

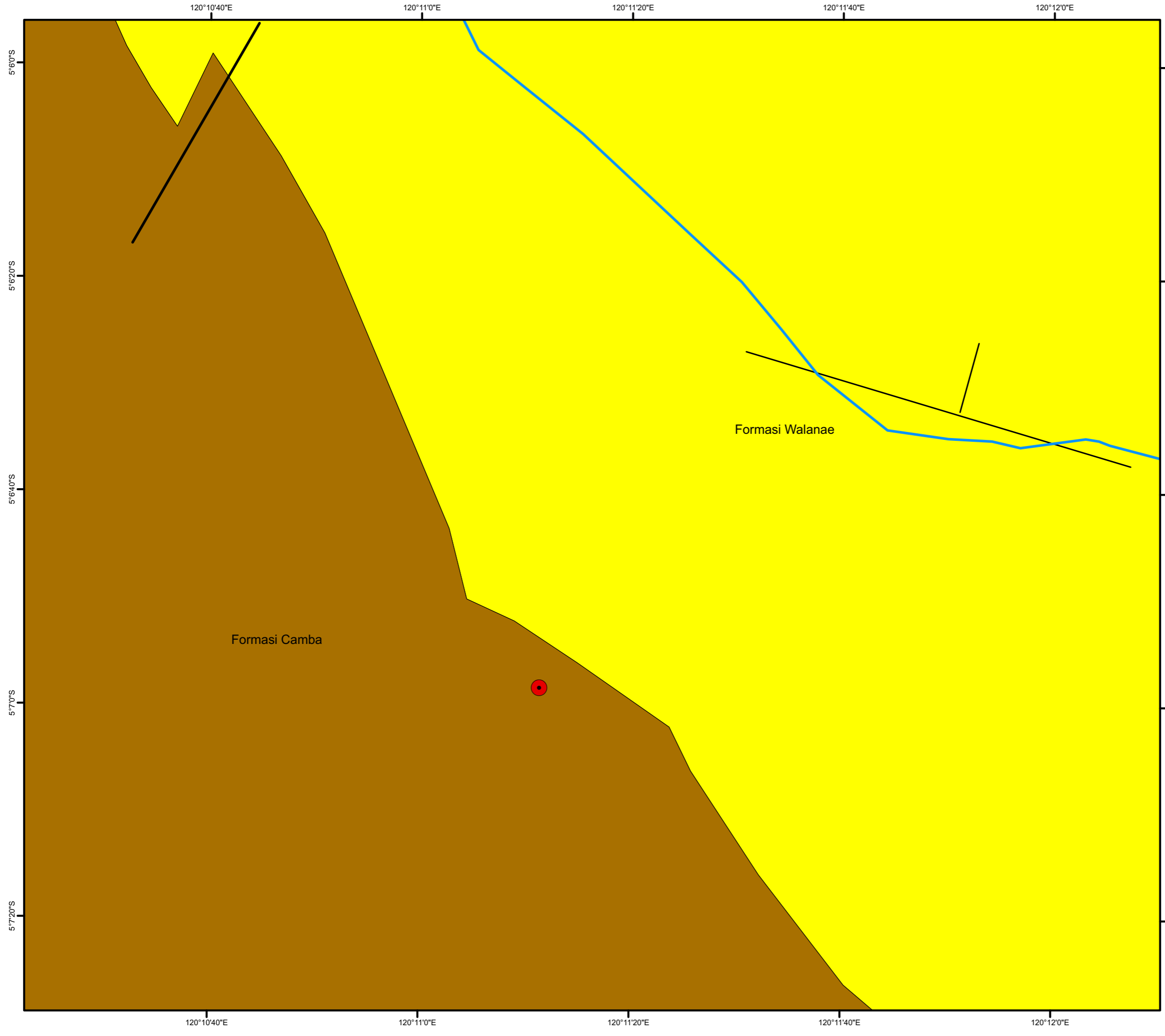
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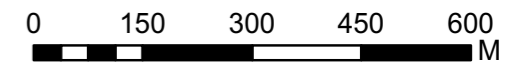
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LAMPIRAN

LAMPIRAN A
PETA GEOLOGI DAERAH
PENELITIAN

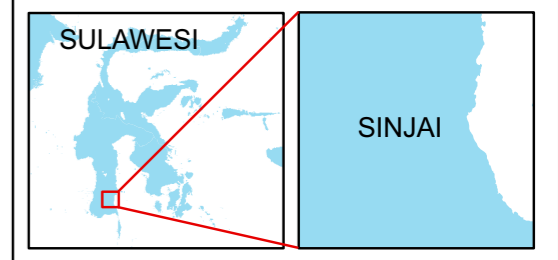


PETA GEOLOGI DAERAH PENELITIAN



Legenda:

- Formasi Camba
- Formasi Walanae
- Koordinat
- Jurus dan kemiringan lapisan
- Sesar
- Sungai



DEPARTEMEN TEKNIK PERTAMBANGAN
FAKULTAS TEKNIK
UNIVERSITAS HASANUDDIN

SKRIPSI
 ANALISIS MINERALOGI BATUBARA DAN BATUAN PENGAPITNYA
 DI KECAMATAN BULUPODDO KABUPATEN SINJAI
 PROVINSI SULAWESI SELATAN

DIGAMBAR OLEH : MUHAMMAD FITRAWAN
 NIM : D62116013

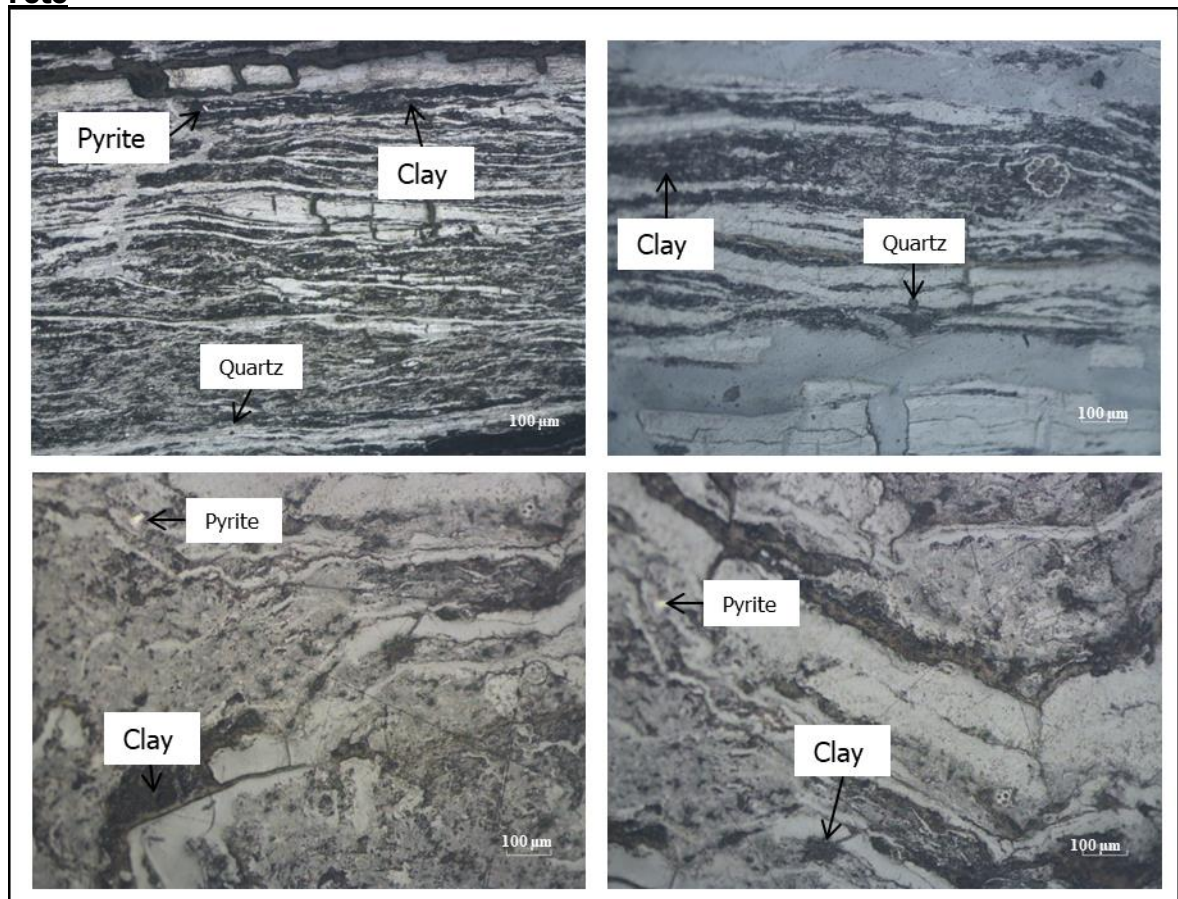
Sumber:
 Peta geologi lembar Ujungpandang,
 Benteng dan Sinjai
 Coordinate System: WGS 1984 UTM Zone 50S
 Projection: Transverse Mercator
 Datum: WGS 1984

TAHUN 2021	LAMPIRAN	HALAMAN
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LAMPIRAN B
HASIL ANALISIS MIKROSKOPIS

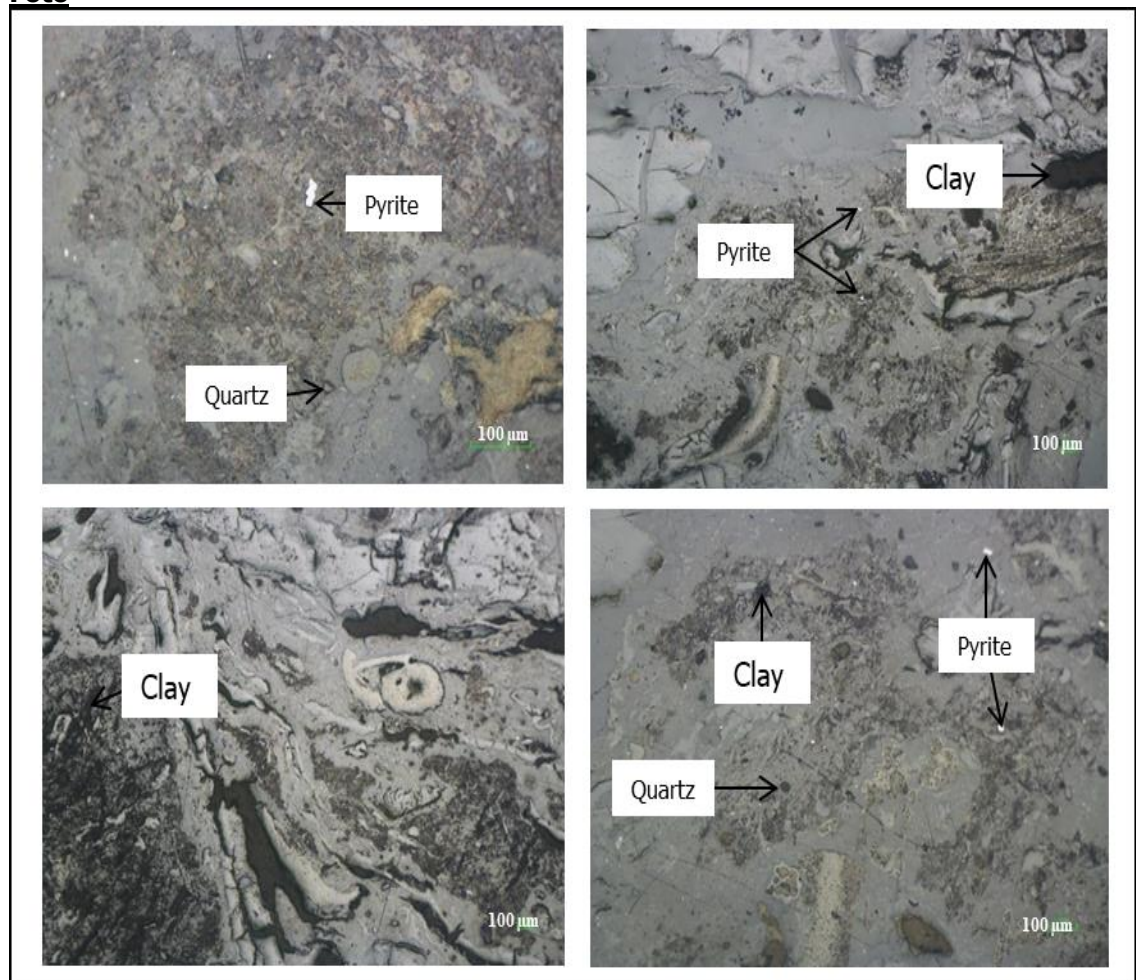
No Stasiun : BP-01B		Lampiran B
Lokasi : Bulupoddo		
Tipe Mineralisasi : Tersebar		
Mineral : Kaolinit, Pirit, Kuarsa		
Perbesaran : 100 μm		
Deskripsi Mineralogi		
Kenampakan mikroskopis pada contoh batubara Bulupoddo memperlihatkan mineral – mineral seperti kuarsa, pirit, dan kaolinit yang tersebar dalam sampel batubara		
Komposisi Mineral	Simbol	Keterangan optik mineral
Pirit	Py	Warna putih kekuningan.
Kuarsa	Qz	Warna hitam kelabu, bentuk granular.
Kaolinit	Kln	Warna abu-abu kehitaman.

Foto



No Stasiun : BP-01E		Lampiran B
Lokasi : Bulupoddo		
Tipe Mineralisasi : Tersebar		
Mineral : Kaolinit, Pirit, Kuarsa		
Perbesaran : 100 μm		
Deskripsi Mineralogi		
Kenampakan mikroskopis pada contoh batubara Bulupoddo memperlihatkan mineral – mineral seperti kuarsa, pirit, dan kaolinit yang tersebar dalam sampel batubara		
Komposisi Mineral	Simbol	Keterangan optik mineral
Pirit	Py	Warna putih kekuningan.
Kuarsa	Qz	Warna hitam kelabu, bentuk granular.
Kaolinit	Kln	Warna abu-abu kehitaman.

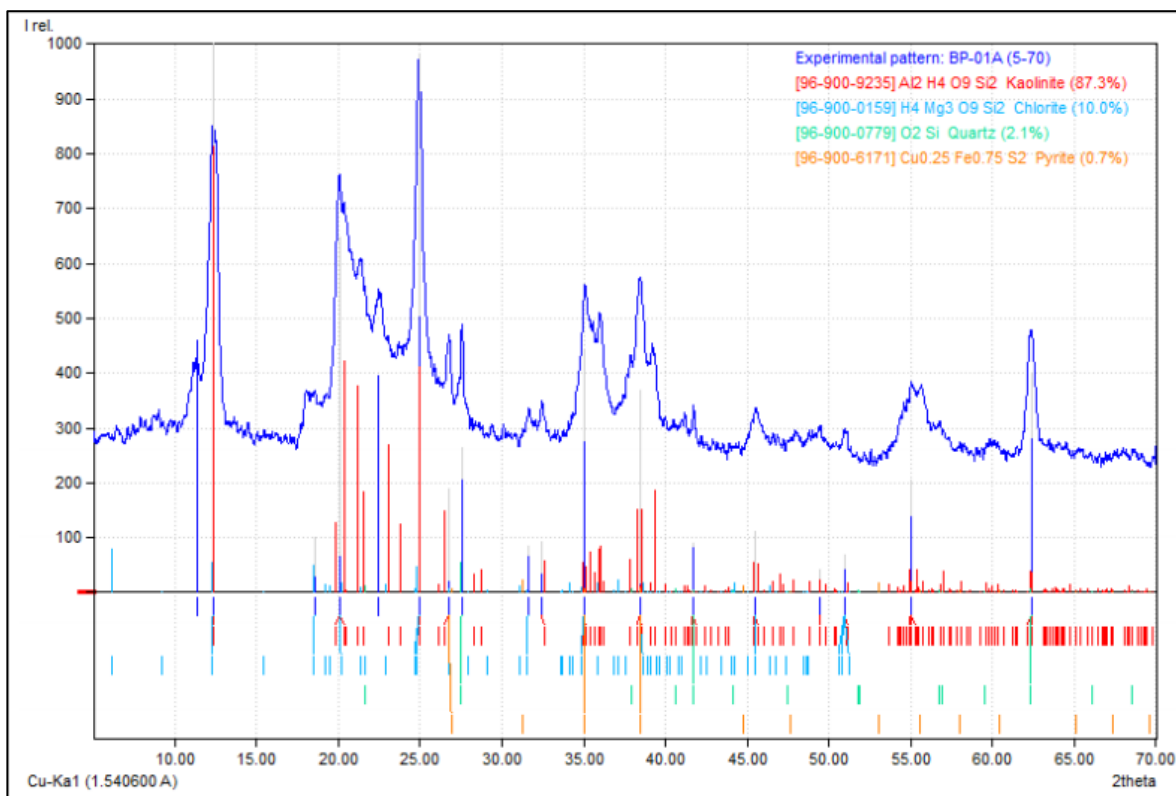
Foto



LAMPIRAN C

HASIL ANALISIS XRD

BP-01A



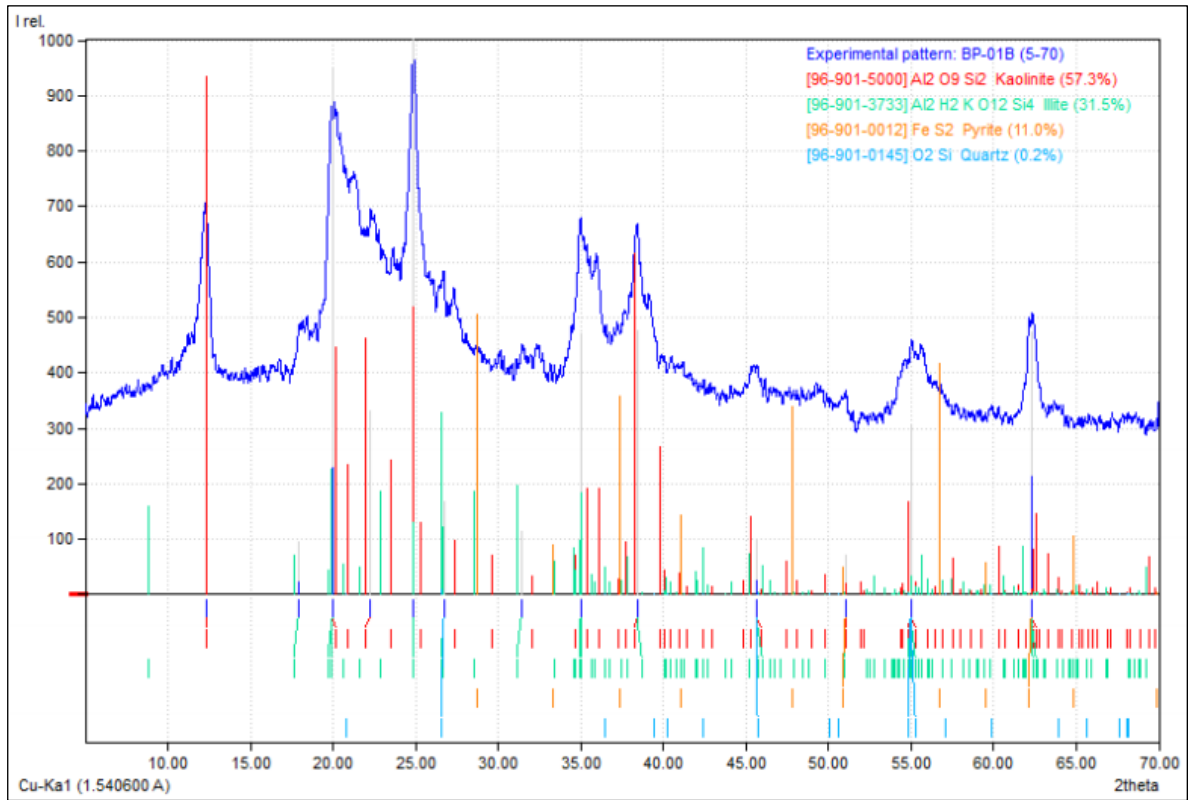
NO	2theta (°)	d (Å)	I/I0	FWHM	Matched
1	11.34	7.7967	461.08	1.3200	
2	12.36	7.1554	1000.00	0.6282	A,B
3	18.54	4.7819	99.69	0.5986	B
4	20.08	4.4185	647.81	1.3200	A,B
5	22.46	3.9554	396.33	1.3200	
6	24.92	3.5702	980.03	0.4716	A,B
7	26.78	3.3263	190.00	0.2332	A,B,C
8	27.56	3.2339	263.29	0.1778	C
9	31.66	2.8238	83.39	0.5012	A,B
10	32.44	2.7577	93.51	0.4742	A

11	35.06	2.5574	443.32	0.4800	A,B,D
12	38.46	2.3388	368.24	1.0468	A,B,D
13	41.72	2.1632	90.78	0.2676	A,C
14	45.52	1.9911	110.86	0.6941	A,B
15	49.42	1.8427	41.90	0.3985	A
16	50.96	1.7906	68.98	0.3333	A,B
17	55.04	1.6671	206.22	1.1200	A
18	62.38	1.4874	400.16	0.4717	A,C

Keterangan:

- A : *Kaolinite*
- B : *Chlorite*
- C : *Quartz*
- D : *Pyrite*

BP-01B



NO	2theta (°)	d (Å)	I/I0	FWHM	Matched
1	12.32	7.1786	720.85	0.6266	A
2	17.94	4.9404	95.85	1.5437	B
3	20.00	4.4360	949.81	0.6000	A,B
4	22.26	3.9905	329.87	1.1600	A
5	24.86	3.5787	1000.00	0.6230	A,B
6	26.70	3.3361	166.74	0.6466	B,D
7	31.46	2.8413	114.47	0.6256	B
8	34.98	2.5631	471.42	1.4851	A,B
9	38.44	2.3399	475.91	1.1142	A,B
10	45.68	1.9845	99.24	0.9925	A,B,D

11	51.04	1.7880	71.22	0.3220	A,B,C
12	55.02	1.6677	304.53	1.2800	A,B,D
13	62.32	1.4887	474.35	0.5933	A,B,C

Keterangan:

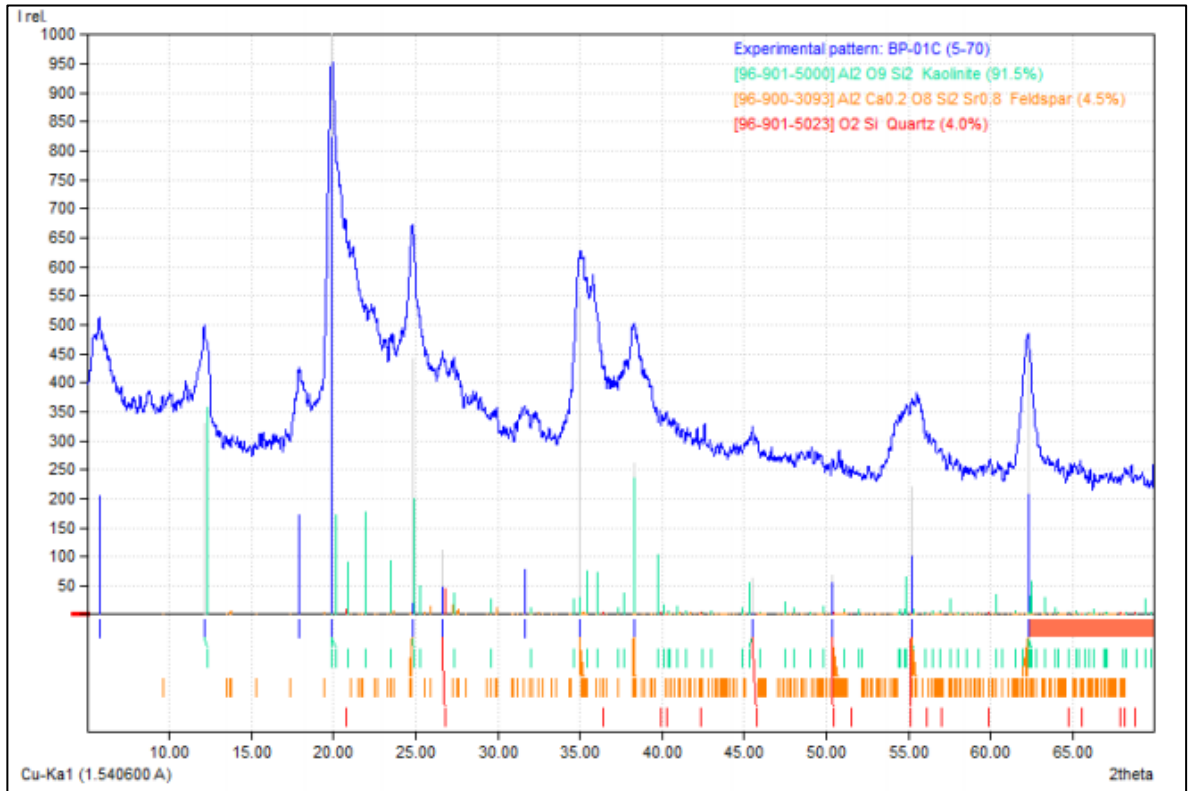
A : *Kaolinite*

B : *Illite*

C : *Pyrite*

D : *Quartz*

BP-01C



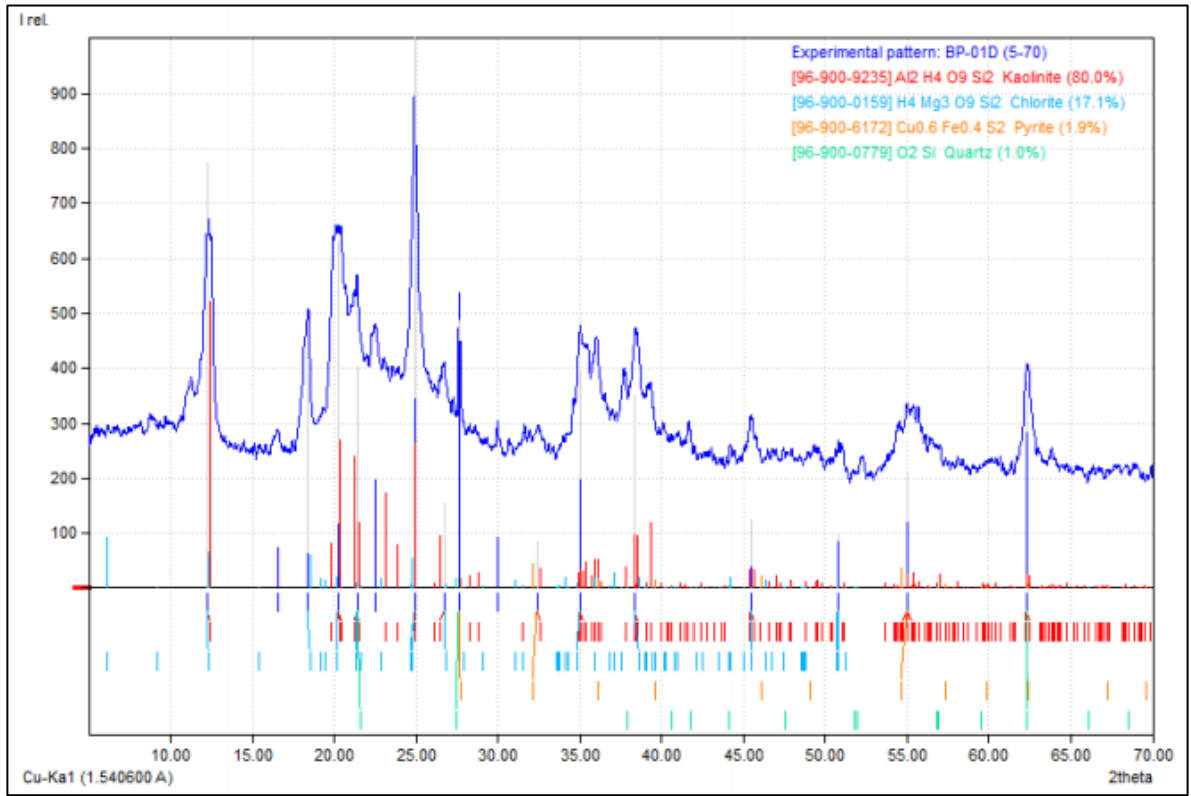
NO	2θ (°)	d (Å)	I/I ₀	FWHM	Matched
1	5.73	15.4113	205.08	0.8767	
2	12.13	7.2906	328.97	0.8225	A
3	17.91	4.9486	172.65	0.5474	
4	19.89	4.4603	1000.00	0.9904	A
5	24.79	3.5886	441.38	0.5631	A,B
6	26.63	3.3447	109.72	0.7078	C
7	31.65	2.8247	78.28	1.6704	
8	35.01	2.5609	546.17	0.6400	A,B
9	38.29	2.3488	259.62	0.6000	A,B
10	45.49	1.9923	61.2	0.6763	A,C
11	50.39	1.8095	68.68	0.7723	B,C

12	55.21	1.6624	221.12	1.5200	A,B,C
13	62.27	1.4898	454.37	0.6763	A,B

Keterangan:

- A : Kaolinite
- B : Feldspar
- C : Quartz

BP-01D



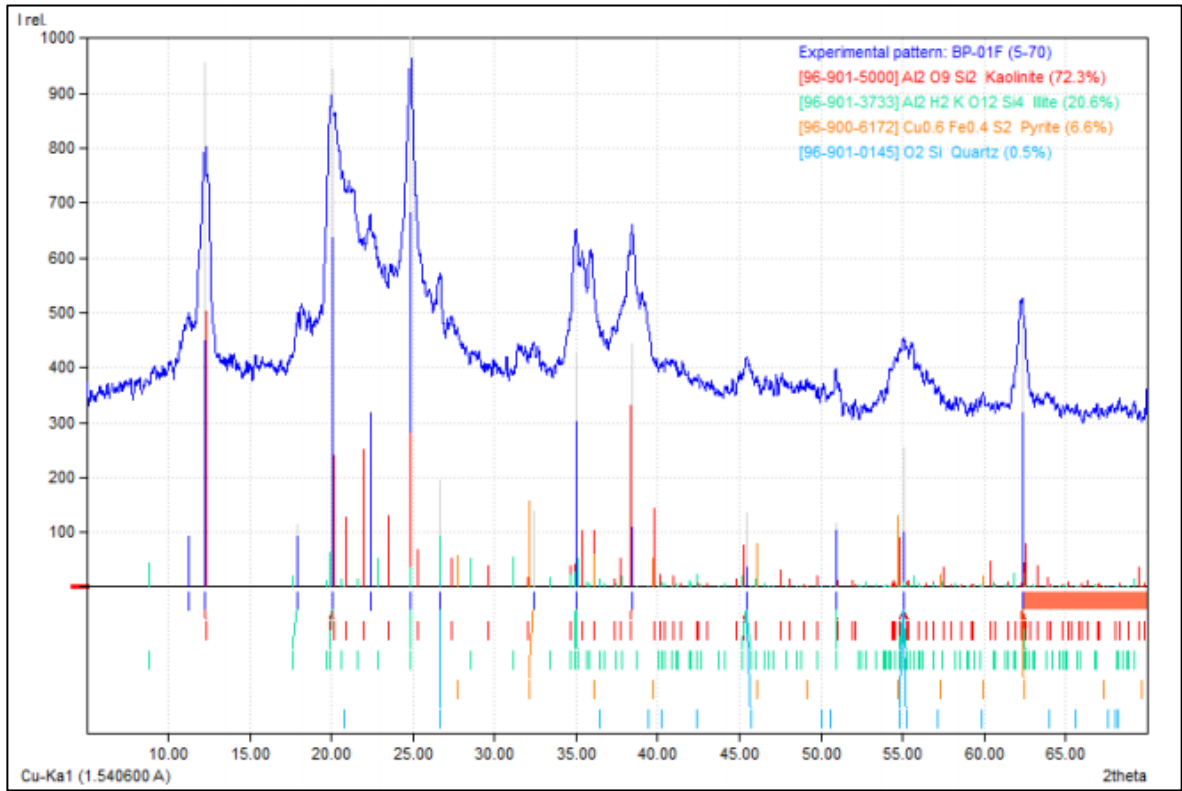
NO	2theta (°)	d (Å)	I/I0	FWHM	Matched
1	12.28	7.2019	774.41	0.6109	A,B
2	16.56	5.3489	74.63	0.4565	
3	18.4	4.8180	418.89	0.4394	B
4	20.26	4.3796	632.39	1.0000	A,B
5	21.4	4.1488	402.93	0.3600	A,B,D
6	22.48	3.9519	197.34	0.4400	
7	24.92	3.5702	1000.00	0.4172	A,B
8	26.70	3.3361	154.46	0.3600	A,B
9	27.64	3.2247	485.5	0.1240	C,D
10	29.98	2.9782	92.44	0.1456	
11	32.42	2.7594	83.98	0.4800	A,C

12	35.02	2.5602	396.59	0.4400	A,B
13	38.40	2.3423	349.46	0.5200	A,B
14	45.44	1.9944	125.85	0.4259	A,B
15	50.80	1.7958	100.93	0.7411	B
16	54.98	1.6688	211.13	1.3600	A,C
17	62.34	1.4883	375.04	0.5460	A,C,D

Keterangan:

- A : *Kaolinite*
- B : *Chlorite*
- C : *Pyrite*
- D : *Quartz*

BP-01E



NO	2theta (°)	d (Å)	I/I ₀	FWHM	Matched
1	11.25	7.8588	91.63	0.8000	
2	12.25	7.2194	955.31	0.6478	A
3	17.95	4.9377	114.69	1.1866	B
4	20.03	4.4294	943.99	0.6400	A,B
5	22.37	3.9711	316.83	0.8400	
6	24.87	3.5773	1000.00	0.6103	A,B
7	26.67	3.3398	193.64	0.3133	B,D
8	32.37	2.7635	137.43	0.6444	C
9	34.97	2.5638	426.44	1.3621	A,B
10	38.41	2.3417	443.85	1.0283	A

11	45.45	1.9940	136.65	0.7665	A,B,D
12	50.91	1.7922	117.54	0.3339	A,B
13	55.05	1.6668	253.93	1.3200	A,B,D
14	62.35	1.4881	481.94	0.5415	A,B,C

Keterangan:

- A : *Kaolinite*
- B : *Illite*
- C : *Pyrite*
- D : *Quartz*

LAMPIRAN D
HASIL ANALISIS NILAI KALORI



**LABORATORIUM MOTOR BAKAR
DEPARTEMEN TEKNIK MESIN
FAKULTAS TEKNIK
UNIVERSITAS HASANUDDIN**

Jalan Poros Malino Km.6 Bontomarannu (92171) Gowa Sulawesi Selatan
Telp. (0411) 586015, 586162 Fax (0411) 586015

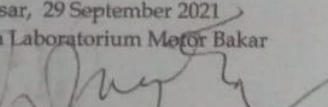
SURAT KETERANGAN HASIL ANALISIS SAMPEL

Nomor : 08/ LMB-FT / UH /2021

Pengirim : Muhammad Fitrawan
NIM : D62116013
Parameter Uji : Nilai Kalor
Peralatan : Bomb Kalorimeter
Jenis Sampel : Batu Bara
Tanggal Uji : 27 September 2021

No.	Kode Sampel	Nilai Kalor (Kalori/Gram)
1.	Bp-01E	853

Makassar, 29 September 2021
Kepala Laboratorium Motor Bakar


Dr. Eng. Ir. A. Erwin Eka Putra, S.T., M.T.
NIP.197112211998021001

Lampiran

1. Gambar sampel setelah uji bom kalori meter



Persentase sampel sisa, setelah uji bom kalori meter 75,4 %



**LABORATORIUM MOTOR BAKAR
DEPARTEMEN TEKNIK MESIN
FAKULTAS TEKNIK
UNIVERSITAS HASANUDDIN**

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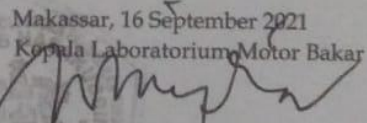
SURAT KETERANGAN HASIL ANALISIS SAMPEL

Nomor : 0 6/ LMB-FT / UH /2021

Pengirim : Muhammad Fitrawan
NIM : D62116013
Parameter Uji : Nilai Kalor
Peralatan : Bomb Kalorimeter
Jenis Sampel : Batu Bara
Tanggal Uji : 15 September 2021

No.	Kode Sampel	Nilai Kalor (Kalori/Gram)
1.	Bp-01B	1953

Makassar, 16 September 2021
Kepala Laboratorium Motor Bakar

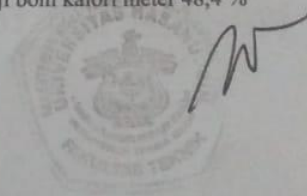

Dr. Eng. Ir. A. Erwin Eka Putra, S.T., M.T.
NIP. 197112211998021001

Lampiran

1. Gambar sampel setelah uji bom kalori meter



Persentase sampel sisa, setelah uji bom kalori meter 48,4 %



LAMPIRAN E

DOKUMENTASI LAPANGAN



