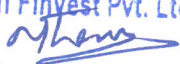


DETAIL OF MUCK MANAGEMENT PLAN

SR NO	Name of the component where muck /debris is to be produced	Total quantity of muck/debris to be produced (In Cum)	Factor of increase in volume @40% for dumping. (In Cum)	Total quantity of muck /debris produced i/c factor of increase. (In Cum)	Qty of muck/ debris to be utilised (55 %). (In Cum)	Qty of muck debris to be dumped (In Cum)	Name of dumping place.	slope of dumping place.	location of dumping place/village /police station and nearby road.	Distance of dumping place from nearby river/nala with name of river (In km)	Area of dumping place with length & width(in mtr)			Area of dumping place as per plan & section (in hectare)	expected / volume capacity of muck dumping sites (in cum)
											L	B	H		
1	Trench weir	1950	780	2730	1502	1229	Muck Dumping at Weir site.	5- degree to 17 - degree	Gramang/ vill Gramang/ P.S Drang & Thaltukhod to Gramang link road.	2 mtr from Thaltukhod nala.	80	19.48	max- 6, min- 2	0.1600	1589
	Intake pipe & shingle excluder pipe	1270	508	1778	978	800									
	Feeder pipe	540	216	756	416	340									
	Desilting basin & collection pool	4390	1756	6146	3380	2766									
	Connecting pipe	1197	479	1676	922	754									
2	Head race tunnel	22605	9042	31647	17406	14241	Muck Dumping at Adit.	15 -degree to 46 - degree	Gramang/ P. S Drang & Thaltukhod link road.	120 mtr from thaltukhod nala.	37	46	max - 20, min - 12	0.1500	8902
	Adit	1160	464	1624	893	731									
3	Forebay. (A + B)	2970	1188	4158	2287	1871	Muck Dumping at Forebay.	Site B- 16 - degree to 26 - degree, site A- 20 to 39 degree.	Kharyan/ vill kharyan/ P.S Drang & Thaltukhod to Gramang link road.	222 mtr from thaltukhod nala	(A= 37.46, B= 35.44)	(A= 19.39, B= 16.57)	(A= max 30, min 20), (B= max- 10, min - 4)	0.1380	14066

For Cliff Finvest Pvt. Ltd.

 Authorised Signatory

9/s 
 Divisional Forest Officer
 Joginder Nagar Forest Division
 Joginder Nagar (H.P.)

4	Penstock.	11939	4776	16715	9193	7522	Muck Dumping at Power house.	4 to 10 degree	Kharyan/ vill Kharyan/ P.S Drang & Thaltukhod to Gramang link road.	2 mtr from Thaltukhod nala.	51.58	44.8	max - 12, min - 4.50	0.1637	7878
	Powerhouse	2618	1047	3665	2016	1649									
	Tail race channel	62	25	87	48	39									
	Switch yard	360	144	504	277	227									
	Energy dissipator	212	85	297	163	134									
Total		51273	20509	71782	39480	32302	_____	_____	_____	_____	_____			0.6117	32435

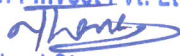
NOTE

1	Total dumping capacity = 32435 Cum
2	Muck to be dumped = 32302 Cum

M. S. Finvest Pvt. Ltd.
Thenu
 Authorised Signatory

9/5
 Divisional Forest Officer
 Joginder Nagar Forest Division
 Joginder Nagar (H.P.)

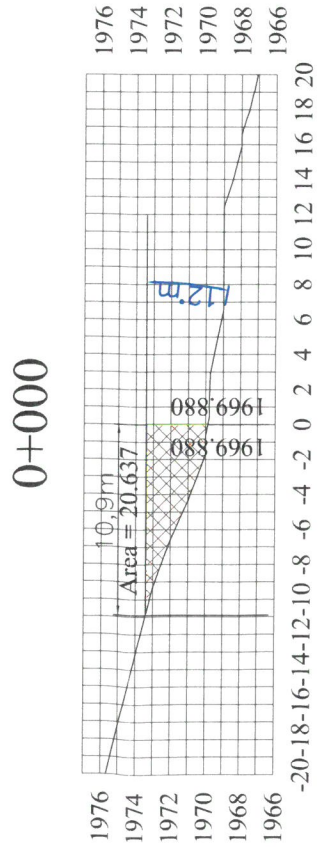
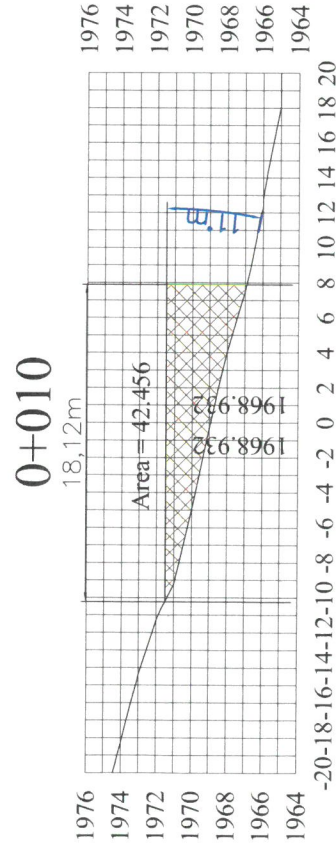
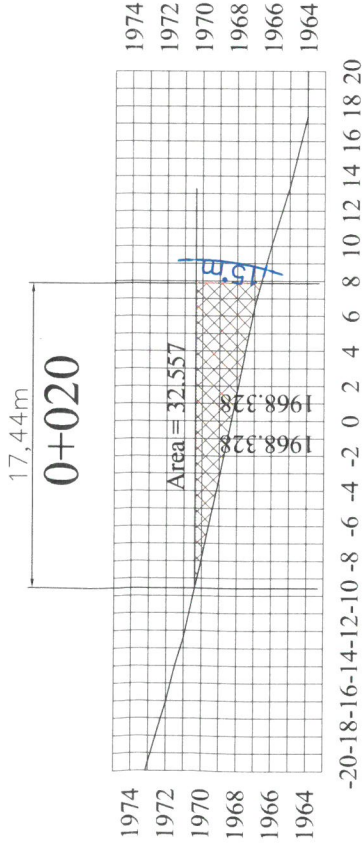
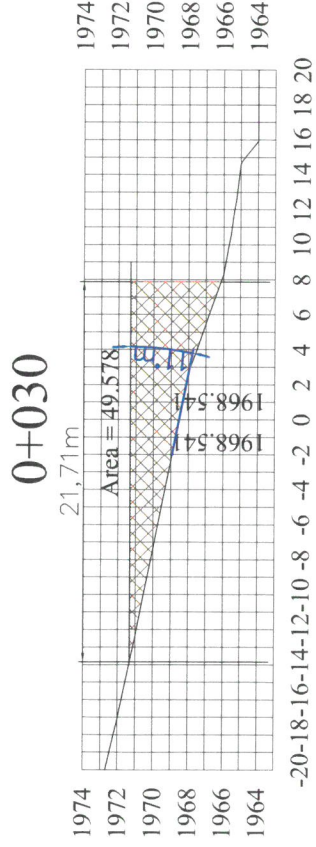
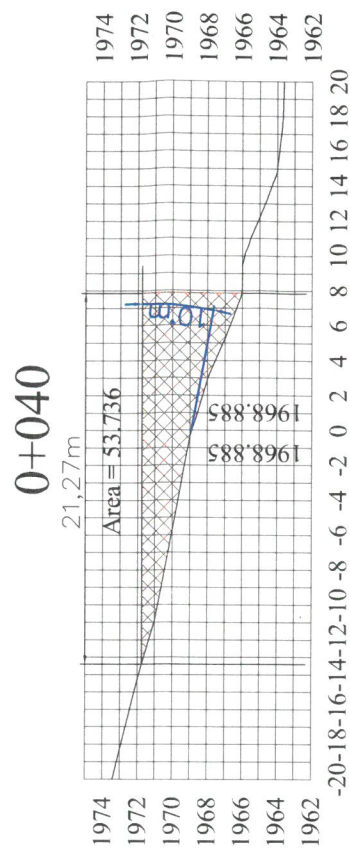
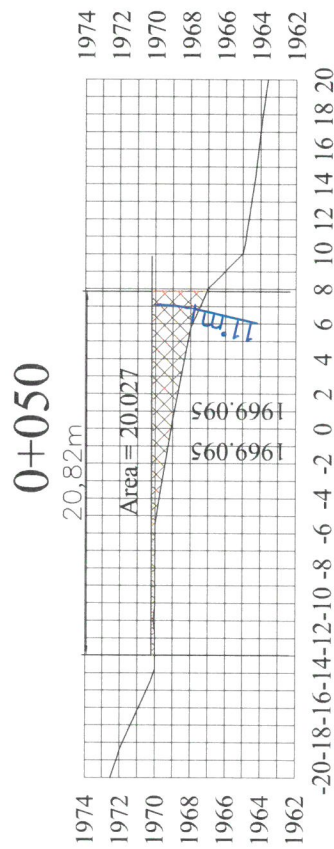
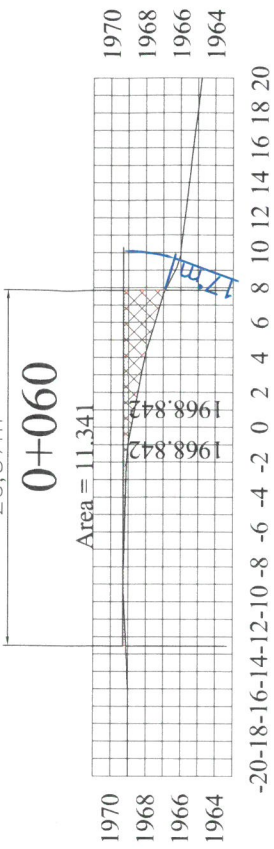
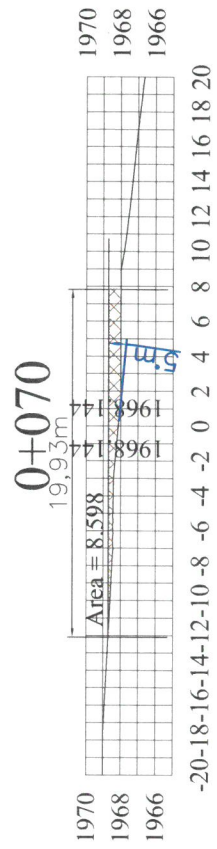
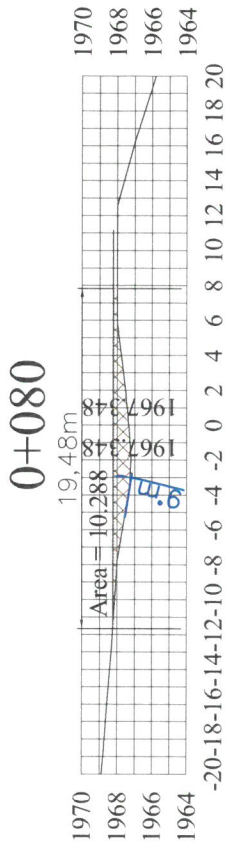
NOTE	
1	Filling behind retaning wall, Rock pieces which are dressable will be used for costruction of wire crates, retaning walls & breast wall = 25%
2	Collectecd pieces of rock from underground as well as open excavation will be carried to crusher site & crushed to different grades for use in lining of the HRT tunnel and other RCC structures where ever suitable = 20 %
3	Rest of the muck will be used in soling work in roads i.e approach road to power house, other components of the project & link roads near project area = 10 %

For Cliff Finvest Pvt. Ltd.

 Authorised Signatory


 Divisional Forest Officer
 Joginder Nagar Forest Division
 Joginder Nagar (H.P.)

X-Section of MUCK DUMPING WEIR SITE

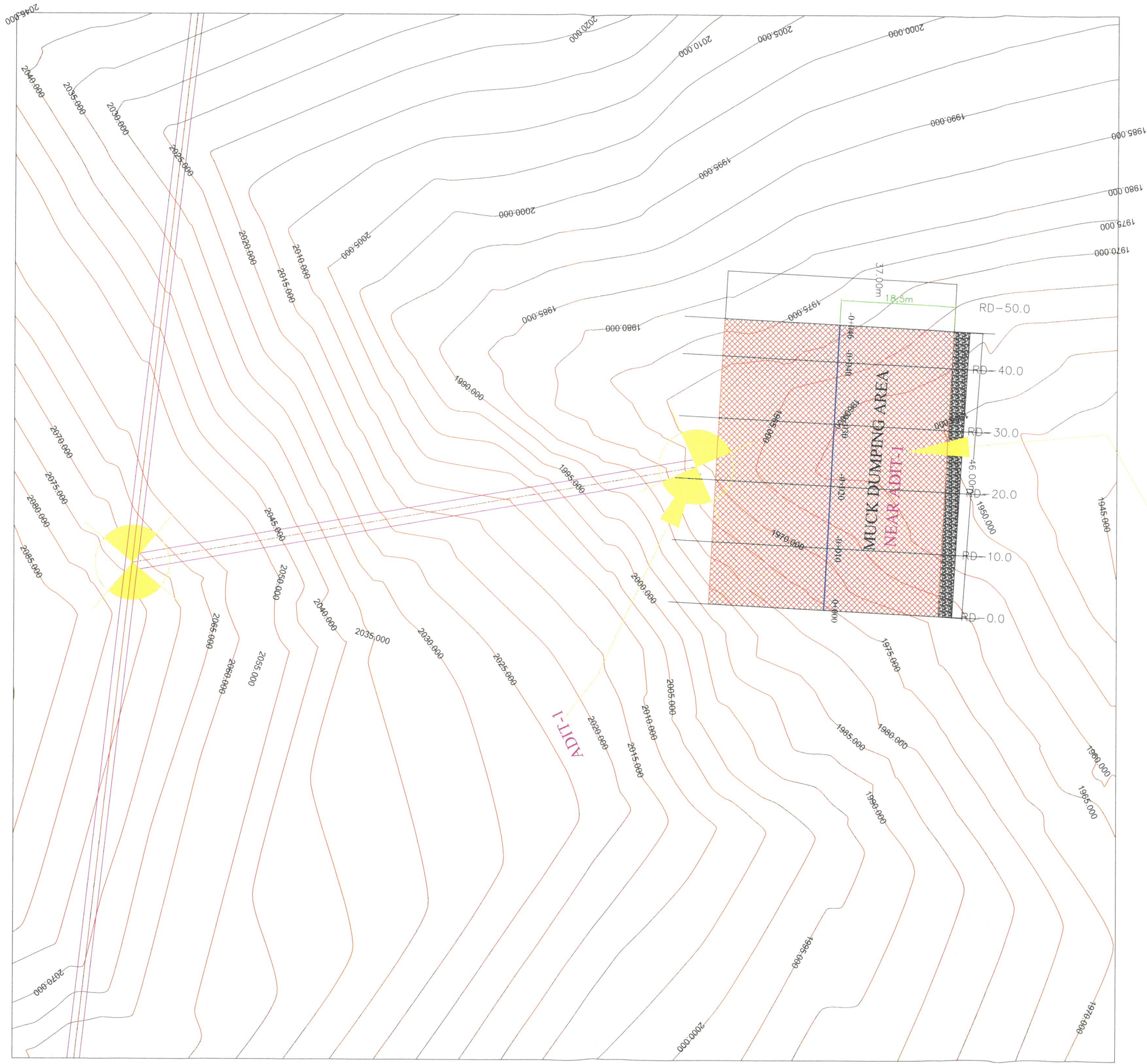
Muck Dumping Area Weir Site Thaltukhod Stage-I				
RD	Area in Sqm	AV/Area	Distance	Quantity in cum
0.000	20.637	0	0	0.000
10.000	42.456	31.54	10	315.400
20.000	32.557	37.5	10	375.000
30.000	49.578	41.06	10	410.600
40.000	53.736	51.65	10	516.500
50.000	20.027	36.88	10	368.800
60.000	11.341	15.68	10	156.800
70.000	8.598	9.96	10	99.600
80.000	10.288	9.44	10	94.400
			Total Area=	2337.100
	Considering Swell Factor		0.68	
	Total Dumping Capacity			1589.228



For Cliff Finvest Pvt. Ltd.

Authorised Signatory

Divisional Forest Officer
Joginder Nagar
Joginder Nagar



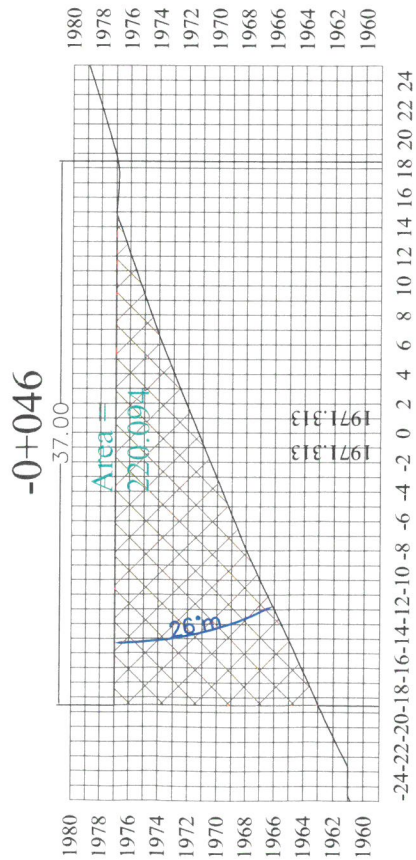
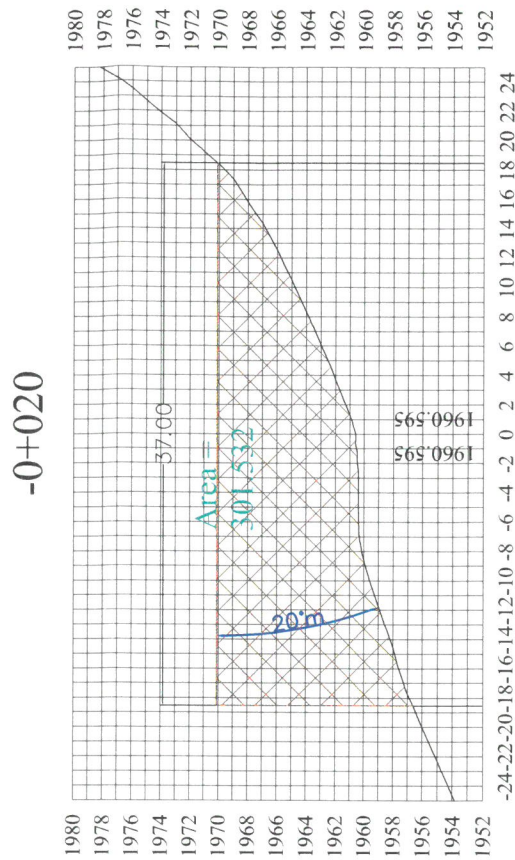
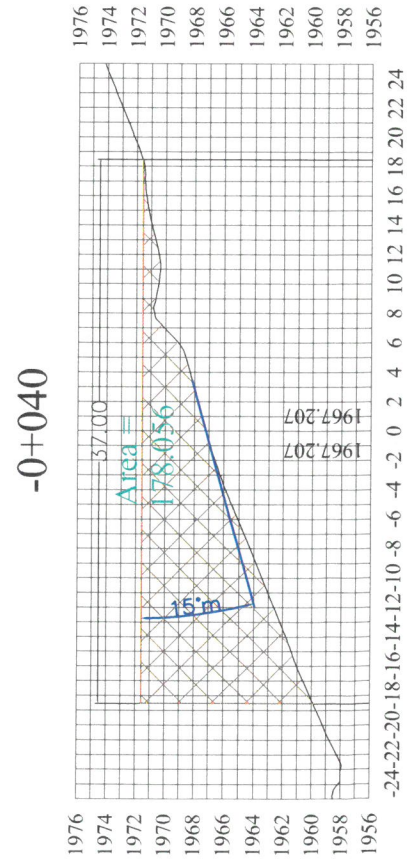
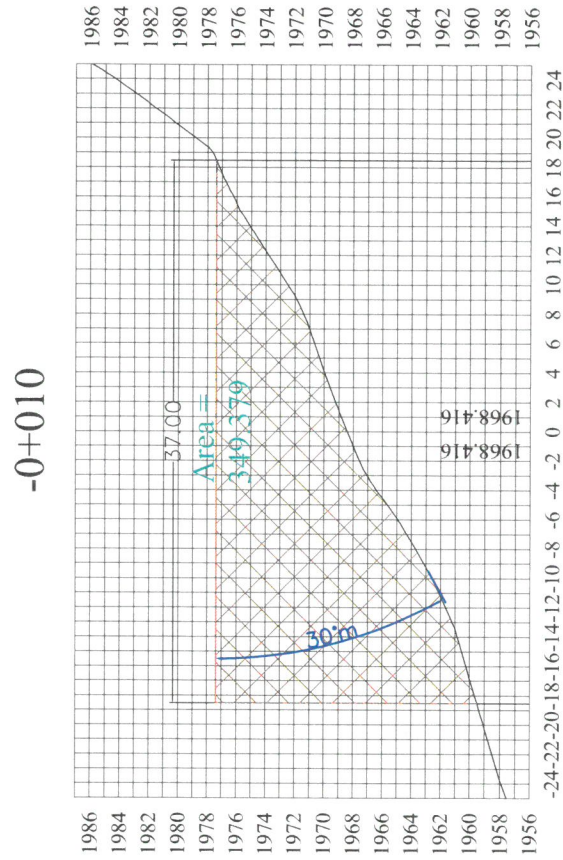
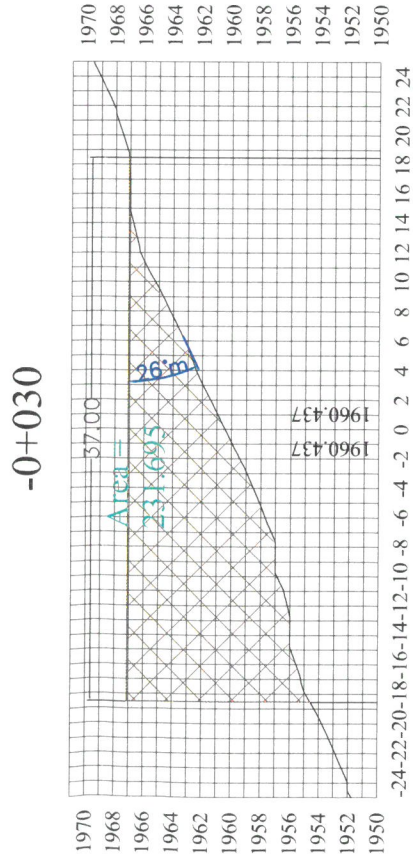
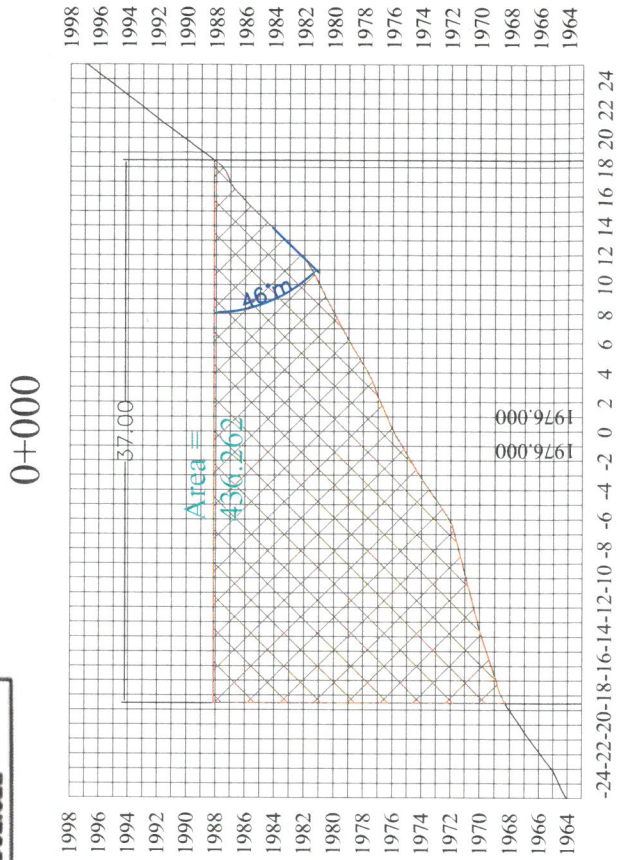
PLAN OF MUCK DUMPING AREA NEAR ADIT

For Cliff Finvest Pvt. Ltd.
 Authorised Signatory

Divisional Forest Officer
 Joginder Nagar Forest Division
 Joginder Nagar (H.P.)

X-SECTION OF MUCK DUMPING AREA NEAR ADIT

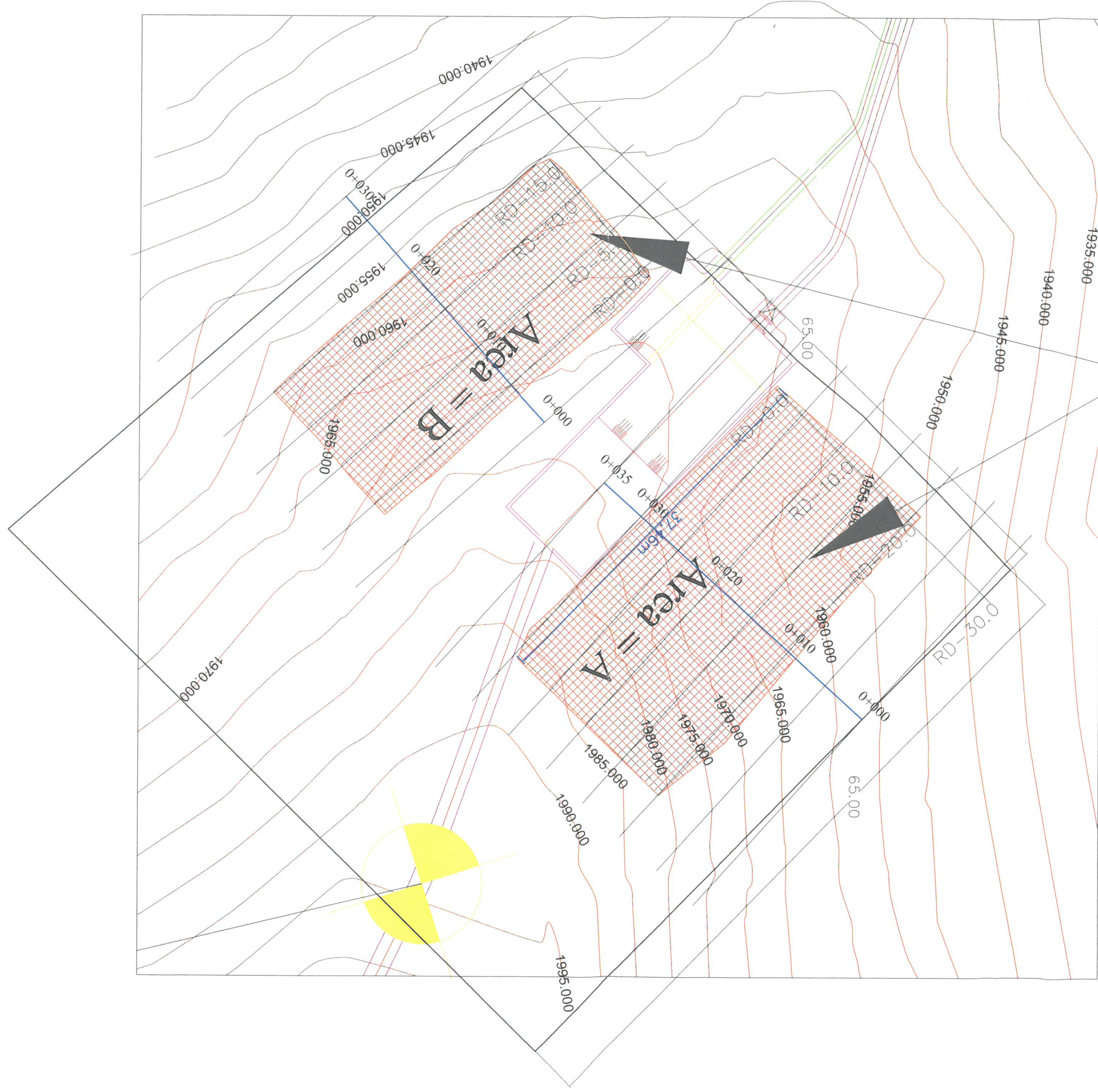
Muck Dumping Area Adit Portal Site Thaitukhod Stage-I				
RD	Area in Sqm	AV/Area	Distance	Quantity in cum
0.000	436.262	0.000	0	0.000
10.000	349.379	392.32	10	3928.200
20.000	301.532	325.455	10	3254.550
30.000	231.695	266.613	10	2666.130
40.000	178.056	204.875	10	2048.750
46.000	220.094	199.075	6	1194.450
			Total Area=	13092.080
			Considering Swell Factor	
			Total Dumping Capacity	8902.621



For Cliff Everest Pvt. Ltd.

Authorised Signatory

Divisional Forest Officer
Joginder Nagar Forest Division
Joginder Nagar (H.P.)



PLAN OF MUCK DUMPING AREA NEAR FOREBAY

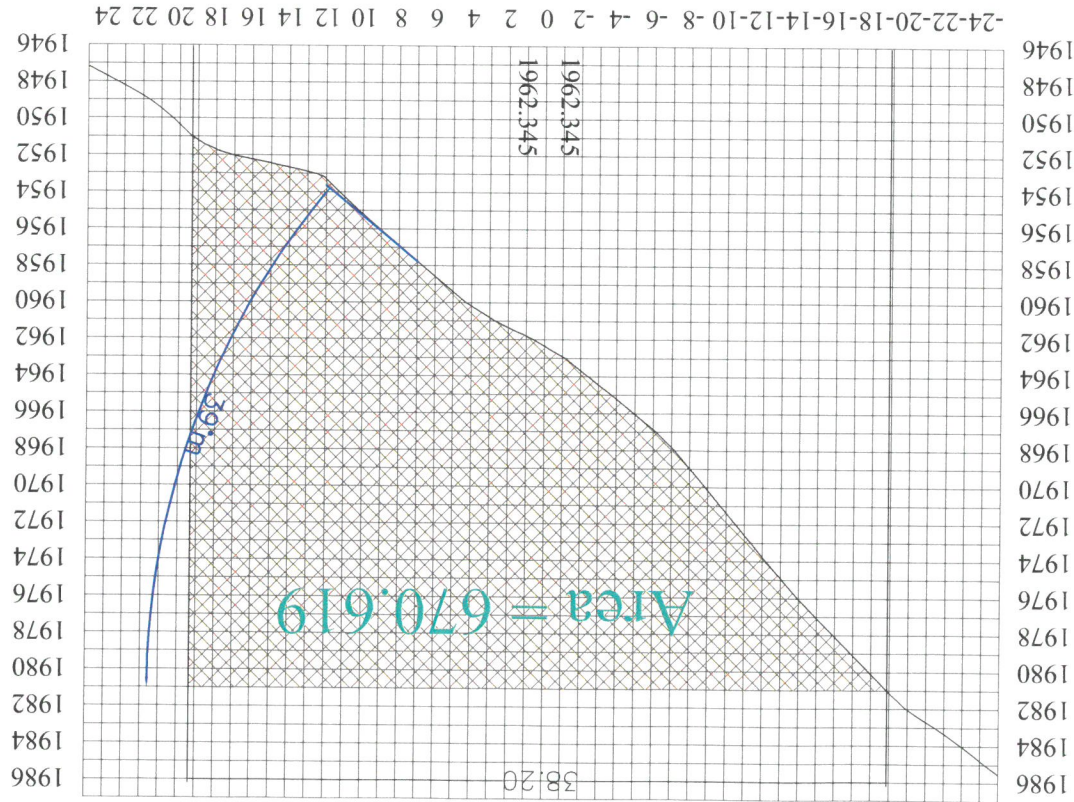
For Cliff Invest Pvt. Ltd.
 Authorised Signatory

Divisional Forest Officer
 Joginder Nagar Forest Division
 Joginder Nagar (H.P.)

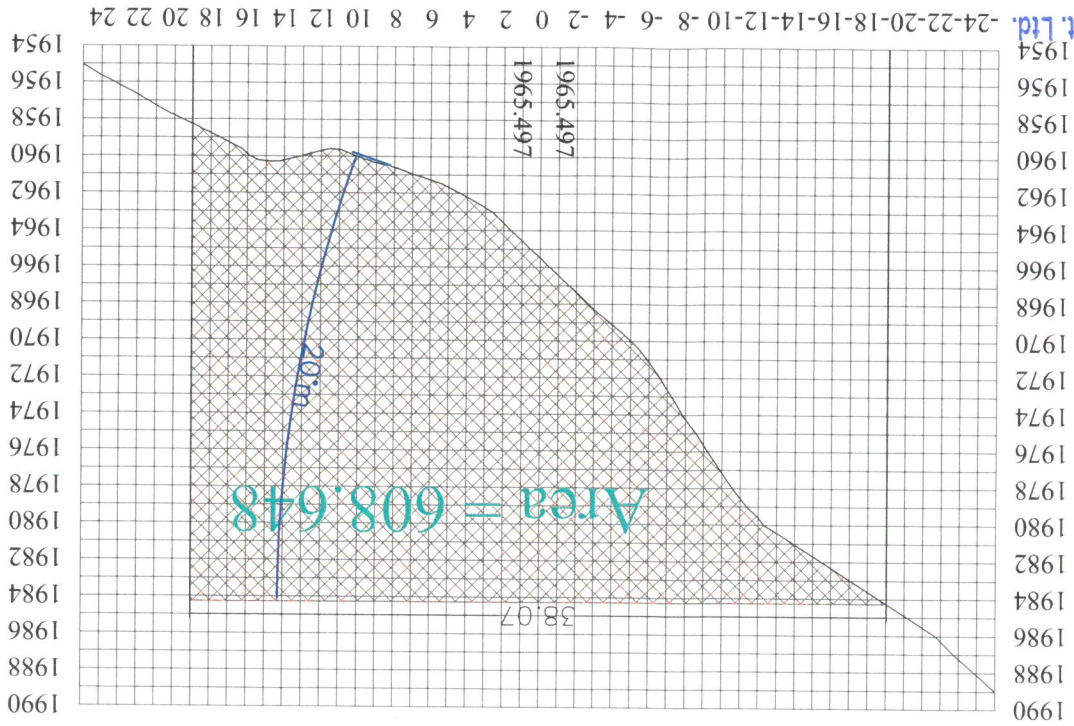
X-SECTION OF MUCK DUMPING AREA NEAR FOREBAY SITE

Area = A

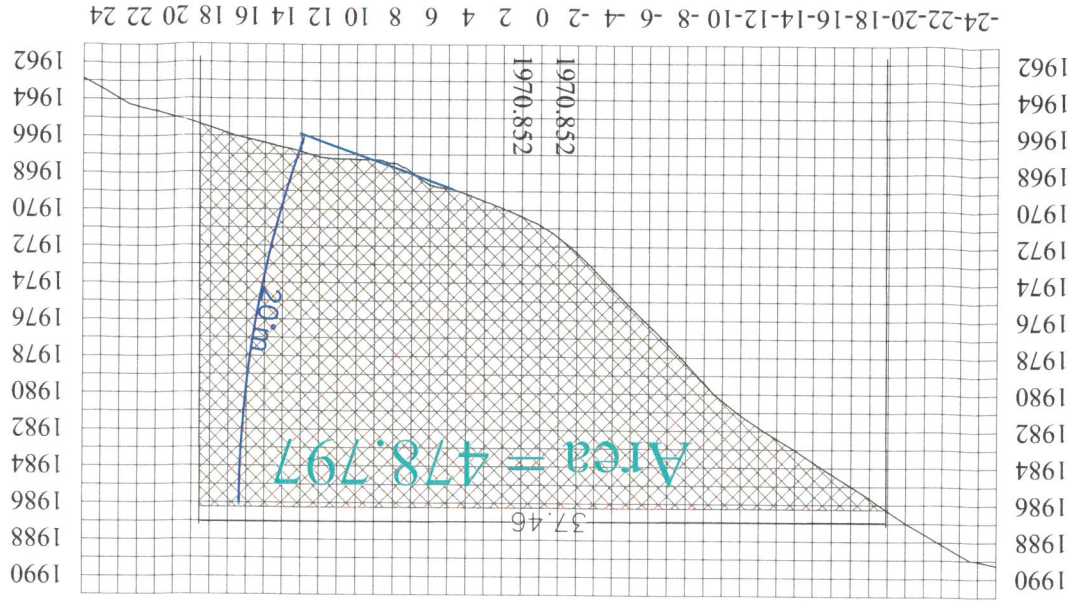
Muck Dumping Area Near Forebay Site Thaltukhod Stage-I					
RD	Area in sqm	AV/Area	Distance	Quantity in cum	
				AREA- A	
5.000	114.875	114.875	5.000	574.375	
10.000	103.014	108.944	5.000	544.720	
15.000	126.552	114.783	5.000	573.915	
20.000	54.600	90.576	5.000	452.880	AREA- B
10.000	670.619	670.619	10.000	6706.190	
20.000	608.648	609.633	10.000	6096.330	
30.000	478.797	543.722	10.000	5437.220	Total Area=
				20,685.630	
				0.68	Considering Swell Factor
					Total Dumping Capacity
					14,066.228



0+010



0+020



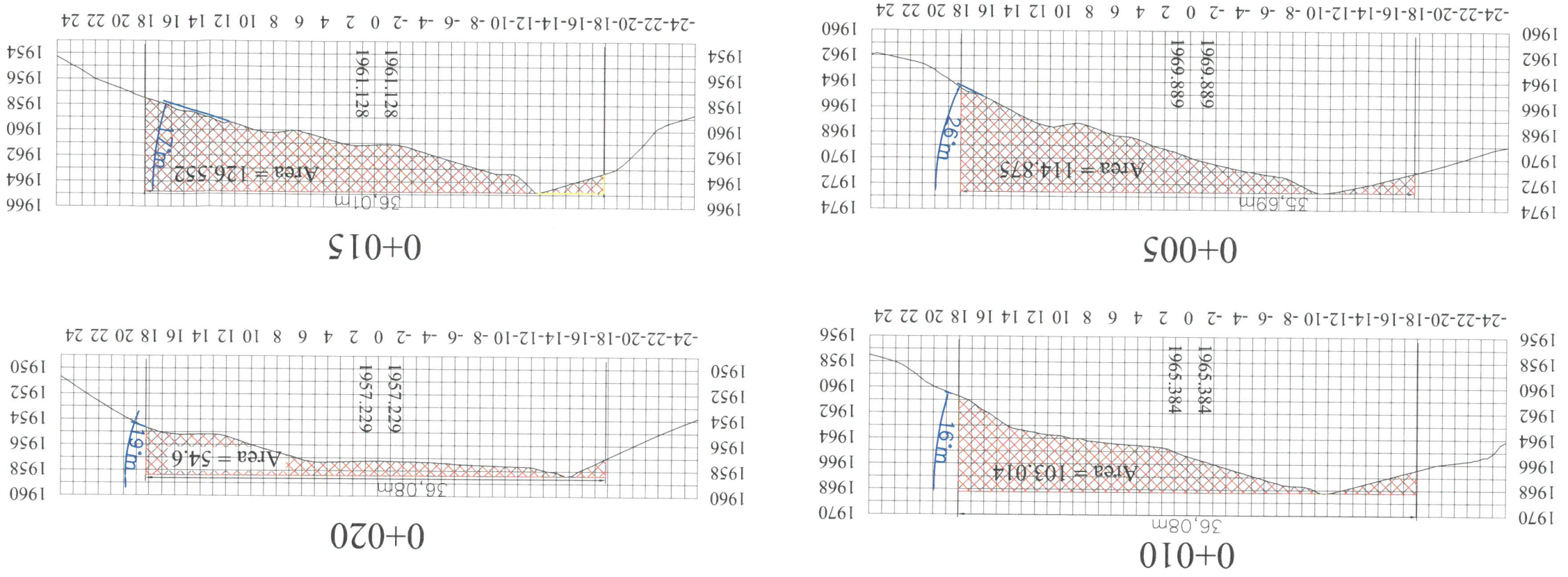
0+030

Divisional Forest Officer
Joginder Nagar Forest Division
Joginder Nagar (H.B.)

For Cliff Invest Pvt. Ltd.
Authorised Signatory

X-SECTION OF MUCK DUMPING AREA NEAR FOREBAY SITE

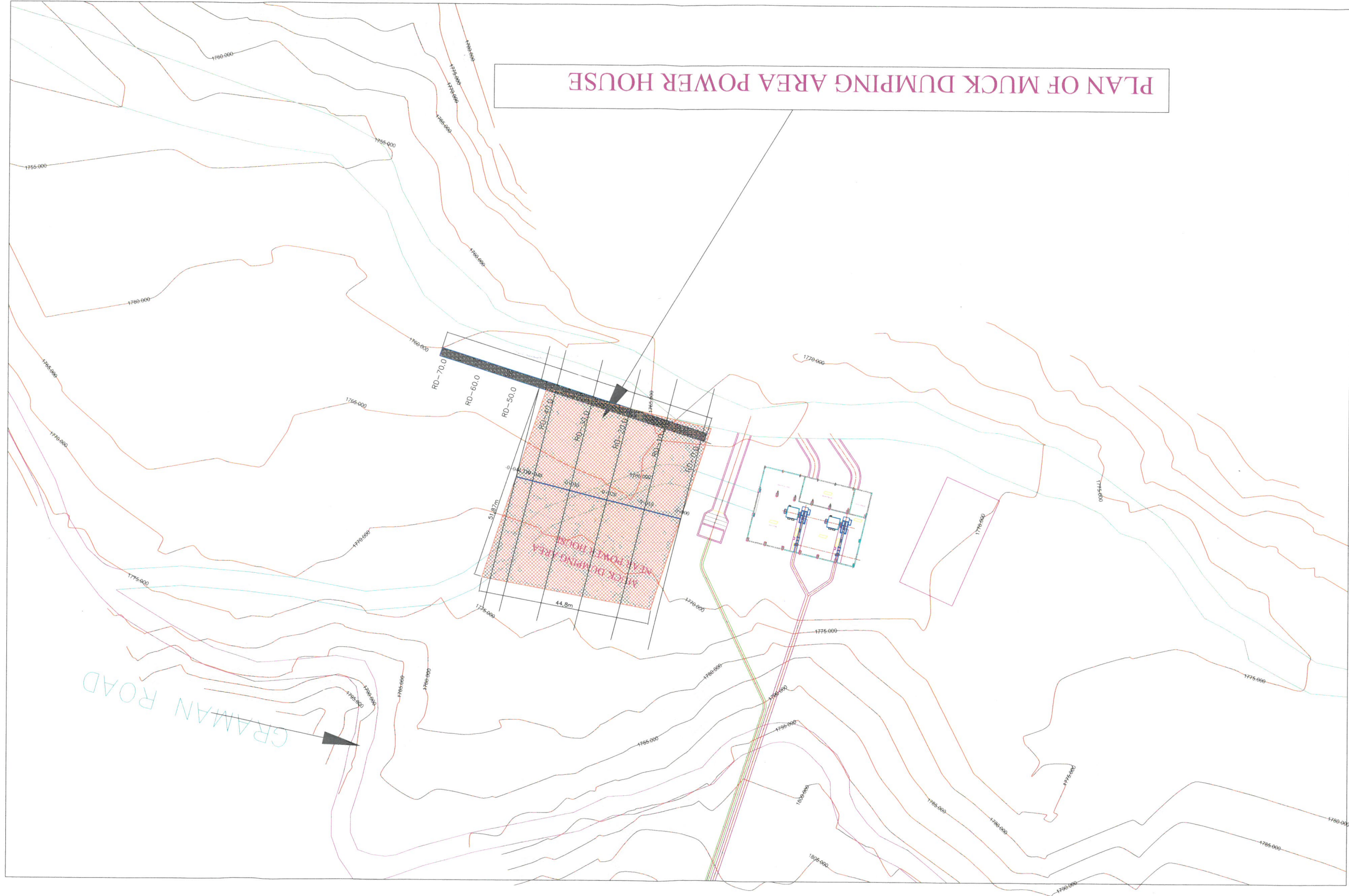
Area = B



For Cliff Finvest Pvt. Ltd.
Authorised Signatory

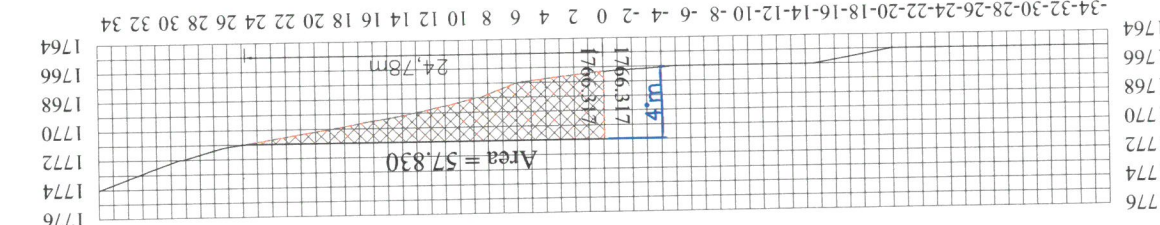
Divisional Forest Officer
Joginder Nagar Forest Division
Joginder Nagar (H.P.)

PLAN OF MUCK DUMPING AREA POWER HOUSE

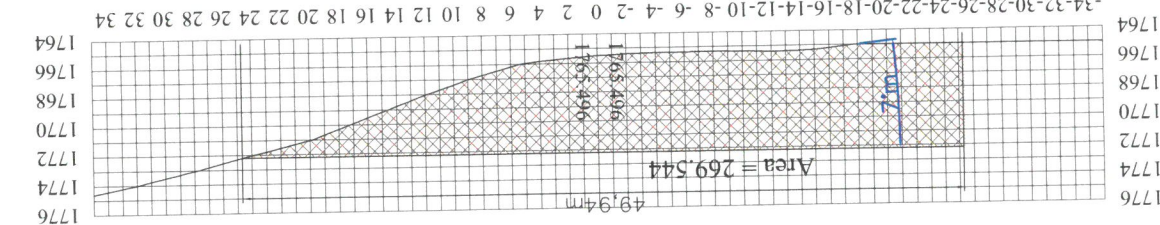


X-SECTION OF MUCK DUMPING AREA POWER HOUSE

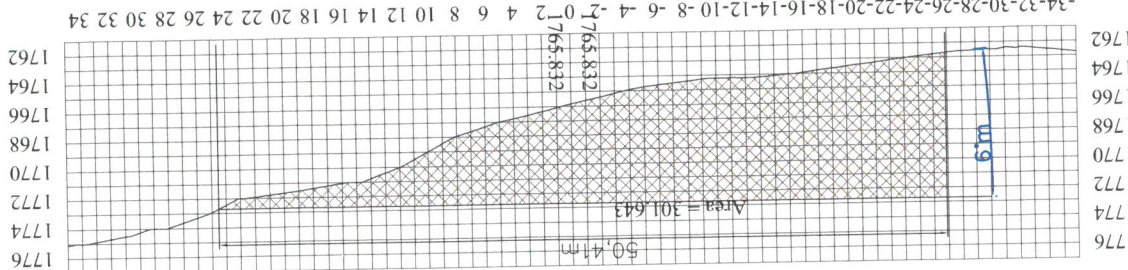
Muck Dumping Area Power House Site Thaikhod Stage-I				
RD	Area in Sqm	AV/Area	Distance	Quantity in cum
0.000	57.830	0.000	0.000	0.000
10.000	269.544	163.687	10.000	1636.870
20.000	301.643	285.593	10.000	2855.930
30.000	307.990	304.816	10.000	3048.160
40.000	325.055	316.522	10.000	3165.220
44.339	80.547	202.801	4.339	879.954
			Total Area=	11586.134
	Considering Swell Factor		0.68	
	Total Dumping Capacity			7878.571



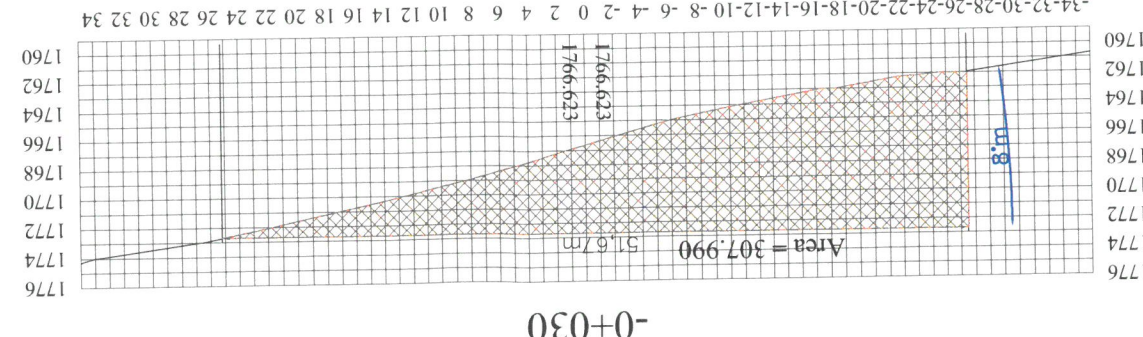
000+0



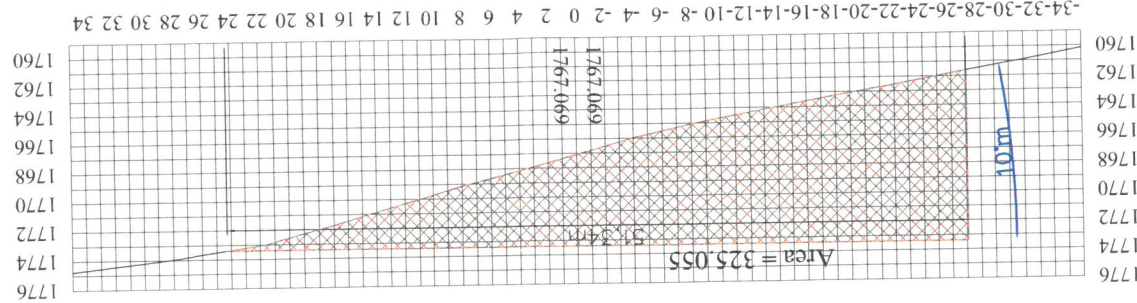
010+0-



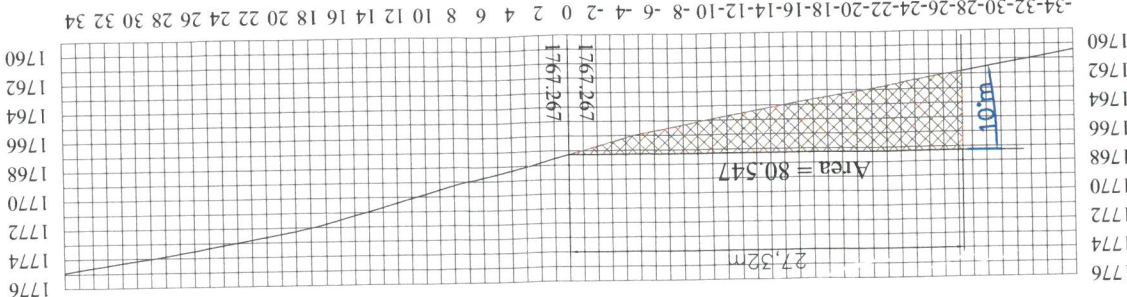
070+0-



030+0-



040+0-



-0+044.339

Divisional Forest Officer
Joginder Nagar Forest Division
Joginder Nagar (H.P.)

For Cliff Finance Pvt. Ltd.

Authorised Signatory