

**REGIONAL EXPLORATION PROPOSAL FOR MANGANESE IN KALAKHUNTA
BLOCK, DISTRICT –BANSWARA, RAJASTHAN**

SYNOPSIS

- 1 Mineral : Manganese
- 2 Location : Kalakhunta block falls in the Survey of India Toposheet No. 46 I/7 bounded by Latitudes 23° 16' 54.59" to 23° 19' 18.97" and longitudes 74° 17' 01.12" to 74° 19' 38.47" with total area of 5.17 sq. km. The block comes under Kushalgarh tehsil of Banswara district, Rajasthan. It is located 35 km SSW of Banswara town and 546 km SSW of Jaipur. NH-56 is at a distance of 2 km from the northern part of the block and connected through district road. Nearest railway station is Dohad, Gujarat at a distance of 70 km and nearest airport is Udaipur which is 185 km by road.
- 3 Exploiting Agency : National / Private
- 4 Background : In order to sustain the current level of production of Mn ores and to meet the future demands, the exploration of Mn ore is the need of the hour. In India the Manganese Ore deposits mainly occurs as metamorphosed bedded sedimentary deposits associated with Gondite Series (Archaean) of Madhya Pradesh (Balaghat, Chhindwara & Jhabua districts), Rajasthan (Banswara district), Maharashtra (Bhandara & Nagpur districts), Gujarat (Panchmahal district), Odisha (Sundargarh district), Kodurite Series (Archaean) of Odisha (Ganjam & Koraput districts) and Andhra Pradesh (Srikakulam & Vishakhapatnam districts). The total resources of Manganese ore in the country as on 01-04-2010 are placed at 430 million tonnes as per UNFC system. Out of these resources 142 million tonnes are categorised as reserves and the balance 288 million tonnes are in the remaining resources category.

Department of Mines & Geology has conducted regional mineral survey in area of 250 sq. km., regional geological mapping in area of 18 sq km. as well as detailed geological mapping over 2.1 sq km. in the field season of 2008-2009. Timamahuri – Tambesra, Itala-Sagwa, Kalakhunta – Ghatia and Sevnia-Garariya blocks were covered for regional geological mapping and detailed geological mapping was done in Timamahuri –

Tambesra&Sewnia – Garariya blocks. Total 50 spot samples were also collected during mapping.

Geologically the area comprises Lunavada group of Aravalli Super Group and Deccan traps which is represented by Phyllite, Manganiferous phyllite, Meta-subgreywacke, Mica schist, Quartzite and Dolomite etc. The general trend of rock units is N25°–30°W with 60° to 75° dips due south westerly. The Manganiferous phyllite exposed in the area trending N 70° W to N80° W with 35° to 50° south westerly dips. It is grayish black in colour and metallic in nature and intermittently exposed for about 10000 m in length and width varying from 20m to 50m. Tentative resource of the entire area was calculated as 14.58 million tonnes by DGM Rajasthan.

In view of the MMDR Amendment Act-2015, Minerals (Evidence of Mineral Contents) Rule 2015 and Mineral Auction Rule-2015, Ministry of Mines, Govt. of India has directed Govt. of Rajasthan for exploration through NMET Funding to facilitate the State government for auction of blocks. Accordingly, Govt. of Rajasthan has indicated the Kalakhunta area for exploration of Manganese ore.

On receipt of consent of Government of Rajasthan and geological report provided by Department of Mines & Geology, Rajasthan, MECL prepared the proposal for assessment of Manganese ore in the Kalakhunta area.

The proposal was put up for discussion and approval of Technical Committee of NMET in its 5th meeting held on 27th& 28th September 2016 at GSI, Hyderabad. The Committee has approved the proposal with modifications in strategy & quantum of work. The modifications have been incorporated and put up for approval of Executive Body of NMET.

5	Objectives	:	The exploration scheme of Kalakhunta Manganese Block formulated with the following objectives: a) To define shape, size and geometry of ore zone. b) To firm up the data by trenching and in case of positive results in trenches, check the depth persistence through scout drilling.
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TABLE: 5.1 PROPOSED QUANTUM OF WORK IN KALAKHUNTA BLOCK

Sl. No.	Item of work	Unit (m)	Proposed Quantum of Work
1	<u>Survey (1:5000)</u>		
	a) DGPS Survey (Demarcation of Block Boundary points)	Sq. Km	5.17 sq.km
	b) Contouring (5m Contour Interval)	Sq. Km	5.17 sq.km
	c) Demarcation of stations for Geophysical survey	No of Stations	2106
	d) B.H. fixation (Hilly Terrain)	Sq. Km	5
	e) R.L. & coordinate determination	Nos.	5
2	Geophysical Survey Gravity Survey & Magnetic Survey At 25m X 100m intervals)	No of Stations	2106
3	Trench opening	Cu m	1555 Cu m (23 trenches)
4	Drilling (coring)	m	550m (5 Bhs.)
5	<u>Geological work</u>		
	a) Geological Core Logging	m	550m (5 Bhs.)
	Sample Preparation b) Sampling (Primary+ Check) For 6 radicals i.e. Mn, SiO ₂ , P ₂ O ₅ , Fe ₂ O ₃ , MnO ₂ and Insolubles	Nos.	2106 Primary (50 surface+1555trench+350 core) + 195 Check = 2150 Nos.
	c) Composite sample for 6 radicals i.e. Mn, SiO ₂ , P ₂ O ₅ , Fe ₂ O ₃ , MnO ₂ and Insolubles	Nos.	100 Nos.
6	Chemical Analysis a) Primary + Check samples for 6 radicals i.e. Mn, SiO ₂ , P ₂ O ₅ , Fe ₂ O ₃ , MnO ₂ and Insolubles	Nos.	2106 Primary (50 surface+1555trench+350 core) + 195 Check = 2150 Nos.
	b) Composite sample 6 radicals i.e. Mn, SiO ₂ , P ₂ O ₅ , Fe ₂ O ₃ , MnO ₂ and Insolubles	Nos.	100 Nos.

	c) External Check Samples (5% of Primary Samples, core & trench) 6 radicals i.e. Mn, SiO₂, P₂O₅, Fe₂O₃, MnO₂ and Insolubles	Nos.	95 Checks.
7	Physical Studies		
	a) XRD – Studies	Nos.	20
	b) Spectroscopic Studies (15 elements)	Nos.	30
8	Petrological Samples	N0s	50
9	Mineragraphic Studies	N0s	50
10	Specific gravity Determination	Nos.	40
11	Report Preparation[As per Mineral (Evidence of Mineral Contents) Rule-2015]	N0s	1

7 Time Schedule & : **Time Schedule :14 months**
Cost Estimate **Cost estimate : 274.83 Lakhs**

- 8 Justification
- In view of MMDR Amendment Act and Mineral Auction Rule 2015 DMG Rajasthan requested MECL to take up the exploration in this block. MECL decided to take up the work under NMET funding.
 - Surface trenching will be carried out to know the strike continuity of ore body which is shown in DMG, Rajasthan's Map / Report.
 - After getting encouraging results in trenches, Geophysical Survey (Gravity & Magnetic Survey) will be carried out to demarcate the mineralized zones and will help in the exploration programme.
 - Scout drilling will be done after getting positive response from trench sampling as well as from geophysical survey to know the strike continuity as well as continuity of ore body upto a vertical depth of 50 m.
 - The exploration will be helpful in estimation of Resources. This phase of exploration will help in planning of next phase of exploration programme which in turn will facilitate the Rajasthan State Govt. for auctioning of Block.

CALCULATION FOR KALAKHUNTA BLOCK

Sr No	Descriptions of works	Unit	Remarks
1	Length of block	m	5,350.00
2	Width of block	m	970.00
3	Area of block	m2	5.190

DRILLING

1	Distance of grid lines	m	800.00
2	Total number of section lines	Nos	7.00
3	Total borehole in each section	Nos	1.00
4	Total number of bore holes	Nos	7.00
5	Total drilling meter	m	730.00
6	Avg width of zone	m	30.00
7	Buffer considered	m	5.00
8	Total number of samples in each holes, half meter samples	Nos	70.00
9	Total primary borehole samples	Nos	490.00
10	Check samples, 10%	Nos	49.00

TRENCHING

1	Trench planned, at 800m	Nos	7.00
2	Total trench opening, as per table	m3	290.00
3	Buffer considered	m	5.00
4	Total number of samples in each trench, as per table	Nos	330.00

16	Composit sample length	m	5.00
17	Samples in one hole	Nos	6.00
18	Total composit sample, 5 samples/ hole	Nos	42.00
19	Semi quantitative samples, per hole	Nos	1.00
20	Total Semi quantitative samples	Nos	7.00
21	Semi quantitative samples, per hole	Nos	1.00
22	Total Xray	Nos	7.00
23	Petrographic samples	Nos	10.00
24	Mineralogical	Nos	10.00
25	Sp gravity, per holes	Nos	2.00
26	Total sp gravity samples	Nos	14.00

Geophysics Details

1	Station interval	m	25.00
2	Profile length	m	970.00
3	Number of stations/ profile	Nos	39.00
4	Total length of block	m	5,350.00
5	Profile distance	m	50.00
6	Number of profiles	Nos	108.00
7	Total number of stations	Nos	4,212.00

CALCULATION FOR KALAKHUNTA BLOCK-Revised

Sr No	Descriptions of works	Unit	Remarks
1	Length of block	m	5,350.00

2	Width of block	m	970.00
3	Area of block	m2	5.190

DRILLING

1	Distance of grid lines	m	1,000.00
2	Total number of section lines	Nos	5.00
3	Total borehole in each section	Nos	1.00
4	Total number of bore holes	Nos	5.00
5	Total drilling meter-See table/sections	m	530.00
6	Avg width of zone	m	30.00
7	Buffer considered-One side	m	5.00
8	Total number of samples in each holes, half meter samples	Nos	70.00
9	Total primary borehole samples	Nos	350.00
10	Check samples, 10%	Nos	35.00

TRENCHING

1	Trench planned, at 800m	Nos	24.00
2	Total trench opening, as per table	m3	1,555.00
3	Buffer considered	m	-
4	Total number of samples as per table	Nos	1,555.00
5	Check samples	Nos	155.50

Total samples generated

Nos 1,905.00

Total check samples

Nos 190.50

OTHER SAMPLES

C1	Composit sample length	m	5.00
C2	Samples in one hole	Nos	6.00
	Total composit sample, 5 samples/ hole	Nos	30.00
SQ1	Semi quantitative samples, per hole	Nos	1.00
	Total Semi quantitative samples	Nos	5.00
X1	Total Xray	Nos	25.00
P1	Petrographic samples	Nos	10.00
M1	Mineralogical	Nos	10.00
SG-1	Sp gravity, per holes	Nos	2.00
	Total sp gravity samples	Nos	10.00

Geophysics Details

1	Station interval	m	25.00
2	Profile length	m	970.00
3	Number of stations/ profile	Nos	39.00
4	Total length of block	m	5,350.00
5	Profile distance	m	50.00
6	Number of profiles	Nos	108.00
7	Total number of stations	Nos	4,212.00

Sr No	Easting_UTM	Northing_UTM	Depth	Dip	Direction	MSL in m
1			100	60	N 45	232
2			110	60	N 45	236
3			105	60	N 45	242
4			105	60	N 45	250
5			105	60	N 45	256
6			105	60	N 45	256
7			100	60	N 45	262
			730			

Sr No	Trench No	Length (in m)	Volume (in m3)	Samples planned
1	T1	100	100	110
2	T2	70	70	80
3	T3	70	70	80
4	T4	50	50	60
5	T5			
6	T6			
7	T7			
Total		290	290	330

Level of intersections
182
186
192
200
206
206
212

**Table-6.2 Cost Estimate for Regional Exploration Proposal for Manganese in Kalakhunta Block,
District- Banswara, Rajasthan**

SL. NO.	Item of Work	Unit	Base Rate	Escalated rates (2016-17)			Escalated rates (2017-18)			Grand Total	
			1.4.90	Esc. Rate (Rs)	Qty.	Amount (Rs)	Esc. Rate	Qty.	Amount	Qty.	Amount (Rs)
A	DRILLING										
1	Surface Drilling (2 rigs)	m	2035	9188	0	0	9494	730	6930620	730	6930620
2	Transportation	Km	8.8	34	0	0	34	3000	102000	3000	102000
3	Accommodation (One time/ Drill)	One time	185925	709899	2	1419798	0	0	0	2	1419798
4	Camp Setting / Winding	- do-	68606	261951	2	523902	261951	2	523902	4	1047804
5	Road Making (Flat Terrain)	Km	5200	19855	0	0	19855	15	297825	15	297825
	Sub Total A					1943700			7854347		9798047
B	GEOLOGICAL WORK										
1	Survey Party days (1 party)	day	1180	6146	120	737520	6441	180	1159380	300	1896900
2	Geologist Party days (1 party)	day	1541	8201	120	984120	8586	210	1803060	330	2787180
3	Core Sampling Party days (2 party)	day	525	2945	0	0	3076	120	369120	120	369120
	Sub-Total B					1721640			3331560		5053200
C	MINING WORKS										
1	Opeaning of shallow trenches	Cu m	345	1793	770	1380610	1853			770	1380610
2	Trench Sampling Party days (2 party)	day	994	5485	180	987300	5733	60	343980	240	1331280
	Sub-Total C					2367910			343980		2711890
D	Geophysical Studies										
	a) Surface Geophysical Survey (Gravity & Magnetic at station Interval of 500mx200m)	(Nos of Stations)	507	2110	2808	5924880	2186	1404	3069144	4212	8994024
	Sub Total D					5924880			3069144		8994024
E	LABORATORY STUDIES										
1	Chemical Analysis										
	i) Primary & Check samples										
	a. For 6 radical (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles)	Nos	490 (110 +76x5)	2709	540	1462860	2832	540	1529280	1080	2992140
	b) Check Samples for 6 radical (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles)	Nos	490 (110 +76x5)	2709	50	135450	2832	50	141600	100	277050
	d) External Check Samples from NABL Labs for 6 radical (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles)	Nos	490 (110 +76x5)	2709	0	0	2832	25	70800	25	70800
	ii) Composite Samples										
	a) Composite Samples for 6 Radicals (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles),	Nos	490 (110 +76x5)	2709	50	135450	2832	50	141600	100	277050
2	Physical Analysis										
	i) a) X-RD Studies on composite	Nos	1137	5900	5	29500	6184	5	30920	10	60420
	b) Spectroscopic studies (12 elements- Cd,Sn,W,Sb,Mi,Ce,Nb,Ba,La,Bi,Co & Ni)	Nos	1173	6274	0	0	6568	10	65680	10	65680
	iii) Preparation of thin section	Nos	100	563	10	5630	588	10	5880	20	11510
	iv) Petrographic Studies	Nos	228	1495	10	14950	1522	10	15220	20	30170
	v) Preparation of polished section	Nos	100	563	10	5630	588	10	5880	20	11510
	vi) Mineragraphic Studies	Nos	364	2118	10	21180	2209	10	22090	20	43270
	vii) Specific Gravity determination	Nos	32	198	0	0	206	25	5150	25	5150
	Sub-Total E					1810650			2034100		3844750
	Total A+B+C +D+E					13768780			16633131		30401911
E	EXPLORATION REPORT - 1% of (A+B+C+D+E)							1		1	304019
	Grand Total : A to E										30705930
Note:									Say	307.04 Lakhs	
1	Goel Committee rates for Manganese ore are not available , hence Gold rates are taken on actual escalation as per RBI Indices as on 31-03-2016 and provisional escalation of@ 15% points for drilling and 25% points for Geological & Laboratory Studies for subsequenet years.										
2	** Nityanand Committee Rates with actual escalation as per RBI Index as on 31.3.2016 and provisional escalation @10% for subsequent year .										

Table- 6.1 Time Schedule / Action Plan for Regional Exploration Proposal for Manganese in Kalakhunta Block,																				
			Financial Year 2016-17					Financial Year 2017-18												
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
			11 /16	12 /16	1 /17	2 /17	3 /17	04 /17	05 /17	06 /17	07 /17	08 /17	9 /17	10 /17	11 /17	12 /17	01 /18	2 /18	3 /18	
1	Camp Setting	Month	←→																	1 month
2	Trench Opeaning	day		←→																3 months
3	Geophysical Syurvey																			
i	Surface Geophysical Survey (Gravity & Magnetic at station Interval of 25mx50m)	Number of Stations		←						→										4212
ii	Geophysical Survey Report									←→										2 months
4	Surface Drilling (2 rigs) 150m per drill/month	m									←→									730 m (7 BH)
5	Survey Party days (1 Party)	day		←										→						300
6	Geologist Party days (1 Party)	day		←											→					330
7	Trench Sampling Party days, (2 party)				←→															240
8	Core Sampling Party days, (1 party)	day									←→									120
9	Laboratory Studies	Nos.			←												→			1390
10	Camp Winding	Months													←→					1 month
11	Report Writing & Peer Review of Report	Months														←→				4 months

TIME SCHEDULE (IN MONTHS) OF EXPLC				
Sr NO	Activities	1	2	3
1	Camp Setting	←→		
2	Survey Party days (1 Party)		←	
3	Geologist Party days (1 Party)		←	
4	Sampling Party days, Trench Sampling (2 party)		←	
5	Geophysical Syurvey			
i	Electrical Resistivity		←	
ii	Resistivity Soundings			
iii.	Self Potential (SP)			
iv	Induced Polarisation (IP)			
v	Magnetic Survey			
vi	Borehole Geophysical Logging			
6	Laboratory Studies			
7	Camp Winding			
8	Report Writing			
9	Peer Review of Report			

EXTENSION PROGRAMME OF KALAKHUNTA MN BLOCK, RAJASTHAN

[illegible]

Planned trench in Kalakhunta Block				
Sr No	Trench Number	Length in mts	Volume in Cu M (1x1x1, LxWxD)	No of samples planned, 1 sample/m
1	T-1	70	70	70
2	T-2	75	75	75
3	T-3	75	75	75
4	T-4	70	70	70
5	T-5	75	75	75
6	T-6	70	70	70
7	T-7	70	70	70
8	T-8	65	65	65
9	T-9	65	65	65
10	T-10	80	80	80
11	T-11	95	95	95
12	T-12	70	70	70
13	T-13	50	50	50
14	T-14	55	55	55
15	T-15	55	55	55
16	T-16	55	55	55
17	T-17	65	65	65
18	T-18	65	65	65
19	T-19	60	60	60
20	T-20	65	65	65
21	T-21	65	65	65
22	T-22	60	60	60
23	T-23	40	40	40
24	T-24	40	40	40
	Total	1555	1555	1555

**Table-6.2 Cost Estimate for Regional Exploration Proposal for Manganese in Kalakhunta Block,
District- Banswara, Rajasthan**

District - Banswara, Rajasthan											
SL. NO.	Item of Work	Unit	Base Rate	Escalated rates (2016-17)			Escalated rates (2017-18)			Grand Total	
				Esc. Rate	Qty.	Amount	Esc. Rate	Qty.	Amount	Qty.	Amount
			1.4.90	(Rs)		(Rs)	(Rs)		(Rs)		(Rs)
A	GEOLOGICAL WORK										
1	Survey Party days										
	Survey Party days (1 party, for trenching)	day	1,180	6,146	90	5,53,140	6,442	-	-	90	5,53,140
	Survey Party days (1 party, for geophysics)	day	1,180	6,146	60	3,68,760	6,443	60	3,86,580	120	7,55,340
	Survey Party days (1 party, for drilling)	day	1,180	6,146	-	-	6,444	60	3,86,640	60	3,86,640
2	Geologist Party days										
	Geologist Party days (1 party, mapping & trench sampling)		1,541	8,201	120	9,84,120	8,588	-	-	120	9,84,120
	Geologist Party days (1 party, for drilling)		1,541	8,201	-	-	8,589	90	7,73,010	90	7,73,010
	Sub-Total B					19,06,020			15,46,230		34,52,250
B	MINING WORKS										
1	Opeaning of shallow trenches	Cu m	345	1,793	1,555	27,88,115	1,853	-	-	1,555	27,88,115
2	Trench Sampling Party days (2 party)	day	994	5,485	180	9,87,300	5,733	-	-	180	9,87,300
	Sub-Total B					37,75,415			-		37,75,415
C	Geophysical Studies										
	a) Surface Geophysical Survey (Gravity & Magnetic at station Interval of 50mx25m)	(Nos of Stations)	507	2,110	600	12,66,000	2,186	1,506	32,92,116	2,106	45,58,116
	Sub Total C					12,66,000			32,92,116		45,58,116
D	DRILLING										
1	Surface Drilling (2 rigs)	m	2,035	9,188	-	-	9,494	550	52,21,700	550	52,21,700
2	Core Sampling Party days (2 party)	day	525	2,945	-	-	3,076	120	3,69,120	120	3,69,120
3	Accommodation (One time/ Drill)	One time	1,85,925	7,09,899	1	7,09,899	7,09,899	1	7,09,899	2	14,19,798
4	Camp Setting / Winding	- do-	68,606	2,61,951	2	5,23,902	2,61,951	2	5,23,902	4	10,47,804
5	Transportation	Km	9	34	-	-	34	3,000	1,02,000	3,000	1,02,000
6	Road Making (Flat Terrain)	Km	5,200	19,855	-	-	19,855	15	2,97,825	15	2,97,825
	Sub Total D					12,33,801			72,24,446		84,58,247
E	LABORATORY STUDIES										
1	Chemical Analysis										
	i) Primary & Check samples										
	a. For 6 radical (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles)	Nos	490 (110 +76x5)	2,709	1,605	43,47,945	2,832	350	9,91,200	1,955	53,39,145
	b) Check Samples for 6 radical (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles)	Nos	490 (110 +76x5)	2,709	160	4,33,440	2,832	35	99,120	195	5,32,560
	d) External Check Samples from NABL Labs for 6 radical (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles)	Nos	490 (110 +76x5)	2,709	80	2,16,720	2,832	15	42,480	95	2,59,200
	ii) Composite Samples										
	a) Composite Samples for 6 Radicals (Mn, SiO2, P2O5, Fe2O3, MnO2 and Insolubles).	Nos	490 (110 +76x5)	2,709	75	2,03,175	2,832	25	70,800	100	2,73,975
2	Physical Analysis										
	i) a) X-RD Studies on composite	Nos	1,137	5,900	10	59,000	6,184	10	61,840	20	1,20,840
	ii) b) Spectroscopic studies (12 elements- Cd,Sn,W,Sb,Mi,Ce,Nb,Ba,La,Bi,Co & Ni)	Nos	1,173	6,274	15	94,110	6,568	15	98,520	30	1,92,630
	iii) Preparation of thin section	Nos	100	563	30	16,890	588	20	11,760	50	28,650
	iv) Petrographic Studies	Nos	228	1,495	30	44,850	1,522	20	30,440	50	75,290
	v) Preparation of polished section	Nos	100	563	30	16,890	588	20	11,760	50	28,650
	vi) Mineragraphic Studies	Nos	364	2,118	30	63,540	2,209	20	44,180	50	1,07,720
	vii) Specific Gravity determination	Nos	32	198	20	3,960	206	20	4,120	40	8,080
	Sub-Total E					55,00,520			14,66,220		69,66,740
	Total A+B+C +D+E					1,36,81,756			1,35,29,012		2,72,10,768
F	EXPLORATION REPORT - 1% of (A+B+C+D+E)							1		1	2,72,108
	Grand Total : A to F										2,74,82,876
									Say 274.83 Lakhs		
Note:											
1	Goel Committee rates for Manganese ore are not available , hence Gold rates are taken on actual escalation as per RBI Indices as on 31-03-2016 and provisional escalation of@ 15% points for drilling and 25% points for Geological & Laboratory Studies for subsequenet years.										
2	** Nityanand Committee Rates with actual escalation as per RBI Index as on 31.3.2016 and provisional escalation @10% for subsequent year .										

Table- 6.1 Time Schedule / Action Plan for Regional Exploration Proposal for Manganese in Kalakhunta Block,

			Financial Year 2016-17					Financial Year 2017-18										
			1	2	3	4	5	6	7	8	9	10	11	12	13	14		
			11 /16	12 /16	1 /17	2 /17	3 /17	04 /17	05 /17	06 /17	07 /17	08 /17	9 /17	10 /17	11 /17	12 /17		
1	Camp Setting	Month	↔														1 month	
2	Geological Mapping																	
i	Geologist Party days (1 Party for mapping, same will continue trenching)		←														4 months (120 days)	
3	Trenching/ pitting / excavation works																	
i	Trenching/ pitting / excavation works	day	←														1555 Cu m	
ii	Trench Sampling Party days (2 party)	day		←													3 months (180 days)	
iii	Survey Party days (1 Party, for trenching)	day	←														3 months (90 days)	
4	Geophysical Syurvey																	
i	Surface Geophysical Survey (Gravity & Magnetic at station Interval of 25mx50m)	Number of Stations				←											2106 stations	
ii	Geophysical Survey Report								←								2 months	
iii	Survey Party days (1 Party, for Geophysics)					←											4 months (120 days)	
5	Core Drilling																	
i	Surface Drilling (2 rigs) 150m per drill/month	m									←						550 m (5 BH)	
ii	Geologist Party days (1 Party)	day									←						3 months (90 days)	
iii	Core Sampling Party days, (2 party)	day										←					2 months (120 days)	
iv	Survey Party days (1 Party) for drilling	day									←						2 months (60 days)	
6	Laboratory Studies	Nos.			←								←				2535	
7	Camp Winding	Months												↔			1 month	

8	Report Writing & Peer Review of Report	Months												←		→	3 months
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Government of India
Ministry of Mines
National Mineral Exploration Trust

F.No. 6/1/NMET-2015

New Delhi, 23rd Feb. 2017

OFFICE MEMORANDUM

Sub: - Approval of mineral exploration projects in 10 blocks

On the recommendations of the Technical Committee of NMET, the Executive Committee in its third meeting held on 25.10.2016 has approved ten (10) mineral exploration projects in five states at a cost of Rs. 2620.00 lakhs. (List enclosed)

2. The ten exploration projects will be funded by NMET as per the costing recommended by the Technical Committee and approved by the Executive Committee. MECL will undertake exploration in these ten blocks under a Tripartite Agreement among (Ministry of Mines (NMET), MECL and the respective State Governments and complete the same as per the approved work plan and time schedule.

5. The execution of work will be continuously monitored and periodically reviewed by the NMET Technical Committee/regional Sub-committees and MECL shall submit monthly progress report to NMET Secretariat.

(M. Koshy John) 23/2/17
DDG, NMET Secretariat
011-29053347
koshy.john@gov.in

To

The Chairman-cum-Managing Director, MECL, Dr. Bhabasaheb Ambedkar Bhawan,
Seminary Hills, Nagpur – 440 006

Copy to

1. Dr. P.R. Golani, DDG, GSI TI, Hyderabad and Chairman, NMET Technical Committee
2. Dr. Joyesh Bagchi, Director, MoM, N.Delhi and Member, NMET Technical Committee

MINERAL EXPLORATION PROJECTS /BLOCKS APPROVED BY NMET EXECUTIVE COMMITTEE ON 25.10.2016 FOR EXECUTION BY MECL						
Sl. No	Name of the Block (Location, District, State)	Mineral	Area of the Block	Work Already done in the Block	Work Proposed in the Block	Estimated Cost (Rs in Lakhs)
1.	BRH Iron Ore Mines, NEB Range M/s RMMPL, ML NO. 2010, Village - Papinayakanahalli, District-Ballari, Karnataka	Iron	8.00 Sq. Km	Area Falls in the extension area of mine lease of M/s RMMPL	Geological Mapping, Topographical work G-4	13.99
2	Regional Exploration proposal for Manganese ore in Kalakhunta Block, Khushalgarh Tehsil District Banswara, Rajasthan	Manganese	5.17 Sq. Km	Reconnaissance By DMG Rajasthan	Geological Mapping Trenching, Geophysical Survey Drilling - 550m in 5 Scout Borehole G-4	274.83
3.	Regional Exploration proposal for Manganese ore in Tamesara Block, Khushalgarh Tehsil, District: Banswara, Rajasthan	Manganese	1.15 Sq. km	Reconnaissance By DMG, Rajasthan	Geological Mapping Trenching, Geophysical Survey, Drilling - 515m in 5 Scout Borehole G-4	180.18
4	Regional Exploration proposal for Limestone in Gothra-Parasramapura Block, Tehsil- Nawaigarh, District-Jhunjhunu, Rajasthan	Limestone	8.25 Sq. km	Reconnaissance By DMG, Rajasthan North Eastern Continuation of Explored Block of DMG, Rajasthan Reconnaissance	Drilling- 3600m (40 Boreholes), Geological Mapping Sampling, Analytical & Report Preparation Work G-3	424.52
5.	Regional Exploration proposal (G-4 level) for Copper & Gold in Deravad-Chargaria-Bansra Area (Block-ID-Raj-02), District-Udaipur, Rajasthan	Copper & Gold	108 Sq. Km.		Geological Mapping, Geochemical Sampling, Geophysical Survey Drilling - 600m. Sampling, Analytical & Report Preparation work, G-4	276.93
6.	Regional Exploration proposal (G-4 level) for Copper in Isarwas-Karavalli - Baroliya-Angeni-Beras Area (Block-ID-WR, Raj-13), District-Udaipur, Rajasthan.	Copper	209 Sq. Km	Reconnaissance	Geological Mapping, Geochemical Sampling, Geophysical Survey Drilling - 600m. Sampling, Analytical & Report Preparation work, G-4	353.29
7.	Regional Exploration (G-3 Level) for Limestone in Ghunchihai Block, District-Satna, Madhya Pradesh. (Upgradation of the G-4 Exploration Block sanctioned earlier.)	Limestone	6.5 Sq. Km	G-4	Drilling- 1330m (in 38 Boreholes) Sampling, Analytical & Report Preparation Work G-3	182.05