401
ARC001	%	A2082	178	179	0.02	0.006	1.58	0.078	97.53	0.232
ARC001	%	A2082	179	180	0.02	0.006	1.65	0.08	97.67	0.21
ARC001	%	A2083	180	181	0.01	0.009	1.65	0.114	97.72	0.299
ARC001	%	A2084	181	182	0.02	0.006	1.58	0.078	97.67	0.219
ARC001	%	A2085	182	183	0.02	0.006	1.14	0.063	98.31	0.19

Samples above the mineralised intercept and from the footwall contact are also included. The results from the remaining nine RC holes are appended in Appendix 1. The assay reports from Ultratrace, Australia are currently pending and will be submitted once available.

The samples were analysed on site by a portable Niton XRF Analyser, for a range of 19 elements but only the elements which have reported significantly above the detection limits are shown in this table. The elements included in the assays are: Cu, Pb, Zn, Ag, Mo, As, Bi, W, Ni, Co, Sn, Pd, Mn, Cr, V, Ti, Fe, Nb and Zr. Single metre sample splits have also been sent to a Western Australian laboratory [Ultratrace Pty Ltd] to help calibrate the Niton unit and to establish the accuracy and precision of the portable XRF unit [generally ranging around the 95% confidence interval]. The samples have been submitted for Au [detection limit = 1ppb], Ag, Cu, Pb and Zn assays by digestion with Aqua Regia and subsequent low-level ICPMS determination directly from the acid extract. This assay method has the best detection limits and will help constrain the accuracy and precision of any subsequent Niton unit values determined in the field. The detection limits for this method are shown below:

**ICP-MS detection limits-** Note: \* means ppb, otherwise detection limits are ppm:

Ag (0.05), As (0.2), Ba(0.05), Bi(0.02) Cd(0.1), Ce, (10)\*, Co(0.2), Cs(20)\*, Cu(0.5) Dy(10)\*, Er(10)\*, Eu(2)\*, Ga(0.2), Gd(0.05)\*, Hg(0.01), Ho(5)\*, In(5), Ir(5)\*, La(10)\* Li(0.1), Lu(5)\*, Mo(0.1), Ni(1), Nd(10)\*, Pd(10)\*, Pb(1), Pr(5)\*, Pt(5)\*, Rh (5)\*, Ru (5)\*, Rb (0.05), Sb(0.02), Sc(0.5), Se(1), Sm(10)\*, Sn (0.2), Sr (0.1), Tb(5)\*, Te(0.1), Th(10)\*, Tl(10)\*, Tm(5)\*, U (10)\*, W (0.1), Y(10)\*, Yb(10)\*, Zn(1) .

The multi-element suite covered by the ICPMS analytical technique facilitates a low-level, multi-commodity surface geochemical exploration program to be undertaken over large tracts of appropriate areas using the portable unit.

RC drilling will resume shortly as soon as Mitchell Drilling India Pvt Ltd can mobilise a new Schramm RC drill rig; this is expected to occur around mid to late October, 2007. The planned campaign includes drilling the following prospects: Rewara, Wari and Anjanikhera etc areas.

The intercept shown in appendix-1 represents a 10m wide zone with an average copper content of 1.22% Cu. The error column shows the confidence interval within which the portable XRF unit operates and all results must be regarded as plus or minus the appropriate value.

The assay result of all collected spot/geochemical/R.C.drill samples from ultratrace, Australia are currently pending, some of the results received are appended in appendix no.2.

Ground magnetic survey will be conducted after procurement of airborne magnetic data from concerned government agencies. (DMG). The request to the state Govt. has already made, reply is awaited.

#### **E. FUTURE WORK PLAN**

The future Exploration programme will include :

- a) Scout R.C. drilling, pitting and trenching
- b) Closer grid high resolution airborne geophysical mapping if feasible or
- c) Ground geophysical and geochemical, structural/lithological mapping works.
- d) Chemical analysis, detailed petrological and mineralogical works for understanding of mineralisation history and controls. In case a workable deposit is likely to be located, the detailed works would lead to stage of pre-feasibility and data would be used for preparation of feasibility report.

#### **F. EXPENDITURE:**

Out of committed expenditure for 1st year i.e. year Oct'05 to Sept'06 Rs. 70,40,000/- a total expenditure for Rs. 70,50,000/- (USD-1,60,420.00) has been incurred. The details are as follows:

1<sup>st</sup> Quarter Rs. 6,56,480/- 2<sup>nd</sup> Quarter Rs. 9,84,720/-

3<sup>rd</sup> Quarter Rs. 7,67,278/- 4<sup>th</sup> Quarter Rs. 46,50,000/-

for the year 2006-07 (Oct'06 to Sept'07) the committed expenditure was R 74,00,000/- (185,000 USD) & out of this Rs. 2, 21, 36600/- ( 5,53,415.00 US\$ expenditure has been incurred.

ITEMS	YEAR 05 06(IN USD)	SEP 06 TO DEC 06	JAN TO 3/07	4/07 TO 6/07	7/07 TO 9/07
GSI Reports	68102.00	---	---	---	79888.00
Geo Chemistry		20126.00	17654.00	17684.00	25000.00
Geophysics	23818.00	16475.00	15495.00	16387.00	159635.00
Travel/Vehicles/ Accommodation	18435.11	6125.00	6547.00	5123.00	11295.45
Freight/Shipping & Courier	4192.00	1388.00	3218.00	2160.00	2510.00
Utilities	3037.11	1194.00	1679.00	1489.00	15000.00
Employee Costs	2769.18	898.00	1421.00	2560.00	1,22,000.00
Insurance	286.15	23.00	89.00	65.00	---
Taxes/Fees	677.45	21.00	147.00	98.00	---
Total=	TOTAL = 1,60,420.00	46250.00	46250.00	45566.00	4,15,349.39
Total=	Yr 05-06= 1,60,420.00 (A)		OCT 06 TO SEP 07 = 553415.00		

TOTAL A + B = 713835.00



## G. RELINQUISHMENT

As per the Reconitory Permit Conditions 50% of the area has to be Relinquish after completion of 2 years execution period .Therefore only 990.56 sq km area shown by purple dash lines and as per co-ordinates list area is retained and remaining was relinquished .The retained area map and co-ordinates are as shown in fig6 with table 2

Mandatory Relinquishment of 50% of the Relmagra and Nasirabad RP's

(fig 6)