

Particulars of detailed litholog of the boreholes drilled by MECL in Jhari Block, Tehsil- Majhgawan, District-Satna, Madhya Pradesh

BOREHOLE No: MJHR-01

Northing (m) 2758861.904

Easting (m) 476174.536

R. L (m) 323.559

Date of Commencement: 27.06.2025

Date of Closure: 30.06.2025

Depth (m) : 20.00

Run (m)			Recovered Thickness (m)	Recovery %	Extra-polated Thick. (m)	Floor Depth (m)	RQD Thick-ness	RQD (%)	Lithology	Structures/ Textures	Colour	Mineralogy	Remarks
From	To	Thick											
0.00	3.00	3.00	0.00	0.00	2.50	2.50			Soil (Clayey)				
			0.50	100.00	0.50	3.00			Green to dark green colored, fine to medium grained, ferruginous, glauconitic sandstone		Dark green		
3.00	4.00	1.00	0.50	50.00	1.00	4.00	0.15	15.00	Green to dark green colored, fine to medium grained, ferruginous, glauconitic sandstone with chert bands		Dark green		
4.00	7.00	3.00	0.50	66.67	0.75	4.75	0.55	18.33	Green to dark green colored, fine to medium grained, ferruginous, glauconitic sandstone		Dark green		W.M.
			1.50		2.25	7.00			Green colored, fine to medium grained, ferruginous, glauconitic sandstone with chert bands	Fr @ 23°	Green		
7.00	10.00	3.00	2.90	96.67	3.00	10.00	2.25	75.00	Green colored, fine to medium grained, ferruginous, glauconitic sandstone with chert bands		Green		
10.00	13.00	3.00	3.00	100.00	3.00	13.00	1.43	47.67	Greyish green colored, fine to medium grained, ferruginous, glauconitic sandstone with minor chert pellets		Greyish green		
13.00	16.00	3.00	3.00	100.00	3.00	16.00	1.73	57.67	Greyish green colored, fine to medium grained, ferruginous, glauconitic sandstone with minor chert pellets	Micro cross beddings	Greyish green		
16.00	19.00	3.00	2.30	100.00	2.30	18.30	0.38	12.67	Grey colored compact calcareous shale		Light grey		
			0.70		0.70	19.00			Red and grey colored shale		Red & grey		
19.00	20.00	1.00	1.00	100.00	1.00	20.00	0.39	39.00	Red and grey colored shale		Red & grey		

BOREHOLE No: MJHR-02

Northing (m) 2758316.045

Easting (m) 475630.970

R. L (m) 334.870

Date of Commencement: 30.06.2025

Date of Closure: 05.07.2025

Depth (m) : 31.00

Run (m)			Recovered Thickness (m)	Recovery %	Extra-polated Thick. (m)	Floor Depth (m)	RQD Thick-ness	RQD (%)	Lithology	Structures/ Textures	Colour	Mineralogy	Remarks
From	To	Thick											
0.00	3.00	3.00	0.00	66.67	1.00	1.00			Soil (Clayey)				
			0.10		0.10	1.10			Brownish white, medium grained sandstone fragments		Brownish		
			1.90		1.90	3.00			Red and green colored, interbedded, laminated shale		Green & Red		
3.00	4.00	1.00	0.80	80.00	1.00	4.00			Red and green colored, interbedded, laminated shale		Green & Red		
4.00	7.00	3.00	1.35	81.00	1.67	5.67	0.23	7.67	Red and green colored, interbedded, laminated shale		Green & Red		
			1.08		1.33	7.00			Fine grained, cream colored, compact limestone		Cream		
7.00	10.00	3.00	0.45	75.00	1.00	8.00	0.51	17.00	Fine grained, cream colored, compact limestone	Highly broken/fractured	Cream		
			1.80		2.00	10.00			Green colored, fine to medium grained, glauconitic sandstone		Greyish green	Glauconitic	
10.00	13.00	3.00	2.80	93.33	3.00	13.00			Green colored, fine to medium grained, glauconitic sandstone		Greyish green	Glauconitic	
13.00	16.00	3.00	3.00	100.00	3.00	16.00	1.43	47.67	Green to dark green colored, fine to medium grained,		Green to	Glauconitic	
16.00	19.00	3.00	3.00	100.00	3.00	19.00	2.13	71.00	Green to dark green colored, fine to medium grained,		Green to	Glauconitic	
19.00	22.00	3.00	3.00	100.00	3.00	22.00	2.70	90.00	Green to dark green colored, fine to medium grained,		Green to	Glauconitic	
22.00	25.00	3.00	3.00	100.00	3.00	25.00	1.83	61.00	Green to dark green colored, fine to medium grained, glauconitic sandstone		Green to Dark green	Glauconitic	
25.00	28.00	3.00	1.50	100.00	1.50	26.50	1.37	45.67	Green to dark green colored, fine to medium grained, glauconitic sandstone		Green to Dark green	Glauconitic	
			1.50		1.50	28.00			Grey to greyish black compact calcareous shale		Grey		
28.00	31.00	3.00	2.00	66.67	2.00	30.00	0.65	21.67	Grey to greyish black compact calcareous shale		Grey		
			1.00		1.00	31.00			Red and grey colored, interbedded shale		Grey & Red		

BOREHOLE No: MJHR-03

Northing (m) 2757925.839

Easting (m) 474866.255

R. L (m) 334.021

Date of Commencement: 06.07.2025

Date of Closure: 09.07.2025

Depth (m) : 25.00

Run (m)			Recovered Thickness (m)	Recovery %	Extra-polated Thick.	Floor Depth (m)	RQD Thick-ness	RQD (%)	Lithology	Structures/ Textures	Colour	Mineralogy	Remarks
From	To	Thick											
0.00	3.00	3.00	0.00	30.00	2.00	2.00	0.11	3.67	Soil (Clay + sand)				
			0.80		0.90	2.90			Fine grained, cream colored, compact limestone	Broken	Fade yellow		
			0.10		0.10	3.00			Chert band				
3.00	4.00	1.00	0.40	40.00	1.00	4.00			Reddish green, fine grained, slightly ferruginous, glauconitic sandstone		Reddish green	Glauconitic	
4.00	7.00	3.00	1.00	86.67	1.15	5.15	0.24	8.00	Reddish green, fine grained, slightly ferruginous, glauconitic sandstone		Reddish green	Glauconitic	
			1.60		1.85	7.00			Green colored, fine to medium grained, glauconitic sandstone	Cross bedding	Green	Glauconitic	
7.00	10.00	3.00	3.00	100.00	3.00	10.00	1.43	47.67	Green colored, fine to medium grained, glauconitic sandstone with minor chert pellets	Flaser bedding present	Green	Glauconitic	
10.00	13.00	3.00	3.00	100.00	3.00	13.00	1.58	52.67	Green colored, fine to medium grained, glauconitic sandstone	small scale cross bedding	Green	Glauconitic	
13.00	16.00	3.00	3.00	100.00	3.00	16.00	2.45	81.67	Greyish green colored, fine to medium grained, glauconitic sandstone with chert bands		Greyish green	Glauconitic	
16.00	19.00	3.00	3.00	100.00	3.00	19.00	1.63	54.33	Greyish green colored, fine to medium grained, glauconitic sandstone with chert bands		Greyish green	Glauconitic	
19.00	22.00	3.00	1.70	100.00	1.70	20.70	1.70	56.67	Greyish green colored, fine to medium grained, glauconitic sandstone with shale bands at bottom		Greyish green	Glauconitic	
			1.30		1.30	22.00			Grey to greyish black compact calcareous shale	Fractured	Grey		
22.00	25.00	3.00	0.80	100.00	3.00	25.00	0.24	8.00	Grey to greyish black compact calcareous shale		Grey		
			2.20			25.00			Red and grey colored, interbedded shale		Red & grey		

BOREHOLE No: MJHR-04

Northing (m) 2759438.056

Easting (m) 475811.439

R. L (m) 356.324

Date of Commencement: 24.07.2025

Date of Closure: 01.08.2025

Depth (m) : 42.00

Run (m)			Recovered Thickness (m)	Recovery %	Extra-polated Thick. (m)	Floor Depth (m)	RQD Thick-ness	RQD (%)	Lithology	Structures/ Textures	Colour	Mineralogy	Remarks
From	To	Thick											
0.00	3.00	3.00	0.00	10.00	2.70	2.70			Soil (Clay + sand)				
			0.30		0.30	3.00			Fine grained, cream colored, compact sandstone		Creamish white		
3.00	4.00	1.00	0.40	40.00	1.00	4.00			Fine grained, cream colored, compact sandstone		Creamish white		
4.00	7.00	3.00	0.30	31.67	0.95	4.95			Fine grained, cream colored, compact sandstone		Creamish white		
			0.65		2.05	7.00			Chocolate coloured, laminated, interbedded shale		Chocolate brown		
7.00	10.00	3.00	1.50	50.00	3.00	10.00			Chocolate coloured, laminated, interbedded shale	loose	Chocolate brown		
10.00	13.00	3.00	0.70	74.00	0.95	10.95			Chocolate coloured, laminated, interbedded shale		Chocolate brown		
			1.52		2.05	13.00			Grey colored, interbedded shale		Grey		
13.00	16.00	3.00	2.00	88.33	2.26	15.26			Grey colored, interbedded shale		Grey		
			0.65		0.74	16.00			Dark grey colored, interbedded shale		Dark grey		
16.00	19.00	3.00	0.35	93.33	0.35	16.35	0.53	17.67	Dark grey colored, interbedded shale		Dark grey		
			2.45		2.45	18.80			Grey colored, interbedded shale		Grey		Calcareous?
			0.20		0.20	19.00			Fine grained, light grey colored, compact limestone with pyrite stringers	Compact	Light grey	Pyrite stringers	
19.00	22.00	3.00	0.35	100.00	0.35	19.35	1.40	46.67	Fine grained, light grey colored, compact limestone with pyrite stringers and chert nodules at bottom	Compact	Light grey		
			2.65		2.65	22.00			Reddish green, fine grained, slightly ferruginous, glauconitic sandstone		Reddish green	Glauconite	

Run (m)			Recovered Thickness (m)	Recovery %	Extra-polated Thick. (m)	Floor Depth (m)	RQD Thick-ness	RQD (%)	Lithology	Structures/ Textures	Colour	Mineralogy	Remarks
From	To	Thick											
22.00	25.00	3.00	1.50	100.00	1.50	23.50	1.30	43.33	Reddish green, fine grained, slightly ferruginous, glauconitic sandstone		Reddish green	Glauconite	
			1.50		1.50	25.00			Green colored, fine grained, glauconitic sandstone	Cross bedded	Green	Glauconite	
25.00	28.00	3.00	3.00	100.00	3.00	28.00	2.60	86.67	Green colored, fine grained, glauconitic sandstone	Cross bedded	Green	Glauconite	
28.00	31.00	3.00	3.00	100.00	3.00	31.00	1.90	63.33	Green colored, fine grained, glauconitic sandstone with chert bands		Dark green	Glauconite	
31.00	34.00	3.00	3.00	100.00	3.00	34.00	1.93	64.33	Dark green colored, fine grained, glauconitic sandstone		Dark green	Glauconite	
34.00	37.00	3.00	3.00	100.00	3.00	37.00	2.66	88.67	Dark green colored, fine grained, glauconitic sandstone with chert bands		Dark green	Glauconite	
37.00	40.00	3.00	0.60	100.00	0.60	37.60	1.53	51.00	Dark green colored, fine grained, glauconitic sandstone with chert bands		Dark green	Glauconite	
			1.00		1.00	38.60			Grey colored compact calcareous shale		Grey		
			1.00		1.00	39.60			Grey colored compact calcareous shale		Grey		
			0.40		0.40	40.00			Red and grey colored, interbedded shale		Red & Grey		
40.00	42.00	2.00	2.00	100.00	2.00	42.00	1.23	61.50	Red and grey colored, interbedded shale		Red & Grey		

BOREHOLE No: MJHR-05

Northing (m) 2759689.726

Easting (m) 474676.471

R. L (m) 366.071

Date of Commencement: 06.08.2025

Date of Closure: 15.08.2025

Depth (m) : 42.00

Run (m)			Recovered Thickness (m)	Recovery %	Extra-polated Thick. (m)	Floor Depth (m)	RQD Thick-ness	RQD (%)	Lithology	Structures/ Textures	Colour	Mineralogy	Remarks
From	To	Thick											
0.00	3.00	3.00	0.00	23.33	2.30	2.30			Soil (Clay + sand)				
			0.70		0.70	3.00			Fine grained, cream colored, compact sandstone	Broken	Cream		Weathered
3.00	4.00	1.00	0.33	53.00	0.62	3.62			Fine grained, cream colored, compact sandstone	Broken	Cream		
			0.20		0.38	4.00			Chocolate coloured, laminated, interbedded shale		Chacolate		
4.00	7.00	3.00	0.70	83.33	0.84	4.84			Chocolate coloured, laminated, interbedded shale		Chacolate		
			1.80		2.16	7.00			Chocolate coloured, laminated shale with interbeds of green shale		Green		
7.00	10.00	3.00	2.10	70.00	3.00	10.00			Chocolate coloured, laminated, interbedded shale		Chacolate		
10.00	13.00	3.00	0.50	60.33	0.83	10.83			Chocolate coloured, laminated, interbedded shale		Chacolate		
			0.43		0.71	11.54			Greenish grey colored, laminated shale		Greenish		
			0.88		1.46	13.00			Grey colored shale		Grey		
13.00	16.00	3.00	2.50	100.00	2.50	15.50	0.25	8.33	Grey colored shale	Fr @ 55° (Concoidal fracture) at 14.20m, V.Fr	Grey		
			0.50		0.50	16.00			Dark grey colored shale		Dark grey		
16.00	19.00	3.00	0.50	83.33	0.60	16.60	0.63	21.00	Dark grey colored shale		Dark grey		
			1.10		1.32	17.92			Grey colored shale		Grey		Calcareous?
			0.90		1.08	19.00			Fine grained, light grey colored, compact limestone		Grey		
19.00	22.00	3.00	0.30	100.00	0.30	19.30	1.81	60.33	Fine grained, light grey colored, compact limestone		Grey		
			1.40		1.40	20.70			Reddish green, fine grained, slightly ferruginous, glauconitic sandstone with chert pellets		Reddish green	Glauconitic	

Run (m)			Recovered Thickness (m)	Recovery %	Extra-polated Thick. (m)	Floor Depth (m)	RQD Thick-ness	RQD (%)	Lithology	Structures/ Textures	Colour	Mineralogy	Remarks
From	To	Thick											
			1.30		1.30	22.00			Reddish green, fine grained, slightly ferruginous, glauconitic sandstone		Reddish green	Glauconitic	
22.00	25.00	3.00	1.00	100.00	1.00	23.00	1.54	51.33	Reddish green, fine grained, slightly ferruginous, glauconitic sandstone with chert bands		Reddish green	Glauconitic	
			2.00		2.00	25.00			Green colored, fine grained, glauconitic sandstone with chert bands		Green	Glauconitic	
25.00	28.00	3.00	3.00	100.00	3.00	28.00	1.49	49.67	Green colored, fine to medium grained, glauconitic sandstone	Fr @ 25° at 25.40m (micro	Green	Glauconitic	
28.00	31.00	3.00	3.00	100.00	3.00	31.00	2.52	84.00	Green colored, fine to medium grained, glauconitic sandstone	(cross bedding)	Green	Glauconitic	
31.00	34.00	3.00	3.00	100.00	3.00	34.00	2.57	85.67	Green colored, fine to medium grained, glauconitic sandstone		Green	Glauconitic	
34.00	37.00	3.00	3.00	100.00	3.00	37.00	2.21	73.67	Green colored, fine to medium grained, glauconitic sandstone with chert bands	V.F @ 34.50	Green	Glauconitic	
37.00	40.00	3.00	0.60	100.00	0.60	37.60	0.47	15.67	Green colored, fine to medium grained, glauconitic sandstone with chert bands		Green	Glauconitic	
			2.00		2.00	39.60			Grey to greyish black compact calcareous shale		Grey		Calcareous
			0.40		0.40	40.00			Red and grey colored, interbedded shale		Reddish and grey		
40.00	42.00	2.00	2.00	100.00	2.00	42.00	0.36	18.00	Red and grey colored, interbedded shale		Reddish and grey		