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LAMPIRAN

LAMPIRAN A
DATA KUALITAS BATUBARA DI *TRUCK HOPPER*
TMCT

**DATA KUALITAS BATUBARA PREMIUM DI TRUCK HOPPER TMCT BULAN FEBRUARI SAMPAI MARET 2021
UNTUK BUYER A**

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>	<i>Sulphur</i>	
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
21-Feb							
22-Feb							
23-Feb	6.619	22,52	4,39	42,86	32,59	0,11	5.157
	2.459	22,69	4,75	42,35	32,32	0,12	5.118
24-Feb							
25-Feb							
26-Feb							
27-Feb	5.056	21,90	3,63	42,54	34,56	0,11	5.258
	9.708	22,87	3,72	41,86	35,06	0,12	5.206
28-Feb	10.411	22,28	4,14	41,79	34,21	0,12	5.188
1-Mar	10.495	21,89	4,62	41,21	33,73	0,11	5.167
	8.792	21,14	4,30	41,67	33,98	0,10	5.206

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>	<i>Sulphur</i>	
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
2-Mar	11.527	21,83	4,60	41,53	33,45	0,11	5.198
	7.203	22,03	4,75	42,23	32,43	0,11	5.171
3-Mar	10.536	22,06	3,40	42,16	35,43	0,11	5.250
	8.676	22,45	4,62	41,41	33,54	0,12	5.130
TOTAL	91.482	22,11	4,24	41,86	33,91	0,11	5.190

DATA KUALITAS BATUBARA MEDIUM DI TRUCK HOPPER TMCT BULAN FEBRUARI SAMPAI MARET 2021 UNTUK BUYER A

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>	<i>Sulphur</i>	
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
21-Feb	22.373	26,06	4,52	42,46	32,17	0,12	4.784
22-Feb	18.457	25,90	4,53	42,57	32,04	0,10	4.794
	17.585	25,64	3,66	41,76	34,74	0,10	4.883
23-Feb	13.369	25,86	4,06	42,41	33,23	0,12	4.813
	14.316	25,80	3,81	43,00	33,18	0,11	4.850
24-Feb	17.218	25,81	4,07	42,05	33,56	0,11	4.821

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>	<i>Sulphur</i>	
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
	11.676	25,73	4,48	42,33	32,38	0,11	4.801
25-Feb	12.880	26,48	4,08	42,14	33,46	0,11	4.774
	15.137	26,73	4,93	41,94	31,79	0,11	4.715
	17.042	26,03	4,55	42,86	31,71	0,11	4.775
26-Feb	18.346	25,83	3,68	42,24	34,22	0,11	4.812
	11.980	25,94	4,36	43,11	31,88	0,12	4.808
27-Feb	13.422	26,99	3,92	42,47	33,48	0,12	4.758
	18.367	25,87	4,37	41,67	33,30	0,12	4.794
1-Mar	14.748	26,27	3,78	42,26	33,98	0,12	4.805
	13.266	25,85	3,47	42,00	34,92	0,10	4.844
	16.578	26,10	3,71	41,87	34,53	0,12	4.821
2-Mar	13.874	26,66	3,88	42,54	33,48	0,11	4.783
	16.095	26,80	3,79	43,10	33,13	0,12	4.779
3-Mar	10.301	26,76	3,77	42,12	34,15	0,12	4.774
	TOTAL	307.030	26,13	4,09	42,34	33,24	0,11

**DATA KUALITAS BATUBARA MEDIUM DI *TRUCK HOPPER* TMCT BULAN MARET SAMPAI APRIL 2021 UNTUK
BUYER B**

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>					
		(<i>arb</i> %)	(<i>adb</i> %)	(<i>adb</i> %)	(<i>adb</i> %)	(<i>adb</i> %)	<i>adb</i> (kcal/kg)
21-Mar	20.057	25,82	4,21	42,10	33,20	0,12	4.799
22-Mar	11.770	25,85	3,49	42,30	34,58	0,11	4.836
	4.973	25,77	4,78	41,96	32,11	0,11	4.770
23-Mar	11.374	25,86	3,70	42,20	34,22	0,15	4.832
	8.439	25,87	3,80	41,87	34,33	0,20	4.837
24-Mar	14.011	25,82	4,40	42,73	32,16	0,16	4.799
	11.824	25,76	3,56	44,91	31,83	0,18	4.855
25-Mar	8.063	25,88	3,92	42,25	33,70	0,19	4.824
	3.621	25,75	3,67	42,39	34,10	0,18	4.858
26-Mar	12.846	25,82	4,08	42,19	33,40	0,18	4.825
	10.743	25,80	4,53	42,35	32,27	0,14	4.779
27-Mar	20.147	25,82	4,23	42,82	32,44	0,16	4.803
	34.622	25,80	4,10	43,23	32,32	0,19	4.810
28-Mar	19.408	25,24	3,66	42,09	34,42	0,11	4.880

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
29-Mar	18.322	26,06	4,81	42,27	31,73	0,12	4.767
	17.520	25,50	3,97	41,44	34,39	0,15	4.841
30-Mar	17.160	24,77	3,75	42,62	33,69	0,13	4.846
	18.802	25,24	3,70	42,54	33,87	0,09	4.855
31-Mar	19.229	25,68	3,72	43,13	33,25	0,13	4.848
	18.110	25,86	3,83	42,81	33,32	0,11	4.831
1-Apr	12.872	25,72	3,75	41,91	34,40	0,13	4.830
	17.857	24,91	3,39	41,78	35,31	0,14	4.868
TOTAL	331.770	25,63	3,96	42,51	33,35	0,14	4.827

DATA KUALITAS BATUBARA SM DI TRUCK HOPPER TMCT BULAN MARET SAMPAI APRIL 2021 UNTUK BUYER B

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
21-Mar	37.587	36,03	4,31	43,28	28,62	0,11	4.050
22-Mar	38.686	35,88	4,38	43,31	28,43	0,11	4.056
	40.430	35,80	4,63	43,52	27,67	0,13	4.068
23-Mar	34.085	36,23	4,65	42,16	28,99	0,13	4.030

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
	31.305	35,78	3,84	42,86	30,08	0,13	4.072
24-Mar	24.574	35,80	4,11	42,69	29,66	0,14	4.067
	22.298	36,08	4,18	42,97	29,22	0,13	4.055
25-Mar	26.552	35,89	3,99	42,96	29,66	0,14	4.070
	25.577	35,81	4,44	42,30	29,32	0,13	4.058
26-Mar	35.907	35,76	4,15	42,47	29,78	0,14	4.079
	29.223	36,01	4,15	42,30	29,95	0,13	4.055
27-Mar	31.973	35,79	4,20	42,69	29,46	0,14	4.065
	62.708	35,67	3,93	43,04	29,71	0,13	4.075
28-Mar	33.883	35,82	4,16	43,09	29,16	0,11	4.067
	33.914	35,29	3,95	42,95	29,76	0,11	4.085
29-Mar	28.151	35,62	4,70	41,82	29,21	0,23	4.061
	40.777	35,22	4,32	42,14	29,75	0,12	4.092
30-Mar	34.728	35,80	3,90	42,37	30,45	0,11	4.073
	40.058	35,49	4,50	41,84	29,63	0,16	4.083
31-Mar	31.188	35,64	4,53	42,75	28,66	0,14	4.067
	43.473	35,72	4,52	42,73	28,70	0,12	4.073
1-Apr	34.839	35,85	4,12	42,79	29,55	0,12	4.063
	TOTAL	761.916	35,75	4,26	42,70	29,32	0,13

DATA KUALITAS BATUBARA MEDIUM DI TRUCK HOPPER TMCT BULAN APRIL 2021 UNTUK BUYER C

<i>Date</i>	<i>Tonnage</i>	Total Moisture (arb %)	Ash (adb %)	Volatile Matter (adb %)	Fixed Carbon (adb %)	Total Sulphur (adb %)	Calorific Value adb (kkal/kg)
11-Apr	26.313	25,69	4,06	42,12	33,52	0,11	4.802
12-Apr	19.435	25,03	3,61	42,99	33,62	0,11	4.891
	10.284	24,91	4,12	41,72	33,78	0,11	4.879
13-Apr	16.447	25,10	3,65	41,77	34,77	0,11	4.833
	12.333	25,73	3,58	42,76	33,91	0,11	4.754
14-Apr	13.632	25,24	3,69	42,68	33,76	0,11	4.818
	11.979	24,62	3,73	42,78	33,58	0,11	4.856
15-Apr	12.835	25,13	3,77	42,30	33,97	0,11	4.837
	5.693	25,77	3,72	42,24	34,13	0,12	4.827
16-Apr	6.369	25,03	3,63	42,93	33,65	0,11	4.841
	10.690	25,25	3,45	42,65	34,32	0,11	4.827
17-Apr	13.770	25,47	3,58	42,26	34,42	0,11	4.806
	13.037	25,57	3,74	42,65	33,67	0,12	4.811
TOTAL	172.817	25,29	3,74	42,43	33,91	0,11	4.829

DATA KUALITAS BATUBARA SM DI TRUCK HOPPER TMCT BULAN APRIL 2021 UNTUK BUYER C

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>					
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
11-Apr	34.669	35,60	3,94	41,77	30,96	0,10	4.076
12-Apr	31.721	35,47	4,04	41,82	30,69	0,10	4.087
	32.697	35,47	4,06	41,80	30,65	0,12	4.070
13-Apr	23.970	35,64	4,89	41,85	28,75	0,10	4.053
	33.043	35,69	4,61	42,37	28,86	0,10	4.073
14-Apr	29.715	35,70	3,97	42,19	30,47	0,11	4.075
	32.612	35,79	4,00	42,43	30,17	0,10	4.058
15-Apr	34.991	35,60	4,07	43,51	28,93	0,11	4.071
	38.065	36,25	4,08	43,29	29,13	0,11	4.052
16-Apr	30.934	35,41	3,97	42,62	30,03	0,10	4.074
	27.882	34,99	4,10	43,44	28,93	0,12	4.106
17-Apr	26.985	35,11	3,90	42,32	30,49	0,11	4.103
	30.405	35,67	4,00	41,89	30,69	0,09	4.079
TOTAL	407.689	35,59	4,11	42,43	29,91	0,11	4.074

DATA KUALITAS BATUBARA MEDIUM DI TRUCK HOPPER TMCT BULAN APRIL 2021 UNTUK BUYER D

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>					
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
21-Apr	19.148	25,18	3,65	44,26	32,28	0,11	4.850
	24.201	25,11	3,55	43,84	32,91	0,10	4.884
22-Apr	21.276	24,75	4,08	41,46	34,14	0,11	4.859
	24.186	24,13	3,69	41,69	34,75	0,11	4.886
23-Apr	11.994	25,58	3,79	41,66	34,56	0,10	4.795
	12.486	25,12	3,85	42,36	33,73	0,11	4.873
24-Apr	10.961	24,97	3,38	42,98	34,14	0,10	4.888
	15.861	25,05	3,58	43,61	33,07	0,10	4.857
25-Apr	27.802	25,53	3,97	41,44	34,38	0,10	4.857
26-Apr	22.862	24,86	3,86	42,81	33,27	0,12	4.872
	23.282	24,80	3,62	43,31	33,29	0,12	4.862
27-Apr	20.856	25,48	3,40	42,27	34,82	0,10	4.816
	17.027	25,31	3,39	41,75	35,35	0,10	4.868
TOTAL	251.942	25,04	3,69	42,56	33,88	0,11	4.860

DATA KUALITAS BATUBARA MEDIUM DI TRUCK HOPPER TMCT BULAN APRIL 2021 UNTUK BUYER D

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>					
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
21-Apr	37.575	35,37	3,94	42,11	30,62	0,10	4.075
	28.821	35,02	3,81	42,06	30,96	0,10	4.102
22-Apr	36.128	35,33	4,24	41,78	30,28	0,12	4.072
	28.632	35,16	3,66	43,00	30,35	0,13	4.114
23-Apr	36.091	35,38	4,53	42,11	29,30	0,11	4.065
	30.076	35,37	4,12	42,63	29,70	0,11	4.090
24-Apr	40.468	35,00	3,96	42,44	30,24	0,12	4.101
	35.969	35,40	3,94	43,38	29,35	0,12	4.098
25-Apr	41.889	35,54	4,21	42,81	29,32	0,09	4.083
26-Apr	30.514	34,79	3,95	43,12	29,58	0,12	4.113
	32.372	35,40	3,69	44,44	28,84	0,12	4.082
27-Apr	33.085	35,06	4,14	42,87	29,41	0,13	4.114
	39.877	35,76	4,44	44,59	27,03	0,12	4.045
TOTAL	451.497	35,29	4,06	42,88	29,57	0,11	4.087

**DATA KUALITAS BATUBARA MEDIUM DI *TRUCK HOPPER* TMCT BULAN APRIL SAMPAI MEI 2021 UNTUK
*BUYER E***

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
21-Apr	19.148	25,18	3,65	44,26	32,28	0,11	4.850
	24.201	25,11	3,55	43,84	32,91	0,10	4.884
22-Apr	21.276	24,75	4,08	41,46	34,14	0,11	4.859
	24.186	24,13	3,69	41,69	34,75	0,11	4.886
23-Apr	11.994	25,58	3,79	41,66	34,56	0,10	4.795
	12.486	25,12	3,85	42,36	33,73	0,11	4.873
24-Apr	10.961	24,97	3,38	42,98	34,14	0,10	4.888
	15.861	25,05	3,58	43,61	33,07	0,10	4.857
25-Apr	27.802	25,53	3,97	41,44	34,38	0,10	4.857
26-Apr	22.862	24,86	3,86	42,81	33,27	0,12	4.872
	23.282	24,80	3,62	43,31	33,29	0,12	4.862
27-Apr	20.856	25,48	3,40	42,27	34,82	0,10	4.816
	17.027	25,31	3,39	41,75	35,35	0,10	4.868
28-Apr	17.947	25,52	3,47	42,63	34,29	0,14	4.880
	18.882	24,69	4,39	41,78	33,13	0,20	4.869

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
29-Apr	19.164	24,76	4,26	43,12	32,07	0,13	4.835
	19.222	25,93	4,84	42,60	31,33	0,13	4.776
30-Apr	20.806	25,19	3,44	43,11	33,88	0,12	4.873
	21.064	25,49	4,14	44,56	30,90	0,12	4.813
1-May	17.805	25,76	4,28	42,44	32,71	0,12	4.801
	16.918	24,24	3,07	41,95	35,85	0,11	4.921
TOTAL	403.750	25,10	3,81	42,66	33,53	0,12	4.855

DATA KUALITAS BATUBARA SM DI TRUCK HOPPER TMCT BULAN APRIL SAMPAI MEI 2021 UNTUK BUYER E

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
21-Apr	37.575	35,37	3,94	42,11	30,62	0,10	4.075
	28.821	35,02	3,81	42,06	30,96	0,10	4.102
22-Apr	36.128	35,33	4,24	41,78	30,28	0,12	4.072
	28.632	35,16	3,66	43,00	30,35	0,13	4.114
23-Apr	36.091	35,38	4,53	42,11	29,30	0,11	4.065

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
	30.076	35,37	4,12	42,63	29,70	0,11	4.090
24-Apr	40.468	35,00	3,96	42,44	30,24	0,12	4.101
	35.969	35,40	3,94	43,38	29,35	0,12	4.098
25-Apr	41.889	35,54	4,21	42,81	29,32	0,09	4.083
26-Apr	30.514	34,79	3,95	43,12	29,58	0,12	4.113
	32.372	35,40	3,69	44,44	28,84	0,12	4.082
27-Apr	33.085	35,06	4,14	42,87	29,41	0,13	4.114
	39.877	35,76	4,44	44,59	27,03	0,12	4.045
28-Apr	41.233	35,56	4,49	43,25	28,24	0,15	4.042
	34.580	35,72	4,77	42,26	28,63	0,22	4.034
29-Apr	39.232	35,74	3,45	43,37	30,46	0,15	4.086
	35.696	35,45	3,49	41,76	31,96	0,15	4.112
30-Apr	35.441	34,93	3,61	42,05	31,42	0,14	4.112
	31.350	35,59	4,42	42,83	28,83	0,14	4.064
1-May	34.093	35,48	3,99	42,37	30,25	0,13	4.101
	37.787	35,23	4,44	43,55	28,06	0,13	4.073
TOTAL	740.909	35,36	4,07	42,81	29,63	0,13	4.084

**DATA KUALITAS BATUBARA MEDIUM DI *TRUCK HOPPER* TMCT BULAN APRIL SAMPAI MEI 2021 UNTUK
BUYER F**

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
21-Apr	19.148	25,18	3,65	44,26	32,28	0,11	4.850
	24.201	25,11	3,55	43,84	32,91	0,10	4.884
22-Apr	21.276	24,75	4,08	41,46	34,14	0,11	4.859
	24.186	24,13	3,69	41,69	34,75	0,11	4.886
23-Apr	11.994	25,58	3,79	41,66	34,56	0,10	4.795
	12.486	25,12	3,85	42,36	33,73	0,11	4.873
24-Apr	10.961	24,97	3,38	42,98	34,14	0,10	4.888
	15.861	25,05	3,58	43,61	33,07	0,10	4.857
25-Apr	27.802	25,53	3,97	41,44	34,38	0,10	4.857
26-Apr	22.862	24,86	3,86	42,81	33,27	0,12	4.872
	23.282	24,80	3,62	43,31	33,29	0,12	4.862
27-Apr	20.856	25,48	3,40	42,27	34,82	0,10	4.816
	17.027	25,31	3,39	41,75	35,35	0,10	4.868
28-Apr	17.947	25,52	3,47	42,63	34,29	0,14	4.880

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>	<i>Carbon</i>		
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
	18.882	24,69	4,39	41,78	33,13	0,20	4.869
29-Apr	19.164	24,76	4,26	43,12	32,07	0,13	4.835
	19.222	25,93	4,84	42,60	31,33	0,13	4.776
30-Apr	20.806	25,19	3,44	43,11	33,88	0,12	4.873
	21.064	25,49	4,14	44,56	30,90	0,12	4.813
1-May	17.805	25,76	4,28	42,44	32,71	0,12	4.801
	16.918	24,24	3,07	41,95	35,85	0,11	4.921
2-May	22.731	24,76	3,64	42,49	34,07	0,11	4.844
TOTAL	426.481	25,09	3,80	42,65	33,56	0,12	4.854

DATA KUALITAS BATUBARA SM DI TRUCK HOPPER TMCT BULAN APRIL SAMPAI MEI 2021 UNTUK BUYER F

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed Carbon</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>			
		(<i>arb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	(<i>adb %</i>)	<i>adb (kkal/kg)</i>
21-Apr	37.575	35,37	3,94	42,11	30,62	0,10	4.075
	28.821	35,02	3,81	42,06	30,96	0,10	4.102

Date	Tonnage	Total	Ash	Volatile	Fixed Carbon	Total Sulphur	Calorific Value
		Moisture		Matter			
		(arb %)	(adb %)	(adb %)	(adb %)	(adb %)	adb (kkal/kg)
22-Apr	36.128	35,33	4,24	41,78	30,28	0,12	4.072
	28.632	35,16	3,66	43,00	30,35	0,13	4.114
23-Apr	36.091	35,38	4,53	42,11	29,30	0,11	4.065
	30.076	35,37	4,12	42,63	29,70	0,11	4.090
24-Apr	40.468	35,00	3,96	42,44	30,24	0,12	4.101
	35.969	35,40	3,94	43,38	29,35	0,12	4.098
25-Apr	41.889	35,54	4,21	42,81	29,32	0,09	4.083
26-Apr	30.514	34,79	3,95	43,12	29,58	0,12	4.113
	32.372	35,40	3,69	44,44	28,84	0,12	4.082
27-Apr	33.085	35,06	4,14	42,87	29,41	0,13	4.114
	39.877	35,76	4,44	44,59	27,03	0,12	4.045
28-Apr	41.233	35,56	4,49	43,25	28,24	0,15	4.042
	34.580	35,72	4,77	42,26	28,63	0,22	4.034
29-Apr	39.232	35,74	3,45	43,37	30,46	0,15	4.086
	35.696	35,45	3,49	41,76	31,96	0,15	4.112
30-Apr	35.441	34,93	3,61	42,05	31,42	0,14	4.112
	31.350	35,59	4,42	42,83	28,83	0,14	4.064
1-May	34.093	35,48	3,99	42,37	30,25	0,13	4.101

<i>Date</i>	<i>Tonnage</i>	<i>Total</i>	<i>Ash</i>	<i>Volatile</i>	<i>Fixed Carbon</i>	<i>Total Sulphur</i>	<i>Calorific Value</i>
		<i>Moisture</i>		<i>Matter</i>			
		<i>(arb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>(adb %)</i>	<i>adb (kkal/kg)</i>
	37.787	35,23	4,44	43,55	28,06	0,13	4073
2-May	47.708	35,13	5,11	43,71	26,40	0,11	4.072
TOTAL	788.617	35,34	4,13	42,87	29,43	0,13	4.083

LAMPIRAN B
HASIL *LINEAR PROGRAMMING* METODE SIMPLEKS

BUYER A (54.000 TON)

LINEAR PROGRAMMING RESULT

	X1	X2		RHS	Dual
Maximize	1	1			
Constraint 1	1	1	<=	54000	1
Constraint 2	1	0	<=	91482	0
Constraint 3	0	1	<=	307030	0
Constraint 4	22,11	26,13	<=	1323000	0
Constraint 5	4,24	4,09	<=	226800	0
Constraint 6	,11	,11	<=	5940	0
Constraint 7	5190	4800	>=	253800000	0
Constraint 8	5190	4800	<=	270000000	0
Solution->	21895,52	32104,48		54000	

SOLUTION LIST

Variable	Status	Value
X1	Basic	21895,52
X2	Basic	32104,48
slack 1	NONBasic	0
slack 2	Basic	69586,48
slack 3	Basic	274925,5
slack 4	NONBasic	0
slack 5	Basic	2655,67
slack 6	Basic	0
surplus 7	Basic	13939250
slack 8	Basic	2260748
Optimal Value (Z)		54000

ITERATIONS

Cj	Basic Variables	Quantity	1 X1	1 X2	0 slack 1	0 slack 2	0 slack 3	0 slack 4	0 slack 5	0 slack 6	0 artfcl 7	0 surplus 7	0 slack 8
Iteration 1													
0	slack 1	54.000	1	1	1	0	0	0	0	0	0	0	0
0	slack 2	91.482	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	307.030	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	1.323.000	22,11	26,13	0	0	0	1	0	0	0	0	0
0	slack 5	226.800	4,24	4,09	0	0	0	0	1	0	0	0	0
0	slack 6	5.940	0,11	0,11	0	0	0	0	0	1	0	0	0
1	artfcl 7	253.800.000	5.190	4.800	0	0	0	0	0	0	1	-1	0
0	slack 8	270.000.000	5.190	4.800	0	0	0	0	0	0	0	0	1
	zj	253.800.000	-5190	-4800	0	0	0	0	0	0	1	1	0
	cj-zj		5.190	4.800	0	0	0	0	0	0	0	-1	0
Iteration 2													
0	slack 1	5.098,27	0	0,0751	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	42.580,27	0	-0,9249	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	307.030	0	1	0	0	1	0	0	0	0	0	0

0	slack 4	241.782,63	0	5,6814	0	0	0	1	0	0	-0,0043	0,0043	0
0	slack 5	19.456,66	0	0,1686	0	0	0	0	1	0	-0,0008	0,0008	0
0	slack 6	560,8093	0	0,0083	0	0	0	0	0	1	0	0	0
0	X1	48.901,73	1	0,9249	0	0	0	0	0	0	0,0002	-0,0002	0
0	slack 8	16.200.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	0	0	0	0	0	0	0	0	0	2	0	0
	cj-zj		0	0	0	0	0	0	0	0	-1	0	0
Iteration													
3													
0	slack 1	5.098,27	0	0,0751	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	42.580,27	0	-0,9249	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	307.030	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	241.782,63	0	5,6814	0	0	0	1	0	0	-0,0043	0,0043	0
0	slack 5	19.456,66	0	0,1686	0	0	0	0	1	0	-0,0008	0,0008	0
0	slack 6	560,8093	0	0,0083	0	0	0	0	0	1	0	0	0
1	X1	48.901,73	1	0,9249	0	0	0	0	0	0	0,0002	-0,0002	0
0	slack 8	16.200.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	48.901,73	1	0,92	0	0	0	0	0	0	0	0	0
	cj-zj		0	0,0751	0	0	0	0	0	0	-0,0002	0,0002	0
Iteration													
4													
0	slack 1	1.900,38	0	0	1	0	0	-0,0132	0	0	-0,0001	0,0001	0

0	slack 2	81.938,92	0	0	0	1	0	0,1628	0	0	-0,0009	0,0009	0
0	slack 3	264.473,45	0	0	0	0	1	-0,176	0	0	0,0007	-0,0007	0
1	X2	42.556,55	0	1	0	0	0	0,176	0	0	-0,0007	0,0007	0
0	slack 5	12.281,07	0	0	0	0	0	-0,0297	1	0	-0,0007	0,0007	0
0	slack 6	209,0413	0	0	0	0	0	-0,0015	0	1	0	0	0
1	X1	9.543,08	1	0	0	0	0	-0,1628	0	0	0,0009	-0,0009	0
0	slack 8	16.200.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	52.099,63	1	1	0	0	0	0,01	0	0	0	0	0
	cj-zj		0	0	0	0	0	-0,0132	0	0	-0,0001	0,0001	0

Iteration

5

0	surplus 7	13.939.252,41	0	0	7.335,00	0	0	-97,015	0	0	-1	1	0
0	slack 2	69.586,48	0	0	-6,5	1	0	0,2488	0	0	0	0	0
0	slack 3	274.925,52	0	0	5,5	0	1	-0,2488	0	0	0	0	0
1	X2	32.104,48	0	1	-5,5	0	0	0,2488	0	0	0	0	0
0	slack 5	2.655,67	0	0	-5,065	0	0	0,0373	1	0	0	0	0
0	slack 6	0	0	0	-0,11	0	0	0	0	1	0	0	0
1	X1	21.895,52	1	0	6,5	0	0	-0,2488	0	0	0	0	0
0	slack 8	2.260.747,59	0	0	-7.335,00	0	0	97,015	0	0	0	0	1
	zj	54.000	1	1	1	0	0	0	0	0	0	0	0
	cj-zj		0	0	-1	0	0	0	0	0	0	0	0

BUYER B (10.000 TON)

LINEAR PROGRAMMING RESULT

	X1	X2		RHS	Dual
Maximize	1	1			
Constraint 1	1	1	<=	10000	1
Constraint 2	1	0	<=	331770	0
Constraint 3	0	1	<=	761916	0
Constraint 4	25,63	35,75	<=	300000	0
Constraint 5	3,96	4,26	<=	41000	0
Constraint 6	0,14	0,13	<=	1400	0
Constraint 7	4827	4068	>=	44500000	0
Newrow 8	4827	4068	<=	49000000	0
Solution->	5681,82	4318,18		10000	

SOLUTION LIST

Variable	Status	Value
X1	Basic	5681,82
X2	Basic	4318,18
slack 1	NONBasic	0
slack 2	Basic	326088,2
slack 3	Basic	757597,8
slack 4	NONBasic	0
slack 5	Basic	104,54
slack 6	Basic	43,18
surplus 7	Basic	492499,7
slack 8	Basic	4007500
Optimal Value (Z)		10000

ITERATIONS

Cj	Basic Variables	Quantity	1 X1	1 X2	0 slack 1	0 slack 2	0 slack 3	0 slack 4	0 slack 5	0 slack 6	0 artfcl 7	0 surplus 7	0 slack 8
Iteration 1													
0	slack 1	10.000	1	1	1	0	0	0	0	0	0	0	0
0	slack 2	331.770	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	761.916	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	300.000	25,63	35,75	0	0	0	1	0	0	0	0	0
0	slack 5	41.000	3,96	4,26	0	0	0	0	1	0	0	0	0
0	slack 6	1.400	0,14	0,13	0	0	0	0	0	1	0	0	0
1	artfcl 7	44.500.000	4.827	4.068	0	0	0	0	0	0	1	-1	0
0	slack 8	49.000.000	4.827	4.068	0	0	0	0	0	0	0	0	1
	zj	44.500.000	-4827	-4068	0	0	0	0	0	0	1	1	0
	cj-zj		4.827	4.068	0	0	0	0	0	0	0	-1	0
Iteration 2													
0	slack 1	781,0234	0	0,1572	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	322.551,02	0	-0,8428	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	761.916	0	1	0	0	1	0	0	0	0	0	0

0	slack 4	63.717,64	0	14,1501	0	0	0	1	0	0	-0,0053	0,0053	0
0	slack 5	4.492,85	0	0,9227	0	0	0	0	1	0	-0,0008	0,0008	0
0	slack 6	109,3433	0	0,012	0	0	0	0	0	1	0	0	0
0	X1	9.218,98	1	0,8428	0	0	0	0	0	0	0,0002	-0,0002	0
0	slack 8	4.500.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	0	0	0	0	0	0	0	0	0	2	0	0
	cj-zj		0	0	0	0	0	0	0	0	-1	0	0
Iteration													
3													
0	slack 1	781,0234	0	0,1572	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	322.551,02	0	-0,8428	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	761.916	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	63.717,64	0	14,1501	0	0	0	1	0	0	-0,0053	0,0053	0
0	slack 5	4.492,85	0	0,9227	0	0	0	0	1	0	-0,0008	0,0008	0
0	slack 6	109,3433	0	0,012	0	0	0	0	0	1	0	0	0
1	X1	9.218,98	1	0,8428	0	0	0	0	0	0	0,0002	-0,0002	0
0	slack 8	4.500.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	9.218,98	1	0,84	0	0	0	0	0	0	0	0	0
	cj-zj		0	0,1572	0	0	0	0	0	0	-0,0002	0,0002	0
Iteration													
4													
0	slack 1	72,971	0	0	1	0	0	-0,0111	0	0	-0,0001	0,0001	0

0	slack 2	326.345,96	0	0	0	1	0	0,0596	0	0	-0,0005	0,0005	0
0	slack 3	757.413,01	0	0	0	0	1	-0,0707	0	0	0,0004	-0,0004	0
1	X2	4.502,99	0	1	0	0	0	0,0707	0	0	-0,0004	0,0004	0
0	slack 5	338,0672	0	0	0	0	0	-0,0652	1	0	-0,0005	0,0005	0
0	slack 6	55,2459	0	0	0	0	0	-0,0008	0	1	0	0	0
1	X1	5.424,04	1	0	0	0	0	-0,0596	0	0	0,0005	-0,0005	0
0	slack 8	4.500.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	9.927,03	1	1	0	0	0	0,01	0	0	0	0	0
	cj-zj		0	0	0	0	0	-0,0111	0	0	-0,0001	0,0001	0
Iteration													
5													
0	surplus 7	492.499,64	0	0	6.749,25	0	0	-75	0	0	-1	1	0
0	slack 2	326.088,18	0	0	-3,5326	1	0	0,0988	0	0	0	0	0
0	slack 3	757.597,82	0	0	2,5326	0	1	-0,0988	0	0	0	0	0
1	X2	4.318,18	0	1	-2,5326	0	0	0,0988	0	0	0	0	0
0	slack 5	104,5441	0	0	-3,2002	0	0	-0,0296	1	0	0	0	0
0	slack 6	43,1818	0	0	-0,1653	0	0	0,001	0	1	0	0	0
1	X1	5.681,82	1	0	3,5326	0	0	-0,0988	0	0	0	0	0
0	slack 8	4.007.500,36	0	0	-6.749,25	0	0	75	0	0	0	0	1
	zj	10.000	1	1	1	0	0	0	0	0	0	0	0
	cj-zj		0	0	-1	0	0	0	0	0	0	0	0

BUYER C (7.500 TON)

LINEAR PROGRAMMING RESULT

	X1	X2		RHS	Dual
Maximize	1	1			
Constraint 1	1	1	<=	7500	1
Constraint 2	1	0	<=	172817	0
Constraint 3	0	1	<=	407689	0
Constraint 4	25,29	35,59	<=	258750	0
Constraint 5	3,74	4,11	<=	37500	0
Constraint 6	0,11	0,11	<=	2250	0
Constraint 7	4829	4074	>=	30000000	0
Newrow 8	4829	4074	<=	31500000	0
Solution->	793,69	6706,31		7500	

SOLUTION LIST

Variable	Status	Value
X1	Basic	793,69
X2	Basic	6706,31
slack 1	NONBasic	0
slack 2	Basic	172023,3
slack 3	Basic	400982,7
slack 4	NONBasic	0
slack 5	Basic	6968,66
slack 6	Basic	1425
surplus 7	Basic	1154236
slack 8	Basic	345764,4
Optimal Value (Z)		7500

ITERATIONS

Cj	Basic Variables	Quantity	1 X1	1 X2	0 slack 1	0 slack 2	0 slack 3	0 slack 4	0 slack 5	0 slack 6	0 artfcl 7	surplus 7	slack 8
Iteration 1													
0	slack 1	7.500	1	1	1	0	0	0	0	0	0	0	0
0	slack 2	172.817	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	407.689	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	258.750	25,29	35,59	0	0	0	1	0	0	0	0	0
0	slack 5	37.500	3,74	4,11	0	0	0	0	1	0	0	0	0
0	slack 6	2.250	0,11	0,11	0	0	0	0	0	1	0	0	0
1	artfcl 7	30.000.000	4.829	4.074	0	0	0	0	0	0	1	-1	0
0	slack 8	31.500.000	4.829	4.074	0	0	0	0	0	0	0	0	1
	zj	30.000.000	-4829	-4074	0	0	0	0	0	0	1	1	0
	cj-zj		4.829	4.074	0	0	0	0	0	0	0	-1	0
Iteration 2													
0	slack 1	1.287,53	0	0,1563	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	166.604,53	0	-0,8437	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	407.689	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	101.636,72	0	14,254	0	0	0	1	0	0	-0,0052	0,0052	0
0	slack 5	14.265,38	0	0,9547	0	0	0	0	1	0	-0,0008	0,0008	0

0	slack 6	1.566,63	0	0,0172	0	0	0	0	0	1	0	0	0
0	X1	6.212,47	1	0,8437	0	0	0	0	0	0	0,0002	- 0,0002	0
0	slack 8	1.500.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	0	0	0	0	0	0	0	0	0	2	0	0
	cj-zj		0	0	0	0	0	0	0	0	-1	0	0
Iteration 3													
0	slack 1	1.287,53	0	0,1563	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	166.604,53	0	-0,8437	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	407.689	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	101.636,72	0	14,254	0	0	0	1	0	0	-0,0052	0,0052	0
0	slack 5	14.265,38	0	0,9547	0	0	0	0	1	0	-0,0008	0,0008	0
0	slack 6	1.566,63	0	0,0172	0	0	0	0	0	1	0	0	0
1	X1	6.212,47	1	0,8437	0	0	0	0	0	0	0,0002	- 0,0002	0
0	slack 8	1.500.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	6.212,47	1	0,84	0	0	0	0	0	0	0	0	0
	cj-zj		0	0,1563	0	0	0	0	0	0	-0,0002	0,0002	0
Iteration 4													
0	slack 1	172,7178	0	0	1	0	0	-0,011	0	0	-0,0001	0,0001	0
0	slack 2	172.620,11	0	0	0	1	0	0,0592	0	0	-0,0005	0,0005	0
0	slack 3	400.558,61	0	0	0	0	1	-0,0702	0	0	0,0004	-	0

												0,0004	
1	X2	7.130,39	0	1	0	0	0	0,0702	0	0	-0,0004	0,0004	0
0	slack 5	7.457,72	0	0	0	0	0	-0,067	1	0	-0,0004	0,0004	0
0	slack 6	1.444,00	0	0	0	0	0	-0,0012	0	1	0	0	0
1	X1	196,8906	1	0	0	0	0	-0,0592	0	0	0,0005	-	0
												0,0005	
0	slack 8	1.500.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	7.327,28	1	1	0	0	0	0,01	0	0	0	0	0
	cj-zj		0	0	0	0	0	-0,011	0	0	-0,0001	0,0001	0
Iteration 5													
0	surplus 7	1.154.235,57	0	0	6.682,78	0	0	-73,301	0	0	-1	1	0
0	slack 2	172.023,31	0	0	-3,4553	1	0	0,0971	0	0	0	0	0
0	slack 3	400.982,69	0	0	2,4553	0	1	-0,0971	0	0	0	0	0
1	X2	6.706,31	0	1	-2,4553	0	0	0,0971	0	0	0	0	0
0	slack 5	6.968,66	0	0	-2,8315	0	0	-0,0359	1	0	0	0	0
0	slack 6	1.425,00	0	0	-0,11	0	0	0	0	1	0	0	0
1	X1	793,6895	1	0	3,4553	0	0	-0,0971	0	0	0	0	0
0	slack 8	345.764,43	0	0	-	0	0	73,301	0	0	0	0	1
					6.682,78								
	zj	7.500	1	1	1	0	0	0	0	0	0	0	0
	cj-zj		0	0	-1	0	0	0	0	0	0	0	0

BUYER D (10.300 TON)

LINEAR PROGRAMMING RESULT

	X1	X2		RHS	Dual
Maximize	1	1			
Constraint 1	1	1	<=	10300	1
Constraint 2	1	0	<=	251942	0
Constraint 3	0	1	<=	451497	0
Constraint 4	25,04	35,29	<=	314150	0
Constraint 5	3,69	4,06	<=	40170	0
Constraint 6	0,11	0,11	<=	1133	0
Constraint 7	4860	4087	>=	44290000	0
Constraint 8	4860	4087	<=	45835000	0
Solution->	4813,37	5486,63		10300	

SOLUTION LIST

Variable	Status	Value
X1	Basic	4813,37
X2	Basic	5486,63
slack 1	NONBasic	0
slack 2	Basic	247128,6
slack 3	Basic	446010,4
slack 4	NONBasic	0
slack 5	Basic	132,95
slack 6	Basic	0
surplus 7	Basic	1526833
slack 8	Basic	18167,48
Optimal Value (Z)		10300

ITERATIONS

Cj	Basic Variables	Quantity	1 X1	1 X2	0 slack 1	0 slack 2	0 slack 3	0 slack 4	0 slack 5	0 slack 6	0 artfcl 7	0 surplus 7	0 slack 8
Iteration 1													
0	slack 1	10.300	1	1	1	0	0	0	0	0	0	0	0
0	slack 2	251.942	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	451.497	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	314.150	25,04	35,29	0	0	0	1	0	0	0	0	0
0	slack 5	40.170	3,69	4,06	0	0	0	0	1	0	0	0	0
0	slack 6	1.133	0,11	0,11	0	0	0	0	0	1	0	0	0
1	artfcl 7	44.290.000	4.860	4.087	0	0	0	0	0	0	1	-1	0
0	slack 8	45.835.000	4.860	4.087	0	0	0	0	0	0	0	0	1
	zj	44.290.000	- 4860	-4087	0	0	0	0	0	0	1	1	0
	cj-zj		4.860	4.087	0	0	0	0	0	0	0	-1	0
Iteration 2													
0	slack 1	1.186,83	0	0,1591	1	0	0	0	0	0	- 0,0002	0,0002	0

0	slack 2	242.828,83	0	-0,8409	0	1	0	0	0	0	-	0,0002	0
0	slack 3	451.497	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	85.956,25	0	14,2327	0	0	0	1	0	0	-	0,0052	0
0	slack 5	6.542,41	0	0,9569	0	0	0	0	1	0	-	0,0008	0
0	slack 6	130,5514	0	0,0175	0	0	0	0	0	1	0	0	0
0	X1	9.113,17	1	0,8409	0	0	0	0	0	0	0,0002	-	0
0	slack 8	1.545.000,00	0	0	0	0	0	0	0	0	-1	1	1
	zj	0	0	0	0	0	0	0	0	0	2	0	0
	cj-zj		0	0	0	0	0	0	0	0	-1	0	0
Iteration													
0	slack 1	1.186,83	0	0,1591	1	0	0	0	0	0	-	0,0002	0
0	slack 2	242.828,83	0	-0,8409	0	1	0	0	0	0	-	0,0002	0
0	slack 3	451.497	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	85.956,25	0	14,2327	0	0	0	1	0	0	-	0,0052	0
0	slack 5	6.542,41	0	0,9569	0	0	0	0	1	0	-	0,0008	0

											0,0008		
0	slack 6	130,5514	0	0,0175	0	0	0	0	0	1	0	0	0
1	X1	9.113,17	1	0,8409	0	0	0	0	0	0	0,0002	-	0
												0,0002	
0	slack 8	1.545.000,00	0	0	0	0	0	0	0	0	-1	1	1
	zj	9.113,17	1	0,84	0	0	0	0	0	0	0	0	0
	cj-zj		0	0,1591	0	0	0	0	0	0	-	0,0002	0
											0,0002		
Iteration													
4													
0	slack 1	226,2516	0	0	1	0	0	-0,0112	0	0	-	0,0001	0
											0,0001		
0	slack 2	247.907,60	0	0	0	1	0	0,0591	0	0	-	0,0005	0
											0,0005		
0	slack 3	445.457,65	0	0	0	0	1	-0,0703	0	0	0,0004	-	0
											0,0004	0,0004	
1	X2	6.039,35	0	1	0	0	0	0,0703	0	0	-	0,0004	0
											0,0004		
0	slack 5	763,3093	0	0	0	0	0	-0,0672	1	0	-	0,0004	0
											0,0004		
0	slack 6	24,8877	0	0	0	0	0	-0,0012	0	1	0	0	0
1	X1	4.034,40	1	0	0	0	0	-0,0591	0	0	0,0005	-	0

												0,0005	
0	slack 8	1.545.000,00	0	0	0	0	0	0	0	0	-1	1	1
	zj	10.073,75	1	1	0	0	0	0,01	0	0	0	0	0
	cj-zj		0	0	0	0	0	-0,0112	0	0	-	0,0001	0
											0,0001		
Iteration													
5													
0	surplus 7	1.526.832,52	0	0	6.748,38	0	0	-	0	0	-1	1	0
								75,4146					
0	slack 2	247.128,63	0	0	-3,4429	1	0	0,0976	0	0	0	0	0
0	slack 3	446.010,37	0	0	2,4429	0	1	-0,0976	0	0	0	0	0
1	X2	5.486,63	0	1	-2,4429	0	0	0,0976	0	0	0	0	0
0	slack 5	132,9457	0	0	-2,7861	0	0	-0,0361	1	0	0	0	0
0	slack 6	0	0	0	-0,11	0	0	0	0	1	0	0	0
1	X1	4.813,37	1	0	3,4429	0	0	-0,0976	0	0	0	0	0
0	slack 8	18.167,48	0	0	-	0	0	75,4146	0	0	0	0	1
					6.748,38								
	zj	10.300	1	1	1	0	0	0	0	0	0	0	0
	cj-zj		0	0	-1	0	0	0	0	0	0	0	0

BUYER E (7.200 TON)

LINEAR PROGRAMMING RESULT

		X2		RHS	Dual
Maximize	1	1			
Constraint 1	1	1	<=	7200	1
Constraint 2	1	0	<=	403750	0
Constraint 3	0	1	<=	740909	0
Constraint 4	25,1	35,36	<=	252000	0
Constraint 5	3,81	4,07	<=	29088	0
Constraint 6	0,12	0,13	<=	936	0
Constraint 7	4855	4084	>=	27360000	0
Constraint 8	4855	4084	<=	30240000	0
Solution->	830,77	6369,23		7200	

SOLUTION LIST

Variable	Status	Value
X1	Basic	830,77
X2	Basic	6369,23
slack 1	NONBasic	0
slack 2	Basic	402919,2
slack 3	Basic	734539,8
slack 4	Basic	5931,73
slack 5	NONBasic	0
slack 6	Basic	8,31
surplus 7	Basic	2685326
slack 8	Basic	194673,8
Optimal Value (Z)		7200

ITERATIONS

Cj	Basic Variables	Quantity	1	1 X2	0 slack 1	0 slack 2	0 slack 3	0 slack 4	0 slack 5	0 slack 6	0 artfcl 7	0 surplus 7	0 slack 8
Iteration 1													
0	slack 1	7.200	1	1	1	0	0	0	0	0	0	0	0
0	slack 2	403.750	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	740.909	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	252.000	25,1	35,36	0	0	0	1	0	0	0	0	0
0	slack 5	29.088	3,81	4,07	0	0	0	0	1	0	0	0	0
0	slack 6	936	0,12	0,13	0	0	0	0	0	1	0	0	0
1	artfcl 7	27.360.000	4.855	4.084	0	0	0	0	0	0	1	-1	0
0	slack 8	30.240.000	4.855	4.084	0	0	0	0	0	0	0	0	1
	zj	27.360.000	-4855	-4084	0	0	0	0	0	0	1	1	0
	cj-zj		4.855	4.084	0	0	0	0	0	0	0	-1	0
Iteration 2													
0	slack 1	1.564,57	0	0,1588	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	398.114,57	0	-	0	1	0	0	0	0	-	0,0002	0

				0,8412							0,0002		
0	slack 3	740.909	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	110.550,77	0	14,246	0	0	0	1	0	0	-	0,0052	0
											0,0052		
0	slack 5	7.617,02	0	0,865	0	0	0	0	1	0	-	0,0008	0
											0,0008		
0	slack 6	259,7487	0	0,0291	0	0	0	0	0	1	0	0	0
0		5.635,43	1	0,8412	0	0	0	0	0	0	0,0002	-0,0002	0
0	slack 8	2.880.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	0	0	0	0	0	0	0	0	0	2	0	0
	cj-zj		0	0	0	0	0	0	0	0	-1	0	0
Iteration													
3													
0	slack 1	1.564,57	0	0,1588	1	0	0	0	0	0	-	0,0002	0
											0,0002		
0	slack 2	398.114,57	0	-	0	1	0	0	0	0	-	0,0002	0
				0,8412							0,0002		
0	slack 3	740.909	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	110.550,77	0	14,246	0	0	0	1	0	0	-	0,0052	0
											0,0052		
0	slack 5	7.617,02	0	0,865	0	0	0	0	1	0	-	0,0008	0
											0,0008		

0	slack 6	259,7487	0	0,0291	0	0	0	0	0	1	0	0	0
1		5.635,43	1	0,8412	0	0	0	0	0	0	0,0002	-0,0002	0
0	slack 8	2.880.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	5.635,43	1	0,84	0	0	0	0	0	0	0	0	0
	cj-zj		0	0,1588	0	0	0	0	0	0	-	0,0002	0
											0,0002		
Iteration													
4													
0	slack 1	500,6856	-0,1888	0	1	0	0	0	0	0	-	0,0002	0
											0,0002		
0	slack 2	403.750	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	734.209,69	-1,1888	0	0	0	1	0	0	0	-	0,0002	0
											0,0002		
0	slack 4	15.112,24	-	0	0	0	0	1	0	0	-	0,0087	0
			16,9355								0,0087		
0	slack 5	1.821,79	-1,0284	0	0	0	0	0	1	0	-0,001	0,001	0
0	slack 6	65,0892	-0,0345	0	0	0	0	0	0	1	0	0	0
1	X2	6.699,31	1,1888	1	0	0	0	0	0	0	0,0002	-0,0002	0
0	slack 8	2.880.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	6.699,31	1,19	1	0	0	0	0	0	0	0	0	0
	cj-zj		-0,1888	0	0	0	0	0	0	0	-	0,0002	0
											0,0002		

Iteration													
5													
0	slack 1	73,3033	0,2902	0	1	0	0	-0,0283	0	0	0	0	0
0	slack 2	403.750	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	733.782,30	-0,7098	0	0	0	1	-0,0283	0	0	0	0	0
0	surplus 7	1.745.429,36	- 1.956,01	0	0	0	0	115,4977	0	0	-1	1	0
0	slack 5	82,3432	0,9209	0	0	0	0	-0,1151	1	0	0	0	0
0	slack 6	9,5295	0,0277	0	0	0	0	-0,0037	0	1	0	0	0
1	X2	7.126,70	0,7098	1	0	0	0	0,0283	0	0	0	0	0
0	slack 8	1.134.570,64	1.956,01	0	0	0	0	-115,498	0	0	0	0	1
	zj	7.126,70	0,71	1	0	0	0	0,03	0	0	0	0	0
	cj-zj		0,2902	0	0	0	0	-0,0283	0	0	0	0	0
Iteration													
6													
0	slack 1	47,3597	0	0	1	0	0	0,008	-0,3151	0	0	0	0
0	slack 2	403.660,59	0	0	0	1	0	0,125	-1,0858	0	0	0	0
0	slack 3	733.845,77	0	0	0	0	1	-0,117	0,7708	0	0	0	0
0	surplus 7	1.920.319,18	0	0	0	0	0	-128,969	2.123,91	0	-1	1	0
1		89,4117	1	0	0	0	0	-0,125	1,0858	0	0	0	0
0	slack 6	7,0509	0	0	0	0	0	-0,0002	-0,0301	1	0	0	0
1	X2	7.063,23	0	1	0	0	0	0,117	-0,7708	0	0	0	0

Iteration 0	slack 8	959.680,82	0	0	0	0	0	128,9686	-	0	0	0	1
									2.123,91				
	zj	7.152,64	1	1	0	0	0	-0,01	0,32	0	0	0	0
	cj-zj		0	0	0	0	0	0,008	-0,3151	0	0	0	0
Iteration 7													
0	slack 4	5.931,73	0	0	125,2483	0	0	1	-	0	0	0	0
									39,4615				
0	slack 2	402.919,23	0	0	-15,6538	1	0	0	3,8462	0	0	0	0
0	slack 3	734.539,77	0	0	14,6538	0	1	0	-3,8462	0	0	0	0
0	surplus 7	2.685.326,18	0	0	16.153,11	0	0	0	-	0	-1	1	0
									2.965,38				
1		830,7733	1	0	15,6538	0	0	0	-3,8462	0	0	0	0
0	slack 6	8,3078	0	0	0,0265	0	0	0	-0,0385	1	0	0	0
1	X2	6.369,23	0	1	-14,6538	0	0	0	3,8462	0	0	0	0
0	slack 8	194.673,82	0	0	-	0	0	0	2.965,38	0	0	0	1
					16.153,11								
	zj	7.200	1	1	1	0	0	0	0	0	0	0	0
	cj-zj		0	0	-1	0	0	0	0	0	0	0	0

BUYER F (64.000 TON)

LINEAR PROGRAMMING RESULT

	X1	X2		RHS	Dual
Maximize	1	1			
Constraint 1	1	1	<=	64000	1
Constraint 2	1	0	<=	426481	0
Constraint 3	0	1	<=	788617	0
Constraint 4	25,09	35,34	<=	2432000	0
Constraint 5	3,8	4,13	<=	416000	0
Constraint 6	0,12	0,13	<=	22400	0
Constraint 7	4854	4083	>=	230400000	0
Constraint 8	4854	4083	<=	262400000	0
Solution->	0	64000		64000	

SOLUTION LIST

Variable	Status	Value
X1	NONBasic	0
X2	Basic	64000
slack 1	NONBasic	0
slack 2	Basic	426481
slack 3	Basic	724617
slack 4	Basic	170240
slack 5	Basic	151680
slack 6	Basic	14080
surplus 7	Basic	30912000
slack 8	Basic	1088000
Optimal Value (Z)		64000

ITERATIONS

Cj	Basic Variables	Quantity	1 X1	1 X2	0 slack 1	0 slack 2	0 slack 3	0 slack 4	0 slack 5	0 slack 6	0 artfcl 7	0 surplus 7	0 slack 8
Iteration 1													
0	slack 1	64.000	1	1	1	0	0	0	0	0	0	0	0
0	slack 2	426.481	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	788.617	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	2.432.000	25,09	35,34	0	0	0	1	0	0	0	0	0
0	slack 5	416.000	3,8	4,13	0	0	0	0	1	0	0	0	0
0	slack 6	22.400	0,12	0,13	0	0	0	0	0	1	0	0	0
1	artfcl 7	230.400.000	4.854	4.083	0	0	0	0	0	0	1	-1	0
0	slack 8	262.400.000	4.854	4.083	0	0	0	0	0	0	0	0	1
	zj	230.400.000	-4854	-4083	0	0	0	0	0	0	1	1	0
	cj-zj		4.854	4.083	0	0	0	0	0	0	0	-1	0
Iteration 2													
0	slack 1	16.533,99	0	0,1588	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	379.014,99	0	-0,8412	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	788.617	0	1	0	0	1	0	0	0	0	0	0

0	slack 4	1.241.077,87	0	14,2352	0	0	0	1	0	0	-0,0052	0,0052	0
0	slack 5	235.629,17	0	0,9336	0	0	0	0	1	0	-0,0008	0,0008	0
0	slack 6	16.704,08	0	0,0291	0	0	0	0	0	1	0	0	0
0	X1	47.466,01	1	0,8412	0	0	0	0	0	0	0,0002	- 0,0002	0
0	slack 8	32.000.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	0	0	0	0	0	0	0	0	0	2	0	0
	cj-zj		0	0	0	0	0	0	0	0	-1	0	0
Iteration													
3													
0	slack 1	16.533,99	0	0,1588	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	379.014,99	0	-0,8412	0	1	0	0	0	0	-0,0002	0,0002	0
0	slack 3	788.617	0	1	0	0	1	0	0	0	0	0	0
0	slack 4	1.241.077,87	0	14,2352	0	0	0	1	0	0	-0,0052	0,0052	0
0	slack 5	235.629,17	0	0,9336	0	0	0	0	1	0	-0,0008	0,0008	0
0	slack 6	16.704,08	0	0,0291	0	0	0	0	0	1	0	0	0
1	X1	47.466,01	1	0,8412	0	0	0	0	0	0	0,0002	- 0,0002	0
0	slack 8	32.000.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	47.466,01	1	0,84	0	0	0	0	0	0	0	0	0
	cj-zj		0	0,1588	0	0	0	0	0	0	-0,0002	0,0002	0
Iteration													

4													
0	slack 1	7.570,90	-0,1888	0	1	0	0	0	0	0	-0,0002	0,0002	0
0	slack 2	426.481	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	732.187,90	-1,1888	0	0	0	1	0	0	0	-0,0002	0,0002	0
0	slack 4	437.795,73	-16,9233	0	0	0	0	1	0	0	-0,0087	0,0087	0
0	slack 5	182.947,83	-1,1099	0	0	0	0	0	1	0	-0,001	0,001	0
0	slack 6	15.064,22	-0,0345	0	0	0	0	0	0	1	0	0	0
1	X2	56.429,10	1,1888	1	0	0	0	0	0	0	0,0002	- 0,0002	0
0	slack 8	32.000.000	0	0	0	0	0	0	0	0	-1	1	1
	zj	56.429,10	1,19	1	0	0	0	0	0	0	0	0	0
	cj-zj		-0,1888	0	0	0	0	0	0	0	-0,0002	0,0002	0
Iteration													
5													
0	surplus 7	30.912.000,00	-771	0	4,08	0	0	0	0	0	-1	1	0
					3								
0	slack 2	426.481	1	0	0	1	0	0	0	0	0	0	0
0	slack 3	724.617	-1	0	-1	0	1	0	0	0	0	0	0
					-								
0	slack 4	170.239,99	-10,25	0	35,3	0	0	1	0	0	0	0	0
					4								
0	slack 5	151.679,99	-0,33	0	-4,13	0	0	0	1	0	0	0	0

0	slack 6	14.080,00	-0,01	0	-0,13	0	0	0	0	1	0	0	0
1	X2	64.000	1	1	1	0	0	0	0	0	0	0	0
					-								
0	slack 8	1.088.000,00	771	0	4.08	0	0	0	0	0	0	0	1
					3								
	zj	64.000	1	1	1	0	0	0	0	0	0	0	0
	cj-zj		0	0	-1	0	0	0	0	0	0	0	0

LAMPIRAN C
RENCANA PENCAMPURAN BATUBARA BULAN
FEBRUARI–MEI 2021 PT KIDECO JAYA AGUNG

RENCANA PENCAMPURAN BATUBARA PT KIDECO JAYA AGUNG BUYER A

Informasi	Konsumen (Buyer)	Tipe Batubara	Kuantitas Batubara Blending	Kualitas Batubara			Calorific Value (kkal/kg)	Persentase
				Total Moisture (arb %)	Ash (arb %)	Total Sulphur (arb %)		
Tanggal: 27 Februari-3 Maret 2021	BUYER A	Batubara Premium	21.895,52	22,11	4,24	0,11	5.190	41%
		Batubara Medium	32.104,48	26,13	4,09	0,11	4.800	59%
		Total	54.000	24,50	4,15	0,11	4.958	
		Spesifikasi Rejection		24,50 30,0	4,20 6,0	0,11 0,35	5.000 4.700	

RENCANA PENCAMPURAN BATUBARA PT KIDECO JAYA AGUNG BUYER B

Informasi	Konsumen (Buyer)	Tipe Batubara	Kuantitas Batubara Blending	Kualitas Batubara			Calorific Value (kkal/kg)	Persentase
				Total Moisture (arb %)	Ash (arb %)	Total Sulphur (arb %)		
Tanggal: 31 Maret-1 April 2021	BUYER B	Batubara Medium	5.681,82	25,63	3,69	0,14	4.827	57%
		Batubara SM	4.318,18	35,75	4,26	0,13	4.068	43%
		Total	10.000	30,0	3,94	0,14	4.499	
		Spesifikasi Max dan Min		30,0 32,0	4,10 5,0	0,14 0,40	4.600 4.450 Min dan 4.900 Max	

RENCANA PENCAMPURAN BATUBARA PT KIDECO JAYA AGUNG BUYER C

Informasi	Konsumen (Buyer)	Tipe Batubara	Kuantitas Batubara Blending	Kualitas Batubara				Persentase
				Total Moisture (arb %)	Ash (arb %)	Total Sulphur (arb %)	Calorific Value (kkal/kg)	
Tanggal: 17 April 2021	BUYER C	Batubara Medium	793,69	25,29	3,74	0,11	4.829	11%
		Batubara SM	6.706,31	35,59	4,11	0,11	4.074	89%
		Total	7.500	34,50	4,07	0,11	4.154	
		Spesifikasi Rejection		34,50 37,0	5,0 7,0	0,30 0,50	4.200 4.000 Min	

RENCANA PENCAMPURAN BATUBARA PT KIDECO JAYA AGUNG BUYER D

Informasi	Konsumen (Buyer)	Tipe Batubara	Kuantitas Batubara Blending	Kualitas Batubara				Persentase
				Total Moisture (arb %)	Ash (arb %)	Total Sulphur (arb %)	Calorific Value (kkal/kg)	
Tanggal: 27 April 2021	BUYER D	Batubara Medium	4.813,37	25,04	3,69	0,11	4.860	47%
		Batubara SM	5.486,63	35,29	4,06	0,11	4.087	53%
		Total	10.300	30,50	3,89	0,11	4.448	
		Spesifikasi Max		30,50 34,0	3,90 5,0	0,11 0,20	4.450 4.300 Min	

RENCANA PENCAMPURAN BATUBARA PT KIDECO JAYA AGUNG BUYER E

Informasi	Konsumen (Buyer)	Tipe Batubara	Kuantitas Batubara Blending	Kualitas Batubara				Persentase
				Total <i>Moisture</i> (arb %)	<i>Ash</i> (arb %)	Total <i>Sulphur</i> (arb %)	<i>Calorific Value</i> (kkal/kg)	
Tanggal: 1 Mei 2021	BUYER E	Batubara Medium	830,77	25,10	3,81	0,12	4.855	12%
		Batubara SM	6.369,23	35,36	4,07	0,13	4.084	88%
		Total	7.200,	34,20	4,04	0,13	4.173	
		Spesifikasi <i>Rejection</i>		35,0	4,04	0,13	4.200	
				40,0	5,0	0,30	3.800	

RENCANA PENCAMPURAN BATUBARA PT KIDECO JAYA AGUNG BUYER F

Informasi	Konsumen (Buyer)	Tipe Batubara	Kuantitas Batubara Blending	Kualitas Batubara				Persentase
				Total <i>Moisture</i> (arb %)	<i>Ash</i> (arb %)	Total <i>Sulphur</i> (arb %)	<i>Calorific Value</i> (kkal/kg)	
Tanggal: 30 April-2 Mei 2021	BUYER F	Batubara Medium	0,00	25,09	3,8	0,12	4.854	0%
		Batubara SM	64.000	35,34	4,13	0,13	4.083	100%
		Total	64.000	35,30	4,13	0,13	4.083	
		Spesifikasi <i>Rejection</i>		38,0	6,50	0,35	4.100	
				0,0	8,0	0,50	3.600	











LAMPIRAN D
KARTU KONSULTASI TUGAS AKHIR

KARTU KONSULTASI TUGAS AKHIR

Lampiran B 10

Kartu Konsultasi Tugas Akhir

JUDUL: OPTIMASI HASIL PENCAAMPURAN BATUBARA UNTUK MEMENUHI KRITERIA PERMINTAAN KONSUMEN DI PT. KIDECO JAYA ABUNG, KALIMANTAN TIMUR.
(Konsultasi minimal 8 kali)

TANGGAL	MATERI KONSULTASI	PARAF DOSEN
21 JUL 2021	- BAB I	
	- BAB II	
29 JUL 2021	- BAB III	
	- BAB IV	
5 AGU 2021	- BAB V	
24 SEP 2021	- ABSTRAK	
	- BAB I - BAB V	
21 AGU 2021	- BAB I, II, IV	
3 SEP 2021	- BAB II, IV	
17 SEP 2021	- BAB III, BAB IV	
18 OKTO 2021	- BAB II, ABSTRAK, ARTIKEL	