

Name-Utkarsh Jaiswal

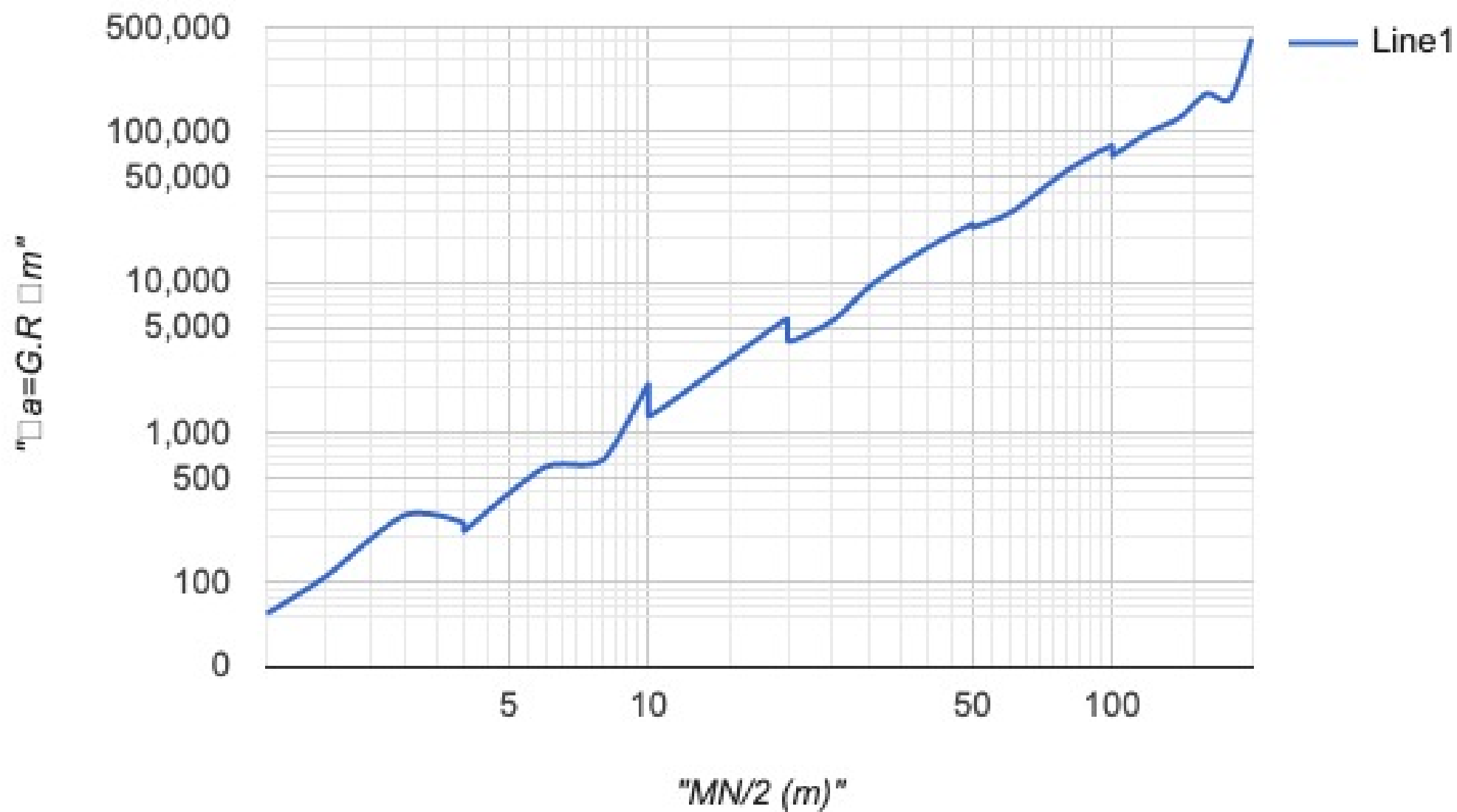
Roll No-18EX20030

Lab Assignment 1

	S. No.	AB/2 (m)	MN/2 (m)	G	$\Delta V_d$ (mV)	$\Delta V_r$ (mV)	$I_d$ (mA)	$I_r$ (mA)	R $\Omega$	$\rho_a = G \cdot R$ $\Omega m$
1										
2	1	1.5	0.5	6.283	889	883	89	92	9.79330	61.533
3	2	2	0.5	11.781	620	610	70	65	9.12088	107.453
4	3	3	0.5	27.489	345	350	35	33	10.23160	281.256
5	4	4	0.5	49.480	82	92	18	17	4.98366	246.592
6	5	4	1.0	23.562	160	165	18	17	9.29739	219.064
7	6	6	1.0	54.978	125	120	12	11	10.66288	586.222
8	7	8	1.0	98.960	56	55	8.5	8.2	6.64778	657.865
9	8	10	1.0	155.509	110	112	8.5	8.2	13.29986	2068.245
10	9	10	2.0	75.398	90	93	5.4	5.3	17.10692	1289.831
11	10	15	2.0	173.573	75	72	4.1	4.2	17.71777	3075.326
12	11	20	2.0	311.018	64	63	3.5	3.5	18.14286	5642.749
13	12	20	5.0	117.810	120	121	3.5	3.5	34.42857	4056.021
14	13	25	5.0	188.496	99	98	3.3	3.4	29.41176	5543.987
15	14	30	5.0	274.889	85	85	2.5	2.5	34.00000	9346.238
16	15	40	5.0	494.801	74	73	2.2	2.1	34.19913	16921.760
17	16	50	5.0	777.544	62	60	2.0	1.9	31.28947	24328.948
18	17	50	10	376.991	120	120	2.0	1.9	61.57895	23214.716
19	18	60	10	549.779	90	92	1.8	1.7	52.05882	28620.833
20	19	80	10	989.602	80	82	1.5	1.4	55.95238	55370.571
21	20	100	10	1555.088	60	65	1.2	1.2	52.08333	80994.186
22	21	100	20	753.982	110	112	1.2	1.2	92.50000	69743.357

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13	12	20	5.0	117.810	120	121	3.5	3.5	34.42857	4056.021
14	13	25	5.0	188.496	99	98	3.3	3.4	29.41176	5543.987
15	14	30	5.0	274.889	85	85	2.5	2.5	34.00000	9346.238
16	15	40	5.0	494.801	74	73	2.2	2.1	34.19913	16921.760
17	16	50	5.0	777.544	62	60	2.0	1.9	31.28947	24328.948
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21	20	100	10	1555.088	60	65	1.2	1.2	52.08333	80994.186
22	21	100	20	753.982	110	112	1.2	1.2	92.50000	69743.357
23	22	120	20	1099.557	90	91	1.0	1.0	90.50000	99509.947
24	23	140	20	1507.964	70	70	0.8	0.9	82.63889	124616.509
25	24	160	20	1979.203	45	46	0.5	0.5	91.00000	180107.507
26	25	180	20	2513.274	20	20	0.3	0.3	66.66667	167551.608
27	26	200	20	3110.177	14	13	0.1	0.1	135.00000	419873.858

Graph Title



Q) What is our opinion on the nature of subsurface

Ans) From the above plot we can conclude that the subsurface is of resistive nature.

We infer that resistivity increases with increase in distance.