

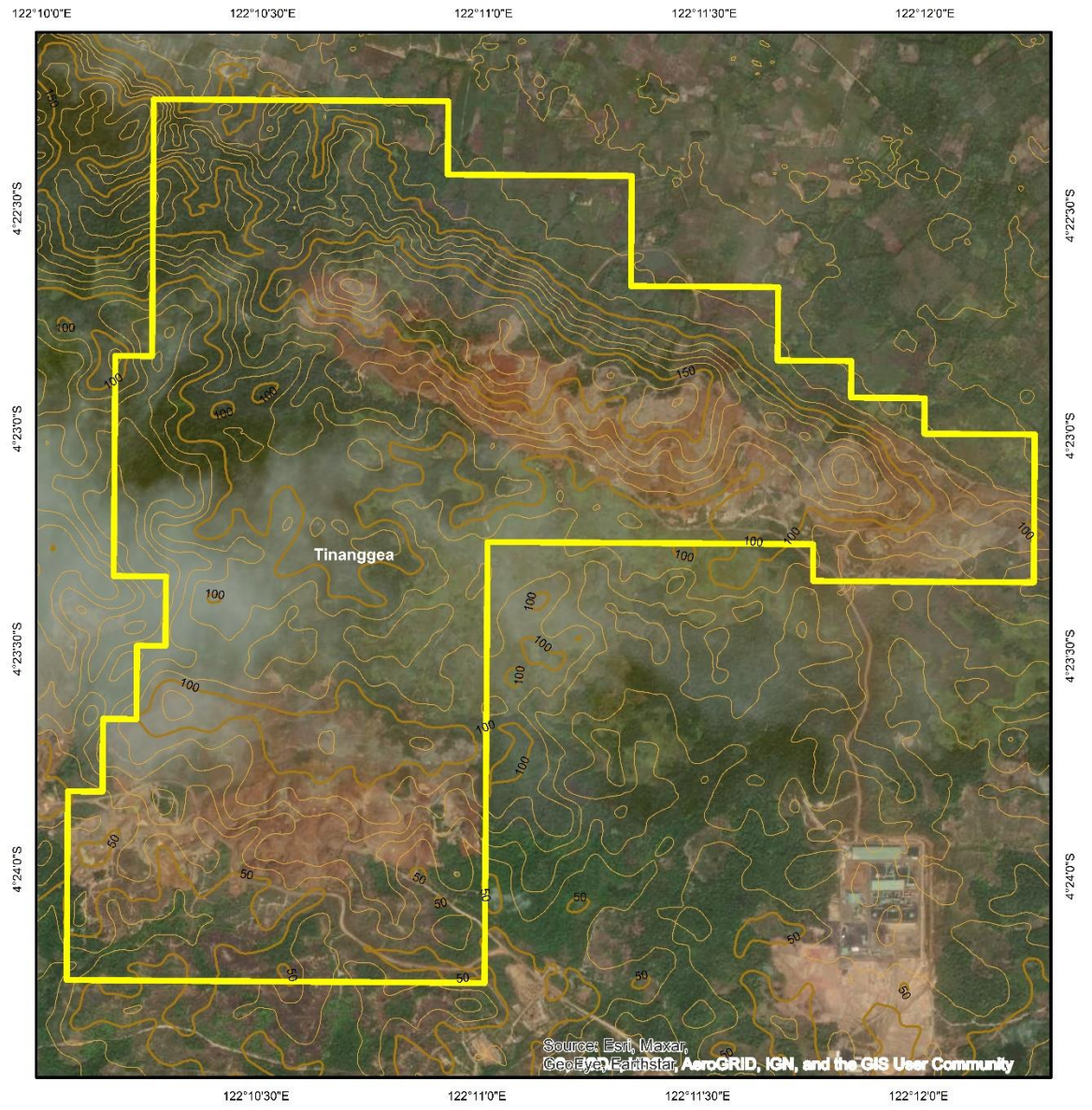
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LAMPIRAN

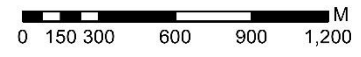
Lampiran A
Peta Lokasi Penelitian



**PETA TUNJUK LOKASI PENELITIAN
PT IFISHDECO Tbk, KECAMATAN
TINANGGEEA, KABUPATEN KONAWA
SELATAN, PROVINSI SULAWESI
TENGARA**



SKALA



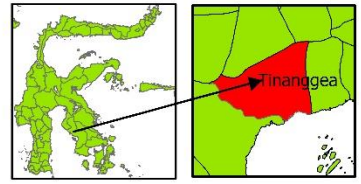
Legenda

	Kontur Indeks
	Kontur Interfal
	IUP PT Ifishdeco Tbk

SUMBER PETA

INDONESIA GEOSPASIAL
UNIVERSAL TRANSVER MERCATOR (UTM)
WGS DATUM 1984 ZONA 51S

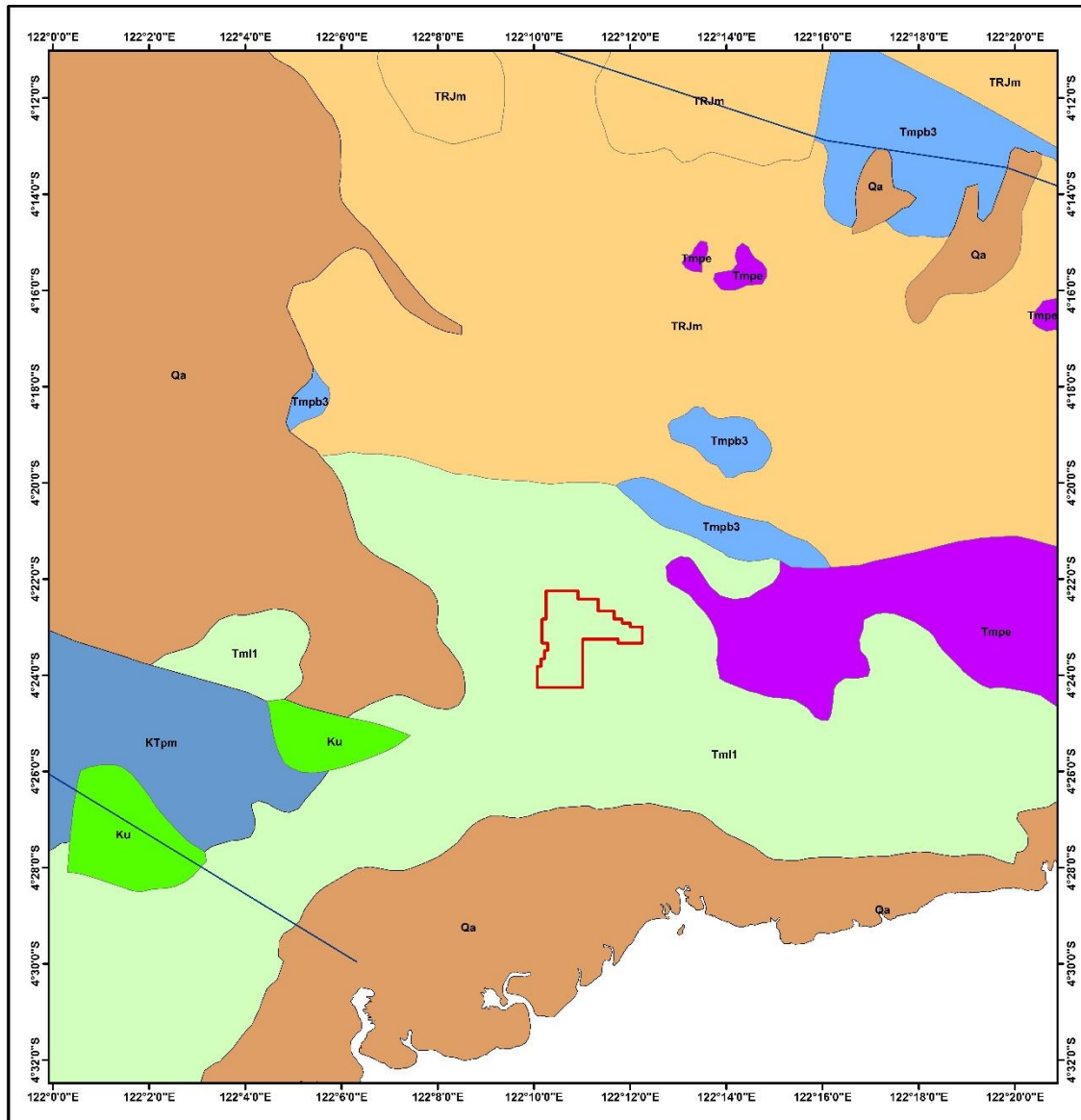
PETA INDEKS



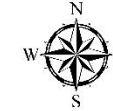
**DIBUAT OLEH:
ADHI KRISTIANTO LEPING
D111181303**

**DEPARTEMEN TEKNIK PERTAMBANGAN
FAKULTAS TEKNIK
UNIVERSITAS HASANUDDIN**

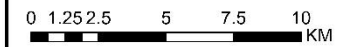
Lampiran B
Peta Geologi Daerah Penelitian



**PETA GEOLOGI PT IFISHDECO Tbk,
KABUPATEN KONAWA SELATAN
PROVINSI SULAWESI TENGGARA**



SKALA:



Legenda

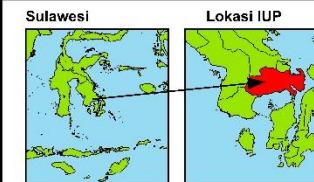
IUP_SULAWESI_TENGGARA

FORMASI

- Formasi Langkowala
- Endapan Permukaan Tak Bernama
- Formasi Boepinang
- Formasi Eemoiko
- Formasi Meluhu
- Kompleks Pompangeo
- Kompleks Ultramafic

Keterangan:
Tahun Pembuatan Peta: 2022

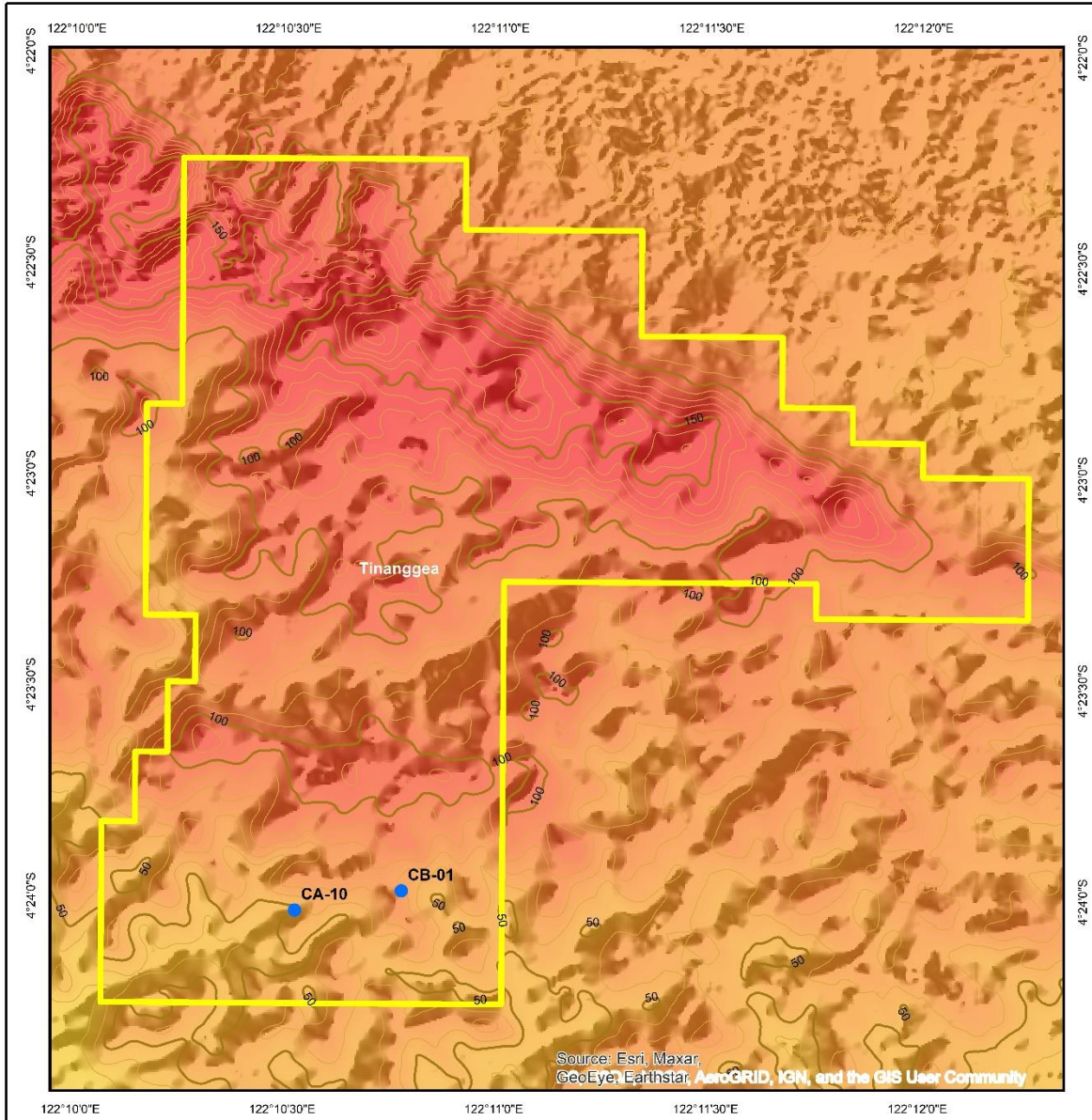
Sumber :
Geospasial Indonesia



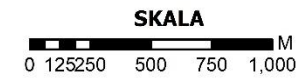
DIBUAT OLEH:
ADHI KRISTIANTO LEPING
D111 18 1303

**DEPARTEMEN TEKNIK PERTAMBANGAN
FAKULTAS TEKNIK
UNIVERSITAS HASANUDDIN**

Lampiran C
Peta Titik Lokasi Pengeboran



**PETA TITIK LOKASI PENGEBORAN PT
IFISHDECO Tbk., KECAMATAN TINANGGEEA,
KABUPATEN KONAWA SELATAN,
PROVINSI SULAWESI
TENGGARA**



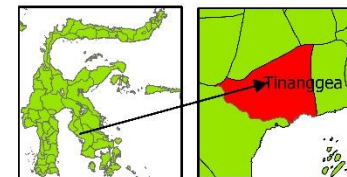
Legenda

- IUP PT Ifishdeco Tbk
- Titik Pengambilan Sampel
- Kontur Indeks
- Kontur Interfal

SUMBER PETA

INDONESIA GEOSPASIAL
UNIVERSAL TRANSVER MERCATOR (UTM)
WGS DATUM 1984 ZONA 51S

PETA INDEKS



DIBUAT OLEH:
ADHI KRISTIANO LEPING
D111181303

**DEPARTEMEN TEKNIK PERTAMBANGAN
FAKULTAS TEKNIK
UNIVERSITAS HASANUDDIN**

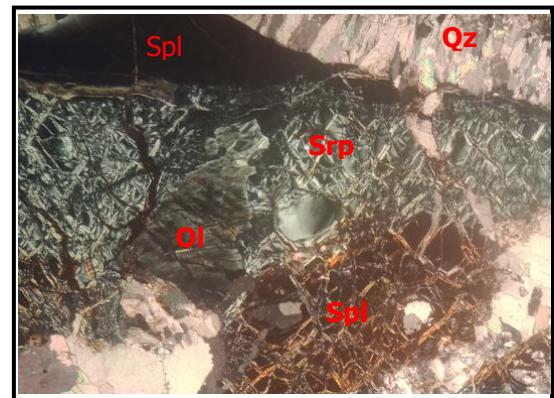
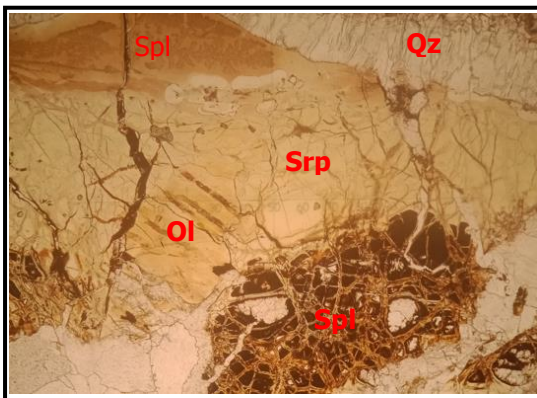
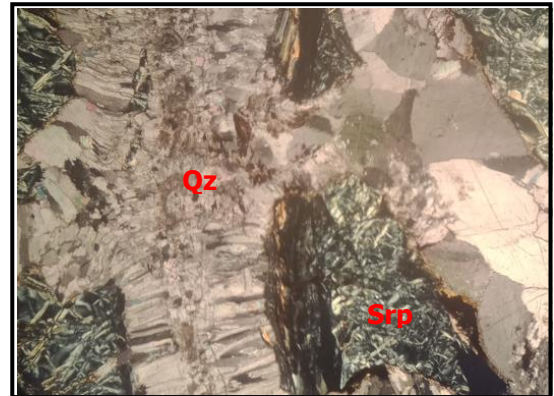
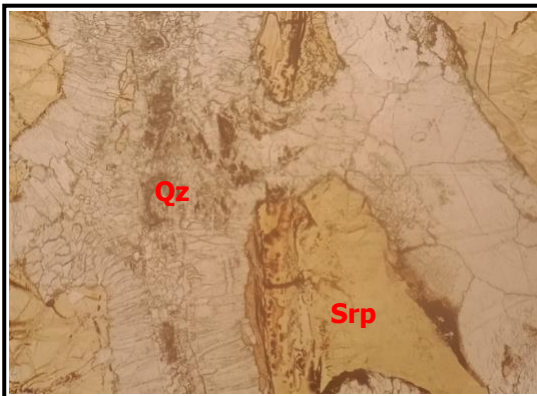
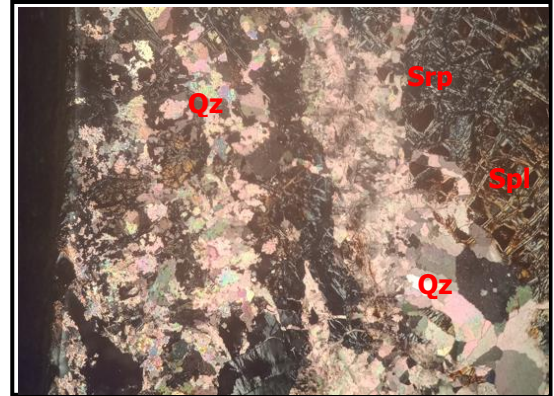
Lampiran D
Deskripsi Analisis Petrografi

No. Sampel : *Bedrock CA-10*

Nama Batuan : Peridotit Terserpentinisasi

Lokasi : PT IFISHDECO Tbk.

Foto



// - Nikol

X - Nikol

Lensa Okuler : 10x

Lensa Objektif : 4x

Perbesaran Total : 40x

Tipe Batuan : Batuan beku ultrabasa

Struktur : Masif

Tekstur : *Rims Texture, Mesh Texture*

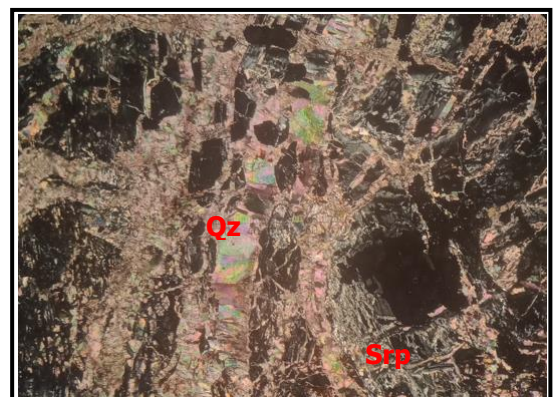
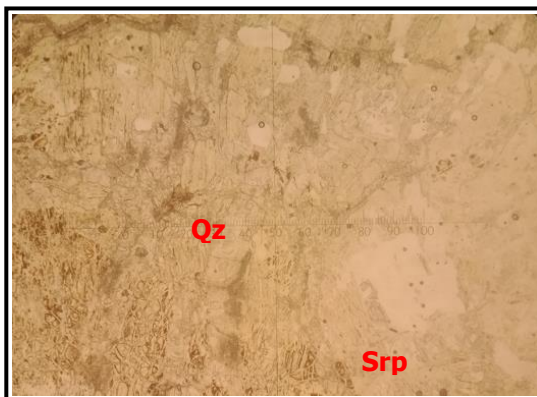
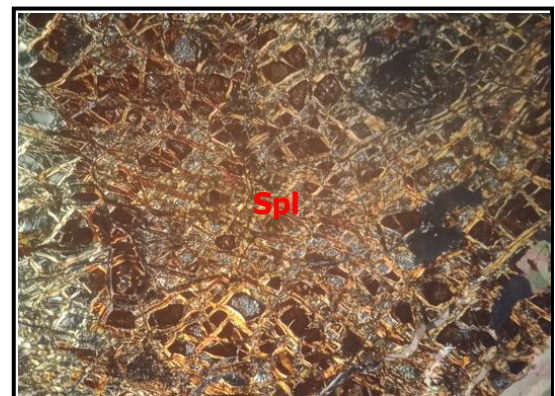
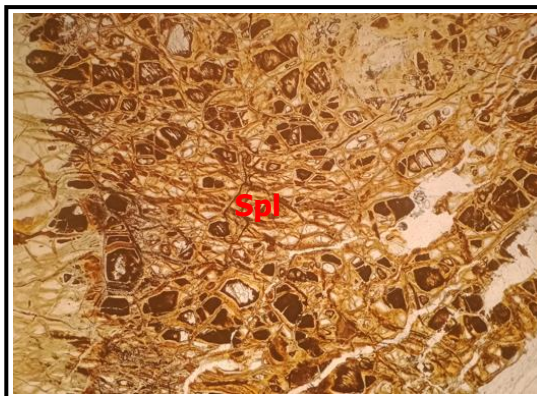
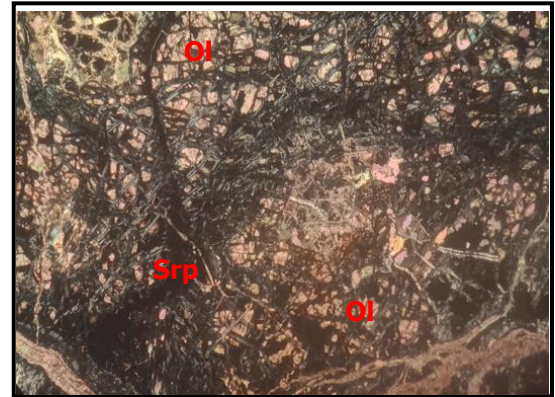
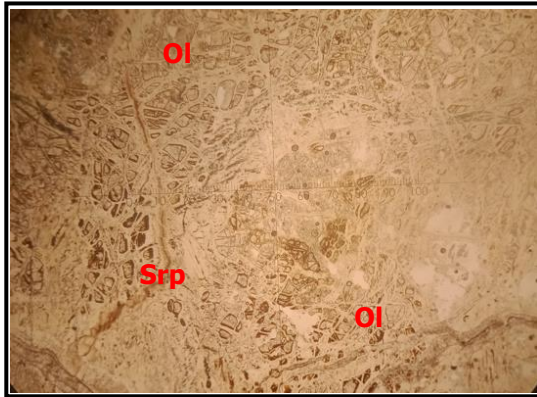
<p>Mikroskopis : Warna absorpsi kuning kecoklatan dan warna interferensi abu-abu kehitaman. Memiliki tekstur <i>rims</i> dan tekstur <i>mesh</i>, dengan fabrik euhedral-subhedral. Berukuran butiran 0,1 – 2 μm. Terdapat mineral Serpentin 35%, Kuarsa 50%, Olivin 5%, dan Spinel 10%.</p>		
Deskripsi Mineralogi		
Komposisi Mineral	Jumlah (%)	Keterangan Optik Mineral
Serpentin (Srp)	35%	Warna absorpsi tidak berwarna, warna interferensi abu-abu, relief rendah, intensitas cahaya tinggi. Berbentuk mineral subhedral-anhedral ukuran mineral 0,1 – 0,5 μm , jenis pepadaman bergelombang, orientasi optik <i>length slow</i> . Dengan kenampakan tekstur <i>mesh</i> .
Kuarsa (Qz)	50%	Warna absorpsi tidak berwarna, warna interferensi putih, dengan relief rendah, intensitas cahaya tinggi. Berbentuk subhedral-anhedral berukuran 0,5 – 1,25 μm . Dengan pleokroisme dwikroik. Tidak memiliki belahan dan pecahan uneven. Memiliki jenis gelap bergelombang. Kenampakan berupa <i>vein</i> .
Olivin (Ol)	5%	Warna absorpsi tidak berwarna, warna interferensi abu-abu dengan relief sedang, intensitas cahaya tinggi. Berbentuk subhedral-anhedral berukuran 0,5 – 1,75 μm . Dengan <i>pleokroisme dwikroik</i> . Tidak memiliki belahan dan pecahan uneven. Memiliki sudut gelap 35° yang merupakan jenis gelap miring. Mineral ini mengalami proses serpentinisasi.
Spinel (Sp)	10%	Warna absorpsi coklat kehitaman, warna interferensi hitam kecoklatan, relief sedang, intensitas cahaya rendah, pecahan tidak rata, bentuk mineral subhedral-anhedral ukuran mineral 1,75 - 2 μm . Mineral ini mengalami proses serpentinisasi.
Jenis Batuan Peridotit : -		

No. Sampel : *Bedrock* CB-01

Nama Batuan : Peridotit Terserpentinisasi

Lokasi : PT IFISHDECO Tbk.

Foto



// - Nikol

X - Nikol

Lensa Okuler : 10x

Lensa Objektif : 4x

Perbesaran Total : 40x

Tipe Batuan : Batuan beku ultrabasa

Struktur : Masif

Tekstur : *Rims Texture dan Mesh Texture*

Mikroskopis : Warna absorpsi kuning kecoklatan dan warna interferensi abu-abu kehitaman. Memiliki tekstur *rim*s dan tekstur *mesh*, dengan fabrik euhedral-subhedral. Berukuran butiran 0,1 – 2 μ m. Terdapat mineral Serpentin 35%, Kuarsa 50%, Olivin 5%, dan Spinel 10%.

Deskripsi Mineralogi

Komposisi Mineral	Jumlah (%)	Keterangan Optik Mineral
Serpentine (Srp)	35%	Warna absorpsi tidak berwarna, warna interferensi abu-abu, relief rendah, intensitas cahaya tinggi. Berbentuk mineral subhedral-anhedral ukuran mineral 0,1 – 0,5 μ m, jenis pepadaman bergelombang, orientasi optik <i>length slow</i> . Dengan kenampakkan tekstur <i>mesh</i> .
Kuarsa (Qz)	20%	Warna absorpsi tidak berwarna, warna interferensi putih, dengan relief rendah, intensitas cahaya tinggi. Berbentuk subhedral-anhedral berukuran 0,5 – 1,25 μ m. Dengan pleokroisme dwikroik. Tidak memiliki belahan dan pecahan uneven. Memiliki jenis gelapan bergelombang. Kenampakan berupa <i>vein</i> .
Olivin (Ol)	35%	Warna absorpsi tidak berwarna, warna interferensi abu-abu dengan relief sedang, intensitas cahaya tinggi. Berbentuk subhedral-anhedral berukuran 0,5 – 1,75 μ m. Dengan pleokroisme dwikroik. Tidak memiliki belahan dan pecahan uneven. Memiliki sudut gelapan 35° yang merupakan jenis gelapan miring. Mineral ini mengalami proses serpentinisasi.
Spinel (Sp)	10%	Warna absorpsi coklat kehitaman, warna interferensi hitam kecoklatan, relief sedang, intensitas cahaya rendah, pecahan tidak rata, bentuk mineral subhedral-anhedral ukuran mineral 1,75 - 2 μ m. Mineral ini mengalami proses serpentinisasi.

Jenis Batuan Peridotit : -

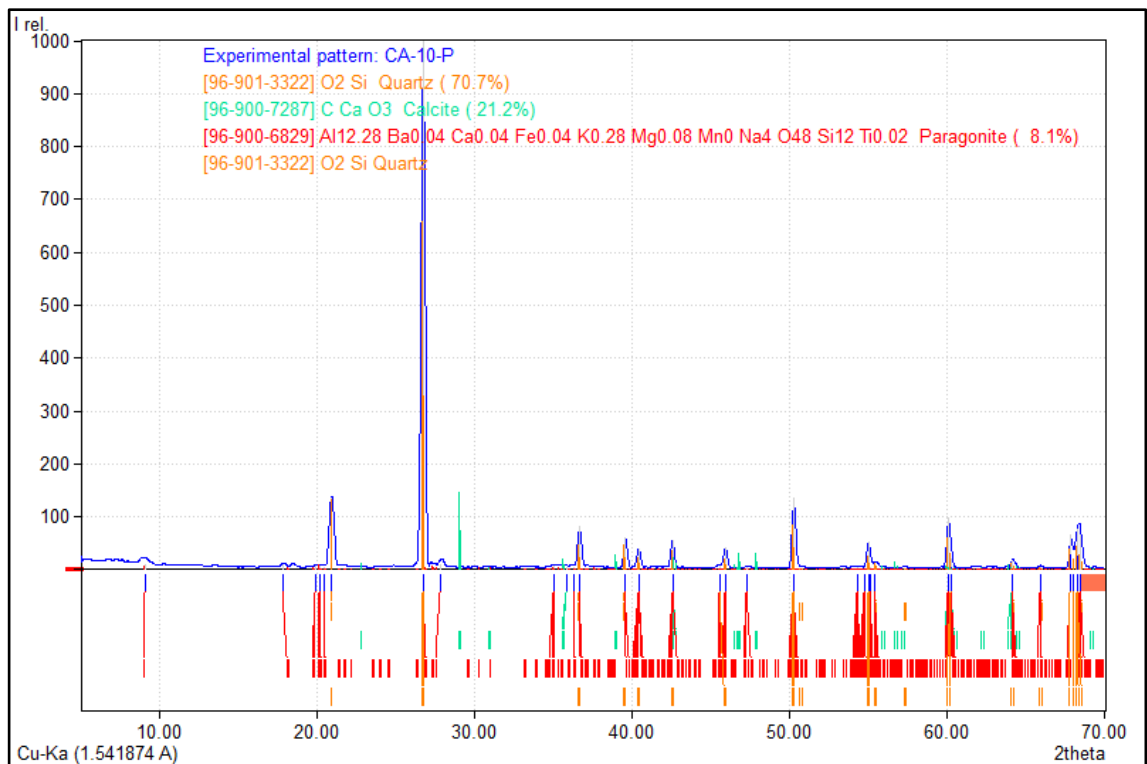
Lampiran E
Hasil Analisis *X-Ray Diffraction* (XRD)

Sampel Pasir CA-10

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	70,7	Quartz	O2 Si
B	21,2	Calcite	C Ca O3
C	8,1	Paragonite	Al12.28 Ba0.04 Ca0.04 Fe0.04 K0.28 Mg0.08 Mn0 Na4 O48 Si12 Ti0.02
	1,4	Unidentified peak area	

Diffraction Pattern Graphics



Peak List

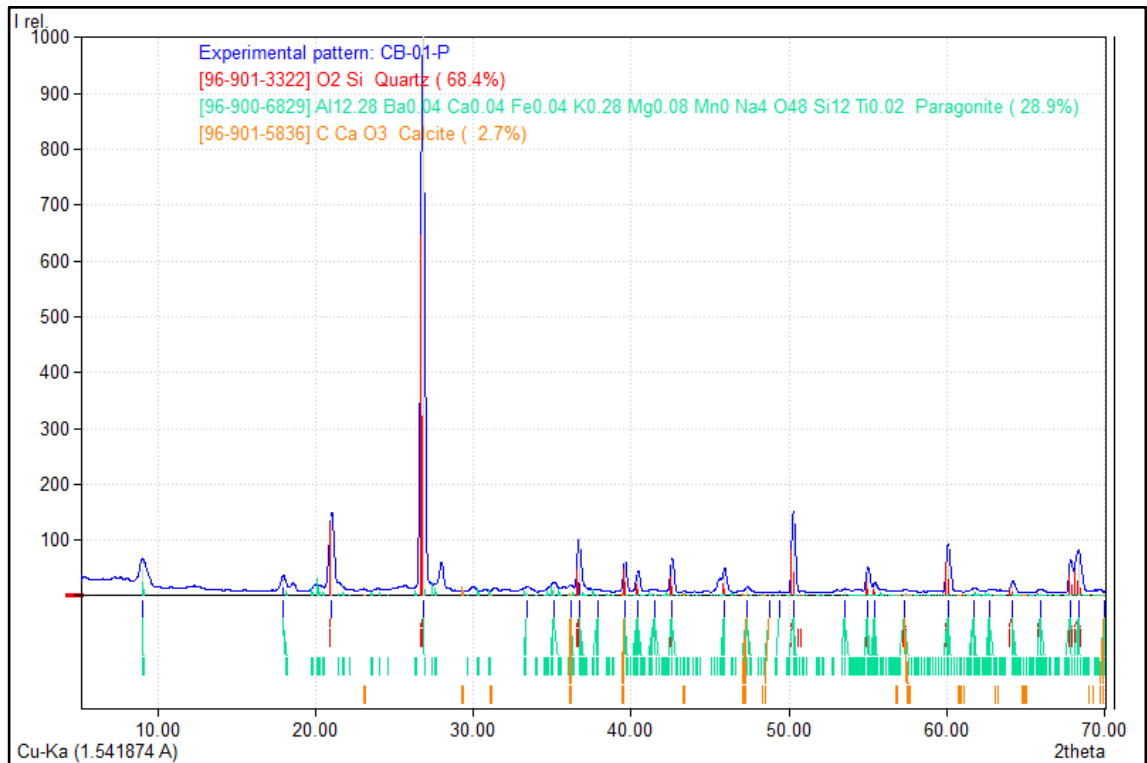
No.	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	9,10	9,7204	10,16	0,2800	C
2	17,82	4,9767	9,19	0,2800	C
3	19,89	4,4634	5,88	0,2800	C
4	20,14	4,4088	5,54	0,2800	C
5	20,44	4,3445	5,14	0,2800	C
6	20,88	4,2539	135,81	0,2800	A
7	26,75	3,3322	1000,00	0,2800	A,C
8	27,81	3,2081	10,42	0,2800	C
9	35,02	2,5627	5,93	0,2800	C
10	35,82	2,5069	4,76	0,2800	B
11	36,27	2,4771	5,35	0,2800	C
12	36,64	2,4524	80,99	0,2800	A,C
13	39,57	2,2778	61,04	0,2800	A,C
14	40,41	2,2323	39,37	0,2800	A,C
15	42,55	2,1246	55,43	0,2800	A,B,C
16	45,54	1,9919	5,55	0,2800	C
17	45,90	1,9771	42,08	0,2800	A,C
18	47,30	1,9219	5,28	0,2800	C
19	50,24	1,8159	136,02	0,2800	A,C
20	54,27	1,6904	4,81	0,2800	C
21	54,75	1,6767	5,08	0,2800	C
22	54,97	1,6705	52,40	0,2800	A
23	55,12	1,6663	4,80	0,2800	C
24	55,41	1,6582	10,77	0,2800	A,C
25	60,04	1,5410	99,05	0,2800	A,B,C
26	60,22	1,5368	19,76	0,2800	B,C
27	64,10	1,4527	18,68	0,2800	A,B,C
28	65,88	1,4179	4,79	0,2800	A,C
29	67,81	1,3820	66,87	0,2800	A,C
30	68,01	1,3785	19,09	0,2800	A,C
31	68,22	1,3748	76,12	0,2800	A,B,C
32	68,40	1,3716	66,42	0,2800	A,B,C

Sampel Pasir CB-01

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	68,4	Quartz	O2 Si
B	28,9	Paragonite	Al12.28 Ba0.04 Ca0.04 Fe0.04 K0.28 Mg0.08 Mn0 Na4 O48 Si12 Ti0.02
C	2,7	Calcite	C Ca O3
	2,7	Unidentified Peak Area	

Diffraction Pattern Graphics



Peak List

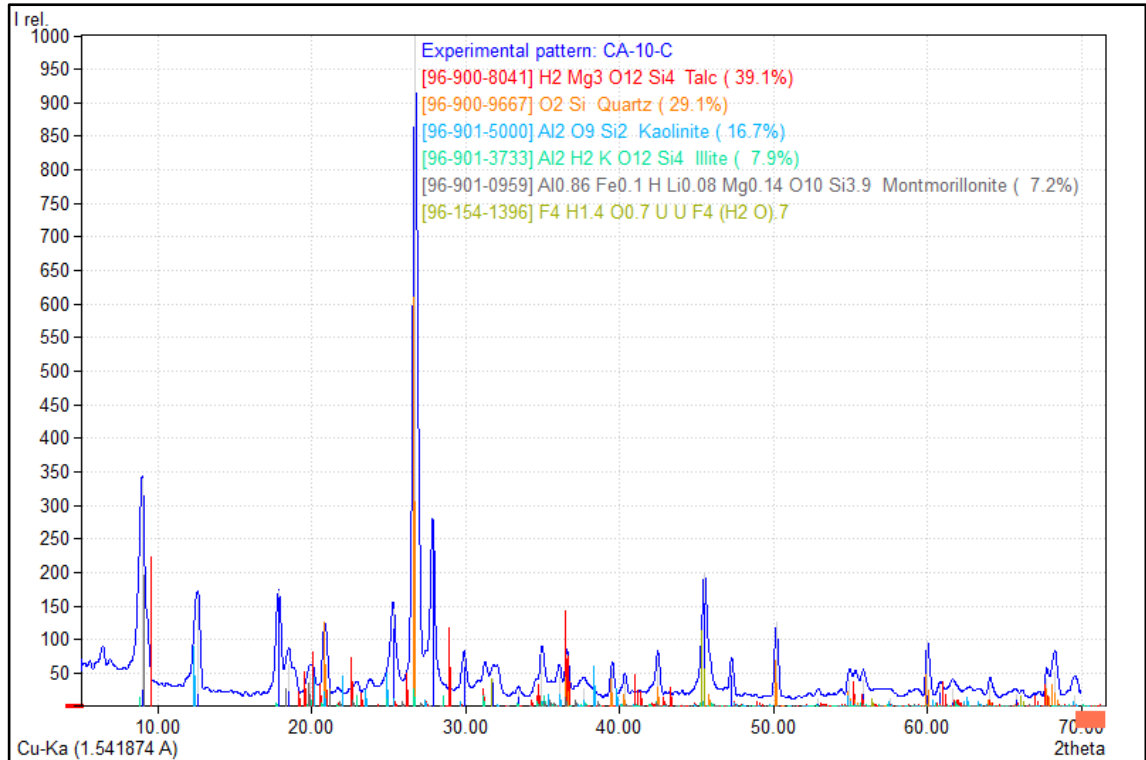
No.	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	8,97	9,8588	45,93	0,4992	B
2	17,91	4,9535	29,64	0,2800	B
3	20,99	4,2324	142,42	0,3168	A
4	26,77	3,3303	1000,00	0,2520	A,B
5	33,37	2,6852	8,14	0,5983	B
6	35,09	2,5574	16,56	0,3704	B
7	36,15	2,4848	2,05	0,2800	B,C
8	36,68	2,4498	102,92	0,2800	A,B
9	37,93	2,3722	2,78	0,5638	B
10	39,61	2,2754	61,18	0,2800	A,B,C
11	40,43	2,2311	38,52	0,2435	A,B
12	41,45	2,1785	4,61	0,5200	B
13	42,61	2,1218	62,85	0,2253	A,B
14	45,93	1,9759	38,54	0,4246	A,B
15	47,36	1,9194	9,49	0,2800	B,C
16	48,75	1,8680	1,08	0,2204	B,C
17	49,43	1,8439	1,22	0,2113	B
18	50,29	1,8144	146,02	0,2288	A,B
19	53,53	1,7119	5,17	0,5387	B
20	55,01	1,6693	44,39	0,2369	A,B
21	55,46	1,6569	17,89	0,2800	A,B
22	57,33	1,6072	3,18	0,3200	A,B,C
23	60,11	1,5393	88,49	0,2663	A,B
24	61,71	1,5032	7,63	0,3600	B
25	62,77	1,4803	3,74	0,6400	B
26	64,19	1,4510	19,12	0,2731	A,B
27	65,93	1,4168	5,87	0,4257	A,B
28	67,89	1,3806	24,03	0,2191	A,B
29	68,37	1,3721	67,89	0,5162	A,B
30	70,03	1,3436	0,58	0,0400	B,C

Sampel Lempung CA-10

Matched Phases

Indeks	Amount (%)	Name	Formula Sum
A	39,1	Talc	H ₂ Mg ₃ O ₁₂ Si ₄
B	28,1	Quartz	O ₂ Si
C	16,7	Kaolinite	Al ₂ O ₉ Si ₂
D	7,9	Illite	Al ₂ H ₂ K O ₁₂ Si ₄
E	7,2	Montmorillonite	Al _{0.86} Fe _{0.1} H Li _{0.08} Mg _{0.14} O ₁₀ Si _{3.9}
	9,0	Unidetified Peak Area	

Diffraction Pattren Graphics



Peak List

No.	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	9,01	9,8123	340,11	0,3600	D,E
2	12,58	7,0390	158,70	0,3200	C
3	17,86	4,9676	172,68	0,3200	D
4	18,50	4,7961	63,02	0,5710	E
5	19,85	4,4737	47,16	0,3200	A,C,D,E
6	20,84	4,2626	114,20	0,3442	A,B,C,D,E
7	22,90	3,8836	1,83	0,3510	A,D,E
8	25,29	3,5211	144,74	0,3200	A,C
9	26,75	3,3328	1000,00	0,3200	B,D
10	27,88	3,2002	280,70	0,3200	E
11	29,91	2,9875	72,89	0,3200	A,C
12	31,26	2,8614	18,87	0,7090	A,D
13	31,82	2,8123	40,28	0,8696	C
14	33,42	2,6816	23,17	0,3200	A,D
15	34,96	2,5666	79,25	0,3817	A,C,D,E
16	36,08	2,4895	43,55	0,3695	C,D,E
17	36,58	2,4566	77,19	0,3200	A,B,D,E
18	37,69	2,3868	25,57	0,3200	A,C,D,E
19	39,54	2,2791	55,00	0,3200	A,B,C
20	40,37	2,2342	33,95	0,3200	A,B,C,D,E
21	41,34	2,1841	3,28	0,5415	A,C,D,E
22	42,49	2,1278	72,32	0,3200	A,B,C,D,E
23	44,06	2,0553	3,88	0,1062	A,D,E
24	45,53	1,9922	199,39	0,3200	A,B,C,D
25	47,28	1,9226	59,85	0,2982	A,C,E
26	50,19	1,8177	125,59	0,3200	A,B,C,D
27	52,90	1,7308	10,80	0,6035	A,D,E
28	54,92	1,6718	39,48	0,2800	A,B,C,D
29	55,83	1,6468	39,79	0,3200	A,C,D,E
30	57,56	1,6013	11,32	0,5600	A,B,C,D
31	59,99	1,5421	95,17	0,3200	A,B,D,E
32	60,86	1,5222	30,18	0,3200	A,C,D,E

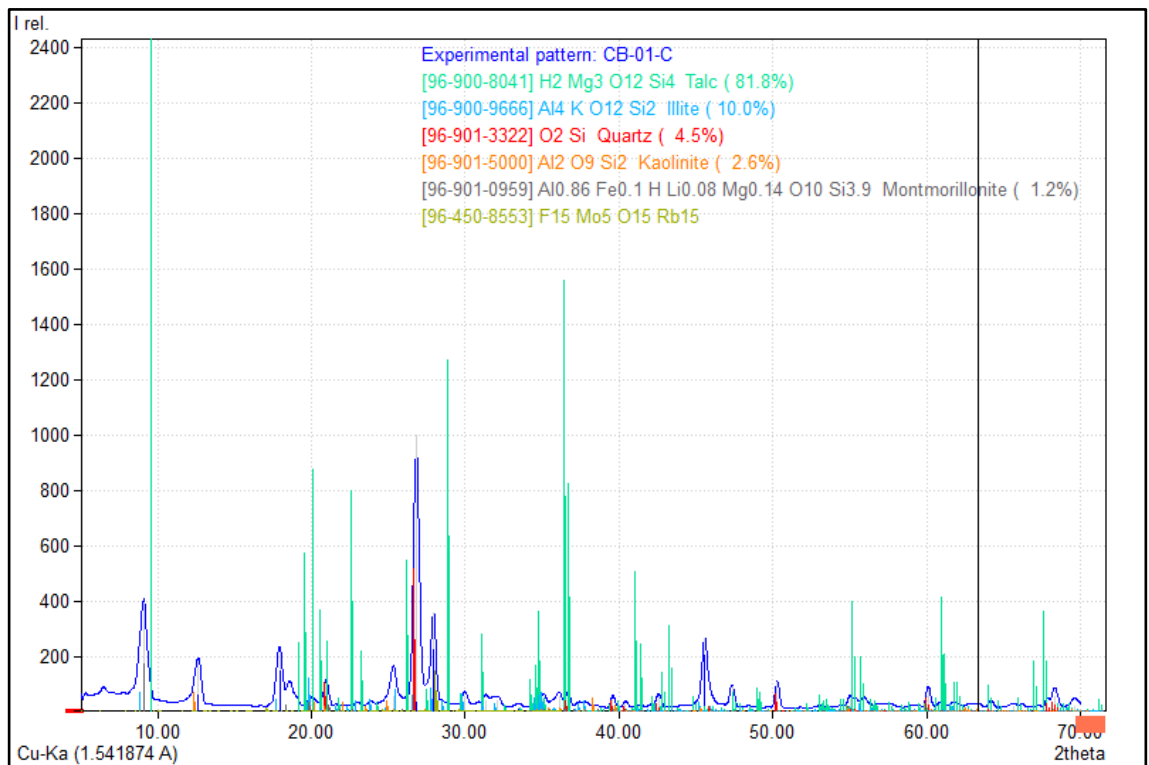
No.	2theta [°]	d [Å]	I/I0	FWHM	Matched
33	61,61	1,5054	27,30	0,3200	A,C,D,E
34	64,07	1,4534	33,69	0,3200	A,B,C,D,E
35	65,76	1,4201	18,13	1,0400	A,B,C,D
36	67,76	1,3830	40,92	0,3200	A,B,E
37	68,30	1,3733	52,01	0,2338	A,B,C,D,E
38	69,56	1,3515	16,77	0,3535	A,C,D,E

Sampel Lempung CB-01

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	81,8	Talc	H ₂ Mg ₃ O ₁₂ Si ₄
B	10,0	Illite	Al ₄ K O ₁₂ Si ₂
C	4,5	Quartz	O ₂ Si
D	2,6	Kaolinite	Al ₂ O ₉ Si ₂
E	1,2	Montmorillonite	Al _{0.86} Fe _{0.1} H Li _{0.08} Mg _{0.14} O ₁₀ Si _{3.9}
	5,1	Unidetified Peak Area	

Diffraction Pattren Graphics



Peak List

No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	9,08	9,7396	392,23	0,5354	B,E
2	12,62	7,0144	182,10	0,4610	D
3	17,92	4,9500	214,19	0,5479	B
4	20,94	4,2424	97,99	0,3618	A,B,C,D,E
5	23,00	3,8669	3,73	0,3600	A,B,E
6	25,32	3,5176	55,01	0,4800	A,B,D
7	26,82	3,3242	1000,00	0,4146	B,C,E
8	27,94	3,1934	355,66	0,3353	B,E
9	29,96	2,9826	49,49	0,4087	A,B,D
10	31,34	2,8543	38,97	0,4000	A,B
11	32,10	2,7884	36,30	0,6315	B,D
12	33,48	2,6766	12,01	0,4084	A,B
13	35,08	2,5581	46,11	0,5200	A,B,D,E
14	36,10	2,4881	53,01	0,4800	B,D,E
15	36,66	2,4514	50,16	0,3267	A,B,C,E
16	37,80	2,3800	19,92	0,9089	A,B,D,E
17	39,60	2,2759	45,65	0,3037	A,B,C,D
18	40,42	2,2316	22,31	0,2819	A,B,C,D,E
19	41,42	2,1800	5,92	0,3189	A,B,C,D
20	42,58	2,1233	49,45	0,3365	A,B,D,E
21	45,58	1,9903	262,32	0,4282	A,B,D
22	47,36	1,9195	87,36	0,3113	A,C
23	48,38	1,8814	5,20	0,2343	A,B,E
24	50,28	1,8147	105,48	0,2793	A,B,C,D
25	53,00	1,7278	8,46	0,4552	A,B,D,E
26	55,02	1,6690	42,59	0,3600	A,B,C,D,E
27	55,92	1,6443	37,18	0,5600	A,B,D,E
28	60,10	1,5395	81,17	0,2918	A,B,C,D,E
29	60,96	1,5199	17,43	0,4800	A,B,D,E
30	61,74	1,5025	16,23	0,5442	A,B,D,E
31	64,18	1,4512	28,37	0,3199	A,B,C,D,E
32	65,68	1,4216	17,79	1,0409	A,B,C,D

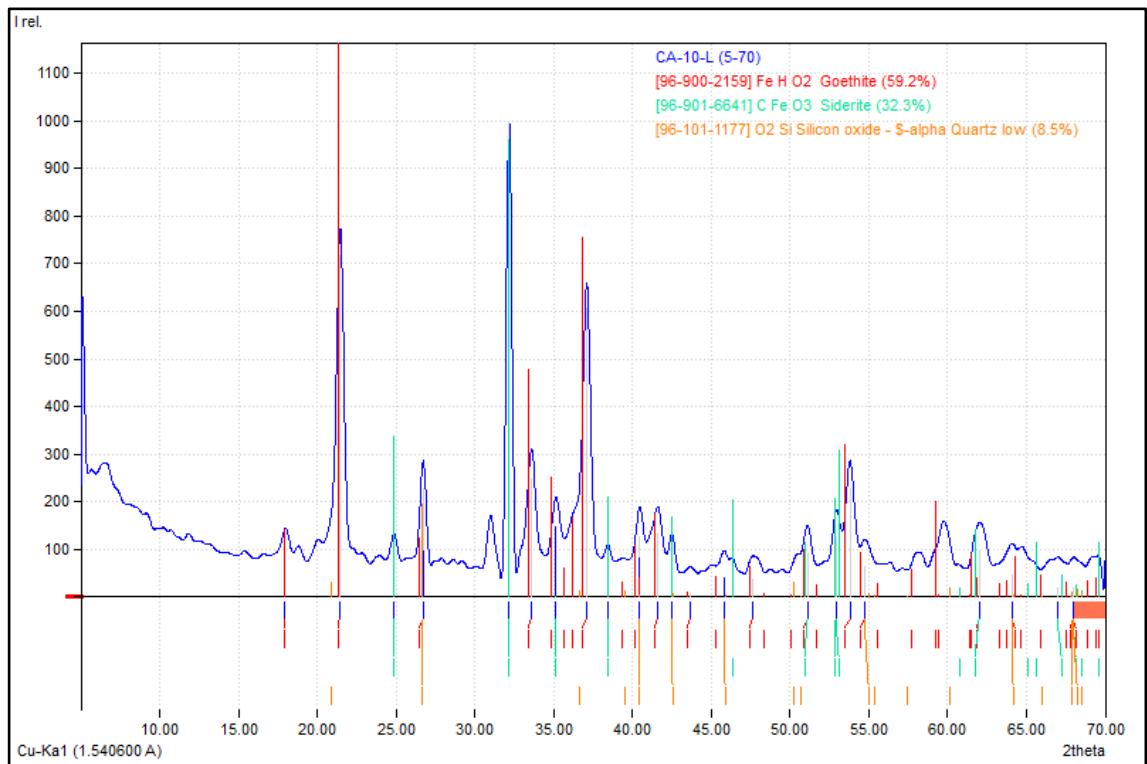
No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
33	68,34	1,3726	55,51	0,3551	A,B,C,D,E
34	69,62	1,305	20,23	0,2977	A,B,D,E

Sampel Limonit CA-10

Matched Phases

Indeks	Amount (%)	Name	Formula Sum
A	59,2	Goethite	Fe H O2
B	32,3	Siderite	C Fe O3
C	8,5	Quartz Low	O2 Si
	12,8	Unidetified Peak Area	

Diffraction Pattren Graphics



Peak List

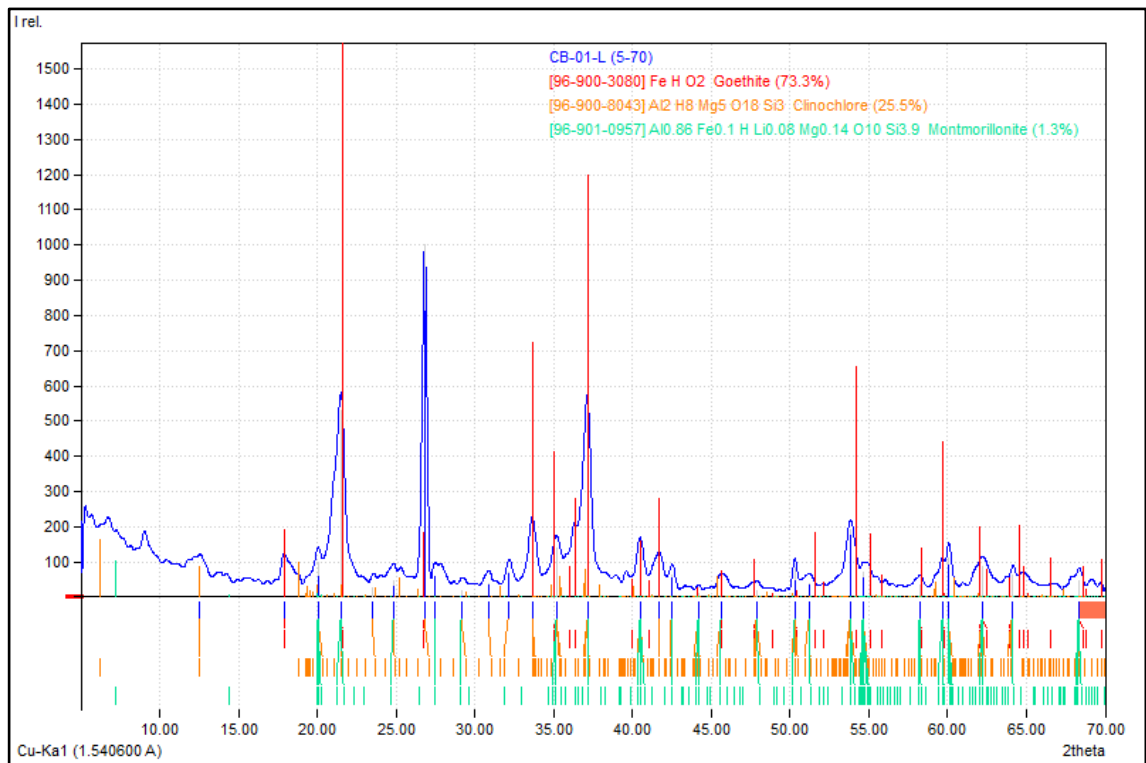
No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	17,94	4,9404	55,87	0,6588	A
2	21,46	4,1374	716,39	0,4961	A
3	24,86	3,5787	63,06	0,4402	B
4	26,72	3,3336	226,36	0,3982	A,C
5	32,18	2,7794	1000,00	0,3360	B
6	33,60	2,6651	249,33	0,6140	A
7	35,14	2,5518	146,72	0,6140	B
8	37,10	2,4213	606,84	0,5479	A
9	38,44	2,3399	50,43	0,5479	B
10	40,46	2,2277	126,76	0,6629	A,C
11	41,60	2,1692	133,28	0,6629	A
12	42,50	2,1253	77,63	0,6629	B,C
13	43,66	2,0715	8,65	0,8389	A
14	45,80	1,9796	41,17	1,0150	C
15	47,66	1,9066	36,36	1,0150	A
16	51,10	1,7860	90,19	0,7229	A,B
17	52,96	1,7276	126,01	0,7229	B
18	53,80	1,7026	227,11	0,7229	A
19	54,74	1,6755	63,00	0,7229	A,C
20	62,04	1,4947	96,46	0,8309	A,B
21	64,08	1,4520	47,02	0,8309	A,C
22	67,00	1,3956	19,06	0,8840	B
23	67,98	1,3779	18,07	0,9372	A,B,C

Sampel Limonit CB-01

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	73,3	Goethite	Fe H O2
B	25,5	Clinochlore	Al2 H8 Mg5 O18 Si3
C	1,3	Montmorillonie	Al0,86 Fe0,1 H Li0,08 Mg0,14 O10 Si3,9
	19,2	Unidetified Peak Area	

Diffraction Pattren Graphics



Peak List

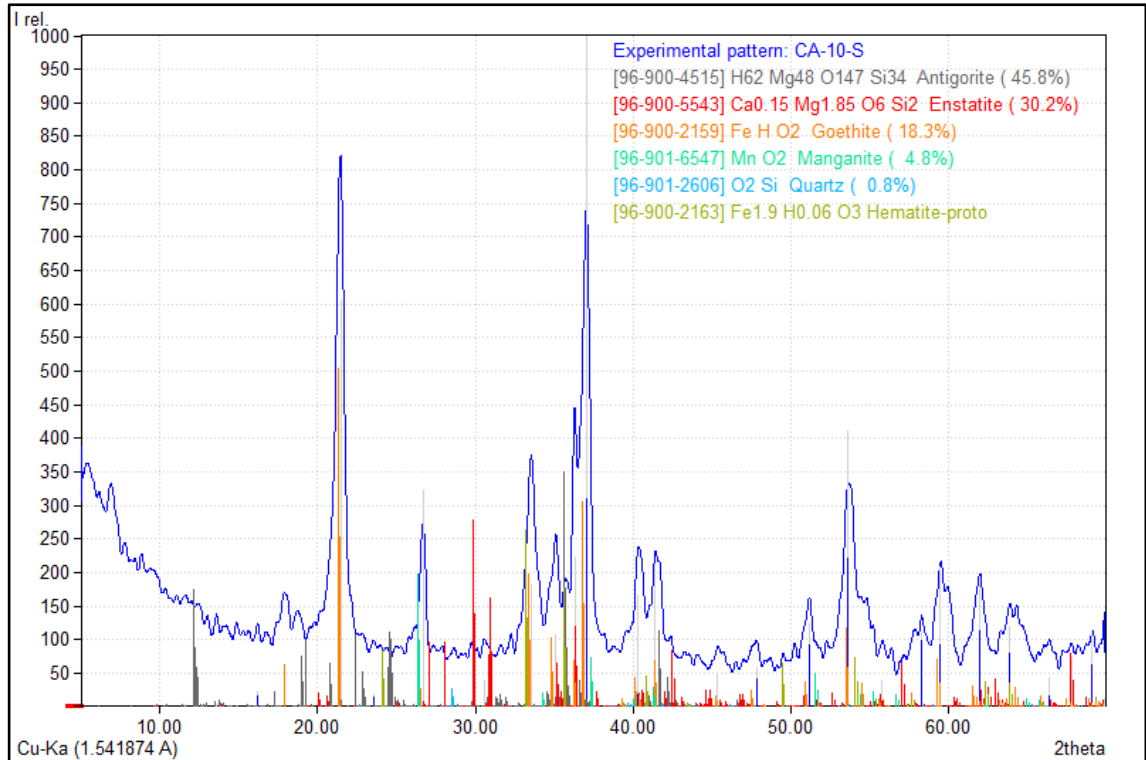
No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	12,56	7,0419	49,15	1,0033	B
2	17,90	4,9514	74,41	0,6523	A
3	20,06	4,4228	97,29	0,6745	B,C
4	21,50	4,1298	528,13	0,6967	A,B,C
5	23,52	3,7795	24,51	0,9525	B
6	24,84	3,5815	47,40	1,2084	B,C
7	26,82	3,3214	1000,00	0,3115	A,B
8	27,48	3,2431	58,31	0,3115	C
9	29,16	3,0600	17,43	0,4006	B,C
10	30,90	2,8915	39,21	0,4571	B
11	32,18	2,7794	70,88	0,4571	B
12	33,64	2,6620	192,23	0,5775	A,B
13	35,16	2,5503	139,90	0,5775	A,B,C
14	37,14	2,4188	538,42	0,6114	A,B,C
15	40,48	2,2266	138,44	0,5447	A,B,C
16	41,70	2,1642	96,46	0,5447	A,B
17	42,52	2,1244	63,00	0,5447	B,C
18	44,20	2,0474	9,14	0,1213	A,B,C
19	45,62	1,9870	42,00	0,6872	A,B,C
20	47,92	1,8968	19,55	0,6240	A,B,C
21	50,30	1,8125	83,36	0,3206	A,B,C
22	51,20	1,7827	38,45	0,5204	B,C
23	53,84	1,7014	189,88	0,7202	B,C
24	54,68	1,6772	72,18	0,7202	B,C
25	58,26	1,5824	32,62	0,5585	A,B,C
26	59,66	1,5486	83,80	0,6086	A,B,C
27	60,08	1,5387	111,09	0,6587	B,C
28	62,22	1,4909	86,86	1,0173	A,B,C
29	64,14	1,4508	62,20	1,0173	A,B,C
30	68,36	1,3711	48,02	0,8958	A,B,C

Sampel Saprolit CA-10

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	45,8	<i>Antigorite</i>	H62 Mg48 O147 Si34
B	30,2	<i>Enstatite</i>	Ca0,15 Mg1,85 O6 Si2
C	18,3	<i>Goethite</i>	Fe H O2
D	4,8	<i>Manganite</i>	Mn O2
E	0,8	<i>Quartz</i>	O2 Si
	7,6	<i>Unidetified Peak Area</i>	

Diffraction Pattren Graphics



Peak List

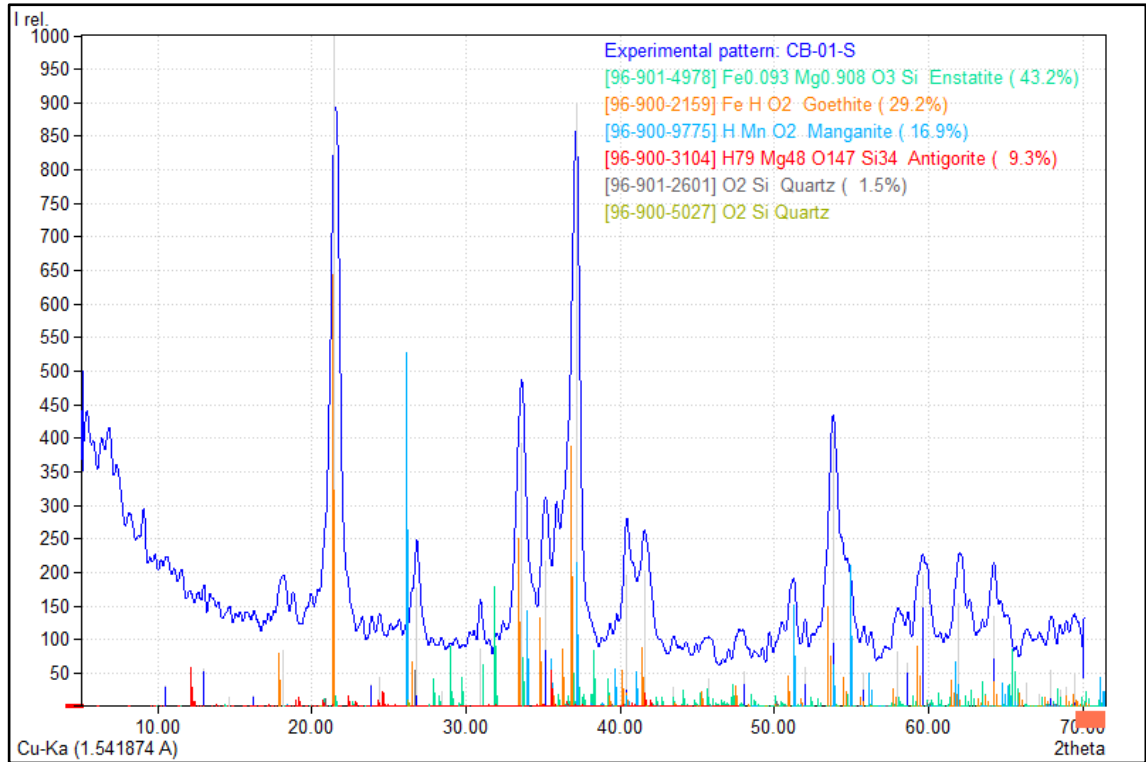
No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	11,59	7,6353	2,26	0,4400	A
2	13,59	6,5158	2,32	0,2400	A
3	16,19	5,4748	21,51	0,2400	A
4	17,89	4,9582	6,82	0,5200	A,C
5	21,45	4,1427	606,57	1,1579	A,C
6	23,53	3,7810	18,80	0,3200	A
7	26,67	3,3425	323,03	0,4200	A,B,C,D
8	28,61	3,1201	16,33	0,1934	A,E
9	30,57	2,9244	39,48	0,3592	A,B
10	33,55	2,6712	180,72	0,6800	A,C
11	35,09	2,5574	106,99	0,5600	A,B,C
12	36,31	2,4742	222,87	0,3600	A,B,C
13	37,05	2,4265	1000,00	0,7008	A,B,C,D
14	40,35	2,2353	165,76	0,4800	A,B,C,D
15	41,43	2,1795	213,17	1,2538	A,B,C,D
16	43,25	2,0919	7,48	0,2915	A,B,C,E
17	45,37	1,9990	46,67	0,7790	A,B,C
18	47,83	1,9018	58,35	0,6657	B,C
19	49,53	1,8404	37,82	1,0400	B,E
20	51,19	1,7845	123,29	1,0400	B,C
21	53,67	1,7078	411,81	0,9542	B,C,E
22	55,81	1,6473	38,60	1,0400	B,C
23	58,31	1,5825	111,36	1,1200	B,E
24	59,51	1,5534	208,02	0,7236	B,C
25	61,99	1,4971	181,54	0,8814	B,C,D
26	63,91	1,4567	118,45	1,1225	B,C
27	66,43	1,4074	42,35	0,8573	B
28	67,83	1,3817	73,68	0,6000	B,C
29	69,15	1,3585	112,70	0,8800	B,C
30	69,89	1,3459	12,33	0,0400	B,C

Sampel Saprolit CB-01

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	43,2	<i>Enstatite</i>	Fe _{0,093} Mg _{0,908} O ₃ Si
B	28,2	<i>Goethite</i>	Fe H O ₂
C	16,9	<i>Manganite</i>	H Mn O ₂
D	9,3	<i>Antigorite</i>	H ₇₉ Mg ₄₈ O ₁₄₇ Si ₃₄
E	1,5	<i>Quartz</i>	O ₂ Si
	3,8	<i>Unidetified Peak Area</i>	

Diffraction Pattren Graphics



Peak List

No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	10,51	8,4174	30,44	0,2400	D
2	12,99	6,8154	56,35	0,1947	D
3	14,63	6,0549	12,73	0,2000	A,D
4	16,23	5,4614	16,32	0,1587	D
5	18,13	4,8931	83,71	0,8667	B,C
6	21,47	4,1389	1000,00	0,6738	A,B,D
7	23,87	3,7279	33,73	0,4400	D
8	24,39	3,6496	43,95	0,3016	D
9	26,77	3,3303	177,35	0,6071	B,D,E
10	28,39	3,1438	22,59	0,2406	A,D
11	30,91	2,8930	86,58	0,3272	A,D
12	33,59	2,6681	392,15	0,7200	A,B,D
13	35,15	2,5532	217,05	0,6800	A,B,D
14	37,15	2,4202	898,28	0,7934	A,B,C,D
15	40,41	2,2321	195,53	0,4800	A,B,C,D,E
16	41,57	2,1725	202,58	1,1379	A,B,D
17	43,45	2,0828	29,02	0,3200	A,B,D
18	45,73	1,9841	41,24	0,7600	A,D,E
19	48,01	1,8950	52,64	1,1823	A
20	51,52	1,7826	146,93	0,9600	A,B,C
21	51,97	1,7596	57,09	0,3600	A,B,C
22	53,81	1,7037	408,51	1,1157	A,B,C
23	55,79	1,6478	50,55	0,4800	A,B,C
24	58,01	1,5899	80,62	0,5575	A,B
25	58,65	1,5741	63,98	0,4400	A
26	59,61	1,5510	195,82	1,1600	A,B
27	61,95	1,4979	152,64	1,1926	A,B,C
28	64,23	1,4502	133,88	1,0079	A,B,E
29	66,37	1,4085	34,54	0,6200	A,B
30	67,19	1,3933	17,96	0,2551	A
31	67,95	1,3796	53,14	0,3423	A,B,C,E
32	68,53	1,3693	24,44	0,1115	A,B,C,E

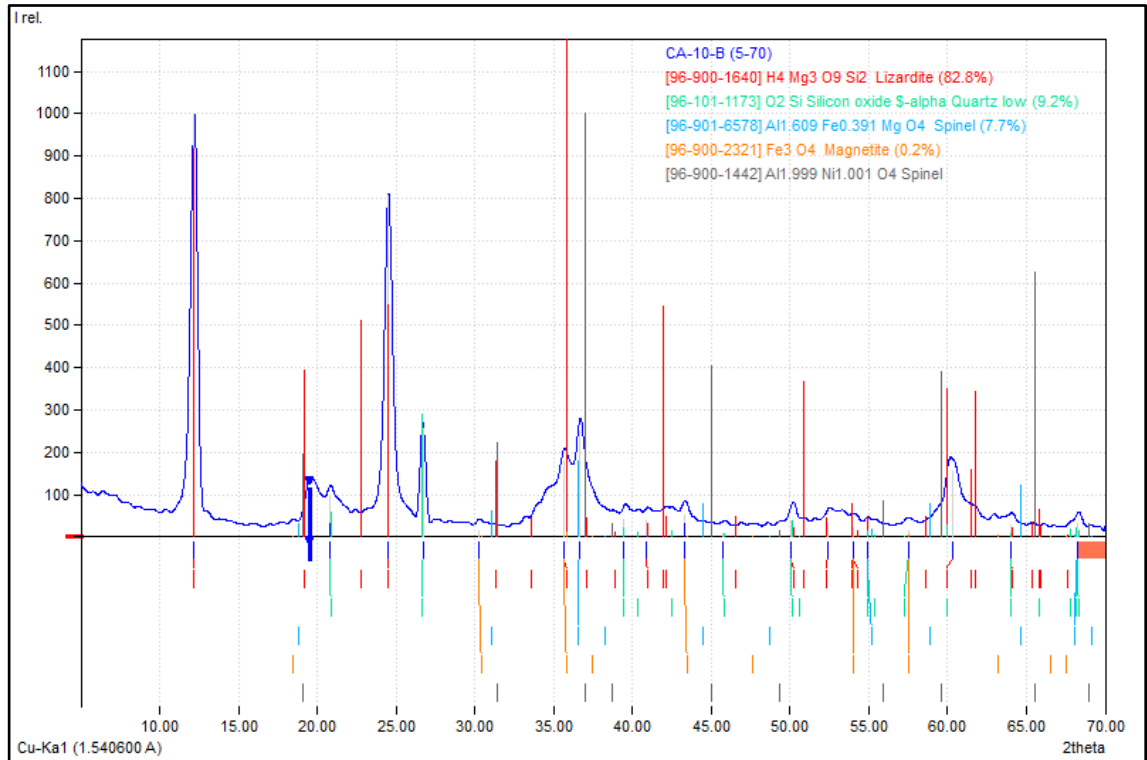
No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
33	68,95	1,3620	29,57	0,6766	A,B
34	69,47	1,3530	47,12	0,5600	A,B

Sampel Bedrock CA-10

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	82,8	<i>Lizardite</i>	H4 Mg3 O9 Si2
B	9,2	<i>Quartz Low</i>	O2 Si
C	7,7	<i>Spinel</i>	Al1.609 Fe0.391 Mg O4
D	0,2	<i>Magnetite</i>	Fe3 O4
	18,6	<i>Unidetified Peak Area</i>	

Diffraction Pattren Graphics



Peak List

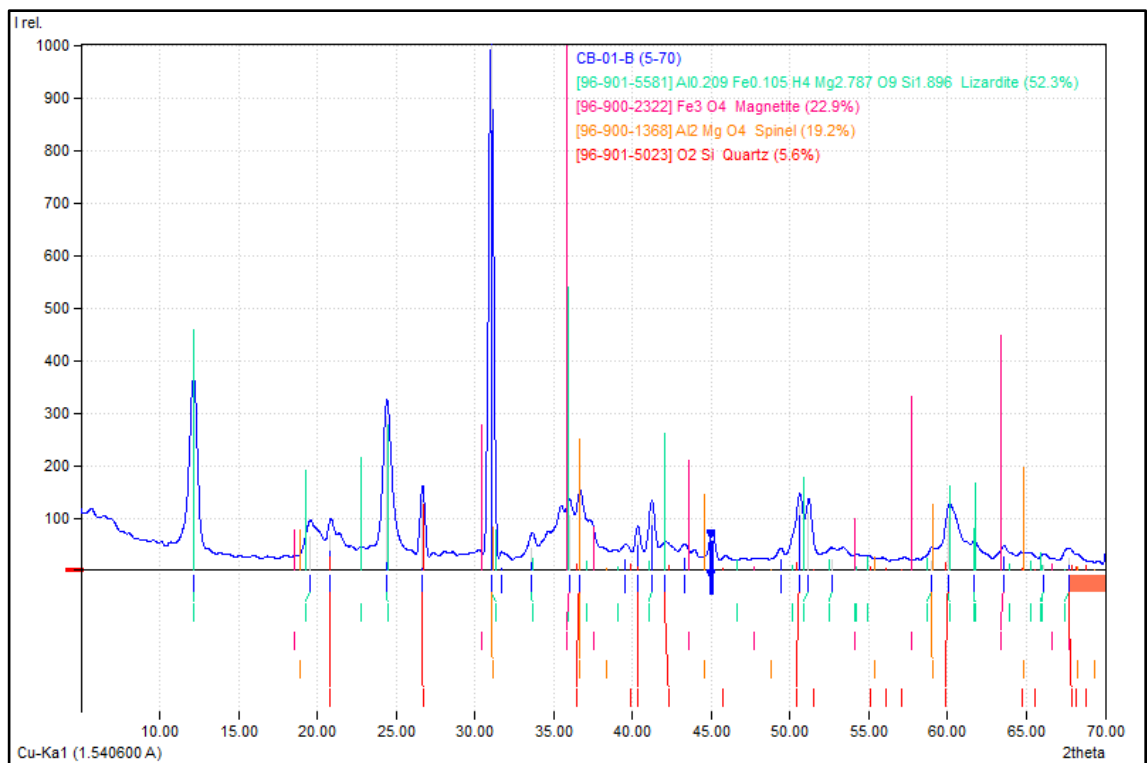
No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	12,20	7,2489	1000,00	0,4740	A
2	19,58	4,5302	112,59	1,1069	
3	20,82	4,2631	94,39	1,1069	B
4	24,52	3,6275	806,46	0,5624	A
5	26,70	3,3361	255,75	0,3681	B
6	30,28	2,9493	14,81	0,4835	D
7	35,66	2,5157	180,56	1,9200	A,D
8	36,64	2,4507	248,87	1,0800	B,C
9	39,46	2,2818	43,08	1,0800	B
10	40,92	2,2037	38,70	1,0800	A
11	43,28	2,0888	53,40	1,0800	D
12	45,78	1,9804	7,31	1,0800	B
13	50,04	1,8213	39,64	0,7112	A,B
14	52,40	1,7447	30,20	1,4526	A
15	54,0	1,6956	23,41	1,4526	A,D
16	54,90	1,6710	14,49	1,4526	A,B,C
17	57,52	1,6010	13,45	1,4526	B,D
18	60,28	1,5341	155,55	1,4526	A
19	64,02	1,4532	29,35	1,4526	A,B
20	68,22	1,3736	30,79	1,4526	B,C

Sampel Bedrock CB-01

Matched Phases

<i>Indeks</i>	<i>Amount (%)</i>	<i>Name</i>	<i>Formula Sum</i>
A	52,3	<i>Lizardite</i>	Al _{0.209} Fe _{0.105} H ₄ Mg _{2.787} O ₉ Si _{1.896}
B	22,9	<i>Magnetite</i>	Fe ₃ O ₄
C	19,2	<i>Spinel</i>	Al ₂ Mg O ₄
D	5,6	<i>Quartz</i>	O ₂ Si
	18,6	<i>Unidetified Peak Area</i>	

Diffraction Pattren Graphics



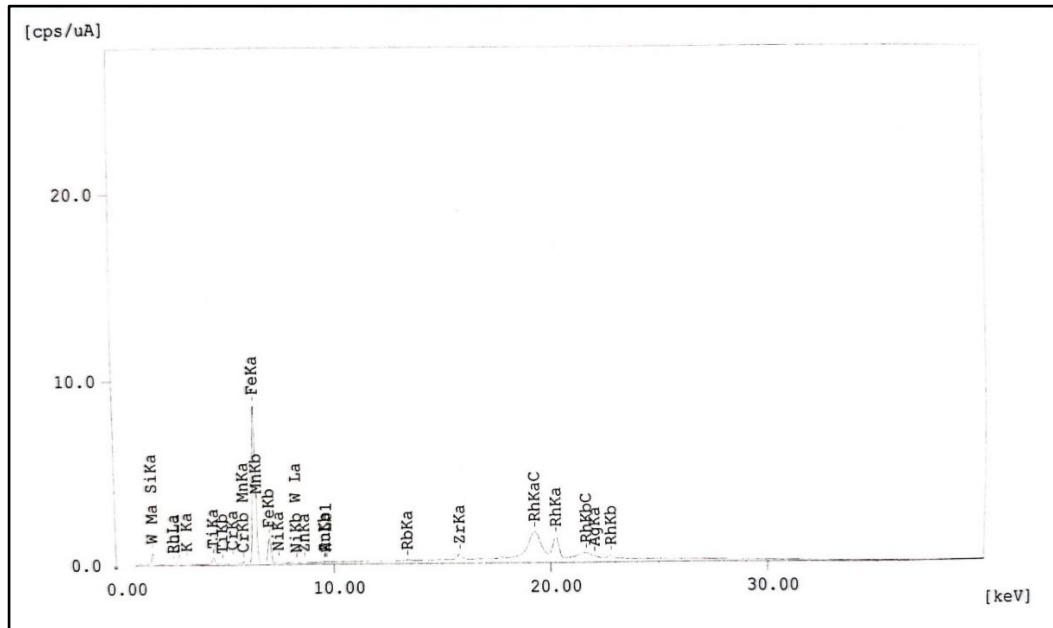
Peak List

No,	2theta [°]	d [Å]	I/I0	FWHM	Matched
1	12,16	7,2727	333,47	0,5203	A
2	19,52	4,5440	63,38	0,8775	A
3	20,82	4,2631	66,28	0,8775	D
4	24,42	3,6422	292,67	0,5854	A
5	26,68	3,3385	133,93	0,3037	D
6	31,04	2,8788	1000,00	0,3230	A,C
7	31,66	2,8238	3,43	0,4111	
8	33,62	2,6636	40,96	0,4992	A
9	36,00	2,4927	103,71	1,0296	A,B
10	36,68	2,4481	119,82	1,5600	C,D
11	39,54	2,2773	20,54	1,5600	
12	40,32	2,2351	55,19	1,5600	D
13	41,24	2,1873	104,52	1,5600	A
14	42,04	2,1475	26,78	1,5600	A,D
15	43,28	2,0888	24,01	1,5600	
16	45,06	2,0103	52,06	1,5600	
17	49,40	1,8434	20,85	1,5600	
18	50,62	1,8018	122,04	0,6400	D
19	51,18	1,7834	110,66	0,6400	A
20	52,66	1,7367	20,26	0,6400	A
21	58,96	1,5653	16,89	1,2445	A,C
22	60,08	1,5387	102,38	1,2445	A,D
23	61,68	1,5026	33,10	1,2445	A
24	63,56	1,4626	24,59	1,2445	B
25	66,10	1,4124	9,12	1,2445	A
26	67,68	1,3833	23,93	1,2445	A,B,D

LAMPIRAN F
HASIL ANALISIS *X-RAY FLUORESCENCE* (XRF)

Sampel Pasir CA-10

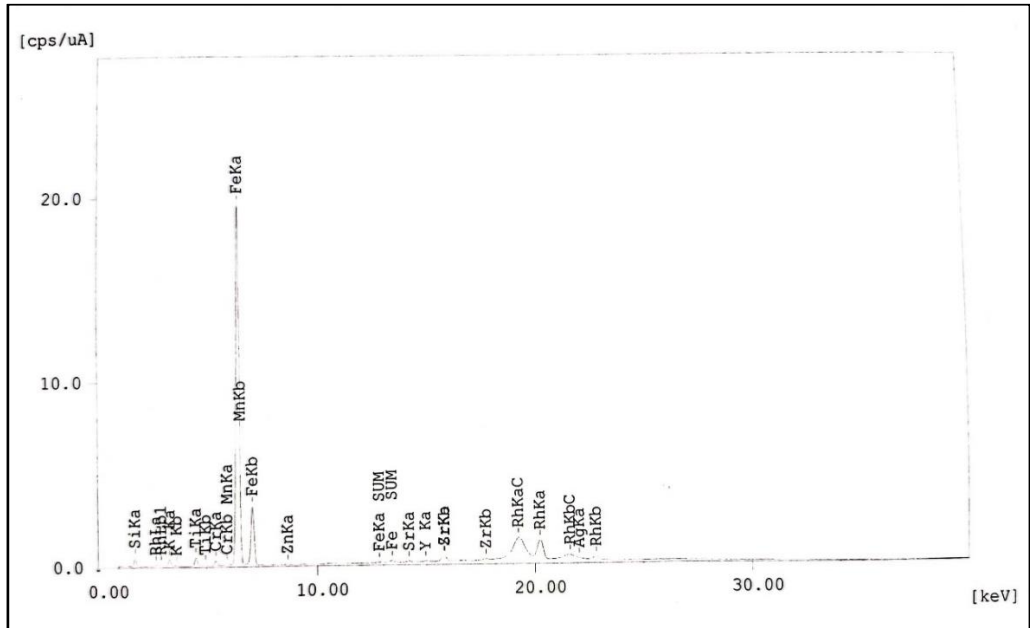
Diffraction Pattern Graphics



Unsur	Kadar (%)
Si	36,351
Al	9,138
Fe	3,342
K	0,655
Ti	0,316
Cr	0,109
S	0,055
Ni	0,028
Mn	0,026
Zr	0,021
Ag	0,008
Au	0,008
Zn	0,006
Rb	0,005
W	0,003

Sampel Pasir CB-10

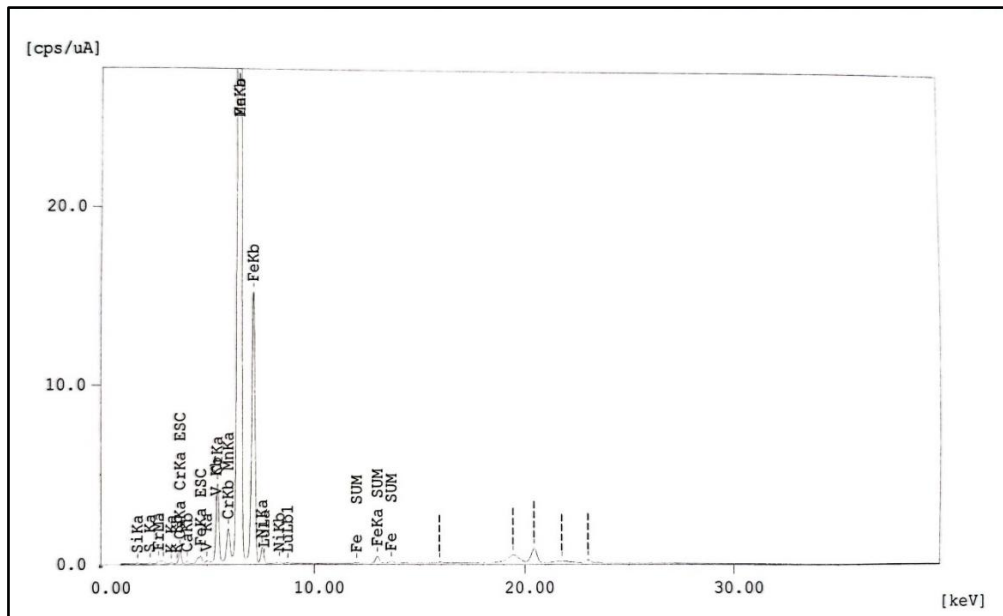
Diffraction Pattren Graphics



Unsur	Kadar (%)
Si	28,678
Al	15,433
Fe	7,024
K	1,514
Ti	0,367
S	0,085
Cr	0,103
Zr	0,021
Mn	0,011
Ag	0,013
Zn	0,006
Y	0,004
Sr	0,004

Sampel Lempung CA-10

Diffraction Pattren Graphics



Unsur	Kadar (%)
Si	22,288
Al	23,206
K	3,269
Fe	3,279
Ti	0,332
S	0,208
Ca	0,116
Mn	0,022
Cr	0,018
V	0,013
Zr	0,016
Rb	0,016
Ag	0,016
Ni	0,010
Sr	0,011

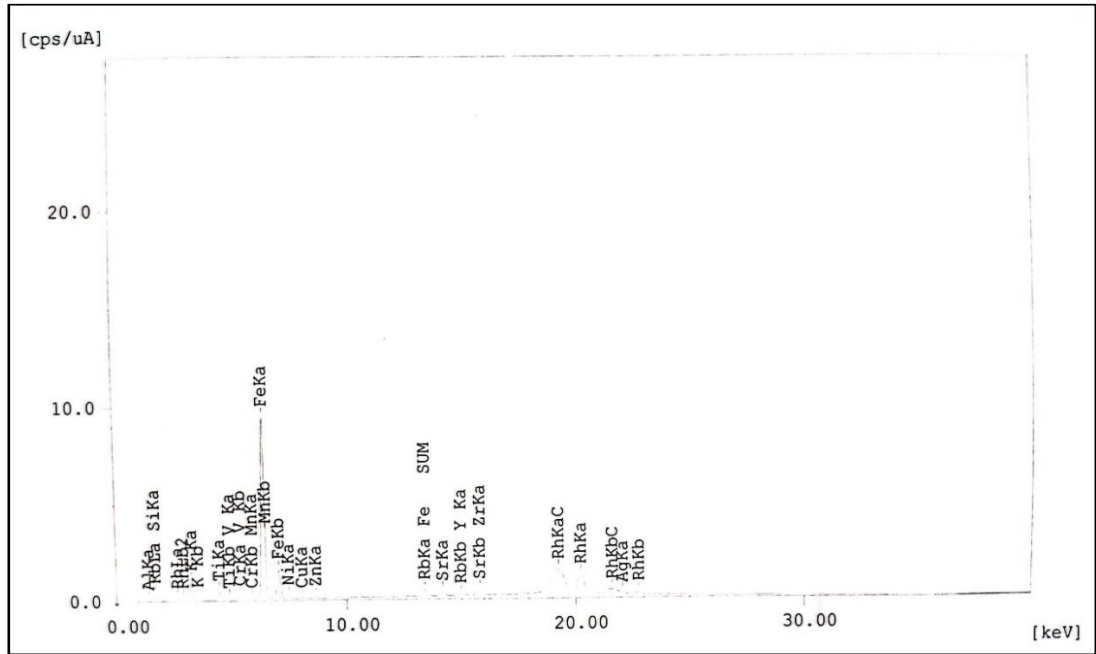
Zn	0,009
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Cu	0,005
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Y	0,004
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Sampel Lempung CB-01

Diffraction Pattren Graphics

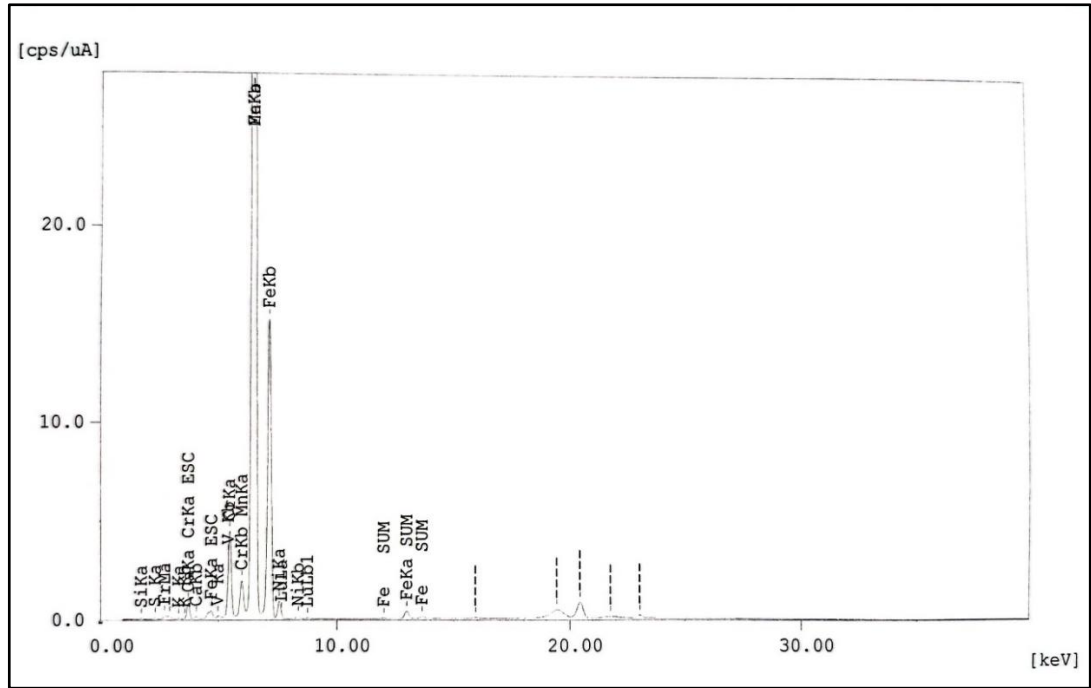


Unsur	Kadar (%)
Si	22,594
Al	22,835
K	3,332
Fe	3,020
S	0,253
Ti	0,351
Ca	0,095
Cr	0,076
Ni	0,027
V	0,018
Zr	0,015
Mn	0,015
Rb	0,016
Sr	0,014

Zn	0,010
Ag	0,010
Cu	0,007
Y	0,003

Sampel Limonit CA-10

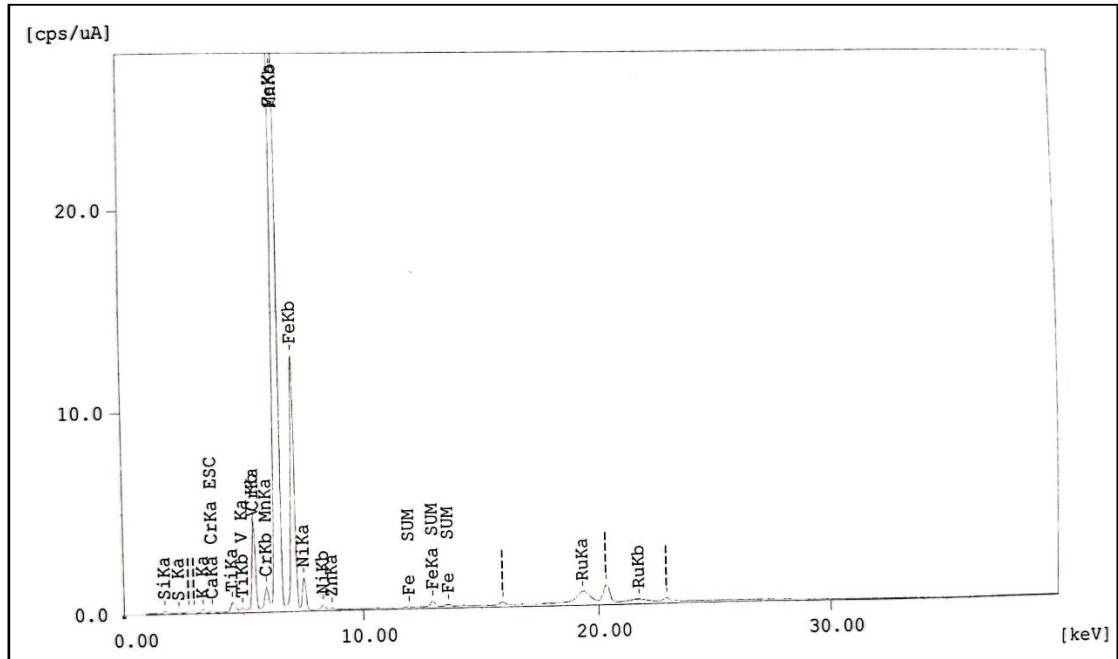
Diffraction Pattren Graphics



Unsur	Kadar (%)
Fe	59,338
Al	13,421
Si	5,375
Cr	1,605
S	0,840
Ca	1,324
Ni	0,583
Mn	0,493
K	0,130
Lu	0,123
V	0,031

Sampel Limonit CB-01

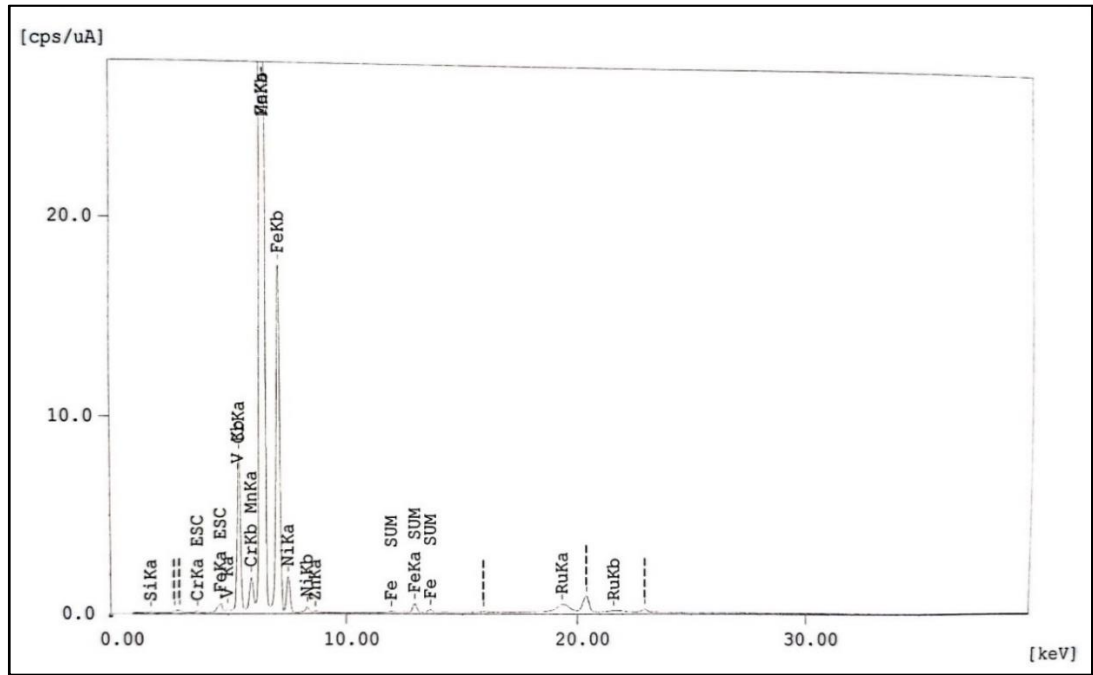
Diffraction Pattren Graphics



Unsur	Kadar (%)
Al	18,854
Fe	37,931
Si	10,535
Cr	1,483
S	0,640
Ni	0,686
Ti	0,355
K	0,431
Ru	0,210
Ca	0,191
Mn	0,152
V	0,037
Zn	0,027

Sampel Saprolit CA-10

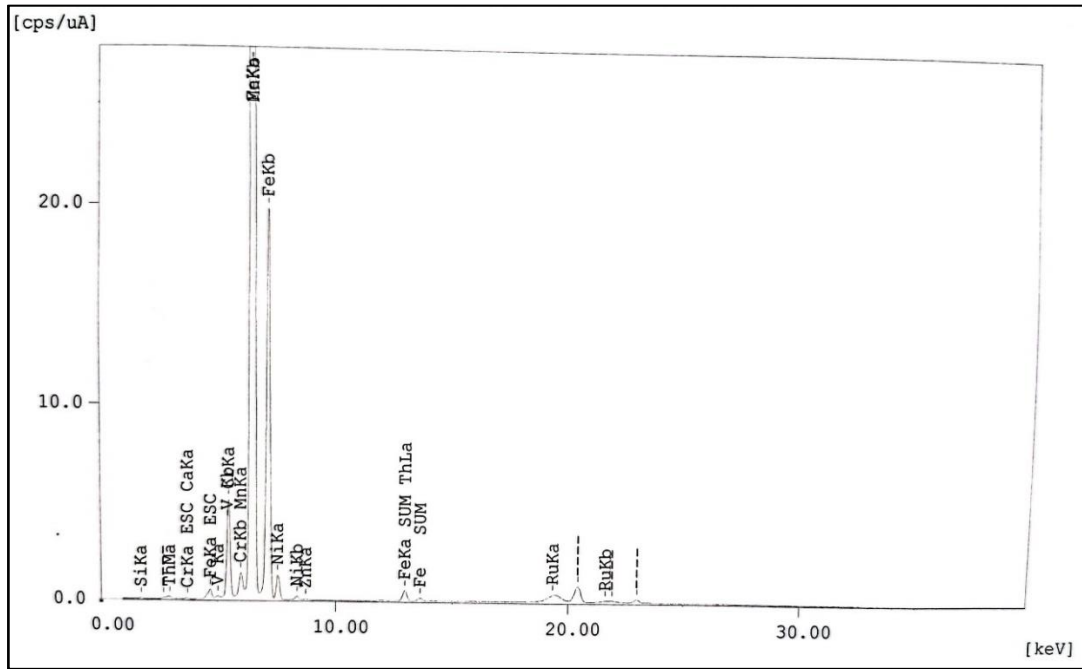
Diffraction Pattren Graphics



Unsur	Kadar (%)
Fe	64,007
Al	13,085
Si	4,641
Cr	2,536
Ni	1,193
Ru	0,223
Mn	0,167
V	0,039
Zn	0,042
Ca	0,034

Sampel Saprolit CB-01

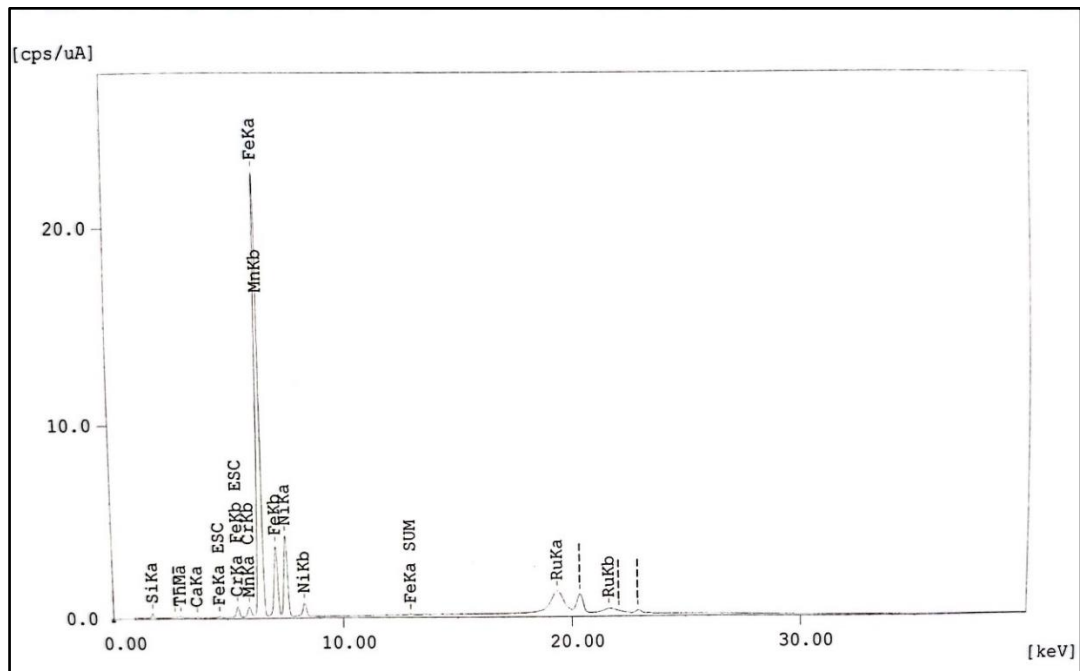
Diffraction Pattren Graphics



Unsur	Kadar (%)
Fe	90,837
Si	5,014
Cr	1,714
Ni	1,199
Ru	0,309
Mn	0,226
Zn	0,047
V	0,032
Ca	0,040
Th	0,006

Sampel Bedrock CA-10

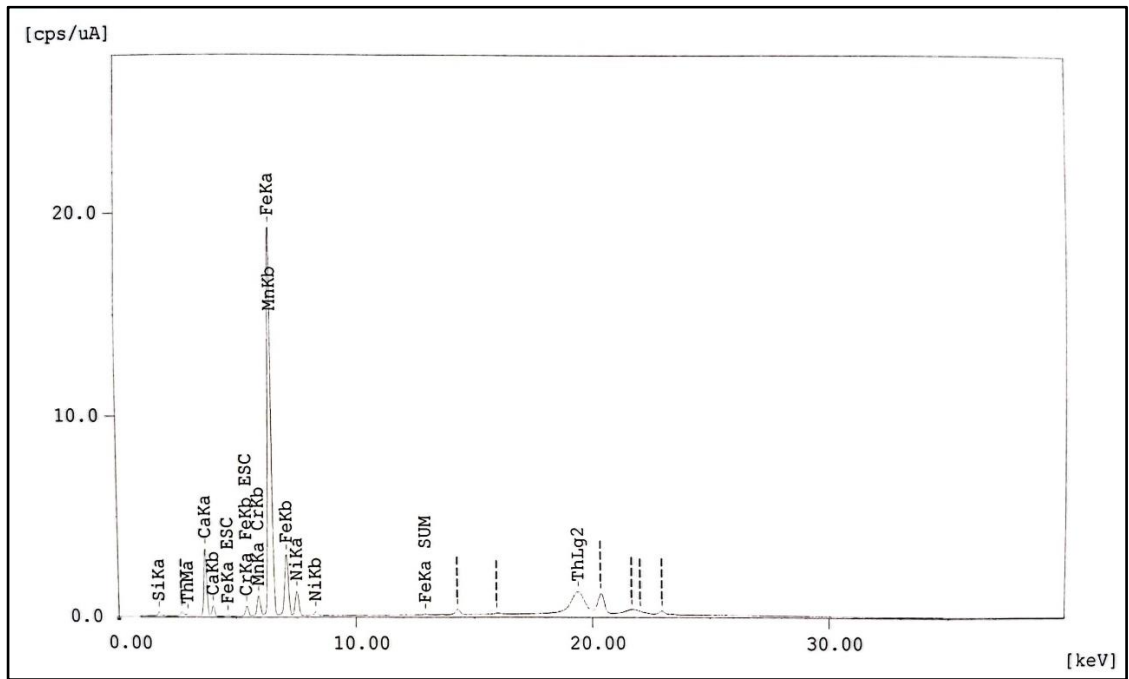
Diffraction Pattren Graphics



Unsur	Kadar (%)
Si	32,844
Fe	24,159
Ni	3,623
Ru	0,898
Cr	0,471
Mn	0,362
Ca	0,175

Sampel Bedrock CB-01

Diffraction Pattren Graphics



Unsur	Kadar (%)
Si	25,924
Fe	24,276
Ca	13,203
Ni	1,115
Mn	0,934
Cr	0,547

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DATA *LOGGINNG* PENGEBORAN

Contoh Data Logging CA-10 Blok X PT IFISHDECO Tbk, Site Tinanggea,

<i>DEPTH (M)</i>		<i>RECOVERY (%)</i>	LITOLOGI	ZONA
<i>FROM</i>	<i>TO</i>			
0	1	100	TANAH PENUTUP	TANAH PENUTUP
1	2	100	TANAH PENUTUP	TANAH PENUTUP
2	3	100	BATU PASIR	SEDIMEN
3	4	100	BATU PASIR	SEDIMEN
4	5	100	BATU PASIR	SEDIMEN
5	6	100	BATU PASIR	SEDIMEN
6	7	100	BATU PASIR	SEDIMEN
7	8	100	BATU PASIR	SEDIMEN
8	9	100	BATU PASIR	SEDIMEN
9	10	100	BATU PASIR	SEDIMEN
10	11	100	BATU PASIR	SEDIMEN
11	12	100	BATU PASIR	SEDIMEN
12	13	100	BATU PASIR	SEDIMEN
13	14	100	BATU PASIR	SEDIMEN
14	15	100	BATU PASIR	SEDIMEN
15	16	100	BATU PASIR	SEDIMEN
16	17	100	BATU PASIR	SEDIMEN
17	18	100	BATU PASIR	SEDIMEN
18	19	100	BATU PASIR	SEDIMEN
19	20	100	BATU PASIR	SEDIMEN
20	21	100	BATU PASIR	SEDIMEN
21	22	100	BATU PASIR	SEDIMEN
22	23	100	BATU PASIR	SEDIMEN
23	24	100	BATU PASIR	SEDIMEN
24	25	100	BATU PASIR	SEDIMEN
25	26	100	BATU LEMPUNG	SEDIMEN
26	27	100	BATU LEMPUNG	SEDIMEN
27	28	100	BATU LEMPUNG	SEDIMEN
28	29	80	BATU LEMPUNG	SEDIMEN
29	30	100	BATU LEMPUNG	SEDIMEN
30	31	100	BATU LEMPUNG	SEDIMEN
31	32	100	BATU LEMPUNG	SEDIMEN
32	33	100	BATU LEMPUNG	SEDIMEN
33	34	100	BATU LEMPUNG	SEDIMEN
34	35	100	BATU LEMPUNG	SEDIMEN
35	36	100	BATU LEMPUNG	SEDIMEN
36	37	100	BATU LEMPUNG	SEDIMEN
37	38	100	BATU LEMPUNG	SEDIMEN
38	39	100	BATU LEMPUNG	SEDIMEN
39	40	100	BATU LEMPUNG	SEDIMEN
40	41	100	BATU LEMPUNG	SEDIMEN
41	42	100	BATU LEMPUNG	SEDIMEN

<i>DEPTH (M)</i>		<i>RECOVERY (%)</i>	LOTOLOGI	ZONA
<i>FROM</i>	<i>TO</i>			
42	43	100	LIMONIT	SEDIMEN
43	44	100	LIMONIT	LIMONIT
44	45	100	LIMONIT	LIMONIT
45	46	100	LIMONIT	LIMONIT
46	47	100	LIMONIT	LIMONIT
47	47,6	100	LIMONIT	LIMONIT
47,6	48	100	SAPROLIT	LIMONIT
48	49	100	SAPROLIT	SAPROLIT
49	50	100	<i>BEDROCK</i>	SAPROLIT
50	51	100	<i>BEDROCK</i>	<i>BEDROCK</i>

Contoh Data Logging CB-01 Blok X PT IFISHDECO Tbk, Site Tinanggea,

<i>DEPTH (M)</i>		<i>RECOVERY (%)</i>	LITOLOGI	ZONA
<i>FROM</i>	<i>TO</i>			
0	1	100	TANAH PENUTUP	TANAH PENUTUP
1	2	100	TANAH PENUTUP	TANAH PENUTUP
2	3	100	BATU PASIR	TANAH PENUTUP
3	4	100	BATU PASIR	SEDIMEN
4	5	100	BATU PASIR	SEDIMEN
5	6	100	BATU PASIR	SEDIMEN
6	7	100	BATU PASIR	SEDIMEN
7	8	100	BATU PASIR	SEDIMEN
8	9	100	BATU PASIR	SEDIMEN
9	10	100	BATU PASIR	SEDIMEN
10	11	100	BATU PASIR	SEDIMEN
11	12	100	BATU PASIR	SEDIMEN
12	13	100	BATU PASIR	SEDIMEN
13	14	100	BATU PASIR	SEDIMEN
14	15	100	BATU PASIR	SEDIMEN
15	16	100	BATU PASIR	SEDIMEN
16	17	100	BATU PASIR	SEDIMEN
17	18	100	BATU PASIR	SEDIMEN
18	19	100	BATU PASIR	SEDIMEN
19	20	100	BATU PASIR	SEDIMEN
20	21	100	BATU PASIR	SEDIMEN
21	22	100	BATU PASIR	SEDIMEN
22	23	100	BATU PASIR	SEDIMEN
23	24	100	BATU PASIR	SEDIMEN
24	25	100	BATU PASIR	SEDIMEN
25	26	100	BATU PASIR	SEDIMEN
26	27	100	BATU PASIR	SEDIMEN
27	28	100	BATU PASIR	SEDIMEN
28	29	100	BATU PASIR	SEDIMEN

<i>DEPTH (M)</i>		<i>RECOVERY</i> (%)	LITOLOGI	ZONA
<i>FROM</i>	<i>TO</i>			
29	29	100	BATU PASIR	SEDIMEN
30	30	100	BATU PASIR	SEDIMEN
31	31	100	BATU PASIR	SEDIMEN
32	32	100	BATU LEMPUNG	SEDIMEN
32,2	32,2	60	LIMONIT	LIMONIT
33	33	100	LIMONIT	LIMONIT
34	34	100	LIMONIT	LIMONIT
35	35	100	LIMONIT	LIMONIT
36	36	100	LIMONIT	LIMONIT
37	37	100	SAPROLIT	SAPROLIT
38	38	100	SAPROLIT	SAPROLIT
39	39	100	SAPROLIT	SAPROLIT
39,8	39,8	100	<i>BEDROCK</i>	<i>BEDROCK</i>
40	40	100	<i>BEDROCK</i>	<i>BEDROCK</i>
41	41	100	<i>BEDROCK</i>	<i>BEDROCK</i>