

**Analytical Details of Primary Samples for Six (Mn, SiO<sub>2</sub>, P<sub>2</sub>O<sub>5</sub>, Fe<sub>2</sub>O<sub>3</sub>, MnO<sub>2</sub> & Acid Insoluble) Radicals collected from channels & trenches excavated by MECL in Katori Jhiriya (G4) Block, District: Balaghat, Madhya Pradesh**

Sl. No.	Sample No.	Location of sample from starting of trench (m)		Length of sample (m)	Mn (%)	SiO <sub>2</sub> (%)	P <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	MnO <sub>2</sub> (%)	Acid Insoluble
		From	To							

**Channel-1**

Northing - 2,386,574.009				Easting - 382,171.062				Azimuth of Trench towards - N40°E		
1	MP-KJ/CH1-1	0.00	1.00	1.00	10.48	42.72	0.13	14.43	9.43	63.41
2	MP-KJ/CH1-2	1.00	2.00	1.00	23.06	41.94	1.16	13.79	11.94	67.25
3	MP-KJ/CH1-3	2.00	3.00	1.00	12.63	46.61	0.20	12.60	9.84	66.25
4	MP-KJ/CH1-4	3.00	4.00	1.00	8.14	43.53	0.18	14.49	5.98	65.94
5	MP-KJ/CH1-5	4.00	5.40	1.40	4.42	46.01	0.23	13.45	4.10	68.88
6	MP-KJ/CH1-6	5.40	6.40	1.00	31.08	34.40	1.37	10.13	8.70	74.06
7	MP-KJ/CH1-7	6.40	7.40	1.00	20.22	48.66	2.13	10.03	7.56	80.02
8	MP-KJ/CH1-8	7.40	8.70	1.30	6.51	52.06	2.79	7.55	3.85	80.96
9	MP-KJ/CH1-9	8.70	9.45	0.75	33.70	25.26	1.66	14.40	12.85	66.68
10	MP-KJ/CH1-10	9.45	10.45	1.00	13.19	38.75	0.45	17.61	7.53	59.36
11	MP-KJ/CH1-11	10.45	11.75	1.30	6.45	42.48	0.49	18.00	4.99	59.93
12	MP-KJ/CH1-12	11.75	13.05	1.30	25.32	37.05	0.87	16.19	11.60	62.85
13	MP-KJ/CH1-13	13.05	14.05	1.00	2.60	44.05	0.19	14.50	1.01	66.49
14	MP-KJ/CH1-14	14.05	15.05	1.00	2.63	44.65	0.15	14.25	1.29	66.72
15	MP-KJ/CH1-15	15.05	16.05	1.00	1.85	45.51	0.16	13.80	0.61	67.03
16	MP-KJ/CH1-16	16.05	17.35	1.30	3.82	45.96	0.33	12.47	1.86	67.09

**Channel-2**

Northing - 2,386,232.118				Easting - 382,290.216				Azimuth of Trench towards - N40°E		
17	MP-KJ/CH2-1	0.00	1.00	1.00	6.21	42.18	0.10	17.86	7.43	61.36
18	MP-KJ/CH2-2	1.00	2.00	1.00	16.02	40.51	0.44	14.29	11.21	59.46
19	MP-KJ/CH2-3	2.00	3.00	1.00	39.84	23.34	1.24	14.75	15.55	47.42
20	MP-KJ/CH2-4	3.00	4.00	1.00	31.60	32.28	0.91	15.02	15.25	42.35
21	MP-KJ/CH2-5	4.00	5.00	1.00	31.69	34.96	2.26	10.66	14.68	61.09
22	MP-KJ/CH2-6	5.00	6.00	1.00	25.65	33.77	1.99	10.39	6.90	78.16
23	MP-KJ/CH2-7	6.00	6.60	0.60	12.82	61.68	1.01	10.00	2.44	87.61
24	MP-KJ/CH2-8	6.60	8.20	1.60	1.78	47.34	0.07	11.04	1.59	78.59
25	MP-KJ/CH2-9	8.20	9.20	1.00	22.46	46.42	0.70	11.90	7.74	75.43
26	MP-KJ/CH2-10	9.20	10.20	1.00	30.55	28.84	0.63	15.29	9.92	61.68
27	MP-KJ/CH2-11	10.20	11.20	1.00	31.37	29.21	0.72	12.99	10.50	66.37
28	MP-KJ/CH2-12	11.20	12.20	1.00	17.76	38.28	0.52	14.54	8.51	61.15
29	MP-KJ/CH2-13	12.20	13.20	1.00	28.03	34.58	0.66	15.17	13.63	60.52
30	MP-KJ/CH2-14	13.20	14.50	1.30	16.92	36.29	0.22	15.65	11.06	56.97
31	MP-KJ/CH2-15	14.50	15.80	1.30	20.83	33.92	0.24	14.99	12.81	53.67
32	MP-KJ/CH2-16	15.80	16.80	1.00	12.22	59.05	2.55	9.31	4.33	81.27
33	MP-KJ/CH2-17	16.80	17.80	1.00	22.10	31.62	0.40	16.20	16.91	51.26

Sl. No.	Sample No.	Location of sample from starting of trench (m)		Length of sample (m)	Mn (%)	SiO <sub>2</sub> (%)	P <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	MnO <sub>2</sub> (%)	Acid Insoluble
		From	To							

### Channel-3

Northing - 2,386,212.991			Easting - 382,314.151			Azimuth of Trench towards - N40°E				
34	MP-KJ/CH3-1	0.00	1.40	1.40	12.06	43.57	0.12	12.49	8.32	67.03
35	MP-KJ/CH3-2	1.40	2.70	1.30	5.60	51.84	0.12	11.58	3.93	73.47
36	MP-KJ/CH3-3	2.70	3.30	0.60	7.33	71.18	1.33	7.98	2.85	84.68
37	MP-KJ/CH3-4	3.30	3.80	0.50	9.88	44.45	0.17	15.46	6.32	66.32
38	MP-KJ/CH3-5	3.80	4.80	1.00	47.32	14.77	0.54	14.22	28.57	35.62
39	MP-KJ/CH3-6	4.80	5.80	1.00	43.39	16.39	0.43	16.13	22.71	34.37
40	MP-KJ/CH3-7	5.80	6.80	1.00	17.50	52.35	1.57	12.59	7.74	77.63
41	MP-KJ/CH3-8	6.80	7.80	1.00	4.97	62.30	0.12	9.80	3.10	77.89

### Channel-4

Northing - 2,386,442.255			Easting - 382,162.537			Azimuth of Trench towards - N40°E				
42	MP-KJ/CH4-1	0.00	1.50	1.50	10.89	39.86	0.17	15.86	8.11	59.39
43	MP-KJ/CH4-2	1.50	3.00	1.50	6.10	43.93	0.17	14.93	4.05	65.98
44	MP-KJ/CH4-3	3.00	4.20	1.20	21.95	49.37	0.38	10.32	5.64	79.91
45	MP-KJ/CH4-4	4.20	5.40	1.20	8.36	71.31	0.16	7.69	2.47	86.71
46	MP-KJ/CH4-5	5.40	7.40	2.00	2.41	58.16	0.08	14.33	2.00	73.24
47	MP-KJ/CH4-6	7.40	8.40	1.00	17.95	55.30	0.12	11.38	8.42	77.50
48	MP-KJ/CH4-7	8.40	9.20	0.80	37.56	28.31	0.39	13.71	20.63	43.50
49	MP-KJ/CH4-8	9.20	15.20	6.00	9.53	46.55	0.22	12.70	6.06	63.92

### Channel-5

Northing - 2,386,404.193			Easting - 382,221.345			Azimuth of Trench towards - N40°E				
50	MP-KJ/CH5-1	0.00	1.00	1.00	10.10	41.72	0.11	16.73	8.86	58.67
51	MP-KJ/CH5-2	1.00	2.00	1.00	23.03	33.66	0.19	16.02	5.07	74.63
52	MP-KJ/CH5-3	2.00	3.00	1.00	37.13	21.75	0.39	18.45	21.84	42.02
53	MP-KJ/CH5-4	3.00	4.00	1.00	34.42	25.00	0.27	16.92	16.79	58.18
54	MP-KJ/CH5-5	4.00	5.00	1.00	33.28	29.51	0.91	9.32	8.46	74.27
55	MP-KJ/CH5-6	5.00	6.00	1.00	39.75	24.66	0.55	14.14	13.95	51.89
56	MP-KJ/CH5-7	6.00	7.00	1.00	36.49	28.88	0.43	12.09	14.62	63.38
57	MP-KJ/CH5-8	7.00	8.00	1.00	33.51	28.16	0.40	11.71	11.06	72.62
58	MP-KJ/CH5-9	8.00	9.00	1.00	42.73	20.76	0.46	15.04	20.11	43.48
59	MP-KJ/CH5-10	9.00	10.00	1.00	34.50	29.48	0.82	10.70	12.16	72.54
60	MP-KJ/CH5-11	10.00	11.00	1.00	44.90	18.13	0.68	13.20	20.63	42.71
61	MP-KJ/CH5-12	11.00	12.00	1.00	36.37	24.86	0.42	14.34	15.42	63.62
62	MP-KJ/CH5-13	12.00	13.00	1.00	43.16	19.60	0.34	13.94	20.89	46.36
63	MP-KJ/CH5-14	13.00	14.00	1.00	22.65	40.36	0.24	13.10	10.33	68.92
64	MP-KJ/CH5-15	14.00	15.00	1.00	1.43	89.84	0.49	3.98	0.21	95.21
65	MP-KJ/CH5-16	15.00	16.00	1.00	1.53	50.89	0.05	11.27	1.30	75.71

Sl. No.	Sample No.	Location of sample from starting of trench (m)		Length of sample (m)	Mn (%)	SiO <sub>2</sub> (%)	P <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	MnO <sub>2</sub> (%)	Acid Insoluble
		From	To							

### Channel-6

Northing - 2,385,226.153			Easting - 381,319.626			Azimuth of Trench towards - N40°E				
66	MP-KJ/CH6-1	0.00	1.00	1.00	18.04	41.69	0.19	11.84	9.56	66.39
67	MP-KJ/CH6-2	1.00	2.00	1.00	28.93	37.08	0.60	10.79	9.65	73.98
68	MP-KJ/CH6-3	2.00	3.00	1.00	26.96	39.45	1.34	10.33	10.32	72.61
69	MP-KJ/CH6-4	3.00	4.00	1.00	11.12	40.86	0.19	17.38	6.45	61.26
70	MP-KJ/CH6-5	4.00	4.50	0.50	23.35	34.63	0.48	15.33	7.12	71.29
71	MP-KJ/CH6-6	4.50	5.50	1.00	10.73	39.87	0.21	16.93	5.96	63.15
72	MP-KJ/CH6-7	5.50	6.50	1.00	9.96	40.75	0.29	16.24	4.37	67.66
73	MP-KJ/CH6-8	6.50	7.50	1.00	30.94	40.20	0.57	9.96	13.99	65.20
74	MP-KJ/CH6-9	7.50	8.50	1.00	4.75	51.40	0.25	12.66	3.25	86.48
75	MP-KJ/CH6-10	8.50	9.50	1.00	18.80	48.05	2.65	10.88	1.05	73.18

### Channel-7

Northing - 2,385,226.153			Easting - 381,319.626			Azimuth of Trench towards - N40°E				
76	MP-KJ/CH7-1	0.00	1.00	1.00	7.81	43.28	0.14	13.28	4.46	70.44
77	MP-KJ/CH7-2	1.00	2.20	1.20	42.79	18.49	0.70	16.81	18.41	46.06
78	MP-KJ/CH7-3	2.20	3.40	1.20	16.47	61.85	0.47	11.64	9.49	74.16
79	MP-KJ/CH7-4	3.40	4.90	1.50	7.69	38.53	0.11	19.34	5.53	61.89
80	MP-KJ/CH7-5	4.90	5.90	1.00	15.12	55.16	0.24	10.66	3.68	82.23
81	MP-KJ/CH7-6	5.90	6.90	1.00	10.44	40.64	0.23	14.25	6.04	66.94
82	MP-KJ/CH7-7	6.90	7.90	1.00	13.98	56.59	0.89	9.17	3.40	84.84
83	MP-KJ/CH7-8	7.90	8.90	1.00	16.92	49.75	0.88	11.47	4.07	84.13
84	MP-KJ/CH7-9	8.90	9.90	1.00	19.04	45.57	0.68	11.81	5.58	82.70
85	MP-KJ/CH7-10	9.90	10.90	1.00	13.61	53.53	0.64	12.02	1.95	84.97
86	MP-KJ/CH7-11	10.90	11.90	1.00	0.67	53.38	0.15	7.93	0.65	84.58

### Channel-8

Northing - 2,385,431.056			Easting - 379,388.382			Azimuth of Trench towards - N40°E				
87	MP-KJ/CH8-1	0.00	1.00	1.00	0.56	67.98	0.12	7.17	0.08	88.54
88	MP-KJ/CH8-2	1.00	2.00	1.00	4.05	56.85	0.21	9.64	1.54	78.57
89	MP-KJ/CH8-3	2.00	3.00	1.00	29.23	33.04	1.03	11.41	9.10	76.38
90	MP-KJ/CH8-4	3.00	4.00	1.00	1.20	62.25	0.15	8.68	0.13	85.15
91	MP-KJ/CH8-5	4.00	5.00	1.00	0.67	64.81	0.12	8.11	0.10	87.27

Sl. No.	Sample No.	Location of sample from starting of trench (m)		Length of sample (m)	Mn (%)	SiO <sub>2</sub> (%)	P <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	MnO <sub>2</sub> (%)	Acid Insoluble
		From	To							

### Trench-1

Northing - 23,86,555.68			Easting - 382117.73			Azimuth of Trench towards - N40°E				
1	MP-KJ/TR 1-1	0.00	1.00	1.00	0.26	48.06	0.04	8.58	0.10	86.18
2	MP-KJ/TR 1-2	1.00	2.00	1.00	0.21	47.35	0.03	8.56	0.12	86.58
3	MP-KJ/TR 1-3	2.00	3.00	1.00	0.18	45.84	0.03	9.84	0.10	84.42
4	MP-KJ/TR 1-4	3.00	4.00	1.00	0.14	46.00	0.03	8.77	<0.10	84.24
5	MP-KJ/TR 1-5	4.00	5.00	1.00	0.14	46.15	0.03	9.13	<0.10	83.88
6	MP-KJ/TR 1-6	5.00	6.00	1.00	0.16	46.22	0.03	9.10	<0.10	83.43
7	MP-KJ/TR 1-7	6.00	7.00	1.00	0.19	45.96	0.03	9.26	0.10	84.51
8	MP-KJ/TR 1-8	7.00	8.00	1.00	0.18	47.34	0.03	8.85	0.10	84.90
9	MP-KJ/TR 1-9	8.00	9.00	1.00	0.28	47.44	0.04	9.35	0.13	84.78
10	MP-KJ/TR 1-10	9.00	10.00	1.00	0.24	46.48	0.04	9.64	0.10	84.49

### Trench-2

Northing - 23,86,397.88			Easting - 382172.66			Azimuth of Trench towards - N40°E				
11	MP-KJ/TR 2-1	0.00	1.00	1.00	35.92	19.34	0.28	17.55	12.31	52.55
12	MP-KJ/TR 2-2	1.00	2.00	1.00	34.52	16.01	0.26	23.81	14.44	50.72
13	MP-KJ/TR 2-3	2.00	3.00	1.00	18.73	47.66	0.15	14.54	5.49	80.45
14	MP-KJ/TR 2-4	3.00	4.00	1.00	29.81	31.87	0.22	15.03	9.67	65.54
15	MP-KJ/TR 2-5	4.00	5.00	1.00	30.10	30.58	0.23	14.84	8.14	72.90
16	MP-KJ/TR 2-6	5.00	6.00	1.00	29.99	31.07	0.29	15.42	9.22	68.11
17	MP-KJ/TR 2-7	6.00	7.00	1.00	1.30	42.26	0.04	14.62	0.50	77.57

### Trench-3

Northing - 23,85,588.21			Easting - 381549.25			Azimuth of Trench towards - N40°E				
18	MP-KJ/TR 3-1	0.00	1.00	1.00	2.40	52.61	0.05	9.03	1.01	81.41
19	MP-KJ/TR 3-2	1.00	2.00	1.00	18.13	44.84	0.19	13.88	4.11	76.66
20	MP-KJ/TR 3-3	2.00	3.00	1.00	20.48	38.46	0.29	18.06	4.37	80.72
21	MP-KJ/TR 3-4	3.00	4.00	1.00	20.29	40.79	0.29	16.37	4.59	80.55
22	MP-KJ/TR 3-5	4.00	5.00	1.00	15.20	51.26	0.42	13.94	3.41	83.28
23	MP-KJ/TR 3-6	5.00	6.00	1.00	18.56	49.83	0.44	11.70	6.04	80.41
24	MP-KJ/TR 3-7	6.00	7.00	1.00	18.84	43.40	0.37	17.45	4.90	80.95
25	MP-KJ/TR 3-8	7.00	8.00	1.00	14.02	51.94	0.42	15.58	2.92	81.29
26	MP-KJ/TR 3-9	8.00	9.00	1.00	9.90	62.91	0.22	11.05	1.89	85.92
27	MP-KJ/TR 3-10	9.00	10.00	1.00	10.63	59.51	0.35	10.85	1.96	86.18

Sl. No.	Sample No.	Location of sample from starting of trench (m)		Length of sample (m)	Mn (%)	SiO <sub>2</sub> (%)	P <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	MnO <sub>2</sub> (%)	Acid Insoluble
		From	To							

#### Trench-4

Northing - 23,85,211.67			Easting - 381305.09			Azimuth of Trench towards - N40°E				
28	MP-KJ/TR 4-1	0.00	1.00	1.00	1.06	51.12	0.04	8.51	0.51	81.86
29	MP-KJ/TR 4-2	1.00	2.00	1.00	0.65	49.77	0.04	8.28	0.32	83.92
30	MP-KJ/TR 4-3	2.00	3.00	1.00	0.42	49.66	0.03	8.21	0.17	84.77
31	MP-KJ/TR 4-4	3.00	4.00	1.00	0.36	47.91	0.04	9.28	<0.10	84.26
32	MP-KJ/TR 4-5	4.00	5.00	1.00	17.04	49.57	1.92	10.68	1.75	85.71
33	MP-KJ/TR 4-6	5.00	6.00	1.00	21.09	42.14	2.26	11.36	3.50	81.65
34	MP-KJ/TR 4-7	6.00	7.00	1.00	0.44	46.35	0.04	9.59	0.19	81.05
35	MP-KJ/TR 4-8	7.00	8.00	1.00	0.35	45.66	0.04	9.79	0.15	82.99
36	MP-KJ/TR 4-9	8.00	9.00	1.00	0.27	46.09	0.04	9.74	<0.10	83.23

#### Trench-5

Northing - 23,84,961.48			Easting - 381059.59			Azimuth of Trench towards - N40°E				
37	MP-KJ/TR 5-1	0.00	1.00	1.00	0.34	45.75	0.04	10.34	<0.10	82.31
38	MP-KJ/TR 5-2	1.00	2.00	1.00	0.17	42.89	0.03	11.65	<0.10	80.77
39	MP-KJ/TR 5-3	2.00	3.00	1.00	0.24	43.01	0.04	11.26	<0.10	81.31
40	MP-KJ/TR 5-4	3.00	4.00	1.00	0.24	45.12	0.04	10.56	<0.10	81.16
41	MP-KJ/TR 5-5	4.00	5.00	1.00	0.17	50.95	0.06	7.97	<0.10	85.86
42	MP-KJ/TR 5-6	5.00	6.00	1.00	0.18	45.64	0.04	9.97	<0.10	83.42
43	MP-KJ/TR 5-7	6.00	7.00	1.00	0.12	50.96	0.05	8.75	<0.10	87.03
44	MP-KJ/TR 5-8	7.00	8.00	1.00	0.20	48.53	0.05	9.60	<0.10	83.65
45	MP-KJ/TR 5-9	8.00	9.00	1.00	0.19	49.38	0.05	9.17	<0.10	83.82
46	MP-KJ/TR 5-10	9.00	10.00	1.00	0.15	48.93	0.05	9.25	<0.10	85.06

#### Trench-6

Northing - 23,85,453.67			Easting - 3,79,412.75			Azimuth of Trench towards - N40°E				
47	MP-KJ/TR 6-1	0.00	1.00	1.00	0.15	46.53	0.06	10.33	<0.10	82.80
48	MP-KJ/TR 6-2	1.00	2.00	1.00	26.44	29.89	0.87	16.19	8.86	67.37
49	MP-KJ/TR 6-3	2.00	3.00	1.00	0.38	45.92	0.07	10.04	<0.10	83.77