

BAB V

KESIMPULAN DAN SARAN

5.1. Kesimpulan

Berdasarkan hasil yang didapatkan dari penelitian ini, maka dapat di tarik beberapa kesimpulan sebagai berikut:

1. Batuan andesit pada lintasan pengukuran ditemukan pada kedua lintasan pengukuran dengan tahanan jenis yang sama. Nilai tahanan jenis batuan andesit pada lintasan 1 berkisar antara 110->551 Ω m. Nilai tahanan jenis batuan andesit pada lintasan 2 berkisar antara 110->551 Ω m.
2. Kedalaman dan ketebalan batuan andesit pada kedua lintasan berbeda. Lintasan 1 terdapat batuan andesit pertama pada jarak bentangan 10-40 meter dikedalaman sekitar 2,50-24,9 meter dengan ketebala 22,4 meter. Kedua ditemukan pada jarak bentangan 65-120 meter dikedalaman 2,50-24,9 meter dengan ketebalan rata-rata 14,7. Lintasan 2 terdapat batuan andesit pada jarak bentangan 10-120 meter dikedalaman 250-31,9 meter dengan ketebalan rata-rata 24,4 meter.

5.2. Saran

Dari hasil penelitian yang telah diperoleh, penelitian/penulis memberikan beberapa saran.

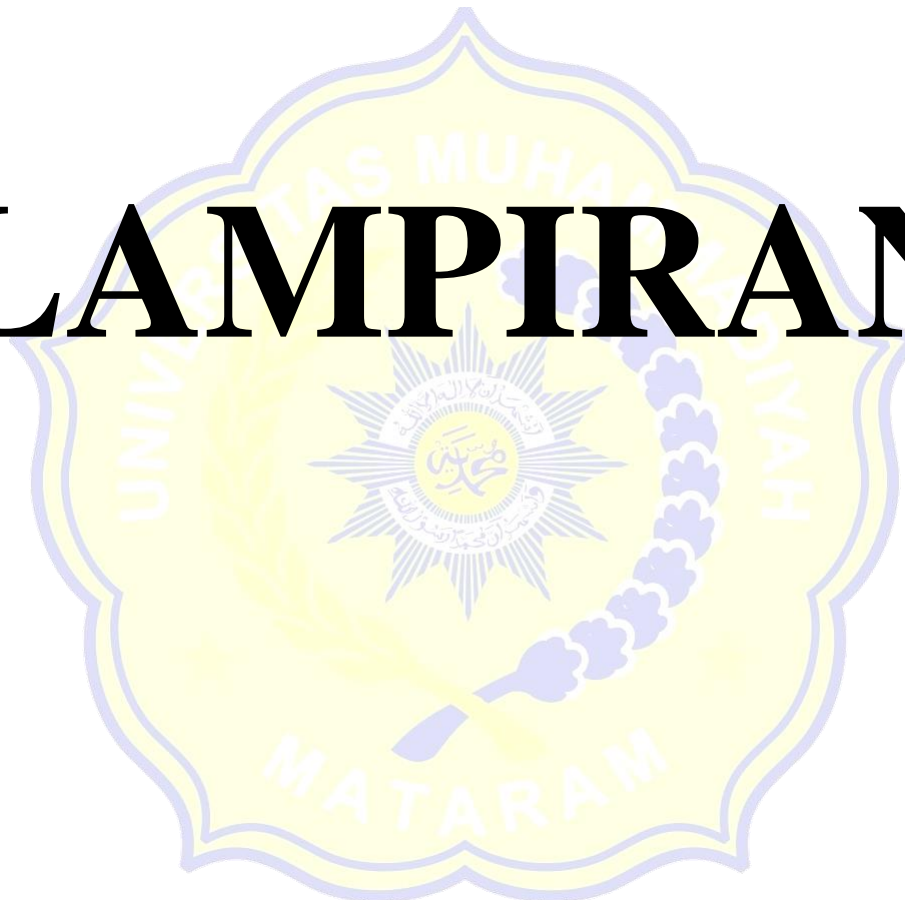
1. Untuk mempercepat proses penelitian, ada baiknya peneliti terlebih dahulu membuat gambaran tentang medan daerah penelitian untuk proses penelitian yang lebih muda dan cepat.
2. Untuk pemodelan penampang bawah permukaan struktur bawah permukaan dapat dikembangkan dengan pemodelan secara tiga dimensi menggunakan software Res3Dinv sehingga diperoleh gambaran struktur bawah permukaan lebih baik.

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LAMPIRAN



PENGAMBILAN DATA PADA LINTASAN 1



PENGAMBILAN DATA PADA LINTASAN 2



TIM PENELITIAN



DATA LINTASAN 1

No	Datum	n	A	B	M	N	I1	V1	I2	V2
1	1	1	1	2	3	4	101	12.6	100.8	12.6
2	2	2	1	2	4	5	101.2	5.7	101.2	1.1
3	3	3	1	2	5	6	101	4.2	101.2	2.3
4	4	4	1	2	6	7	101.5	2.4	101.5	2.5
5	5	5	1	2	7	8	101.8	2	101.4	1.7
6	6	6	1	2	8	9	101.5	0.6	101.5	0.9
7	7	7	1	2	9	10	100.7	0.7	101.7	1
8	8	8	1	2	10	11	101.7	0.8	100.8	0.3
9	9	9	1	2	11	12	101.7	0.4	101.8	0.4
10	10	10	1	2	12	13	101.7	9.3	101.7	9
11	1	1	2	3	4	5	42.6	19.9	42.8	21.2
12	2	2	2	3	5	6	40.7	1.6	4.13	1.4
13	3	3	2	3	6	7	40.1	1.1	40	1.1
14	4	4	2	3	7	8	38.3	1	39	1.8
15	5	5	2	3	8	9	38	35.6	37.7	39.1
16	6	6	2	3	9	10	37	14.4	36.7	16.9
17	7	7	2	3	10	11	36.3	28.3	35.9	28.8
18	8	8	2	3	11	12	35.3	7.7	35.3	8.1
19	9	9	2	3	12	13	34.9	13.8	34.5	16.5
20	1	1	3	4	5	6	65.2	6.2	65.1	6.1
21	2	2	3	4	6	7	64.7	2.8	64.8	2.8
22	3	3	3	4	7	8	64.3	2.2	64.5	1.3
23	4	4	3	4	8	9	63.7	0.4	63.8	0.1
24	5	5	3	4	9	10	63.1	1.6	63.5	1.5
25	6	6	3	4	10	11	62.8	11	62.3	7.5
26	7	7	3	4	11	12	61.8	6.4	62.3	4.5
27	8	8	3	4	12	13	61.5	17.8	61.5	20.3
28	1	1	4	5	6	7	111	13.6	112.2	13.5
29	2	2	4	5	7	8	112.3	4.3	112.5	5
30	3	3	4	5	8	9	112.5	4.1	112.6	1.9
31	4	4	4	5	9	10	112.4	18.1	112.7	18.6
32	5	5	4	5	10	11	111.8	4.6	112.6	3.4
33	6	6	4	5	11	12	112.5	2.6	112.6	1.8
34	7	7	4	5	12	13	112.7	15.2	112.6	17
35	1	1	5	6	7	8	133	16.7	133.1	18.3
36	2	2	5	6	8	9	131.4	12	133.2	13.3

37	3	3	5	6	9	10	133	6.4	132.1	4.1
38	4	4	5	6	10	11	133.3	4.6	133.5	3
39	5	5	5	6	11	12	132.4	1.1	129.3	1
40	6	6	5	6	12	13	132.1	0.2	132.8	0.3
41	1	1	6	7	8	9	132.1	27.4	132	27.3
42	2	2	6	7	9	10	129.7	12	130	12.3
43	3	3	6	7	10	11	131.9	5.9	131.9	5.9
44	4	4	6	7	11	12	131.9	2.8	131.7	2.7
45	5	5	6	7	12	13	131.6	1.9	131.4	1.1
46	1	1	7	8	9	10	142.6	35.5	142.2	33.9
47	2	2	7	8	10	11	143.8	13.5	142.4	12
48	3	3	7	8	11	12	144.4	5.6	144.2	5.9
49	4	4	7	8	12	13	144.7	1.5	144.8	1.9
50	1	1	8	9	10	11	204.6	48.9	204.9	48.5
51	2	2	8	9	11	12	204.6	14.1	204.9	14.8
52	3	3	8	9	12	13	202.9	4.1	204.1	3.9
53	1	1	9	10	11	12	202	55.2	201	55.2
54	2	2	9	10	12	13	202.7	10.8	201.9	10.6
55	1	1	10	11	12	13	160.7	28.6	155	27.5

DATA HASIL MICROSOFT EXCEL LINTASAN 1

R1	R2	a	$k = \frac{\pi a n}{(n+1)(n+2)}$	$\rho_1 = k \cdot R1$	$\rho_2 = k \cdot R2$	ρ (rho)	lokasi x datum ditengah konfigurasi
0.12475	0.125	10	188.5714286	23.524752	23.57143	23.54809	15
0.05632	0.01087	10	754.2857143	42.484472	8.198758	25.34161	20
0.04158	0.02273	10	1885.714286	78.415842	42.85714	60.63649	25
0.02365	0.02463	10	3771.428571	89.176636	92.89233	91.03448	30
0.01965	0.01677	10	6600	129.66601	110.6509	120.1584	35
0.00591	0.00887	10	10560	62.423645	93.63547	78.02956	40
0.00695	0.00983	10	15840	110.10924	155.7522	132.9307	45
0.00787	0.00298	10	22628.57143	178.00253	67.34694	122.6747	50
0.00393	0.00393	10	31114.28571	122.37674	122.2565	122.3166	55
0.09145	0.0885	10	41485.71429	3793.6789	3671.302	3732.491	60
0.46714	0.49533	10	188.5714286	88.088531	93.40454	90.74654	20
0.03931	0.33898	10	754.2857143	29.65251	255.6901	142.6713	25
0.02743	0.0275	10	1885.714286	51.727823	51.85714	51.79248	30

0.02611	0.04615	10	3771.428571	98.47072	174.0659	136.2683	35
0.93684	1.03714	10	6600	6183.1579	6845.093	6514.125	40
0.38919	0.46049	10	10560	4109.8378	4862.779	4486.309	45
0.77961	0.80223	10	15840	12349.091	12707.3	12528.19	50
0.21813	0.22946	10	22628.57143	4935.9773	5192.392	5064.185	55
0.39542	0.47826	10	31114.28571	12303.07	14880.75	13591.91	60
0.09509	0.0937	10	188.5714286	17.931639	17.66952	17.80058	25
0.04328	0.04321	10	754.2857143	32.642968	32.59259	32.61778	30
0.03421	0.02016	10	1885.714286	64.518996	38.00664	51.26282	35
0.00628	0.00157	10	3771.428571	23.68244	5.91133	14.79689	40
0.02536	0.02362	10	6600	167.35341	155.9055	161.6295	45
0.17516	0.12039	10	10560	1849.6815	1271.268	1560.475	50
0.10356	0.07223	10	15840	1640.3883	1144.141	1392.265	55
0.28943	0.33008	10	22628.57143	6549.4077	7469.268	7009.338	60
0.12252	0.12032	10	188.5714286	23.104247	22.68908	22.89666	30
0.03829	0.04444	10	754.2857143	28.881822	33.52381	31.20282	35
0.03644	0.01687	10	1885.714286	68.72381	31.81934	50.27157	40
0.16103	0.16504	10	3771.428571	607.32079	622.4363	614.8785	45
0.04114	0.0302	10	6600	271.55635	199.2895	235.4229	50
0.02311	0.01599	10	10560	244.05333	168.8099	206.4316	55
0.13487	0.15098	10	15840	2136.362	2391.474	2263.918	60
0.12556	0.13749	10	188.5714286	23.677766	25.9268	24.80228	35
0.09132	0.09985	10	754.2857143	68.88454	75.31532	72.09993	40
0.04812	0.03104	10	1885.714286	90.741139	58.52709	74.63411	45
0.03451	0.02247	10	3771.428571	130.14682	84.7512	107.449	50
0.00831	0.00773	10	6600	54.833837	51.04408	52.93896	55
0.00151	0.00226	10	10560	15.987888	23.85542	19.92165	60
0.20742	0.20682	10	188.5714286	39.113226	39	39.05661	40
0.09252	0.09462	10	754.2857143	69.787422	71.36703	70.57723	45
0.04473	0.04473	10	1885.714286	84.349616	84.34962	84.34962	50
0.02123	0.0205	10	3771.428571	80.060652	77.31858	78.68962	55
0.01444	0.00837	10	6600	95.288754	55.25114	75.26995	60
0.24895	0.2384	10	188.5714286	46.9445	44.95479	45.94965	45
0.09388	0.08427	10	754.2857143	70.812637	63.5634	67.18802	50
0.03878	0.04092	10	1885.714286	73.130194	77.15475	75.14247	55
0.01037	0.01312	10	3771.428571	39.095666	49.48698	44.29132	60
0.239	0.2367	10	188.5714286	45.069124	44.63501	44.85207	50
0.06891	0.07223	10	754.2857143	51.981567	54.48233	53.23195	55
0.02021	0.01911	10	1885.714286	38.104626	36.03276	37.06869	60

0.27327	0.27463	10	188.5714286	51.53041	51.78678	51.6586	55
0.05328	0.0525	10	754.2857143	40.188879	39.60093	39.89491	60
0.17797	0.17742	10	188.5714286	33.560316	33.45622	33.50827	60

I1 = Nilai Arus 1

V1 = Nilai Arus 2

I2 = Nilai Potensial 1

V2 = Nilai Potensial 2

R = Hambatan

a = Jarak Spasi Elektroda

k = Faktor Geometri

n = Faktor Pengali

ρ = Resistivitas Semu

DATA LINTASAN 2

No	Datum	n	A	B	M	N	I1	V1	I2	V2
1	1	1	1	2	3	4	188.9	160	193	164.2
2	2	2	1	2	4	5	190.8	30.8	190.2	30.8
3	3	3	1	2	5	6	190.8	14.5	190.4	14.1
4	4	4	1	2	6	7	190.9	5.5	190.7	6.1
5	5	5	1	2	7	8	191.3	3.7	191	3.4
6	6	6	1	2	8	9	226.5	2	194.7	2.3
7	7	7	1	2	9	10	225.4	2.4	224.9	6
8	8	8	1	2	10	11	223.6	121	222.7	114.8
9	9	9	1	2	11	12	221.5	12.7	220.6	12.5
10	10	10	1	2	12	13	220.4	54.8	218.6	52.4
11	1	1	2	3	4	5	24.7	10.3	28.8	10.1
12	2	2	2	3	5	6	25.1	12.8	27.4	13
13	3	3	2	3	6	7	28.9	0.7	34.9	1.1
14	4	4	2	3	7	8	31.7	1	38.3	2.6
15	5	5	2	3	8	9	37.1	3	44.2	1.5
16	6	6	2	3	9	10	54	1.3	66.7	5

17	7	7	2	3	10	11	137.2	60	125.6	58.7
18	8	8	2	3	11	12	154.9	4.3	156.2	3.3
19	9	9	2	3	12	13	178.9	46.9	174.4	45.4
20	1	1	3	4	5	6	141.4	64	143.7	64.7
21	2	2	3	4	6	7	145.2	16.2	144.7	16.5
22	3	3	3	4	7	8	145.3	6.9	146	7
23	4	4	3	4	8	9	144.7	3.4	144.6	3.7
24	5	5	3	4	9	10	143.6	3.5	143	3.7
25	6	6	3	4	10	11	141.4	1.3	141.9	1.3
26	7	7	3	4	11	12	139.7	2.1	139	1.9
27	8	8	3	4	12	13	136.9	0.2	135.3	0.2
28	1	1	4	5	6	7	25.4	9.1	31.4	11.1
29	2	2	4	5	7	8	389	5.5	32.1	4.6
30	3	3	4	5	8	9	30.9	1.7	36.6	2.1
31	4	4	4	5	9	10	36.7	1.5	45.8	0.6
32	5	5	4	5	10	11	54	1	66.4	1
33	6	6	4	5	11	12	87	1.6	90.2	1.7
34	7	7	4	5	12	13	110	0.6	118	0.7
35	1	1	5	6	7	8	182.1	65.2	183.5	65.4
36	2	2	5	6	8	9	173.6	50.7	181.8	52.3
37	3	3	5	6	9	10	173.2	17.8	159.7	17.2
38	4	4	5	6	10	11	157.8	13.5	152.8	15.4
39	5	5	5	6	11	12	107.3	2.4	100.4	2.1
40	6	6	5	6	12	13	71.4	5.4	79.1	4.7
41	1	1	6	7	8	9	91.6	35.3	80.7	59.4
42	2	2	6	7	9	10	86.7	18.3	86.3	15.3
43	3	3	6	7	10	11	88	13.1	107.4	11.1
44	4	4	6	7	11	12	181.6	5.7	166.9	4.9
45	5	5	6	7	12	13	192.6	5.4	188.2	5.4
46	1	1	7	8	9	10	193.2	105.2	195.5	105
47	2	2	7	8	10	11	195.8	6.5	196	6.4
48	3	3	7	8	11	12	196.1	14	196	14.2
49	4	4	7	8	12	13	192.5	6.7	197.7	7.1
50	1	1	8	9	10	11	177.9	158.7	178.3	159.8
51	2	2	8	9	11	12	176.2	74.8	178.2	75.1
52	3	3	8	9	12	13	174.5	0.1	175.1	0.4
53	1	1	9	10	11	12	170.8	310.2	151.8	262.8
54	2	2	9	10	12	13	44.3	8.1	53.3	9.9
55	1	1	10	11	12	13	214.5	131.9	214	131.5

DATA HASIL MICROSOFT EXCEL LINTASAN 2

R1	R2	a	$k=\pi a n$	$\rho_1=k \cdot R1$	$\rho_2=k \cdot R2$	ρ (rho)	lokasi x datum ditengah konfigurasi
0.84701	0.85078	10	188.571	159.7217	160.4323	160.077	15
0.16143	0.16193	10	754.286	121.761	122.1451	121.9531	20
0.076	0.07405	10	1885.71	143.3064	139.6459	141.4761	25
0.02881	0.03199	10	3771.43	108.6582	120.6383	114.6482	30
0.01934	0.0178	10	6600	127.6529	117.4869	122.5699	35
0.00883	0.01181	10	10560	93.24503	124.7458	108.9954	40
0.01065	0.02668	10	15840	168.6602	422.5878	295.624	45
0.54114	0.51549	10	22628.6	12245.34	11664.84	11955.09	50
0.05734	0.05666	10	31114.3	1783.979	1763.049	1773.514	55
0.24864	0.23971	10	41485.7	10314.96	9944.426	10129.69	60
0.417	0.35069	10	188.571	78.63505	66.13095	72.383	20
0.50996	0.47445	10	754.286	384.6557	357.8728	371.2642	25
0.02422	0.03152	10	1885.71	45.67474	59.43512	52.55493	30
0.03155	0.06789	10	3771.43	118.9725	256.0239	187.4982	35
0.08086	0.03394	10	6600	533.6927	223.9819	378.8373	40
0.02407	0.07496	10	10560	254.2222	791.6042	522.9132	45
0.43732	0.46736	10	15840	6927.114	7402.93	7165.022	50
0.02776	0.02113	10	22628.6	628.1656	478.0684	553.117	55
0.26216	0.26032	10	31114.3	8156.847	8099.705	8128.276	60
0.45262	0.45024	10	188.571	85.35058	84.90307	85.12682	25
0.11157	0.11403	10	754.286	84.15584	86.01047	85.08315	30
0.04749	0.04795	10	1885.71	89.54872	90.41096	89.97984	35
0.0235	0.02559	10	3771.43	88.61684	96.50267	92.55976	40
0.02437	0.02587	10	6600	160.8635	170.7692	165.8164	45
0.00919	0.00916	10	10560	97.08628	96.74419	96.91523	50
0.01503	0.01367	10	15840	238.1102	216.518	227.3141	55
0.00146	0.00148	10	22628.6	33.05854	33.44948	33.25401	60
0.35827	0.3535	10	188.571	67.55906	66.6606	67.10983	30
0.01414	0.1433	10	754.286	10.66471	108.0908	59.37775	35
0.05502	0.05738	10	1885.71	103.7448	108.1967	105.9708	40
0.04087	0.0131	10	3771.43	154.1456	49.40736	101.7765	45
0.01852	0.01506	10	6600	122.2222	99.39759	110.8099	50
0.01839	0.01885	10	10560	194.2069	199.0244	196.6156	55
0.00545	0.00593	10	15840	86.4	93.9661	90.18305	60
0.35805	0.3564	10	188.571	67.51706	67.20747	67.36227	35

0.29205	0.28768	10	754.286	220.2897	216.992	218.6408	40
0.10277	0.1077	10	1885.71	193.7974	203.0951	198.4463	45
0.08555	0.10079	10	3771.43	322.6507	380.1047	351.3777	50
0.02237	0.02092	10	6600	147.6235	138.0478	142.8356	55
0.07563	0.05942	10	10560	798.6555	627.4589	713.0572	60
0.38537	0.73606	10	188.571	72.66999	138.7998	105.7349	40
0.21107	0.17729	10	754.286	159.2091	133.7262	146.4676	45
0.14886	0.10335	10	1885.71	280.7143	194.8923	237.8033	50
0.03139	0.02936	10	3771.43	118.3763	110.725	114.5507	55
0.02804	0.02869	10	6600	185.0467	189.373	187.2099	60
0.54451	0.53708	10	188.571	102.6797	101.2788	101.9792	45
0.0332	0.03265	10	754.286	25.04013	24.62974	24.83493	50
0.07139	0.07245	10	1885.71	134.6252	136.6181	135.6216	55
0.03481	0.03591	10	3771.43	131.2653	135.4433	133.3543	60
0.89207	0.89624	10	188.571	168.2197	169.0057	168.6127	50
0.42452	0.42144	10	754.286	320.2076	317.8836	319.0456	55
0.00057	0.00228	10	1885.71	1.080639	4.307743	2.694191	60
1.81616	1.73123	10	188.571	342.4757	326.4596	334.4677	55
0.18284	0.18574	10	754.286	137.9168	140.1018	139.0093	60
0.61492	0.61449	10	188.571	115.956	115.8745	115.9153	60

I1 = Nilai Arus 1

V1 = Nilai Arus 2

I2 = Nilai Potensial 1

V2 = Nilai Potensial 2

R = Hambatan

a = Jarak Spasi Elektroda

k = Faktor Geometri

n = Faktor Pengali

ρ = Resistivitas Semu