

GOODMAN JACK TEST DATA SHEET

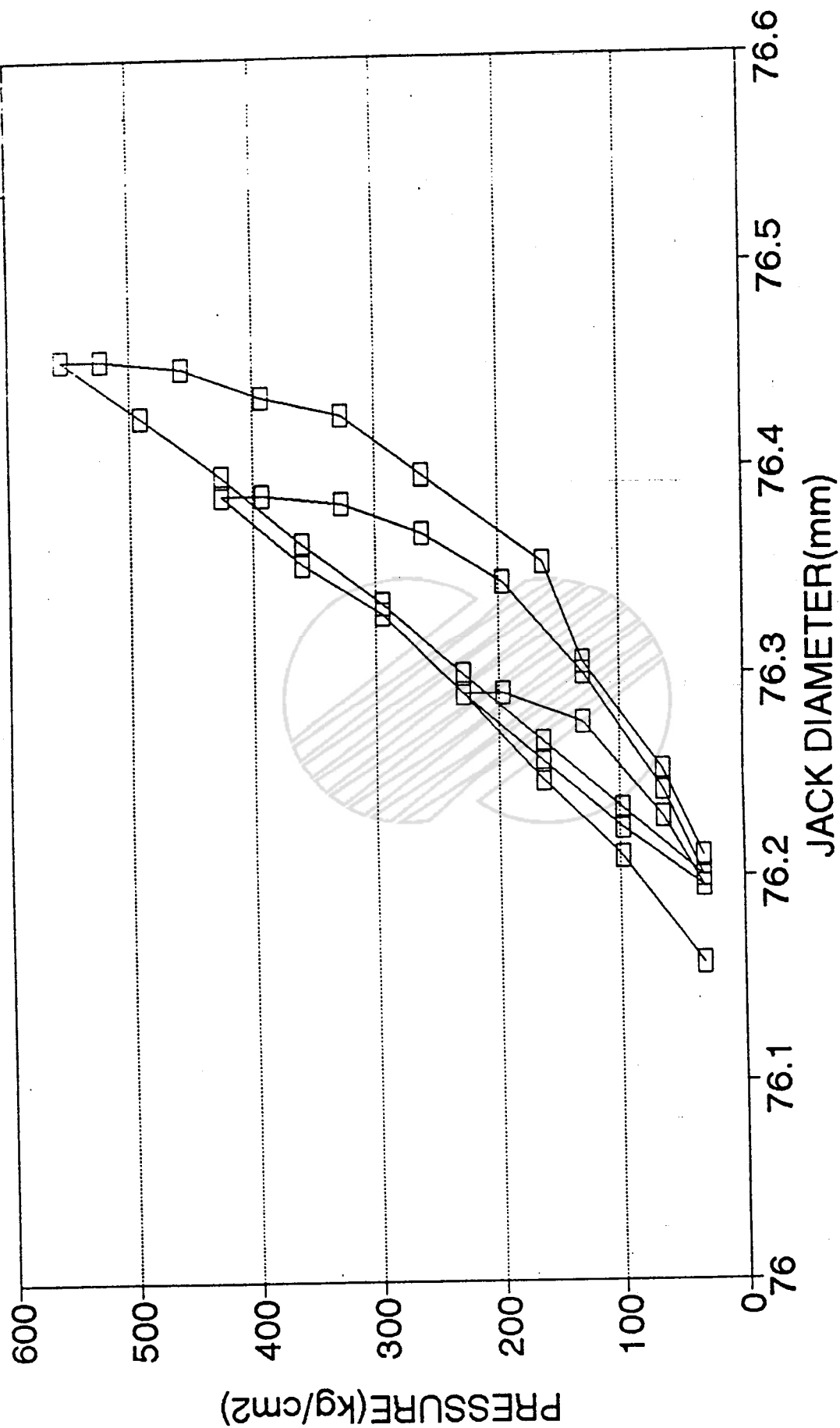
DATE : 1993.11.20
DEPTH : 70m

BOREHOLE NO. : P6-6
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.17	0.08	-0.05	76.16	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.13	0.15	0.01	76.21	
2500.00	163.46	-0.09	0.19	0.05	76.25	
3500.00	228.85	-0.05	0.24	0.10	76.29	
3000.00	196.16	-0.05	0.24	0.10	76.29	
2000.00	130.77	-0.06	0.22	0.08	76.28	
1000.00	65.39	-0.09	0.15	0.03	76.23	
500.00	32.69	-0.12	0.11	-0.00	76.20	
1500.00	98.08	-0.11	0.16	0.03	76.22	
2500.00	163.46	-0.08	0.20	0.06	76.26	
3500.00	228.85	-0.05	0.24	0.10	76.29	
4500.00	294.23	-0.01	0.28	0.14	76.33	
5500.00	359.62	0.01	0.31	0.16	76.35	
6500.00	425.01	0.05	0.34	0.20	76.39	
6000.00	392.31	0.05	0.34	0.20	76.39	
5000.00	326.93	0.05	0.33	0.19	76.38	
4000.00	261.54	0.03	0.32	0.18	76.37	
3000.00	196.16	0.01	0.29	0.15	76.34	
2000.00	130.77	-0.03	0.24	0.11	76.30	
1000.00	65.39	-0.08	0.17	0.05	76.24	
500.00	32.69	-0.12	0.12	0.00	76.20	
1500.00	98.08	-0.10	0.17	0.04	76.23	
2500.00	163.46	-0.07	0.21	0.07	76.27	
3500.00	228.85	-0.04	0.25	0.11	76.30	
4500.00	294.23	0.00	0.28	0.14	76.33	
5500.00	359.62	0.02	0.32	0.17	76.36	
6500.00	425.01	0.06	0.35	0.21	76.40	
7500.00	490.39	0.09	0.38	0.24	76.43	
8500.00	555.78	0.12	0.41	0.27	76.45	
8000.00	523.08	0.12	0.41	0.27	76.45	
7000.00	457.70	0.12	0.40	0.26	76.45	
6000.00	392.31	0.10	0.39	0.25	76.44	
5000.00	326.93	0.09	0.38	0.24	76.43	
4000.00	261.54	0.06	0.35	0.21	76.40	
2500.00	163.46	0.02	0.30	0.16	76.35	
2000.00	130.77	-0.02	0.24	0.11	76.31	
1000.00	65.39	-0.07	0.18	0.06	76.25	
500.00	32.69	-0.11	0.13	0.01	76.21	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-6-70)



GOODMAN JACK TEST DATA SHEET

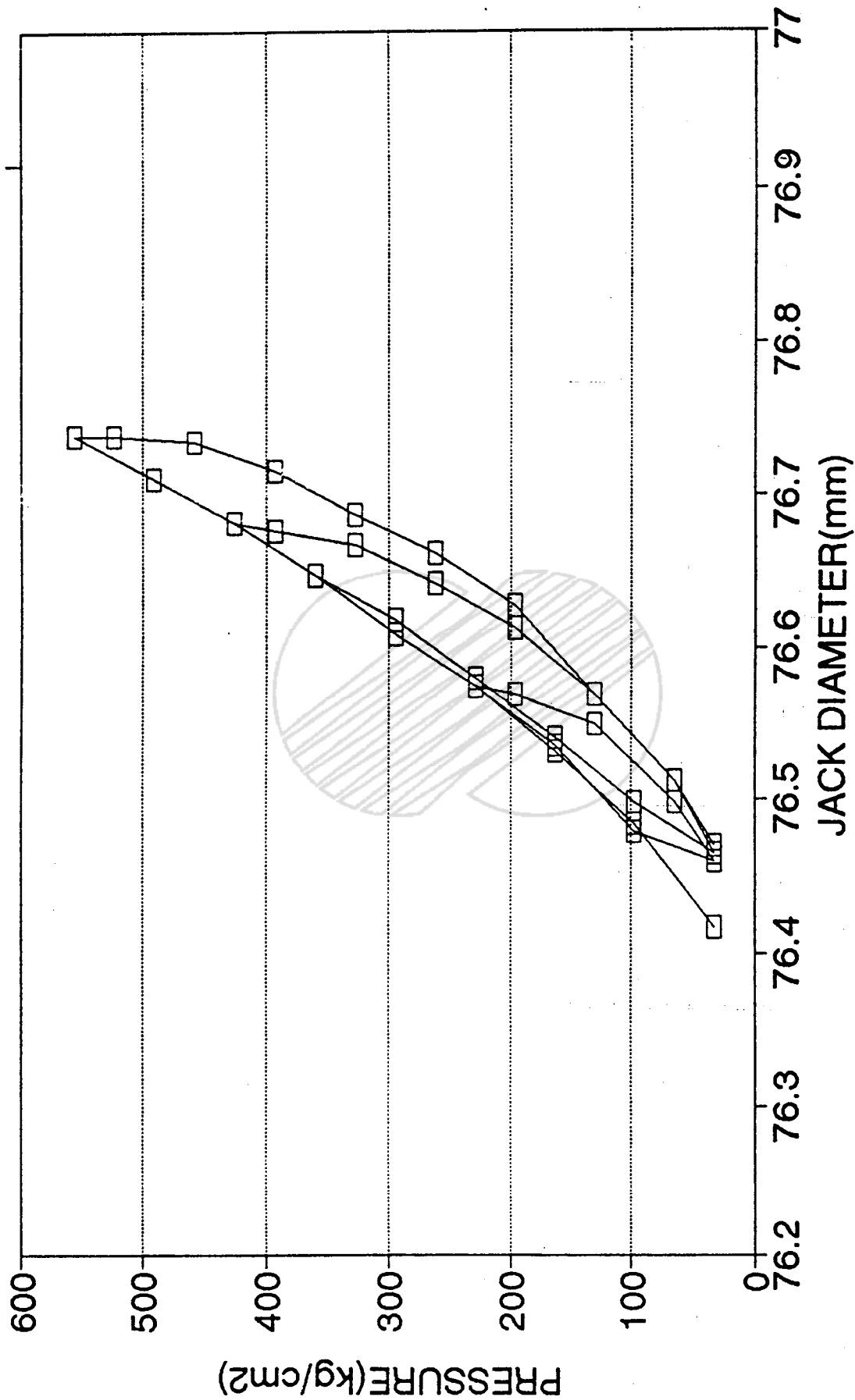
DATE : 1993.11.20
DEPTH : 19m

BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	0.18	0.27	0.23	76.42	FRESH, ANDESITE, SOLID
1500.00	98.08	0.22	0.37	0.30	76.48	
2500.00	163.46	0.26	0.43	0.35	76.53	
3500.00	228.85	0.30	0.48	0.39	76.58	
3000.00	196.16	0.29	0.48	0.39	76.57	
2000.00	130.77	0.26	0.47	0.37	76.55	
1000.00	65.39	0.22	0.40	0.31	76.50	
500.00	32.69	0.20	0.34	0.27	76.46	
1500.00	98.08	0.20	0.38	0.29	76.48	
2500.00	163.46	0.26	0.44	0.35	76.54	
3500.00	228.85	0.30	0.48	0.39	76.58	
4500.00	294.23	0.33	0.52	0.43	76.61	
5500.00	359.62	0.37	0.56	0.47	76.65	
6500.00	425.01	0.41	0.59	0.50	76.68	
6000.00	392.31	0.40	0.59	0.50	76.68	
5000.00	326.93	0.38	0.59	0.49	76.67	
4000.00	261.54	0.34	0.58	0.46	76.64	
3000.00	196.16	0.30	0.56	0.43	76.61	
2000.00	130.77	0.26	0.51	0.39	76.57	
1000.00	65.39	0.23	0.42	0.33	76.51	
500.00	32.69	0.21	0.34	0.28	76.46	
1500.00	98.08	0.23	0.39	0.31	76.50	
2500.00	163.46	0.27	0.44	0.36	76.54	
3500.00	228.85	0.30	0.49	0.40	76.58	
4500.00	294.23	0.34	0.53	0.44	76.62	
5500.00	359.62	0.37	0.56	0.47	76.65	
6500.00	425.01	0.41	0.59	0.50	76.68	
7500.00	490.39	0.44	0.62	0.53	76.71	
8500.00	555.78	0.47	0.65	0.56	76.74	
8000.00	523.08	0.47	0.65	0.56	76.74	
7000.00	457.70	0.46	0.65	0.56	76.73	
6000.00	392.31	0.43	0.64	0.54	76.71	
5000.00	326.93	0.38	0.63	0.51	76.69	
4000.00	261.54	0.34	0.62	0.48	76.66	
3000.00	196.16	0.30	0.59	0.45	76.63	
2000.00	130.77	0.26	0.51	0.39	76.57	
1000.00	65.39	0.23	0.42	0.33	76.51	
500.00	32.69	0.21	0.35	0.28	76.47	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-19)



GOODMAN JACK TEST DATA SHEET

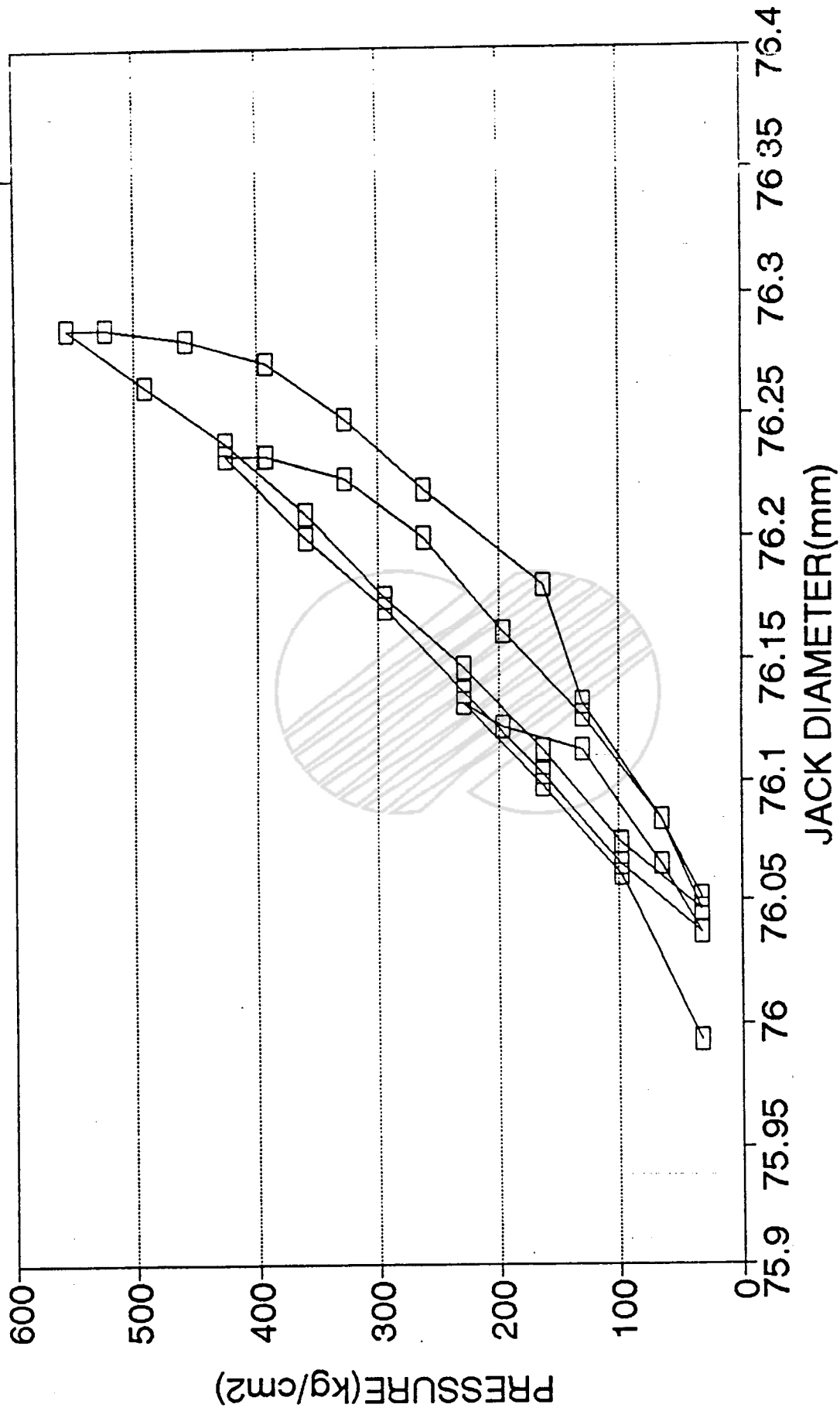
DATE : 1993.11.20
DEPTH : 24m

BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P (psi) (Gage)	P (kg/cm ²) (Plate)	VDI READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.29	-0.14	-0.22	75.99	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.23	-0.06	-0.15	76.06	
2500.00	163.46	-0.19	-0.02	-0.11	76.10	
3500.00	228.85	-0.15	0.01	-0.07	76.13	
3000.00	196.16	-0.17	0.01	-0.08	76.12	
2000.00	130.77	-0.19	0.01	-0.09	76.11	
1000.00	65.39	-0.24	-0.04	-0.14	76.07	
500.00	32.69	-0.26	-0.08	-0.17	76.04	
1500.00	98.08	-0.23	-0.05	-0.14	76.07	
2500.00	163.46	-0.19	-0.01	-0.10	76.10	
3500.00	228.85	-0.15	0.02	-0.07	76.14	
4500.00	294.23	-0.11	0.05	-0.03	76.17	
5500.00	359.62	-0.08	0.08	0.00	76.20	
6500.00	425.01	-0.04	0.11	0.04	76.23	
6000.00	392.31	-0.04	0.11	0.04	76.23	
5000.00	326.93	-0.06	0.11	0.03	76.22	
4000.00	261.54	-0.10	0.10	0.00	76.20	
3000.00	196.16	-0.15	0.07	-0.04	76.16	
2000.00	130.77	-0.18	0.03	-0.08	76.13	
1000.00	65.39	-0.22	-0.02	-0.12	76.08	
500.00	32.69	-0.25	-0.07	-0.16	76.05	
1500.00	98.08	-0.22	-0.04	-0.13	76.07	
2500.00	163.46	-0.18	0.00	-0.09	76.11	
3500.00	228.85	-0.14	0.03	-0.06	76.15	
4500.00	294.23	-0.11	0.06	-0.03	76.18	
5500.00	359.62	-0.07	0.09	0.01	76.21	
6500.00	425.01	-0.04	0.12	0.04	76.24	
7500.00	490.39	-0.01	0.14	0.07	76.26	
8500.00	555.78	0.01	0.17	0.09	76.29	
8000.00	523.08	0.01	0.17	0.09	76.29	
7000.00	457.70	0.00	0.17	0.09	76.28	
6000.00	392.31	-0.01	0.16	0.08	76.27	
5000.00	326.93	-0.05	0.15	0.05	76.25	
4000.00	261.54	-0.09	0.13	0.02	76.22	
2500.00	163.46	-0.13	0.09	-0.02	76.18	
2000.00	130.77	-0.18	0.04	-0.07	76.13	
1000.00	65.39	-0.22	-0.02	-0.12	76.08	
500.00	32.69	-0.24	-0.07	-0.16	76.05	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-24)



GOODMAN JACK TEST DATA SHEET

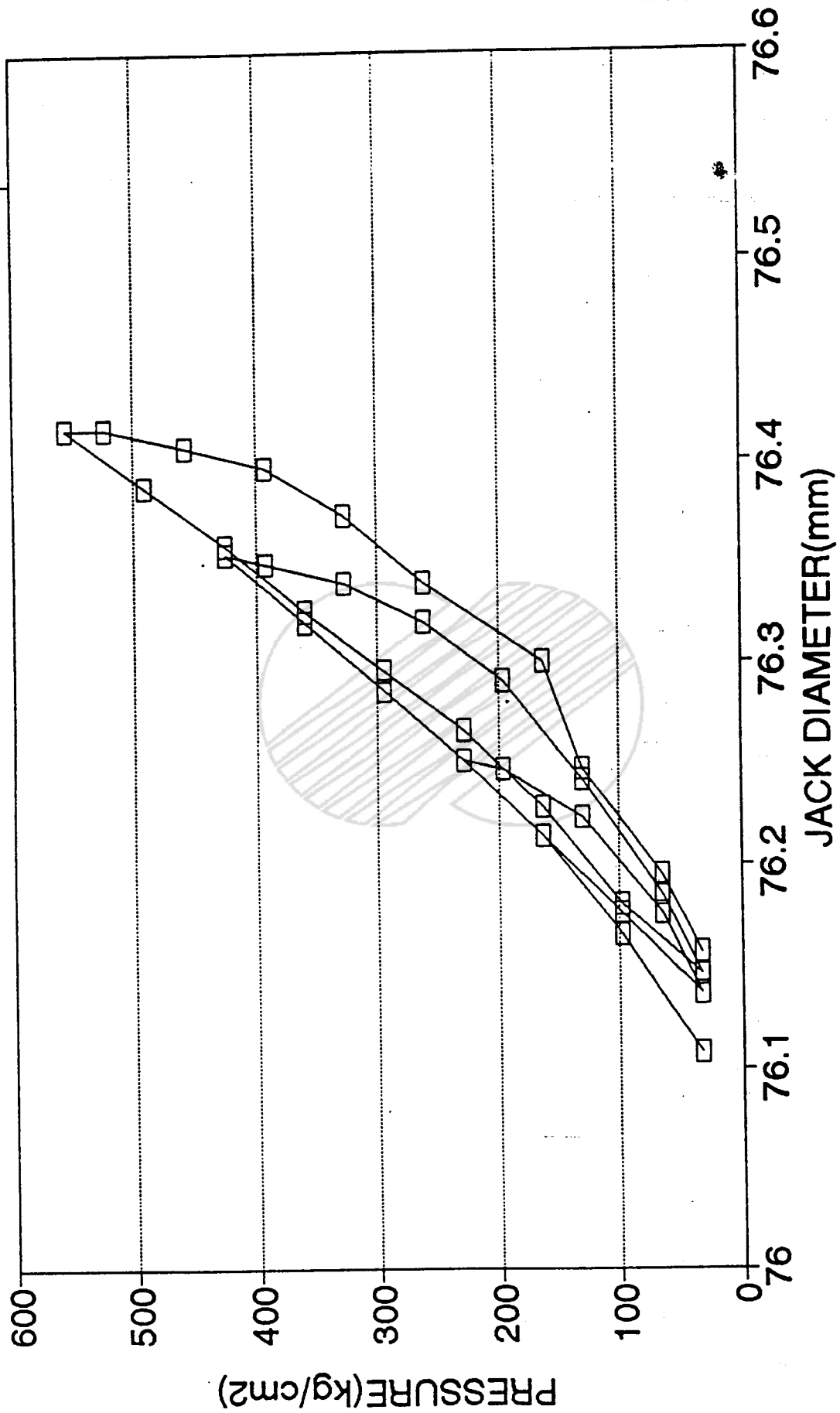
DATE : 1993.11.20
DEPTH : 30m

BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.18	-0.01	-0.10	76.11	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.13	0.06	-0.04	76.17	
2500.00	163.46	-0.08	0.11	0.02	76.21	
3500.00	228.85	-0.04	0.15	0.06	76.25	
3000.00	196.16	-0.05	0.15	0.05	76.25	
2000.00	130.77	-0.09	0.14	0.03	76.22	
1000.00	65.39	-0.13	0.08	-0.03	76.18	
500.00	32.69	-0.16	0.03	-0.07	76.14	
1500.00	98.08	-0.12	0.07	-0.02	76.18	
2500.00	163.46	-0.08	0.11	0.02	76.21	
3500.00	228.85	-0.04	0.15	0.06	76.25	
4500.00	294.23	-0.01	0.19	0.09	76.29	
5500.00	359.62	0.02	0.23	0.13	76.32	
6500.00	425.01	0.06	0.26	0.16	76.35	
6000.00	392.31	0.05	0.26	0.16	76.35	
5000.00	326.93	0.04	0.25	0.15	76.34	
4000.00	261.54	0.00	0.25	0.13	76.32	
3000.00	196.16	-0.03	0.22	0.10	76.29	
2000.00	130.77	-0.07	0.16	0.05	76.24	
1000.00	65.39	-0.12	0.09	-0.02	76.19	
500.00	32.69	-0.15	0.04	-0.06	76.15	
1500.00	98.08	-0.12	0.08	-0.02	76.18	
2500.00	163.46	-0.07	0.13	0.03	76.23	
3500.00	228.85	-0.03	0.17	0.07	76.27	
4500.00	294.23	0.00	0.20	0.10	76.30	
5500.00	359.62	0.03	0.23	0.13	76.33	
6500.00	425.01	0.06	0.27	0.17	76.36	
7500.00	490.39	0.09	0.30	0.20	76.39	
8500.00	555.78	0.12	0.33	0.23	76.42	
8000.00	523.08	0.12	0.33	0.23	76.42	
7000.00	457.70	0.11	0.32	0.22	76.41	
6000.00	392.31	0.09	0.32	0.21	76.40	
5000.00	326.93	0.05	0.31	0.18	76.37	
4000.00	261.54	0.01	0.28	0.15	76.34	
2500.00	163.46	-0.03	0.24	0.11	76.30	
2000.00	130.77	-0.07	0.17	0.05	76.25	
1000.00	65.39	-0.11	0.10	-0.00	76.20	
500.00	32.69	-0.14	0.05	-0.05	76.16	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-30)



GOODMAN JACK TEST DATA SHEET

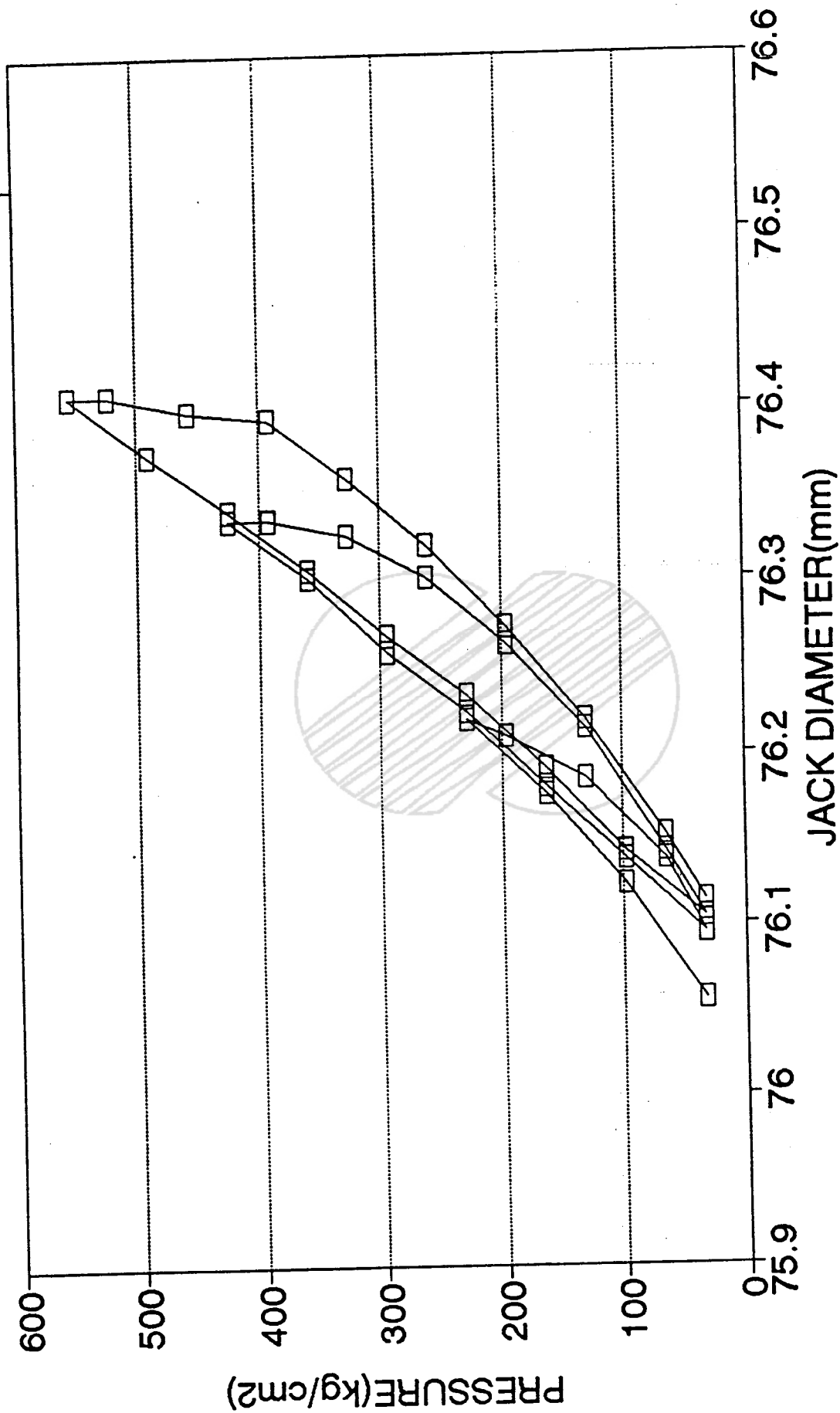
DATE : 1993.11.20
DEPTH : 38m

BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.20	-0.10	-0.15	76.06	FRESH, ANDESITE, SLIGHTLY FRACTURED
1500.00	98.08	-0.14	-0.02	-0.08	76.12	
2500.00	163.46	-0.08	0.03	-0.03	76.18	
3500.00	228.85	-0.03	0.07	0.02	76.22	
3000.00	196.16	-0.05	0.07	0.01	76.21	
2000.00	130.77	-0.09	0.06	-0.02	76.19	
1000.00	65.39	-0.14	0.01	-0.07	76.14	
500.00	32.69	-0.18	-0.04	-0.11	76.09	
1500.00	98.08	-0.13	0.00	-0.07	76.14	
2500.00	163.46	-0.08	0.04	-0.02	76.18	
3500.00	228.85	-0.03	0.08	0.03	76.22	
4500.00	294.23	0.01	0.11	0.06	76.26	
5500.00	359.62	0.06	0.15	0.11	76.30	
6500.00	425.01	0.10	0.18	0.14	76.33	
6000.00	392.31	0.10	0.18	0.14	76.33	
5000.00	326.93	0.08	0.18	0.13	76.33	
4000.00	261.54	0.04	0.17	0.11	76.30	
3000.00	196.16	-0.02	0.15	0.07	76.26	
2000.00	130.77	-0.07	0.10	0.02	76.21	
1000.00	65.39	-0.14	0.02	-0.06	76.14	
500.00	32.69	-0.17	-0.03	-0.10	76.10	
1500.00	98.08	-0.12	0.00	-0.06	76.14	
2500.00	163.46	-0.07	0.05	-0.01	76.19	
3500.00	228.85	-0.02	0.09	0.04	76.23	
4500.00	294.23	0.02	0.12	0.07	76.27	
5500.00	359.62	0.06	0.16	0.11	76.31	
6500.00	425.01	0.10	0.19	0.15	76.34	
7500.00	490.39	0.14	0.22	0.18	76.37	
8500.00	555.78	0.17	0.26	0.22	76.41	
8000.00	523.08	0.17	0.26	0.22	76.41	
7000.00	457.70	0.16	0.25	0.21	76.40	
6000.00	392.31	0.15	0.25	0.20	76.39	
5000.00	326.93	0.10	0.23	0.17	76.36	
4000.00	261.54	0.04	0.21	0.13	76.32	
3000.00	196.16	-0.01	0.16	0.08	76.27	
2000.00	130.77	-0.07	0.11	0.02	76.22	
1000.00	65.39	-0.13	0.03	-0.05	76.15	
500.00	32.69	-0.16	-0.02	-0.09	76.11	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-38)



GOODMAN JACK TEST DATA SHEET

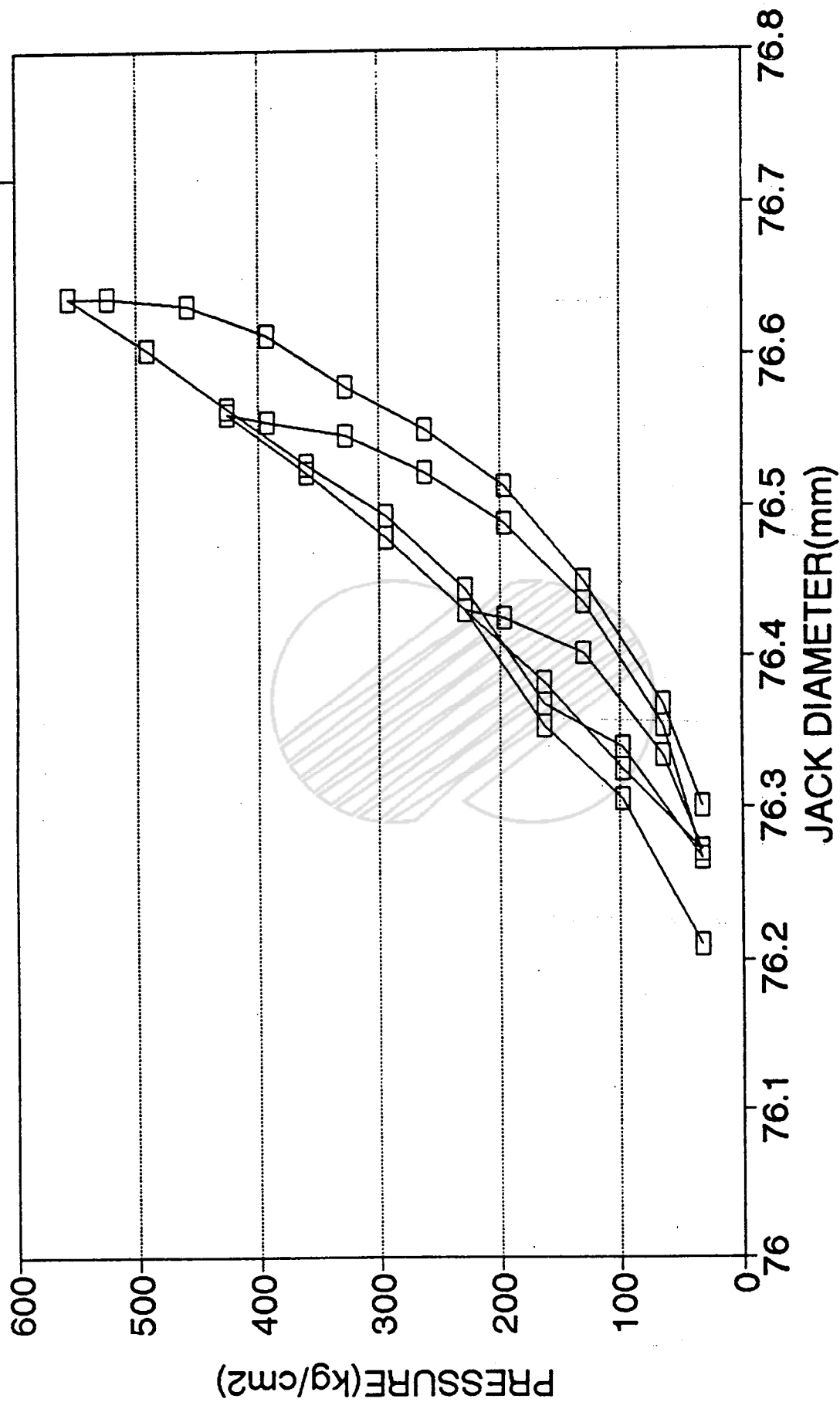
DATE : 1993.11.20
DEPTH : 41m

BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P(ps) (Gage)	P(kg/cm ²) (Plate)	LVDT HEADING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.23	0.25	0.01	76.21	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.17	0.39	0.11	76.31	
2500.00	163.46	-0.12	0.44	0.16	76.35	
3500.00	228.85	-0.08	0.56	0.24	76.43	
3000.00	196.16	-0.09	0.56	0.24	76.43	
2000.00	130.77	-0.12	0.54	0.21	76.40	
1000.00	65.39	-0.17	0.45	0.14	76.33	
500.00	32.69	-0.20	0.35	0.07	76.27	
1500.00	98.08	-0.16	0.42	0.13	76.33	
2500.00	163.46	-0.12	0.50	0.19	76.38	
3500.00	228.85	-0.08	0.56	0.24	76.43	
4500.00	294.23	-0.04	0.62	0.29	76.48	
5500.00	359.62	0.00	0.67	0.34	76.52	
6500.00	425.01	0.03	0.72	0.38	76.56	
6000.00	392.31	0.02	0.72	0.37	76.56	
5000.00	326.93	0.00	0.72	0.36	76.55	
4000.00	261.54	-0.03	0.70	0.34	76.52	
3000.00	196.16	-0.07	0.67	0.30	76.49	
2000.00	130.77	-0.11	0.60	0.25	76.44	
1000.00	65.39	-0.16	0.48	0.16	76.35	
500.00	32.69	-0.24	0.38	0.07	76.27	
1500.00	98.08	-0.15	0.44	0.15	76.34	
2500.00	163.46	-0.17	0.52	0.18	76.37	
3500.00	228.85	-0.07	0.58	0.26	76.45	
4500.00	294.23	-0.03	0.64	0.31	76.49	
5500.00	359.62	0.00	0.68	0.34	76.53	
6500.00	425.01	0.03	0.73	0.38	76.57	
7500.00	490.39	0.07	0.77	0.42	76.60	
8500.00	555.78	0.10	0.81	0.46	76.64	
8000.00	523.08	0.10	0.81	0.46	76.64	
7000.00	457.70	0.09	0.81	0.45	76.63	
6000.00	392.31	0.06	0.80	0.43	76.61	
5000.00	326.93	0.01	0.78	0.40	76.58	
4000.00	261.54	-0.02	0.75	0.37	76.55	
3000.00	196.16	-0.06	0.71	0.33	76.51	
2000.00	130.77	-0.10	0.62	0.26	76.45	
1000.00	65.39	-0.15	0.50	0.18	76.37	
500.00	32.69	-0.18	0.39	0.11	76.30	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-41)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.20
DEPTH : 47m

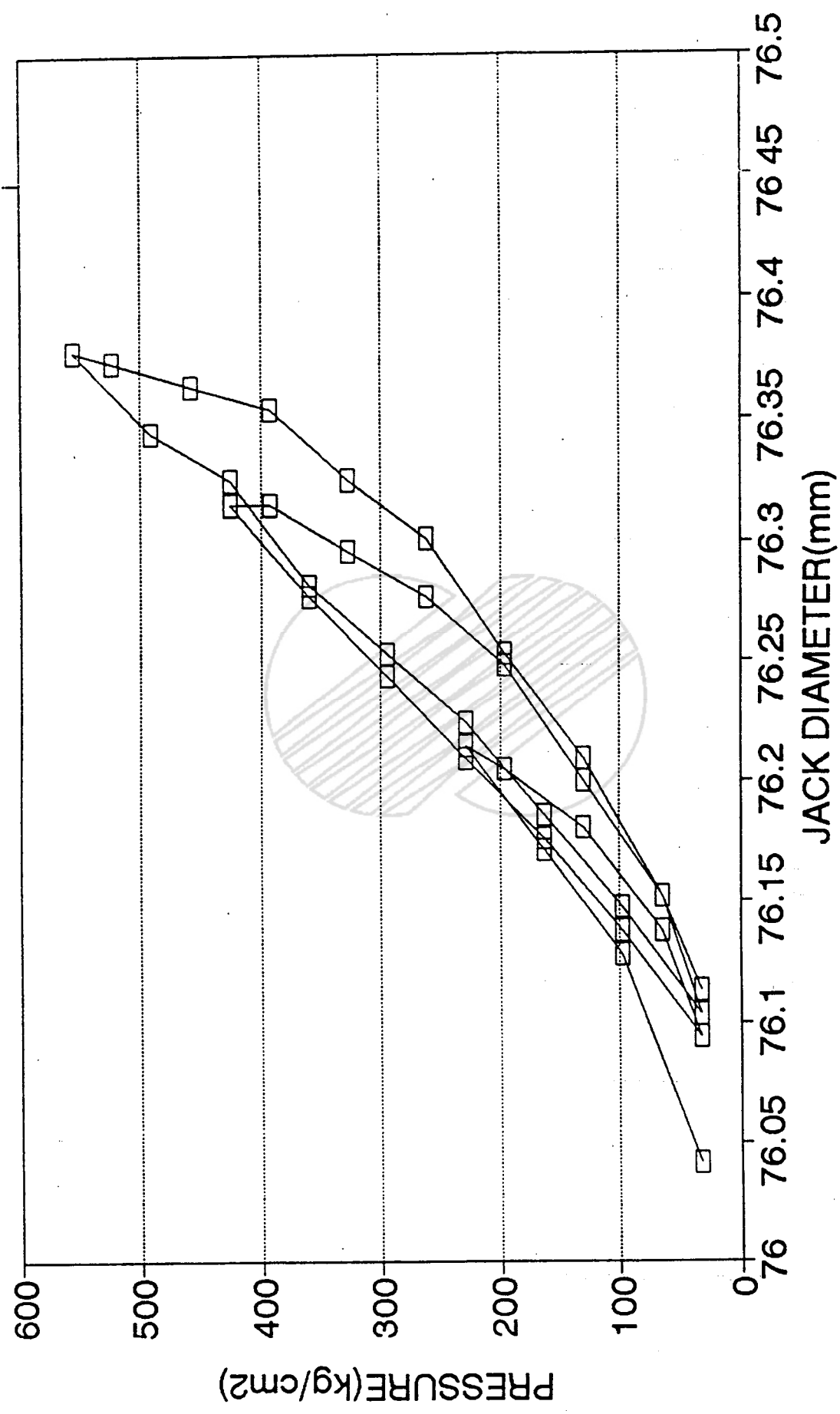
BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P (psi)	P (kg/cm ²)	LVDT READING (mm)			JACK DIA (mm)	REMARK
(Gage)	(Plate)	NEAR	FAR	AVE		
500.00	32.69	-0.35	0.02	-0.17	76.04	FRESH, ANDESITE, SLIGHTLY FRACTURED
1500.00	98.08	-0.26	0.11	-0.08	76.13	
2500.00	163.46	-0.21	0.15	-0.03	76.17	
3500.00	228.85	-0.16	0.19	0.02	76.21	
3000.00	196.16	-0.18	0.19	0.01	76.20	
2000.00	130.77	-0.22	0.18	-0.02	76.18	
1000.00	65.39	-0.26	0.13	-0.07	76.14	
500.00	32.69	-0.30	0.08	-0.11	76.09	
1500.00	98.08	-0.25	0.12	-0.07	76.14	
2500.00	163.46	-0.21	0.16	-0.02	76.18	
3500.00	228.85	-0.17	0.19	0.01	76.21	
4500.00	294.23	-0.14	0.23	0.05	76.24	
5500.00	359.62	-0.10	0.26	0.08	76.28	
6500.00	425.01	-0.06	0.30	0.12	76.32	
6000.00	392.31	-0.06	0.30	0.12	76.32	
5000.00	326.93	-0.09	0.29	0.10	76.30	
4000.00	261.54	-0.12	0.28	0.08	76.28	
3000.00	196.16	-0.16	0.26	0.05	76.25	
2000.00	130.77	-0.21	0.21	0.00	76.20	
1000.00	65.39	-0.25	0.15	-0.05	76.15	
500.00	32.69	-0.29	0.09	-0.10	76.10	
1500.00	98.08	-0.24	0.13	-0.06	76.15	
2500.00	163.46	-0.20	0.17	-0.02	76.19	
3500.00	228.85	-0.16	0.21	0.02	76.22	
4500.00	294.23	-0.13	0.24	0.06	76.25	
5500.00	359.62	-0.10	0.27	0.09	76.28	
6500.00	425.01	-0.04	0.30	0.13	76.33	
7500.00	490.39	-0.04	0.34	0.15	76.34	
8500.00	555.78	0.00	0.37	0.19	76.38	
8000.00	523.08	-0.01	0.37	0.18	76.37	
7000.00	457.70	-0.02	0.36	0.17	76.36	
6000.00	392.31	-0.04	0.36	0.16	76.35	
5000.00	326.93	-0.08	0.34	0.13	76.33	
4000.00	261.54	-0.11	0.32	0.11	76.30	
3000.00	196.16	-0.16	0.27	0.06	76.25	
2000.00	130.77	-0.20	0.22	0.01	76.21	
1000.00	65.39	-0.25	0.15	-0.05	76.15	
500.00	32.69	-0.28	0.10	-0.09	76.11	

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GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-47)



GOODMAN JACK TEST DATA SHEET

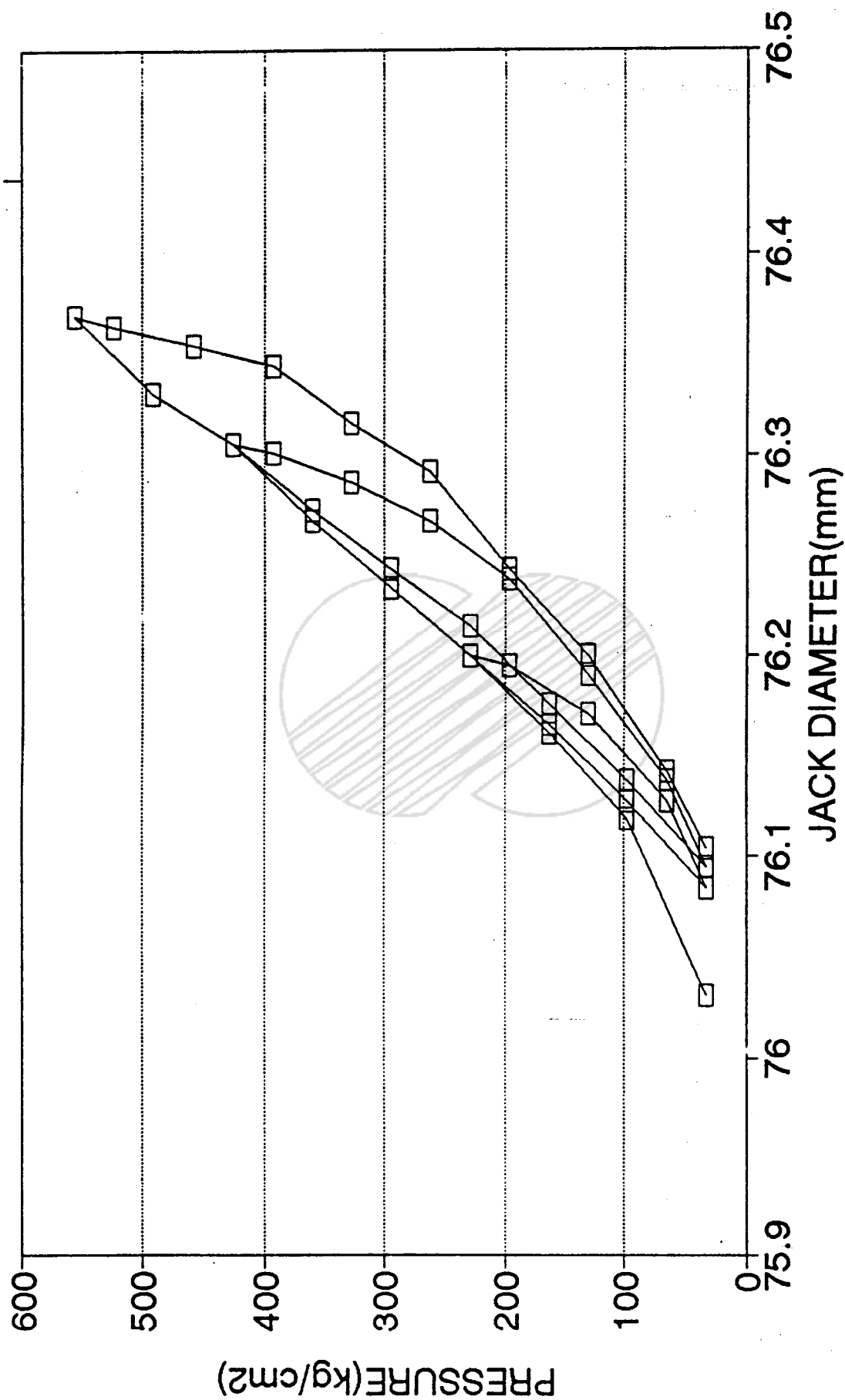
DATE : 1993.11.20
DEPTH : 55m

BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P(psi)	P(kg/cm ²)	LVDT HEADING (mm)			JACK DIA (mm)	REMARK
(Sage)	(Plate)	NEAR	FAR	AVE		
500.00	32.69	-0.39	0.04	-0.18	76.03	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.30	0.13	-0.09	76.12	
2500.00	163.46	-0.25	0.17	-0.04	76.16	
3500.00	228.85	-0.21	0.21	0.00	76.20	
3000.00	196.16	-0.22	0.21	-0.01	76.20	
2000.00	130.77	-0.26	0.20	-0.03	76.17	
1000.00	65.39	-0.30	0.15	-0.08	76.13	
500.00	32.69	-0.34	0.10	-0.12	76.08	
1500.00	98.08	-0.29	0.14	-0.07	76.13	
2500.00	163.46	-0.25	0.18	-0.04	76.17	
3500.00	228.85	-0.21	0.21	0.00	76.20	
4500.00	294.23	-0.18	0.25	0.04	76.23	
5500.00	359.62	-0.14	0.28	0.07	76.27	
6500.00	425.01	-0.10	0.32	0.11	76.31	
6000.00	392.31	-0.11	0.32	0.11	76.30	
5000.00	326.93	-0.13	0.31	0.09	76.29	
4000.00	261.54	-0.16	0.30	0.07	76.27	
3000.00	196.16	-0.20	0.28	0.04	76.24	
2000.00	130.77	-0.25	0.23	-0.01	76.19	
1000.00	65.39	-0.29	0.16	-0.07	76.14	
500.00	32.69	-0.33	0.11	-0.11	76.09	
1500.00	98.08	-0.28	0.15	-0.07	76.14	
2500.00	163.46	-0.24	0.19	-0.02	76.18	
3500.00	228.85	-0.20	0.23	0.02	76.21	
4500.00	294.23	-0.17	0.26	0.05	76.24	
5500.00	359.62	-0.14	0.29	0.07	76.27	
6500.00	425.01	-0.10	0.32	0.11	76.31	
7500.00	490.39	-0.08	0.35	0.14	76.33	
8500.00	555.78	-0.04	0.39	0.18	76.37	
8000.00	523.08	-0.05	0.39	0.17	76.36	
7000.00	457.70	-0.06	0.38	0.16	76.35	
6000.00	392.31	-0.08	0.38	0.15	76.34	
5000.00	326.93	-0.12	0.36	0.12	76.32	
4000.00	261.54	-0.15	0.34	0.10	76.29	
3000.00	196.16	-0.20	0.29	0.04	76.24	
2000.00	130.77	-0.24	0.24	0.00	76.20	
1000.00	65.39	-0.29	0.17	-0.06	76.14	
500.00	32.69	-0.32	0.12	-0.10	76.10	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-55)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.20

DEPTH : 60.5m

BOREHOLE NO. : P6-7

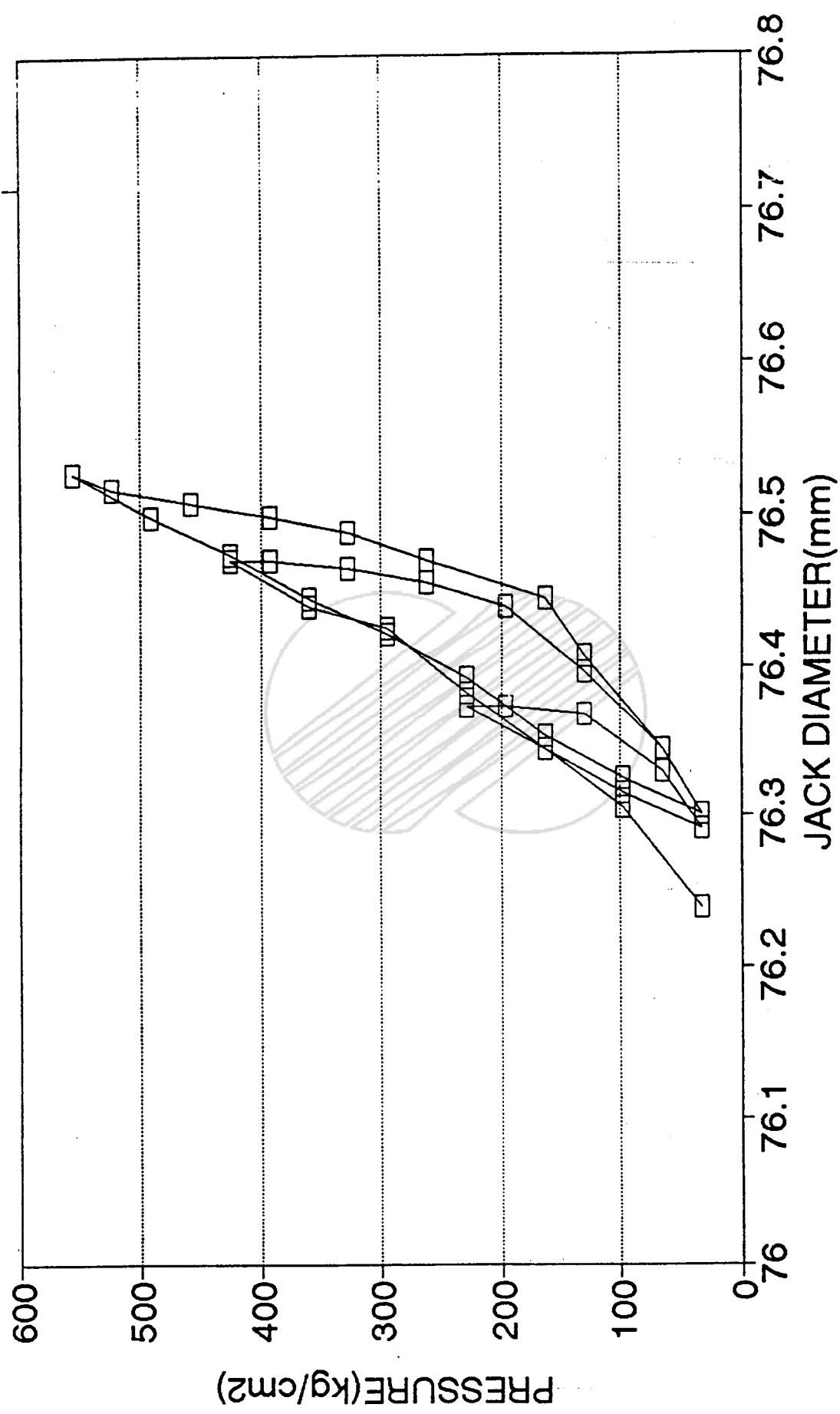
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.20	0.28	0.04	76.24	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.14	0.36	0.11	76.31	
2500.00	163.46	-0.10	0.40	0.15	76.34	
3500.00	228.85	-0.07	0.43	0.18	76.37	
3000.00	196.16	-0.07	0.43	0.18	76.37	
2000.00	130.77	-0.07	0.42	0.18	76.37	
1000.00	65.39	-0.11	0.38	0.14	76.33	
500.00	32.69	-0.14	0.33	0.10	76.29	
1500.00	98.08	-0.13	0.37	0.12	76.32	
2500.00	163.46	-0.10	0.40	0.15	76.34	
3500.00	228.85	-0.06	0.44	0.19	76.38	
4500.00	294.23	-0.03	0.47	0.22	76.41	
5500.00	359.62	0.00	0.50	0.25	76.44	
6500.00	425.01	0.03	0.53	0.28	76.47	
6000.00	392.31	0.03	0.53	0.28	76.47	
5000.00	326.93	0.02	0.53	0.28	76.46	
4000.00	261.54	0.01	0.52	0.27	76.45	
3000.00	196.16	0.00	0.50	0.25	76.44	
2000.00	130.77	-0.04	0.45	0.21	76.40	
1000.00	65.39	-0.09	0.39	0.15	76.34	
500.00	32.69	-0.13	0.34	0.11	76.30	
1500.00	98.08	-0.12	0.38	0.13	76.33	
2500.00	163.46	-0.09	0.41	0.16	76.35	
3500.00	228.85	-0.05	0.45	0.20	76.39	
4500.00	294.23	-0.02	0.48	0.23	76.42	
5500.00	359.62	0.00	0.51	0.26	76.45	
6500.00	425.01	0.03	0.54	0.29	76.47	
7500.00	490.39	0.06	0.56	0.31	76.50	
8500.00	555.78	0.09	0.59	0.34	76.53	
8000.00	523.08	0.08	0.58	0.33	76.52	
7000.00	457.70	0.06	0.56	0.31	76.50	
6000.00	392.31	0.06	0.56	0.31	76.50	
5000.00	326.93	0.05	0.55	0.30	76.49	
4000.00	261.54	0.03	0.53	0.28	76.47	
2500.00	163.46	0.00	0.51	0.26	76.45	
2000.00	130.77	-0.04	0.45	0.21	76.40	
1000.00	65.39	-0.09	0.39	0.15	76.34	
500.00	32.69	-0.13	0.34	0.11	76.30	

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GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-60.5)



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GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.20
DEPTH : 64m

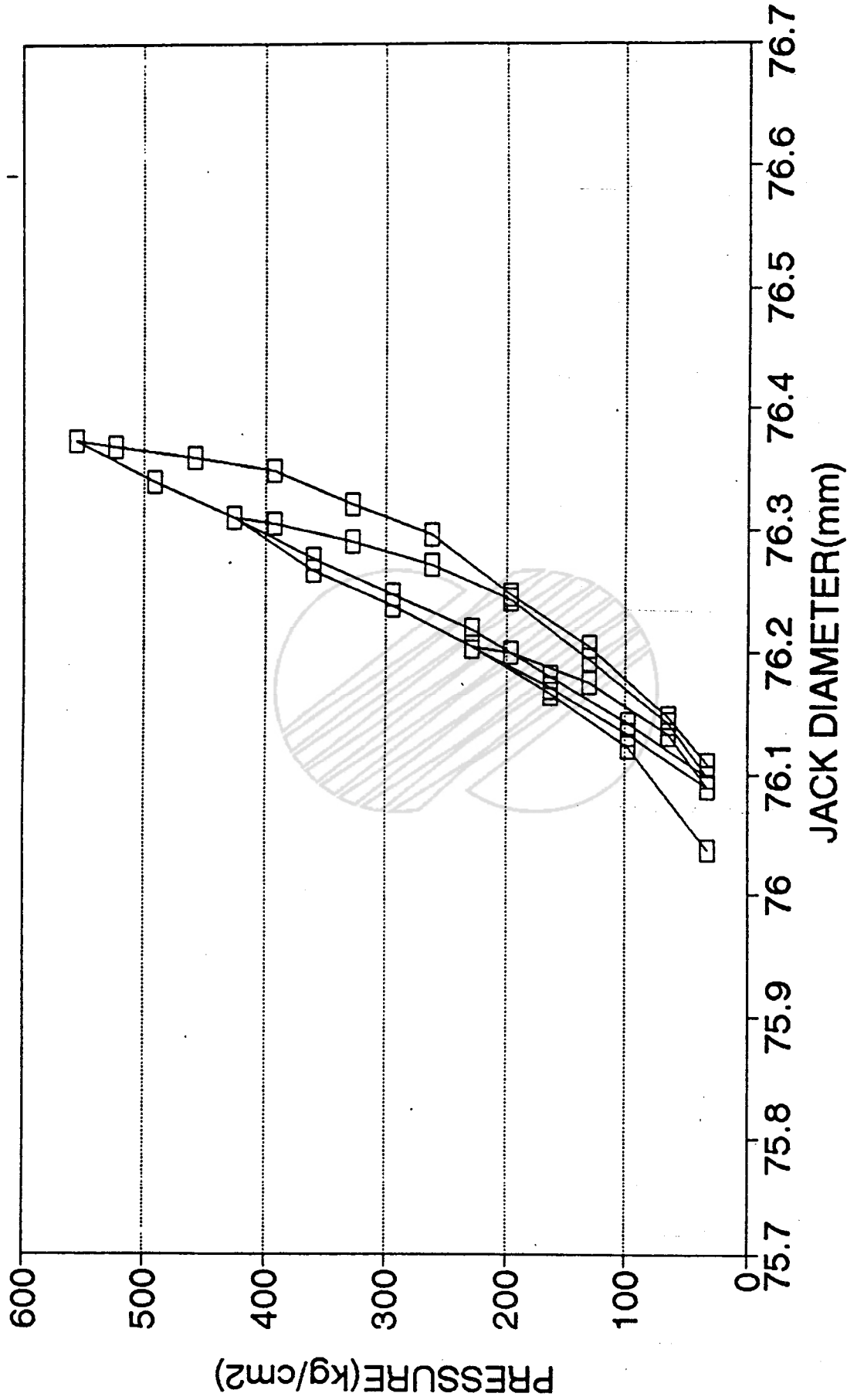
BOREHOLE NO. : P6-7
RECORDED BY : S.S.CHOI

P (psi)	P (kg/cm ²)	LYDIE HEADING (mm)			JACK DIA (mm)	REMARK
(Gage)	(Plate)	NEAR	FAR	AVE		
500.00	32.69	-0.37	0.03	-0.17	76.04	
1500.00	98.08	-0.28	0.12	-0.08	76.12	
2500.00	163.46	-0.23	0.16	-0.04	76.17	
3500.00	228.85	-0.19	0.20	0.01	76.20	
3000.00	196.16	-0.20	0.20	0.00	76.20	
2000.00	130.77	-0.24	0.19	-0.02	76.18	
1000.00	65.39	-0.28	0.14	-0.07	76.13	
500.00	32.69	-0.32	0.09	-0.12	76.09	
1500.00	98.08	-0.27	0.13	-0.07	76.13	
2500.00	163.46	-0.23	0.17	-0.03	76.17	
3500.00	228.85	-0.19	0.20	0.01	76.20	
4500.00	294.23	-0.16	0.24	0.04	76.24	
5500.00	359.62	-0.12	0.26	0.07	76.27	
6500.00	425.01	-0.08	0.31	0.12	76.31	
6000.00	392.31	-0.09	0.31	0.11	76.31	
5000.00	326.93	-0.11	0.30	0.10	76.29	
4000.00	261.54	-0.14	0.29	0.07	76.27	
3000.00	196.16	-0.18	0.27	0.05	76.24	
2000.00	130.77	-0.23	0.22	-0.01	76.20	
1000.00	65.39	-0.27	0.15	-0.06	76.14	
500.00	32.69	-0.31	0.10	-0.11	76.10	
1500.00	98.08	-0.26	0.14	-0.06	76.14	
2500.00	163.46	-0.22	0.18	-0.02	76.18	
3500.00	228.85	-0.18	0.22	0.02	76.22	
4500.00	294.23	-0.15	0.25	0.05	76.25	
5500.00	359.62	-0.12	0.28	0.08	76.28	
6500.00	425.01	-0.08	0.31	0.12	76.31	
7500.00	490.39	-0.06	0.35	0.15	76.34	
8500.00	555.78	-0.02	0.38	0.18	76.37	
8000.00	523.08	-0.03	0.38	0.18	76.37	
7000.00	457.70	-0.04	0.37	0.17	76.36	
6000.00	392.31	-0.06	0.37	0.16	76.35	
5000.00	326.93	-0.10	0.35	0.12	76.32	
4000.00	261.54	-0.13	0.33	0.10	76.30	
3000.00	196.16	-0.18	0.28	0.05	76.25	
2000.00	130.77	-0.22	0.23	0.01	76.20	
1000.00	65.39	-0.27	0.16	-0.06	76.15	
500.00	32.69	-0.30	0.11	-0.10	76.11	

FRESH,
ANDESITE,
MASSIVE

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-64)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.20

DEPTH : 71.5m

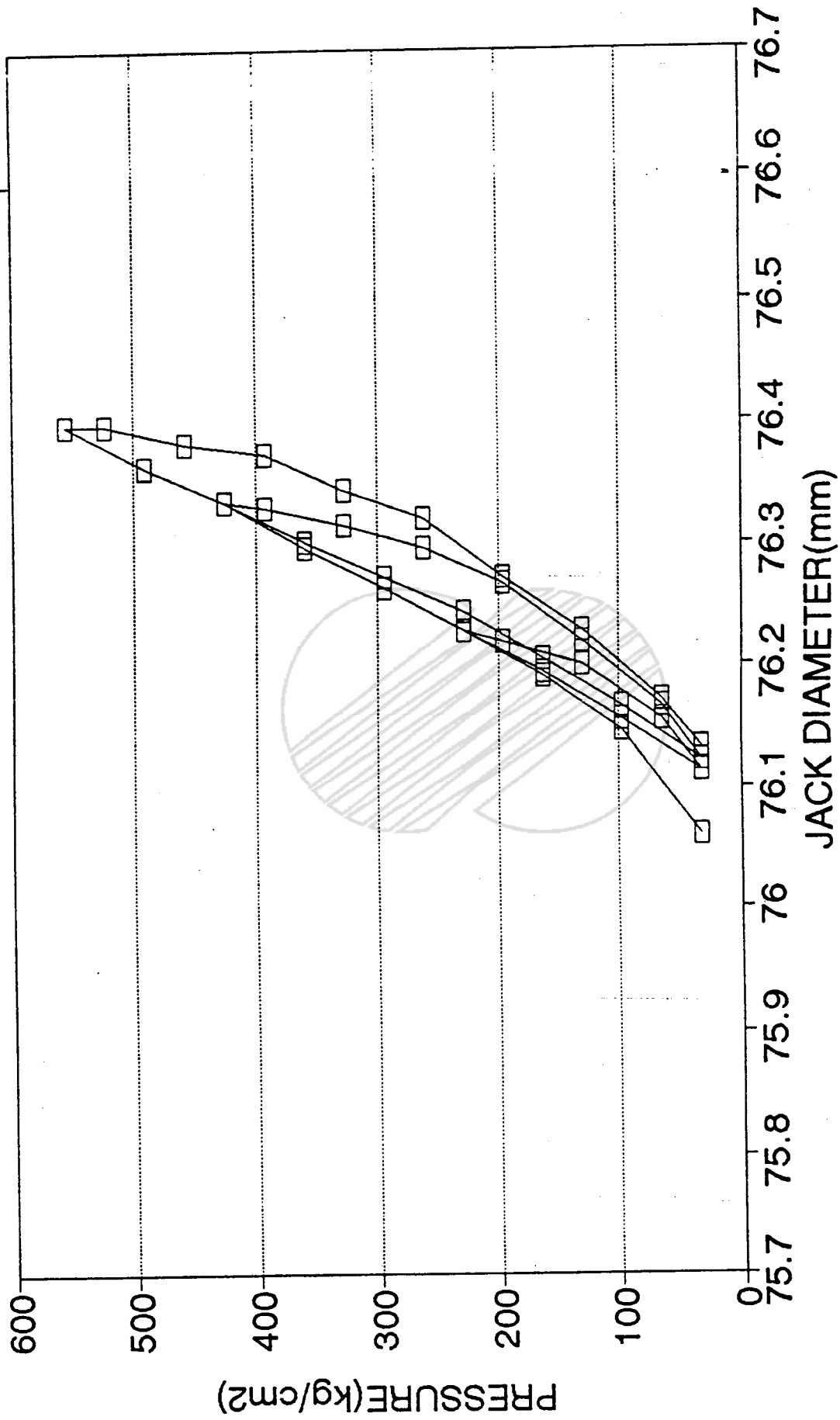
BOREHOLE NO. : P6-7

RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT HEADING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.30	0.01	-0.15	76.06	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.21	0.10	-0.06	76.15	
2500.00	163.46	-0.16	0.14	-0.01	76.19	
3500.00	228.85	-0.12	0.18	0.03	76.23	
3000.00	196.16	-0.14	0.18	0.02	76.22	
2000.00	130.77	-0.17	0.17	0.00	76.20	
1000.00	65.39	-0.21	0.12	-0.05	76.16	
500.00	32.69	-0.25	0.07	-0.09	76.11	
1500.00	98.08	-0.20	0.11	-0.05	76.16	
2500.00	163.46	-0.16	0.15	-0.01	76.20	
3500.00	228.85	-0.12	0.18	0.03	76.23	
4500.00	294.23	-0.09	0.22	0.07	76.26	
5500.00	359.62	-0.05	0.25	0.10	76.30	
6500.00	425.01	-0.01	0.29	0.14	76.33	
6000.00	392.31	-0.02	0.29	0.14	76.33	
5000.00	326.93	-0.04	0.28	0.12	76.32	
4000.00	261.54	-0.07	0.27	0.10	76.30	
3000.00	196.16	-0.11	0.25	0.07	76.27	
2000.00	130.77	-0.16	0.20	0.02	76.22	
1000.00	65.39	-0.20	0.13	-0.04	76.17	
500.00	32.69	-0.24	0.08	-0.08	76.12	
1500.00	98.08	-0.19	0.12	-0.04	76.17	
2500.00	163.46	-0.15	0.16	0.01	76.20	
3500.00	228.85	-0.11	0.20	0.05	76.24	
4500.00	294.23	-0.08	0.23	0.08	76.27	
5500.00	359.62	-0.05	0.26	0.11	76.30	
6500.00	425.01	-0.01	0.29	0.14	76.33	
7500.00	490.39	0.01	0.33	0.17	76.36	
8500.00	555.78	0.05	0.36	0.21	76.40	
8000.00	523.08	0.05	0.36	0.21	76.40	
7000.00	457.70	0.03	0.35	0.19	76.38	
6000.00	392.31	0.01	0.35	0.18	76.37	
5000.00	326.93	-0.03	0.33	0.15	76.34	
4000.00	261.54	-0.06	0.31	0.13	76.32	
3000.00	196.16	-0.11	0.26	0.08	76.27	
2000.00	130.77	-0.15	0.21	0.03	76.23	
1000.00	65.39	-0.20	0.14	-0.03	76.17	
500.00	32.69	-0.23	0.09	-0.07	76.13	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-7-71.5)



GOODMAN JACK TEST DATA SHEET

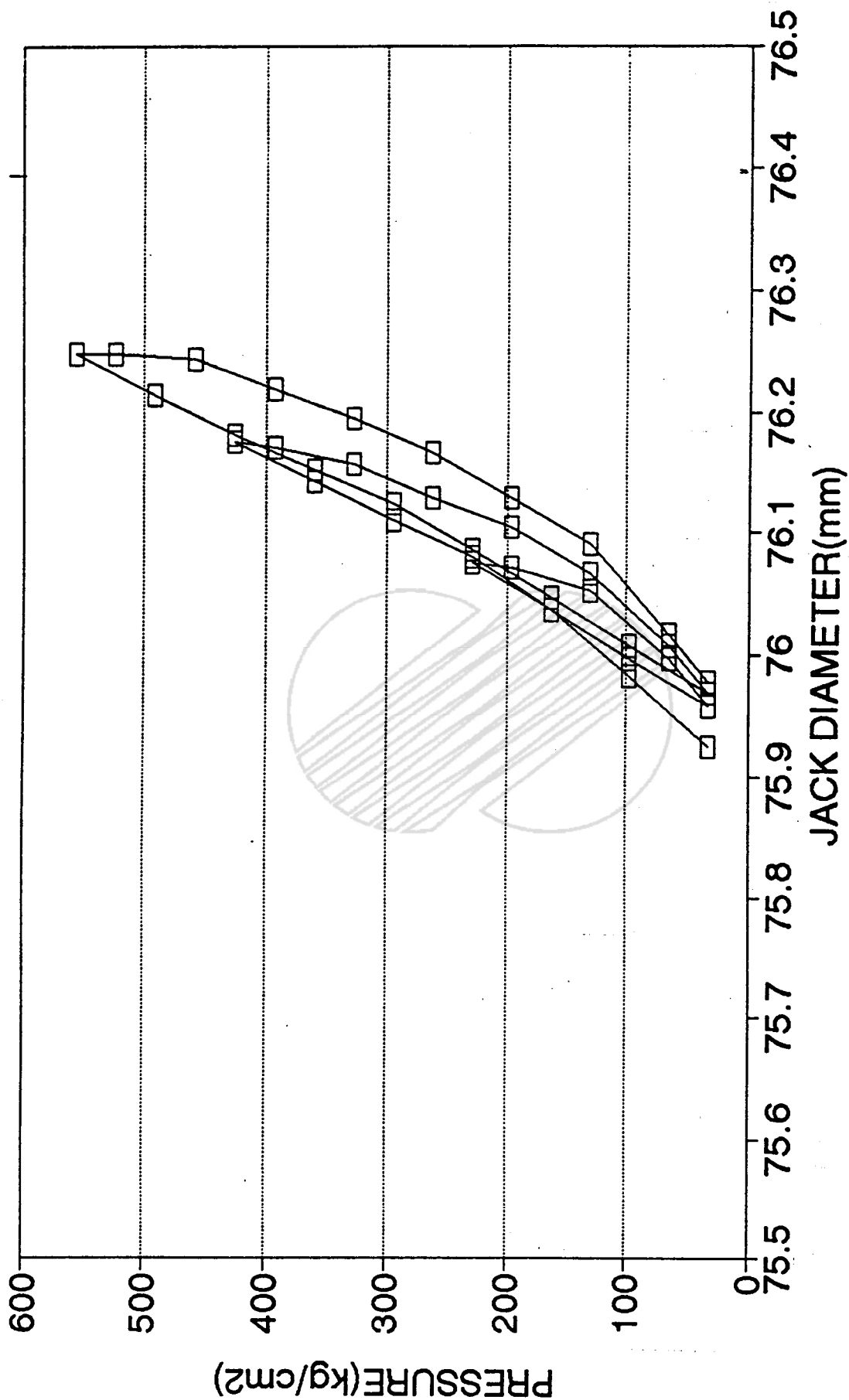
DATE : 1993.11.20
DEPTH : 8m

BOREHOLE NO. : P6-9
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LYDT HEADING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.37	-0.20	-0.29	75.93	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.32	-0.13	-0.23	75.98	
2500.00	163.46	-0.27	-0.07	-0.17	76.04	
3500.00	228.85	-0.23	-0.03	-0.13	76.07	
3000.00	196.16	-0.24	-0.03	-0.14	76.07	
2000.00	130.77	-0.27	-0.04	-0.16	76.05	
1000.00	65.39	-0.32	-0.10	-0.21	76.00	
500.00	32.69	-0.35	-0.15	-0.25	75.96	
1500.00	98.08	-0.31	-0.11	-0.21	76.00	
2500.00	163.46	-0.27	-0.07	-0.17	76.04	
3500.00	228.85	-0.23	-0.02	-0.13	76.08	
4500.00	294.23	-0.19	0.00	-0.10	76.11	
5500.00	359.62	-0.15	0.03	-0.06	76.14	
6500.00	425.01	-0.11	0.06	-0.03	76.18	
6000.00	392.31	-0.12	0.06	-0.03	76.17	
5000.00	326.93	-0.14	0.05	-0.05	76.16	
4000.00	261.54	-0.18	0.03	-0.08	76.13	
3000.00	196.16	-0.22	0.02	-0.10	76.10	
2000.00	130.77	-0.26	-0.02	-0.14	76.07	
1000.00	65.39	-0.31	-0.09	-0.20	76.01	
500.00	32.69	-0.34	-0.14	-0.24	75.97	
1500.00	98.08	-0.30	-0.10	-0.20	76.01	
2500.00	163.46	-0.26	-0.06	-0.16	76.05	
3500.00	228.85	-0.22	-0.02	-0.12	76.08	
4500.00	294.23	-0.17	0.01	-0.08	76.12	
5500.00	359.62	-0.14	0.04	-0.05	76.15	
6500.00	425.01	-0.11	0.07	-0.02	76.18	
7500.00	490.39	-0.07	0.10	0.02	76.21	
8500.00	555.78	-0.03	0.13	0.05	76.25	
8000.00	523.08	-0.03	0.13	0.05	76.25	
7000.00	457.70	-0.04	0.13	0.05	76.24	
6000.00	392.31	-0.08	0.12	0.02	76.22	
5000.00	326.93	-0.12	0.11	-0.00	76.20	
4000.00	261.54	-0.16	0.09	-0.04	76.17	
3000.00	196.16	-0.19	0.04	-0.08	76.13	
2000.00	130.77	-0.23	0.00	-0.12	76.09	
1000.00	65.39	-0.30	-0.08	-0.19	76.02	
500.00	32.69	-0.33	-0.13	-0.23	75.98	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-9-8)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.20

DEPTH : 12m

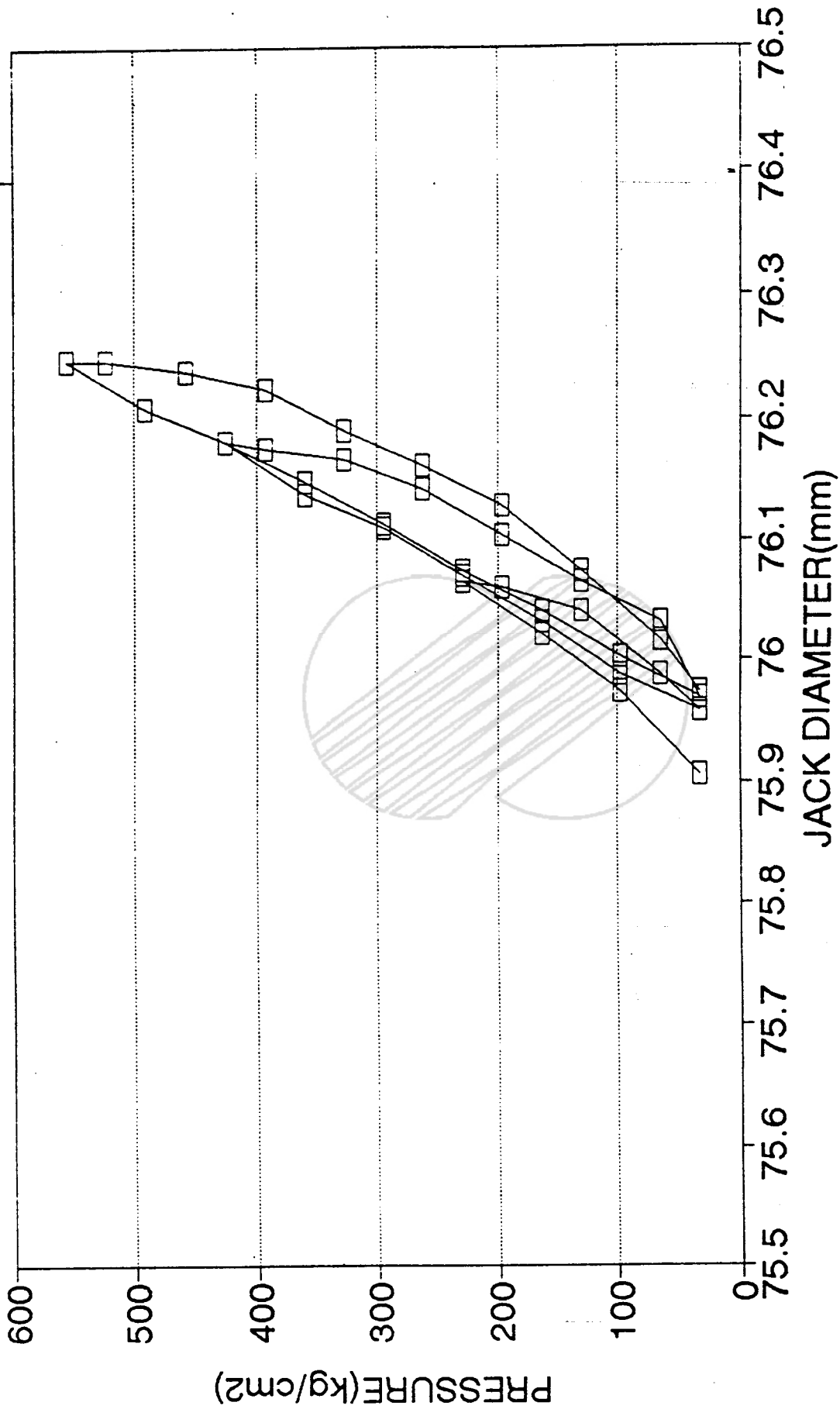
BOREHOLE NO. : P6-9

RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT - HEADING (mm)			JACK DIA. (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.38	-0.23	-0.31	75.91	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.32	-0.15	-0.24	75.97	
2500.00	163.46	-0.28	-0.09	-0.19	76.02	
3500.00	228.85	-0.23	-0.05	-0.14	76.07	
3000.00	196.16	-0.24	-0.05	-0.15	76.06	
2000.00	130.77	-0.27	-0.06	-0.17	76.04	
1000.00	65.39	-0.32	-0.12	-0.22	75.99	
500.00	32.69	-0.34	-0.16	-0.25	75.96	
1500.00	98.08	-0.31	-0.13	-0.22	75.99	
2500.00	163.46	-0.27	-0.08	-0.18	76.03	
3500.00	228.85	-0.23	-0.04	-0.14	76.07	
4500.00	294.23	-0.19	0.00	-0.10	76.11	
5500.00	359.62	-0.15	0.02	-0.07	76.14	
6500.00	425.01	-0.10	0.06	-0.02	76.18	
6000.00	392.31	-0.11	0.06	-0.03	76.18	
5000.00	326.93	-0.13	0.06	-0.04	76.17	
4000.00	261.54	-0.17	0.05	-0.06	76.14	
3000.00	196.16	-0.22	0.02	-0.10	76.10	
2000.00	130.77	-0.26	-0.02	-0.14	76.07	
1000.00	65.39	-0.30	-0.05	-0.18	76.03	
500.00	32.69	-0.33	-0.15	-0.24	75.97	
1500.00	98.08	-0.30	-0.11	-0.21	76.00	
2500.00	163.46	-0.26	-0.07	-0.17	76.04	
3500.00	228.85	-0.23	-0.03	-0.13	76.07	
4500.00	294.23	-0.18	0.00	-0.09	76.11	
5500.00	359.62	-0.14	0.03	-0.06	76.15	
6500.00	425.01	-0.10	0.06	-0.02	76.18	
7500.00	490.39	-0.07	0.09	0.01	76.21	
8500.00	555.78	-0.03	0.13	0.05	76.25	
8000.00	523.08	-0.03	0.13	0.05	76.25	
7000.00	457.70	-0.04	0.12	0.04	76.24	
6000.00	392.31	-0.07	0.12	0.02	76.22	
5000.00	326.93	-0.12	0.10	-0.01	76.19	
4000.00	261.54	-0.16	0.08	-0.04	76.16	
3000.00	196.16	-0.20	0.05	-0.08	76.13	
2000.00	130.77	-0.25	-0.01	-0.13	76.07	
1000.00	65.39	-0.30	-0.08	-0.19	76.02	
500.00	32.69	-0.33	-0.14	-0.24	75.97	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-9-12)



GOODMAN JACK TEST DATA SHEET

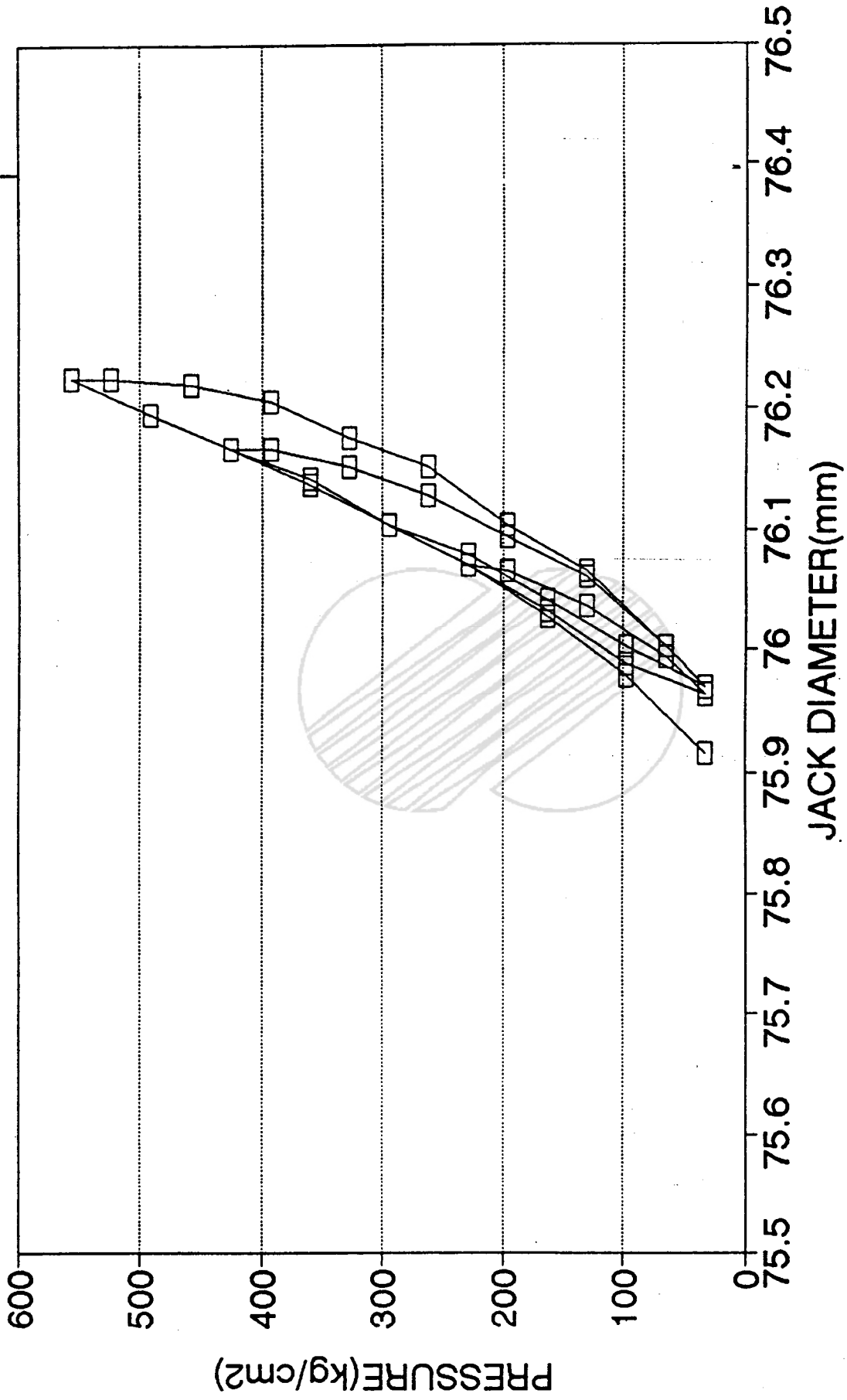
DATE : 1993.11.20
DEPTH : 16m

BOREHOLE NO. : P6-9
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LWDT HEADING (mm)			JACK DIA(mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.38	-0.21	-0.30	75.92	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.33	-0.13	-0.23	75.98	
2500.00	163.46	-0.28	-0.08	-0.18	76.03	
3500.00	228.85	-0.24	-0.03	-0.14	76.07	
3000.00	196.16	-0.25	-0.03	-0.14	76.07	
2000.00	130.77	-0.29	-0.05	-0.17	76.04	
1000.00	65.39	-0.33	-0.10	-0.22	75.99	
500.00	32.69	-0.35	-0.14	-0.25	75.96	
1500.00	98.08	-0.32	-0.12	-0.22	75.99	
2500.00	163.46	-0.28	-0.07	-0.18	76.03	
3500.00	228.85	-0.24	-0.03	-0.14	76.07	
4500.00	294.23	-0.20	0.00	-0.10	76.10	
5500.00	359.62	-0.15	0.03	-0.06	76.14	
6500.00	425.01	-0.13	0.06	-0.04	76.17	
6000.00	392.31	-0.13	0.06	-0.04	76.17	
5000.00	326.93	-0.15	0.05	-0.05	76.15	
4000.00	261.54	-0.20	0.05	-0.08	76.13	
3000.00	196.16	-0.24	0.02	-0.11	76.09	
2000.00	130.77	-0.27	-0.02	-0.15	76.06	
1000.00	65.39	-0.32	-0.09	-0.21	76.00	
500.00	32.69	-0.34	-0.14	-0.24	75.97	
1500.00	98.08	-0.31	-0.10	-0.21	76.00	
2500.00	163.46	-0.27	-0.06	-0.17	76.04	
3500.00	228.85	-0.23	-0.02	-0.13	76.08	
4500.00	294.23	-0.20	0.00	-0.10	76.10	
5500.00	359.62	-0.16	0.03	-0.07	76.14	
6500.00	425.01	-0.13	0.06	-0.04	76.17	
7500.00	490.39	-0.10	0.09	-0.01	76.20	
8500.00	555.78	-0.07	0.12	0.02	76.22	
8000.00	523.08	-0.07	0.12	0.02	76.22	
7000.00	457.70	-0.08	0.12	0.02	76.22	
6000.00	392.31	-0.10	0.11	0.00	76.20	
5000.00	326.93	-0.15	0.10	-0.02	76.18	
4000.00	261.54	-0.18	0.08	-0.05	76.15	
3000.00	196.16	-0.23	0.03	-0.10	76.10	
2000.00	130.77	-0.27	-0.01	-0.14	76.07	
1000.00	65.39	-0.32	-0.09	-0.21	76.00	
500.00	32.69	-0.34	-0.14	-0.24	75.97	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-9-16)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.20
DEPTH : 32m

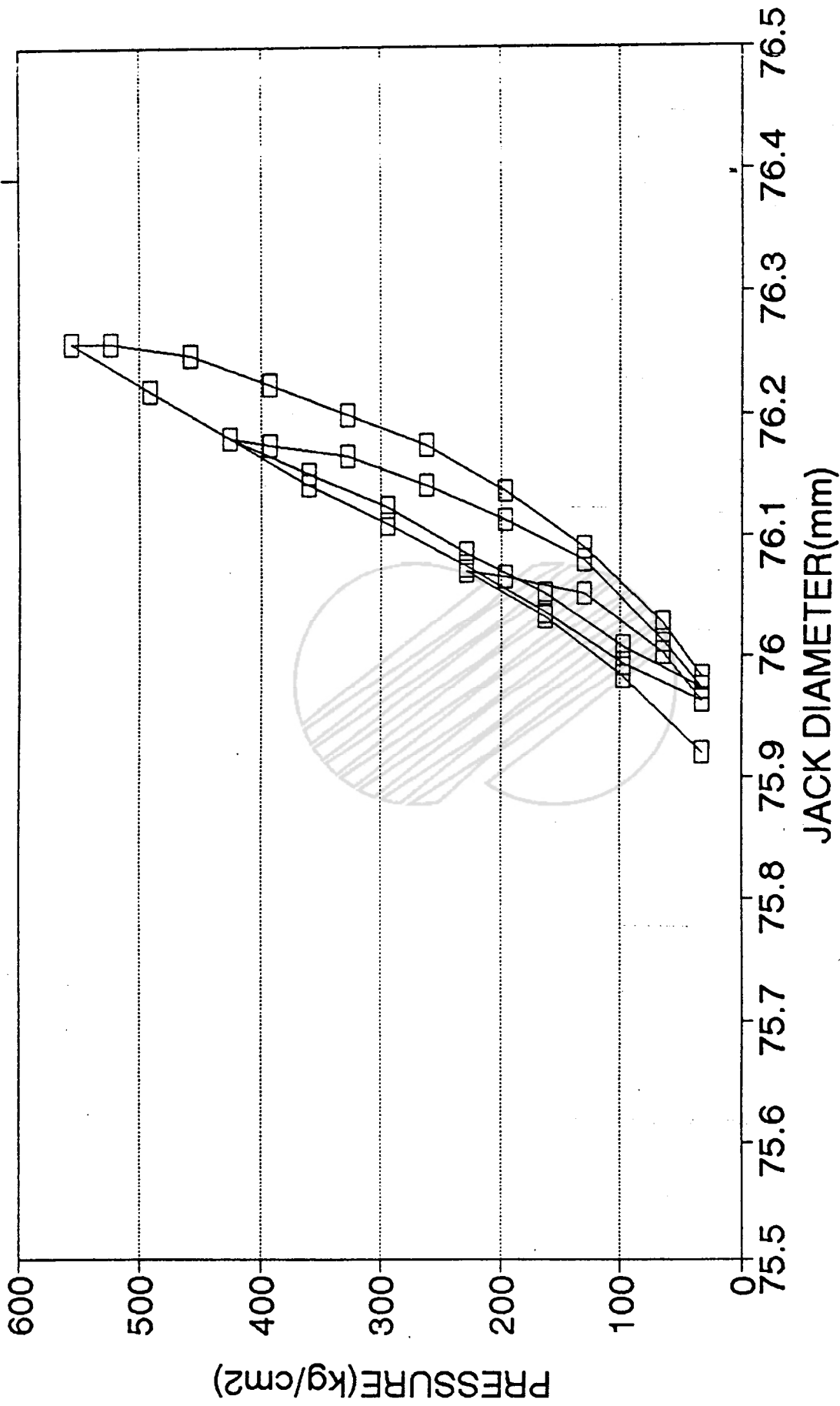
BOREHOLE NO. : P6-9
RECORDED BY : S.S.CHOI

P(psi)	P(kg/cm ²)	LVDT READING (mm)			JACK DIA (mm)	REMARK
(Gage)	(Plate)	NEAR	FAR	AVE		
500.00	32.69	-0.36	-0.22	-0.29	75.92	
1500.00	98.08	-0.31	-0.14	-0.23	75.98	
2500.00	163.46	-0.26	-0.09	-0.18	76.03	
3500.00	228.85	-0.22	-0.05	-0.14	76.07	
3000.00	196.16	-0.23	-0.05	-0.14	76.07	
2000.00	130.77	-0.26	-0.05	-0.16	76.05	
1000.00	65.39	-0.31	-0.10	-0.21	76.00	
500.00	32.69	-0.34	-0.15	-0.25	75.96	
1500.00	98.08	-0.30	-0.13	-0.22	75.99	
2500.00	163.46	-0.26	-0.08	-0.17	76.04	
3500.00	228.85	-0.22	-0.04	-0.13	76.07	
4500.00	294.23	-0.18	-0.01	-0.10	76.11	
5500.00	359.62	-0.14	0.02	-0.06	76.14	
6500.00	425.01	-0.10	0.06	-0.02	76.18	
6000.00	392.31	-0.11	0.06	-0.03	76.18	
5000.00	326.93	-0.13	0.06	-0.04	76.17	
4000.00	261.54	-0.17	0.05	-0.06	76.14	
3000.00	196.16	-0.21	0.03	-0.09	76.11	
2000.00	130.77	-0.25	0.00	-0.13	76.08	
1000.00	65.39	-0.30	-0.09	-0.20	76.01	
500.00	32.69	-0.33	-0.14	-0.24	75.97	
1500.00	98.08	-0.29	-0.11	-0.20	76.01	
2500.00	163.46	-0.25	-0.06	-0.16	76.05	
3500.00	228.85	-0.21	-0.03	-0.12	76.08	
4500.00	294.23	-0.16	0.00	-0.08	76.12	
5500.00	359.62	-0.13	0.03	-0.05	76.15	
6500.00	425.01	-0.10	0.06	-0.02	76.18	
7500.00	490.39	-0.06	0.10	0.02	76.22	
8500.00	555.78	-0.02	0.14	0.06	76.26	
8000.00	523.08	-0.02	0.14	0.06	76.26	
7000.00	457.70	-0.03	0.13	0.05	76.25	
6000.00	392.31	-0.07	0.12	0.02	76.22	
5000.00	326.93	-0.11	0.11	0.00	76.20	
4000.00	261.54	-0.15	0.10	-0.02	76.18	
3000.00	196.16	-0.20	0.07	-0.07	76.14	
2000.00	130.77	-0.24	0.01	-0.12	76.09	
1000.00	65.39	-0.29	-0.07	-0.18	76.03	
500.00	32.69	-0.32	-0.13	-0.23	75.98	

FRESH,
ANDESITE,
MASSIVE

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-9-32)



GOODMAN JACK TEST DATA SHEET

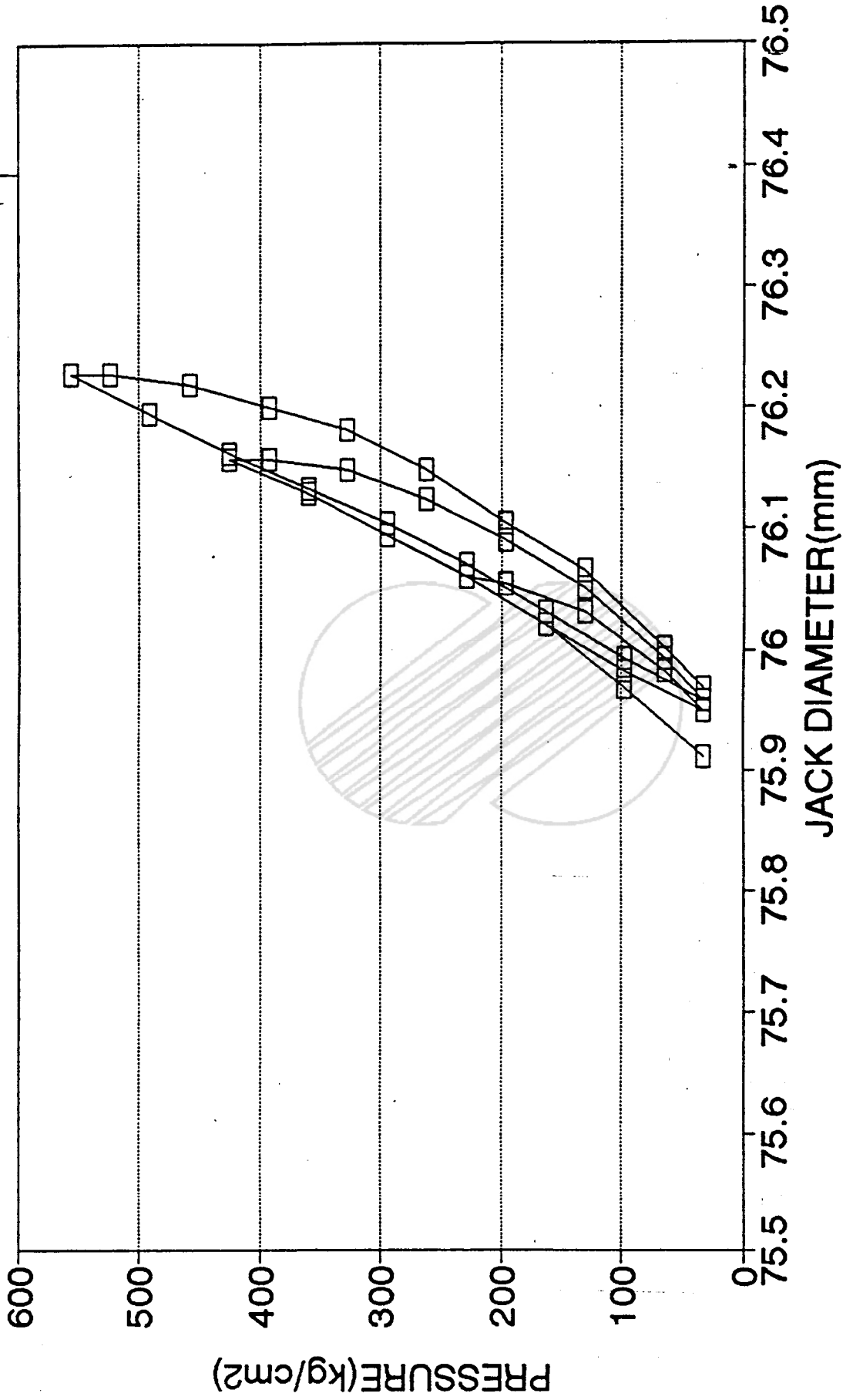
DATE : 1993.11.20
DEPTH : 38m

BOREHOLE NO. : P6-9
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.39	-0.21	-0.30	75.91	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.34	-0.14	-0.24	75.97	
2500.00	163.46	-0.29	-0.08	-0.19	76.02	
3500.00	228.85	-0.25	-0.04	-0.15	76.06	
3000.00	196.16	-0.26	-0.04	-0.15	76.06	
2000.00	130.77	-0.30	-0.05	-0.18	76.03	
1000.00	65.39	-0.34	-0.11	-0.23	75.98	
500.00	32.69	-0.36	-0.16	-0.26	75.95	
1500.00	98.08	-0.33	-0.12	-0.23	75.98	
2500.00	163.46	-0.29	-0.08	-0.19	76.02	
3500.00	228.85	-0.25	-0.04	-0.15	76.06	
4500.00	294.23	-0.21	-0.01	-0.11	76.09	
5500.00	359.62	-0.17	0.02	-0.08	76.13	
6500.00	425.01	-0.14	0.05	-0.05	76.16	
6000.00	392.31	-0.14	0.05	-0.05	76.16	
5000.00	326.93	-0.16	0.05	-0.06	76.15	
4000.00	261.54	-0.20	0.04	-0.08	76.12	
3000.00	196.16	-0.24	0.01	-0.12	76.09	
2000.00	130.77	-0.28	-0.03	-0.16	76.05	
1000.00	65.39	-0.33	-0.10	-0.22	75.99	
500.00	32.69	-0.35	-0.15	-0.25	75.96	
1500.00	98.08	-0.32	-0.11	-0.22	75.99	
2500.00	163.46	-0.28	-0.07	-0.18	76.03	
3500.00	228.85	-0.24	-0.03	-0.14	76.07	
4500.00	294.23	-0.20	0.00	-0.10	76.10	
5500.00	359.62	-0.17	0.03	-0.07	76.13	
6500.00	425.01	-0.14	0.06	-0.04	76.16	
7500.00	490.39	-0.10	0.09	-0.01	76.20	
8500.00	555.78	-0.06	0.12	0.03	76.23	
8000.00	523.08	-0.06	0.12	0.03	76.23	
7000.00	457.70	-0.08	0.12	0.02	76.22	
6000.00	392.31	-0.11	0.11	0.00	76.20	
5000.00	326.93	-0.14	0.10	-0.02	76.18	
4000.00	261.54	-0.19	0.08	-0.06	76.15	
3000.00	196.16	-0.23	0.03	-0.10	76.10	
2000.00	130.77	-0.27	-0.01	-0.14	76.07	
1000.00	65.39	-0.32	-0.09	-0.21	76.00	
500.00	32.69	-0.34	-0.14	-0.24	75.97	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-9-38)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.20

DEPTH : 47m

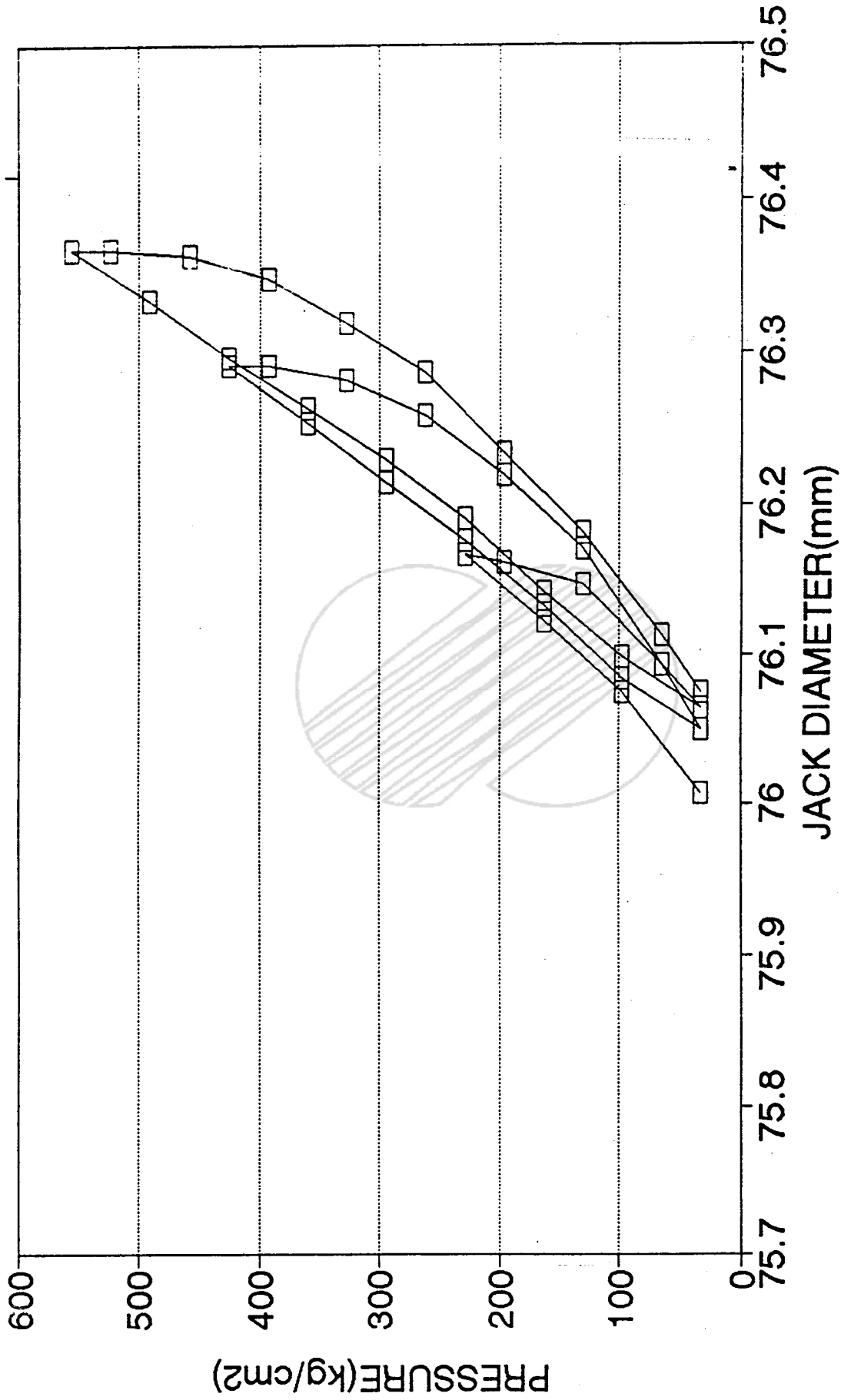
BOREHOLE NO. : P6-9

RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.28	-0.12	-0.20	76.01	
1500.00	98.08	-0.22	-0.04	-0.13	76.07	
2500.00	163.46	-0.17	0.01	-0.08	76.12	
3500.00	228.85	-0.12	0.05	-0.04	76.17	
3000.00	196.16	-0.13	0.05	-0.04	76.16	
2000.00	130.77	-0.15	0.04	-0.06	76.15	
1000.00	65.39	-0.20	-0.02	-0.11	76.09	
500.00	32.69	-0.24	-0.07	-0.16	76.05	
1500.00	98.08	-0.21	-0.03	-0.12	76.08	
2500.00	163.46	-0.16	0.02	-0.07	76.13	
3500.00	228.85	-0.11	0.06	-0.03	76.18	
4500.00	294.23	-0.07	0.10	0.02	76.21	
5500.00	359.62	-0.03	0.14	0.06	76.25	
6500.00	425.01	0.01	0.18	0.10	76.29	
6000.00	392.31	0.01	0.18	0.10	76.29	FRESH, ANDESITE, MASSIVE
5000.00	326.93	0.00	0.17	0.09	76.28	
4000.00	261.54	-0.04	0.16	0.06	76.26	
3000.00	196.16	-0.09	0.13	0.02	76.22	
2000.00	130.77	-0.13	0.07	-0.03	76.17	
1000.00	65.39	-0.20	-0.02	-0.11	76.09	
500.00	32.69	-0.22	-0.06	-0.14	76.07	
1500.00	98.08	-0.20	-0.01	-0.11	76.10	
2500.00	163.46	-0.15	0.03	-0.06	76.14	
3500.00	228.85	-0.10	0.08	-0.01	76.19	
4500.00	294.23	-0.06	0.12	0.03	76.23	
5500.00	359.62	-0.02	0.15	0.07	76.26	
6500.00	425.01	0.01	0.19	0.10	76.30	
7500.00	490.39	0.05	0.23	0.14	76.33	
8500.00	555.78	0.09	0.26	0.18	76.37	
8000.00	523.08	0.09	0.26	0.18	76.37	
7000.00	457.70	0.08	0.26	0.17	76.36	
6000.00	392.31	0.06	0.25	0.16	76.35	
5000.00	326.93	0.02	0.23	0.13	76.32	
4000.00	261.54	-0.02	0.20	0.09	76.29	
3000.00	196.16	-0.07	0.14	0.04	76.23	
2000.00	130.77	-0.12	0.08	-0.02	76.18	
1000.00	65.39	-0.18	0.00	-0.09	76.11	
500.00	32.69	-0.21	-0.05	-0.13	76.07	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-9-47)



GOODMAN JACK TEST DATA SHEET

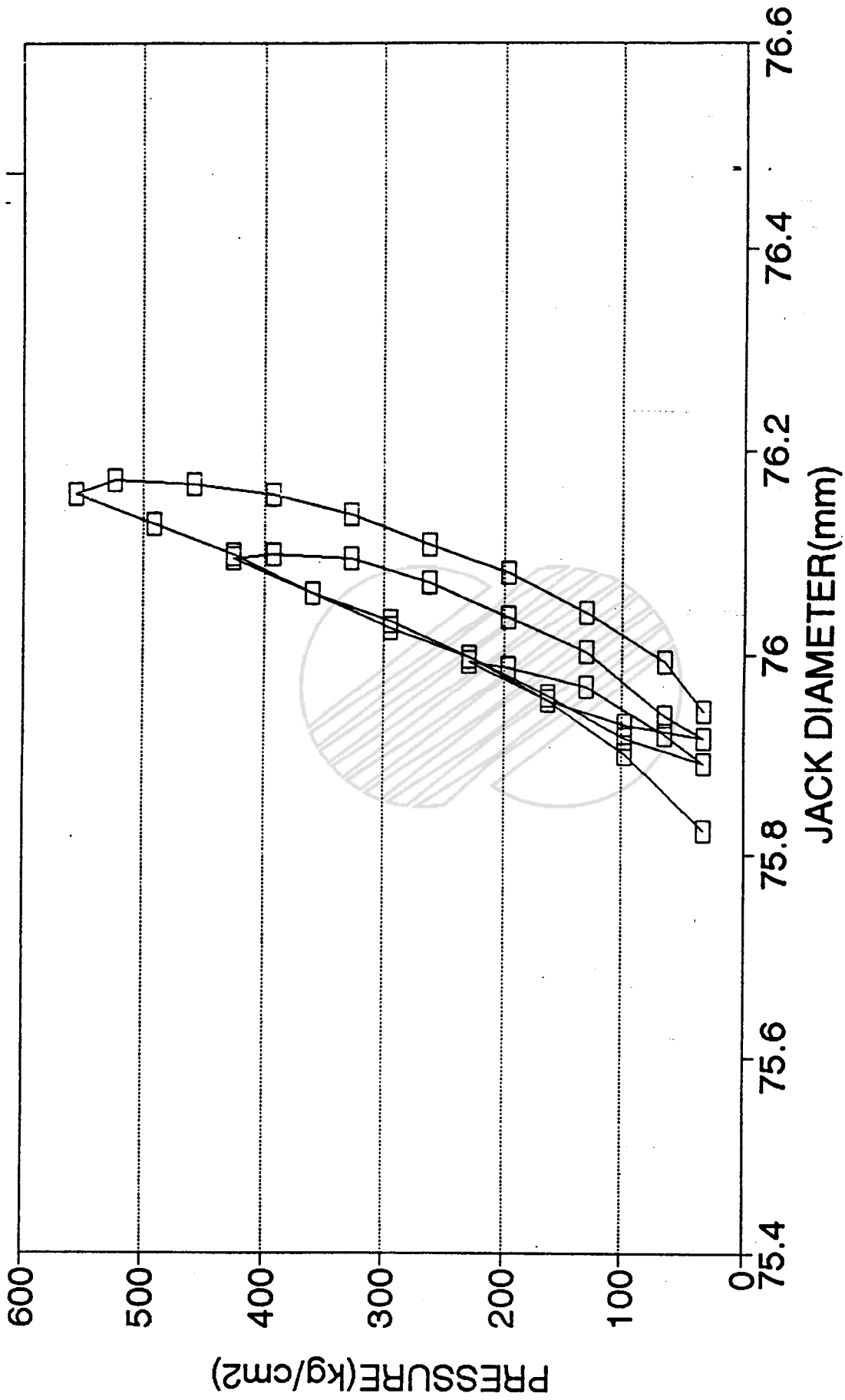
DATE : 1993.11.20
DEPTH : 59m

BOREHOLE NO. : P6-9
RECORDED BY : S.S.CHOI

P(psi)	P(kg/cm ²)	LVDI HEADING (mm)			JACK DIA (mm)	REMARK
(Gage)	(Plate)	NEAR	FAR	AVE		
500.00	32.69	-0.47	-0.31	-0.39	75.82	FRESH, ANDESITE, SOLID
1500.00	98.08	-0.41	-0.21	-0.31	75.90	
2500.00	163.46	-0.36	-0.15	-0.26	75.95	
3500.00	228.85	-0.33	-0.10	-0.22	75.99	
3000.00	196.16	-0.34	-0.10	-0.22	75.99	
2000.00	130.77	-0.37	-0.11	-0.24	75.97	
1000.00	65.39	-0.41	-0.17	-0.29	75.92	
500.00	32.69	-0.43	-0.21	-0.32	75.89	
1500.00	98.08	-0.40	-0.19	-0.30	75.92	
2500.00	163.46	-0.36	-0.14	-0.25	75.96	
3500.00	228.85	-0.32	-0.10	-0.21	76.00	
4500.00	294.23	-0.29	-0.06	-0.18	76.03	
5500.00	359.62	-0.26	-0.03	-0.15	76.06	
6500.00	425.01	-0.22	0.00	-0.11	76.09	
6000.00	392.31	-0.22	0.01	-0.11	76.10	
5000.00	326.93	-0.23	0.01	-0.11	76.09	
4000.00	261.54	-0.27	0.00	-0.14	76.07	
3000.00	196.16	-0.32	-0.02	-0.17	76.04	
2000.00	130.77	-0.35	-0.06	-0.21	76.00	
1000.00	65.39	-0.40	-0.14	-0.27	75.94	
500.00	32.69	-0.42	-0.17	-0.30	75.92	
1500.00	98.08	-0.39	-0.17	-0.28	75.93	
2500.00	163.46	-0.35	-0.16	-0.26	75.95	
3500.00	228.85	-0.31	-0.11	-0.21	76.00	
4500.00	294.23	-0.28	-0.08	-0.18	76.03	
5500.00	359.62	-0.25	-0.04	-0.15	76.06	
6500.00	425.01	-0.21	0.00	-0.11	76.10	
7500.00	490.39	-0.18	0.03	-0.08	76.13	
8500.00	555.78	-0.15	0.06	-0.05	76.16	
8000.00	523.08	-0.15	0.09	-0.03	76.17	
7000.00	457.70	-0.16	0.09	-0.04	76.17	
6000.00	392.31	-0.18	0.09	-0.05	76.16	
5000.00	326.93	-0.21	0.08	-0.07	76.14	
4000.00	261.54	-0.26	0.07	-0.10	76.11	
3000.00	196.16	-0.30	0.05	-0.13	76.08	
2000.00	130.77	-0.34	0.01	-0.17	76.04	
1000.00	65.39	-0.39	-0.04	-0.22	75.99	
500.00	32.69	-0.42	-0.11	-0.27	75.95	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-9-59)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.21

DEPTH : 19m

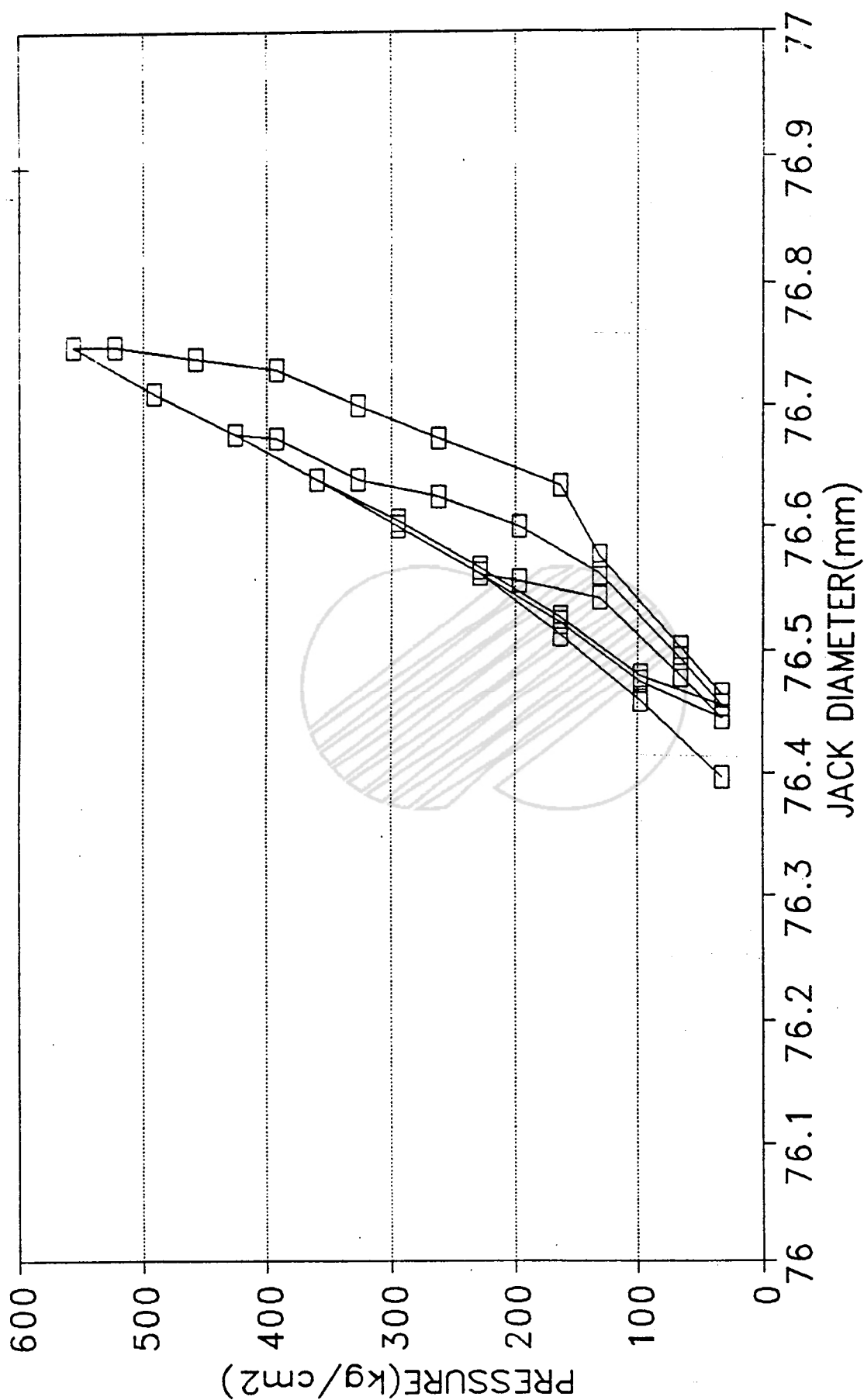
BOREHOLE NO. : P6-10

RECORDED BY : S.S.CHOI

P (psi) (Gage)	P (kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	0.12	0.29	0.21	76.40	FRESH, ANDESITE, SOLID
1500.00	98.08	0.17	0.37	0.27	76.46	
2500.00	163.46	0.21	0.44	0.33	76.51	
3500.00	228.85	0.26	0.49	0.38	76.56	
3000.00	196.16	0.25	0.49	0.37	76.56	
2000.00	130.77	0.23	0.48	0.36	76.54	
1000.00	65.39	0.18	0.40	0.29	76.48	
500.00	32.69	0.16	0.35	0.26	76.45	
1500.00	98.08	0.18	0.39	0.29	76.47	
2500.00	163.46	0.22	0.45	0.34	76.52	
3500.00	228.85	0.26	0.49	0.38	76.56	
4500.00	294.23	0.29	0.54	0.42	76.60	
5500.00	359.62	0.33	0.58	0.46	76.64	
6500.00	425.01	0.37	0.62	0.50	76.68	
6000.00	392.31	0.37	0.61	0.49	76.67	
5000.00	326.93	0.34	0.57	0.46	76.64	
4000.00	261.54	0.32	0.56	0.44	76.62	
3000.00	196.16	0.28	0.55	0.42	76.60	
2000.00	130.77	0.24	0.51	0.38	76.56	
1000.00	65.39	0.19	0.42	0.31	76.49	
500.00	32.69	0.17	0.36	0.27	76.45	
1500.00	98.08	0.18	0.40	0.29	76.48	
2500.00	163.46	0.22	0.46	0.34	76.53	
3500.00	228.85	0.26	0.50	0.38	76.57	
4500.00	294.23	0.30	0.54	0.42	76.60	
5500.00	359.62	0.33	0.58	0.46	76.64	
6500.00	425.01	0.37	0.62	0.50	76.68	
7500.00	490.39	0.40	0.66	0.53	76.71	
8500.00	555.78	0.44	0.70	0.57	76.75	
8000.00	523.08	0.44	0.70	0.57	76.75	
7000.00	457.70	0.43	0.69	0.56	76.74	
6000.00	392.31	0.41	0.69	0.55	76.73	
5000.00	326.93	0.37	0.67	0.52	76.70	
4000.00	261.54	0.33	0.65	0.49	76.67	
2500.00	163.46	0.29	0.61	0.45	76.63	
2000.00	130.77	0.25	0.53	0.39	76.58	
1000.00	65.39	0.20	0.43	0.32	76.50	
500.00	32.69	0.18	0.37	0.28	76.46	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-10-19)



GOODMAN JACK TEST DATA SHEET

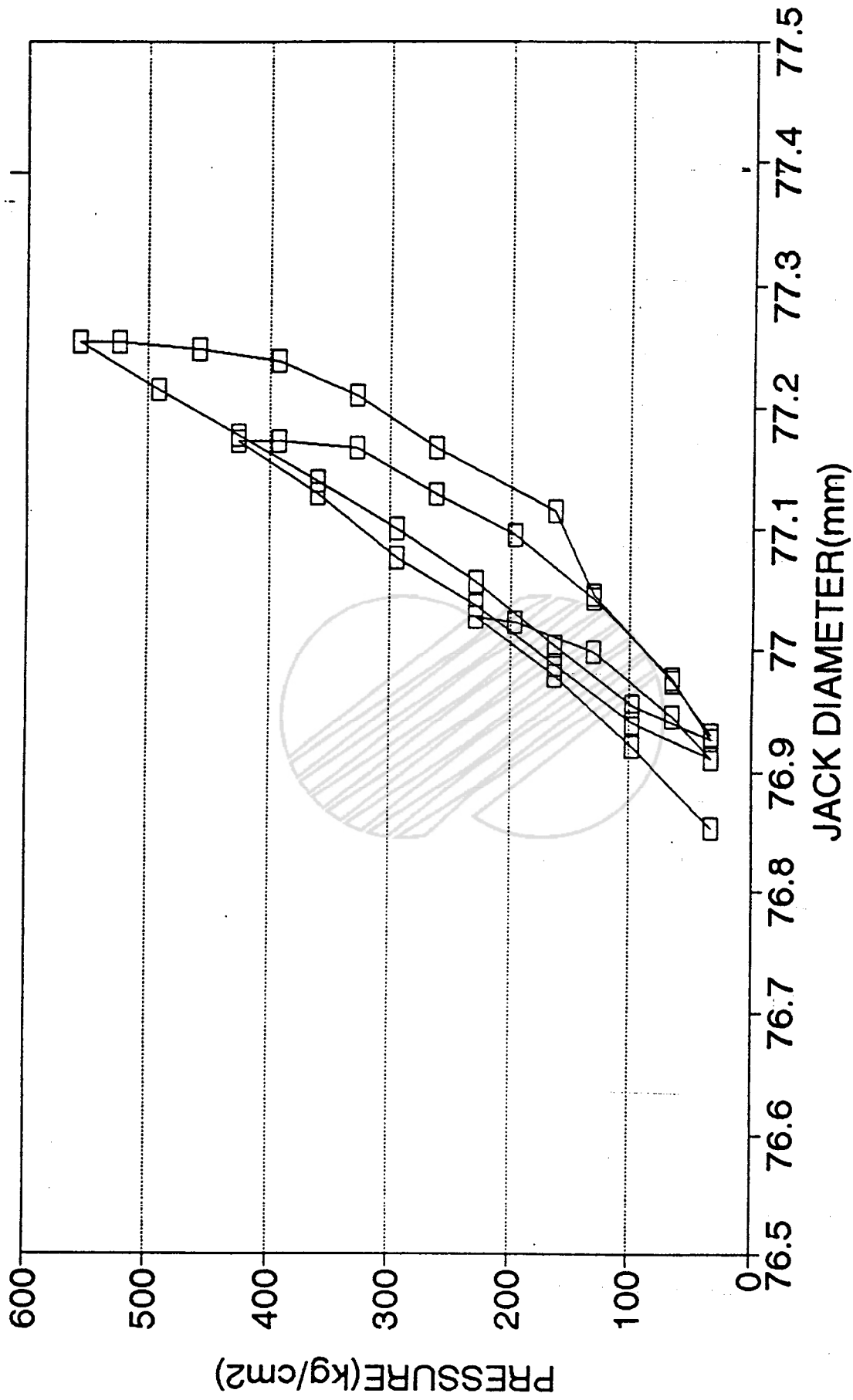
DATE : 1993.11.21
DEPTH : 23m

BOREHOLE NO. : P6-10
RECORDED BY : S.S.CHOI

P (psi) (Gage)	P (kg/cm ²) (Plate)	READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	0.60	0.76	0.68	76.85	FRESH, ANDESITE, MASSIVE
1500.00	98.08	0.66	0.84	0.75	76.92	
2500.00	163.46	0.72	0.90	0.81	76.98	
3500.00	228.85	0.77	0.95	0.86	77.03	
3000.00	196.16	0.77	0.94	0.86	77.02	
2000.00	130.77	0.76	0.90	0.83	77.00	
1000.00	65.39	0.72	0.83	0.78	76.95	
500.00	32.69	0.68	0.80	0.74	76.91	
1500.00	98.08	0.69	0.85	0.77	76.94	
2500.00	163.46	0.73	0.91	0.82	76.99	
3500.00	228.85	0.78	0.96	0.87	77.04	
4500.00	294.23	0.82	1.00	0.91	77.08	
5500.00	359.62	0.87	1.06	0.97	77.13	
6500.00	425.01	0.92	1.10	1.01	77.17	
6000.00	392.31	0.92	1.10	1.01	77.17	
5000.00	326.93	0.92	1.09	1.01	77.17	
4000.00	261.54	0.90	1.03	0.97	77.13	
3000.00	196.16	0.88	0.98	0.93	77.09	
2000.00	130.77	0.83	0.92	0.88	77.04	
1000.00	65.39	0.75	0.87	0.81	76.98	
500.00	32.69	0.70	0.81	0.76	76.93	
1500.00	98.08	0.71	0.86	0.79	76.96	
2500.00	163.46	0.75	0.92	0.84	77.00	
3500.00	228.85	0.80	0.98	0.89	77.06	
4500.00	294.23	0.85	1.02	0.94	77.10	
5500.00	359.62	0.89	1.06	0.98	77.14	
6500.00	425.01	0.93	1.10	1.02	77.18	
7500.00	490.39	0.97	1.14	1.06	77.22	
8500.00	555.78	1.01	1.18	1.10	77.25	
8000.00	523.08	1.01	1.18	1.10	77.25	
7000.00	457.70	1.01	1.17	1.09	77.25	
6000.00	392.31	1.01	1.15	1.08	77.24	
5000.00	326.93	0.99	1.11	1.05	77.21	
4000.00	261.54	0.96	1.05	1.01	77.17	
2500.00	163.46	0.91	0.99	0.95	77.11	
2000.00	130.77	0.84	0.92	0.88	77.05	
1000.00	65.39	0.76	0.85	0.81	76.97	
500.00	32.69	0.71	0.81	0.76	76.93	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-10-23)



GOODMAN JACK TEST DATA SHEET

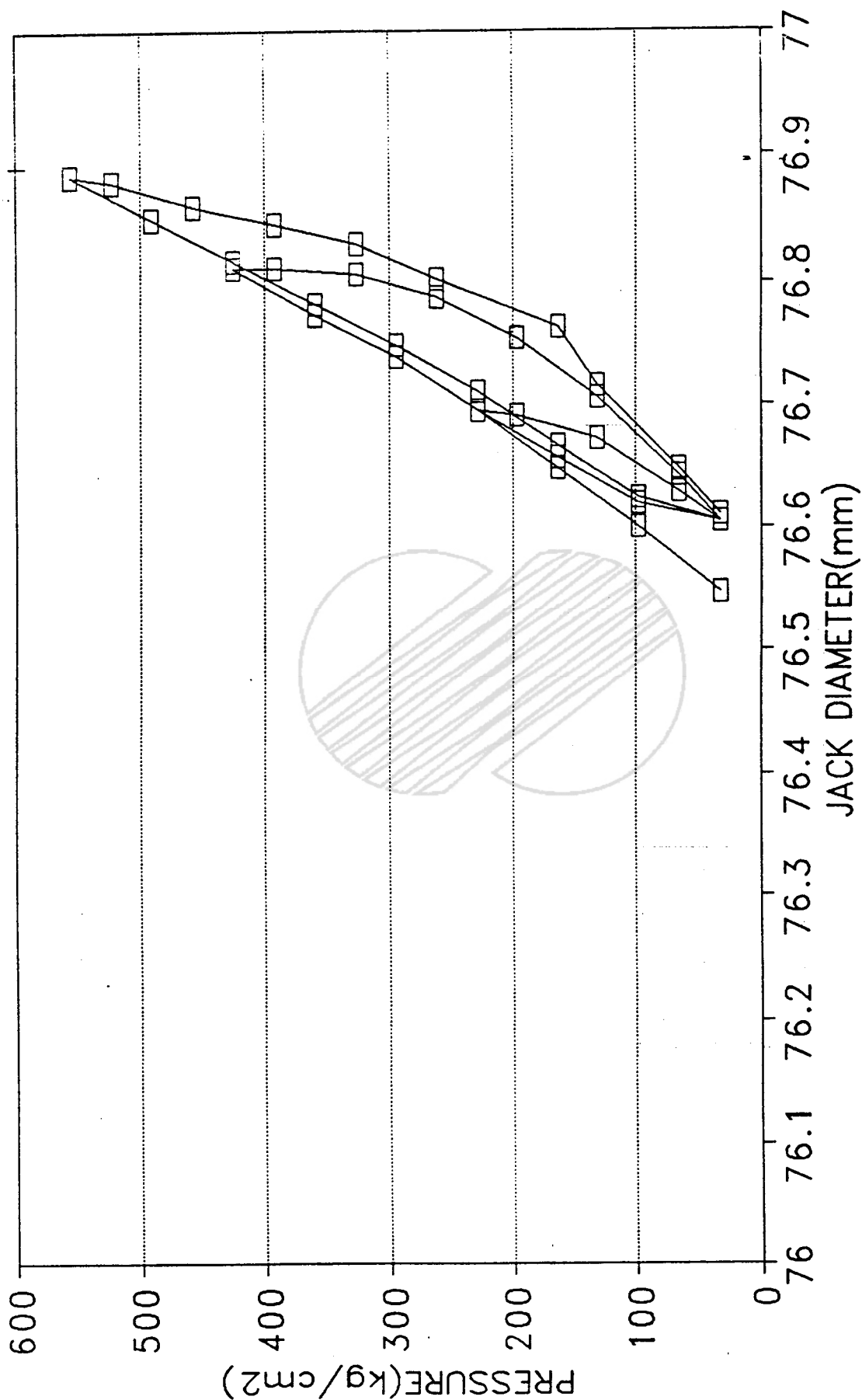
DATE : 1993.11.21
DEPTH : 27m

BOREHOLE NO. : P6-10
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE.		
500.00	32.69	0.15	0.57	0.36	76.55	FRESH, ANDESITE, SOLID
1500.00	98.08	0.21	0.62	0.42	76.60	
2500.00	163.46	0.25	0.68	0.47	76.65	
3500.00	228.85	0.30	0.73	0.52	76.70	
3000.00	196.16	0.30	0.72	0.51	76.69	
2000.00	130.77	0.29	0.69	0.49	76.67	
1000.00	65.39	0.25	0.64	0.45	76.63	
500.00	32.69	0.23	0.61	0.42	76.60	
1500.00	98.08	0.24	0.63	0.44	76.62	
2500.00	163.46	0.26	0.69	0.48	76.66	
3500.00	228.85	0.30	0.73	0.52	76.70	
4500.00	294.23	0.34	0.78	0.56	76.74	
5500.00	359.62	0.37	0.82	0.60	76.77	
6500.00	425.01	0.41	0.86	0.64	76.81	
6000.00	392.31	0.41	0.86	0.64	76.81	
5000.00	326.93	0.41	0.85	0.63	76.81	
4000.00	261.54	0.40	0.82	0.61	76.79	
3000.00	196.16	0.38	0.77	0.58	76.75	
2000.00	130.77	0.33	0.72	0.53	76.71	
1000.00	65.39	0.27	0.65	0.46	76.64	
500.00	32.69	0.22	0.62	0.42	76.60	
1500.00	98.08	0.23	0.65	0.44	76.62	
2500.00	163.46	0.27	0.70	0.49	76.67	
3500.00	228.85	0.31	0.75	0.53	76.71	
4500.00	294.23	0.35	0.79	0.57	76.75	
5500.00	359.62	0.38	0.83	0.61	76.78	
6500.00	425.01	0.42	0.86	0.64	76.82	
7500.00	490.39	0.45	0.90	0.68	76.85	
8500.00	555.78	0.48	0.94	0.71	76.88	
8000.00	523.08	0.48	0.93	0.71	76.88	
7000.00	457.70	0.46	0.91	0.69	76.86	
6000.00	392.31	0.45	0.89	0.67	76.84	
5000.00	326.93	0.44	0.87	0.66	76.83	
4000.00	261.54	0.42	0.83	0.63	76.80	
2500.00	163.46	0.39	0.78	0.59	76.76	
2000.00	130.77	0.34	0.73	0.54	76.71	
1000.00	65.39	0.27	0.66	0.47	76.65	
500.00	32.69	0.22	0.63	0.43	76.61	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-10-27)



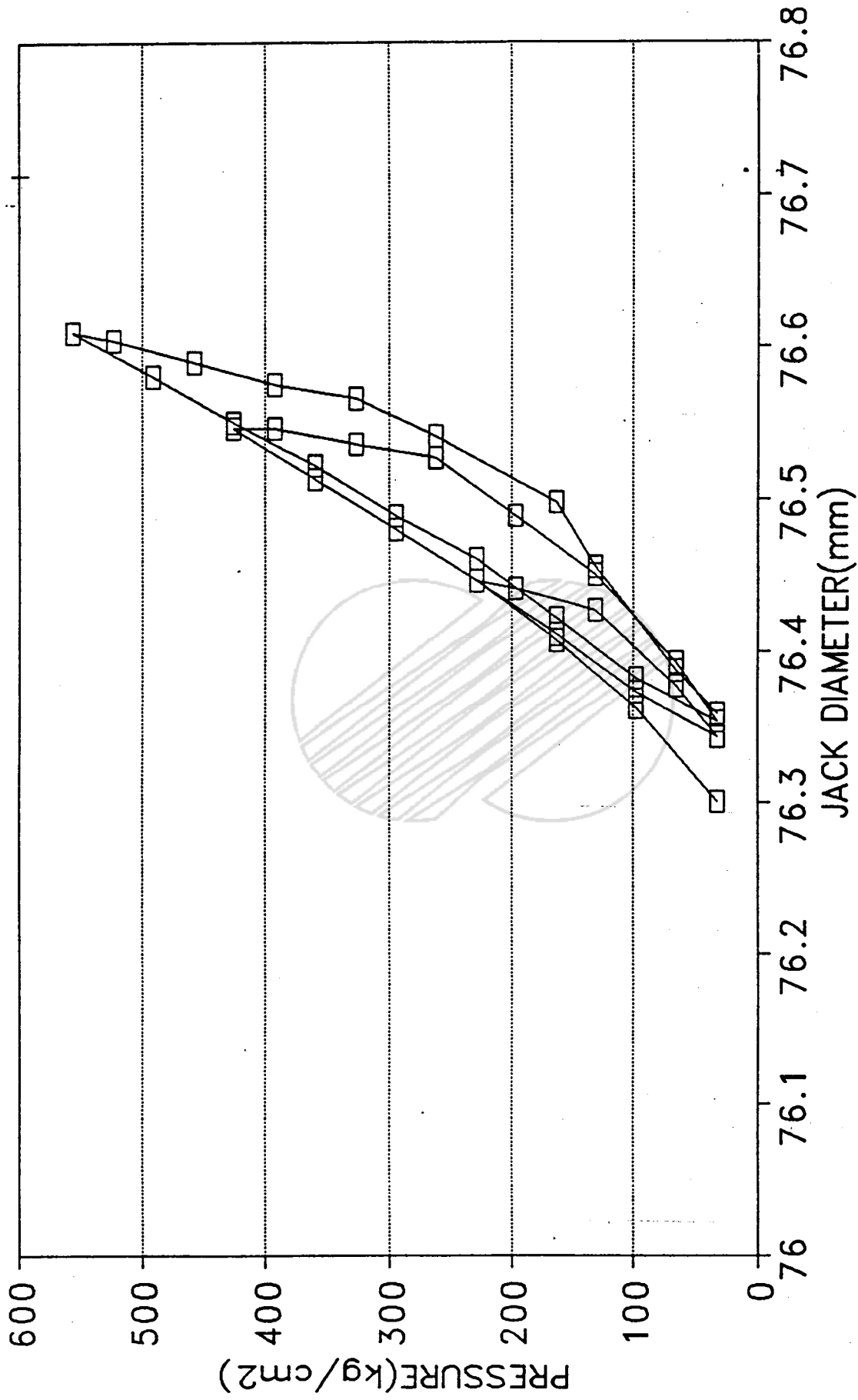
GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.21
DEPTH : 36m

BOREHOLE NO. : P6-10
RECORDED BY : S.S.CHOI

P(psi)	P(ko/cm ²)	LVDT READING (mm)			JACK DIA (mm)	REMARK
(Gage)	(Plate)	NEAR	FAR	AVE		
500.00	32.69	0.05	0.16	0.11	76.30	
1500.00	98.08	0.11	0.23	0.17	76.36	
2500.00	163.46	0.15	0.28	0.22	76.41	
3500.00	228.85	0.19	0.32	0.26	76.45	
3000.00	196.16	0.19	0.31	0.25	76.44	
2000.00	130.77	0.17	0.30	0.24	76.43	
1000.00	65.39	0.12	0.25	0.19	76.38	
500.00	32.69	0.09	0.21	0.15	76.34	
1500.00	98.08	0.12	0.24	0.18	76.37	
2500.00	163.46	0.16	0.28	0.22	76.41	
3500.00	228.85	0.19	0.32	0.26	76.45	
4500.00	294.23	0.23	0.35	0.29	76.48	
5500.00	359.62	0.26	0.39	0.33	76.51	
6500.00	425.01	0.30	0.42	0.36	76.55	
6000.00	392.31	0.30	0.42	0.36	76.55	
5000.00	326.93	0.29	0.41	0.35	76.54	FRESH, ANDESITE, MASSIVE
4000.00	261.54	0.28	0.40	0.34	76.53	
3000.00	196.16	0.23	0.37	0.30	76.49	
2000.00	130.77	0.19	0.33	0.26	76.45	
1000.00	65.39	0.13	0.27	0.20	76.39	
500.00	32.69	0.10	0.22	0.16	76.35	
1500.00	98.08	0.13	0.25	0.19	76.38	
2500.00	163.46	0.17	0.29	0.23	76.42	
3500.00	228.85	0.21	0.33	0.27	76.46	
4500.00	294.23	0.24	0.36	0.30	76.49	
5500.00	359.62	0.28	0.39	0.34	76.52	
6500.00	425.01	0.31	0.42	0.37	76.55	
7500.00	490.39	0.34	0.45	0.40	76.58	
8500.00	555.78	0.37	0.48	0.43	76.61	
8000.00	523.08	0.36	0.48	0.42	76.60	
7000.00	457.70	0.35	0.46	0.41	76.59	
6000.00	392.31	0.33	0.45	0.39	76.58	
5000.00	326.93	0.32	0.44	0.38	76.57	
4000.00	261.54	0.29	0.42	0.36	76.54	
2500.00	163.46	0.24	0.38	0.31	76.50	
2000.00	130.77	0.20	0.33	0.27	76.45	
1000.00	65.39	0.13	0.26	0.20	76.39	
500.00	32.69	0.10	0.23	0.17	76.36	

GOODMAN JACK TEST INTERPRETATION
TEST NO. (P6-10-36)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.21

DEPTH : 42m

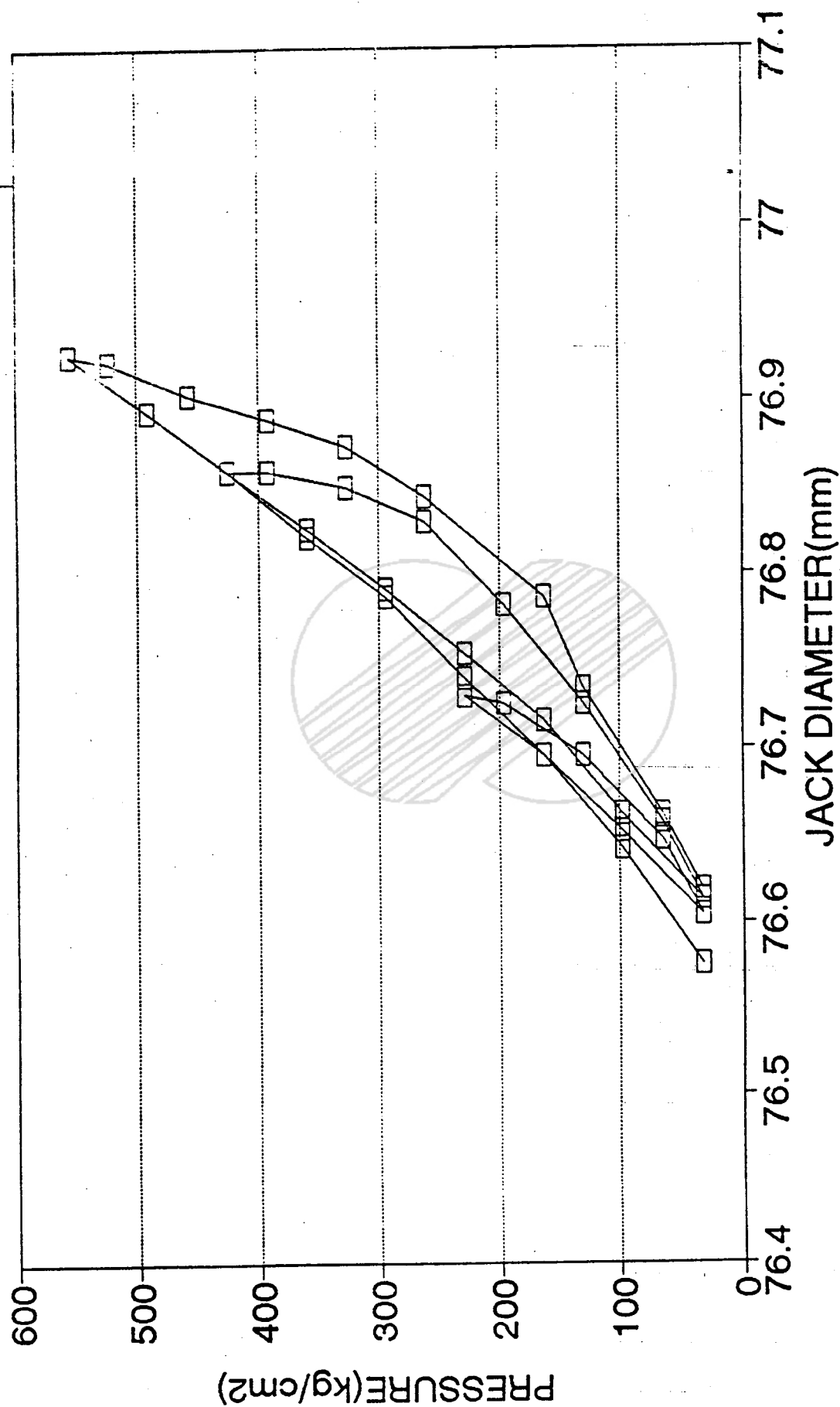
BOREHOLE NO. : P6-10

RECORDED BY : S.S.CHOI

P (psi) (Gage)	P (kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	0.29	0.49	0.39	76.58	FRESH, ANDESITE, MASSIVE
1500.00	98.08	0.35	0.57	0.46	76.64	
2500.00	163.46	0.40	0.63	0.52	76.70	
3500.00	228.85	0.43	0.67	0.55	76.73	
3000.00	196.16	0.43	0.66	0.55	76.72	
2000.00	130.77	0.40	0.63	0.52	76.70	
1000.00	65.39	0.36	0.57	0.47	76.65	
500.00	32.69	0.32	0.52	0.42	76.60	
1500.00	98.08	0.36	0.58	0.47	76.65	
2500.00	163.46	0.40	0.63	0.52	76.70	
3500.00	228.85	0.44	0.68	0.56	76.74	
4500.00	294.23	0.49	0.73	0.61	76.79	
5500.00	359.62	0.52	0.77	0.65	76.82	
6500.00	425.01	0.56	0.81	0.69	76.86	
6000.00	392.31	0.56	0.81	0.69	76.86	
5000.00	326.93	0.55	0.80	0.68	76.85	
4000.00	261.54	0.53	0.78	0.66	76.83	
3000.00	196.16	0.48	0.73	0.61	76.78	
2000.00	130.77	0.43	0.66	0.55	76.72	
1000.00	65.39	0.37	0.58	0.48	76.66	
500.00	32.69	0.33	0.53	0.43	76.61	
1500.00	98.08	0.37	0.59	0.48	76.66	
2500.00	163.46	0.42	0.65	0.54	76.71	
3500.00	228.85	0.46	0.69	0.58	76.75	
4500.00	294.23	0.49	0.74	0.62	76.79	
5500.00	359.62	0.53	0.77	0.65	76.83	
6500.00	425.01	0.56	0.81	0.69	76.86	
7500.00	490.39	0.60	0.84	0.72	76.89	
8500.00	555.78	0.64	0.87	0.76	76.93	
8000.00	523.08	0.63	0.87	0.75	76.92	
7000.00	457.70	0.61	0.85	0.73	76.90	
6000.00	392.31	0.59	0.84	0.72	76.89	
5000.00	326.93	0.58	0.82	0.70	76.87	
4000.00	261.54	0.54	0.80	0.67	76.84	
2500.00	163.46	0.49	0.73	0.61	76.79	
2000.00	130.77	0.44	0.67	0.56	76.73	
1000.00	65.39	0.37	0.59	0.48	76.66	
500.00	32.69	0.34	0.53	0.44	76.62	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-10-42)



GOODMAN JACK TEST DATA SHEET

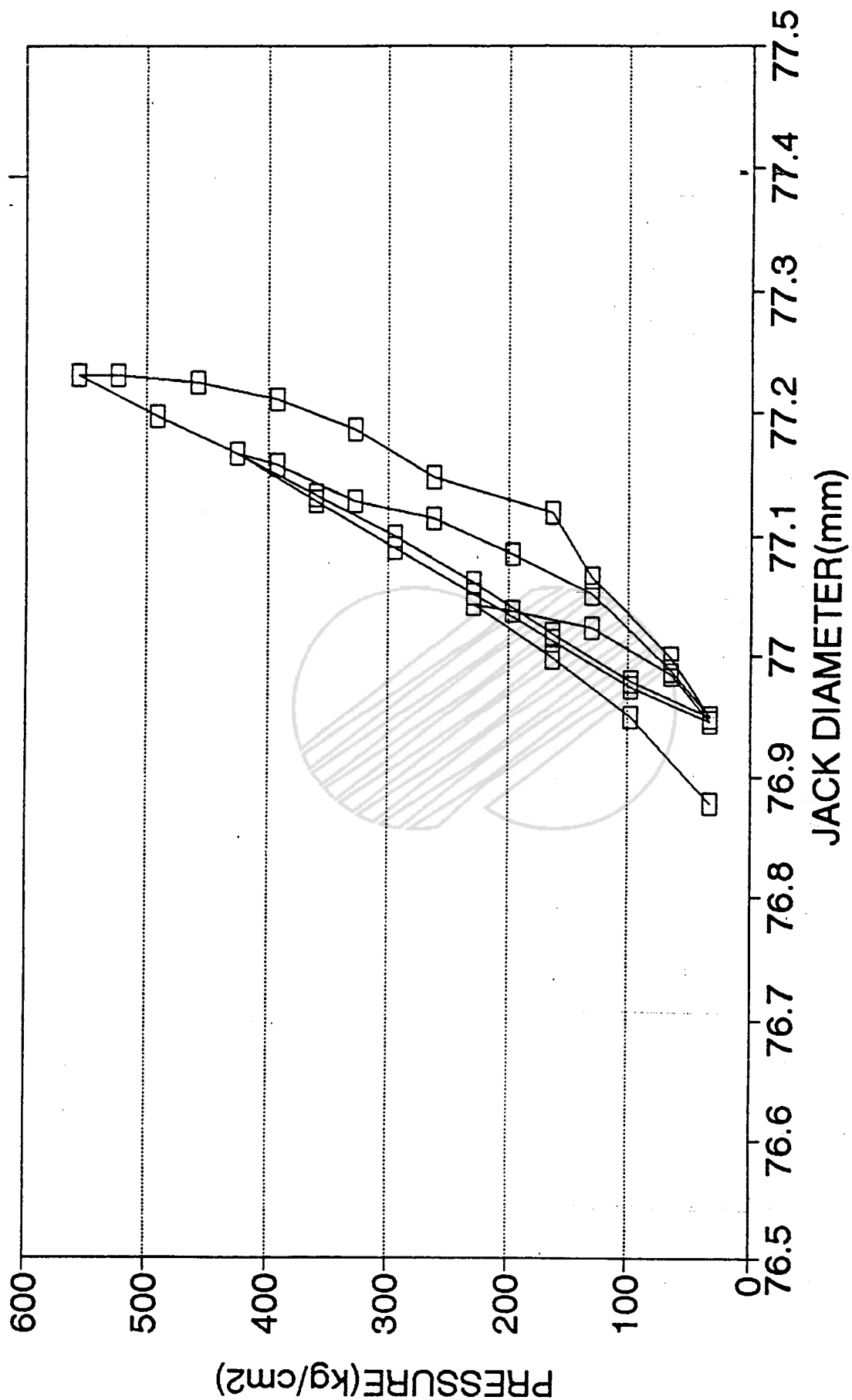
DATE : 1993.11.21
DEPTH : 52m

BOREHOLE NO. : P6-10
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT BEADING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	0.67	0.74	0.71	76.88	FRESH, ANDESITE, MASSIVE
1500.00	98.08	0.73	0.83	0.78	76.95	
2500.00	163.46	0.78	0.88	0.83	77.00	
3500.00	228.85	0.82	0.93	0.88	77.04	
3000.00	196.16	0.82	0.92	0.87	77.04	
2000.00	130.77	0.81	0.90	0.86	77.02	
1000.00	65.39	0.78	0.85	0.82	76.98	
500.00	32.69	0.74	0.81	0.78	76.95	
1500.00	98.08	0.75	0.86	0.81	76.97	
2500.00	163.46	0.78	0.91	0.85	77.01	
3500.00	228.85	0.82	0.95	0.89	77.05	
4500.00	294.23	0.86	0.99	0.93	77.09	
5500.00	359.62	0.90	1.03	0.97	77.13	
6500.00	425.01	0.94	1.07	1.01	77.17	
6000.00	392.31	0.94	1.05	1.00	77.16	
5000.00	326.93	0.92	1.01	0.97	77.13	
4000.00	261.54	0.90	1.00	0.95	77.11	
3000.00	196.16	0.88	0.96	0.92	77.09	
2000.00	130.77	0.86	0.91	0.89	77.05	
1000.00	65.39	0.79	0.85	0.82	76.99	
500.00	32.69	0.75	0.81	0.78	76.95	
1500.00	98.08	0.76	0.86	0.81	76.98	
2500.00	163.46	0.79	0.91	0.85	77.02	
3500.00	228.85	0.83	0.96	0.90	77.06	
4500.00	294.23	0.87	1.00	0.94	77.10	
5500.00	359.62	0.91	1.03	0.97	77.13	
6500.00	425.01	0.94	1.07	1.01	77.17	
7500.00	490.39	0.97	1.10	1.04	77.20	
8500.00	555.78	1.01	1.13	1.07	77.23	
8000.00	523.08	1.01	1.13	1.07	77.23	
7000.00	457.70	1.01	1.12	1.07	77.22	
6000.00	392.31	1.00	1.10	1.05	77.21	
5000.00	326.93	0.99	1.06	1.03	77.19	
4000.00	261.54	0.96	1.01	0.99	77.15	
2500.00	163.46	0.94	0.97	0.96	77.12	
2000.00	130.77	0.89	0.91	0.90	77.07	
1000.00	65.39	0.81	0.85	0.83	77.00	
500.00	32.69	0.75	0.81	0.78	76.95	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-10-52)



GOODMAN JACK TEST DATA SHEET

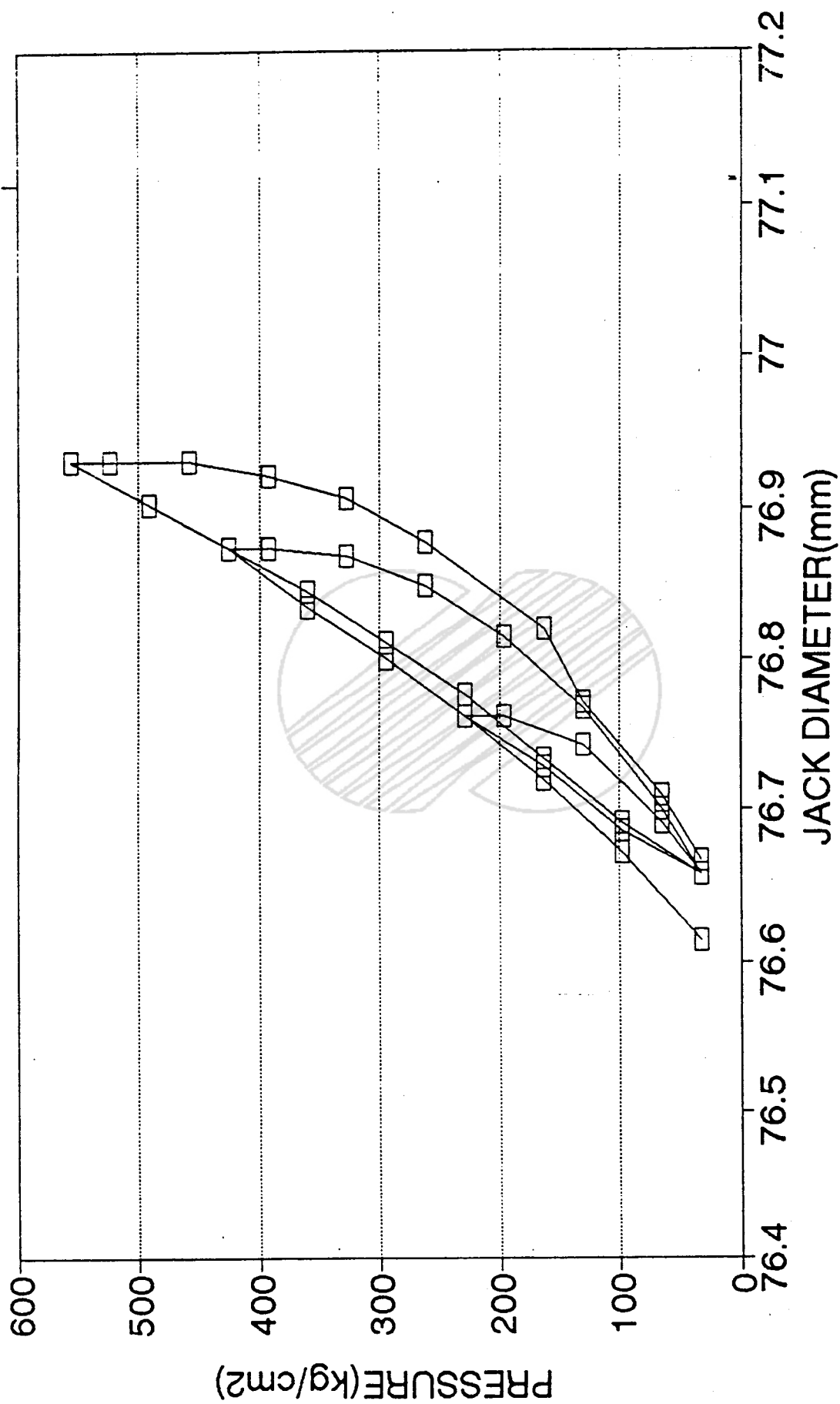
DATE : 1993.11.21
DEPTH : 58.8m

BOREHOLE NO. : P6-10
RECORDED BY : S.S.CHOI

Depth (Gaug)	Penetration (Pneu)	LOADING (mm)			Penetration (mm)	Remarks
		NEAR	SET	AVE		
500.00	32.69	0.28	0.58	0.43	76.61	FRESH, ANDESITE, MASSIVE
1500.00	98.08	0.33	0.65	0.49	76.67	
2500.00	163.46	0.38	0.70	0.54	76.72	
3500.00	228.85	0.42	0.75	0.59	76.76	
3000.00	196.16	0.42	0.75	0.59	76.76	
2000.00	130.77	0.41	0.72	0.57	76.74	
1000.00	65.39	0.37	0.65	0.51	76.69	
500.00	32.69	0.34	0.61	0.48	76.66	
1500.00	98.08	0.35	0.66	0.51	76.69	
2500.00	163.46	0.39	0.71	0.55	76.73	
3500.00	228.85	0.42	0.75	0.59	76.76	
4500.00	294.23	0.46	0.79	0.63	76.80	
5500.00	359.62	0.49	0.83	0.66	76.84	
6500.00	425.01	0.53	0.87	0.70	76.87	
6000.00	392.31	0.53	0.87	0.70	76.87	
5000.00	326.93	0.53	0.86	0.70	76.87	
4000.00	261.54	0.51	0.84	0.68	76.85	
3000.00	196.16	0.49	0.79	0.64	76.82	
2000.00	130.77	0.45	0.73	0.59	76.77	
1000.00	65.39	0.38	0.66	0.52	76.70	
500.00	32.69	0.34	0.61	0.48	76.66	
1500.00	98.08	0.35	0.67	0.51	76.69	
2500.00	163.46	0.39	0.72	0.56	76.73	
3500.00	228.85	0.43	0.77	0.60	76.78	
4500.00	294.23	0.47	0.80	0.64	76.81	
5500.00	359.62	0.50	0.84	0.67	76.84	
6500.00	425.01	0.53	0.87	0.70	76.87	
7500.00	490.39	0.56	0.90	0.73	76.90	
8500.00	555.78	0.59	0.93	0.76	76.93	
8000.00	523.08	0.59	0.93	0.76	76.93	
7000.00	457.70	0.59	0.93	0.76	76.93	
6000.00	392.31	0.58	0.92	0.75	76.92	
5000.00	326.93	0.57	0.90	0.74	76.91	
4000.00	261.54	0.55	0.86	0.71	76.88	
2500.00	163.46	0.50	0.79	0.65	76.82	
2000.00	130.77	0.45	0.74	0.60	76.77	
1000.00	65.39	0.39	0.67	0.53	76.71	
500.00	32.69	0.35	0.62	0.49	76.67	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-10-58.8)



GOODMAN JACK TEST DATA SHEET

DATE : 1993.11.21

DEPTH : 10m

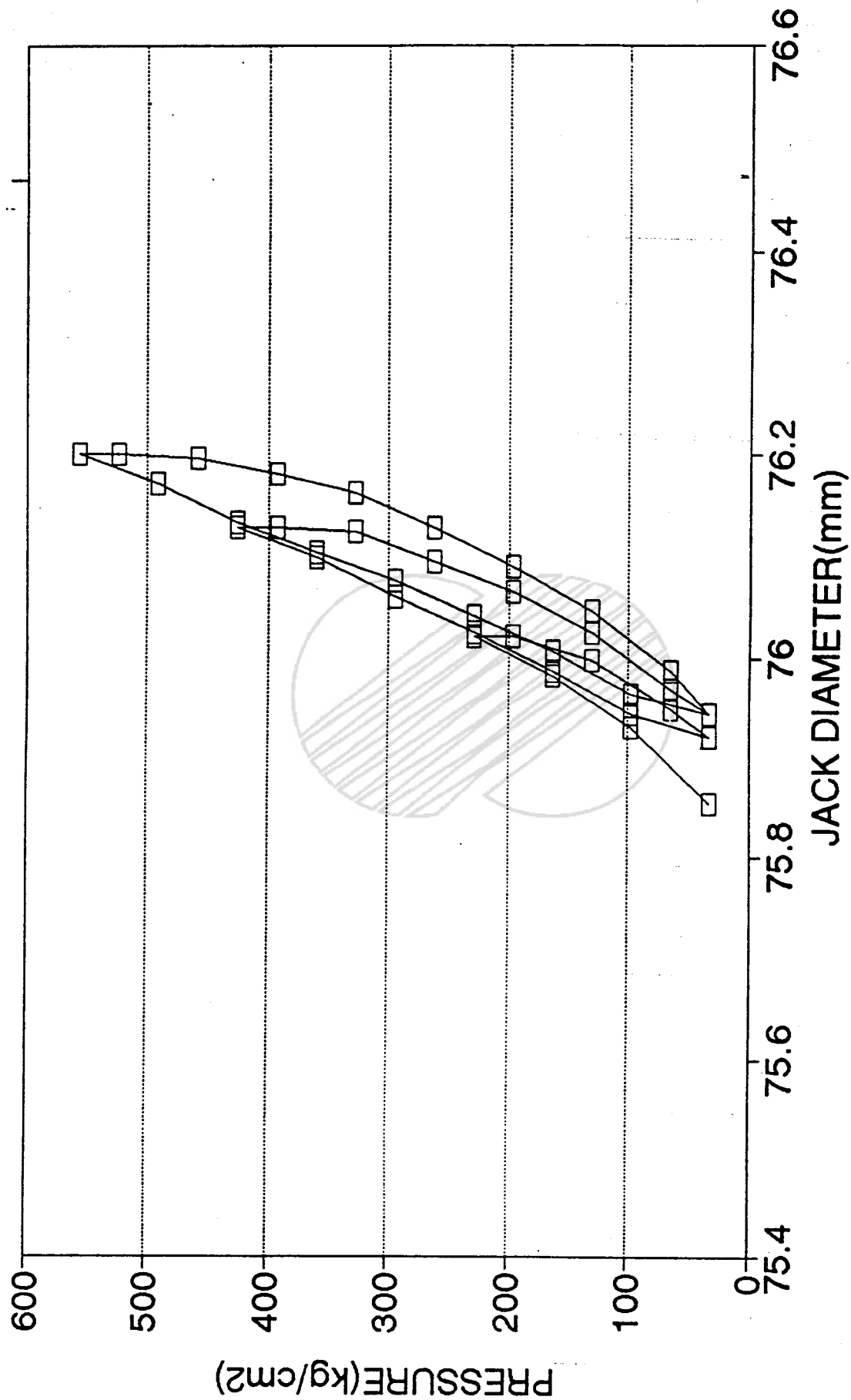
BOREHOLE NO. : P6-11

RECORDED BY : S.S.CHOI

P(psi)	P(kg/cm ²)	LVDT HEADING (mm)			JACK DIA. (mm)	REMARK
(Gage)	(Plate)	NEAR	FAR	Avg		
500.00	32.69	-0.42	-0.30	-0.36	75.85	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.36	-0.20	-0.28	75.93	
2500.00	163.46	-0.31	-0.14	-0.23	75.98	
3500.00	228.85	-0.28	-0.09	-0.19	76.02	
3000.00	196.16	-0.28	-0.09	-0.19	76.02	
2000.00	130.77	-0.32	-0.10	-0.21	76.00	
1000.00	65.39	-0.36	-0.16	-0.26	75.95	
500.00	32.69	-0.38	-0.20	-0.29	75.92	
1500.00	98.08	-0.35	-0.18	-0.27	75.95	
2500.00	163.46	-0.31	-0.13	-0.22	75.99	
3500.00	228.85	-0.27	-0.09	-0.18	76.03	
4500.00	294.23	-0.24	-0.05	-0.15	76.06	
5500.00	359.62	-0.20	-0.01	-0.11	76.10	
6500.00	425.01	-0.17	0.02	-0.08	76.13	
6000.00	392.31	-0.17	0.02	-0.08	76.13	
5000.00	326.93	-0.18	0.02	-0.08	76.12	
4000.00	261.54	-0.22	0.00	-0.11	76.09	
3000.00	196.16	-0.27	-0.01	-0.14	76.07	
2000.00	130.77	-0.30	-0.06	-0.18	76.03	
1000.00	65.39	-0.35	-0.13	-0.24	75.97	
500.00	32.69	-0.37	-0.16	-0.27	75.95	
1500.00	98.08	-0.34	-0.15	-0.25	75.96	
2500.00	163.46	-0.30	-0.10	-0.20	76.01	
3500.00	228.85	-0.26	-0.07	-0.17	76.04	
4500.00	294.23	-0.23	-0.03	-0.13	76.07	
5500.00	359.62	-0.20	0.00	-0.10	76.10	
6500.00	425.01	-0.17	0.03	-0.07	76.13	
7500.00	490.39	-0.13	0.07	-0.03	76.17	
8500.00	555.78	-0.10	0.10	0.00	76.20	
8000.00	523.08	-0.10	0.10	0.00	76.20	
7000.00	457.70	-0.11	0.10	-0.00	76.20	
6000.00	392.31	-0.13	0.09	-0.02	76.18	
5000.00	326.93	-0.16	0.08	-0.04	76.16	
4000.00	261.54	-0.21	0.06	-0.08	76.13	
3000.00	196.16	-0.25	0.02	-0.12	76.09	
2000.00	130.77	-0.29	-0.03	-0.16	76.05	
1000.00	65.39	-0.34	-0.10	-0.22	75.99	
500.00	32.69	-0.37	-0.16	-0.27	75.95	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-11-10)



GOODMAN JACK TEST DATA SHEET

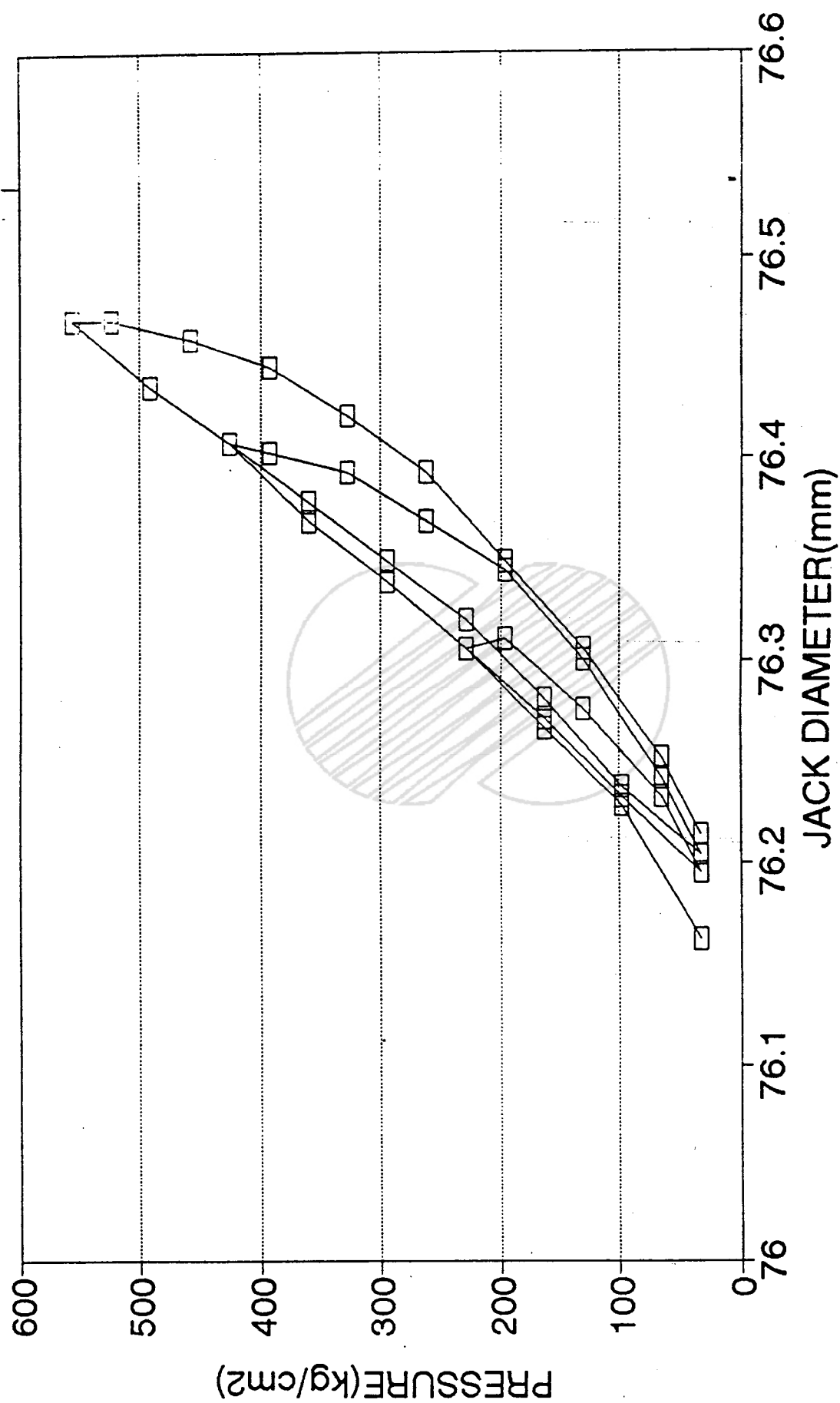
DATE : 1993.11.21
DEPTH : 13m

BOREHOLE NO. : P6-11
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.12	0.04	-0.04	76.16	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.06	0.12	0.03	76.23	
2500.00	163.46	-0.02	0.16	0.07	76.27	
3500.00	228.85	0.02	0.20	0.11	76.31	
3000.00	196.16	0.03	0.20	0.12	76.31	
2000.00	130.77	-0.03	0.19	0.08	76.28	
1000.00	65.39	-0.07	0.14	0.04	76.23	
500.00	32.69	-0.10	0.09	-0.01	76.20	
1500.00	98.08	-0.06	0.13	0.04	76.23	
2500.00	163.46	-0.02	0.17	0.08	76.27	
3500.00	228.85	0.02	0.20	0.11	76.31	
4500.00	294.23	0.05	0.24	0.15	76.34	
5500.00	359.62	0.08	0.27	0.18	76.37	
6500.00	425.01	0.12	0.31	0.22	76.41	
6000.00	392.31	0.11	0.31	0.21	76.40	
5000.00	326.93	0.10	0.30	0.20	76.39	
4000.00	261.54	0.06	0.29	0.18	76.37	
3000.00	196.16	0.03	0.27	0.15	76.34	
2000.00	130.77	-0.01	0.22	0.11	76.30	
1000.00	65.39	-0.06	0.15	0.05	76.24	
500.00	32.69	-0.09	0.10	0.01	76.20	
1500.00	98.08	-0.06	0.14	0.04	76.24	
2500.00	163.46	-0.01	0.18	0.09	76.28	
3500.00	228.85	0.03	0.22	0.13	76.32	
4500.00	294.23	0.06	0.25	0.16	76.35	
5500.00	359.62	0.09	0.28	0.19	76.38	
6500.00	425.01	0.12	0.31	0.22	76.41	
7500.00	490.39	0.15	0.34	0.25	76.44	
8500.00	555.78	0.18	0.38	0.28	76.47	
8000.00	523.08	0.18	0.38	0.28	76.47	
7000.00	457.70	0.17	0.37	0.27	76.46	
6000.00	392.31	0.15	0.36	0.26	76.45	
5000.00	326.93	0.11	0.35	0.23	76.42	
4000.00	261.54	0.07	0.33	0.20	76.39	
3000.00	196.16	0.03	0.28	0.16	76.35	
2000.00	130.77	-0.01	0.23	0.11	76.31	
1000.00	65.39	-0.05	0.16	0.06	76.25	
500.00	32.69	-0.08	0.11	0.02	76.21	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-11-13)



GOODMAN JACK TEST DATA SHEET

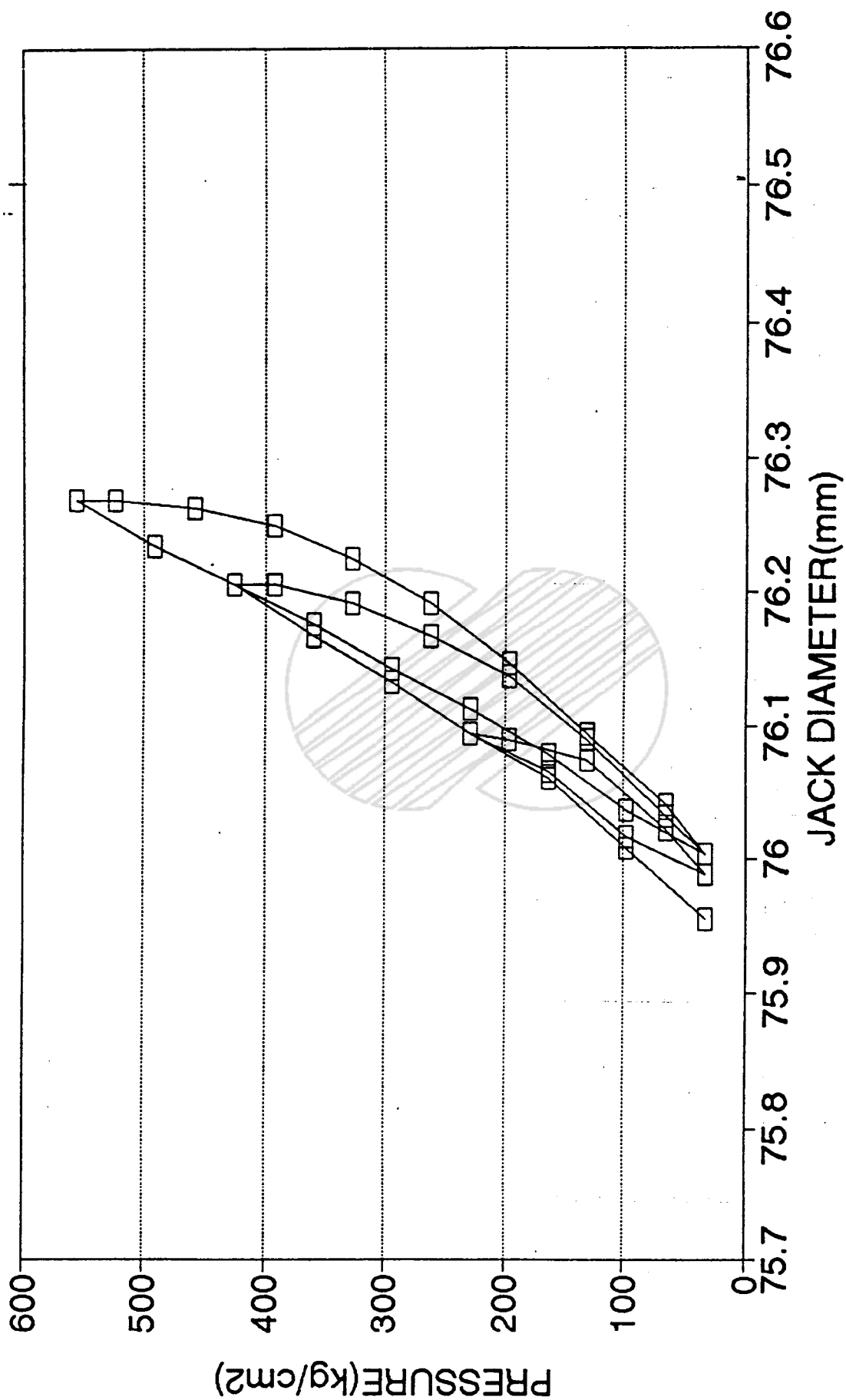
DATE : 1993.11.21
DEPTH : 16m

BOREHOLE NO. : P6-11
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA. (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.35	-0.16	-0.26	75.95	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.31	-0.09	-0.20	76.01	
2500.00	163.46	-0.26	-0.03	-0.15	76.06	
3500.00	228.85	-0.22	0.00	-0.11	76.09	
3000.00	196.16	-0.23	0.00	-0.12	76.09	
2000.00	130.77	-0.26	0.00	-0.13	76.07	
1000.00	65.39	-0.30	-0.07	-0.19	76.02	
500.00	32.69	-0.32	-0.12	-0.22	75.99	
1500.00	98.08	-0.30	-0.08	-0.19	76.02	
2500.00	163.46	-0.25	-0.03	-0.14	76.07	
3500.00	228.85	-0.22	0.00	-0.11	76.09	
4500.00	294.23	-0.18	0.04	-0.07	76.13	
5500.00	359.62	-0.14	0.07	-0.04	76.17	
6500.00	425.01	-0.10	0.11	0.00	76.20	
6000.00	392.31	-0.10	0.11	0.00	76.20	
5000.00	326.93	-0.12	0.10	-0.01	76.19	
4000.00	261.54	-0.16	0.09	-0.04	76.17	
3000.00	196.16	-0.20	0.07	-0.07	76.14	
2000.00	130.77	-0.24	0.01	-0.12	76.09	
1000.00	65.39	-0.29	-0.06	-0.18	76.03	
500.00	32.69	-0.31	-0.10	-0.21	76.00	
1500.00	98.08	-0.28	-0.06	-0.17	76.04	
2500.00	163.46	-0.24	-0.01	-0.13	76.08	
3500.00	228.85	-0.20	0.02	-0.09	76.11	
4500.00	294.23	-0.17	0.05	-0.06	76.14	
5500.00	359.62	-0.13	0.08	-0.03	76.18	
6500.00	425.01	-0.10	0.11	0.00	76.20	
7500.00	490.39	-0.07	0.14	0.04	76.23	
8500.00	555.78	-0.03	0.17	0.07	76.27	
8000.00	523.08	-0.03	0.17	0.07	76.27	
7000.00	457.70	-0.04	0.17	0.07	76.26	
6000.00	392.31	-0.06	0.16	0.05	76.25	
5000.00	326.93	-0.10	0.15	0.02	76.22	
4000.00	261.54	-0.15	0.13	-0.01	76.19	
3000.00	196.16	-0.19	0.08	-0.06	76.15	
2000.00	130.77	-0.24	0.02	-0.11	76.09	
1000.00	65.39	-0.28	-0.05	-0.17	76.04	
500.00	32.69	-0.31	-0.10	-0.21	76.00	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-11-16)



GOODMAN JACK TEST DATA SHEET

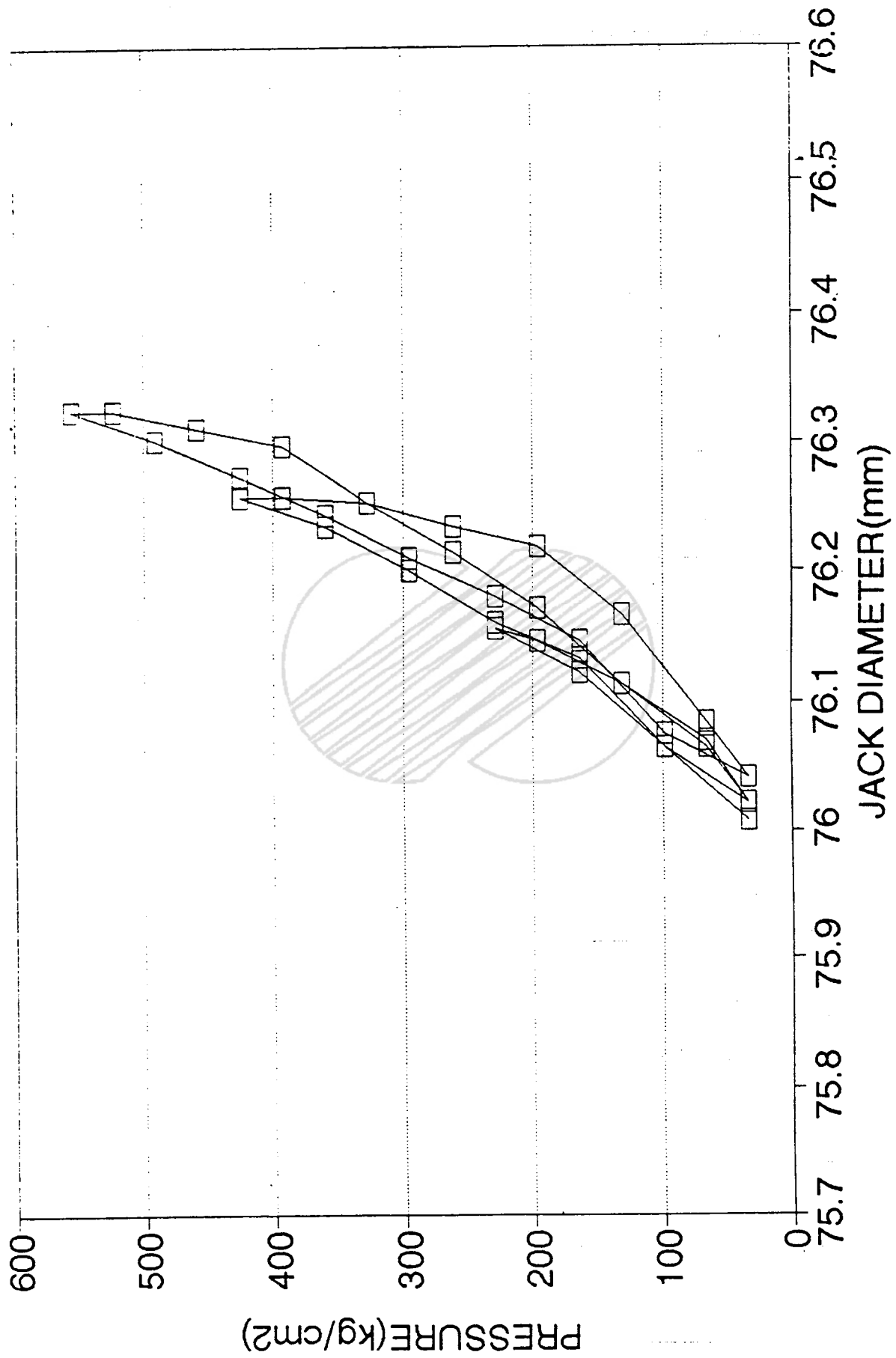
DATE : 1993.11.21
DEPTH : 18m

BOREHOLE NO. : P6-11
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA. (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.31	-0.09	-0.20	76.01	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.26	-0.02	-0.14	76.07	
2500.00	163.46	-0.20	0.04	-0.08	76.12	
3500.00	228.85	-0.16	0.07	-0.05	76.16	
3000.00	196.16	-0.17	0.06	-0.06	76.15	
2000.00	130.77	-0.20	0.02	-0.09	76.11	
1000.00	65.39	-0.24	-0.03	-0.14	76.07	
500.00	32.69	-0.30	-0.07	-0.19	76.02	
1500.00	98.08	-0.27	-0.01	-0.14	76.07	
2500.00	163.46	-0.18	0.04	-0.07	76.13	
3500.00	228.85	-0.15	0.07	-0.04	76.16	
4500.00	294.23	-0.11	0.11	0.00	76.20	
5500.00	359.62	-0.07	0.14	0.04	76.23	
6500.00	425.01	-0.04	0.16	0.06	76.26	
6000.00	392.31	-0.04	0.16	0.06	76.26	
5000.00	326.93	-0.05	0.16	0.06	76.25	
4000.00	261.54	-0.07	0.14	0.04	76.23	
3000.00	196.16	-0.09	0.13	0.02	76.22	
2000.00	130.77	-0.14	0.07	-0.04	76.17	
1000.00	65.39	-0.23	-0.01	-0.12	76.08	
500.00	32.69	-0.28	-0.05	-0.17	76.04	
1500.00	98.08	-0.26	0.00	-0.13	76.07	
2500.00	163.46	-0.17	0.06	-0.06	76.15	
3500.00	228.85	-0.13	0.09	-0.02	76.18	
4500.00	294.23	-0.10	0.12	0.01	76.21	
5500.00	359.62	-0.06	0.15	0.05	76.24	
6500.00	425.01	-0.03	0.18	0.08	76.27	
7500.00	490.39	0.00	0.21	0.11	76.30	
8500.00	555.78	0.04	0.22	0.13	76.33	
8000.00	523.08	0.04	0.22	0.13	76.33	
7000.00	457.70	0.03	0.20	0.12	76.31	
6000.00	392.31	0.01	0.19	0.10	76.30	
5000.00	326.93	-0.05	0.16	0.06	76.25	
4000.00	261.54	-0.11	0.14	0.02	76.21	
3000.00	196.16	-0.15	0.09	-0.03	76.17	
2000.00	130.77	-0.21	0.03	-0.09	76.11	
1000.00	65.39	-0.25	-0.03	-0.14	76.07	
500.00	32.69	-0.28	-0.09	-0.19	76.02	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-11-18)



GOODMAN JACK TEST DATA SHEET

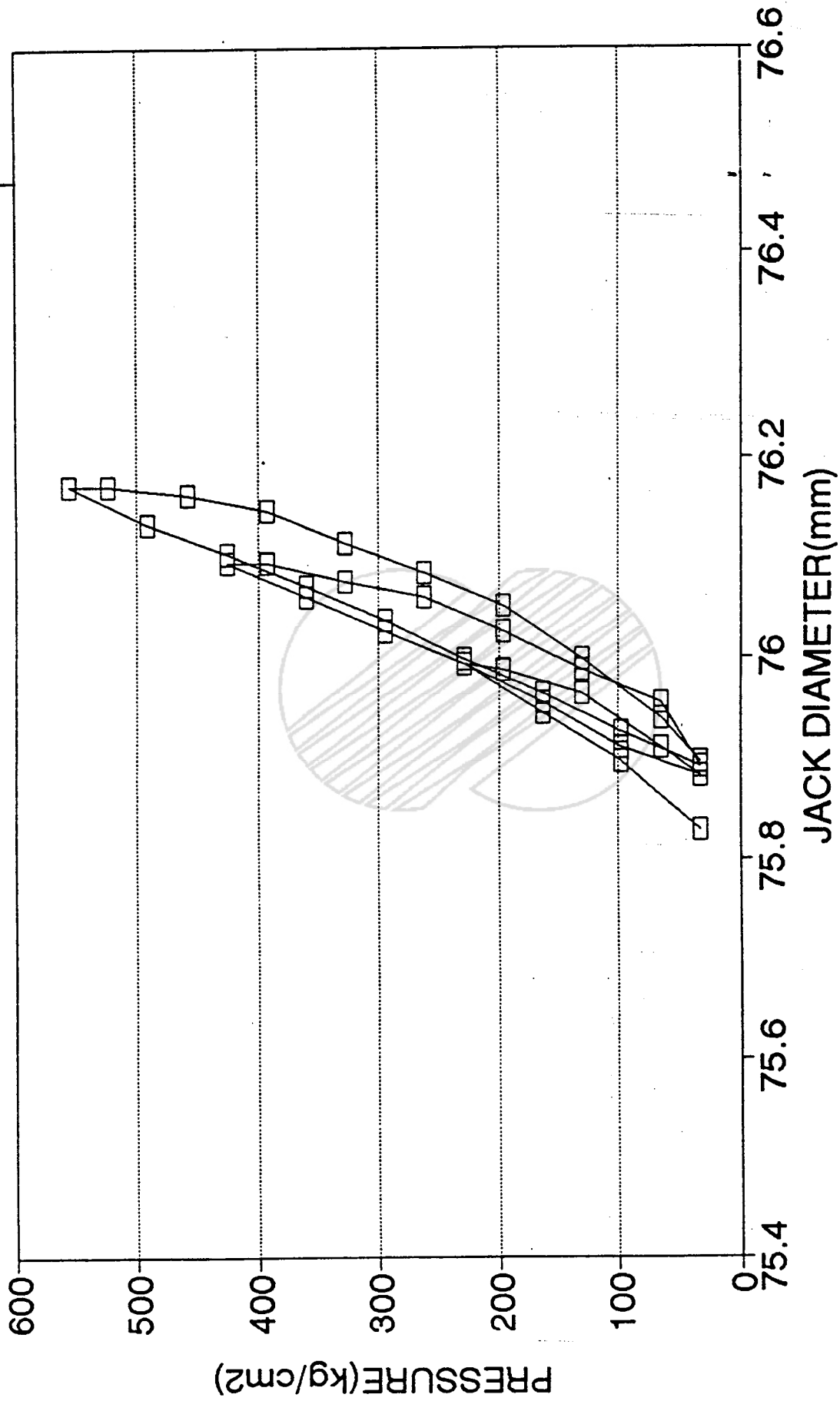
DATE : 1993.11.21
DEPTH : 21m

BOREHOLE NO. : P6-11
RECORDED BY : S.S.CHOI

P(ps) (Gage)	P(kg/cm ²) (Plate)	LYDT HEADING (mm)			JACK DIA. (mm)	REMARK
		NEAR	FAR	AVE.		
500.00	32.69	-0.42	-0.35	-0.39	75.83	FRESH, ANDESITE, MASSIVE
1500.00	98.08	-0.36	-0.27	-0.32	75.90	
2500.00	163.46	-0.32	-0.21	-0.27	75.95	
3500.00	228.85	-0.26	-0.17	-0.22	75.99	
3000.00	196.16	-0.26	-0.18	-0.22	75.99	
2000.00	130.77	-0.31	-0.18	-0.25	75.96	
1000.00	65.39	-0.36	-0.24	-0.30	75.91	
500.00	32.69	-0.38	-0.28	-0.33	75.88	
1500.00	98.08	-0.35	-0.25	-0.30	75.91	
2500.00	163.46	-0.31	-0.20	-0.26	75.95	
3500.00	228.85	-0.27	-0.16	-0.22	75.99	
4500.00	294.23	-0.23	-0.13	-0.18	76.03	
5500.00	359.62	-0.19	-0.10	-0.15	76.06	
6500.00	425.01	-0.15	-0.07	-0.11	76.09	
6000.00	392.31	-0.15	-0.07	-0.11	76.09	
5000.00	326.93	-0.18	-0.08	-0.13	76.07	
4000.00	261.54	-0.21	-0.08	-0.15	76.06	
3000.00	196.16	-0.26	-0.10	-0.18	76.03	
2000.00	130.77	-0.30	-0.14	-0.22	75.99	
1000.00	65.39	-0.34	-0.17	-0.26	75.95	
500.00	32.69	-0.37	-0.27	-0.32	75.89	
1500.00	98.08	-0.34	-0.23	-0.29	75.93	
2500.00	163.46	-0.30	-0.19	-0.25	75.96	
3500.00	228.85	-0.27	-0.15	-0.21	76.00	
4500.00	294.23	-0.22	-0.12	-0.17	76.04	
5500.00	359.62	-0.18	-0.09	-0.14	76.07	
6500.00	425.01	-0.14	-0.06	-0.10	76.10	
7500.00	490.39	-0.11	-0.03	-0.07	76.13	
8500.00	555.78	-0.07	0.01	-0.03	76.17	
8000.00	523.08	-0.07	0.01	-0.03	76.17	
7000.00	457.70	-0.08	0.00	-0.04	76.16	
6000.00	392.31	-0.11	0.00	-0.06	76.15	
5000.00	326.93	-0.16	-0.02	-0.09	76.11	
4000.00	261.54	-0.20	-0.04	-0.12	76.08	
3000.00	196.16	-0.24	-0.07	-0.16	76.05	
2000.00	130.77	-0.29	-0.13	-0.21	76.00	
1000.00	65.39	-0.34	-0.20	-0.27	75.94	
500.00	32.69	-0.37	-0.26	-0.32	75.90	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-11-21)



GOODMAN JACK TEST DATA SHEET

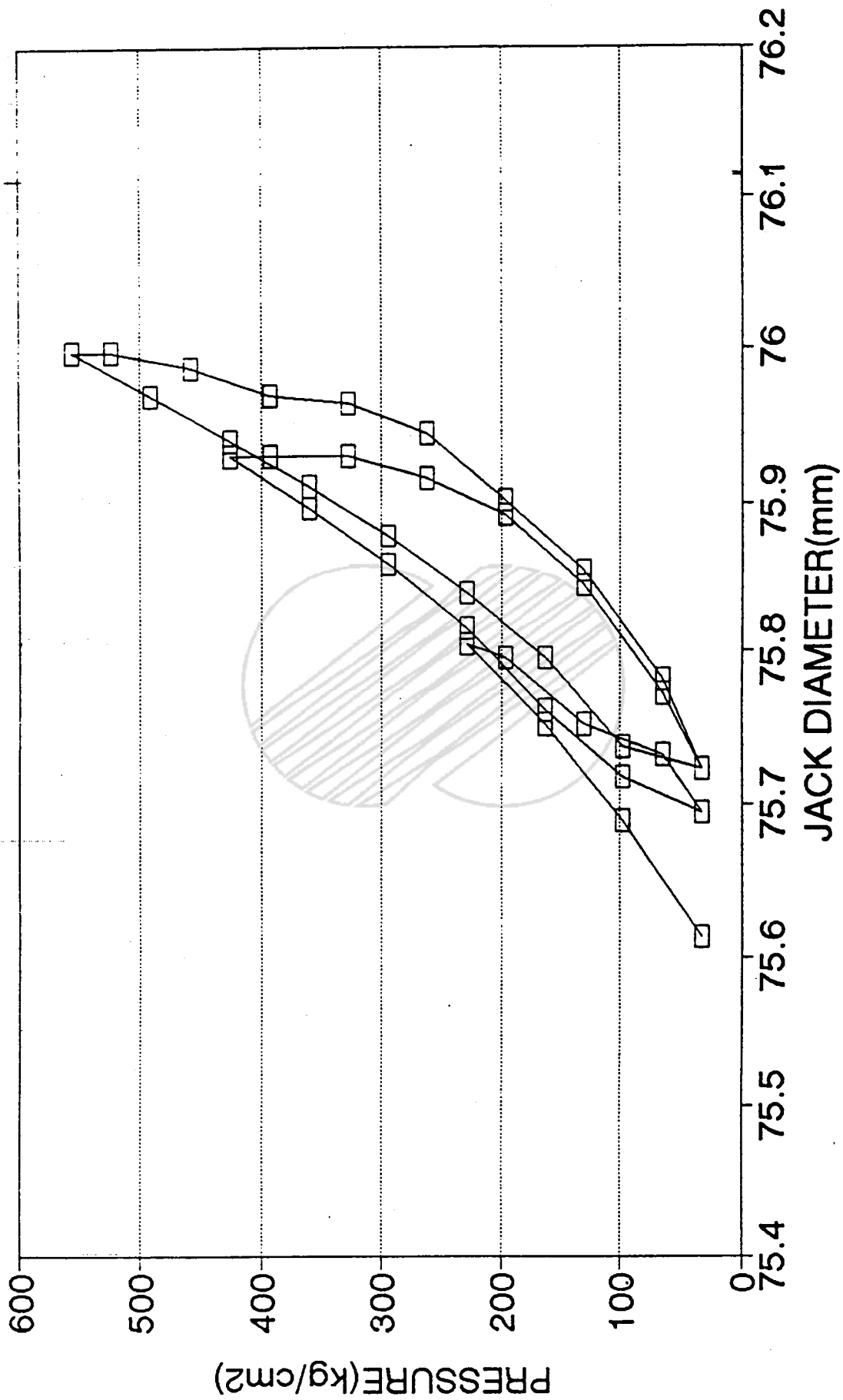
DATE : 1993.11.21
DEPTH : 25m

BOREHOLE NO. : P6-11
RECORDED BY : S.S.CHOI

P(psi) (Gage)	P(kg/cm ²) (Plate)	LVDT READING (mm)			JACK DIA (mm)	REMARK
		NEAR	FAR	AVE		
500.00	32.69	-0.68	-0.54	-0.61	75.61	FRESH, RHYODACITE, SOLID
1500.00	98.08	-0.61	-0.45	-0.53	75.69	
2500.00	163.46	-0.55	-0.38	-0.47	75.75	
3500.00	228.85	-0.49	-0.33	-0.41	75.81	
3000.00	196.16	-0.50	-0.34	-0.42	75.80	
2000.00	130.77	-0.55	-0.38	-0.47	75.75	
1000.00	65.39	-0.57	-0.40	-0.49	75.73	
500.00	32.69	-0.61	-0.44	-0.53	75.69	
1500.00	98.08	-0.58	-0.42	-0.50	75.72	
2500.00	163.46	-0.53	-0.38	-0.46	75.76	
3500.00	228.85	-0.48	-0.32	-0.40	75.82	
4500.00	294.23	-0.44	-0.27	-0.36	75.86	
5500.00	359.62	-0.40	-0.23	-0.32	75.90	
6500.00	425.01	-0.36	-0.20	-0.28	75.93	
6000.00	392.31	-0.36	-0.20	-0.28	75.93	
5000.00	326.93	-0.36	-0.20	-0.28	75.93	
4000.00	261.54	-0.38	-0.21	-0.30	75.92	
3000.00	196.16	-0.42	-0.22	-0.32	75.89	
2000.00	130.77	-0.48	-0.26	-0.37	75.84	
1000.00	65.39	-0.54	-0.35	-0.45	75.77	
500.00	32.69	-0.58	-0.41	-0.50	75.72	
1500.00	98.08	-0.56	-0.40	-0.48	75.74	
2500.00	163.46	-0.50	-0.34	-0.42	75.80	
3500.00	228.85	-0.46	-0.29	-0.38	75.84	
4500.00	294.23	-0.42	-0.25	-0.34	75.88	
5500.00	359.62	-0.38	-0.22	-0.30	75.91	
6500.00	425.01	-0.35	-0.19	-0.27	75.94	
7500.00	490.39	-0.32	-0.16	-0.24	75.97	
8500.00	555.78	-0.29	-0.13	-0.21	76.00	
8000.00	523.08	-0.29	-0.13	-0.21	76.00	
7000.00	457.70	-0.30	-0.14	-0.22	75.99	
6000.00	392.31	-0.32	-0.16	-0.24	75.97	
5000.00	326.93	-0.33	-0.16	-0.25	75.96	
4000.00	261.54	-0.36	-0.17	-0.27	75.95	
3000.00	196.16	-0.42	-0.20	-0.31	75.90	
2000.00	130.77	-0.47	-0.25	-0.36	75.85	
1000.00	65.39	-0.53	-0.34	-0.44	75.78	
500.00	32.69	-0.58	-0.41	-0.50	75.72	

GOODMAN JACK TEST INTERPRETATION

TEST NO. (P6-11-25.5)



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VERTICALITY COMPUTATION SHEET

SHEET NO. = 1

CONTRACTOR = GINEERING CO. LTD

PROJECT NAME = NG #5,6

HOLE NO. = 5-3

LOCATION X(N) = 212773.514

TYPE OF SURVEY = MULTI SHOT

Y(E) = 147197.275

COMPUTATION BY = GINEERING CO. LTD

Z(EL) = 10.313

FILM = NEGATIVE

DATE = 1993. 11.

MEAS'D		COURSE	DRIFT	VERT.	HORZ.	DRIFT	COORD. DIFFERENCE		FINAL COORDINATES		
POINT	DEPTH	LENGTH	ANGLE	DEPTH	DEVIAT	DIRECT'N	DX(N)	DY(E)	X(N)	Y(E)	Z(EL)
0 0	0	0- 0	.0	.000	.000	.0	.000	.000	773.514	197.275	10.313
0 1	4	0- 6	.9	5.999	.094	252.0	-.029	-.090	773.485	197.185	4.314
0 2	8	6-10	.6	4.000	.042	241.0	-.020	-.037	773.465	197.149	.314
0 3	12	10-14	.9	4.000	.063	220.0	-.048	-.040	773.416	197.108	-3.686
0 4	16	14-18	.8	4.000	.056	237.0	-.030	-.047	773.386	197.062	-7.685
0 5	20	18-22	.8	4.000	.056	242.0	-.026	-.049	773.360	197.012	-11.685
0 6	24	22-26	.7	4.000	.049	242.0	-.023	-.043	773.337	196.969	-15.684
0 7	28	26-30	.8	4.000	.056	257.0	-.013	-.054	773.324	196.915	-19.684
0 8	32	30-34	.6	4.000	.042	316.0	.030	-.029	773.354	196.886	-23.684
0 9	36	34-38	.6	4.000	.042	306.0	.025	-.034	773.379	196.852	-27.684
0 10	40	38-42	.8	4.000	.056	322.0	.044	-.034	773.423	196.817	-31.683
0 11	44	42-46	.8	4.000	.056	297.0	.025	-.050	773.448	196.768	-35.683
0 12	48	46-50	.6	4.000	.042	296.0	.018	-.038	773.467	196.730	-39.683
0 13	52	50-54	.7	4.000	.049	194.0	-.047	-.012	773.419	196.718	-43.682
0 14	56	54-58	.5	4.000	.035	202.0	-.032	-.013	773.387	196.705	-47.682
0 15	60	58-62	.6	4.000	.042	88.0	.001	.042	773.388	196.747	-51.682
0 16	64	62-66	.5	4.000	.035	99.0	-.005	.034	773.383	196.781	-55.682
0 17	68	66-70	.5	4.000	.035	129.0	-.022	.027	773.361	196.808	-59.682
0 18	72	70-74	.6	4.000	.042	162.0	-.040	.013	773.321	196.821	-63.681
0 19	76	74-78	.4	4.000	.028	254.0	-.008	-.027	773.313	196.795	-67.681
0 20	80	78-82	.5	4.000	.035	281.0	.007	-.034	773.320	196.760	-71.681

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VERTICALITY COMPUTATION SHEET

SHEET NO. = 2

CONTRACTOR = GINEERING CO. LTD

PROJECT NAME = NG #5.6

HOLE NO. = 5-4

LOCATION X(N) = 212776.418

TYPE OF SURVEY = = MULTI SHOT

Y(E) = 147201.346

COMPUTATION BY = GINEERING CO. LTD

Z(EL) = 10.519

FILM = = NEGATIVE

DATE = = 1993. 11.

POINT	MEAS'D	COURSE	DRIPT	VERT.	HORZ.	DRIPT	COORD. DIFFERENCE		FINAL COORDINATES		
	DEPTH	LENGTH	ANGLE	DEPTH	DEVIAT	DIRECT'N	DX(N)	DY(E)	X(N)	Y(E)	Z(EL)
0	0	0-0	.0	.000	.000	.0	.000	.000	776.418	201.346	10.519
1	4	0-6	.5	6.000	.052	233.0	-.032	-.042	776.386	201.304	4.519
2	8	6-10	.5	4.000	.035	14.0	.034	.008	776.420	201.313	.519
3	12	10-14	.6	4.000	.042	241.0	-.020	-.037	776.400	201.276	-3.480
4	16	14-18	.4	4.000	.028	251.0	-.009	-.026	776.391	201.250	-7.480
5	20	18-22	.6	4.000	.042	261.0	-.007	-.041	776.384	201.208	-11.480
6	24	22-26	.6	4.000	.042	275.0	.004	-.042	776.388	201.166	-15.480
7	28	26-30	.5	4.000	.035	272.0	.001	-.035	776.389	201.132	-19.480
8	32	30-34	.6	4.000	.042	321.0	.033	-.026	776.422	201.105	-23.479
9	36	34-38	.7	4.000	.049	328.0	.041	-.026	776.463	201.079	-27.479
10	40	38-42	.8	4.000	.056	118.0	-.026	.049	776.437	201.129	-31.479
11	44	42-46	.7	4.000	.049	168.0	-.048	.010	776.389	201.139	-35.479
12	48	46-50	.5	4.000	.035	229.0	-.023	-.026	776.366	201.112	-39.478
13	52	50-54	.8	4.000	.056	210.0	-.048	-.028	776.318	201.085	-43.478
14	56	54-58	.6	4.000	.042	330.0	.036	-.021	776.354	201.064	-47.478
15	60	58-62	.6	4.000	.042	283.0	.009	-.041	776.364	201.023	-51.478
16	64	62-66	.6	4.000	.042	159.0	-.039	.015	776.325	201.038	-55.477
17	68	66-70	.7	4.000	.049	156.0	-.045	.020	776.280	201.058	-59.477
18	72	70-74	.6	4.000	.042	363.0	.042	.002	776.322	201.060	-63.477
19	76	74-78	.5	4.000	.035	70.0	.012	.033	776.334	201.093	-67.477
20	80	78-82	.5	4.000	.035	140.0	-.027	.022	776.307	201.115	-71.476

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VERTICALITY COMPUTATION SHEET

SHEET NO. = 3

CONTRACTOR = GINEERING CO. LTD

PROJECT NAME = NG #5,6

HOLE NO. = 5-5

LOCATION X(N) = 212779.321

TYPE OF SURVEY = = MULTI SHOT

Y(E) = 147205.416

COMPUTATION BY = GINEERING CO. LTD

Z(EL) = 10.619

FILM = = NEGATIVE

DATE = = 1993. 11.

POINT	MEAS'D DEPTH	COURSE LENGTH	DRIFT ANGLE	VERT. DEPTH	HORZ. DEVIAT	DRIFT DIRECT'N	COORD. DIFFERENCE		FINAL COORDINATES		
							DX(N)	DY(E)	X(N)	Y(E)	Z(EL)
0 0	0	0-0	.0	.000	.000	.0	.000	.000	779.321	205.416	10.619
0 1	4	0-6	.3	6.000	.031	156.0	-.029	.013	779.292	205.429	4.619
0 2	8	6-10	.4	4.000	.028	343.0	.027	-.008	779.319	205.421	.619
0 3	12	10-14	.2	4.000	.014	13.0	.014	.003	779.333	205.424	-3.381
0 4	16	14-18	.4	4.000	.028	39.0	.022	.018	779.354	205.441	-7.381
0 5	20	18-22	.4	4.000	.028	6.0	.028	.003	779.382	205.444	-11.381
0 6	24	22-26	.4	4.000	.028	177.0	-.028	.001	779.354	205.446	-15.381
0 7	28	26-30	.4	4.000	.028	156.0	-.026	.011	779.329	205.457	-19.380
0 8	32	30-34	.5	4.000	.035	154.0	-.031	.015	779.297	205.472	-23.380
0 9	36	34-38	.4	4.000	.028	156.0	-.026	.011	779.272	205.484	-27.380
0 10	40	38-42	.3	4.000	.021	159.0	-.020	.008	779.252	205.491	-31.380
0 11	44	42-46	.4	4.000	.028	283.0	.006	-.027	779.259	205.464	-35.380
0 12	48	46-50	.4	4.000	.028	363.0	.028	.001	779.286	205.465	-39.380
0 13	52	50-54	.4	4.000	.028	363.0	.028	.001	779.314	205.467	-43.380
0 14	56	54-58	.3	4.000	.021	365.0	.021	.002	779.335	205.469	-47.380
0 15	60	58-62	.4	4.000	.028	221.0	-.021	-.018	779.314	205.450	-51.380
0 16	64	62-66	.2	4.000	.014	226.0	-.010	-.010	779.304	205.440	-55.380
0 17	68	66-70	.3	4.000	.021	242.0	-.010	-.018	779.295	205.422	-59.380
0 18	72	70-74	.4	4.000	.028	6.0	.028	.003	779.322	205.425	-63.379
0 19	76	74-78	.4	4.000	.028	327.0	.023	-.015	779.346	205.410	-67.379
0 20	80	78-82	.5	4.000	.035	311.0	.023	-.026	779.369	205.383	-71.379

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DISTANCE CALCULATION SHEET

----- SOURCE 5-4 -----					----- RECEIVE 5-3 -----				----- RECEIVE 5-5 -----			
NO	DEPTH	X(N)	Y(E)	Z(EL)	X(N)	Y(E)	Z(EL)	DIST.	X(N)	Y(E)	Z(EL)	DIST.
1	1.0	776.413	201.339	9.519	773.509	197.260	9.313	5.011	779.316	205.418	9.619	5.008
2	2.0	776.407	201.332	8.519	773.504	197.245	8.313	5.017	779.311	205.420	8.619	5.016
3	3.0	776.402	201.325	7.519	773.499	197.230	7.313	5.024	779.307	205.422	7.619	5.023
4	4.0	776.397	201.318	6.519	773.495	197.215	6.313	5.030	779.302	205.425	6.619	5.031
5	5.0	776.392	201.311	5.519	773.490	197.200	5.314	5.036	779.297	205.427	5.619	5.039
6	6.0	776.386	201.304	4.519	773.485	197.185	4.314	5.042	779.292	205.429	4.619	5.046
7	7.0	776.395	201.306	3.519	773.480	197.176	3.314	5.059	779.299	205.427	3.619	5.042
8	8.0	776.403	201.308	2.519	773.475	197.167	2.314	5.076	779.306	205.425	2.619	5.038
9	9.0	776.412	201.311	1.519	773.470	197.158	1.314	5.093	779.312	205.423	1.619	5.033
10	10.0	776.420	201.313	.519	773.465	197.149	.314	5.110	779.319	205.421	.619	5.029
11	11.0	776.415	201.303	-.481	773.453	197.139	-.686	5.115	779.322	205.421	-.381	5.042
12	12.0	776.410	201.294	-1.481	773.441	197.129	-1.686	5.120	779.326	205.422	-1.381	5.055
13	13.0	776.405	201.285	-2.480	773.428	197.118	-2.686	5.125	779.329	205.423	-2.381	5.068
14	14.0	776.400	201.276	-3.480	773.416	197.108	-3.686	5.130	779.333	205.424	-3.381	5.081
15	15.0	776.398	201.269	-4.480	773.409	197.097	-4.685	5.137	779.338	205.428	-4.381	5.094
16	16.0	776.396	201.263	-5.480	773.401	197.085	-5.685	5.144	779.343	205.433	-5.381	5.108
17	17.0	776.393	201.256	-6.480	773.394	197.073	-6.685	5.151	779.349	205.437	-6.381	5.121
18	18.0	776.391	201.250	-7.480	773.386	197.062	-7.685	5.159	779.354	205.441	-7.381	5.134

19	19.0	776.389	201.239	-8.480	773.379	197.049	-8.685	5.163	779.361	205.442	-8.381	5.148
20	20.0	776.388	201.229	-9.480	773.373	197.037	-9.685	5.168	779.368	205.443	-9.381	5.162
21	21.0	776.386	201.219	-10.480	773.366	197.025	-10.685	5.172	779.375	205.444	-10.381	5.176
22	22.0	776.384	201.208	-11.480	773.360	197.012	-11.685	5.177	779.382	205.444	-11.381	5.190
23	23.0	776.385	201.198	-12.480	773.354	197.001	-12.685	5.181	779.375	205.445	-12.381	5.195
24	24.0	776.386	201.187	-13.480	773.348	196.991	-13.685	5.185	779.368	205.445	-13.381	5.199
25	25.0	776.387	201.177	-14.480	773.343	196.980	-14.685	5.189	779.361	205.445	-14.381	5.203
26	26.0	776.388	201.166	-15.480	773.337	196.969	-15.684	5.193	779.354	205.446	-15.381	5.208
27	27.0	776.388	201.158	-16.480	773.334	196.955	-16.684	5.199	779.348	205.449	-16.380	5.213
28	28.0	776.389	201.149	-17.480	773.331	196.942	-17.684	5.205	779.341	205.451	-17.380	5.219
29	29.0	776.389	201.140	-18.480	773.327	196.928	-18.684	5.211	779.335	205.454	-18.380	5.225
30	30.0	776.389	201.132	-19.480	773.324	196.915	-19.684	5.217	779.329	205.457	-19.380	5.231
31	31.0	776.397	201.125	-20.480	773.332	196.907	-20.684	5.218	779.321	205.461	-20.380	5.230
32	32.0	776.406	201.118	-21.480	773.339	196.900	-21.684	5.219	779.313	205.465	-21.380	5.230
33	33.0	776.414	201.112	-22.480	773.347	196.893	-22.684	5.220	779.305	205.469	-22.380	5.230
34	34.0	776.422	201.105	-23.479	773.354	196.886	-23.684	5.221	779.297	205.472	-23.380	5.230
35	35.0	776.432	201.099	-24.479	773.361	196.877	-24.684	5.225	779.291	205.475	-24.380	5.228
36	36.0	776.443	201.092	-25.479	773.367	196.869	-25.684	5.229	779.285	205.478	-25.380	5.227
37	37.0	776.453	201.086	-26.479	773.373	196.860	-26.684	5.233	779.278	205.481	-26.380	5.226
38	38.0	776.463	201.079	-27.479	773.379	196.852	-27.684	5.237	779.272	205.484	-27.380	5.225
39	39.0	776.457	201.092	-28.479	773.390	196.843	-28.684	5.244	779.267	205.486	-28.380	5.217
40	40.0	776.450	201.104	-29.479	773.401	196.834	-29.683	5.251	779.262	205.487	-29.380	5.209

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41	41.0	776.444	201.116	-30.479	773.412	196.826	-30.683	5.257	779.257	205.489	-30.380	5.201
42	42.0	776.437	201.129	-31.479	773.423	196.817	-31.683	5.264	779.252	205.491	-31.380	5.193
43	43.0	776.425	201.131	-32.479	773.429	196.805	-32.683	5.266	779.254	205.484	-32.380	5.192
44	44.0	776.413	201.134	-33.479	773.436	196.792	-33.683	5.268	779.255	205.478	-33.380	5.192
45	45.0	776.401	201.136	-34.479	773.442	196.780	-34.683	5.270	779.257	205.471	-34.380	5.192
46	46.0	776.389	201.139	-35.479	773.448	196.768	-35.683	5.272	779.259	205.464	-35.380	5.191
47	47.0	776.384	201.132	-36.478	773.453	196.758	-36.683	5.269	779.266	205.464	-36.380	5.204
48	48.0	776.378	201.126	-37.478	773.458	196.749	-37.683	5.266	779.272	205.465	-37.380	5.217
49	49.0	776.372	201.119	-38.478	773.462	196.739	-38.683	5.262	779.279	205.465	-38.380	5.230
50	50.0	776.366	201.112	-39.478	773.467	196.730	-39.683	5.259	779.286	205.465	-39.380	5.243
51	51.0	776.354	201.105	-40.478	773.455	196.727	-40.683	5.255	779.293	205.466	-40.380	5.259
52	52.0	776.342	201.099	-41.478	773.443	196.724	-41.682	5.252	779.300	205.466	-41.380	5.276
53	53.0	776.330	201.092	-42.478	773.431	196.721	-42.682	5.249	779.307	205.467	-42.380	5.293
54	54.0	776.318	201.085	-43.478	773.419	196.718	-43.682	5.245	779.314	205.467	-43.380	5.310
55	55.0	776.327	201.079	-44.478	773.411	196.715	-44.682	5.253	779.320	205.467	-44.380	5.312
56	56.0	776.336	201.074	-45.478	773.403	196.711	-45.682	5.261	779.325	205.468	-45.380	5.315
57	57.0	776.345	201.069	-46.478	773.395	196.708	-46.682	5.269	779.330	205.468	-46.380	5.317
58	58.0	776.354	201.064	-47.478	773.387	196.705	-47.682	5.277	779.335	205.469	-47.380	5.320
59	59.0	776.357	201.053	-48.478	773.387	196.715	-48.682	5.261	779.330	205.464	-48.380	5.320
60	60.0	776.359	201.043	-49.478	773.388	196.726	-49.682	5.245	779.325	205.460	-49.380	5.321
61	61.0	776.361	201.033	-50.478	773.388	196.736	-50.682	5.229	779.319	205.455	-50.380	5.321
62	62.0	776.364	201.023	-51.478	773.388	196.747	-51.682	5.213	779.314	205.450	-51.380	5.322

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63	63.0	776.354	201.027	-52.477	773.387	196.755	-52.682	5.204	779.312	205.448	-52.380	5.320
64	64.0	776.344	201.030	-53.477	773.386	196.764	-53.682	5.196	779.309	205.445	-53.380	5.319
65	65.0	776.334	201.034	-54.477	773.384	196.773	-54.682	5.187	779.307	205.443	-54.380	5.318
66	66.0	776.325	201.038	-55.477	773.383	196.781	-55.682	5.178	779.304	205.440	-55.380	5.317
67	67.0	776.313	201.043	-56.477	773.378	196.788	-56.682	5.173	779.302	205.436	-56.380	5.314
68	68.0	776.302	201.048	-57.477	773.372	196.795	-57.682	5.169	779.299	205.431	-57.380	5.311
69	69.0	776.291	201.053	-58.477	773.367	196.802	-58.682	5.164	779.297	205.427	-58.380	5.308
70	70.0	776.280	201.058	-59.477	773.361	196.808	-59.682	5.159	779.295	205.422	-59.380	5.305
71	71.0	776.290	201.058	-60.477	773.351	196.812	-60.682	5.169	779.302	205.423	-60.380	5.303
72	72.0	776.301	201.059	-61.477	773.341	196.815	-61.682	5.178	779.308	205.423	-61.380	5.301
73	73.0	776.311	201.059	-62.477	773.331	196.818	-62.681	5.188	779.315	205.424	-62.380	5.300
74	74.0	776.322	201.060	-63.477	773.321	196.821	-63.681	5.197	779.322	205.425	-63.379	5.298
75	75.0	776.325	201.068	-64.477	773.319	196.815	-64.681	5.212	779.328	205.421	-64.379	5.289
76	76.0	776.328	201.076	-65.477	773.317	196.808	-65.681	5.227	779.334	205.417	-65.379	5.281
77	77.0	776.331	201.084	-66.477	773.315	196.801	-66.681	5.242	779.340	205.413	-66.379	5.273
78	78.0	776.334	201.093	-67.477	773.313	196.795	-67.681	5.257	779.346	205.410	-67.379	5.265
79	79.0	776.327	201.098	-68.477	773.315	196.786	-68.681	5.264	779.351	205.403	-68.379	5.262
80	80.0	776.320	201.104	-69.477	773.317	196.777	-69.681	5.271	779.357	205.396	-69.379	5.259
81	81.0	776.314	201.110	-70.477	773.318	196.769	-70.681	5.278	779.363	205.390	-70.379	5.256

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VERTICALITY COMPUTATION SHEET

SHEET NO. = 1

CONTRACTOR = GINEERING CO. LTD

PROJECT NAME = NG #5,6

HOLE NO. = 6-3

LOCATION X(N) = 212922.232

TYPE OF SURVEY = MULTI SHOT

Y(E) = 147405.770

COMPUTATION BY = GINEERING CO. LTD

Z(EL) = 10.049

FILM = NEGATIVE

DATE = 1993. 11.

POINT	MEAS'D DEPTH	COURSE LENGTH	DRIFT ANGLE	VERT. DEPTH	HORZ. DEVIAT	DRIFT DIRECT'N	COORD. DIFFERENCE		FINAL COORDINATES		
							DX(N)	DY(E)	X(N)	Y(E)	Z(EL)
0 0	0	0-0	.0	.000	.000	.0	.000	.000	922.232	405.770	10.049
0 1	4	0-6	.8	5.999	.084	177.0	-.084	.004	922.148	405.774	4.050
0 2	8	6-10	1.0	3.999	.070	175.0	-.070	.006	922.079	405.780	.050
0 3	12	10-14	1.0	3.999	.070	148.0	-.059	.037	922.020	405.817	-3.949
0 4	16	14-18	1.1	3.999	.077	45.0	.054	.054	922.074	405.872	-7.948
0 5	20	18-22	1.3	3.999	.091	35.0	.074	.052	922.148	405.924	-11.947
0 6	24	22-26	2.0	3.998	.140	317.0	.102	-.095	922.250	405.829	-15.945
0 7	28	26-30	.6	4.000	.042	65.0	.018	.038	922.268	405.867	-19.945
0 8	32	30-34	.5	4.000	.035	67.0	.014	.032	922.282	405.899	-23.945
0 9	36	34-38	.9	4.000	.063	312.0	.042	-.047	922.324	405.852	-27.944
0 10	40	38-42	.9	4.000	.063	26.0	.056	.028	922.380	405.880	-31.944
0 11	44	42-46	.8	4.000	.056	320.0	.043	-.036	922.423	405.844	-35.943
0 12	48	46-50	1.0	3.999	.070	335.0	.063	-.030	922.486	405.814	-39.943
0 13	52	50-54	1.0	3.999	.070	323.0	.056	-.042	922.542	405.772	-43.942
0 14	56	54-58	1.0	3.999	.070	324.0	.056	-.041	922.598	405.731	-47.941
0 15	60	58-62	1.0	3.999	.070	349.0	.069	-.013	922.667	405.718	-51.941
0 16	64	62-66	.9	4.000	.063	327.0	.053	-.034	922.720	405.684	-55.940
0 17	68	66-70	.8	4.000	.056	306.0	.033	-.045	922.753	405.638	-59.940
0 18	72	70-74	1.0	3.999	.070	292.0	.026	-.065	922.779	405.574	-63.939
0 19	76	74-78	1.1	3.999	.077	331.0	.067	-.037	922.846	405.536	-67.939
0 20	80	78-82	.9	4.000	.063	361.0	.063	.001	922.909	405.538	-71.938

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VERTICALITY COMPUTATION SHEET

SHEET NO. = 2

CONTRACTOR = GINEERING CO. LTD

PROJECT NAME = NG #5, 6

HOLE NO. = 6-4

LOCATION X(N) = 212925.136

TYPE OF SURVEY = MULTI SHOT

Y(E) = 147409.841

COMPUTATION BY = GINEERING CO. LTD

Z(EL) = 10.120

FILM = NEGATIVE

DATE = 1993. 11.

POINT	MEAS'D	COURSE	DRIFT	VERT.	HORZ.	DRIFT	COORD. DIFFERENCE		FINAL COORDINATES		
	DEPTH	LENGTH	ANGLE	DEPTH	DEVIAT	DIRECT'N	DX(N)	DY(E)	X(N)	Y(E)	Z(EL)
0 0	0	0-0	.0	.000	.000	.0	.000	.000	925.136	409.841	10.120
0 1	4	0-6	1.0	5.999	.105	17.0	.100	.031	925.236	409.872	4.121
0 2	8	6-10	1.2	3.999	.084	62.0	.039	.074	925.275	409.946	.122
0 3	12	10-14	1.0	3.999	.070	364.0	.070	.005	925.345	409.950	-3.878
0 4	16	14-18	.9	4.000	.063	174.0	-.062	.007	925.283	409.957	-7.877
0 5	20	18-22	1.0	3.999	.070	214.0	-.058	-.039	925.225	409.918	-11.876
0 6	24	22-26	1.0	3.999	.070	201.0	-.065	-.025	925.160	409.893	-15.876
0 7	28	26-30	1.0	3.999	.070	169.0	-.069	.013	925.091	409.906	-19.875
0 8	32	30-34	1.1	3.999	.077	203.0	-.071	-.030	925.020	409.876	-23.875
0 9	36	34-38	1.1	3.999	.077	137.0	-.056	.052	924.964	409.929	-27.874
0 10	40	38-42	1.2	3.999	.084	173.0	-.083	.010	924.881	409.939	-31.873
0 11	44	42-46	1.0	3.999	.070	47.0	.048	.051	924.929	409.990	-35.872
0 12	48	46-50	1.0	3.999	.070	345.0	.067	-.018	924.996	409.972	-39.872
0 13	52	50-54	1.0	3.999	.070	162.0	-.066	.022	924.930	409.993	-43.871
0 14	56	54-58	.8	4.000	.056	108.0	-.017	.053	924.912	410.047	-47.871
0 15	60	58-62	1.1	3.999	.077	141.0	-.060	.048	924.853	410.095	-51.870
0 16	64	62-66	1.2	3.999	.084	161.0	-.079	.027	924.774	410.122	-55.869
0 17	68	66-70	1.0	3.999	.070	54.0	.041	.056	924.815	410.179	-59.868
0 18	72	70-74	1.3	3.999	.091	107.0	-.027	.087	924.788	410.265	-63.867
0 19	76	74-78	.9	4.000	.063	130.0	-.040	.048	924.748	410.314	-67.867
0 20	80	78-82	.9	4.000	.063	162.0	-.060	.019	924.688	410.333	-71.866

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VERTICALITY COMPUTATION SHEET

SHEET NO. = 3

CONTRACTOR = GINEERING CO. LTD

PROJECT NAME = NG #5,6

HOLE NO. = 6-5

LOCATION X(N) = 212928.039

TYPE OF SURVEY = MULTI SHOT

Y(E) = 147413.911

COMPUTATION BY = GINEERING CO. LTD

Z(EL) = 10.283

FILM = NEGATIVE

DATE = 1993. 11.

POINT	MEAS'D		COURSE	DRIPT	VERT.	HORZ.		DRIPT	COORD. DIFFERENCE		FINAL COORDINATES		
	DEPTH	LENGTH				DEVIAT			DX(N)	DY(E)	X(N)	Y(E)	Z(EL)
0 0	0	0-0	.0	.000	.000	.000	.0	.000	.000	.000	928.039	413.911	10.283
0 1	4	0-6	.5	6.000	.052	80.0	.009	.052	.009	.052	928.048	413.963	4.283
0 2	8	6-10	.4	4.000	.028	77.0	.006	.027	.006	.027	928.054	413.990	.283
0 3	12	10-14	.4	4.000	.028	9.0	.028	.004	.028	.004	928.082	413.994	-3.717
0 4	16	14-18	.5	4.000	.035	364.0	.035	.002	.035	.002	928.117	413.997	-7.716
0 5	20	18-22	.5	4.000	.035	352.0	.035	-.005	.035	-.005	928.151	413.992	-11.716
0 6	24	22-26	.5	4.000	.035	12.0	.034	.007	.034	.007	928.185	413.999	-15.716
0 7	28	26-30	.5	4.000	.035	328.0	.030	-.018	.030	-.018	928.215	413.980	-19.716
0 8	32	30-34	.7	4.000	.049	7.0	.049	.006	.049	.006	928.264	413.986	-23.716
0 9	36	34-38	.6	4.000	.042	329.0	.036	-.022	.036	-.022	928.299	413.965	-27.715
0 10	40	38-42	.5	4.000	.035	355.0	.035	-.003	.035	-.003	928.334	413.962	-31.715
0 11	44	42-46	.4	4.000	.028	260.0	-.005	-.028	.028	-.028	928.329	413.934	-35.715
0 12	48	46-50	.4	4.000	.028	283.0	.006	-.027	.028	-.027	928.336	413.907	-39.715
0 13	52	50-54	.5	4.000	.035	318.0	.026	-.023	.026	-.023	928.362	413.884	-43.715
0 14	56	54-58	.4	4.000	.028	304.0	.016	-.023	.016	-.023	928.377	413.861	-47.715
0 15	60	58-62	.3	4.000	.021	328.0	.018	-.011	.018	-.011	928.395	413.850	-51.715
0 16	64	62-66	.4	4.000	.028	334.0	.025	-.012	.025	-.012	928.420	413.837	-55.715
0 17	68	66-70	.3	4.000	.021	342.0	.020	-.006	.020	-.006	928.440	413.831	-59.715
0 18	72	70-74	.4	4.000	.028	351.0	.028	-.004	.028	-.004	928.468	413.826	-63.715
0 19	76	74-78	.3	4.000	.021	356.0	.021	-.001	.021	-.001	928.489	413.825	-67.714
0 20	80	78-82	.3	4.000	.021	360.0	.021	.000	.021	.000	928.509	413.825	-71.714

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D I S T A N C E C A L C U L A T I O N S H E E T

----- SOURCE 6-4 -----					----- RECEIVE 6-3 -----				----- RECEIVE 6-5 -----			
NO	DEPTH	X(N)	Y(E)	Z(EL)	X(N)	Y(E)	Z(EL)	DIST.	X(N)	Y(E)	Z(EL)	DIST.
1	1.0	925.153	409.846	9.120	922.218	405.771	9.049	5.023	928.041	413.920	9.283	4.996
2	2.0	925.169	409.851	8.120	922.204	405.771	8.049	5.044	928.042	413.928	8.283	4.990
3	3.0	925.186	409.856	7.120	922.190	405.772	7.049	5.066	928.044	413.937	7.283	4.984
4	4.0	925.203	409.861	6.121	922.176	405.773	6.049	5.087	928.045	413.945	6.283	4.978
5	5.0	925.219	409.867	5.121	922.162	405.774	5.049	5.109	928.047	413.954	5.283	4.973
6	6.0	925.236	409.872	4.121	922.148	405.774	4.050	5.131	928.048	413.963	4.283	4.967
7	7.0	925.246	409.890	3.121	922.131	405.776	3.050	5.161	928.050	413.969	3.283	4.953
8	8.0	925.256	409.909	2.121	922.114	405.777	2.050	5.191	928.051	413.976	2.283	4.938
9	9.0	925.266	409.927	1.122	922.096	405.779	1.050	5.221	928.053	413.983	1.283	4.924
10	10.0	925.275	409.946	.122	922.079	405.780	.050	5.251	928.054	413.990	.283	4.910
11	11.0	925.293	409.947	-.878	922.064	405.790	-.950	5.264	928.061	413.991	-.717	4.904
12	12.0	925.310	409.948	-1.878	922.049	405.799	-1.950	5.278	928.068	413.992	-1.717	4.897
13	13.0	925.328	409.949	-2.878	922.034	405.808	-2.949	5.291	928.075	413.993	-2.717	4.891
14	14.0	925.345	409.950	-3.878	922.020	405.817	-3.949	5.305	928.082	413.994	-3.717	4.885
15	15.0	925.329	409.952	-4.877	922.033	405.831	-4.949	5.278	928.091	413.995	-4.717	4.898
16	16.0	925.314	409.954	-5.877	922.047	405.845	-5.949	5.250	928.099	413.995	-5.717	4.911
17	17.0	925.298	409.955	-6.877	922.060	405.858	-6.949	5.223	928.108	413.996	-6.716	4.924
18	18.0	925.283	409.957	-7.877	922.074	405.872	-7.948	5.195	928.117	413.997	-7.716	4.937
19	19.0	925.268	409.947	-8.877	922.092	405.885	-8.948	5.157	928.125	413.995	-8.716	4.958
20	20.0	925.254	409.937	-9.877	922.111	405.898	-9.948	5.119	928.134	413.994	-9.716	4.978

1	21.0	925.239	409.928	-10.877	922.130	405.911	-10.948	5.080	928.143	413.993	-10.716	4.998
2	22.0	925.225	409.918	-11.876	922.148	405.924	-11.947	5.042	928.151	413.992	-11.716	5.019
3	23.0	925.208	409.912	-12.876	922.174	405.900	-12.947	5.031	928.160	413.994	-12.716	5.040
4	24.0	925.192	409.905	-13.876	922.199	405.876	-13.946	5.020	928.168	413.995	-13.716	5.061
5	25.0	925.176	409.899	-14.876	922.225	405.852	-14.946	5.009	928.177	413.997	-14.716	5.082
6	26.0	925.160	409.893	-15.876	922.250	405.829	-15.945	4.999	928.185	413.999	-15.716	5.103
7	27.0	925.142	409.896	-16.876	922.255	405.838	-16.945	4.981	928.193	413.994	-16.716	5.111
8	28.0	925.125	409.900	-17.876	922.259	405.848	-17.945	4.964	928.200	413.990	-17.716	5.120
9	29.0	925.108	409.903	-18.875	922.264	405.857	-18.945	4.946	928.208	413.985	-18.716	5.128
0	30.0	925.091	409.906	-19.875	922.268	405.867	-19.945	4.929	928.215	413.980	-19.716	5.137
1	31.0	925.073	409.899	-20.875	922.271	405.875	-20.945	4.904	928.227	413.982	-20.716	5.162
2	32.0	925.056	409.891	-21.875	922.275	405.883	-21.945	4.879	928.239	413.983	-21.716	5.187
3	33.0	925.038	409.884	-22.875	922.278	405.891	-22.945	4.855	928.251	413.985	-22.716	5.213
4	34.0	925.020	409.876	-23.875	922.282	405.899	-23.945	4.830	928.264	413.986	-23.716	5.238
5	35.0	925.006	409.889	-24.874	922.292	405.887	-24.944	4.836	928.273	413.981	-24.716	5.238
6	36.0	924.992	409.902	-25.874	922.303	405.875	-25.944	4.843	928.282	413.976	-25.716	5.238
7	37.0	924.978	409.916	-26.874	922.313	405.864	-26.944	4.850	928.291	413.970	-26.716	5.238
8	38.0	924.964	409.929	-27.874	922.324	405.852	-27.944	4.858	928.299	413.965	-27.715	5.238
9	39.0	924.943	409.931	-28.874	922.338	405.859	-28.944	4.835	928.308	413.964	-28.715	5.255
0	40.0	924.923	409.934	-29.873	922.352	405.866	-29.944	4.813	928.317	413.963	-29.715	5.271
1	41.0	924.902	409.936	-30.873	922.366	405.873	-30.944	4.790	928.326	413.963	-30.715	5.288
2	42.0	924.881	409.939	-31.873	922.380	405.880	-31.944	4.768	928.334	413.962	-31.715	5.304
3	43.0	924.893	409.952	-32.873	922.391	405.871	-32.944	4.788	928.333	413.955	-32.715	5.281
4	44.0	924.905	409.964	-33.873	922.402	405.862	-33.943	4.807	928.332	413.948	-33.715	5.257

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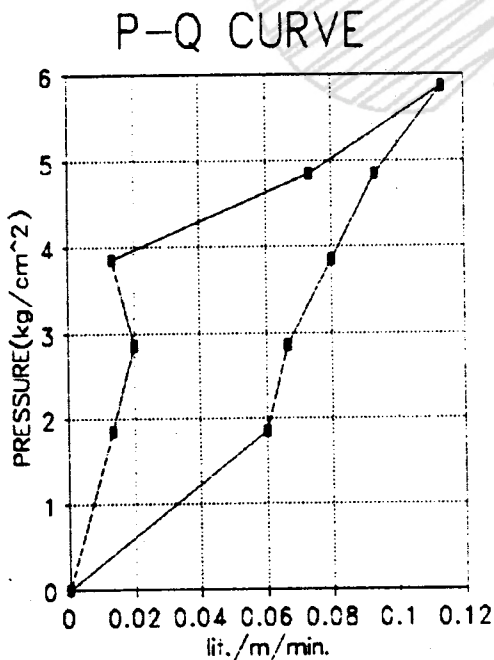
45	45.0	924.917	409.977	-34.872	922.412	405.853	-34.943	4.826	928.331	413.941	-34.715	5.234
	46.0	924.929	409.990	-35.872	922.423	405.844	-35.943	4.845	928.329	413.934	-35.715	5.210
47	47.0	924.946	409.985	-36.872	922.439	405.836	-36.943	4.848	928.331	413.928	-36.715	5.199
48	48.0	924.962	409.981	-37.872	922.455	405.829	-37.943	4.851	928.333	413.921	-37.715	5.187
49	49.0	924.979	409.976	-38.872	922.470	405.822	-38.943	4.854	928.334	413.914	-38.715	5.175
50	50.0	924.996	409.972	-39.872	922.486	405.814	-39.943	4.857	928.336	413.907	-39.715	5.164
51	51.0	924.979	409.977	-40.872	922.500	405.804	-40.942	4.855	928.342	413.901	-40.715	5.170
52	52.0	924.963	409.983	-41.871	922.514	405.793	-41.942	4.853	928.349	413.895	-41.715	5.177
53	53.0	924.946	409.988	-42.871	922.528	405.783	-42.942	4.852	928.355	413.890	-42.715	5.183
54	54.0	924.930	409.993	-43.871	922.542	405.772	-43.942	4.850	928.362	413.884	-43.715	5.190
55	55.0	924.925	410.007	-44.871	922.556	405.762	-44.942	4.862	928.366	413.878	-44.715	5.181
56	56.0	924.921	410.020	-45.871	922.570	405.752	-45.942	4.873	928.369	413.872	-45.715	5.173
57	57.0	924.917	410.033	-46.871	922.584	405.741	-46.942	4.885	928.373	413.866	-46.715	5.164
58	58.0	924.912	410.047	-47.871	922.598	405.731	-47.941	4.897	928.377	413.861	-47.715	5.155
59	59.0	924.898	410.059	-48.871	922.616	405.728	-48.941	4.896	928.382	413.858	-48.715	5.157
60	60.0	924.883	410.071	-49.870	922.633	405.724	-49.941	4.895	928.386	413.855	-49.715	5.159
61	61.0	924.868	410.083	-50.870	922.650	405.721	-50.941	4.894	928.391	413.852	-50.715	5.162
62	62.0	924.853	410.095	-51.870	922.667	405.718	-51.941	4.893	928.395	413.850	-51.715	5.164
63	63.0	924.833	410.102	-52.870	922.680	405.709	-52.941	4.892	928.401	413.846	-52.715	5.175
64	64.0	924.813	410.108	-53.870	922.693	405.701	-53.941	4.892	928.408	413.843	-53.715	5.186
65	65.0	924.793	410.115	-54.869	922.707	405.692	-54.940	4.891	928.414	413.840	-54.715	5.197
66	66.0	924.774	410.122	-55.869	922.720	405.684	-55.940	4.891	928.420	413.837	-55.715	5.208
67	67.0	924.784	410.136	-56.869	922.728	405.672	-56.940	4.915	928.425	413.836	-56.715	5.193
68	68.0	924.794	410.150	-57.869	922.736	405.661	-57.940	4.939	928.430	413.834	-57.715	5.178

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9	69.0	924.804	410.164	-58.869	922.744	405.650	-58.940	4.963	928.435	413.832	-58.715	5.163
0	70.0	924.815	410.179	-59.868	922.753	405.638	-59.940	4.987	928.440	413.831	-59.715	5.148
1	71.0	924.808	410.200	-60.868	922.759	405.622	-60.940	5.016	928.447	413.830	-60.715	5.142
2	72.0	924.801	410.222	-61.868	922.766	405.606	-61.940	5.045	928.454	413.829	-61.715	5.135
3	73.0	924.795	410.244	-62.868	922.772	405.590	-62.939	5.075	928.461	413.828	-62.715	5.129
4	74.0	924.788	410.265	-63.867	922.779	405.574	-63.939	5.104	928.468	413.826	-63.715	5.123
5	75.0	924.778	410.277	-64.867	922.795	405.564	-64.939	5.114	928.473	413.826	-64.715	5.125
6	76.0	924.768	410.289	-65.867	922.812	405.555	-65.939	5.123	928.478	413.826	-65.715	5.128
7	77.0	924.758	410.301	-66.867	922.829	405.546	-66.939	5.132	928.483	413.825	-66.715	5.130
8	78.0	924.748	410.314	-67.867	922.846	405.536	-67.939	5.142	928.489	413.825	-67.714	5.133
9	79.0	924.733	410.318	-68.867	922.862	405.537	-68.938	5.135	928.494	413.825	-68.714	5.144
0	80.0	924.718	410.323	-69.867	922.877	405.537	-69.938	5.128	928.499	413.825	-69.714	5.156
1	81.0	924.703	410.328	-70.867	922.893	405.537	-70.938	5.122	928.504	413.825	-70.714	5.167

WORKING SHEETS OF WATER PRESSURE TEST

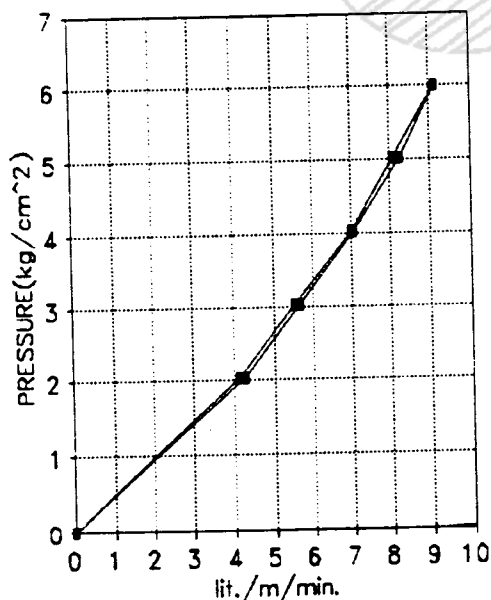
HOLE NO.			P5 - 1		GEOLOGY		ANDESITE				
DATE			1993.10.22		HOLE DIA.		NX		PACKER		SINGLE
TEST SEC.			47.8	50.8	TESTED BY.		S.J PARK		G.W.D (m)		8.34
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1720	1725	5	1	20	1854	4	4.9	0.9	180	3.746E-06	
1725	1730	5	2	20	2854	56	57	1	200	2.704E-06	
1731	1736	5	3	20	3854	7	8.2	1.2	240	2.403E-06	
1701	1706	5	4	20	4854	8.9	10.3	1.4	280	2.226E-06	
1706	1711	5	5	20	5854	60.5	62.2	1.7	340	2.241E-06	
1712	1717	5	4	20	4854	62.2	63.3	1.1	220	1.749E-06	
1717	1722	5	3	20	3854	63.1	63.3	0.2	40	4.005E-07	
1722	1727	5	2	20	2854	63.4	63.7	0.3	60	8.112E-07	
1728	1733	5	1	20	1854	63.1	63.3	0.2	40	8.325E-07	
									AVE	1.901E-06	



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 2		GEOLOGY		RHYO-DACITE				
DATE			1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			14.5 17.5		TESTED BY.		K.M DONG		G.W.D (m)		8.62
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1400	1405	5	1		160	2022	34	98	64	12800	2.443E-04
1405	1410	5	2		160	3022	107	192	85	17000	2.171E-04
1411	1416	5	3		160	4022	203	309	106	21200	2.034E-04
1416	1421	5	4		160	5022	312	436	124	24800	1.905E-04
1421	1426	5	5		160	6022	446	583	137	27400	1.756E-04
1426	1431	5	4		160	5022	595	716	121	24200	1.859E-04
1431	1436	5	3		160	4022	725	830	105	21000	2.015E-04
1437	1442	5	2		160	3022	837	920	83	16600	2.120E-04
1442	1447	5	1		160	2022	927	989	62	12400	2.366E-04
										AVE	2.074E-04

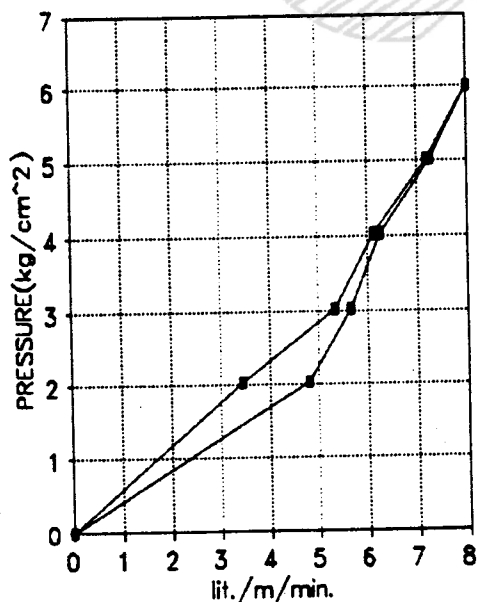
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 2		GEOLOGY		RHYO-DACITE				
DATE	1993.11.4		HOLE DIA.	NX		PACKER	DOUBLE		
TEST SEC.	22	25	TESTED BY.	K.M DONG		G.W.D (m)	8.62		
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1131	1136	5	1	160	2022	24	96	72	14400
1136	1141	5	2	160	3022	108	193	85	17000
1141	1146	5	3	160	4022	205	299	94	18800
1147	1152	5	4	160	5022	312	421	109	21800
1152	1157	5	5	160	6022	434	554	120	24000
1157	1202	5	4	160	5022	563	671	108	21600
1202	1207	5	3	160	4022	682	774	92	18400
1207	1212	5	2	160	3022	782	862	80	16000
1213	1218	5	1	160	2022	867	919	52	10400
								AVE	1.932E-04

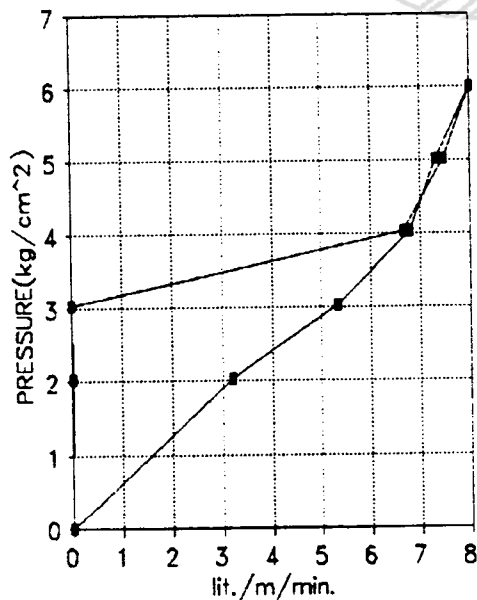
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 2		GEOLOGY		RHYO-DACITE				
DATE		1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		26	29	TESTED BY.		K.M DONG		G.W.D (m)		8.62
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1010	1015	5	1	160	2022	56.5	56.7	0.2	40	7.633E-07
1015	1020	5	2	160	3022	57.5	57.5	0	0	0.000E+00
1021	1026	5	3	160	4022	60	160	100	20000	1.919E-04
1026	1031	5	4	160	5022	166	278	112	22400	1.721E-04
1036	1041	5	5	160	6022	289	409	120	24000	1.538E-04
1042	1047	5	4	160	5022	418	528	110	22000	1.690E-04
1047	1052	5	3	160	4022	537	639	102	20400	1.957E-04
1052	1057	5	2	160	3022	647	727	80	16000	2.043E-04
1057	1102	5	1	160	2022	735	783	48	9600	1.832E-04
									AVE	1.412E-04

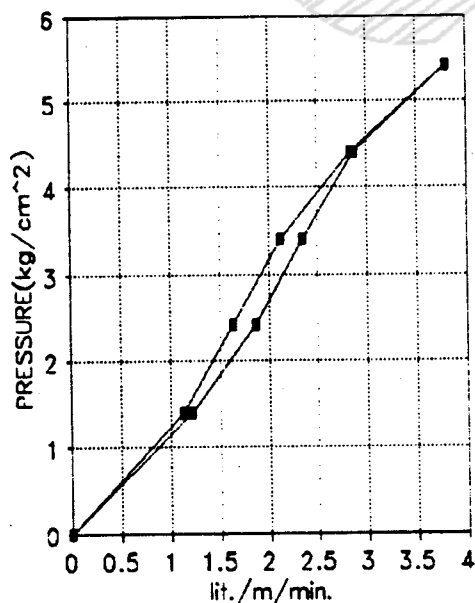
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO. P5 - 3			GEOLOGY ANDESITE						
DATE 1993.10.6			HOLE DIA. NX		PACKER			DOUBLE	
TEST SEC. 13 16			TESTED BY. S.M LEE		G.W.D (m)			3.65	
INJECTION TIME			P	G. H.	H	FLOW METER			PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1709	1714	5	1	40	1405	547	564	17 3400	9.337E-05
1714	1719	5	2	40	2405	574	598.4	24.4 4880	7.829E-05
1719	1724	5	3	40	3405	610	641.8	31.8 6360	7.207E-05
1724	1729	5	4	40	4405	653	695.6	42.6 8520	7.463E-05
1730	1735	5	5	40	5405	701	758	57 11400	8.138E-05
1735	1740	5	4	40	4405	770	813	43 8600	7.533E-05
1740	1745	5	3	40	3405	825	860.2	35.2 7040	7.978E-05
1745	1750	5	2	40	2405	870	898	28 5600	8.984E-05
1750	1755	5	1	40	1405	907	925.2	18.2 3640	9.996E-05
								AVE	8.274E-05

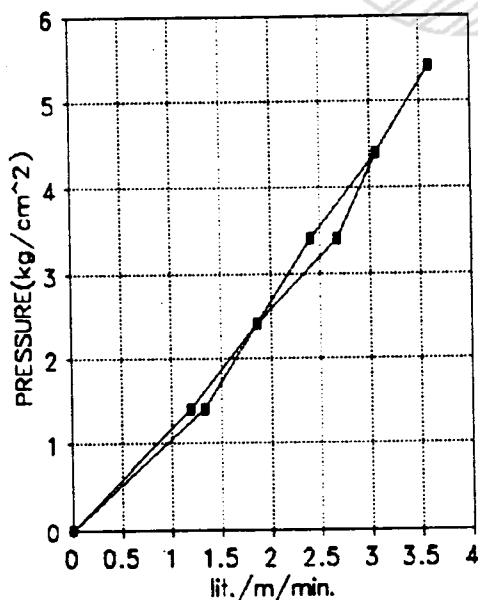
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		GEOLOGY		ANDESITE					
DATE		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		TESTED BY.		S.M LEE		G.W.D (m)		3.65	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY.	K(cm/sec)
1612	1617	5	1	40	1405	130	148	18	3600
1617	1622	5	2	40	2405	157	185	28	5600
1622	1627	5	3	40	3405	196	232	36	7200
1627	1632	5	4	40	4405	245	291	46	9200
1632	1637	5	5	40	5405	311	365	54	10800
1638	1643	5	4	40	4405	376	422	46	9200
1643	1648	5	3	40	3405	432	472	40	8000
1649	1654	5	2	40	2405	480	508	28	5600
1655	1700	5	1	40	1405	518	538	20	4000
								AVE	8.877E-05

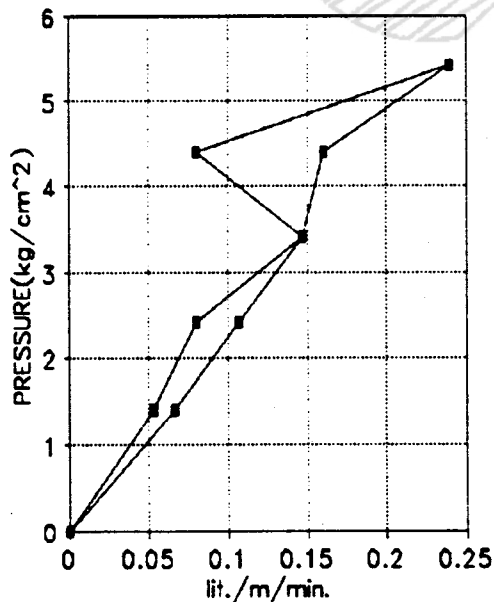
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO. P5 - 3			GEOLOGY ANDESITE							
DATE 1993.10.6			HOLE DIA. NX		PACKER			DOUBLE		
TEST SEC. 23 26			TESTED BY. S.M LEE		G.W.D (m)			3.65		
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1456	1501	5	1	40	1405	95	95.8	0.8	160	4.394E-06
1501	1506	5	2	40	2405	97	98.2	1.2	240	3.850E-06
1506	1511	5	3	40	3405	99	101.2	2.2	440	4.986E-06
1511	1516	5	4	40	4405	102	103.2	1.2	240	2.102E-06
1536	1541	5	5	40	5405	104	107.6	3.6	720	5.140E-06
1541	1546	5	4	40	4405	109	111.4	2.4	480	4.205E-06
1546	1551	5	3	40	3405	113	115.2	2.2	440	4.986E-06
1552	1557	5	2	40	2405	116	117.6	1.6	320	5.134E-06
1558	1603	5	1	40	1405	119	120	1	200	5.493E-06
									AVE	4.477E-06

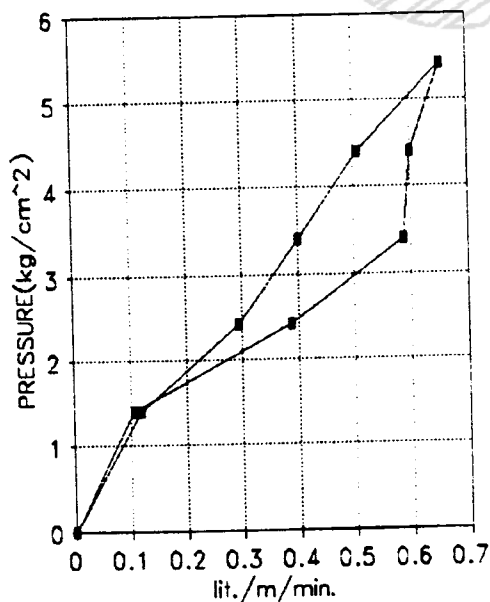
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 3		GEOLOGY		ANDESITE				
DATE		1993.10.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		27	30	TESTED BY.		S.M LEE		G.W.D (m)		3.65
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1400	1405	5	1	40	1405	24	25.6	1.6	320	8.788E-06
1405	1410	5	2	40	2405	27	32.8	5.8	1160	1.861E-05
1410	1415	5	3	40	3405	34	42.8	8.8	1760	1.994E-05
1415	1420	5	4	40	4405	44	53	9	1800	1.577E-05
1421	1426	5	5	40	5405	57	66.8	9.8	1960	1.399E-05
1426	1431	5	4	40	4405	69	76.6	7.6	1520	1.331E-05
1431	1436	5	3	40	3405	78	84	6	1200	1.360E-05
1436	1441	5	2	40	2405	86	90.4	4.4	880	1.412E-05
1442	1447	5	1	40	1405	92	93.8	1.8	360	9.887E-06
									AVE	1.422E-05

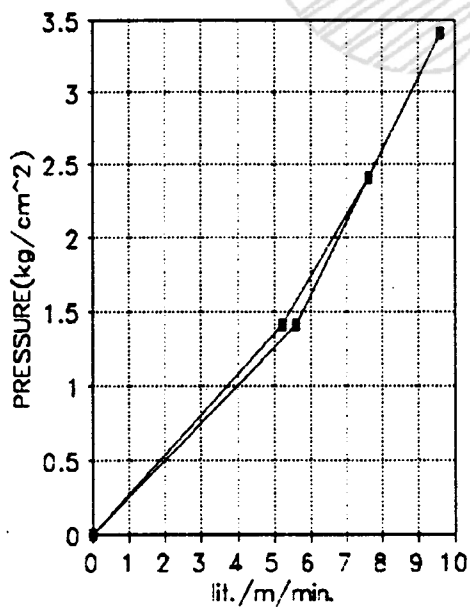
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

[illegible]

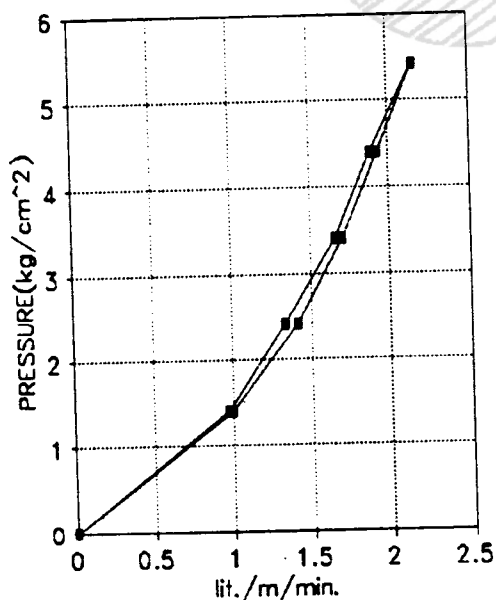
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 3		GEOLOGY		ANDESITE					
DATE		1993.10.6		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		36 39		TESTED BY.		S.M LEE		G.W.D (m)		3.65	
INJECTION TIME			P	G. H.		FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1230	1235	5	1	40	1405	170	185	15	3000	8.239E-05	
1235	1240	5	2	40	2405	191	212.2	21.2	4240	6.803E-05	
1240	1245	5	3	40	3405	223	248.6	25.6	5120	5.802E-05	
1245	1250	5	4	40	4405	255	284	29	5800	5.080E-05	
1251	1256	5	5	40	5405	292	324.4	32.4	6480	4.626E-05	
1256	1301	5	4	40	4405	331	359.2	28.2	5640	4.940E-05	
1301	1306	5	3	40	3405	367	391.8	24.8	4960	5.621E-05	
1306	1311	5	2	40	2405	402	422	20	4000	6.417E-05	
1311	1316	5	1	40	1405	431	445.6	14.6	2920	8.019E-05	
									AVE	6.172E-05	

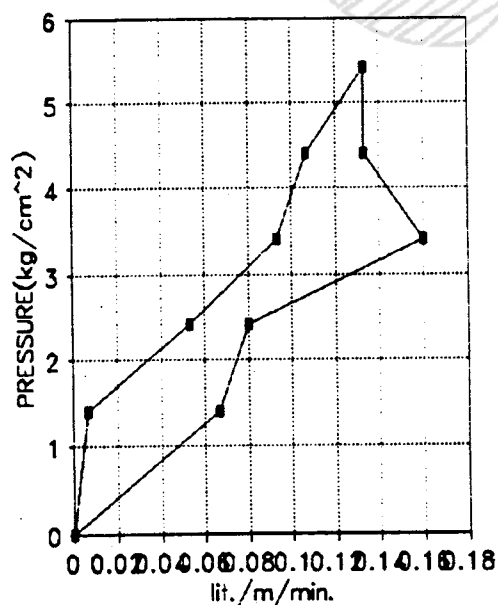
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 3		GEOLOGY		ANDESITE				
DATE			1993.10.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			44 47		TESTED BY.		S.M LEE		G.W.D (m)		3.65
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME	(cm)		(cm)	FR.	TO	Q'TY		K(cm/sec)	
1135	1140	5	1	40	1405	149	150	1	200	5.493E-06	
1140	1145	5	2	40	2405	151	152.2	1.2	240	3.850E-06	
1145	1150	5	3	40	3405	153	155.4	2.4	480	5.439E-06	
1150	1155	5	4	40	4405	156	158	2	400	3.504E-06	
1156	1201	5	5	40	5405	159	161	2	400	2.856E-06	
1201	1206	5	4	40	4405	162	163.6	1.6	320	2.803E-06	
1206	1211	5	3	40	3405	165	166.4	1.4	280	3.173E-06	
1211	1216	5	2	40	2405	167	167.8	0.8	160	2.567E-06	
1216	1221	5	1	40	1405	168	168.1	0.1	20	5.493E-07	
									AVE	3.359E-06	

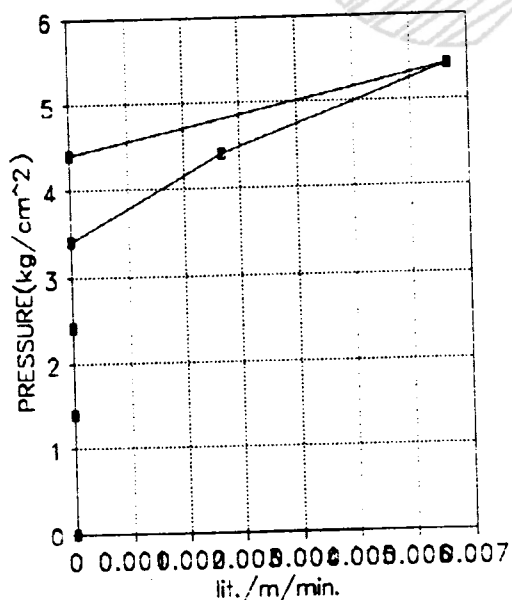
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 3		GEOLOGY		ANDESITE				
DATE	1993.10.6		HOLE DIA.	NX		PACKER	DOUBLE		
TEST SEC.	50	53	TESTED BY.	S.M LEE		G.W.D (m)	3.65		
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1041	1046	5	1	40	1405	148	148	0	0.000E+00
1046	1051	5	2	40	2405	148	148	0	0.000E+00
1051	1056	5	3	40	3405	148	148	0	0.000E+00
1056	1101	5	4	40	4405	148	148	0.04	7.008E-08
1101	1106	5	5	40	5405	148	148.1	0.1	1.428E-07
1106	1111	5	4	40	4405	148.1	148.1	0	0.000E+00
1111	1116	5	3	40	3405	148.1	148.1	0	0.000E+00
1116	1121	5	2	40	2405	148.1	148.1	0	0.000E+00
1121	1126	5	1	40	1405	148.1	148.1	0	0.000E+00
								AVE	2.365E-08

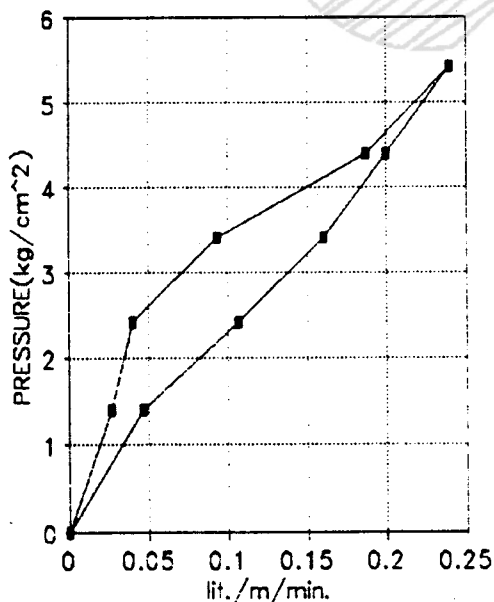
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 3		GEOLOGY		ANDESITE				
DATE		1993.10.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		54	57	TESTED BY.		S.M LEE		G.W.D (m)		3.65
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
945	950	5	1	40	1405	126	126.4	0.4	80	2.197E-06
950	955	5	2	40	2405	127	127.6	0.6	120	1.925E-06
956	1001	5	3	40	3405	128	129.4	1.4	280	3.173E-06
1001	1006	5	4	40	4405	130	132.8	2.8	560	4.905E-06
1006	1011	5	5	40	5405	134	137.6	3.6	720	5.140E-06
1011	1016	5	4	40	4405	138	141	3	600	5.256E-06
1016	1021	5	3	40	3405	142	144.4	2.4	480	5.439E-06
1022	1027	5	2	40	2405	145	146.6	1.6	320	5.134E-06
1027	1032	5	1	40	1405	147	147.7	0.7	140	3.845E-06
									AVE	4.113E-06

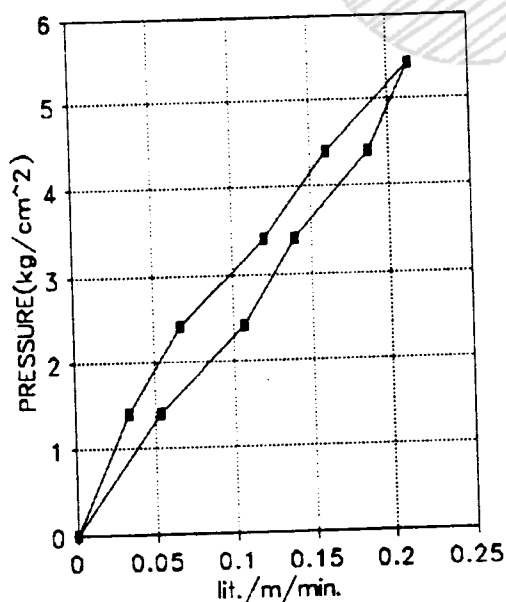
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 3		GEOLOGY		ANDESITE					
DATE	1993.10.6		HOLE DIA.	NX		PACKER				DOUBLE
EST SEC.	62	65	TESTED BY.	S.M LEE		G.W.D (m)				3.65
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
850	855	5	1	40	1405	104	104.8	0.8	160	4.394E-06
855	900	5	2	40	2405	105	106.6	1.6	320	5.134E-06
900	905	5	3	40	3405	108	110.1	2.1	420	4.759E-06
905	910	5	4	40	4405	111	113.8	2.8	560	4.905E-06
911	916	5	5	40	5405	115	118.2	3.2	640	4.569E-06
916	921	5	4	40	4405	119	121.4	2.4	480	4.205E-06
921	926	5	3	40	3405	122	123.8	1.8	360	4.079E-06
926	931	5	2	40	2405	124	125	1	200	3.209E-06
931	936	5	1	40	1405	125	125.5	0.5	100	2.746E-06
AVE									4.222E-06	

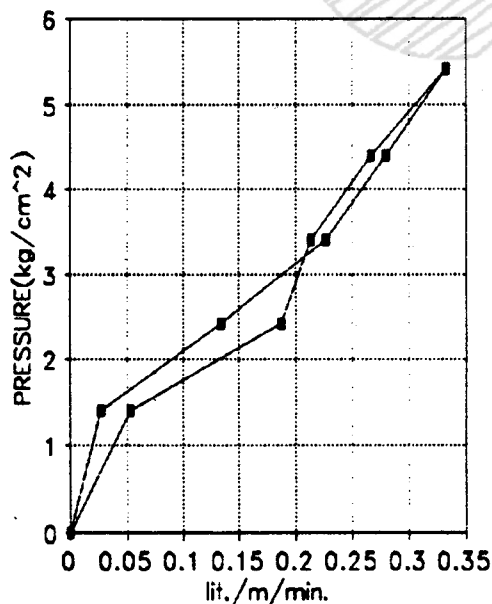
P-Q CURVE



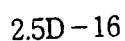
WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 3		GEOLOGY		RHYO-DACITE				
DATE			1993.10.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			73 76		TESTED BY.		S.M LEE		G.W.D (m)		3.65
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
755	800	5	1	40	1405	5	5.4	0.4	80	2.197E-06	
800	805	5	2	40	2405	6	8	2	400	6.417E-06	
805	810	5	3	40	3405	9	12.4	3.4	680	7.706E-06	
810	815	5	4	40	4405	13	17.2	4.2	840	7.358E-06	
816	821	5	5	40	5405	18	23	5	1000	7.139E-06	
821	826	5	4	40	4405	24	28	4	800	7.008E-06	
826	831	5	3	40	3405	29	32.2	3.2	640	7.252E-06	
831	836	5	2	40	2405	33	35.8	2.8	560	8.984E-06	
836	841	5	1	40	1405	36.4	37.2	0.8	160	4.394E-06	
									AVE	6.495E-06	

P-Q CURVE

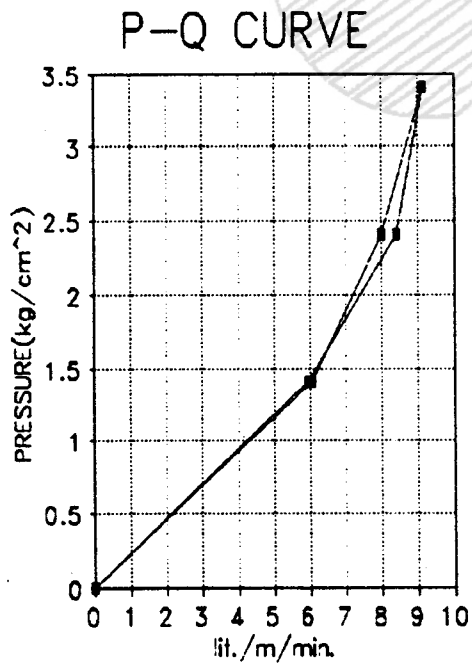


WORKING SHEETS OF WATER PRESSURE TEST												
HOLE NO.			P5 - 3		GEOLOGY		RHYO-DACITE					
DATE			1993.10.6		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.			78 81		TESTED BY.		S.M LEE		G.W.D (m)		3.65	
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
721	726	5	1		40	1405	385	467	82	16400	4.504E-04	
726	731	5	2		40	2405	485	603	118	23600	3.786E-04	
731	736	5	3		40	3405	621	753	132	26400	2.992E-04	
736	741	5	2		40	2405	791	907	116	23200	3.722E-04	
741	746	5	1		40	1405	921	999	78	15600	4.284E-04	
										AVE	3.858E-04	



WORKING SHEETS OF WATER PRESSURE TEST

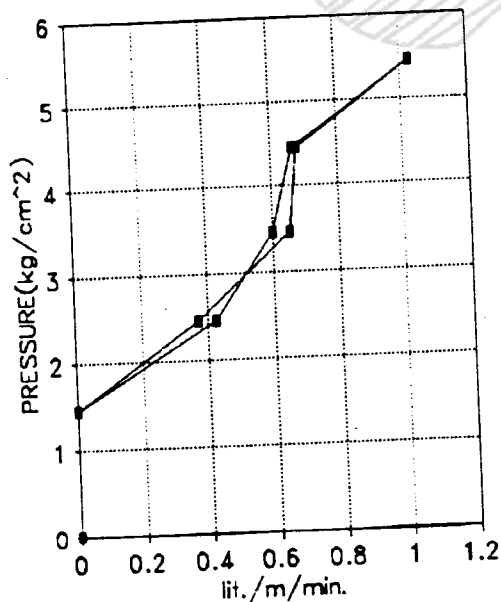
HOLE NO.			P5 - 3		GEOLOGY		ANDESITE				
DATE			1993.10.5		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			84 87		TESTED BY.		S.M LEE		G.W.D (m)		3.65
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1720	1725	5	1		40	1405	126	215	89	17800	4.888E-04
1725	1730	5	2		40	2405	224	350	126	25200	4.043E-04
1731	1736	5	3		40	3405	365	502	137	27400	3.105E-04
1736	1741	5	2		40	2405	521	641	120	24000	3.850E-04
1741	1746	5	1		40	1405	650	741	91	18200	4.998E-04
										AVE	4.177E-04



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 4		GEOLOGY		ANDESITE					DOUBLE	
DATE		1993.10.29		HOLE DIA.		NX		PACKER		3.93		
TEST SEC.		22 25		TESTED BY.		S.M LEE		G.W.D (m)		PERM.		
INJECTION TIME			P	G. H.	H	FLOW METER			Q	K(cm/sec)		
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY				
1616	1621	5	1	60	1453	632.6	632.6	0	0	0.000E+00		
1621	1626	5	2	60	2453	634.4	640	5.6	1120	1.762E-05		
1626	1631	5	3	60	3453	641	650.8	9.8	1960	2.190E-05		
1632	1637	5	4	60	4453	661	671.2	10.2	2040	1.768E-05		
1637	1642	5	5	60	5453	680	695.4	15.4	3080	2.179E-05		
1642	1647	5	4	60	4453	701	711	10	2000	1.733E-05		
1648	1653	5	3	60	3453	722	731	9	1800	2.011E-05		
1653	1658	5	2	60	2453	739	745.4	6.4	1280	2.013E-05		
1659	1704	5	1	60	1453	747	747	0	0	0.000E+00		
									AVE	1.517E-05		

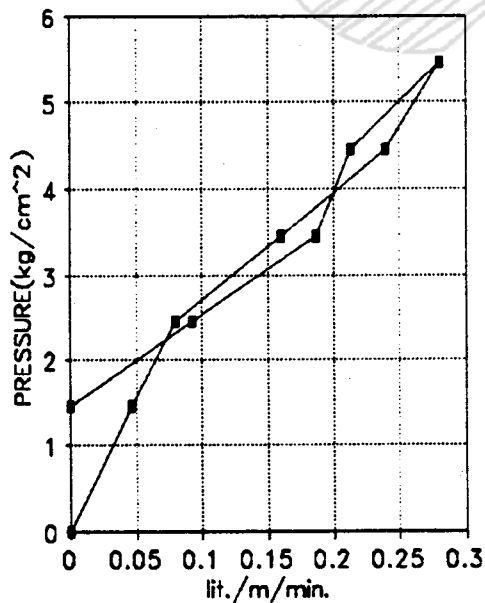
P-Q CURVE



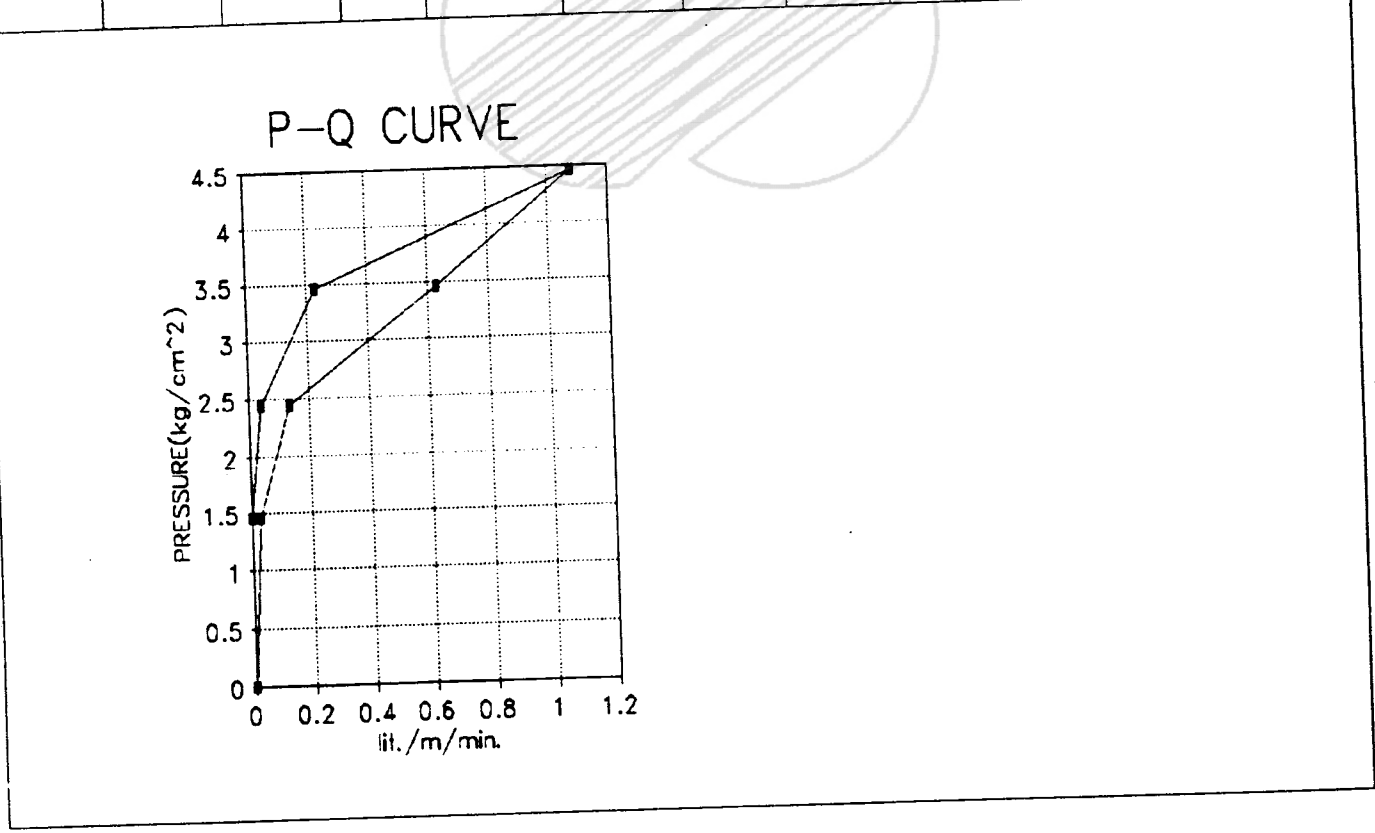
WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 4		GEOLOGY		ANDESITE				
DATE		1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		28	31	TESTED BY.		S.M LEE		G.W.D (m)		3.93
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1520	1525	5	1	60	1453	573	573	0	0	0.000E+00
1525	1530	5	2	60	2453	574	575.4	1.4	280	4.404E-06
1531	1536	5	3	60	3453	577	579.8	2.8	560	6.258E-06
1536	1541	5	4	60	4453	581	584.2	3.2	640	5.546E-06
1541	1546	5	5	60	5453	586	590.2	4.2	840	5.944E-06
1546	1551	5	4	60	4453	593	596.6	3.6	720	6.239E-06
1552	1557	5	3	60	3453	598	600.4	2.4	480	5.364E-06
1557	1602	5	2	60	2453	602	603.2	1.2	240	3.775E-06
1602	1607	5	1	60	1453	605	605.7	0.7	140	3.718E-06
									AVE	4.583E-06

P-Q CURVE



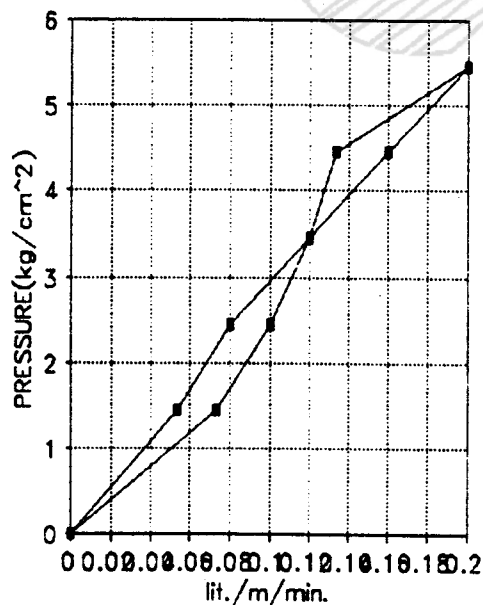
WORKING SHEETS OF WATER PRESSURE TEST											
HOLE NO.			P5 - 4		GEOLOGY		ANDESITE				DOUBLE
DATE			1993.10.29		HOLE DIA.		NX		PACKER		3.93
TEST SEC.			34 37		TESTED BY.		S.M LEE		G.W.D (m)		PERM.
INJECTION TIME			P	G. H.	H	FLOW METER			Q	K(cm/sec)	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY			
1435	1440	5	1	60	1453	502	502	0	0	0.000E+00	
1440	1445	5	2	60	2453	503	503.6	0.6	120	1.888E-06	
1445	1450	5	3	60	3453	505	508.4	3.4	680	7.599E-06	
1451	1456	5	4	60	4453	511	527.2	16.2	3240	2.807E-05	
1456	1501	5	3	60	3453	548	557.4	9.4	1880	2.101E-05	
1501	1506	5	2	60	2453	559	561	2	400	6.292E-06	
1506	1511	5	1	60	1453	562	562.4	0.4	80	2.124E-06	
									AVE	9.569E-06	



WORKING SHEETS OF WATER PRESSURETEST

HOLE NO.		P5 - 4		GEOLOGY		ANDESITE				
DATE		1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		38	41	TESTED BY.		S.M LEE		G.W.D (m)		3.93
INJECTION TIME		P		G. H.		FLOW METER		Q		PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1340	1345	5	1	60	1453	470	470.8	0.8	160	4.249E-06
1345	1350	5	2	60	2453	472	473.2	1.2	240	3.775E-06
1351	1356	5	3	60	3453	475	476.8	1.8	360	4.023E-06
1356	1401	5	4	60	4453	479	481.4	2.4	480	4.159E-06
1401	1406	5	5	60	5453	483	486	3	600	4.246E-06
1406	1411	5	4	60	4453	488	490	2	400	3.466E-06
1411	1416	5	3	60	3453	492	493.8	1.8	360	4.023E-06
1416	1421	5	2	60	2453	495	496.5	1.5	300	4.719E-06
1421	1426	5	1	60	1453	497	498.1	1.1	220	5.842E-06
									AVE	4.278E-06

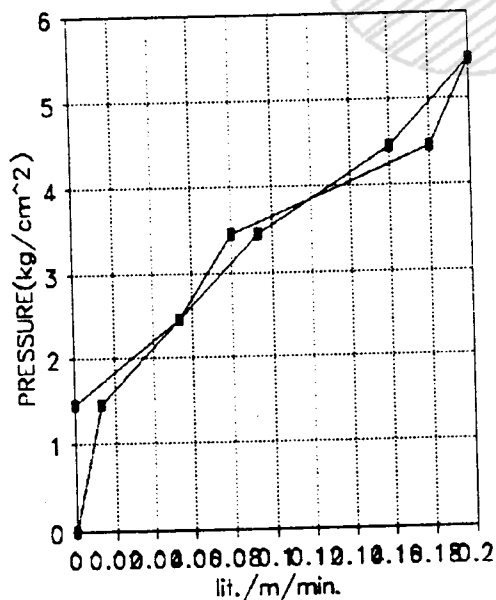
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 4		GEOLOGY		ANDESITE					
DATE	1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE	
EST SEC.	42	45	TESTED BY.		S.M LEE		G.W.D (m)		3.93	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
1245	1250	5	1	60	1453	445	445	0	0	0.000E+00
1250	1255	5	2	60	2453	446	446.8	0.8	160	2.517E-06
1255	1300	5	3	60	3453	448	449.4	1.4	280	3.129E-06
1300	1305	5	4	60	4453	451	453.4	2.4	480	4.159E-06
1306	1311	5	5	60	5453	455	458	3	600	4.246E-06
1311	1316	5	4	60	4453	460	462.7	2.7	540	4.679E-06
1316	1321	5	3	60	3453	464	465.2	1.2	240	2.682E-06
1321	1326	5	2	60	2453	467	467.8	0.8	160	2.517E-06
1326	1331	5	1	60	1453	468	468.2	0.2	40	1.062E-06
									AVE	2.777E-06

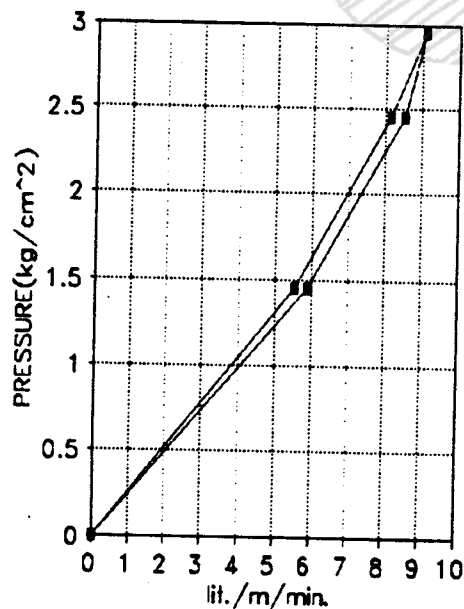
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 4		GEOLOGY		ANDESITE				
DATE	1993.10.29		HOLE DIA.	NX		PACKER		DOUBLE	
TEST SEC.	49	52	TESTED BY.	S.M LEE		G.W.D (m)		3.93	
INJECTION TIME		P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME	(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
1210	1215	5	1	60	1453	856	944	88	17600
1215	1220	5	2	60	2453	950	1078	128	25600
1220	1225	5	2.5	60	2953	85	221	136	27200
1226	1231	5	2	60	2453	229	351	122	24400
1231	1236	5	1	60	1453	357	440	83	16600
								AVE	4.100E-04

P-Q CURVE



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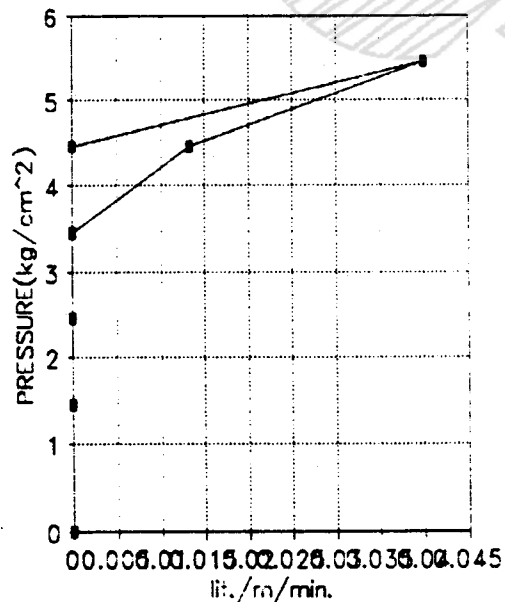
WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 4		GEOLOGY		ANDESITE												
DATE			1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE								
TEST SEC.			56 59		TESTED BY.		S.M LEE		G.W.D (m)		3.93								
INJECTION TIME			P		G. H.		H		FLOW METER		Q								
FR.		TO		TIME		(cm)		(cm)		FR.		TO		Q'TY		PERM.			
1147		1152		5		1		60		1453		756 759.4		3.4		680		1.806E-05	

WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 4		GEOLOGY		ANDESITE				
DATE			1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			61 64		TESTED BY.		S.M LEE		G.W.D (m)		3.93
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1051	1056	5	1		60	1453	749	749	0	0	0.000E+00
1056	1101	5	2		60	2453	749	749	0	0	0.000E+00
1101	1106	5	3		60	3453	749	749	0	0	0.000E+00
1106	1111	5	4		60	4453	749	749	0	0	0.000E+00
1112	1117	5	5		60	5453	749	749.6	0.6	120	8.491E-07
1117	1122	5	4		60	4453	750	750.2	0.2	40	3.466E-07
1122	1127	5	3		60	3453	750	750	0	0	0.000E+00
1128	1133	5	2		60	2453	750	750	0	0	0.000E+00
1133	1138	5	1		60	1453	750	750	0	0	0.000E+00
										AVE	1.329E-07

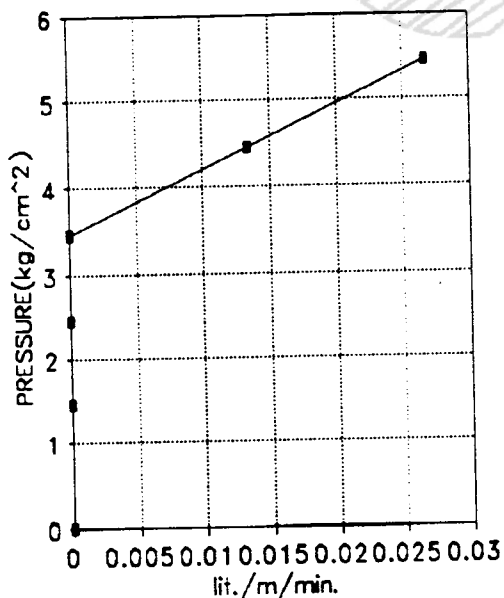
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 4		GEOLOGY		ANDESITE				
DATE		1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		69 72		TESTED BY.		S.M LEE		G.W.D (m)		3.93
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
956	1001	5	1	60	1453	745	745	0	0	0.000E+00
1001	1006	5	2	60	2453	745	745	0	0	0.000E+00
1006	1011	5	3	60	3453	745	745	0	0	0.000E+00
1011	1016	5	4	60	4453	745	745.2	0.2	40	3.466E-07
1016	1021	5	5	60	5453	746	746.4	0.4	80	5.661E-07
1022	1027	5	4	60	4453	746.6	746.8	0.2	40	3.466E-07
1027	1032	5	3	60	3453	746	746	0	0	0.000E+00
1032	1037	5	2	60	2453	746	746	0	0	0.000E+00
1037	1042	5	1	60	1453	746	746	0	0	0.000E+00
									AVE	1.399E-07

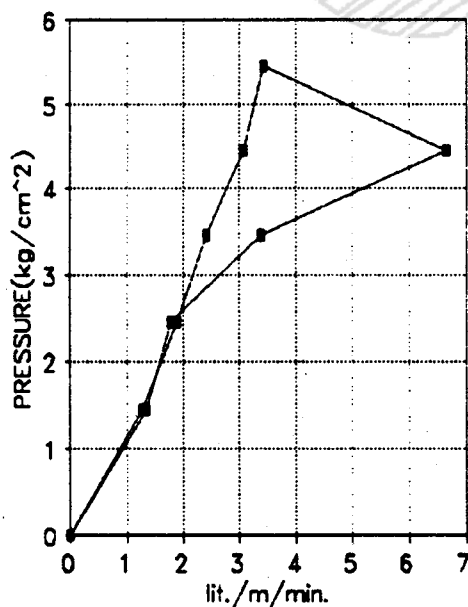
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

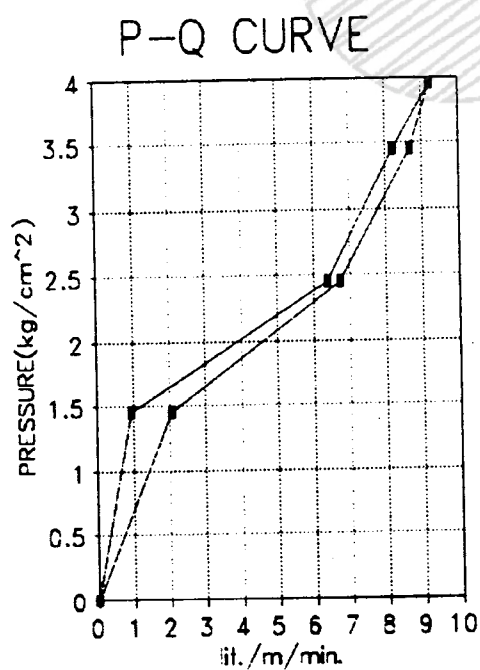
HOLE NO.		P5 - 4		GEOLOGY		RHYO-DACITE					
DATE		1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		72		75		TESTED BY.		S.M LEE		G.W.D (m)	
INJECTION TIME				P		G. H.		H		FLOW METER	
										Q	
FR.	TO	TIME				(cm)	(cm)	FR.	TO	Q'TY	PERM.
											K(cm/sec)
900	905	5	1	60	1453	371	390.2	19.2	3840		1.020E-04
905	910	5	2	60	2453	393	421.2	28.2	5640		8.872E-05
911	916	5	3	60	3453	426	462	36	7200		8.046E-05
916	921	5	4	60	4453	468	513.8	45.8	9160		7.937E-05
921	926	5	5	60	5453	518	569.4	51.4	10280		7.274E-05
927	932	5	4	60	4453	513	613	100	20000		1.733E-04
932	937	5	3	60	3453	617	667.6	50.6	10120		1.131E-04
937	942	5	2	60	2453	670	696.6	26.6	5320		8.368E-05
942	947	5	1	60	1453	700	720	20	4000		1.062E-04
										AVE	9.995E-05

P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

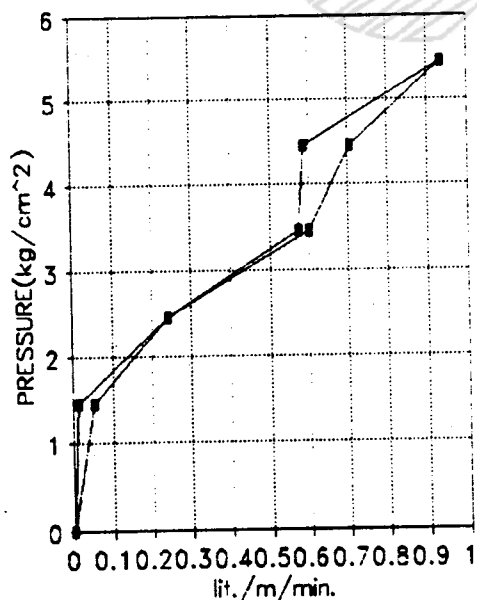
HOLE NO.			P5 - 4		GEOLOGY		RHYO-DACITE				
DATE			1993.10.29		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			80 83		TESTED BY.		S.M LEE		G.W.D (m)		3.93
INJECTION TIME			P	G. H.	H	FLOW METER				Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
815	820	5	1	60	1453	669	683	14	2800	7.436E-05	
820	825	5	2	60	2453	688	784	96	19200	3.020E-04	
825	830	5	3	60	3453	790	913	123	24600	2.749E-04	
831	836	5	3.5	60	3953	919	1057	138.4	27680	2.702E-04	
836	841	5	3	60	3453	62.4	192.4	130	26000	2.905E-04	
841	846	5	2	60	2453	99	200	101	20200	3.177E-04	
846	851	5	1	60	1453	207	238	31	6200	1.646E-04	
									AVE	2.421E-04	



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 4		GEOLOGY		ANDESITE					
DATE	1993.10.29		HOLE DIA.		NX	PACKER		DOUBLE		
TEST SEC.	86	89	TESTED BY.		S.M LEE	G.W.D (m)		3.93		
INJECTION TIME		P	G. H.	H	FLOW METER		Q	PERM.		
FR.	TO	TIME	(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)		
720	725	5	1	60	1453	590	590.8	0.8	160	4.249E-06
725	730	5	2	60	2453	92	95.6	3.6	720	1.133E-05
730	735	5	3	60	3453	97	105.6	8.6	1720	1.922E-05
735	740	5	4	60	4453	7	15.8	8.8	1760	1.525E-05
741	746	5	5	60	5453	18	32	14	2800	1.981E-05
746	751	5	4	60	4453	34	44.6	10.6	2120	1.837E-05
751	756	5	3	60	3453	46	55	9	1800	2.011E-05
756	801	5	2	60	2453	56	59.6	3.6	720	1.133E-05
801	806	5	1	60	1453	61	61.2	0.2	40	1.062E-06
AVE										1.341E-05

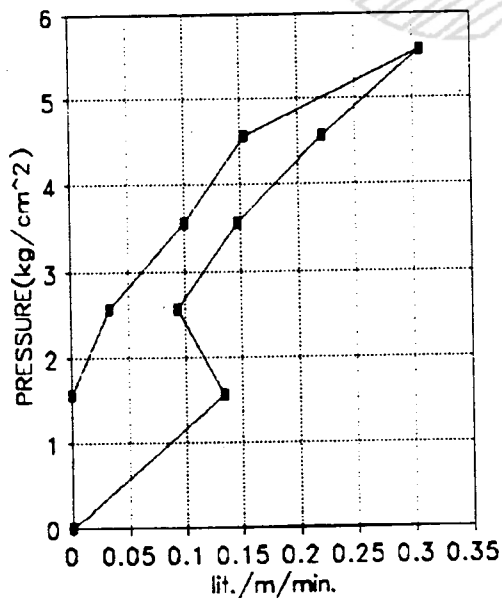
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO. P5 - 5			GEOLOGY ANDESITE						
DATE 1993.11.1			HOLE DIA. NX		PACKER		DOUBLE		
TEST SEC. 7 10			TESTED BY. S.J PARK		G.W.D (m)		4		
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1620	1625	5	1	160	1560	4	4	0	0.000E+00
1625	1630	5	2	160	2560	4.1	4.6	0.5	1.507E-06
1631	1636	5	3	160	3560	4.8	6.3	1.5	3.252E-06
1636	1641	5	4	160	4560	6.7	9	2.3	3.892E-06
1641	1646	5	5	160	5560	9.5	14.1	4.6	6.385E-06
1646	1651	5	4	160	4560	14.7	18	3.3	5.585E-06
1651	1656	5	3	160	3560	18.1	20.3	2.2	4.769E-06
1656	1701	5	2	160	2560	20.6	22	1.4	4.220E-06
1702	1707	5	1	160	1560	22.5	24.5	2	9.894E-06
								AVE	4.389E-06

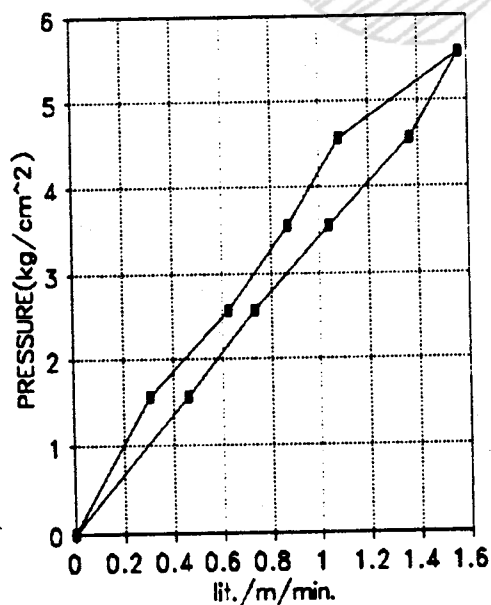
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 5		GEOLOGY		ANDESITE					
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		14		17		TESTED BY.		S.J PARK		G.W.D (m)	
INJECTION TIME				P		G. H.		H		FLOW METER	
										Q	
FR.	TO	TIME			(cm)		(cm)	FR.	TO	Q'TY	PERM. K(cm/sec)
1522	1527	5	1		160		1560	139	145.9	6.9	1380
1527	1532	5	2		160		2560	150.8	161.8	11	2200
1532	1537	5	3		160		3560	165	180.6	15.6	3120
1537	1542	5	4		160		4560	184	204.5	20.5	4100
1542	1547	5	5		160		5560	208	231.5	23.5	4700
1548	1553	5	4		160		4560	232	248.2	16.2	3240
1553	1558	5	3		160		3560	248.5	261.6	13.1	2620
1558	1603	5	2		160		2560	261.6	271	9.4	1880
1604	1609	5	1		160		1560	269	273.6	4.6	920
										AVE	3.059E-05

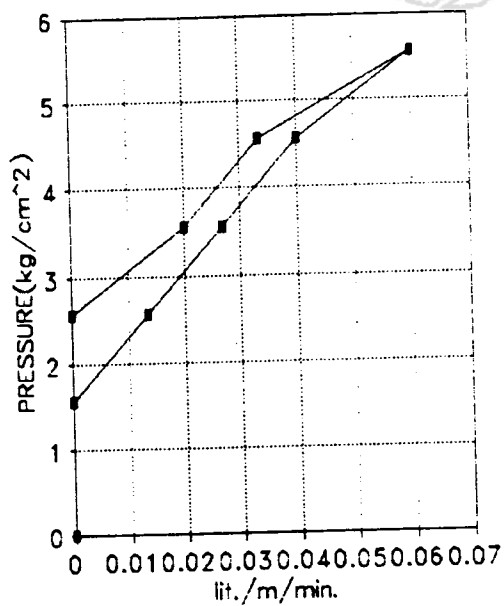
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 5		GEOLOGY		ANDESITE				
DATE			1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			21 24		TESTED BY.		S.J PARK		G.W.D (m)		4
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1426	1431	5	1	160	1560	97.8	97.8	0	0	0.000E+00	
1431	1436	5	2	160	2560	97.9	98.1	0.2	40	6.029E-07	
1436	1441	5	3	160	3560	98.2	98.6	0.4	80	8.671E-07	
1442	1447	5	4	160	4560	98.8	99.4	0.6	120	1.015E-06	
1447	1452	5	5	160	5560	99.8	100.7	0.9	180	1.249E-06	
1452	1457	5	4	160	4560	100.8	101.3	0.5	100	8.462E-07	
1457	1502	5	3	160	3560	101.4	101.7	0.3	60	6.503E-07	
1503	1508	5	2	160	2560	101.9	101.9	0	0	0.000E+00	
1508	1513	5	1	160	1560	102	102	0	0	0.000E+00	
									AVE	5.812E-07	

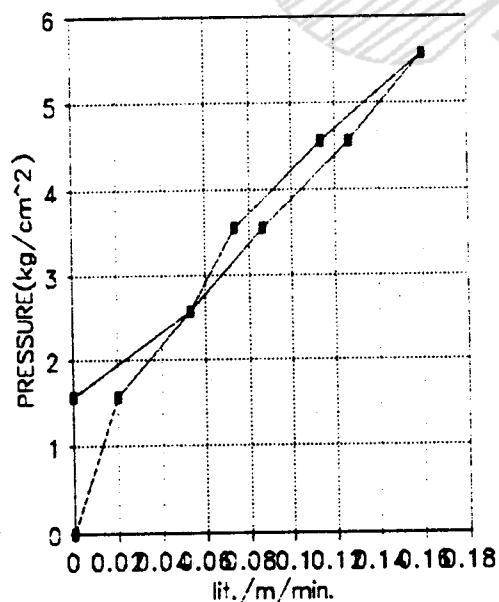
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 5		GEOLOGY		ANDESITE					
DATE	1993.11.1		HOLE DIA.	NX		PACKER	DOUBLE			
TEST SEC.	30	33	TESTED BY.	S.J PARK		G.W.D (m)	4			
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
1329	1334	5	1	160	1560	59.5	59.8	0.3	60	1.484E-06
1334	1339	5	2	160	2560	59.9	60.7	0.8	160	2.412E-06
1340	1345	5	3	160	3560	60.9	62.2	1.3	260	2.818E-06
1345	1350	5	4	160	4560	62.4	64.3	1.9	380	3.215E-06
1350	1355	5	5	160	5560	64.6	67	2.4	480	3.331E-06
1355	1400	5	4	160	4560	67.2	68.9	1.7	340	2.877E-06
1401	1406	5	3	160	3560	69.2	70.3	1.1	220	2.384E-06
1406	1411	5	2	160	2560	70.9	71.7	0.8	160	2.412E-06
1412	1417	5	1	160	1560	72	72	0	0	0.000E+00
AVE										2.326E-06

P-Q CURVE



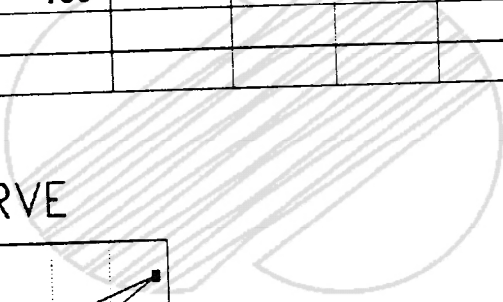
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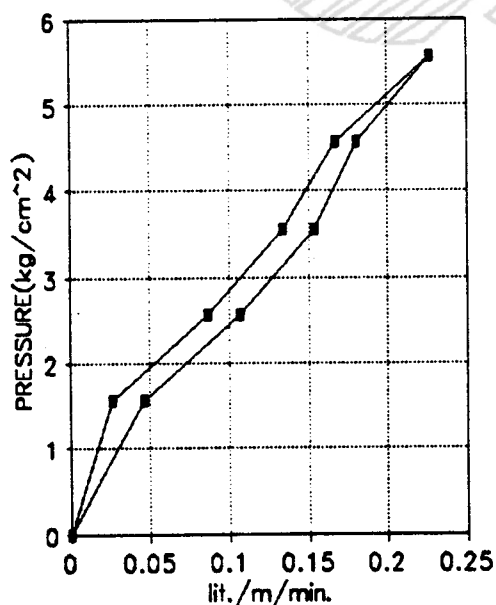
VE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 5		GEOLOGY		ANDESITE					
DATE	1993.11.1		HOLE DIA.		NX	PACKER			DOUBLE	
TEST SEC.	50	53	TESTED BY.		S.J PARK	G.W.D (m)			4	
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1135	1140	5	1	160	1560	933.8	934.5	0.7	140	3.463E-06
1140	1145	5	2	160	2560	934.7	936.3	1.6	320	4.823E-06
1146	1151	5	3	160	3560	937	939.3	2.3	460	4.986E-06
1151	1156	5	4	160	4560	939.5	942.2	2.7	540	4.569E-06
1156	1201	5	5	160	5560	943	946.4	3.4	680	4.719E-06
1201	1206	5	4	160	4560	946.5	949	2.5	500	4.231E-06
1207	1212	5	3	160	3560	949.2	951.2	2	400	4.335E-06
1212	1217	5	2	160	2560	951.5	952.8	1.3	260	3.919E-06
1217	1222	5	1	160	1560	953.4	953.8	0.4	80	1.979E-06
									AVE	4.114E-06

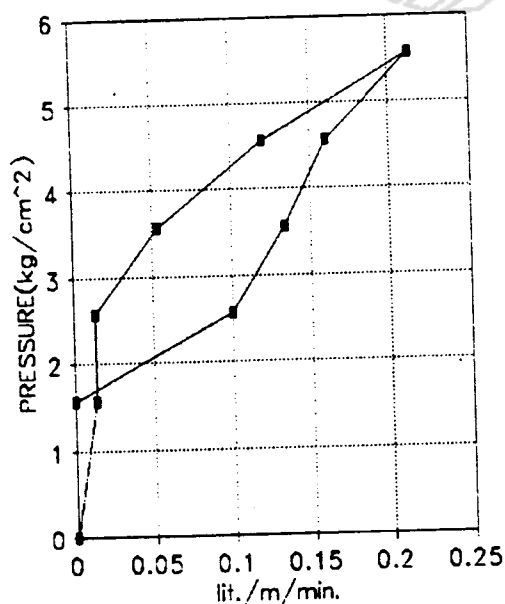
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 5		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		60 63		TESTED BY.		S.J PARK		G.W.D (m)		4
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1038	1043	5	1	160	1560	853.8	854	0.2	40	9.894E-07
1043	1048	5	2	160	2560	858.6	858.8	0.2	40	6.029E-07
1048	1053	5	3	160	3560	859.1	859.9	0.8	160	1.734E-06
1054	1059	5	4	160	4560	860.1	861.9	1.8	360	3.046E-06
1059	1104	5	5	160	5560	862.5	865.7	3.2	640	4.441E-06
1105	1110	5	4	160	4560	866.1	868.5	2.4	480	4.062E-06
1110	1115	5	3	160	3560	868.7	870.7	2	400	4.335E-06
1116	1121	5	2	160	2560	870.9	872.4	1.5	300	4.522E-06
1121	1126	5	1	160	1560	872.8	872.8	0	0	0.000E+00
									AVE	2.637E-06

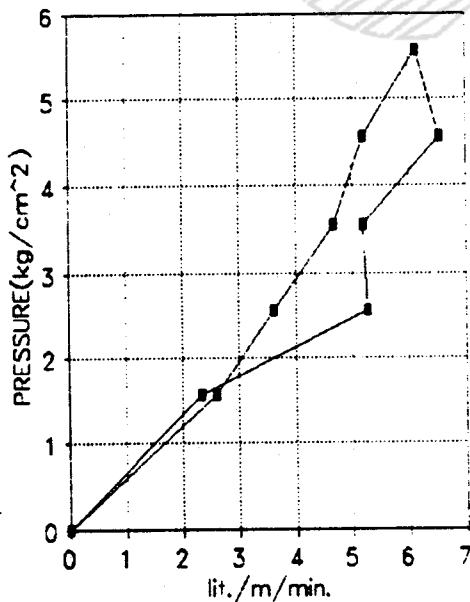
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 5		GEOLOGY		RHYO-DACITE					
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		68		71		TESTED BY.		S.J PARK		G.W.D (m)	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		PERM.	
										K(cm/sec)	
942	947	5	1	160	1560	82	117	35	7000	1.731E-04	
947	952	5	2	160	2560	116	195	79	15800	2.381E-04	
952	957	5	3	160	3560	210	288	78	15600	1.691E-04	
957	1002	5	4	160	4560	300	398	98	19600	1.658E-04	
1003	1008	5	5	160	5560	402	494	92	18400	1.277E-04	
1008	1013	5	4	160	4560	510	588	78	15600	1.320E-04	
1013	1018	5	3	160	3560	602	672	70	14000	1.517E-04	
1018	1023	5	2	160	2560	678	732	54	10800	1.628E-04	
1024	1029	5	1	160	1560	744	783	39	7800	1.929E-04	
										AVE	
										1.682E-04	

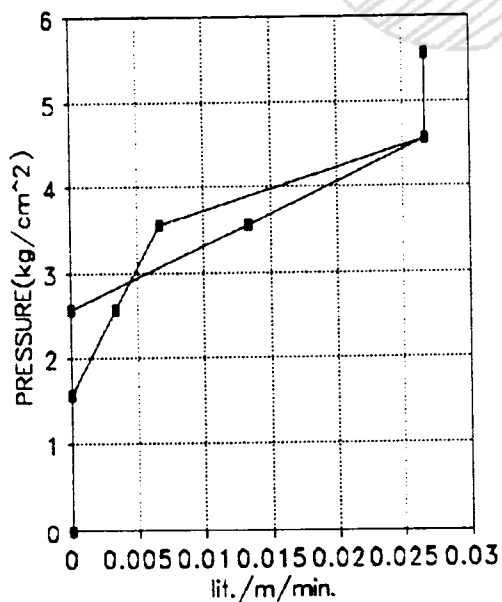
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 5		GEOLOGY		RHYO-DACITE				
DATE			1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			71 74		TESTED BY.		S.J PARK		G.W.D (m)		4
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
845	850	5	1	160	1560	82.2	82.2	0	0	0.000E+00	
850	855	5	2	160	2560	84.9	84.9	0	0	0.000E+00	
855	900	5	3	160	3560	86.35	86.55	0.2	40	4.335E-07	
901	906	5	4	160	4560	87.2	87.6	0.4	80	6.769E-07	
906	911	5	5	160	5560	88	88.4	0.4	80	5.552E-07	
912	917	5	4	160	4560	87.9	88.3	0.4	80	6.769E-07	
917	922	5	3	160	3560	87.6	87.7	0.1	20	2.168E-07	
923	928	5	2	160	2560	86.85	86.9	0.05	10	1.507E-07	
928	933	5	1	160	1560	85.7	85.7	0	0	0.000E+00	
									AVE	3.011E-07	

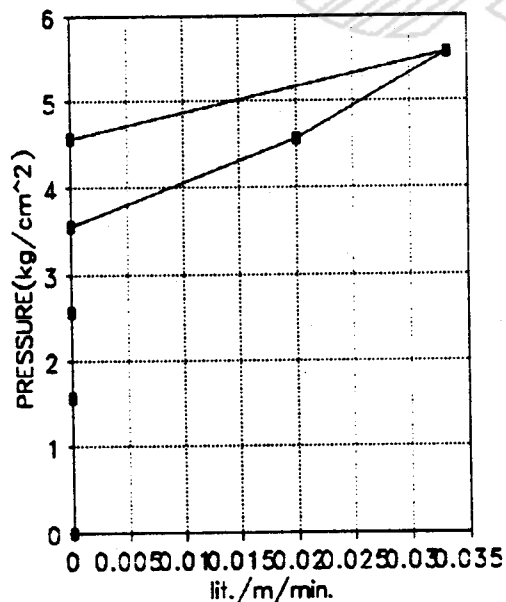
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 5		GEOLOGY		RHYO-DACITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		78 81		TESTED BY.		S.J PARK		G.W.D (m)		4
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
750	755	5	1	160	1560	75.6	75.6	0	0	0.000E+00
756	801	5	2	160	2560	78.5	78.5	0	0	0.000E+00
801	806	5	3	160	3560	79.9	79.9	0	0	0.000E+00
806	811	5	4	160	4560	80.9	80.9	0	0	0.000E+00
811	816	5	5	160	5560	81.5	82	0.5	100	6.940E-07
816	821	5	4	160	4560	81.7	82	0.3	60	5.077E-07
822	827	5	3	160	3560	81.5	81.5	0	0	0.000E+00
827	832	5	2	160	2560	80.6	80.6	0	0	0.000E+00
832	837	5	1	160	1560	78.5	78.5	0	0	0.000E+00
									AVE	1.335E-07

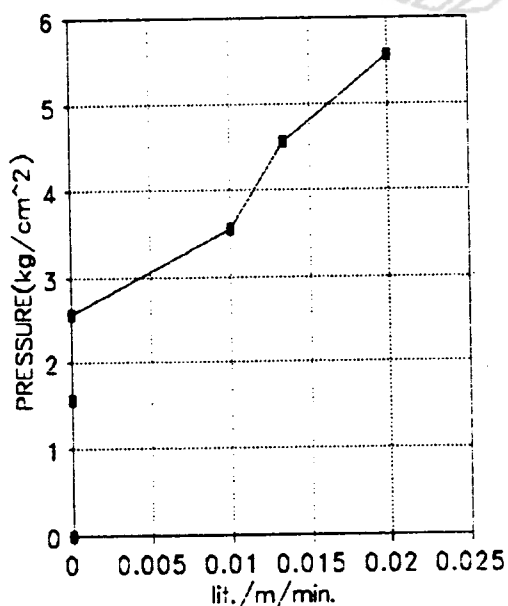
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 5		GEOLOGY		RHYO-DACITE					
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		87	90	TESTED BY.		S.J PARK		G.W.D (m)		4	
INJECTION TIME			P	G. H.	H	FLOW METER				Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
650	655	5	1	160	1560	70.7	70.7	0	0	0.000E+00	
656	701	5	2	160	2560	73.2	73.2	0	0	0.000E+00	
701	706	5	3	160	3560	74.8	74.95	0.15	30	3.252E-07	
706	711	5	4	160	4560	75.7	75.9	0.2	40	3.385E-07	
712	717	5	5	160	5560	76.6	76.9	0.3	60	4.164E-07	
717	722	5	4	160	4560	76.5	76.7	0.2	40	3.385E-07	
722	727	5	3	160	3560	75.9	76.05	0.15	30	3.252E-07	
728	733	5	2	160	2560	75.35	75.35	0	0	0.000E+00	
733	738	5	1	160	1560	0	0	0	0	0.000E+00	
									AVE	1.937E-07	

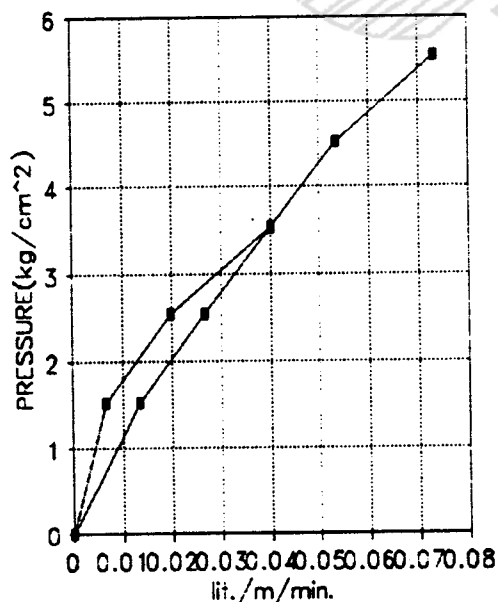
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		7 10		TESTED BY.		K.M DONG		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1630	1635	5	1	160	1531	37.3	37.4	0.1	20	5.041E-07
1635	1640	5	2	160	2531	37.6	37.9	0.3	60	9.147E-07
1641	1646	5	3	160	3531	38.1	38.7	0.6	120	1.311E-06
1646	1651	5	4	160	4531	39.1	39.9	0.8	160	1.363E-06
1652	1657	5	5	160	5531	40.3	41.4	1.1	220	1.535E-06
1657	1702	5	4	160	4531	41.5	42.3	0.8	160	1.363E-06
1702	1707	5	3	160	3531	42.3	42.9	0.6	120	1.311E-06
1708	1713	5	2	160	2531	42.9	43.3	0.4	80	1.220E-06
1713	1718	5	1	160	1531	43.3	43.5	0.2	40	1.008E-06
									AVE	1.170E-06

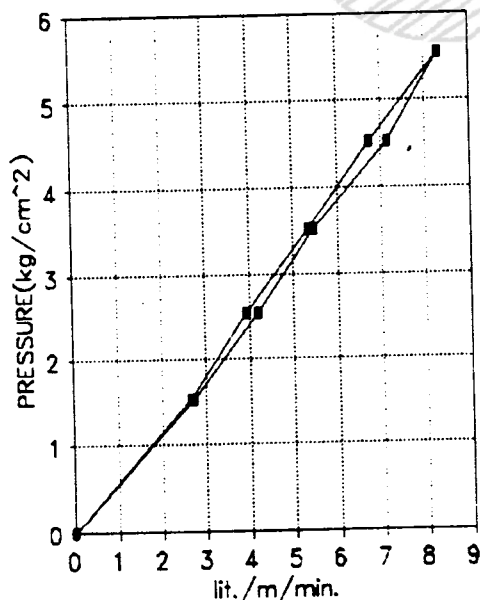
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 6		GEOLOGY		ANDESITE					
DATE		1993.11.6		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		19		22		TESTED BY.		K.M DONG		G.W.D (m)	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		PERM.	
										K(cm/sec)	
1510	1520	5	1	160	1531	38	78	40	8000	2.016E-04	
1520	1525	5	2	160	2531	85	144	59	11800	1.799E-04	
1525	1530	5	3	160	3531	154	234	80	16000	1.748E-04	
1531	1536	5	4	160	4531	245	346	101	20200	1.720E-04	
1536	1541	5	5	160	5531	358	493	125	25000	1.744E-04	
1541	1546	5	4	160	4531	493	600	107	21400	1.822E-04	
1546	1551	5	3	160	3531	607	689	82	16400	1.792E-04	
1552	1557	5	2	160	2531	695	758	63	12600	1.921E-04	
1558	1603	5	1	160	1531	762	803	41	8200	2.067E-04	
										AVE	
										1.848E-04	

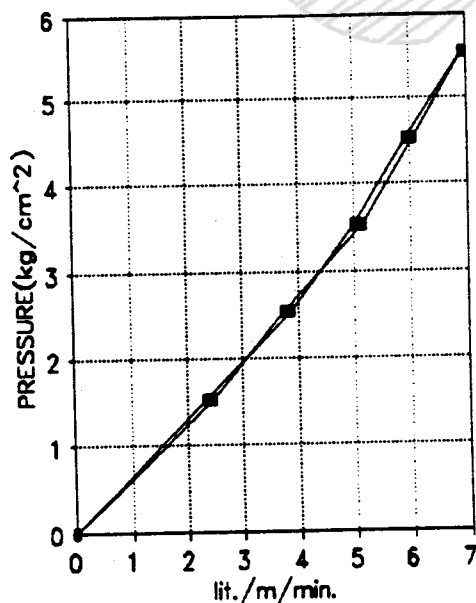
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

[illegible]

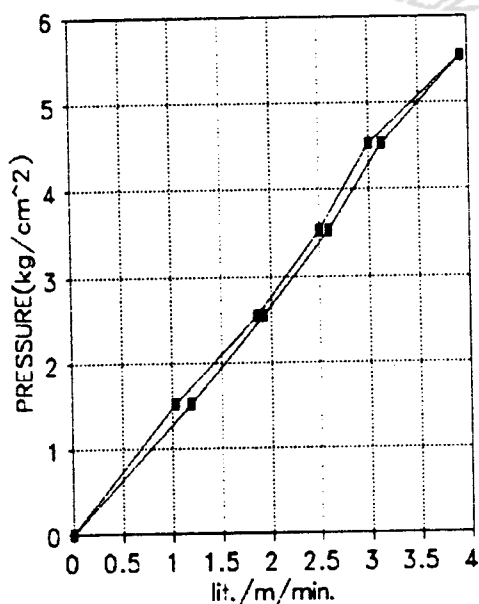
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		38 41		TESTED BY.		K.M DONG		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1330	1335	5	1	160	1531	35.5	51	15.5	3100	7.813E-05
1335	1340	5	2	160	2531	55	83	28	5600	8.537E-05
1341	1346	5	3	160	3531	88.3	125.8	37.5	7500	8.196E-05
1346	1351	5	4	160	4531	131	176	45	9000	7.664E-05
1351	1356	5	5	160	5531	183	242	59	11800	8.232E-05
1356	1401	5	4	160	4531	247	294	47	9400	8.005E-05
1401	1406	5	3	160	3531	298	337	39	7800	8.523E-05
1406	1411	5	2	160	2531	341	370	29	5800	8.842E-05
1412	1417	5	1	160	1531	373	391	18	3600	9.073E-05
									AVE	8.321E-05

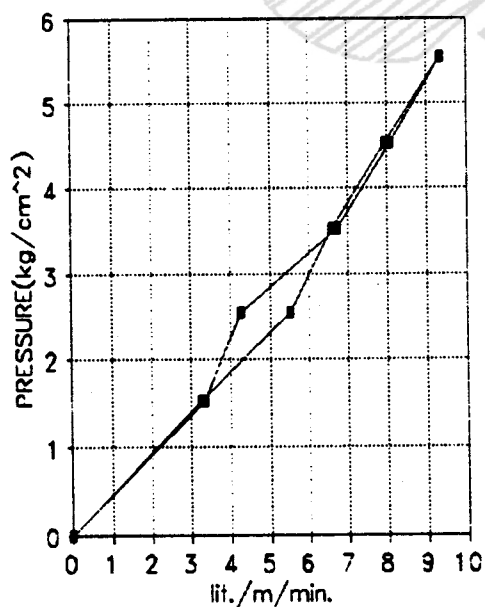
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 6		GEOLOGY		ANDESITE					
DATE	1993.11.6		HOLE DIA.		NX	PACKER		DOUBLE		
TEST SEC.	44.5	47.5	TESTED BY.		K.M DONG	G.W.D (m)		3.71		
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TC	Q'TY	K(cm/sec)	
1140	1145	5	1	160	1531	14	64	50	10000	2.520E-04
1146	1151	5	2	160	2531	75	139	64	12800	1.951E-04
1151	1156	5	3	160	3531	150	251	101	20200	2.207E-04
1156	1201	5	4	160	4531	265	386	121	24200	2.061E-04
1201	1206	5	5	160	5531	401	541	140	28000	1.953E-04
1206	1211	5	4	160	4531	552	671	119	23800	2.027E-04
1212	1217	5	3	160	3531	680	779	99	19800	2.164E-04
1217	1222	5	2	160	2531	787	870	83	16600	2.531E-04
1222	1227	5	1	160	1531	875	924	49	9800	2.470E-04
									AVE	2.209E-04

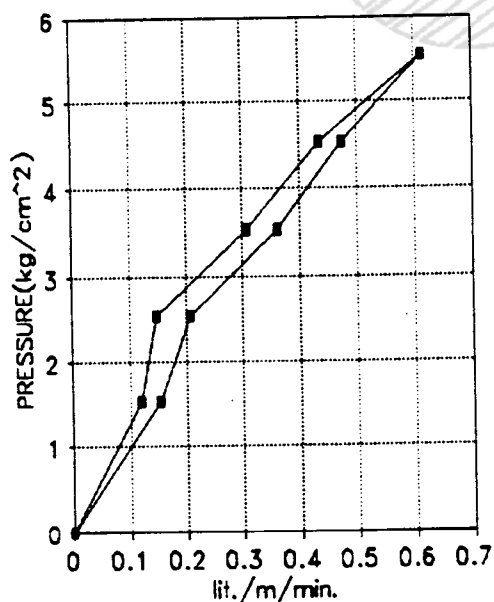
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 6		GEOLOGY		ANDESITE				
DATE	1993.11.6		HOLE DIA.	NX		PACKER		DOUBLE	
TEST SEC.	54	57	TESTED BY.	K.M DONG		G.W.D (m)		3.71	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1045	1050	5	1	160	1531	31	32.8	1.8	360
1051	1056	5	2	160	2531	33.2	35.4	2.2	440
1056	1101	5	3	160	3531	36.1	40.7	4.6	920
1101	1106	5	4	160	4531	41.5	48	6.5	1300
1107	1112	5	5	160	5531	48.8	58	9.2	1840
1112	1117	5	4	160	4531	58.4	65.5	7.1	1420
1117	1122	5	3	160	3531	66	71.4	5.4	1080
1123	1128	5	2	160	2531	71.7	74.8	3.1	620
1128	1133	5	1	160	1531	75	77.3	2.3	460
								AVE	1.052E-05

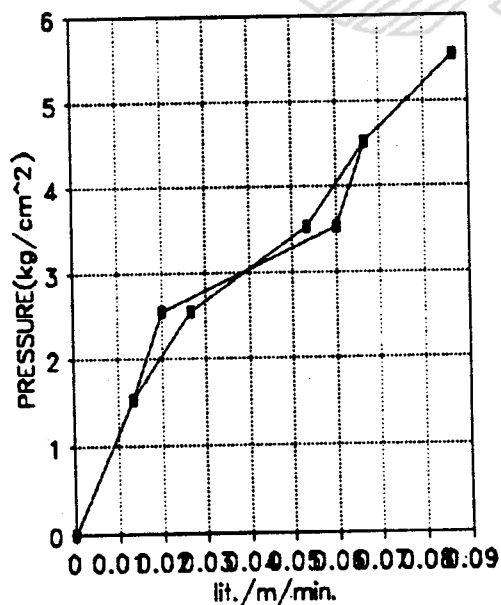
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		61	64	TESTED BY.		K.M DONG		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
951	956	5	1	160	1531	15.4	15.6	0.2	40	1.008E-06
956	1001	5	2	160	2531	16	16.3	0.3	60	9.147E-07
1001	1006	5	3	160	3531	16.7	17.6	0.9	180	1.967E-06
1007	1012	5	4	160	4531	18	19	1	200	1.703E-06
1012	1017	5	5	160	5531	19.5	20.8	1.3	260	1.814E-06
1018	1023	5	4	160	4531	20.8	21.8	1	200	1.703E-06
1023	1028	5	3	160	3531	21.8	22.6	0.8	160	1.748E-06
1028	1033	5	2	160	2531	22.6	23	0.4	80	1.220E-06
1034	1039	5	1	160	1531	23	23.2	0.2	40	1.008E-06
									AVE	1.454E-06

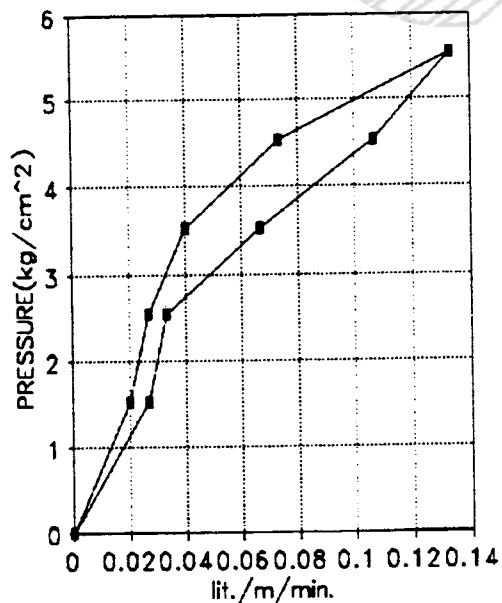
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		71	74	TESTED BY.		K.M DONG		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
855	900	5	1	160	1531	78.7	79	0.3	60	1.512E-06
900	905	5	2	160	2531	79.4	79.8	0.4	80	1.220E-06
906	911	5	3	160	3531	80.2	80.8	0.6	120	1.311E-06
911	916	5	4	160	4531	81.2	82.3	1.1	220	1.873E-06
917	922	5	5	160	5531	82.6	84.6	2	400	2.790E-06
922	927	5	4	160	4531	84.7	86.3	1.6	320	2.725E-06
927	932	5	3	160	3531	86.5	87.5	1	200	2.186E-06
933	938	5	2	160	2531	87.5	88	0.5	100	1.525E-06
938	943	5	1	160	1531	88	88.4	0.4	80	2.016E-06
									AVE	1.906E-06

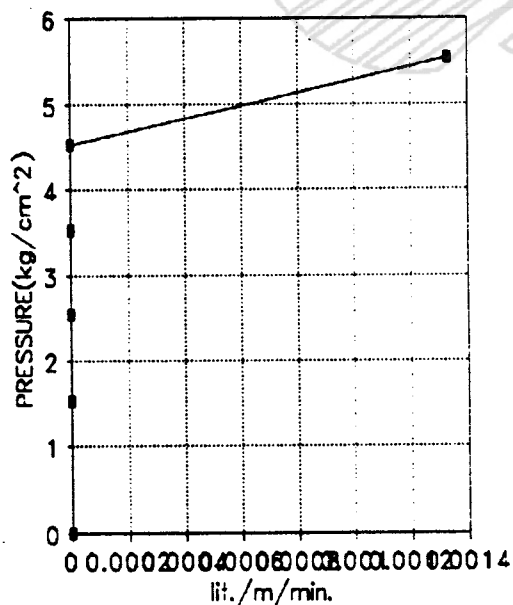
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.6		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		81	84	TESTED BY.		K.M DONG		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
751	756	5	1	160	1531	73.7	73.7	0	0	0.000E+00
756	801	5	2	160	2531	73.9	73.9	0	0	0.000E+00
801	806	5	3	160	3531	74	74	0	0	0.000E+00
807	812	5	4	160	4531	74.1	74.1	0	0	0.000E+00
812	817	5	5	160	5531	74.2	74.22	0.02	4	2.790E-08
818	823	5	4	160	4531	74.22	74.22	0	0	0.000E+00
823	828	5	3	160	3531	74.1	74.1	0	0	0.000E+00
829	834	5	2	160	2531	74	74	0	0	0.000E+00
835	840	5	1	160	1531	73.9	73.9	0	0	0.000E+00
									AVE	3.101E-09

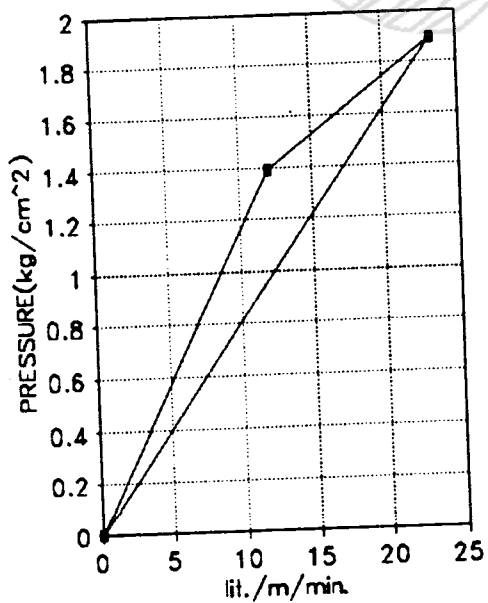
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

[illegible]

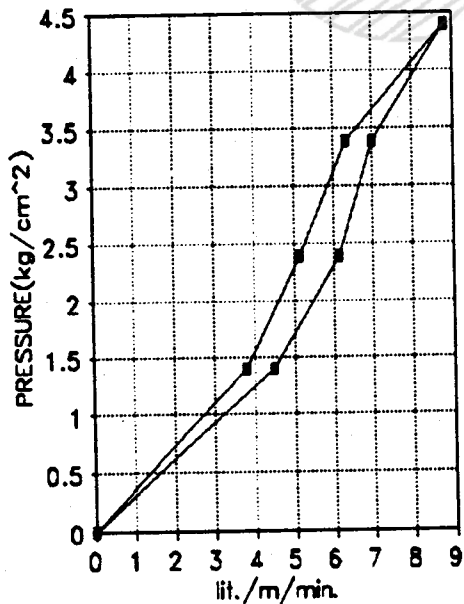
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 7		GEOLOGY		ANDESITE				
DATE		1993.10.16		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		22 25		TESTED BY.		S.M LEE		G.W.D (m)		3.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1359	1414	5	1	50	1392	855	922	67	13400	3.714E-04
1414	1419	5	2	50	2392	50	142	92	18400	2.968E-04
1420	1425	5	3	50	3392	55	160	105	21000	2.389E-04
1426	1431	5	4	50	4392	175	307	132	26400	2.319E-04
1431	1436	5	3	50	3392	315	410	95	19000	2.161E-04
1436	1441	5	2	50	2392	422	499	77	15400	2.484E-04
1442	1447	5	1	50	1392	507	564	57	11400	3.160E-04
									AVE	2.742E-04

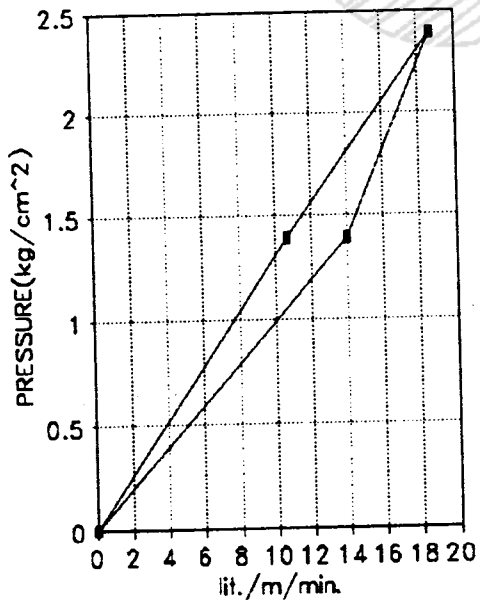
P-Q CURVE

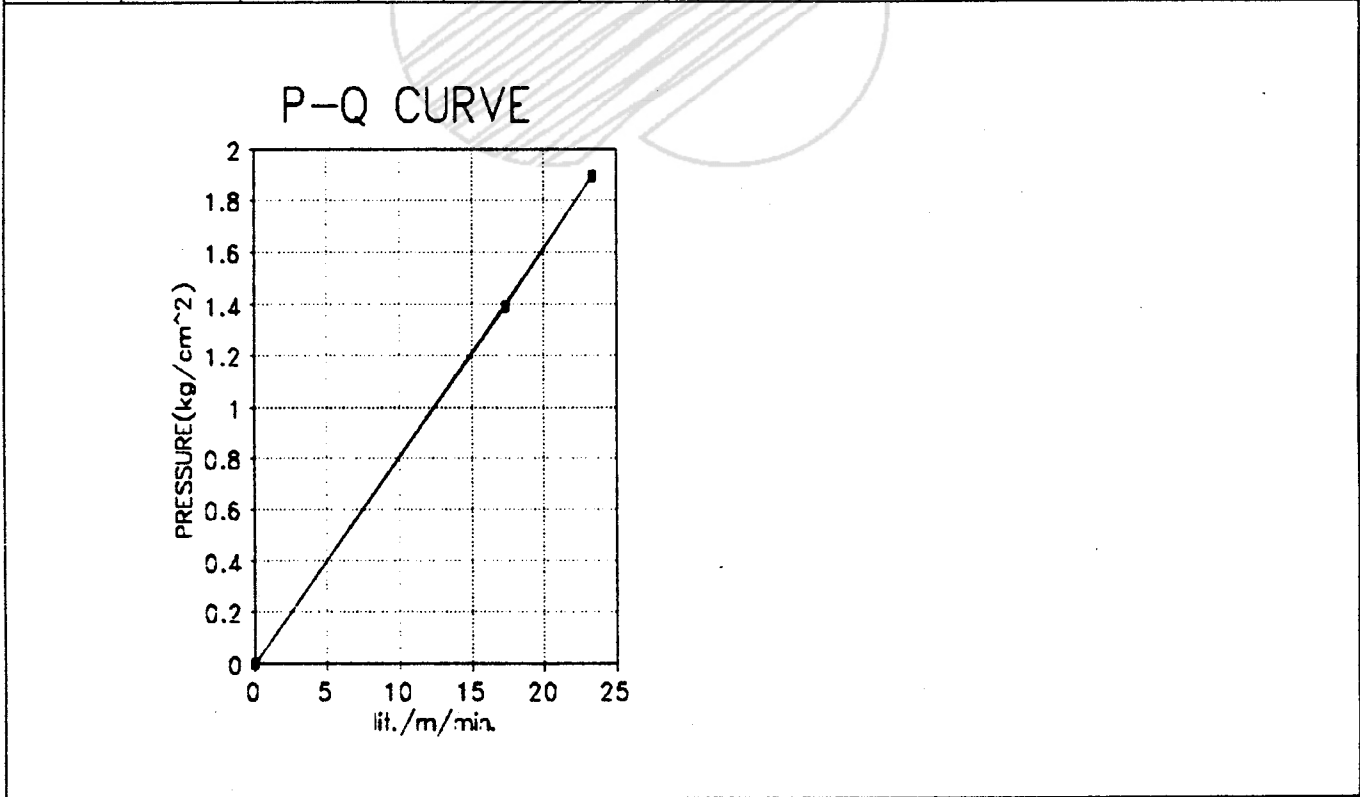


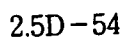
WORKING SHEETS OF WATER PRESSURE TEST

[illegible]

P-Q CURVE



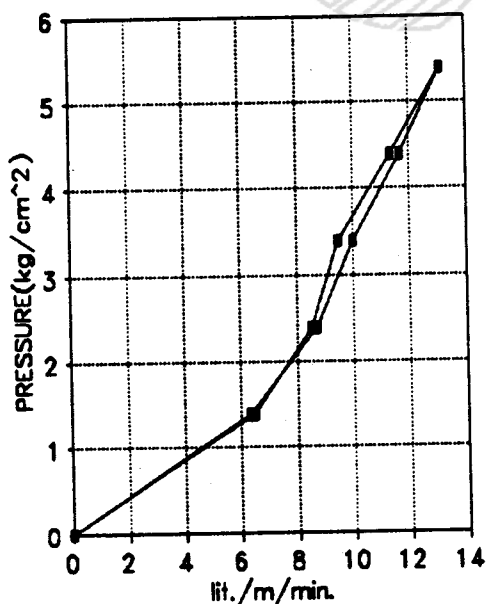
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[illegible]

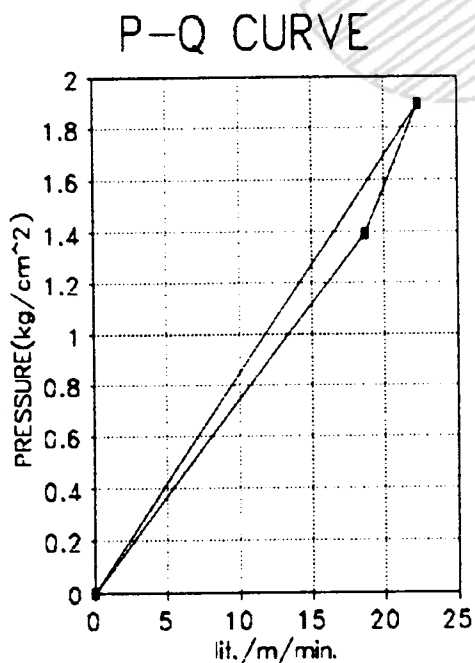
WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 7		GEOLOGY		ANDESITE				
DATE		1993.10.16		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		53	56	TESTED BY.		S.M LEE		G.W.D (m)		3.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
958	1003	5	1	50	1392	748	843	95	19000	5.267E-04
1003	1008	5	2	50	2392	846	976	130	26000	4.194E-04
1009	1014	5	3	50	3392	680	830	150	30000	3.413E-04
1015	1020	5	4	50	4392	140	315	175	35000	3.075E-04
1021	1026	5	5	50	5392	320	517	197	39400	2.819E-04
1026	1031	5	4	50	4392	522	692	170	34000	2.987E-04
1032	1037	5	3	50	3392	700	842	142	28400	3.231E-04
1037	1042	5	2	50	2392	850	977	127	25400	4.097E-04
1043	1048	5	1	50	1392	885	982	97	19400	5.378E-04
									AVE	3.829E-04

P-Q CURVE



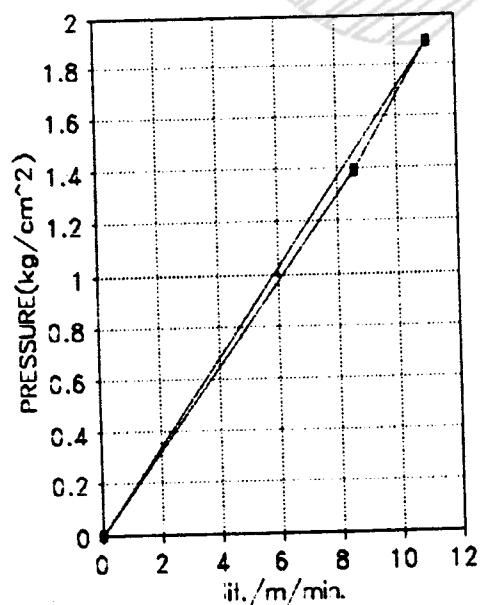
WORKING SHEETS OF WATER PRESSURE TEST

[illegible]

WORKING SHEETS OF WATER PRESSURE TEST

[illegible]

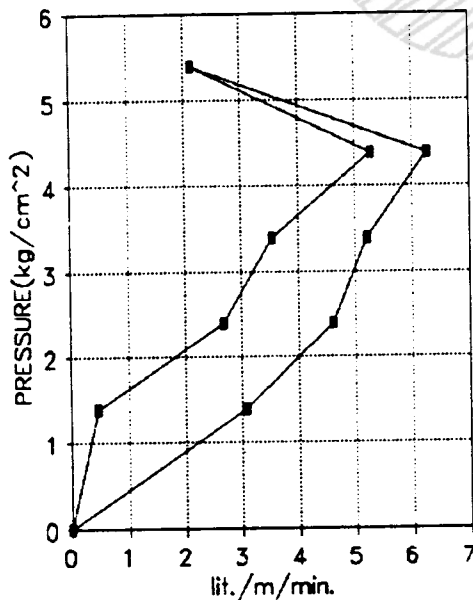
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 7		GEOLOGY		ANDESITE				
DATE		1993.10.16		HOLE DIA.		NX		PACKER		DOUBLE
EST SEC.		86	89	TESTED BY.		S.M LEE		G.W.D (m)		3.42
NJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
810	815	5	1	50	1392	767	774	7	1400	3.881E-05
815	820	5	2	50	2392	780	820	40	8000	1.290E-04
821	826	5	3	50	3392	825	878	53	10600	1.206E-04
826	831	5	4	50	4392	883	962	79	15800	1.388E-04
831	836	5	5	50	5392	870	902	32	6400	4.580E-05
836	841	5	4	50	4392	105	199	94	18800	1.652E-04
842	847	5	3	50	3392	202	280	78	15600	1.775E-04
848	853	5	2	50	2392	285	354	69	13800	2.226E-04
853	858	5	1	50	1392	357	403	46	9200	2.550E-04
									AVE	1.437E-04

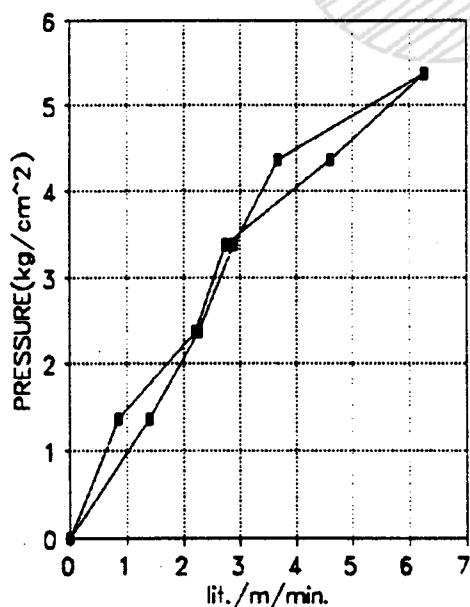
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 8		GEOLOGY		ANDESITE					
DATE		1993.10.13		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		15 18		TESTED BY.		S.M LEE		G.W.D (m)		3.13	
INJECTION TIME			P	G. H.	H	FLOW METER				Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1720	1725	5	1	54	1367	232	245	13	2600	7.339E-05	
1726	1731	5	2	54	2367	251	284	33	6600	1.076E-04	
1731	1736	5	3	54	3367	290	331	41	8200	9.397E-05	
1736	1741	5	4	54	4367	347	416	69	13800	1.219E-04	
1742	1747	5	5	54	5367	433	527	94	18800	1.352E-04	
1747	1752	5	4	54	4367	539	594	55	11000	9.719E-05	
1753	1758	5	3	54	3367	603	646	43	8600	9.855E-05	
1758	1803	5	2	54	2367	652	686	34	6800	1.108E-04	
1803	1808	5	1	54	1367	690	711	21	4200	1.185E-04	
									AVE	1.064E-04	

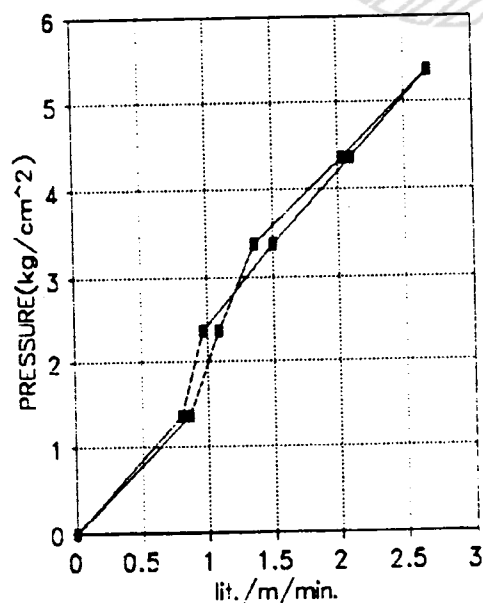
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 8		GEOLOGY		ANDESITE				
DATE		1993.10.13		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		25 28		TESTED BY.		S.M LEE		G.W.D (m)		3.13
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1550	1555	5	1	54	1367	65.2	78.2	13	2600	7.339E-05
1555	1600	5	2	54	2367	82	98.4	16.4	3280	5.347E-05
1601	1606	5	3	54	3367	11	31.4	20.4	4080	4.676E-05
1606	1611	5	4	54	4367	35	65.5	30.5	6100	5.390E-05
1612	1617	5	5	54	5367	58	98.2	40.2	8040	5.780E-05
1617	1622	5	4	54	4367	10	41.5	31.5	6300	5.566E-05
1622	1627	5	3	54	3367	43	65.5	22.5	4500	5.157E-05
1628	1633	5	2	54	2367	65.5	80	14.5	2900	4.727E-05
1634	1639	5	1	54	1367	180	192	12	2400	6.774E-05
									AVE	5.640E-05

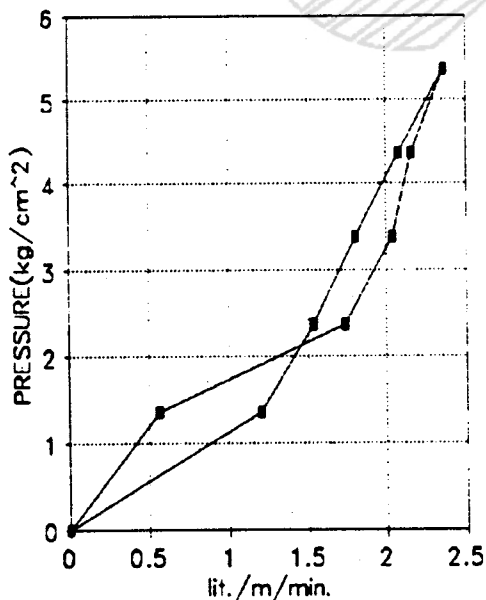
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 8		GEOLOGY		ANDESITE				
DATE		1993.10.13		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		40	43	TESTED BY.		S.M LEE		G.W.D (m)		3.13
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1438	1443	5	1	54	1367	11.5	20	8.5	1700	4.798E-05
1443	1448	5	2	54	2367	24.5	50.5	26	5200	8.477E-05
1449	1454	5	3	54	3367	54	84.5	30.5	6100	6.990E-05
1455	1500	5	4	54	4367	65	97.4	32.4	6480	5.725E-05
1501	1506	5	5	54	5367	19.5	55	35.5	7100	5.104E-05
1506	1511	5	4	54	4367	57.2	88.4	31.2	6240	5.513E-05
1512	1517	5	3	54	3367	790	817	27	5400	6.188E-05
1517	1522	5	2	54	2367	818	841	23	4600	7.499E-05
1523	1528	5	1	54	1367	844	862	18	3600	1.016E-04
								AVE		6.717E-05

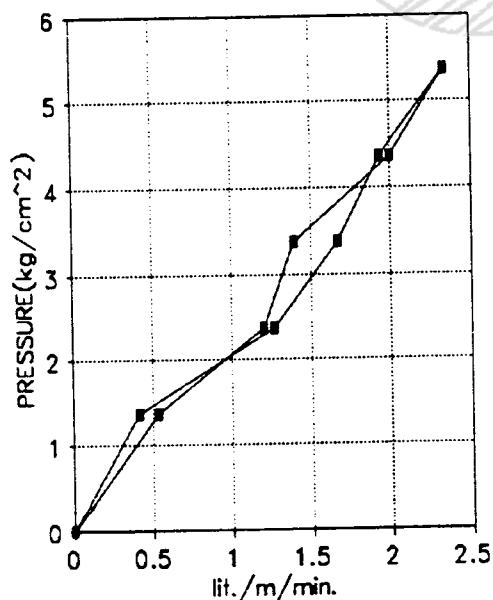
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 8		GEOLOGY		ANDESITE				
DATE	1993.10.13		HOLE DIA.	NX		PACKER	DOUBLE		
EST SEC.	43	46	TESTED BY.	S.M LEE		G.W.D (m)	3.13		
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1248	1253	5	1	54	1367	7.8	14	6.2	1240
1254	1259	5	2	54	2367	417	436	19	3800
1300	1305	5	3	54	3367	439	464	25	5000
1306	1311	5	4	54	4367	466	495	29	5800
1312	1317	5	5	54	5367	496	531	35	7000
1317	1322	5	4	54	4367	532	562	30	6000
1322	1327	5	3	54	3367	564	585	21	4200
1328	1333	5	2	54	2367	586	604	18	3600
1333	1338	5	1	54	1367	606	614	8	1600
AVE									5.120E-05

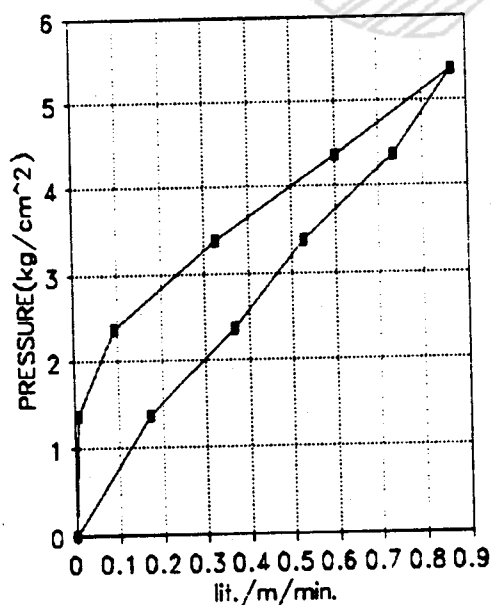
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 8		GEOLOGY		ANDESITE					
DATE		1993.10.13		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		54		57		TESTED BY.		S.M LEE		G.W.D (m)	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY			PERM. K(cm/sec)
1049	1054	5	1	54	1367	41.8	41.9	0.1	20		5.645E-07
1054	1059	5	2	54	2367	42.1	43.5	1.4	280		4.564E-06
1100	1105	5	3	54	3367	44	48.9	4.9	980		1.123E-05
1105	1110	5	4	54	4367	50	59	9	1800		1.590E-05
1111	1116	5	5	54	5367	60.5	73.5	13	2600		1.869E-05
1116	1121	5	4	54	4367	75	86	11	2200		1.944E-05
1122	1127	5	3	54	3367	87.4	95.3	7.9	1580		1.811E-05
1127	1132	5	2	54	2367	5.7	11.2	5.5	1100		1.793E-05
1132	1137	5	1	54	1367	11.4	14	2.6	520		1.468E-05
										AVE	1.346E-05

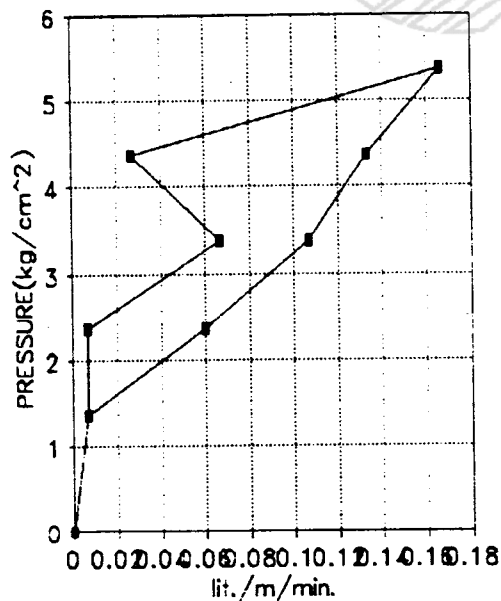
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 8		GEOLOGY		ANDESITE				
DATE		1993.10.13		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		57	60	TESTED BY.		S.M LEE		G.W.D (m)		3.13
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
935	940	5	1	54	1367	31.8	31.9	0.1	20	5.645E-07
941	946	5	2	54	2367	31.9	32	0.1	20	3.260E-07
946	951	5	3	54	3367	32	33	1	200	2.292E-06
951	956	5	4	54	4367	33	33.4	0.4	80	7.068E-07
1000	1005	5	5	54	5367	35	37.5	2.5	500	3.595E-06
1005	1010	5	4	54	4367	38	40	2	400	3.534E-06
1011	1016	5	3	54	3367	41	42.6	1.6	320	3.667E-06
1016	1021	5	2	54	2367	43	43.9	0.9	180	2.934E-06
1021	1026	5	1	54	1367	44.5	44.6	0.1	20	5.645E-07
									AVE	2.020E-06

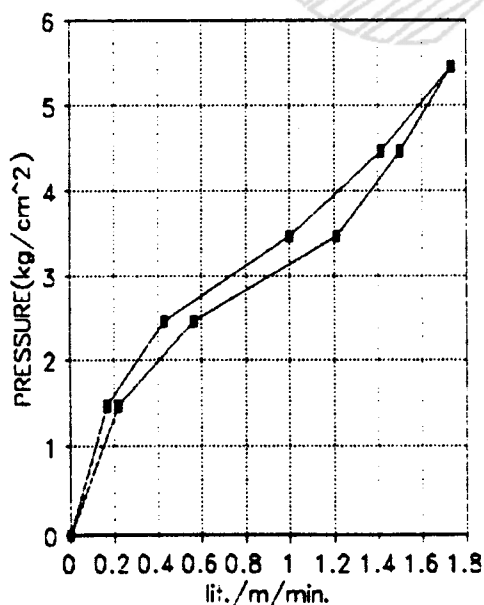
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 9		GEOLOGY		ANDESITE				
DATE			1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			3.5 6.5		TESTED BY.		K.M DONG		G.W.D (m)		3
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1612	1617	5	1	160	1460	54.1	57.4	3.3	660	1.744E-05	
1617	1622	5	2	160	2460	59.5	68	8.5	1700	2.666E-05	
1622	1627	5	3	160	3460	72.1	90.3	18.2	3640	4.059E-05	
1627	1632	5	4	160	4460	93.5	116	22.5	4500	3.893E-05	
1633	1638	5	5	160	5460	119.5	145.5	26	5200	3.675E-05	
1638	1643	5	4	160	4460	146	167.2	21.2	4240	3.668E-05	
1643	1648	5	3	160	3460	167	182	15	3000	3.346E-05	
1649	1654	5	2	160	2460	183.2	189.7	6.5	1300	2.039E-05	
1655	1700	5	1	160	1460	190	192.5	2.5	500	1.321E-05	
									AVE	2.935E-05	

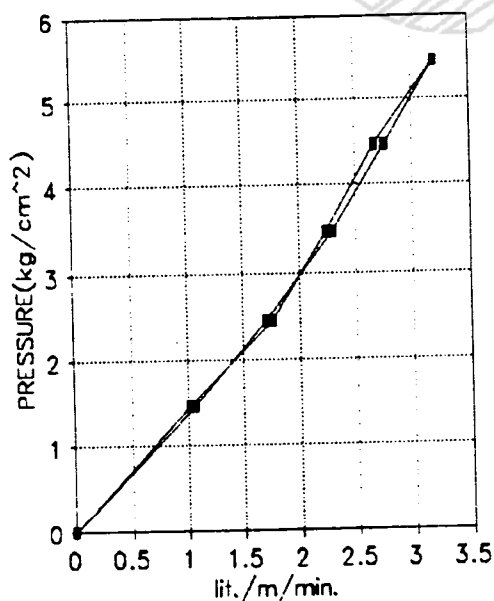
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 9		GEOLOGY		ANDESITE					
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		16		19		TESTED BY.		K.M DONG		G.W.D (m)	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY			PERM. K(cm/sec)
1452	1457	5	1	160	1460	35.4	50.6	15.2	3040		8.034E-05
1457	1502	5	2	160	2460	54.5	80.8	26.3	5260		8.250E-05
1502	1507	5	3	160	3460	84.5	118	33.5	6700		7.472E-05
1507	1512	5	4	160	4460	123	163	40	8000		6.921E-05
1512	1517	5	5	160	5460	169	217	48	9600		6.784E-05
1517	1522	5	4	160	4460	220.4	261.7	41.3	8260		7.146E-05
1522	1527	5	3	160	3460	264.1	298.4	34.3	6860		7.650E-05
1527	1532	5	2	160	2460	300.5	326	25.5	5100		7.999E-05
1532	1537	5	1	160	1460	327.5	343.5	16	3200		8.457E-05
AVE										7.635E-05	

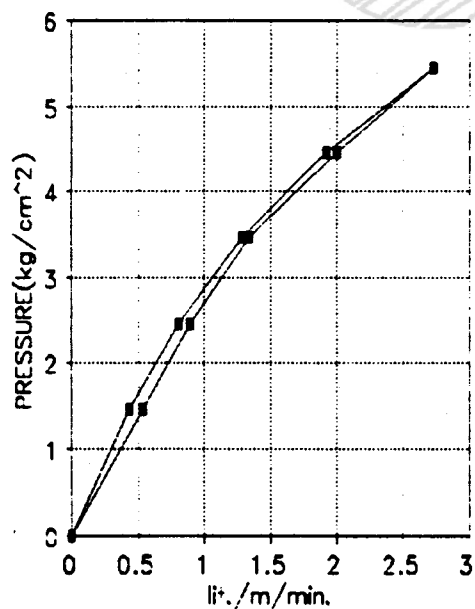
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 9		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		24	27	TESTED BY.		K.M DONG		G.W.D (m)		3
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
1356	1401	5	1	160	1460	35.4	41.9	6.5	1300	3.436E-05
1401	1406	5	2	160	2460	44.2	56.3	12.1	2420	3.796E-05
1406	1411	5	3	160	3460	59.5	78.8	19.3	3860	4.305E-05
1412	1417	5	4	160	4460	81	109.8	28.8	5760	4.983E-05
1417	1422	5	5	160	5460	115	156	41	8200	5.795E-05
1422	1427	5	4	160	4460	159	189.1	30.1	6020	5.208E-05
1427	1432	5	3	160	3460	190.3	210.5	20.2	4040	4.505E-05
1433	1438	5	2	160	2460	211.3	224.8	13.5	2700	4.235E-05
1438	1443	5	1	160	1460	225	233	8	1600	4.229E-05
AVE										4.499E-05

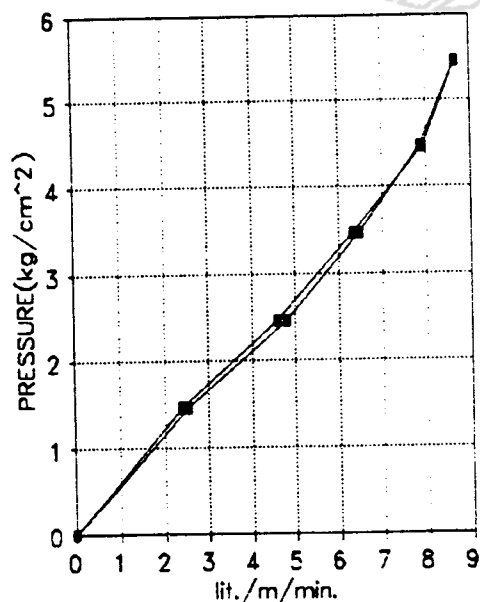
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 9		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		31	34	TESTED BY.		K.M DONG		G.W.D (m)		3
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1300	1305	5	1	160	1460	19.4	55.5	36.1	7220	1.908E-04
1305	1310	5	2	160	2460	62	131	69	13800	2.165E-04
1310	1315	5	3	160	3460	141	236	95	19000	2.119E-04
1315	1320	5	4	160	4460	247	366	119	23800	2.059E-04
1321	1326	5	5	160	5460	380	510	130	26000	1.837E-04
1326	1331	5	4	160	4460	521	639	118	23600	2.042E-04
1332	1337	5	3	160	3460	647	744	97	19400	2.163E-04
1337	1342	5	2	160	2460	750	822	72	14400	2.259E-04
1342	1347	5	1	160	1460	825	863	38	7600	2.009E-04
									AVE	2.062E-04

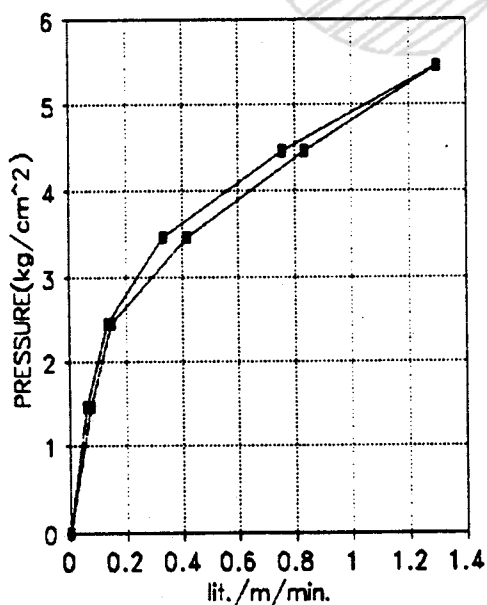
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 9		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		35.5	38.5	TESTED BY.		K.M DONG		G.W.D (m)		3
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1204	1209	5	1	160	1460	38.5	39.4	0.9	180	4.757E-06
1209	1214	5	2	160	2460	40.2	42.2	2	400	6.274E-06
1214	1219	5	3	160	3460	43	48	5	1000	1.115E-05
1220	1225	5	4	160	4460	51	62.3	11.3	2260	1.955E-05
1225	1230	5	5	160	5460	65.5	85	19.5	3900	2.756E-05
1230	1235	5	4	160	4460	86.1	98.6	12.5	2500	2.163E-05
1235	1240	5	3	160	3460	99	105.3	6.3	1260	1.405E-05
1241	1246	5	2	160	2460	105.5	107.7	2.2	440	6.901E-06
1246	1251	5	1	160	1460	107.8	108.9	1.1	220	5.814E-06
									AVE	1.308E-05

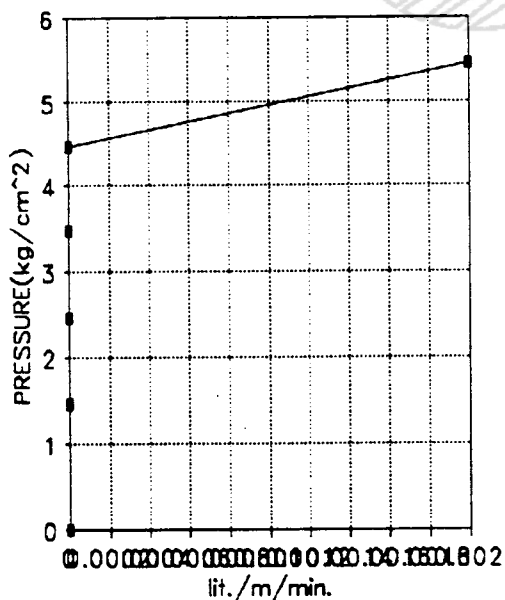
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 9		GEOLOGY		ANDESITE				
DATE	1993.11.1		HOLE DIA.		NX	PACKER		DOUBLE	
TEST SEC.	46	49	TESTED BY.		K.M DONG	G.W.D (m)		3	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1107	1112	5	1	160	1460	25.3	25.3	0	0.000E+00
1112	1117	5	2	160	2460	25.5	25.5	0	0.000E+00
1117	1122	5	3	160	3460	25.6	25.6	0	0.000E+00
1122	1127	5	4	160	4460	25.7	25.7	0	0.000E+00
1128	1133	5	5	160	5460	25.8	25.83	0.03	4.240E-08
1134	1139	5	4	160	4460	25.7	25.7	0	0.000E+00
1139	1144	5	3	160	3460	25.7	25.7	0	0.000E+00
1145	1150	5	2	160	2460	25.6	25.6	0	0.000E+00
1150	1155	5	1	160	1460	25.5	25.5	0	0.000E+00
								AVE	4.711E-09

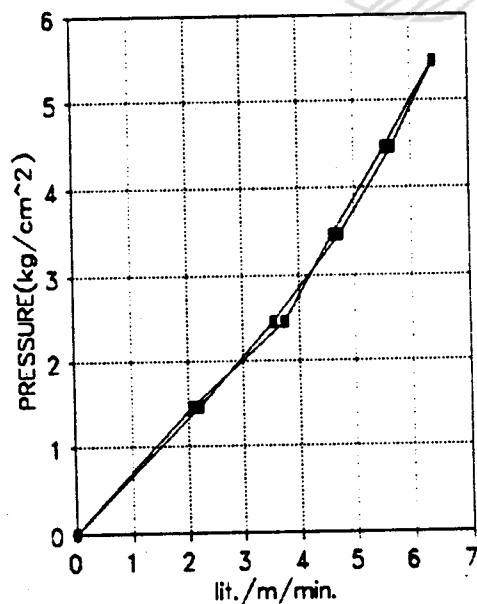
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO. P5 - 9			GEOLOGY			ANDESITE				
DATE 1993.11.1			HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC. 55 58			TESTED BY.		K.M DONG		G.W.D (m)		3	
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1012	1017	5	1	160	1460	76	107	31	6200	1.639E-04
1017	1022	5	2	160	2460	113	169	56	11200	1.757E-04
1022	1027	5	3	160	3460	176	245	69	13800	1.539E-04
1028	1033	5	4	160	4460	259	342	83	16600	1.436E-04
1033	1038	5	5	160	5460	351	447	96	19200	1.357E-04
1038	1043	5	4	160	4460	454	539	85	17000	1.471E-04
1043	1048	5	3	160	3460	546	617	71	14200	1.584E-04
1048	1053	5	2	160	2460	622	675	53	10600	1.663E-04
1053	1058	5	1	160	1460	679	712	33	6600	1.744E-04
									AVE	1.576E-04

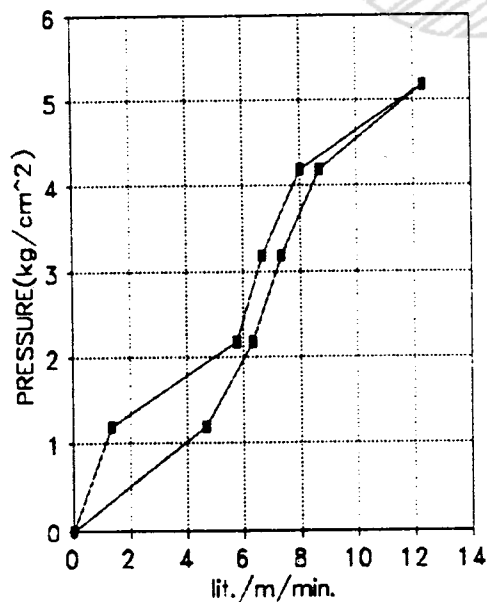
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 10		GEOLOGY		ANDESITE				
DATE		1993.10.15		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		1.5	4.5	TESTED BY.		K.M DONG		G.W.D (m)		1.6
INJECTION TIME			P	G. H.	H	FLOW METER		Q		PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1530	1535	5	1	20	1180	86	106	20	4000	1.308E-04
1535	1540	5	2	20	2180	150	236	86	17200	3.044E-04
1541	1546	5	3	20	3180	240	340	100	20000	2.427E-04
1546	1551	5	4	20	4180	345	465	120	24000	2.215E-04
1551	1556	5	5	20	5180	465	650	185	37000	2.756E-04
1556	1601	5	4	20	4180	470	600	130	26000	2.400E-04
1601	1606	5	3	20	3180	600	710	110	22000	2.669E-04
1607	1612	5	2	20	2180	720	815	95	19000	3.363E-04
1612	1617	5	1	20	1180	820	890	70	14000	4.578E-04
									AVE	2.751E-04

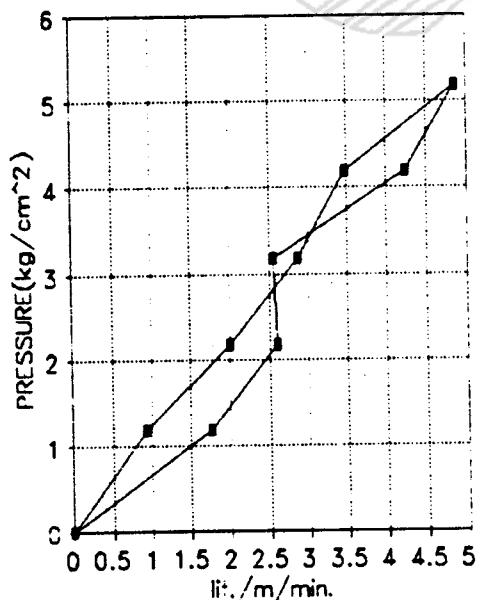
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 10		GEOLOGY		ANDESITE				
DATE	1993.10.15		HOLE DIA.		NX	PACKER		DOUBLE	
TEST SEC.	5.5	8.5	TESTED BY.		K.M DONG	G.W.D (m)		1.6	
INJECTION TIME			P	G.H.	H	FLOW METER			Q
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	PERM. K(cm/sec)
1320	1325	5	1	20	1180	7	33.5	26.5	5300 1.733E-04
1325	1330	5	2	20	2180	40	79	39	7800 1.381E-04
1331	1336	5	3	20	3180	50	88.5	38.5	7700 9.343E-05
1336	1341	5	4	20	4180	30	93.5	63.5	12700 1.172E-04
1341	1346	5	5	20	5180	250	323	73	14600 1.088E-04
1346	1351	5	4	20	4180	340	392	52	10400 9.600E-05
1352	1357	5	3	20	3180	410	453	43	8600 1.043E-04
1357	1402	5	2	20	2180	460	490	30	6000 1.062E-04
1403	1408	5	1	20	1180	495	509	14	2800 9.156E-05
								AVE	1.143E-04

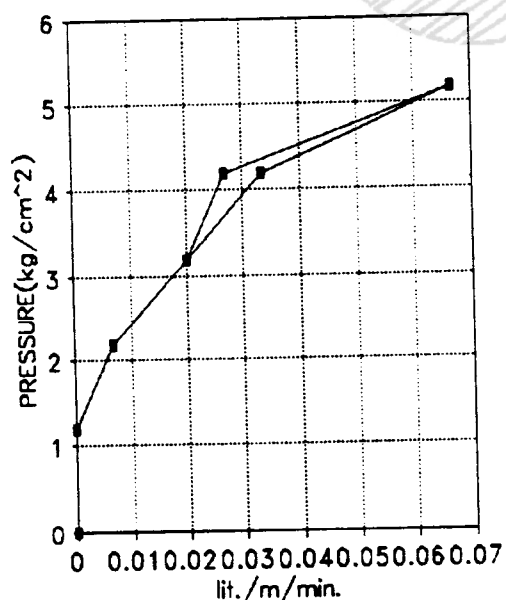
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 10		GEOLOGY		ANDESITE				
DATE	1993.10.15		HOLE DIA.	NX		PACKER		DOUBLE	
EST SEC.	13.5	16.5	TESTED BY.	K.M DONG		G.W.D (m)		1.6	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1110	1115	5	1	20	1180	50	50	0	0.000E+00
1116	1121	5	2	20	2180	50.2	50.3	0.1	3.540E-07
1121	1126	5	3	20	3180	50.4	50.7	0.3	7.280E-07
1127	1132	5	4	20	4180	51	51.5	0.5	9.231E-07
1132	1137	5	5	20	5180	52	53	1	1.490E-06
1137	1142	5	4	20	4180	53.5	53.9	0.4	7.385E-07
1142	1147	5	3	20	3180	54	54.3	0.3	7.280E-07
1148	1153	5	2	20	2180	54.5	54.6	0.1	3.540E-07
1153	1158	5	1	20	1180	54.6	54.6	0	0.000E+00
								AVE	5.906E-07

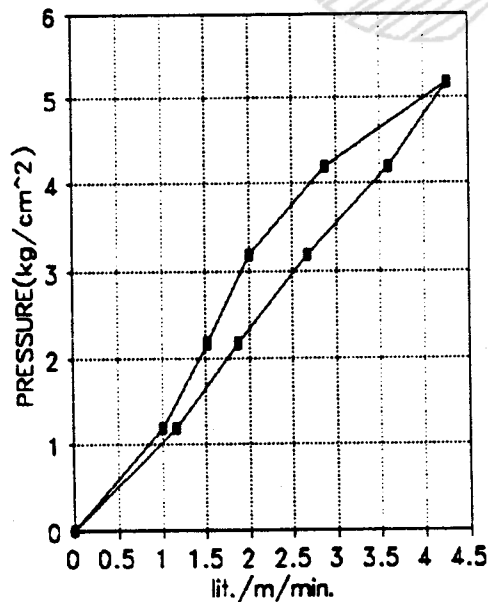
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 10		GEOLOGY		ANDESITE				
DATE		1993.10.15		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		33	36	TESTED BY.		K.M DONG		G.W.D (m)		1.6
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1004	1009	5	1	20	1180	10	27.5	17.5	3500	1.144E-04
1010	1015	5	2	20	2180	30	38	28	5600	9.912E-05
1016	1021	5	3	20	3180	64	104	40	8000	9.707E-05
1021	1026	5	4	20	4180	120	174	54	10800	9.969E-05
1027	1032	5	5	20	5180	190	254	64	12800	9.535E-05
1032	1037	5	4	20	4180	270	313	43	8600	7.939E-05
1037	1042	5	3	20	3180	330	360	30	6000	7.280E-05
1043	1048	5	2	20	2180	370	393	23	4600	8.142E-05
1048	1053	5	1	20	1180	400	415	15	3000	9.810E-05
									AVE	9.304E-05

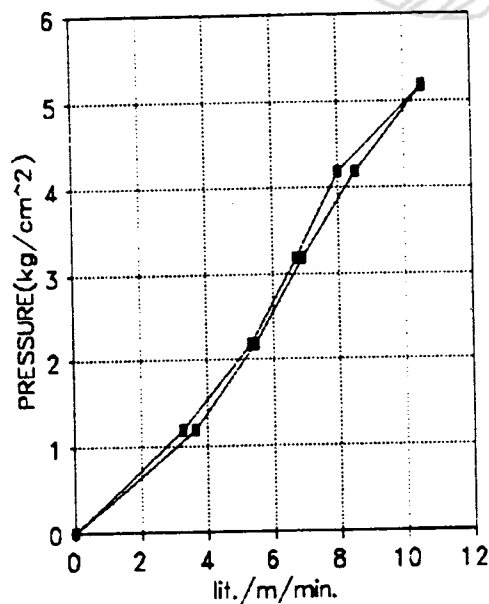
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 10		GEOLOGY		ANDESITE				
DATE		1993.10.15		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		43.5	46.5	TESTED BY.		K.M DONG		G.W.D (m)		1.6
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
910	915	5	1	20	1180	20	75	55	11000	3.597E-04
916	921	5	2	20	2180	80	162	82	16400	2.903E-04
921	926	5	3	20	3180	170	274	104	20800	2.524E-04
927	932	5	4	20	4180	300	428	128	25600	2.363E-04
933	938	5	5	20	5180	428	586	158	31600	2.354E-04
939	944	5	4	20	4180	300	420	120	24000	2.215E-04
945	950	5	3	20	3180	460	561	101	20200	2.451E-04
951	956	5	2	20	2180	580	660	80	16000	2.832E-04
957	1002	5	1	20	1180	680	729	49	9800	3.205E-04
									AVE	2.716E-04

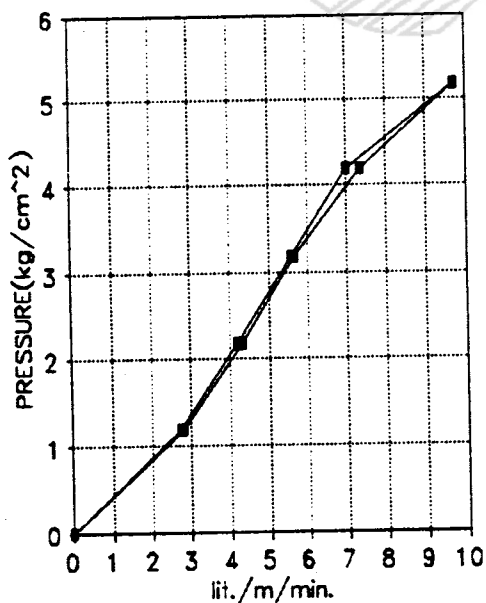
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 10		GEOLOGY		PROPYLITE				
DATE		1993.10.15		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		56	59	TESTED BY.		K.M DONG		G.W.D (m)		1.6
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
802	807	5	1	20	1180	10	51	41	8200	2.681E-04
807	812	5	2	20	2180	60	123	63	12600	2.230E-04
812	817	5	3	20	3180	140	224	84	16800	2.038E-04
818	823	5	4	20	4180	250	355	105	21000	1.938E-04
823	828	5	5	20	5180	355	501	146	29200	2.175E-04
829	834	5	4	20	4180	400	510	110	22000	2.031E-04
835	840	5	3	20	3180	540	625	85	17000	2.063E-04
840	845	5	2	20	2180	640	705	65	13000	2.301E-04
846	851	5	1	20	1180	715	757	42	8400	2.747E-04
									AVE	2.245E-04

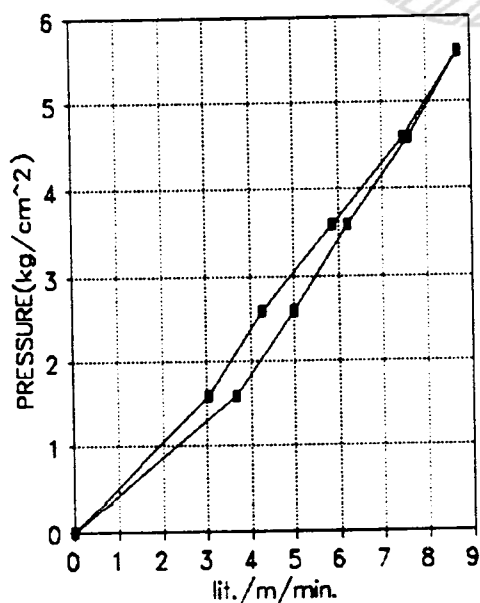
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 11		GEOLOGY		ANDESITE				
DATE		1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		3 6		TESTED BY.		K.M DONG		G.W.D (m)		4.28
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1850	1855	5	1	160	1588	71	126	55	11000	2.673E-04
1856	1901	5	2	160	2588	134	209	75	15000	2.236E-04
1901	1906	5	3	160	3588	221	314	93	18600	2.000E-04
1906	1911	5	4	160	4588	325	439	114	22800	1.917E-04
1911	1916	5	5	160	5588	448	579	131	26200	1.809E-04
1916	1921	5	4	160	4588	588	700	112	22400	1.884E-04
1921	1926	5	3	160	3588	709	797	88	17600	1.893E-04
1926	1931	5	2	160	2588	803	867	64	12800	1.908E-04
1931	1936	5	1	160	1588	871	917	46	9200	2.235E-04
									AVE	2.062E-04

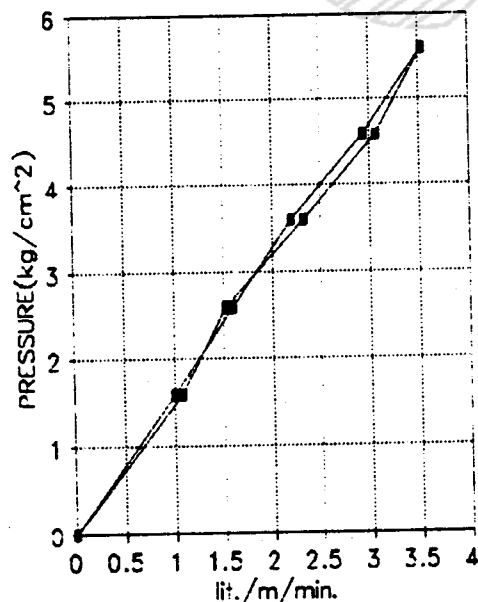
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 11		GEOLOGY		ANDESITE				
DATE	1993.11.4		HOLE DIA.	NX		PACKER		DOUBLE	
TEST SEC.	8.5	11.5	TESTED BY.	K.M DONG		G.W.D (m)		4.28	
INJECTION TIME			P	G. H.	H	FLOW METER			Q
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	PERM. K(cm/sec)
1740	1745	5	1	160	1588	78.5	94.6	16.1	3220 7.824E-05
1746	1751	5	2	160	2588	97.2	120	22.8	4560 6.799E-05
1751	1756	5	3	160	3588	124	159	35	7000 7.528E-05
1757	1802	5	4	160	4588	164	210	46	9200 7.737E-05
1802	1807	5	5	160	5588	216	269	53	10600 7.319E-05
1807	1812	5	4	160	4588	274	318	44	8800 7.401E-05
1812	1817	5	3	160	3588	322	355	33	6600 7.098E-05
1817	1822	5	2	160	2588	357	381	24	4800 7.156E-05
1823	1828	5	1	160	1588	383	398	15	3000 7.289E-05
								AVE	7.350E-05

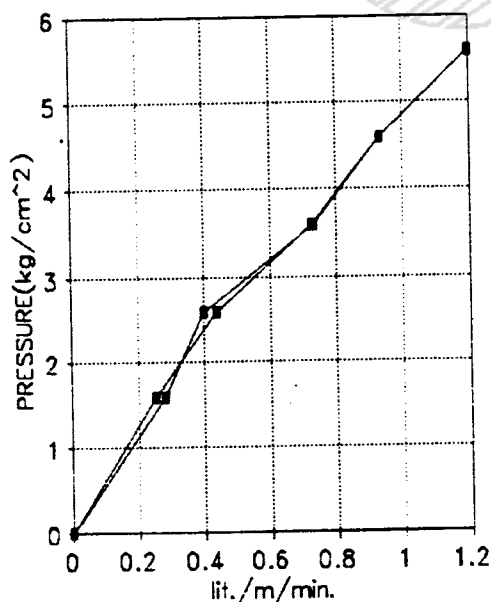
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 11		GEOLOGY		ANDESITE				
DATE		1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		16	19	TESTED BY.		K.M DONG		G.W.D (m)		4.28
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1630	1635	5	1	160	1588	60.7	64.5	3.8	760	1.847E-05
1636	1641	5	2	160	2588	66	72.6	6.6	1320	1.968E-05
1641	1646	5	3	160	3588	74.2	85.1	10.9	2180	2.344E-05
1646	1651	5	4	160	4588	87	101	14	2800	2.355E-05
1656	1701	5	5	160	5588	103	121	18	3600	2.486E-05
1701	1706	5	4	160	4588	123	137	14	2800	2.355E-05
1711	1716	5	3	160	3588	138	149	11	2200	2.366E-05
1717	1722	5	2	160	2588	150	156	6	1200	1.789E-05
1722	1727	5	1	160	1588	57.1	61.3	4.2	840	2.041E-05
									AVE	2.172E-05

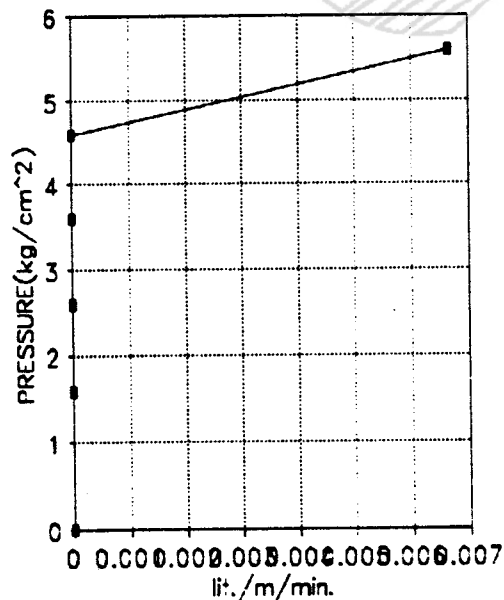
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 11		GEOLOGY		RHYO-DACITE				
DATE		1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		25.5	28.5	TESTED BY.		K.M DONG		G.W.D (m)		4.28
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1510	1520	5	1	160	1588	57.2	57.2	0	0	0.000E+00
1520	1525	5	2	160	2588	57.4	57.4	0	0	0.000E+00
1525	1530	5	3	160	3588	57.7	57.7	0	0	0.000E+00
1531	1536	5	4	160	4588	57.8	57.8	0	0	0.000E+00
1536	1541	5	5	160	5588	57.8	57.9	0.1	20	1.381E-07
1541	1546	5	4	160	4588	57.9	57.9	0	0	0.000E+00
1546	1551	5	3	160	3588	57.8	57.8	0	0	0.000E+00
1552	1557	5	2	160	2588	57.7	57.7	0	0	0.000E+00
1558	1603	5	1	160	1588	57.5	57.5	0	0	0.000E+00
									AVE	1.534E-08

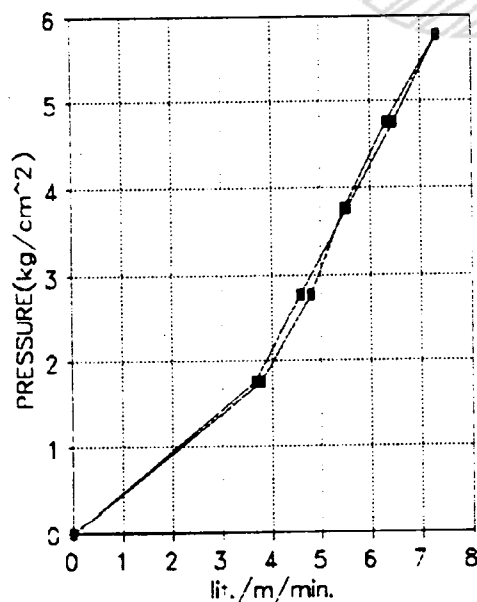
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 12		GEOLOGY		ANDESITE				
DATE	1993.11.4		HOLE DIA.	NX		PACKER		DOUBLE	
TEST SEC.	4.5	7.5	TESTED BY.	K.M DONG		G.W.D (m)		6.07	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1053	1058	5	1	160	1760	65	120	55	11000
1058	1103	5	2	160	2760	128	197	69	13800
1103	1108	5	3	160	3760	206	289	83	16600
1109	1114	5	4	160	4760	298	395	97	19400
1114	1119	5	5	160	5760	406	516	110	22000
1124	1129	5	4	160	4760	526	621	95	19000
1129	1134	5	3	160	3760	628	710	82	16400
1135	1140	5	2	160	2760	718	790	72	14400
1140	1145	5	1	160	1760	796	853	57	11400
								AVE	1.870E-04

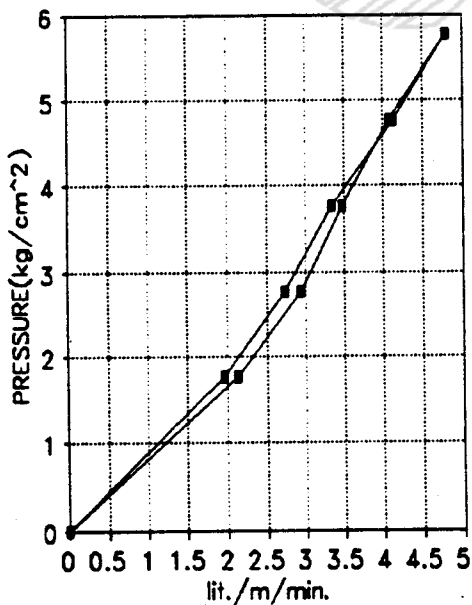
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 12		GEOLOGY		ANDESITE					
DATE			1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.			12		15	TESTED BY.		K.M DONG		G.W.D (m)		6.07
INJECTION TIME			P	G. H.	H	FLOW METER				Q	PERM.	
FR.	TO	TIME	(cm)		(cm)	FR.	TO	Q'TY		K(cm/sec)		
956	1001	5	1	160	1767	70	102	32	6400	1.398E-04		
1001	1006	5	2	160	2767	107	151	44	8800	1.227E-04		
1006	1011	5	3	160	3767	157	209	52	10400	1.065E-04		
1012	1017	5	4	160	4767	216	277	61	12200	9.875E-05		
1017	1022	5	5	160	5767	285	357	72	14400	9.635E-05		
1023	1028	5	4	160	4767	364	426	62	12400	1.004E-04		
1028	1033	5	3	160	3767	431	481	50	10000	1.024E-04		
1033	1038	5	2	160	2767	485	526	41	8200	1.143E-04		
1039	1044	5	1	160	1767	529	558.5	29.5	5900	1.288E-04		
									AVE	1.122E-04		

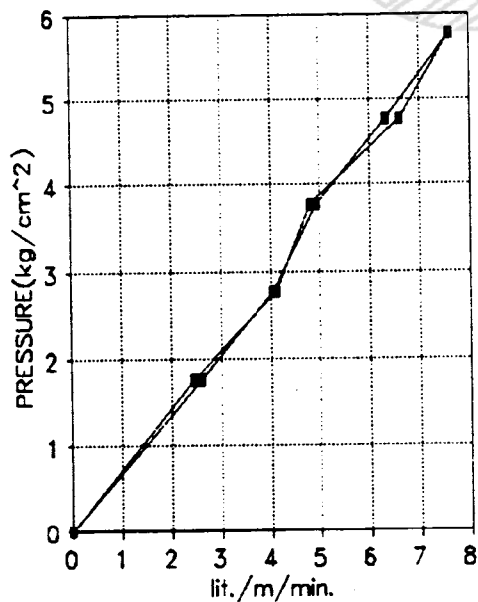
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 12		GEOLOGY		ANDESITE				
DATE		1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		21	24	TESTED BY.		K.M DONG		G.W.D (m)		6.07
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
900	905	5	1	160	1767	29	68	39	7800	1.703E-04
905	910	5	2	160	2767	76	137	61	12200	1.701E-04
910	915	5	3	160	3767	145	219	74	14800	1.516E-04
916	921	5	4	160	4767	231	326	95	19000	1.538E-04
921	926	5	5	160	5767	337	451	114	22800	1.525E-04
926	931	5	4	160	4767	460	559	99	19800	1.603E-04
932	937	5	3	160	3767	564	636	72	14400	1.475E-04
937	942	5	2	160	2767	641	703	62	12400	1.729E-04
942	947	5	1	160	1767	706	743	37	7400	1.616E-04
									AVE	1.601E-04

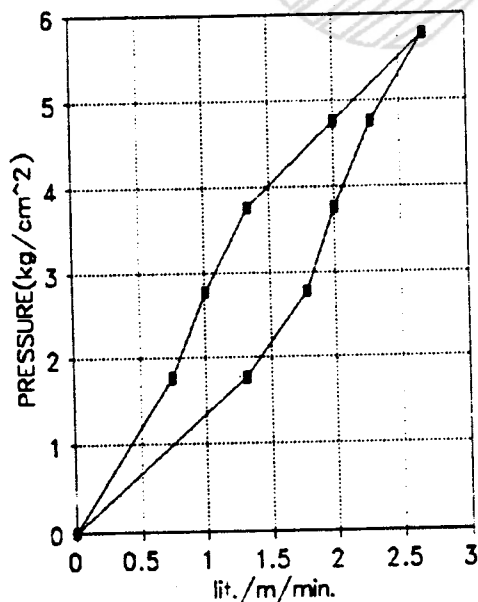
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 12		GEOLOGY		ANDESITE				
DATE		1993.11.4		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		26 29		TESTED BY.		K.M DONG		G.W.D (m)		6.07
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
810	815	5	1	160	1767	45	56.2	11.2	2240	4.891E-05
815	820	5	2	160	2767	57.5	72.7	15.2	3040	4.239E-05
820	825	5	3	160	3767	75	95.1	20.1	4020	4.118E-05
826	831	5	4	160	4767	99.5	129.5	30	6000	4.857E-05
831	836	5	5	160	5767	135.5	175.8	40.3	8060	5.393E-05
836	841	5	4	160	4767	178	212.2	34.2	6840	5.536E-05
841	846	5	3	160	3767	216	246	30	6000	6.146E-05
846	851	5	2	160	2767	249.4	276.2	26.8	5360	7.474E-05
851	856	5	1	160	1767	280	299.7	19.7	3940	8.604E-05
									AVE	5.695E-05

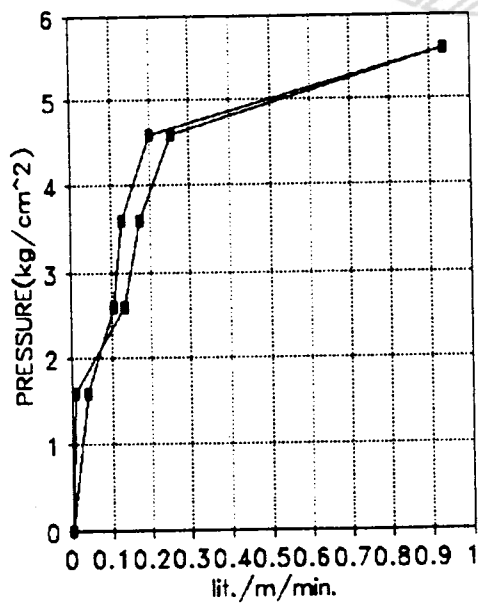
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 13		GEOLOGY		RHYO-DACITE					
DATE		1993.10.20		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		4		7	TESTED BY.		S.M LEE		G.W.D (m)		9.22
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1438	1443	5	1	40	1590	32.5	32.6	0.1	20	4.853E-07	
1443	1448	5	2	40	2590	34.5	36.5	2	400	5.959E-06	
1449	1454	5	3	40	3590	38	40.6	2.6	520	5.589E-06	
1455	1500	5	4	40	4590	43	46.8	3.8	760	6.389E-06	
1501	1506	5	5	40	5590	50	64	14	2800	1.933E-05	
1506	1511	5	4	40	4590	70	73	3	600	5.044E-06	
1512	1517	5	3	40	3590	74	75.9	1.9	380	4.084E-06	
1517	1522	5	2	40	2590	77	78.6	1.6	320	4.767E-06	
1523	1528	5	1	40	1590	80	80.6	0.6	120	2.912E-06	
									AVE	6.062E-06	

P-Q CURVE



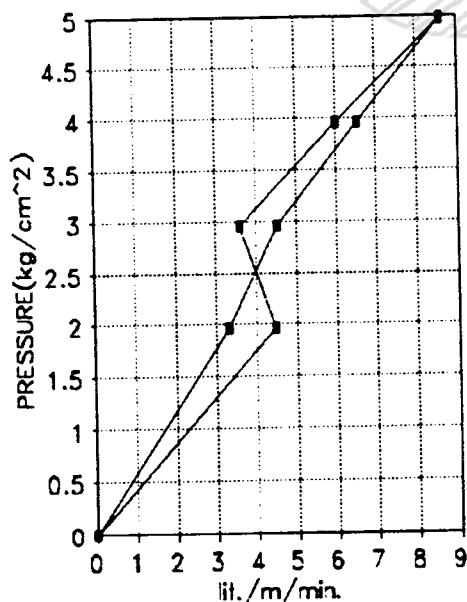
WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 13		GEOLOGY		ANDESITE				
DATE		1993.10.20		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		10.5	13.5	TESTED BY.		S.M LEE		G.W.D (m)		9.22
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1357	1402	5	1	40	1962	550	668	118	23600	4.641E-04
1407	1412	5	2	40	2962	680	812	132	26400	3.439E-04
1412	1417	5	1	40	1962	820	999	179	35800	7.041E-04

WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 13		GEOLOGY		ANDESITE				
DATE		1993.10.20		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		14	17	TESTED BY.		S.M LEE		G.W.D (m)		9.22
INJECTION TIME			P	G. H.	H	FLOW METER		Q		PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1210	1215	5	1	40	1962	854	921	67	13400	2.635E-04
1215	1220	5	2	40	2962	34.5	88.5	54	10800	1.407E-04
1221	1226	5	3	40	3962	59	149	90	18000	1.753E-04
1226	1231	5	4	40	4962	165	294	129	25800	2.006E-04
1232	1237	5	3	40	3962	295	393	98	19600	1.909E-04
1237	1242	5	2	40	2962	407	475	68	13600	1.772E-04
1243	1248	5	1	40	1962	482	532	50	10000	1.967E-04
									AVE	1.921E-04

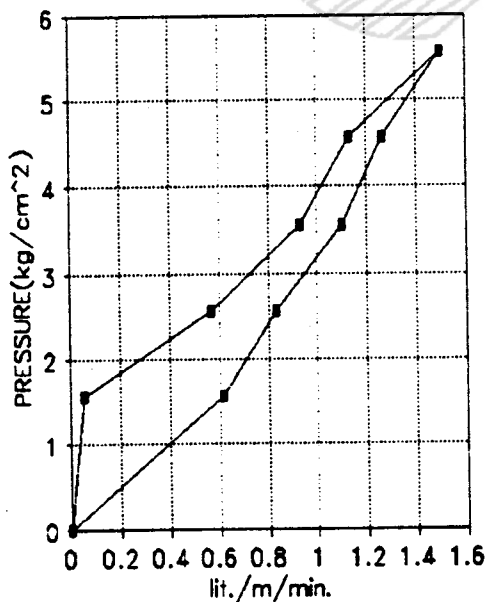
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 14		GEOLOGY		RHYO-DACITE				
DATE		1993.10.16		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		3 6		TESTED BY.		S.M LEE		G.W.D (m)		5.35
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1035	1040	5	1	110	1560	21	21.8	0.8	160	3.957E-06
1041	1046	5	2	110	2560	24.5	33	8.5	1700	2.562E-05
1046	1051	5	3	110	3560	635	649	14	2800	3.035E-05
1051	1056	5	4	110	4560	653	670	17	3400	2.877E-05
1100	1105	5	5	110	5560	72	94.5	22.5	4500	3.123E-05
1105	1110	5	4	110	4560	696	715	19	3800	3.215E-05
1111	1116	5	3	110	3560	16	32.5	16.5	3300	3.577E-05
1116	1121	5	2	110	2560	34	46.5	12.5	2500	3.768E-05
1121	1126	5	1	110	1560	47	56.2	9.2	1840	4.551E-05
									AVE	3.012E-05

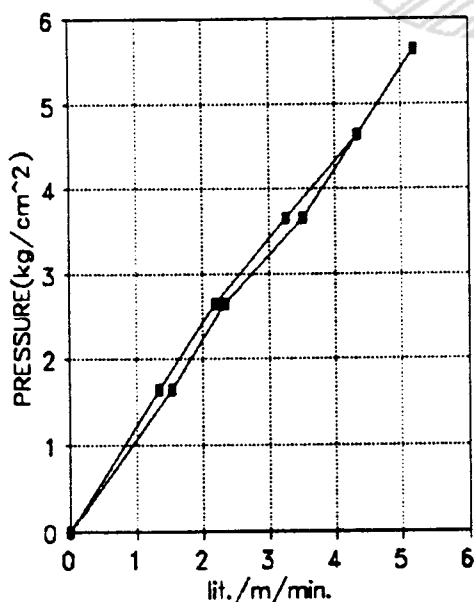
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 14		GEOLOGY		RHYO-DACITE				
DATE		1993.10.16		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		10	13	TESTED BY.		S.M LEE		G.W.D (m)		5.35
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
935	940	5	1	110	1645	143	166	23	4600	1.079E-04
941	946	5	2	110	2645	172	207	35	7000	1.021E-04
946	951	5	3	110	3645	214	267	53	10600	1.122E-04
951	956	5	4	110	4645	279	344	65	13000	1.080E-04
1000	1005	5	5	110	5645	354	432	78	15600	1.066E-04
1005	1010	5	4	110	4645	436	501	65	13000	1.080E-04
1011	1016	5	3	110	3645	504	553	49	9800	1.037E-04
1016	1021	5	2	110	2645	553	586	33	6600	9.628E-05
1021	1026	5	1	110	1645	588	608	20	4000	9.382E-05
									AVE	1.043E-04

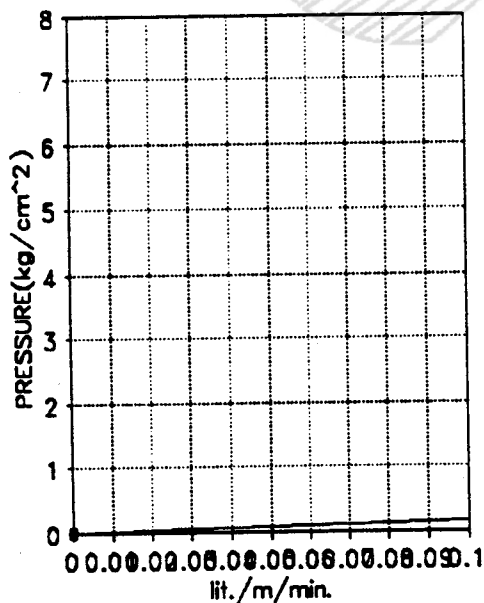
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

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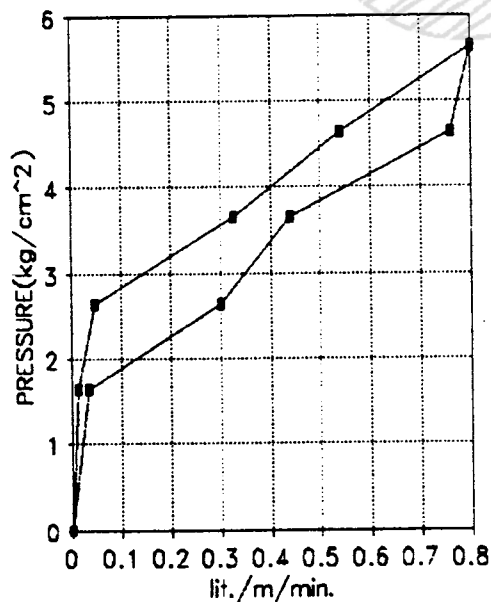
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 14		GEOLOGY		RHYO-DACITE				
DATE		1993.10.16		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		21	24	TESTED BY.		S.M LEE		G.W.D (m)		5.35
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
735	740	5	1	110	1645	20	20.2	0.2	40	9.382E-07
741	746	5	2	110	2645	21.4	22.1	0.7	140	2.042E-06
746	751	5	3	110	3645	23.2	28.1	4.9	980	1.037E-05
751	756	5	4	110	4645	30	38.1	8.1	1620	1.346E-05
800	805	5	5	110	5645	740	752	12	2400	1.640E-05
805	810	5	4	110	4645	53	64.4	11.4	2280	1.894E-05
811	816	5	3	110	3645	65.4	72	6.6	1320	1.397E-05
816	821	5	2	110	2645	72.5	77	4.5	900	1.313E-05
821	826	5	1	110	1645	77	77.5	0.5	100	2.346E-06
									AVE	1.018E-05

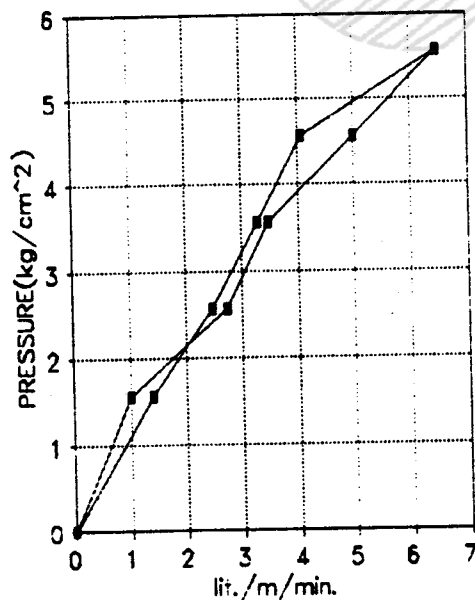
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 15		GEOLOGY		RHYO-DACITE				
DATE		1993.10.19		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		4.5	7.5	TESTED BY.		S.M LEE		G.W.D (m)		4.6
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1124	1129	5	1	100	1560	680	695	15	3000	7.420E-05
1130	1135	5	2	100	2560	671	712	41	8200	1.236E-04
1135	1140	5	3	100	3560	715	767	52	10400	1.127E-04
1141	1146	5	4	100	4560	770	845	75	15000	1.269E-04
1146	1151	5	5	100	5560	850	947	97	19400	1.346E-04
1151	1156	5	4	100	4560	949	1010	61	12200	1.032E-04
1156	1201	5	3	100	3560	10	59	49	9800	1.062E-04
1201	1206	5	2	100	2560	61	98	37	7400	1.115E-04
1206	1211	5	1	100	1560	100	121	21	4200	1.039E-04
									AVE	1.108E-04

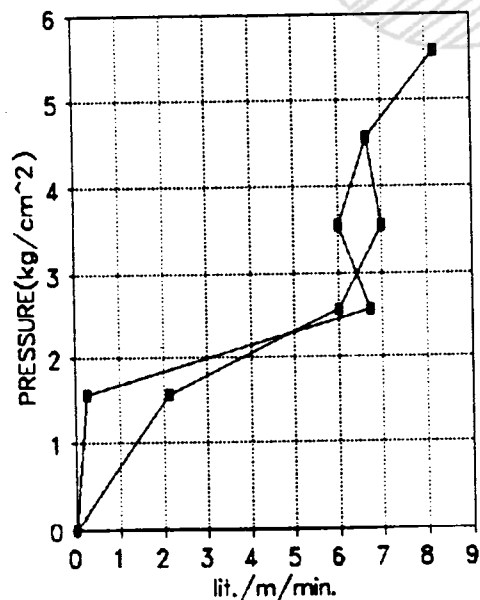
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 15		GEOLOGY		RHYO-DACITE				
DATE		1993.10.19		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		7 10		TESTED BY.		S.M LEE		G.W.D (m)		4.6
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
935	940	5	1	100	1560	5968	6000	32	6400	1.583E-04
941	946	5	2	100	2560	6005	6095	90	18000	2.713E-04
946	951	5	3	100	3560	6105	6210	105	21000	2.276E-04
951	956	5	4	100	4560	6215	6315	100	20000	1.692E-04
1000	1005	5	5	100	5560	6322	6445	123	24600	1.707E-04
1005	1010	5	4	100	4560	6460	6560	100	20000	1.692E-04
1011	1016	5	3	100	3560	6570	6660	90	18000	1.951E-04
1016	1021	5	2	100	2560	6662	6763	101	20200	3.045E-04
1021	1026	5	1	100	1560	6764	6768	4	800	1.979E-05
									AVE	1.873E-04

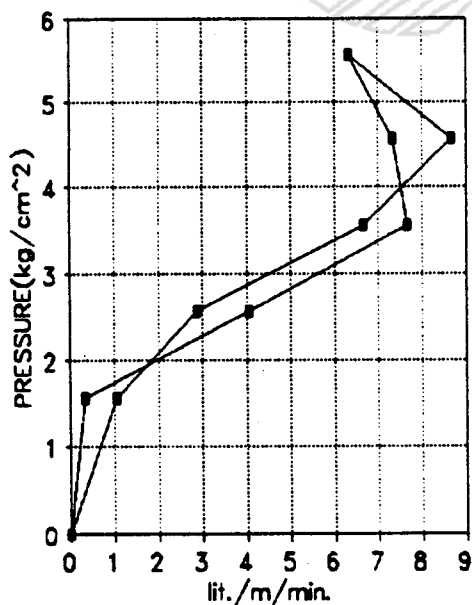
P-Q CURVE

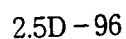


WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 15		GEOLOGY		RHYO-DACITE				
DATE		1993.10.19		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		18	21	TESTED BY.		S.M LEE		G.W.D (m)		4.6
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
821	826	5	1	100	1560	4592	4608	16	3200	7.915E-05
826	831	5	2	100	2560	4617	4660	43	8600	1.296E-04
832	837	5	3	100	3560	4665	4765	100	20000	2.168E-04
838	843	5	4	100	4560	4780	4910	130	26000	2.200E-04
843	848	5	5	100	5560	4925	5020	95	19000	1.319E-04
849	854	5	4	100	4560	5030	5140	110	22000	1.862E-04
854	859	5	3	100	3560	5150	5265	115	23000	2.493E-04
900	905	5	2	100	2560	5268	5329	61	12200	1.839E-04
906	911	5	1	100	1560	5330	5335	5	1000	2.473E-05
									AVE	1.579E-04

P-Q CURVE

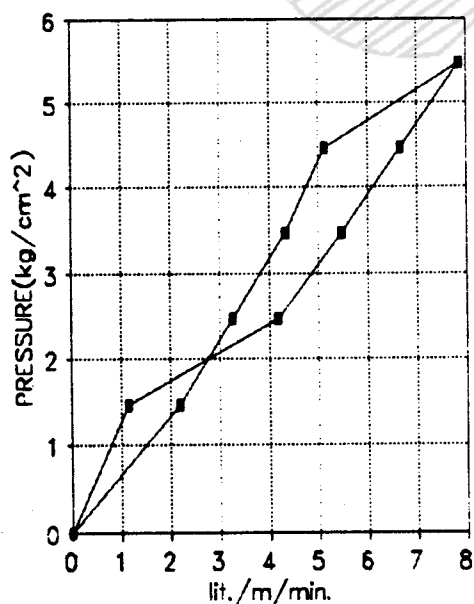


[illegible]

WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 16		GEOLOGY		RHYO-CACITE				
DATE			1993.10.22		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			6 9		TESTED BY.		S.M LEE		G.W.D (m)		4.05
INJECTION TIME			P	G. H.	H	FLOW METER			Q		PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
845	850	5	1	60	1465	13.6	30.8	17.2	3440	9.060E-05	
851	856	5	2	60	2465	35	98	63	12600	1.972E-04	
856	901	5	3	60	3465	105	187	82	16400	1.826E-04	
906	911	5	4	60	4465	191	291	100	20000	1.728E-04	
912	917	5	5	60	5465	297	415	118	23600	1.666E-04	
917	922	5	4	60	4465	420	497	77	15400	1.331E-04	
922	927	5	3	60	3465	502	567	65	13000	1.448E-04	
927	932	5	2	60	2465	573	622	49	9800	1.534E-04	
932	937	5	1	60	1465	628	661	33	6600	1.738E-04	
									AVE	1.572E-04	

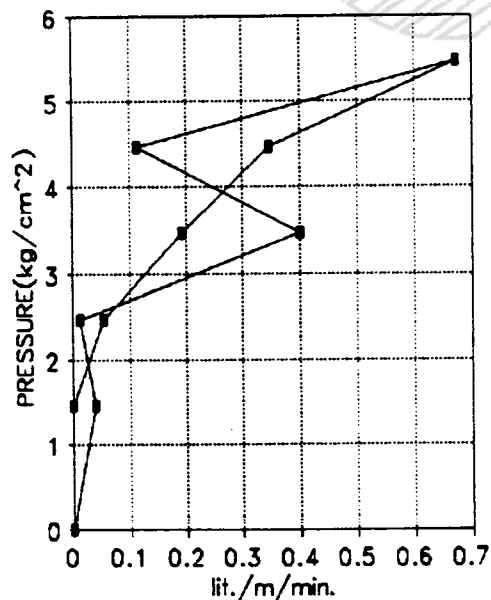
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 16		GEOLOGY		RHYO-DECITE				
DATE		1993.10.22		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		14	17	TESTED BY.		S.M LEE		G.W.D (m)		4.05
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
742	747	5	1	60	1465	53	53	0	0	0.000E+00
747	752	5	2	60	2465	54.2	55	0.8	160	2.505E-06
752	757	5	3	60	3465	55.5	58.4	2.9	580	6.459E-06
758	803	5	4	60	4465	58.4	63.6	5.2	1040	8.987E-06
803	805	5	5	60	5465	64.1	74.2	10.1	2020	1.426E-05
805	810	5	4	60	4465	74	75.7	1.7	340	2.938E-06
811	816	5	3	60	3465	77	83	6	1200	1.336E-05
816	821	5	2	60	2465	85.5	85.7	0.2	40	6.261E-07
821	826	5	1	60	1465	86.5	87.1	0.6	120	3.161E-06
									AVE	5.811E-06

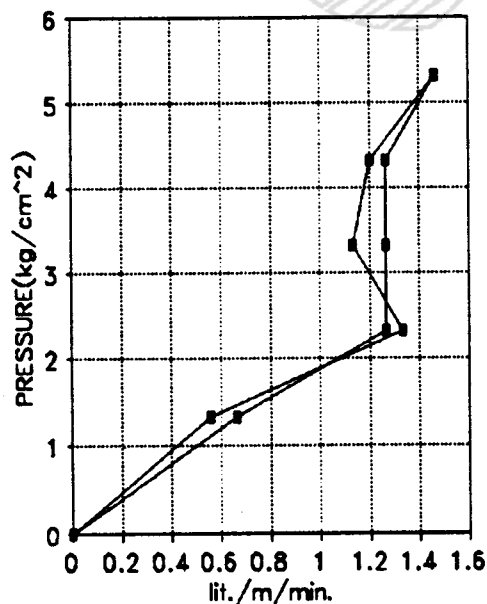
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P5 - 17			GEOLOGY		RHYO-DACITE				
DATE	1993.10.24			HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.	8 11			TESTED BY.		S.M LEE		G.W.D (m)		2.6
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
1045	1050	5	1	60	1320	63.5	71.9	8.4	1680	4.911E-05
1050	1055	5	2	60	2320	73	93	20	4000	6.653E-05
1056	1101	5	3	60	3320	400	417	17	3400	3.951E-05
1101	1106	5	4	60	4320	423	441	18	3600	3.215E-05
1106	1111	5	5	60	5320	445	467	22	4400	3.191E-05
1111	1116	5	4	60	4320	470	489	19	3800	3.394E-05
1116	1121	5	3	60	3320	492	511	19	3800	4.416E-05
1121	1126	5	2	60	2320	517	536	19	3800	6.320E-05
1126	1131	5	1	60	1320	540	550	10	2000	5.846E-05
									AVE	4.655E-05

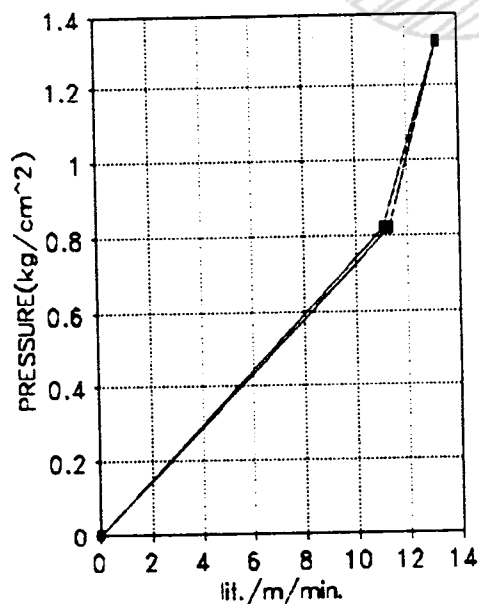
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

[illegible]

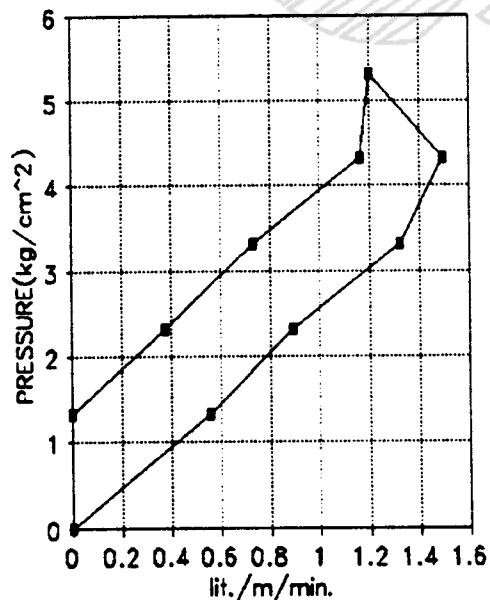
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 17		GEOLOGY		RHYO-DACITE				
DATE		1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		21	24	TESTED BY.		S.M LEE		G.W.D (m)		2.6
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
845	850	5	1	60	1320	20	20	0	0	0.000E+00
851	856	5	2	60	2320	21	26.6	5.6	1120	1.863E-05
856	901	5	3	60	3320	30	41	11	2200	2.557E-05
906	911	5	4	60	4320	45	62.4	17.4	3480	3.108E-05
912	917	5	5	60	5320	70	88	18	3600	2.611E-05
917	922	5	4	60	4320	5	27.4	22.4	4480	4.001E-05
922	927	5	3	60	3320	25	44.8	19.8	3960	4.602E-05
927	932	5	2	60	2320	46	59.4	13.4	2680	4.457E-05
932	937	5	1	60	1320	61	69.4	8.4	1680	4.911E-05
									AVE	3.123E-05

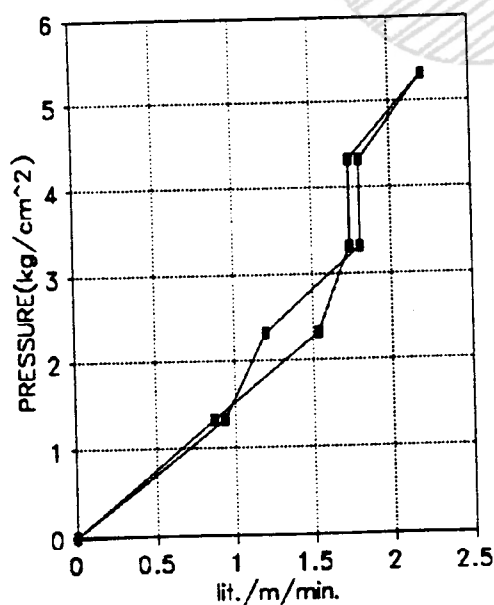
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 17		GEOLOGY		RHYO-DACITE				
DATE		1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE
EST SEC.		2 5		TESTED BY.		S.M LEE		G.W.D (m)		2.6
NJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1204	1209	5	1	60	1320	467	481	14	2800	8.185E-05
1210	1215	5	2	60	2320	485	503	18	3600	5.987E-05
1216	1221	5	3	60	3320	511	538	27	5400	6.276E-05
1221	1226	5	4	60	4320	542	569	27	5400	4.823E-05
1227	1232	5	5	60	5320	575	608	33	6600	4.787E-05
1232	1237	5	4	60	4320	615	641	26	5200	4.645E-05
1237	1242	5	3	60	3320	648	674	26	5200	6.043E-05
1243	1248	5	2	60	2320	680	703	23	4600	7.651E-05
1248	1253	5	1	60	1320	707	720	13	2600	7.600E-05
									AVE	6.222E-05

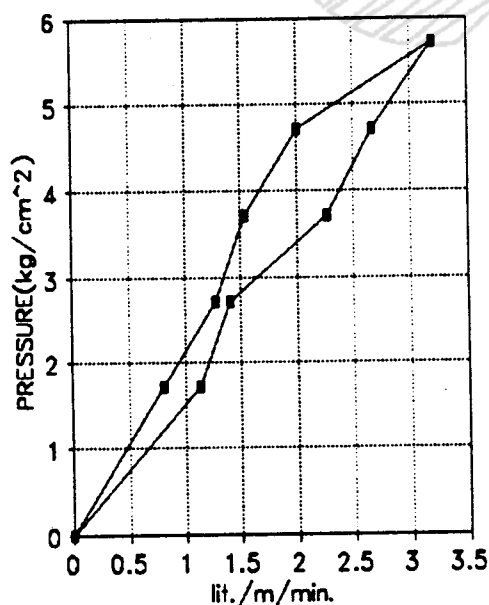
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 18		GEOLOGY		RHYO-DACITE				
DATE		1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		7.5	10.5	TESTED BY.		K.M DONG		G.W.D (m)		6.75
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1204	1209	5	1	40	1715	10	22	12	2400	5.400E-05
1210	1215	5	2	40	2715	24	43	19	3800	5.400E-05
1216	1221	5	3	40	3715	46	69	23	4600	4.778E-05
1221	1226	5	4	40	4715	72	102	30	6000	4.910E-05
1227	1232	5	5	40	5715	110	158	48	9600	6.481E-05
1232	1237	5	4	40	4715	165	205	40	8000	6.547E-05
1237	1242	5	3	40	3715	210	244	34	6800	7.063E-05
1243	1248	5	2	40	2715	250	271	21	4200	5.969E-05
1248	1253	5	1	40	1715	275	292	17	3400	7.650E-05
									AVE	6.022E-05

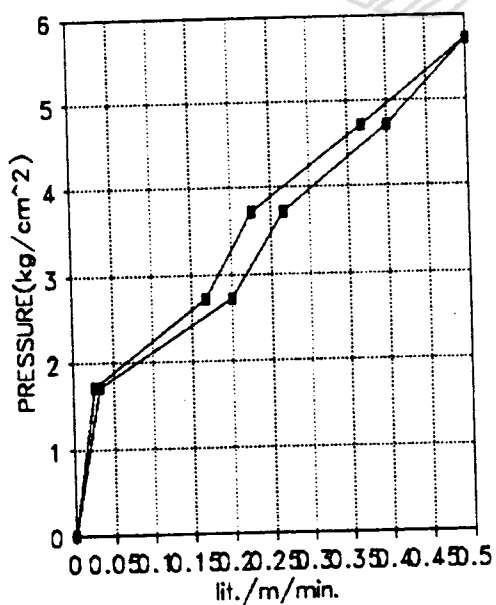
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 18		GEOLOGY		RHYO-DACITE				
DATE		1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		12 15		TESTED BY.		K.M DONG		G.W.D (m)		6.75
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
911	916	5	1	40	1715	23	23.5	0.5	100	2.250E-06
916	921	5	2	40	2715	25	28	3	600	8.527E-06
921	926	5	3	40	3715	30	34	4	800	8.309E-06
926	931	5	4	40	4715	36	42	6	1200	9.820E-06
931	936	5	5	40	5715	45	52.5	7.5	1500	1.013E-05
936	941	5	4	40	4715	55	60.5	5.5	1100	9.002E-06
941	946	5	3	40	3715	62	65.4	3.4	680	7.063E-06
946	951	5	2	40	2715	67	69.5	2.5	500	7.106E-06
952	957	5	1	40	1715	71	71.4	0.4	80	1.800E-06
									AVE	7.112E-06

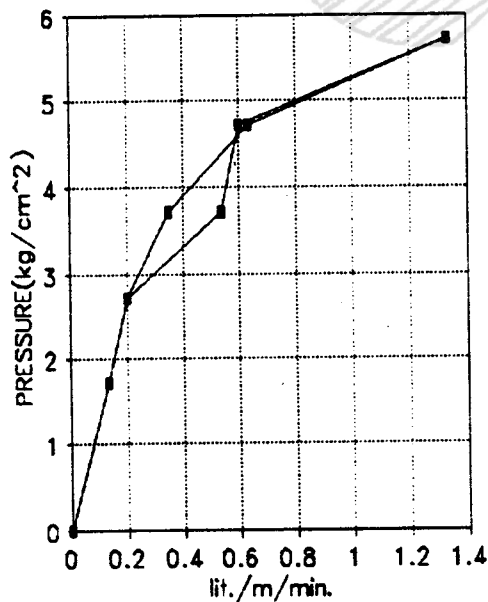
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 18		GEOLOGY		RHYO-DACITE				
DATE		1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		17	20	TESTED BY.		K.M DONG		G.W.D (m)		6.75
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
804	809	5	1	40	1715	45	47	2	400	8.999E-06
810	815	5	2	40	2715	49	52	3	600	8.527E-06
815	820	5	3	40	3715	55	60.2	5.2	1040	1.080E-05
821	826	5	4	40	4715	63	72.5	9.5	1900	1.555E-05
826	831	5	5	40	5715	75	95	20	4000	2.701E-05
832	837	5	4	40	4715	98	107	9	1800	1.473E-05
837	842	5	3	40	3715	110	118	8	1600	1.662E-05
842	847	5	2	40	2715	120	123	3	600	8.527E-06
848	853	5	1	40	1715	125	127	2	400	8.999E-06
									AVE	1.331E-05

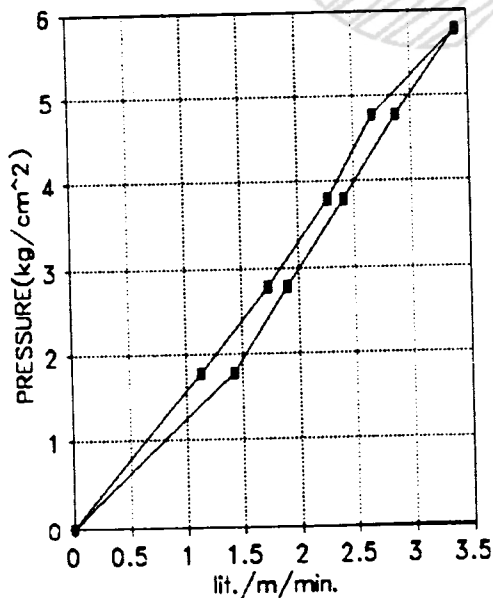
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 19		GEOLOGY		ANDESITE					
DATE		1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		20 23		TESTED BY.		K.M DONG		G.W.D (m)		7.22	
INJECTION TIME			P	G. H.		FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1004	1009	5	1	60	1782	3	24.3	21.3	4260	9.224E-05	
1010	1015	5	2	60	2782	26	54.5	28.5	5700	7.906E-05	
1016	1021	5	3	60	3782	60	96	36	7200	7.346E-05	
1021	1026	5	4	60	4782	110	153	43	8600	6.939E-05	
1027	1032	5	5	60	5782	170	221	51	10200	6.807E-05	
1032	1037	5	4	60	4782	240	280	40	8000	6.455E-05	
1037	1042	5	3	60	3782	290	324	34	6800	6.938E-05	
1043	1048	5	2	60	2782	340	366	26	5200	7.212E-05	
1048	1053	5	1	60	1782	370	387	17	3400	7.362E-05	
									AVE	7.354E-05	

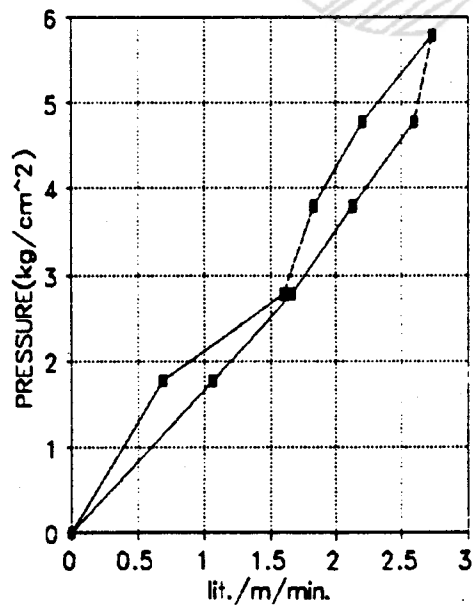
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P5 - 19		GEOLOGY		ANDECITE				
DATE			1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			23 26		TESTED BY.		K.M DONG		G.W.D (m)		7.22
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
850	855	5	1		60	1782	10	20.3	10.3	2060	4.460E-05
856	901	5	2		60	2782	24	48	24	4800	6.657E-05
901	906	5	3		60	3782	52	79.5	27.5	5500	5.611E-05
906	911	5	4		60	4782	84	117	33	6600	5.325E-05
912	917	5	5		60	5782	125	166	41	8200	5.472E-05
918	923	5	4		60	4782	170	209	39	7800	6.294E-05
923	928	5	3		60	3782	215	247	32	6400	6.529E-05
929	934	5	2		60	2782	250	275	25	5000	6.935E-05
934	939	5	1		60	1782	280	296	16	3200	6.929E-05
										AVE	6.024E-05

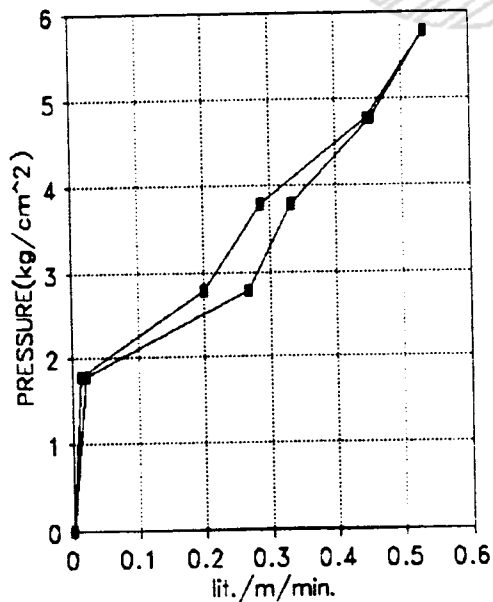
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P5 - 19		GEOLOGY		ANDESITE				
DATE		1993.10.24		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		26.5	29.5	TESTED BY.		K.M DONG		G.W.D (m)		7.22
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
743	748	5	1	60	1782	20	20.3	0.3	60	1.299E-06
748	753	5	2	60	2782	22	26	4	800	1.110E-05
754	759	5	3	60	3782	29	34	5	1000	1.020E-05
800	805	5	4	60	4782	38	44.8	6.8	1360	1.097E-05
805	810	5	5	60	5782	50	58	8	1600	1.068E-05
811	816	5	4	60	4782	62	68.7	6.7	1340	1.081E-05
816	821	5	3	60	3782	70	74.3	4.3	860	8.774E-06
822	827	5	2	60	2782	77	80	3	600	8.322E-06
828	833	5	1	60	1782	82	82.2	0.2	40	8.661E-07
									AVE	8.114E-06

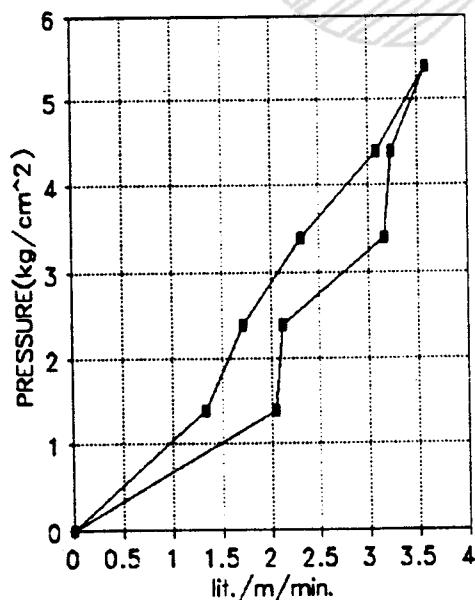
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 1		GEOLOGY		RHYO-DACITE				
DATE		1993.10.28		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		1 4		TESTED BY.		S.M LEE		G.W.D (m)		0.7
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1411	1416	5	1	320	1390	810	830	20	4000	1.110E-04
1416	1421	5	2	320	2390	840	865.8	25.8	5160	8.331E-05
1421	1426	5	3	320	3390	877	911.8	34.8	6960	7.922E-05
1426	1431	5	4	320	4390	923	969.4	46.4	9280	8.156E-05
1431	1436	5	5	320	5390	980	1034	53.8	10760	7.703E-05
1436	1441	5	4	320	4390	45	93.6	48.6	9720	8.543E-05
1441	1446	5	3	320	3390	103	150.4	47.4	9480	1.079E-04
1446	1451	5	2	320	2390	160	191.8	31.8	6360	1.027E-04
1451	1456	5	1	320	1390	201	231.8	30.8	6160	1.710E-04
									AVE	9.991E-05

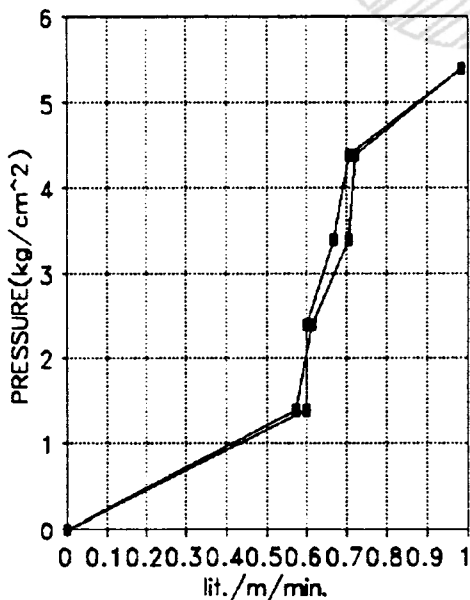
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 1		GEOLOGY		RHYO-DASITE				
DATE		1993.10.28		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		9 12		TESTED BY.		S.M LEE		G.W.D (m)		0.7
INJECTION TIME		P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1317	1322	5	1	320	1390	675	684	9	1800	4.997E-05
1322	1327	5	2	320	2390	687	696	9	1800	2.906E-05
1327	1332	5	3	320	3390	700	710	10	2000	2.276E-05
1332	1337	5	4	320	4390	716	726.6	10.6	2120	1.863E-05
1337	1342	5	5	320	5390	731	745.8	14.8	2960	2.119E-05
1342	1347	5	4	320	4390	750	760.8	10.8	2160	1.898E-05
1347	1352	5	3	320	3390	767	777.6	10.6	2120	2.413E-05
1352	1357	5	2	320	2390	781	790.2	9.2	1840	2.971E-05
1357	1402	5	1	320	1390	795	803.6	8.6	1720	4.775E-05
									AVE	2.913E-05

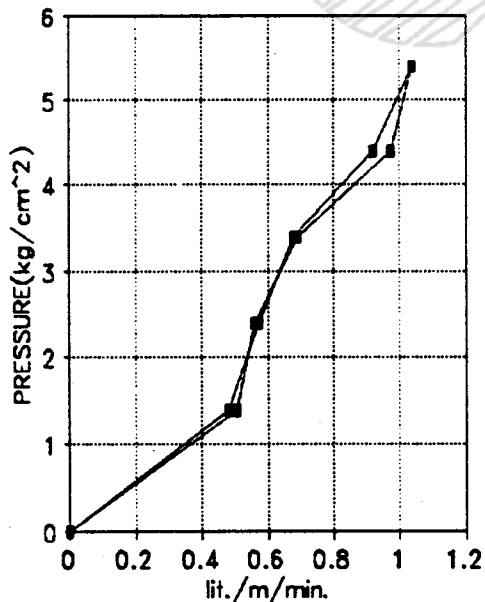
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 1		GEOLOGY		RHYO-DASITE					
DATE	1993.10.28		HOLE DIA.		NX	PACKER		DOUBLE		
TEST SEC.	15	18	TESTED BY.		S.M LEE	G.W.D (m)		0.7		
INJECTION TIME		P	G. H.	H	FLOW METER		Q	PERM.		
FR.	TO	TIME	(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)		
1222	1227	5	1	320	1390	538	545.2	7.2	1440	3.997E-05
1227	1232	5	2	320	2390	549	557.6	8.6	1720	2.777E-05
1232	1237	5	3	320	3390	564	574.2	10.2	2040	2.322E-05
1237	1242	5	4	320	4390	580	593.8	13.8	2760	2.426E-05
1242	1247	5	5	320	5390	599	614.6	15.6	3120	2.233E-05
1247	1252	5	4	320	4390	620	634.6	14.6	2920	2.566E-05
1252	1257	5	3	320	3390	638	648.4	10.4	2080	2.367E-05
1258	1303	5	2	320	2390	654	662.4	8.4	1680	2.712E-05
1303	1308	5	1	320	1390	667	674.6	7.6	1520	4.219E-05
									AVE	2.847E-05

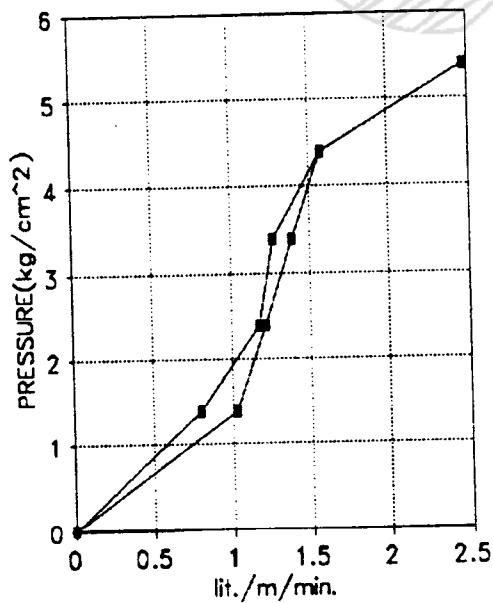
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 1		GEOLOGY		ANDESITE				
DATE		1993.10.28		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		28	31	TESTED BY.		S.M LEE		G.W.D (m)		0.7
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1120	1130	5	1	320	1390	295	310.4	15.4	3080	8.550E-05
1130	1135	5	2	320	2390	319	337.2	18.2	3640	5.877E-05
1135	1140	5	3	320	3390	344	364.8	20.8	4160	4.735E-05
1140	1145	5	4	320	4390	371	394.6	23.6	4720	4.149E-05
1146	1151	5	5	320	5390	399	436.2	37.2	7440	5.326E-05
1151	1156	5	4	320	4390	441	464.6	23.6	4720	4.149E-05
1156	1201	5	3	320	3390	469	488	19	3800	4.325E-05
1201	1206	5	2	320	2390	495	512.6	17.6	3520	5.683E-05
1206	1211	5	1	320	1390	518	530	12	2400	6.662E-05
									AVE	5.495E-05

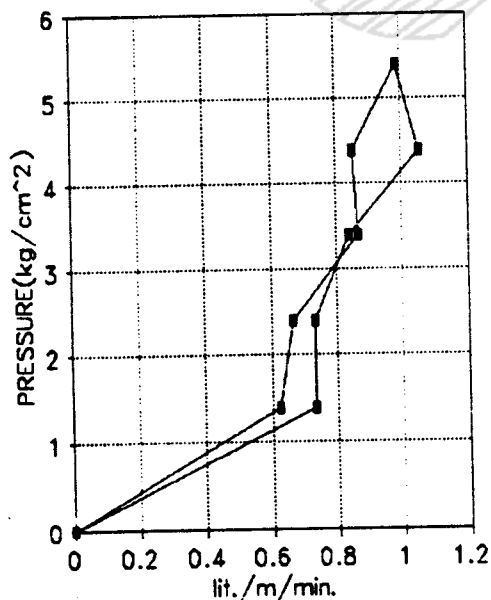
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 1		GEOLOGY		ANDESITE				
DATE		1993.10.28		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		32	35	TESTED BY.		S.M LEE		G.W.D (m)		0.7
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1025	1030	5	1	320	1390	131	142	11	2200	6.107E-05
1030	1035	5	2	320	2390	149	160	11	2200	3.552E-05
1036	1041	5	3	320	3390	167	179.6	12.6	2520	2.868E-05
1041	1046	5	4	320	4390	185	200.8	15.8	3160	2.777E-05
1046	1051	5	5	320	5390	207	221.8	14.8	2960	2.119E-05
1052	1057	5	4	320	4390	228	240.8	12.8	2560	2.250E-05
1057	1102	5	3	320	3390	247	260	13	2600	2.959E-05
1102	1107	5	2	320	2390	266	276	10	2000	3.229E-05
1107	1112	5	1	320	1390	279	288.4	9.4	1880	5.219E-05
									AVE	3.453E-05

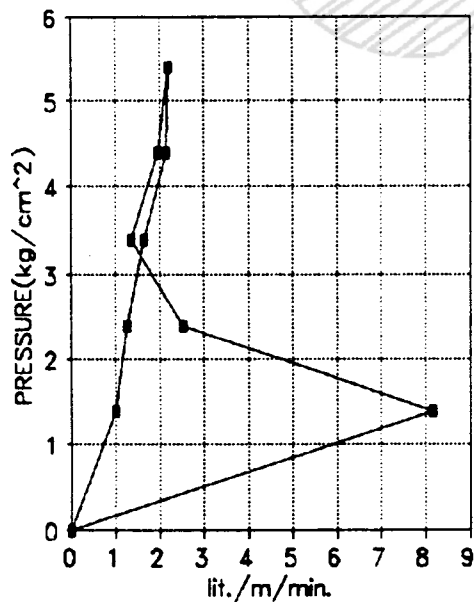
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 1		GEOLOGY		ANDESITE				
DATE		1993.10.28		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		40	43	TESTED BY.		S.M LEE		G.W.D (m)		0.7
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
930	935	5	1	320	1390	719	734.2	15.2	3040	8.439E-05
935	940	5	2	320	2390	742	761.2	19.2	3840	6.199E-05
940	945	5	3	320	3390	771	796	25	5000	5.691E-05
945	950	5	4	320	4390	850	882.6	32.6	6520	5.731E-05
950	955	5	5	320	5390	895	928	33	6600	4.725E-05
955	1000	5	4	320	4390	933	962.6	29.6	5920	5.203E-05
1000	1005	5	3	320	3390	971	991.6	20.6	4120	4.689E-05
1006	1011	5	2	320	2390	2	40	38	7600	1.227E-04
1011	1016	5	1	320	1390	52	174.4	122.4	24480	6.795E-04
									AVE	1.343E-04

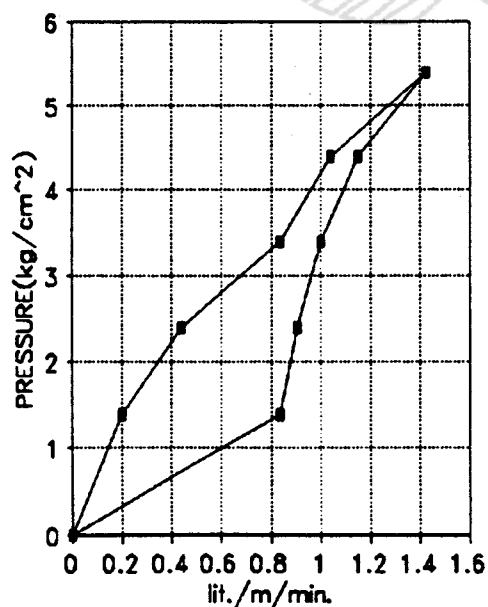
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 1		GEOLOGY		ANDESITE				
DATE		1993.10.28		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		51	54	TESTED BY.		S.M LEE		G.W.D (m)		0.7
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
832	837	5	1	320	1390	543	546	3	600	1.666E-05
837	842	5	2	320	2390	547	553.6	6.6	1320	2.131E-05
842	847	5	3	320	3390	557	569.6	12.6	2520	2.868E-05
848	853	5	4	320	4390	576	591.6	15.6	3120	2.742E-05
853	858	5	5	320	5390	601	622.4	21.4	4280	3.064E-05
859	904	5	4	320	4390	630	647.2	17.2	3440	3.024E-05
904	909	5	3	320	3390	654	669	15	3000	3.415E-05
910	915	5	2	320	2390	677	690.6	13.6	2720	4.391E-05
915	920	5	1	320	1390	697	709.6	12.6	2520	6.995E-05
									AVE	3.366E-05

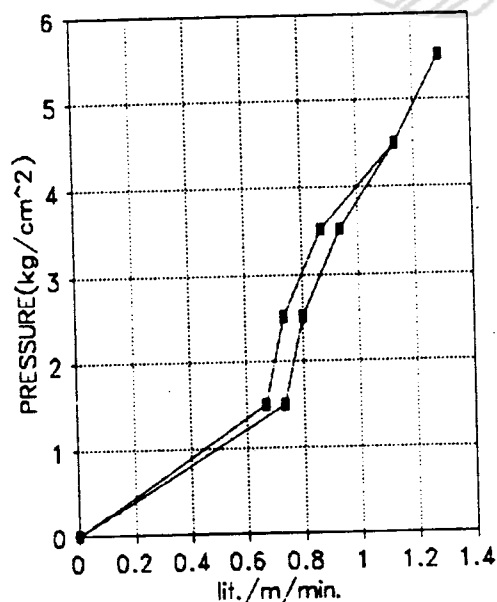
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 2		GEOLOGY		ANDESITE				
DATE		1993.10.30		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		2 5		TESTED BY.		S.M LEE		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1120	1125	5	1	160	1510	412	422	10	2000	5.111E-05
1125	1130	5	2	160	2510	428	439	11	2200	3.382E-05
1131	1136	5	3	160	3510	443	456	13	2600	2.858E-05
1136	1141	5	4	160	4510	461	478	17	3400	2.909E-05
1141	1146	5	5	160	5510	483	502.4	19.4	3880	2.717E-05
1146	1151	5	4	160	4510	508	525	17	3400	2.909E-05
1151	1156	5	3	160	3510	529	543	14	2800	3.078E-05
1156	1201	5	2	160	2510	546	558	12	2400	3.689E-05
1201	1206	5	1	160	1510	561	572	11	2200	5.622E-05
									AVE	3.586E-05

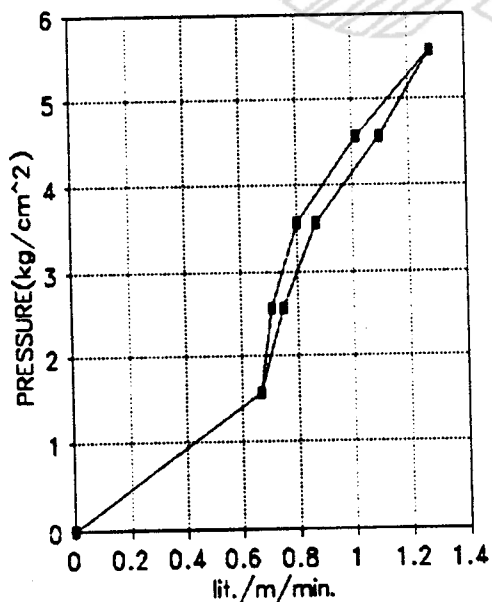
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 2			GEOLOGY		ANDESITE				
DATE	1993.10.30			HOLE DIA.	NX		PACKER		DOUBLE	
TEST SEC.	7 10			TESTED BY.	S.M LEE		G.W.D (m)		3.71	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
1025	1030	5	1	195	1566	624	634	10	2000	4.928E-05
1030	1035	5	2	195	2566	637	648.2	11.2	2240	3.368E-05
1035	1040	5	3	195	3566	651	664	13	2600	2.813E-05
1040	1045	5	4	195	4566	670	686.4	16.4	3280	2.772E-05
1045	1050	5	5	195	5566	690	709.2	19.2	3840	2.662E-05
1051	1056	5	4	195	4566	711	726.2	15.2	3040	2.569E-05
1056	1101	5	3	195	3566	731	743	12	2400	2.597E-05
1101	1106	5	2	195	2566	748	758.6	10.6	2120	3.188E-05
1106	1111	5	1	195	1566	762	772	10	2000	4.928E-05
									AVE	3.314E-05

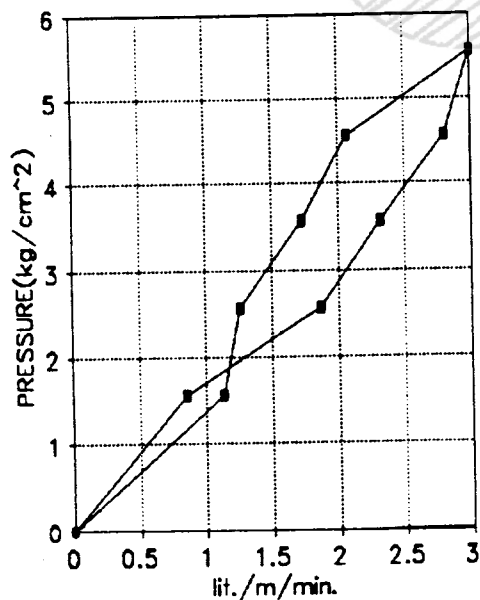
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 2			GEOLOGY		ANDESITE				
DATE	1993.10.30			HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.	11	14		TESTED BY.		S.M LEE		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
930	935	5	1	195	1566	840	852.8	12.8	2560	6.308E-05
936	941	5	2	195	2566	854	882	28	5600	8.421E-05
941	946	5	3	195	3566	887	921.8	34.8	6960	7.531E-05
946	951	5	4	195	4566	925	967	42	8400	7.098E-05
951	956	5	5	195	5566	971	1016	45	9000	6.239E-05
956	1001	5	4	195	4566	21	52	31	6200	5.239E-05
1001	1006	5	3	195	3566	58	84	26	5200	5.627E-05
1006	1011	5	2	195	2566	89	108	19	3800	5.714E-05
1011	1016	5	1	195	1566	110	127	17	3400	8.377E-05
									AVE	6.728E-05

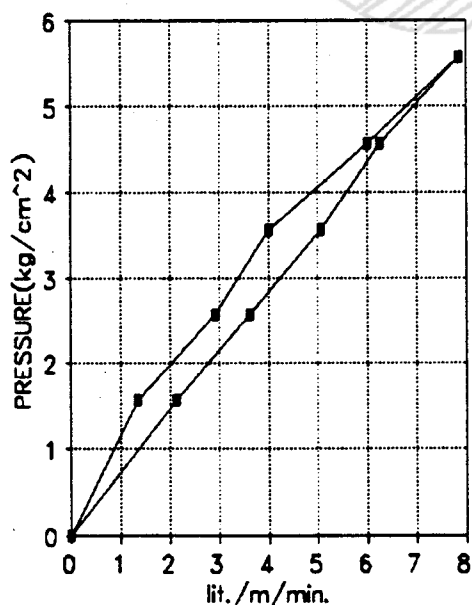
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 2		GEOLOGY		ANDESITE				
DATE		1993.10.30		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		25	28	TESTED BY.		S.M LEE		G.W.D (m)		3.71
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
832	837	5	1	195	1566	555	575	20	4000	9.856E-05
837	842	5	2	195	2566	580	624	44	8800	1.323E-04
842	847	5	3	195	3566	630	690	60	12000	1.298E-04
848	853	5	4	195	4566	700	790	90	18000	1.521E-04
853	858	5	5	195	5566	800	918	118	23600	1.636E-04
859	904	5	4	195	4566	923	1017	94	18800	1.589E-04
904	909	5	3	195	3566	22	98	76	15200	1.645E-04
910	915	5	2	195	2566	102	156.4	54.4	10880	1.636E-04
915	920	5	1	195	1566	161	193	32	6400	1.577E-04
									AVE	1.468E-04

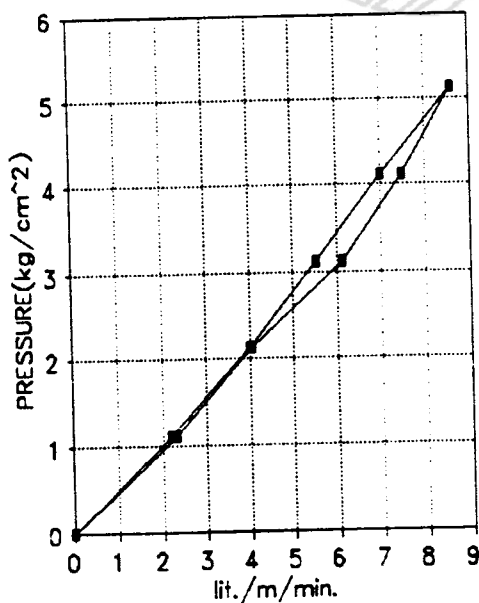
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 3		GEOLOGY		ANDESITE				
DATE		1993.11.3		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		2.5	5.5	TESTED BY.		K.M DONG		G.W.D (m)		1
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1547	1552	5	1	20	1120	45	80	35	7000	2.412E-04
1552	1557	5	2	20	2120	85	146	61	12200	2.220E-04
1602	1607	5	3	20	3120	149	241	92	18400	2.276E-04
1607	1612	5	4	20	4120	245	357	112	22400	2.098E-04
1612	1617	5	5	20	5120	365	494	129	25800	1.944E-04
1617	1622	5	4	20	4120	502	607	105	21000	1.967E-04
1623	1628	5	3	20	3120	612	695	83	16600	2.053E-04
1628	1633	5	2	20	2120	698	758	60	12000	2.184E-04
1634	1639	5	1	20	1120	762	795	33	6600	2.274E-04
									AVE	2.159E-04

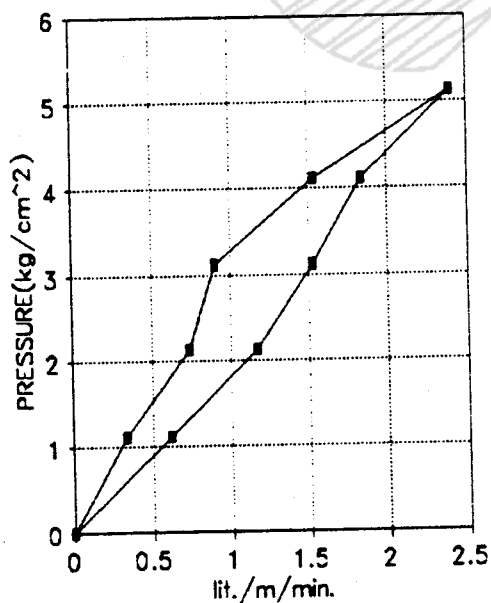
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			GEOLOGY			ANDESITE				
DATE			HOLE DIA.			NX		PACKER		DOUBLE
TEST SEC.			TESTED BY.			K.M DONG		G.W.D (m)		1
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1451	1456	5	1	20	1120	37	46.2	9.2	1840	6.339E-05
1456	1501	5	2	20	2120	47.5	65	17.5	3500	6.370E-05
1501	1506	5	3	20	3120	67.8	90.7	22.9	4580	5.664E-05
1506	1511	5	4	20	4120	96	123.5	27.5	5500	5.151E-05
1512	1517	5	5	20	5120	130	166	36	7200	5.426E-05
1517	1522	5	4	20	4120	169	192	23	4600	4.308E-05
1522	1527	5	3	20	3120	195.5	209	13.5	2700	3.339E-05
1527	1532	5	2	20	2120	210	221	11	2200	4.004E-05
1533	1538	5	1	20	1120	222	227	5	1000	3.445E-05
									AVE	4.894E-05

P-Q CURVE

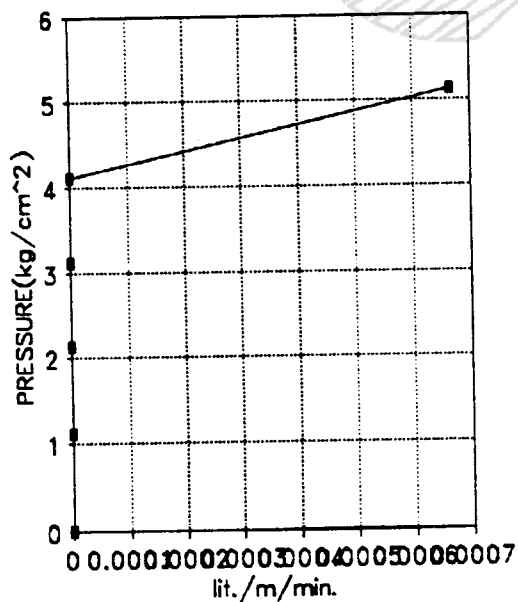


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WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 3		GEOLOGY		ANDESITE				
DATE		1993.11.3		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		20	23	TESTED BY.		K.M DONG		G.W.D (m)		1
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1355	1400	5	1	20	1120	23.2	23.2	0	0	0.000E+00
1400	1405	5	2	20	2120	23.3	23.3	0	0	0.000E+00
1406	1411	5	3	20	3120	23.4	23.4	0	0	0.000E+00
1411	1416	5	4	20	4120	23.5	23.5	0	0	0.000E+00
1416	1421	5	5	20	5120	23.7	23.71	0.01	2	1.507E-08
1422	1427	5	4	20	4120	23.7	23.7	0	0	0.000E+00
1427	1432	5	3	20	3120	23.7	23.7	0	0	0.000E+00
1432	1437	5	2	20	2120	23.7	23.7	0	0	0.000E+00
1437	1442	5	1	20	1120	23.7	23.7	0	0	0.000E+00
									AVE	1.675E-09

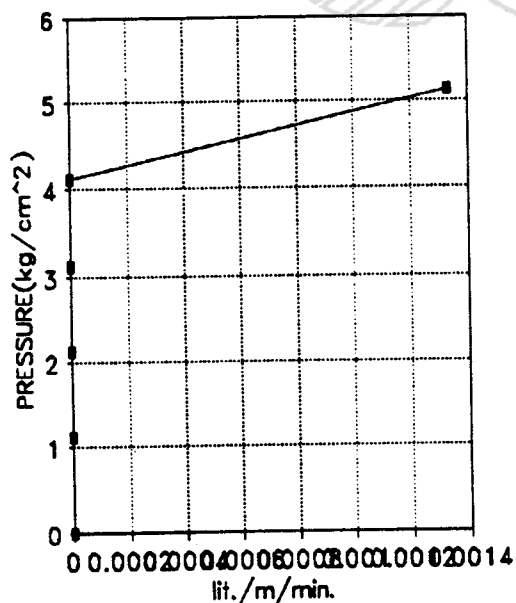
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 3		GEOLOGY		ANDESITE				
DATE			1993.11.3		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			30 33		TESTED BY.		K.M DONG		G.W.D (m)		1
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1300	1305	5	1	20	1120	12	12	0	0	0.000E+00	
1305	1310	5	2	20	2120	12.1	12.1	0	0	0.000E+00	
1310	1315	5	3	20	3120	12.2	12.2	0	0	0.000E+00	
1316	1321	5	4	20	4120	12.3	12.3	0	0	0.000E+00	
1321	1326	5	5	20	5120	12.4	12.42	0.02	4	3.014E-08	
1326	1331	5	4	20	4120	12.4	12.4	0	0	0.000E+00	
1331	1336	5	3	20	3120	12.4	12.4	0	0	0.000E+00	
1336	1341	5	2	20	2120	12.4	12.4	0	0	0.000E+00	
1341	1346	5	1	20	1120	12.4	12.4	0	0	0.000E+00	
									AVE	3.349E-09	

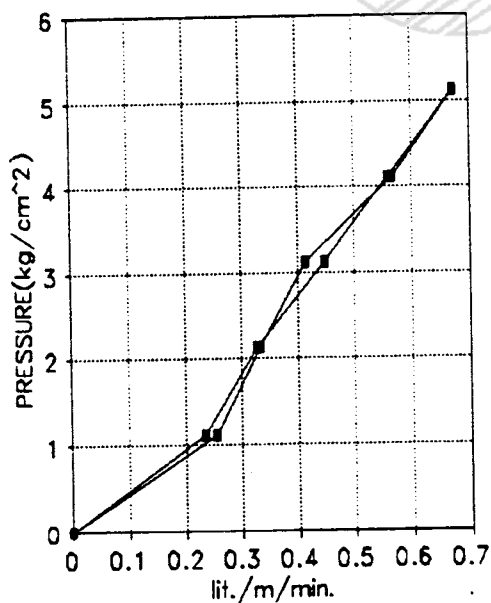
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 3		GEOLOGY		ANDESITE					
DATE	1993.11.3		HOLE DIA.	NX		PACKER		DOUBLE		
TEST SEC.	38	41	TESTED BY.	K.M DONG		G.W.D (m)		1		
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
1203	1208	5	1	20	1120	44	47.8	3.8	760	2.618E-05
1208	1213	5	2	20	2120	48.2	53.2	5	1000	1.820E-05
1214	1219	5	3	20	3120	54	60.2	6.2	1240	1.534E-05
1219	1224	5	4	20	4120	60.8	69.3	8.5	1700	1.592E-05
1224	1229	5	5	20	5120	69.7	79.8	10.1	2020	1.522E-05
1230	1235	5	4	20	4120	80	88.4	8.4	1680	1.573E-05
1235	1240	5	3	20	3120	88.7	95.4	6.7	1340	1.657E-05
1241	1246	5	2	20	2120	95.6	100.5	4.9	980	1.784E-05
1246	1251	5	1	20	1120	100.6	104.1	3.5	700	2.412E-05
									AVE	1.835E-05

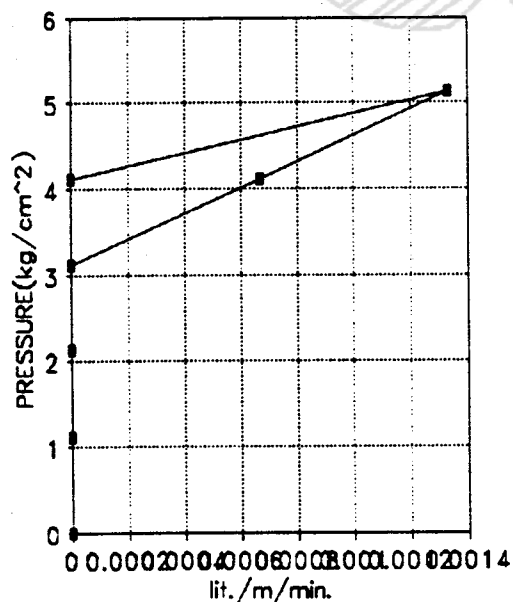
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 3		GEOLOGY		ANDESITE				
DATE		1993.11.3		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		48	51	TESTED BY.		K.M DONG		G.W.D (m)		1
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1106	1111	5	1	20	1120	27.4	27.4	0	0	0.000E+00
1111	1116	5	2	20	2120	27.5	27.5	0	0	0.000E+00
1117	1122	5	3	20	3120	27.6	27.6	0	0	0.000E+00
1122	1127	5	4	20	4120	27.7	27.71	0.01	2	1.873E-08
1127	1132	5	5	20	5120	27.8	27.82	0.02	4	3.014E-08
1132	1137	5	4	20	4120	27.8	27.8	0	0	0.000E+00
1138	1143	5	3	20	3120	27.8	27.8	0	0	0.000E+00
1143	1148	5	2	20	2120	27.8	27.8	0	0	0.000E+00
1149	1154	5	1	20	1120	27.8	27.8	0	0	0.000E+00
									AVE	5.431E-09

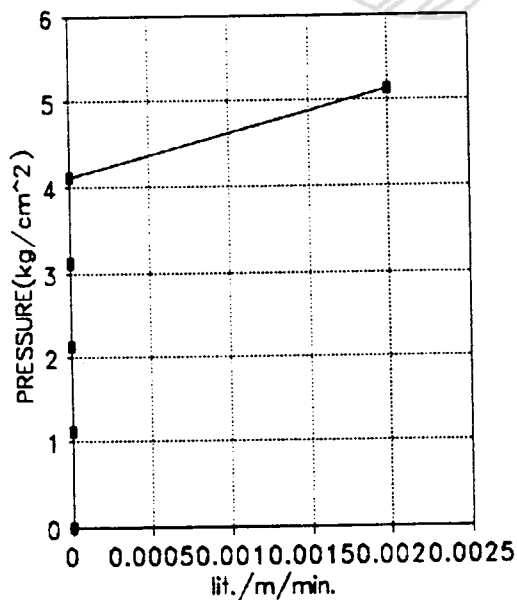
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 3		GEOLOGY		ANDESITE				
DATE		1993.11.3		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		61	64	TESTED BY.		K.M DONG		G.W.D (m)		1
INJECTION TIME		P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1011	1016	5	1	20	1120	21.6	21.6	0	0	0.000E+00
1016	1021	5	2	20	2120	21.7	21.7	0	0	0.000E+00
1021	1026	5	3	20	3120	21.8	21.8	0	0	0.000E+00
1026	1031	5	4	20	4120	21.9	21.9	0	0	0.000E+00
1032	1037	5	5	20	5120	22	22.03	0.03	6	4.522E-08
1037	1042	5	4	20	4120	22	22	0	0	0.000E+00
1042	1047	5	3	20	3120	22	22	0	0	0.000E+00
1047	1052	5	2	20	2120	22	22	0	0	0.000E+00
1052	1057	5	1	20	1120	22	22	0	0	0.000E+00
									AVE	5.024E-09

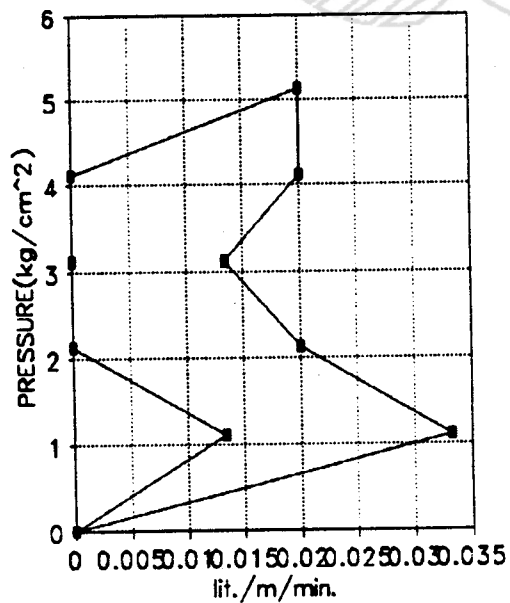
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

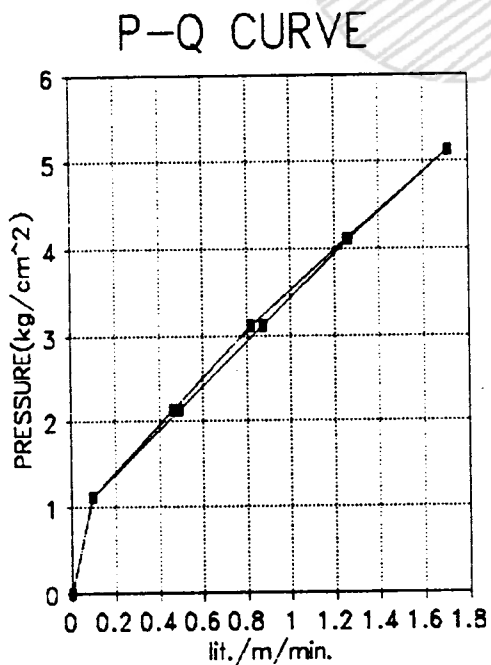
HOLE NO.		P6 - 3		GEOLOGY		ANDESITE				
DATE		1993.11.3		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		70	73	TESTED BY.		K.M DONG		G.W.D (m)		1
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
915	920	5	1	20	1120	9.7	10.2	0.5	100	3.445E-06
920	925	5	2	20	2120	10.3	10.6	0.3	60	1.092E-06
925	930	5	3	20	3120	10.7	10.9	0.2	40	4.947E-07
931	936	5	4	20	4120	11	11.3	0.3	60	5.619E-07
936	941	5	5	20	5120	11.4	11.7	0.3	60	4.522E-07
941	946	5	4	20	4120	11.7	11.7	0	0	0.000E+00
946	951	5	3	20	3120	11.7	11.7	0	0	0.000E+00
951	956	5	2	20	2120	11.7	11.7	0	0	0.000E+00
957	1002	5	1	20	1120	11.7	11.9	0.2	40	1.378E-06
									AVE	8.249E-07

P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

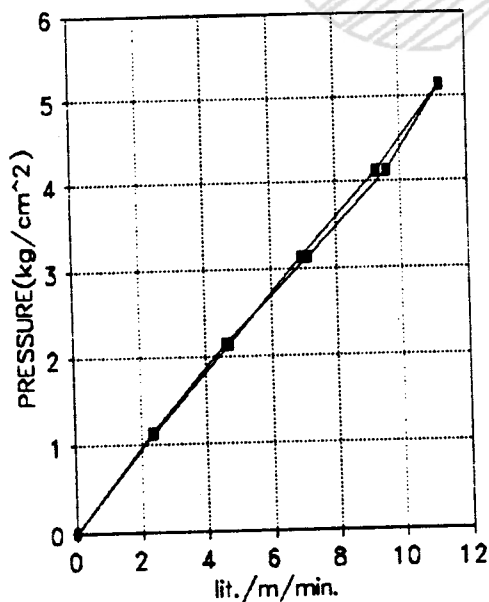
HOLE NO.		P6 - 3		GEOLOGY		ANDESITE				
DATE		1993.11.3		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		86 89		TESTED BY.		K.M DONG		G.W.D (m)		1
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
821	826	5	1	20	1120	74.2	75.6	1.4	280	9.646E-06
826	831	5	2	20	2120	76.5	83.5	7	1400	2.548E-05
832	837	5	3	20	3120	74.4	86.7	12.3	2460	3.042E-05
837	842	5	4	20	4120	87.5	106.3	18.8	3760	3.521E-05
842	847	5	5	20	5120	10.2	35.9	25.7	5140	3.874E-05
847	852	5	4	20	4120	37	56	19	3800	3.559E-05
852	857	5	3	20	3120	56.8	69.9	13.1	2620	3.240E-05
857	902	5	2	20	2120	70.5	77.9	7.4	1480	2.694E-05
902	907	5	1	20	1120	78.5	79.9	1.4	280	9.646E-06
									AVE	2.712E-05



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO. P6 - 4			GEOLOGY		ANDESITE				
DATE 1993.11.2			HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC. 4.5 7.5			TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1734	1739	5	1	20	1132	33	68	35 7000	2.386E-04
1740	1745	5	2	20	2132	73	142	69 13800	2.498E-04
1745	1750	5	3	20	3132	150	257	107 21400	2.636E-04
1751	1756	5	4	20	4132	264	408	144 28800	2.689E-04
1756	1801	5	5	20	5132	427	595	168 33600	2.526E-04
1801	1806	5	4	20	4132	607	746	139 27800	2.596E-04
1806	1811	5	3	20	3132	758	862	104 20800	2.562E-04
1811	1816	5	2	20	2132	871	942	71 14200	2.570E-04
1817	1822	5	1	20	1132	948	984	36 7200	2.454E-04
								AVE	2.546E-04

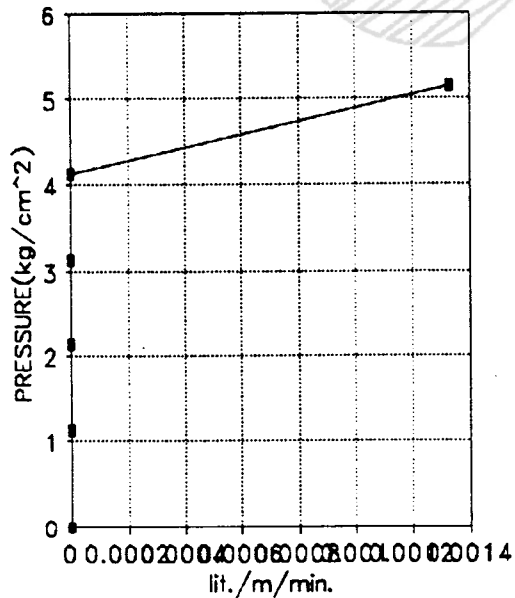
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 4			GEOLOGY		ANDESITE				
DATE	1993.11.2			HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.	8 11			TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1630	1635	5	1	20	1132	24.7	24.7	0	0	0.000E+00
1635	1640	5	2	20	2132	24.8	24.8	0	0	0.000E+00
1641	1646	5	3	20	3132	24.9	24.9	0	0	0.000E+00
1646	1651	5	4	20	4132	25	25	0	0	0.000E+00
1652	1657	5	5	20	5132	25.2	25.22	0.02	4	3.007E-08
1657	1702	5	4	20	4132	25.2	25.2	0	0	0.000E+00
1702	1707	5	3	20	3132	25.2	25.2	0	0	0.000E+00
1707	1712	5	2	20	2132	25.2	25.2	0	0	0.000E+00
1712	1717	5	1	20	1132	25.2	25.2	0	0	0.000E+00
									AVE	3.342E-09

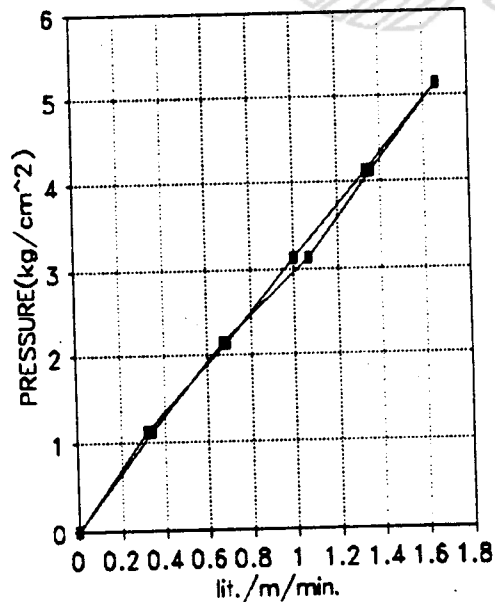
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO. P6 - 4				GEOLOGY ANDESITE							
DATE 1993.11.2				HOLE DIA. NX		PACKER				DOUBLE	
TEST SEC. 16.5 19.5				TESTED BY. K.M DONG		G.W.D (m)				1.12	
INJECTION TIME			P	G. H.	H	FLOW METER Q				PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1510	1520	5	1	20	1132	82	87.2	5.2	1040	3.545E-05	
1520	1525	5	2	20	2132	87.5	97.6	10.1	2020	3.656E-05	
1525	1530	5	3	20	3132	98	114	16	3200	3.942E-05	
1531	1536	5	4	20	4132	115	135.3	20.3	4060	3.791E-05	
1536	1541	5	5	20	5132	140	164.9	24.9	4980	3.744E-05	
1541	1546	5	4	20	4132	166	186	20	4000	3.735E-05	
1546	1551	5	3	20	3132	187.5	202.5	15	3000	3.696E-05	
1552	1557	5	2	20	2132	203.4	213.8	10.4	2080	3.764E-05	
1558	1603	5	1	20	1132	214	218.8	4.8	960	3.272E-05	
										AVE	3.683E-05

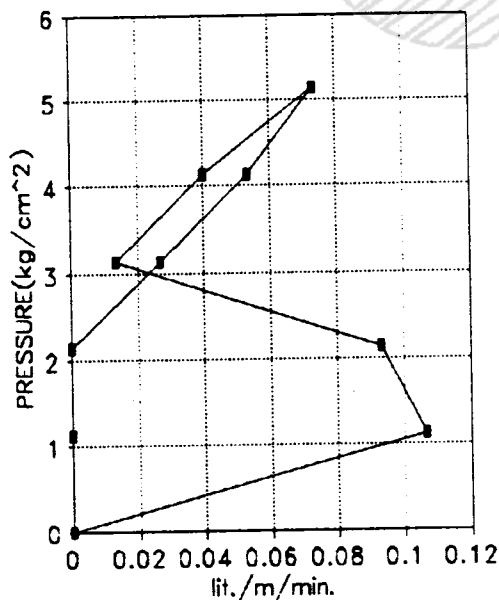
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 4		GEOLOGY		ANDESITE				
DATE		1993.11.2		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		27 30		TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1345	1350	5	1	20	1132	66.2	67.8	1.6	320	1.091E-05
1350	1355	5	2	20	2132	67.9	69.3	1.4	280	5.067E-06
1356	1401	5	3	20	3132	69.4	69.6	0.2	40	4.928E-07
1401	1406	5	4	20	4132	69.7	70.3	0.6	120	1.121E-06
1406	1411	5	5	20	5132	70.4	71.5	1.1	220	1.654E-06
1411	1416	5	4	20	4132	71.5	72.3	0.8	160	1.494E-06
1416	1421	5	3	20	3132	72.3	72.7	0.4	80	9.856E-07
1422	1427	5	2	20	2132	72.7	72.7	0	0	0.000E+00
1427	1432	5	1	20	1132	72.7	72.7	0	0	0.000E+00
									AVE	2.414E-06

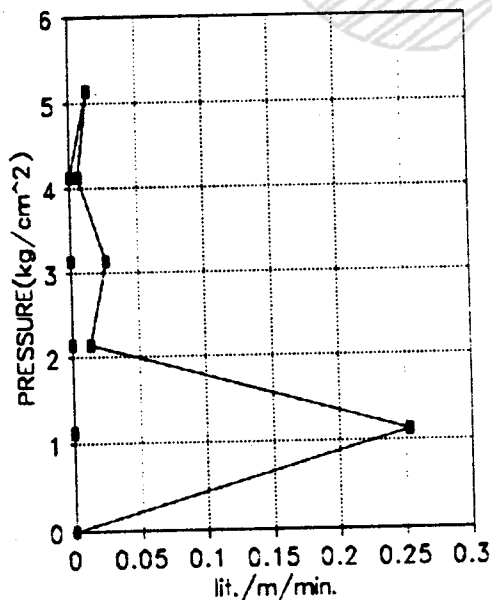
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 4		GEOLOGY		ANDESITE				
DATE		1993.11.2		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		33	36	TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1240	1245	5	1	20	1132	62	65.8	3.8	760	2.591E-05
1245	1250	5	2	20	2132	66	66.2	0.2	40	7.239E-07
1251	1256	5	3	20	3132	66.3	66.7	0.4	80	9.856E-07
1256	1301	5	4	20	4132	66.8	66.9	0.1	20	1.868E-07
1301	1306	5	5	20	5132	67	67.2	0.2	40	3.007E-07
1306	1311	5	4	20	4132	67.2	67.2	0	0	0.000E+00
1312	1317	5	3	20	3132	67.2	67.2	0	0	0.000E+00
1317	1322	5	2	20	2132	67.2	67.2	0	0	0.000E+00
1322	1327	5	1	20	1132	67.2	67.2	0	0	0.000E+00
									AVE	3.122E-06

P-Q CURVE



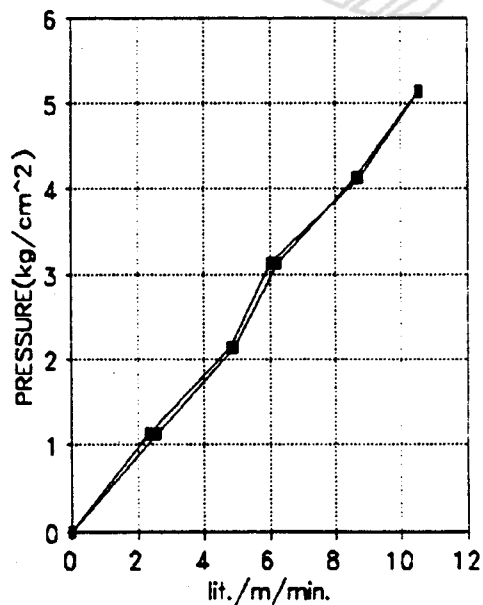
WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 4		GEOLOGY		ANDESITE				
DATE		1993.11.2		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		46.5	49.5	TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1135	1140	5	1	20	1132	56.3	63.3	7	1400	4.772E-05
1141	1146	5	2	20	2132	63.6	66.1	2.5	500	9.049E-06
1146	1151	5	3	20	3132	66.3	66.3	0	0	0.000E+00
1152	1157	5	4	20	4132	66.5	66.5	0	0	0.000E+00
1157	1202	5	5	20	5132	66.7	66.7	0	0	0.000E+00
1202	1207	5	4	20	4132	66.5	66.5	0	0	0.000E+00
1208	1213	5	3	20	3132	66.4	66.4	0	0	0.000E+00
1213	1218	5	2	20	2132	66.3	66.3	0	0	0.000E+00
1218	1223	5	1	20	1132	66.2	66.2	0	0	0.000E+00

WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 4		GEOLOGY		ANDESITE				
DATE		1993.11.2		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		56.5	59.5	TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1030	1035	5	1	20	1132	19	58	39	7800	2.659E-04
1035	1040	5	2	20	2132	63	137	74	14800	2.679E-04
1041	1046	5	3	20	3132	145	239	94	18800	2.316E-04
1046	1051	5	4	20	4132	250	379	129	25800	2.409E-04
1051	1056	5	5	20	5132	385	543	158	31600	2.376E-04
1056	1101	5	4	20	4132	551	682	131	26200	2.447E-04
1101	1106	5	3	20	3132	691	781	90	18000	2.218E-04
1107	1112	5	2	20	2132	789	861	72	14400	2.606E-04
1112	1117	5	1	20	1132	864	899	35	7000	2.386E-04
									AVE	2.455E-04

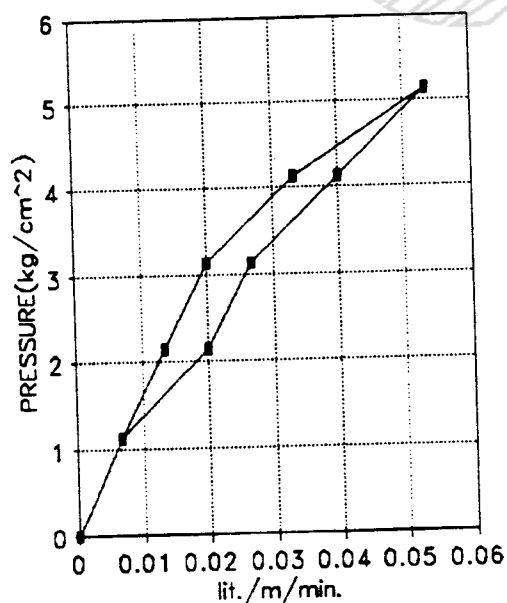
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 4		GEOLOGY		ANDESITE				
DATE		1993.11.2		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		70	73	TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
927	932	5	1	20	1132	53.7	53.8	0.1	20	6.817E-07
932	937	5	2	20	2132	54	54.2	0.2	40	7.239E-07
937	942	5	3	20	3132	54.4	54.7	0.3	60	7.392E-07
942	947	5	4	20	4132	54.9	55.4	0.5	100	9.338E-07
947	952	5	5	20	5132	55.7	56.5	0.8	160	1.203E-06
952	957	5	4	20	4132	56.5	57.1	0.6	120	1.121E-06
1002	1007	5	3	20	3132	57.1	57.5	0.4	80	9.856E-07
1008	1013	5	2	20	2132	57.5	57.8	0.3	60	1.086E-06
1013	1018	5	1	20	1132	57.8	57.9	0.1	20	6.817E-07
									AVE	9.061E-07

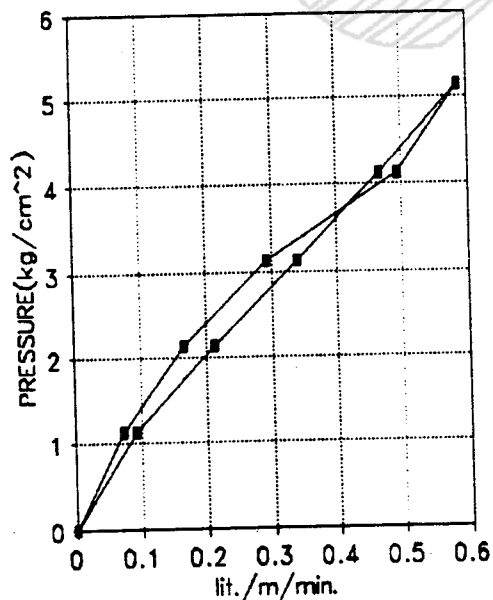
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 4		GEOLOGY		ANDESITE				
DATE		1993.11.2		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		86	89	TESTED BY.		K.M DONG		G.W.D (m)		1.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
830	835	5	1	20	1132	97.8	98.9	1.1	220	7.499E-06
835	840	5	2	20	2132	99.3	101.8	2.5	500	9.049E-06
841	846	5	3	20	3132	2.2	6.6	4.4	880	1.084E-05
846	851	5	4	20	4132	7	14.4	7.4	1480	1.382E-05
851	856	5	5	20	5132	15.1	23.9	8.8	1760	1.323E-05
856	901	5	4	20	4132	24.2	31.2	7	1400	1.307E-05
901	906	5	3	20	3132	31.4	36.5	5.1	1020	1.257E-05
906	911	5	2	20	2132	37	40.2	3.2	640	1.158E-05
912	917	5	1	20	1132	40.3	41.7	1.4	280	9.544E-06
									AVE	1.125E-05

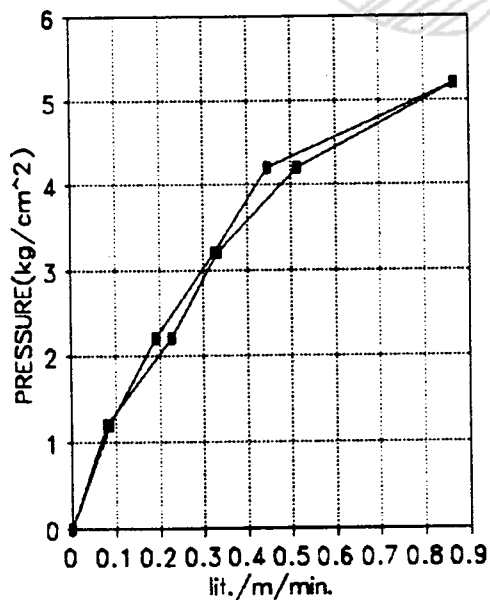
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 5		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		3 6		TESTED BY.		K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1545	1550	5	1	20	1202	24	25.2	1.2	240	7.704E-06
1551	1556	5	2	20	2202	25.4	28.8	3.4	680	1.192E-05
1556	1601	5	3	20	3202	29.8	34.8	5	1000	1.205E-05
1601	1606	5	4	20	4202	35.8	43.5	7.7	1540	1.414E-05
1606	1611	5	5	20	5202	47	60	13	2600	1.929E-05
1611	1616	5	4	20	4202	62.5	69.2	6.7	1340	1.230E-05
1616	1621	5	3	20	3202	70.2	75.1	4.9	980	1.181E-05
1621	1626	5	2	20	2202	75.8	78.7	2.9	580	1.016E-05
1627	1632	5	1	20	1202	79	80.3	1.3	260	8.346E-06
									AVE	1.197E-05

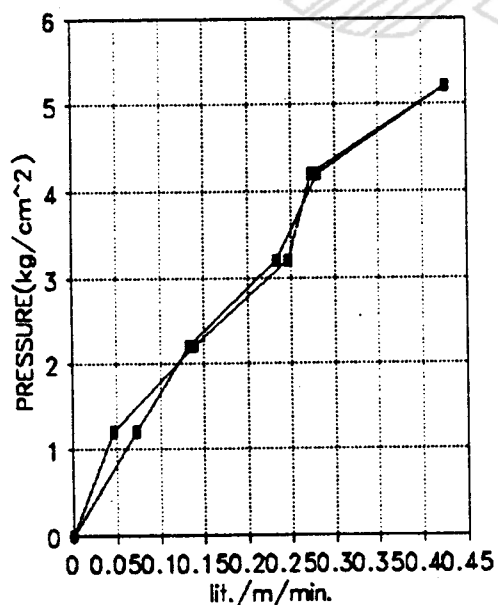
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			GEOLOGY			ANDESITE				
DATE			HOLE DIA.			NX		PACKER		DOUBLE
TEST SEC.			TESTED BY.			K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1450	1455	5	1	20	1202	92	93.1	1.1	220	7.062E-06
1456	1501	5	2	20	2202	93.4	95.4	2	400	7.009E-06
1501	1506	5	3	20	3202	96	99.5	3.5	700	8.435E-06
1506	1511	5	4	20	4202	1.5	5.7	4.2	840	7.713E-06
1512	1517	5	5	20	5202	6.3	12.7	6.4	1280	9.494E-06
1517	1522	5	4	20	4202	13.2	17.3	4.1	820	7.530E-06
1523	1528	5	3	20	3202	17.7	21.4	3.7	740	8.917E-06
1528	1533	5	2	20	2202	21.8	23.9	2.1	420	7.360E-06
1533	1538	5	1	20	1202	24	24.7	0.7	140	4.494E-06
									AVE	7.557E-06

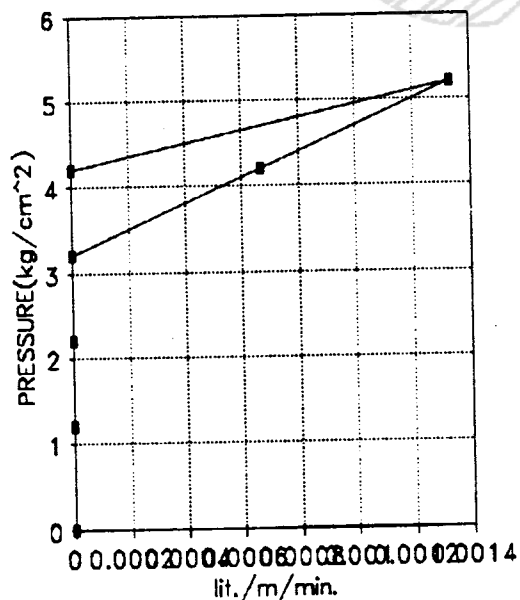
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 5		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		9	12	TESTED BY.		K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1400	1405	5	1	20	1202	17.2	17.2	0	0	0.000E+00
1405	1410	5	2	20	2202	17.3	17.3	0	0	0.000E+00
1411	1416	5	3	20	3202	17.4	17.4	0	0	0.000E+00
1416	1421	5	4	20	4202	17.5	17.51	0.01	2	1.837E-08
1421	1426	5	5	20	5202	17.6	17.62	0.02	4	2.967E-08
1426	1431	5	4	20	4202	17.6	17.6	0	0	0.000E+00
1431	1436	5	3	20	3202	17.6	17.6	0	0	0.000E+00
1437	1442	5	2	20	2202	17.6	17.6	0	0	0.000E+00
1442	1447	5	1	20	1202	17.6	17.6	0	0	0.000E+00
									AVE	5.337E-09

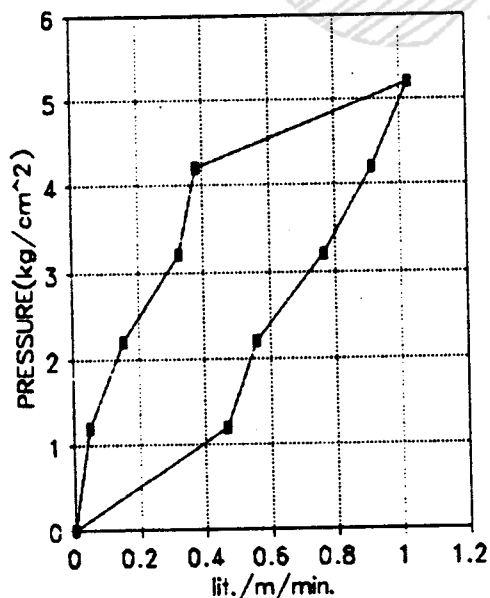
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 5		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		15	18	TESTED BY.		K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1303	1308	5	1	20	1202	25	32	7	1400	4.494E-05
1308	1313	5	2	20	2202	32.5	40.9	8.4	1680	2.944E-05
1314	1319	5	3	20	3202	41.5	53	11.5	2300	2.772E-05
1319	1324	5	4	20	4202	55	68.7	13.7	2740	2.516E-05
1325	1330	5	5	20	5202	71	86.4	15.4	3080	2.285E-05
1330	1335	5	4	20	4202	86.6	92.3	5.7	1140	1.047E-05
1335	1340	5	3	20	3202	92.7	97.6	4.9	980	1.181E-05
1341	1346	5	2	20	2202	96.8	99.1	2.3	460	8.060E-06
1346	1351	5	1	20	1202	98	98.7	0.7	140	4.494E-06
									AVE	2.055E-05

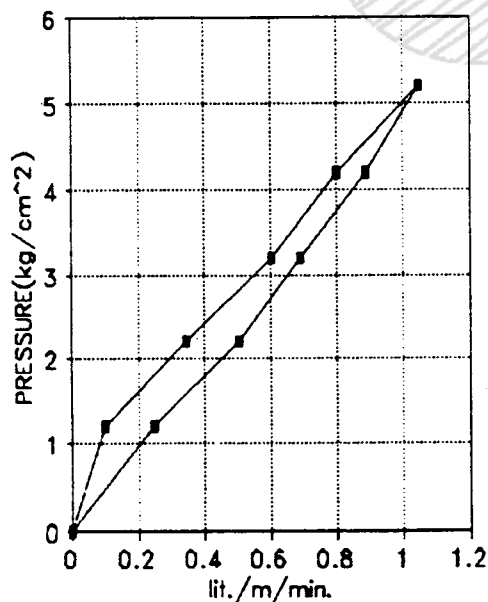
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 5		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		22	25	TESTED BY.		K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1210	1215	5	1	20	1202	20.3	24	3.7	740	2.375E-05
1215	1220	5	2	20	2202	24.3	31.9	7.6	1520	2.663E-05
1221	1226	5	3	20	3202	32.4	42.8	10.4	2080	2.506E-05
1226	1231	5	4	20	4202	44.5	57.8	13.3	2660	2.443E-05
1231	1236	5	5	20	5202	59	74.7	15.7	3140	2.329E-05
1236	1241	5	4	20	4202	75	87	12	2400	2.204E-05
1241	1246	5	3	20	3202	87.2	96.3	9.1	1820	2.193E-05
1246	1251	5	2	20	2202	96.4	101.6	5.2	1040	1.822E-05
1252	1257	5	1	20	1202	1.7	3.2	1.5	300	9.630E-06
									AVE	2.167E-05

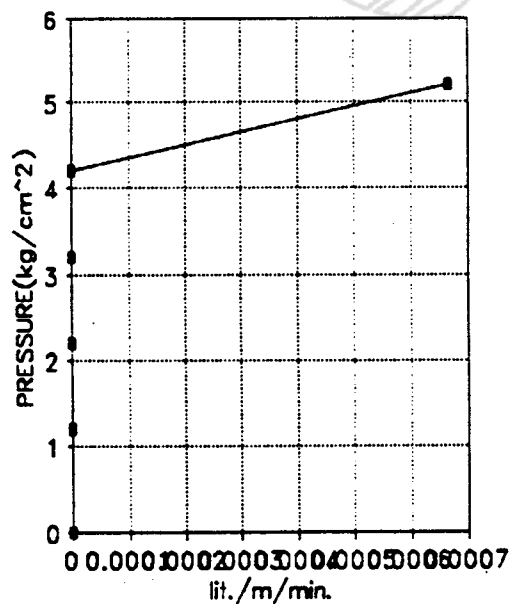
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 5		GEOLOGY		ANDESITE				
DATE			1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			32 35		TESTED BY.		K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1056	1101	5	1	20	1202	3.8	3.8	0	0	0.000E+00	
1101	1106	5	2	20	2202	3.8	3.8	0	0	0.000E+00	
1106	1111	5	3	20	3202	3.9	3.9	0	0	0.000E+00	
1112	1117	5	4	20	4202	4	4	0	0	0.000E+00	
1117	1122	5	5	20	5202	4.1	4.11	0.01	2	1.483E-08	
1122	1127	5	4	20	4202	4.1	4.1	0	0	0.000E+00	
1128	1133	5	3	20	3202	4.1	4.1	0	0	0.000E+00	
1134	1139	5	2	20	2202	4.1	4.1	0	0	0.000E+00	
1140	1145	5	1	20	1202	4.1	4.1	0	0	0.000E+00	
									AVE	1.648E-09	

P-Q CURVE

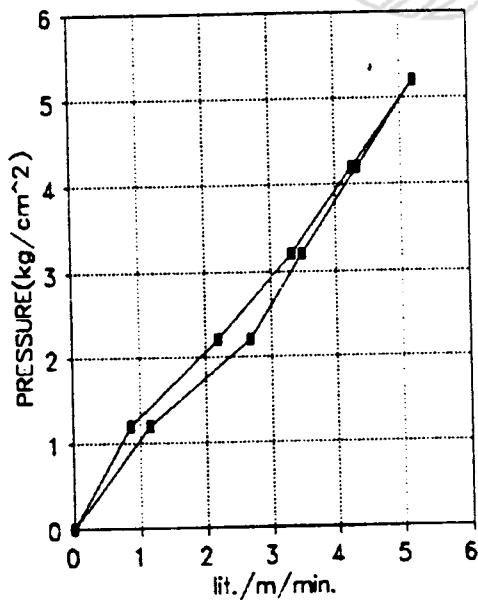


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WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 5		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		41	44	TESTED BY.		K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1002	1007	5	1	20	1202	15	32.2	17.2	3440	1.104E-04
1007	1012	5	2	20	2202	32.7	73	40.3	8060	1.412E-04
1012	1017	5	3	20	3202	75	127.5	52.5	10500	1.265E-04
1017	1022	5	4	20	4202	130	195	65	13000	1.194E-04
1022	1027	5	5	20	5202	198	276	78	15600	1.157E-04
1027	1032	5	4	20	4202	279	343	64	12800	1.175E-04
1033	1038	5	3	20	3202	345	395	50	10000	1.205E-04
1038	1043	5	2	20	2202	397	430	33	6600	1.157E-04
1043	1048	5	1	20	1202	431	444	13	2600	8.346E-05
									AVE	1.167E-04

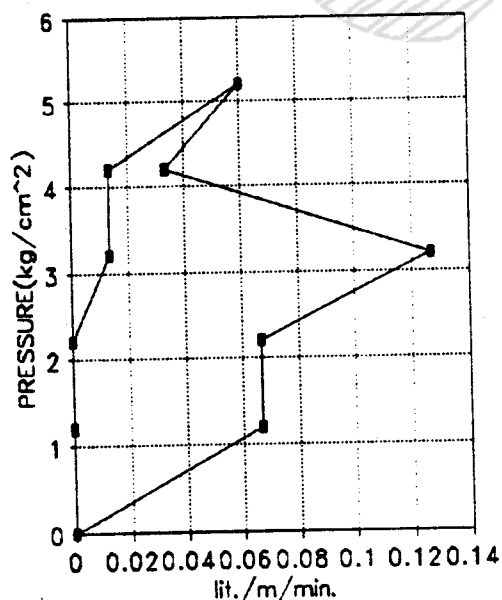
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 5		GEOLOGY		ANDESITE				
DATE		1993.11.1		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		48	51	TESTED BY.		K.M DONG		G.W.D (m)		1.82
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
905	910	5	1	20	1202	39.7	40.7	1	200	6.420E-06
910	915	5	2	20	2202	41.1	42.1	1	200	3.505E-06
915	920	5	3	20	3202	42.5	44.4	1.9	380	4.579E-06
920	925	5	4	20	4202	44.5	45	0.5	100	9.183E-07
926	931	5	5	20	5202	45.4	46.3	0.9	180	1.335E-06
932	937	5	4	20	4202	46.3	46.5	0.2	40	3.673E-07
937	942	5	3	20	3202	46.3	46.5	0.2	40	4.820E-07
942	947	5	2	20	2202	45.8	45.8	0	0	0.000E+00
947	952	5	1	20	1202	45.2	45.2	0	0	0.000E+00
									AVE	1.956E-06

P-Q CURVE

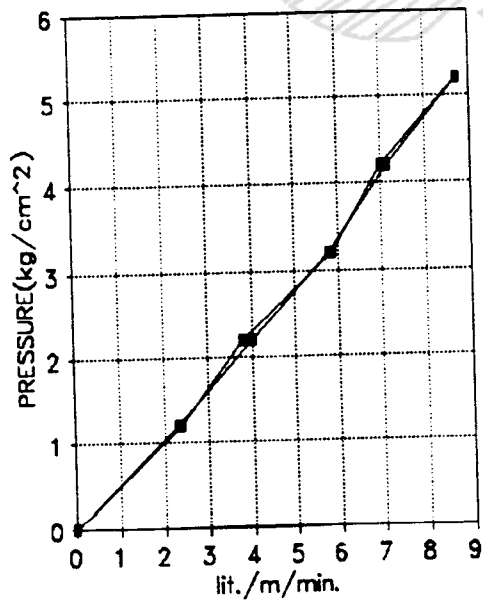


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WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 5		GEOLOGY		ANDESITE				
DATE	1993.11.1		HOLE DIA.	NX		PACKER		DOUBLE	
TEST SEC.	56	59	TESTED BY.	K.M DONG		G.W.D (m)		1.82	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
810	815	5	1	20	1202	57	93	36	7200
815	820	5	2	20	2202	97	154	57	11400
820	825	5	3	20	3202	157	245	88	17600
826	831	5	4	20	4202	250	355	105	21000
831	836	5	5	20	5202	362	493	131	26200
836	841	5	4	20	4202	500	607	107	21400
841	846	5	3	20	3202	611	698	87	17400
846	851	5	2	20	2202	705	765	60	12000
851	856	5	1	20	1202	770	805	35	7000
								AVE	2.079E-04

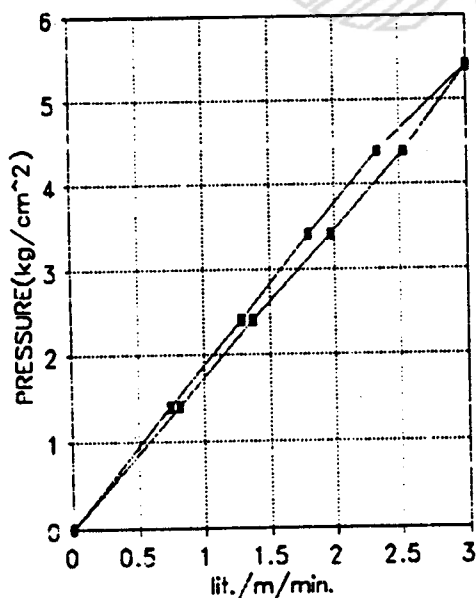
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		4 7		TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1612	1617	5	1	160	1402	7.5	18.7	11.2	2240	6.165E-05
1617	1622	5	2	160	2402	21.5	40.9	19.4	3880	6.233E-05
1622	1627	5	3	160	3402	44.5	71.5	27	5400	6.125E-05
1627	1632	5	4	160	4402	75	110	35	7000	6.136E-05
1633	1638	5	5	160	5402	117	162	45	9000	6.428E-05
1638	1643	5	4	160	4402	168	206	38	7600	6.662E-05
1643	1648	5	3	160	3402	209.3	238.8	29.5	5900	6.692E-05
1649	1654	5	2	160	2402	241.2	261.9	20.7	4140	6.650E-05
1655	1700	5	1	160	1402	263.4	275.7	12.3	2460	6.770E-05
									AVE	6.429E-05

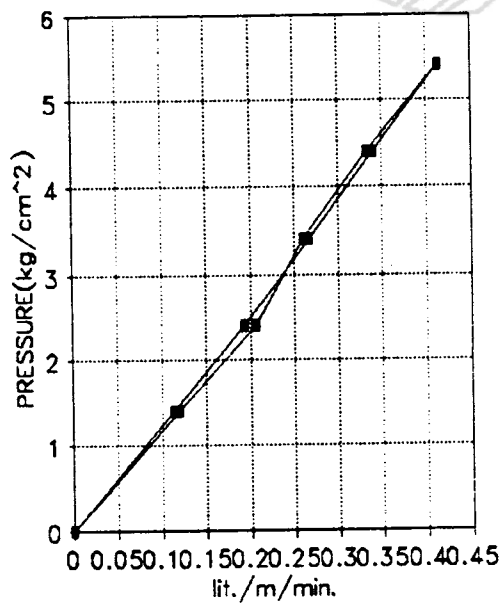
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		14	17	TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1510	1520	5	1	160	1402	62.7	64.4	1.7	340	9.357E-06
1520	1525	5	2	160	2402	64.8	67.7	2.9	580	9.317E-06
1525	1530	5	3	160	3402	68.1	72.1	4	800	9.074E-06
1531	1536	5	4	160	4402	72.5	77.6	5.1	1020	8.941E-06
1536	1541	5	5	160	5402	78.3	84.5	6.2	1240	8.857E-06
1541	1546	5	4	160	4402	84.7	89.7	5	1000	8.765E-06
1546	1551	5	3	160	3402	90	93.9	3.9	780	8.847E-06
1552	1557	5	2	160	2402	94.2	97.3	3.1	620	9.960E-06
1558	1603	5	1	160	1402	97.5	99.3	1.8	360	9.908E-06
									AVE	9.225E-06

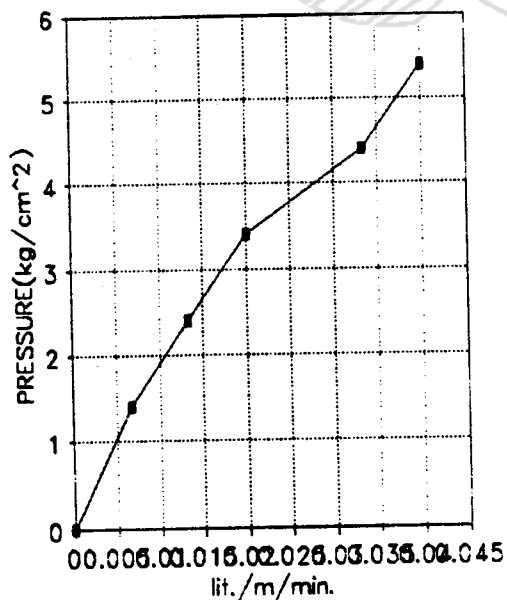
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		21	24	TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1352	1357	5	1	160	1402	52	52.1	0.1	20	5.504E-07
1357	1402	5	2	160	2402	52.2	52.4	0.2	40	6.426E-07
1402	1407	5	3	160	3402	52.5	52.8	0.3	60	6.805E-07
1407	1412	5	4	160	4402	52.9	53.4	0.5	100	8.765E-07
1412	1417	5	5	160	5402	53.4	54	0.6	120	8.571E-07
1417	1422	5	4	160	4402	54	54.5	0.5	100	8.765E-07
1423	1428	5	3	160	3402	54.5	54.8	0.3	60	6.805E-07
1433	1438	5	2	160	2402	54.8	55	0.2	40	6.426E-07
1438	1443	5	1	160	1402	55	55.1	0.1	20	5.504E-07
									AVE	7.064E-07

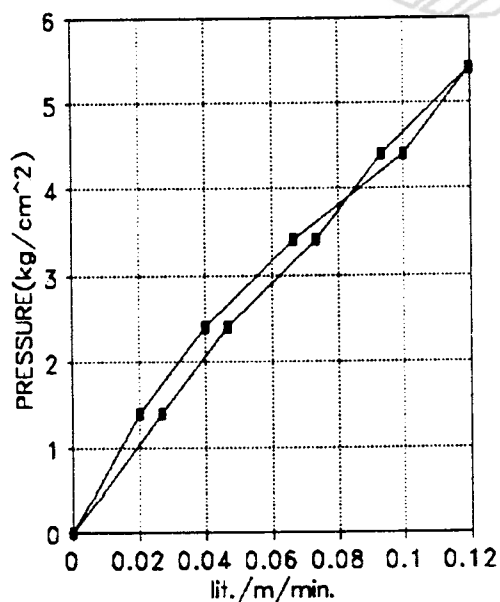
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		32	35	TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1257	1302	5	1	160	1402	35.7	36.1	0.4	80	2.202E-06
1302	1307	5	2	160	2402	36.3	37	0.7	140	2.249E-06
1307	1312	5	3	160	3402	37.2	38.3	1.1	220	2.495E-06
1312	1317	5	4	160	4402	38.5	39.9	1.4	280	2.454E-06
1317	1322	5	5	160	5402	40.2	42	1.8	360	2.571E-06
1322	1327	5	4	160	4402	42.1	43.6	1.5	300	2.630E-06
1328	1333	5	3	160	3402	43.7	44.7	1	200	2.268E-06
1333	1338	5	2	160	2402	44.7	45.3	0.6	120	1.928E-06
1338	1343	5	1	160	1402	45.3	45.6	0.3	60	1.651E-06
									AVE	2.272E-06

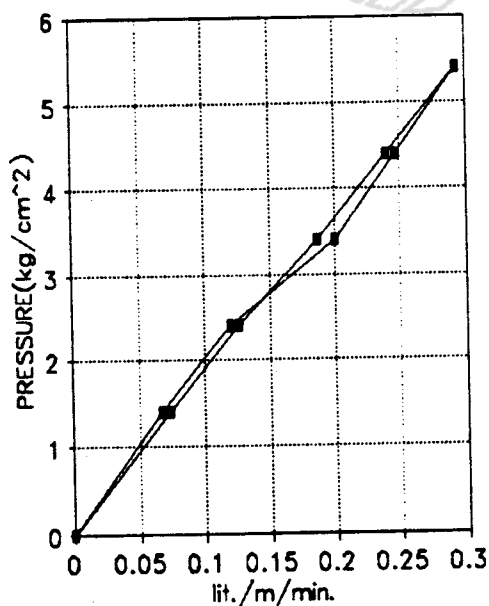
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		38.5	41.5	TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1202	1207	5	1	160	1402	3.2	4.3	1.1	220	6.055E-06
1207	1212	5	2	160	2402	4.6	6.5	1.9	380	6.104E-06
1212	1217	5	3	160	3402	7	9.8	2.8	560	6.351E-06
1218	1223	5	4	160	4402	10.2	13.8	3.6	720	6.311E-06
1223	1228	5	5	160	5402	14.2	18.6	4.4	880	6.286E-06
1228	1233	5	4	160	4402	18.8	22.5	3.7	740	6.486E-06
1233	1238	5	3	160	3402	22.7	25.7	3	600	6.805E-06
1238	1243	5	2	160	2402	25.9	27.7	1.8	360	5.783E-06
1243	1248	5	1	160	1402	27.8	28.8	1	200	5.504E-06
									AVE	6.187E-06

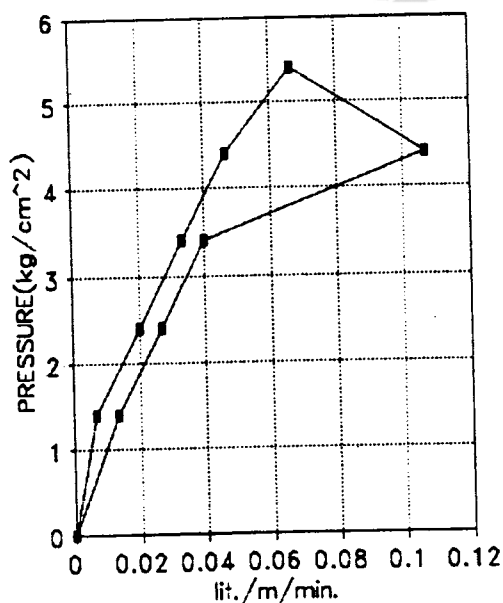
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		48.5	51.5	TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1105	1110	5	1	160	1402	82.5	82.6	0.1	20	5.504E-07
1111	1116	5	2	160	2402	82.8	83.1	0.3	60	9.638E-07
1116	1121	5	3	160	3402	83.3	83.8	0.5	100	1.134E-06
1121	1126	5	4	160	4402	84	84.7	0.7	140	1.227E-06
1127	1132	5	5	160	5402	84.8	85.8	1	200	1.429E-06
1132	1137	5	4	160	4402	85	86.6	1.6	320	2.805E-06
1137	1142	5	3	160	3402	86.6	87.2	0.6	120	1.361E-06
1142	1147	5	2	160	2402	87.2	87.6	0.4	80	1.285E-06
1148	1153	5	1	160	1402	87.6	87.8	0.2	40	1.101E-06
									AVE	1.317E-06

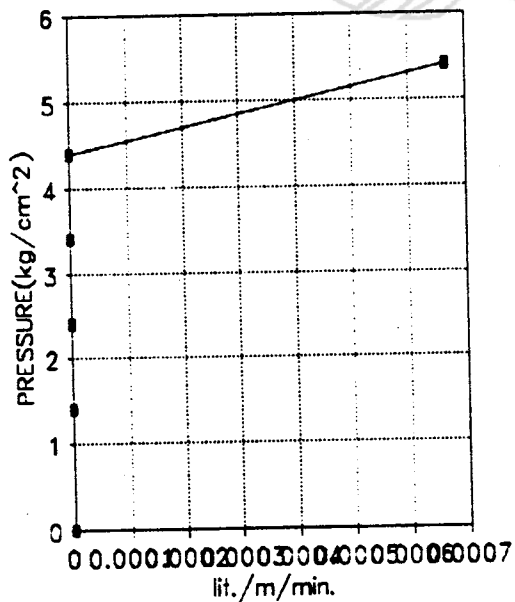
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		58	61	TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1011	1016	5	1	160	1402	78.4	78.4	0	0	0.000E+00
1016	1021	5	2	160	2402	78.5	78.5	0	0	0.000E+00
1021	1026	5	3	160	3402	78.7	78.7	0	0	0.000E+00
1026	1031	5	4	160	4402	78.8	78.8	0	0	0.000E+00
1031	1036	5	5	160	5402	79	79.01	0.01	2	1.429E-08
1036	1041	5	4	160	4402	78.9	78.9	0	0	0.000E+00
1041	1046	5	3	160	3402	78.8	78.8	0	0	0.000E+00
1046	1051	5	2	160	2402	78.7	78.7	0	0	0.000E+00
1051	1056	5	1	160	1402	78.6	78.6	0	0	0.000E+00
									AVE	1.587E-09

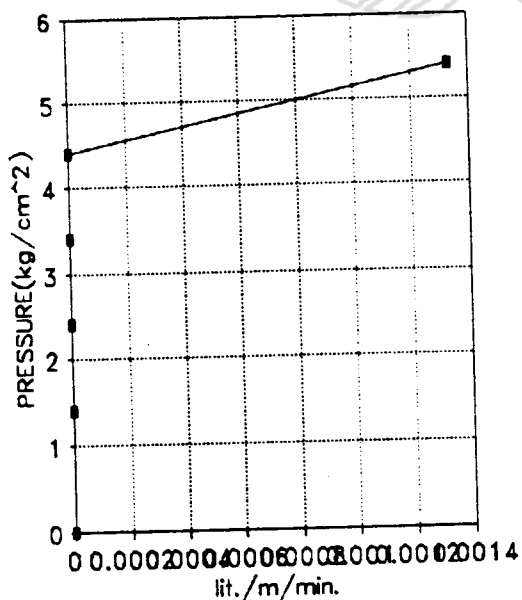
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		67 70		TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
915	920	5	1	160	1402	68.5	68.5	0	0	0.000E+00
920	925	5	2	160	2402	68.6	68.6	0	0	0.000E+00
925	930	5	3	160	3402	68.7	68.7	0	0	0.000E+00
930	935	5	4	160	4402	68.8	68.8	0	0	0.000E+00
936	941	5	5	160	5402	69	69.02	0.02	4	2.857E-08
941	946	5	4	160	4402	69	69	0	0	0.000E+00
946	951	5	3	160	3402	68.9	68.9	0	0	0.000E+00
951	956	5	2	160	2402	68.8	68.8	0	0	0.000E+00
957	1002	5	1	160	1402	68.7	68.7	0	0	0.000E+00
									AVE	3.175E-09

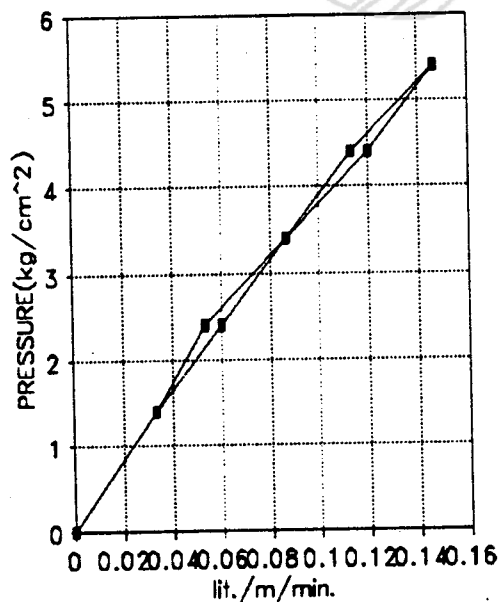
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 6		GEOLOGY		ANDESITE				
DATE		1993.11.7		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		76 79		TESTED BY.		K.M DONG		G.W.D (m)		2.42
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
819	824	5	1	160	1402	43.5	44	0.5	100	2.752E-06
285	830	5	2	160	2402	44.7	45.6	0.9	180	2.891E-06
830	835	5	3	160	3402	46	47.3	1.3	260	2.949E-06
835	840	5	4	160	4402	48	49.7	1.7	340	2.980E-06
840	845	5	5	160	5402	50.2	52.4	2.2	440	3.143E-06
846	851	5	4	160	4402	52.5	54.3	1.8	360	3.156E-06
851	856	5	3	160	3402	54.4	55.7	1.3	260	2.949E-06
856	901	5	2	160	2402	55.8	56.6	0.8	160	2.570E-06
901	906	5	1	160	1402	56.6	57.1	0.5	100	2.752E-06
									AVE	2.905E-06

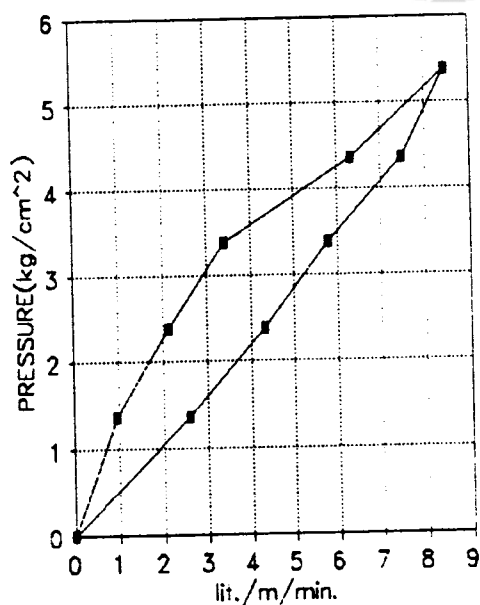
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		6.8	9.8	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1735	1740	5	1	160	1372	27.3	41.5	14.2	2840	7.987E-05
1740	1745	5	2	160	2372	46.2	78.3	32.1	6420	1.044E-04
1745	1750	5	3	160	3372	84	135	51	10200	1.167E-04
1751	1756	5	4	160	4372	146	241	95	19000	1.677E-04
1756	1801	5	5	160	5372	251	378	127	25400	1.824E-04
1801	1806	5	4	160	4372	388	500	112	22400	1.977E-04
1806	1811	5	3	160	3372	509	596	87	17400	1.991E-04
1812	1817	5	2	160	2372	604	669	65	13000	2.115E-04
1817	1822	5	1	160	1372	674	713	39	7800	2.194E-04
									AVE	1.643E-04

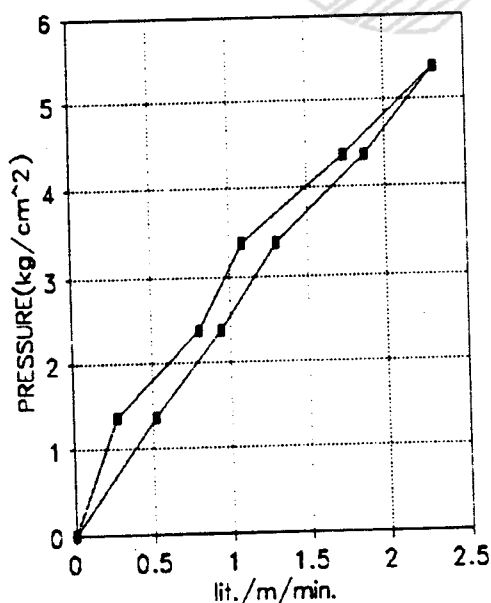
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		13.5	16.5	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1620	1625	5	1	160	1372	37	44.8	7.8	1560	4.387E-05
1625	1630	5	2	160	2372	47.3	61.4	14.1	2820	4.587E-05
1630	1635	5	3	160	3372	64.5	84	19.5	3900	4.463E-05
1635	1640	5	4	160	4372	87	115	28	5600	4.942E-05
1640	1645	5	5	160	5372	119.2	153.9	34.7	6940	4.985E-05
1646	1651	5	4	160	4372	155	181	26	5200	4.589E-05
1651	1656	5	3	160	3372	181.7	197.9	16.2	3240	3.707E-05
1656	1701	5	2	160	2372	198.5	210.5	12	2400	3.904E-05
1701	1706	5	1	160	1372	211.1	215.2	4.1	820	2.306E-05
									AVE	4.208E-05

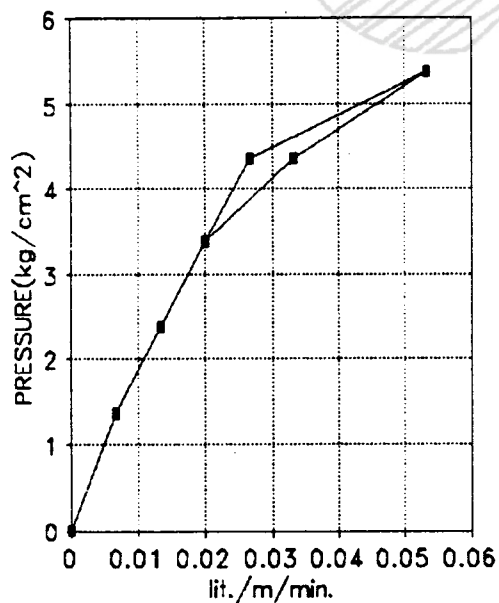
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		26.5	29.5	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1510	1520	5	1	160	1372	62.5	62.6	0.1	20	5.625E-07
1520	1525	5	2	160	2372	62.7	62.9	0.2	40	6.507E-07
1525	1530	5	3	160	3372	63	63.3	0.3	60	6.866E-07
1531	1536	5	4	160	4372	63.4	63.9	0.5	100	8.826E-07
1536	1541	5	5	160	5372	64	64.8	0.8	160	1.149E-06
1541	1546	5	4	160	4372	64.8	65.2	0.4	80	7.060E-07
1546	1551	5	3	160	3372	65.2	65.5	0.3	60	6.866E-07
1552	1557	5	2	160	2372	65.5	65.7	0.2	40	6.507E-07
1558	1603	5	1	160	1372	65.7	65.8	0.1	20	5.625E-07
									AVE	7.264E-07

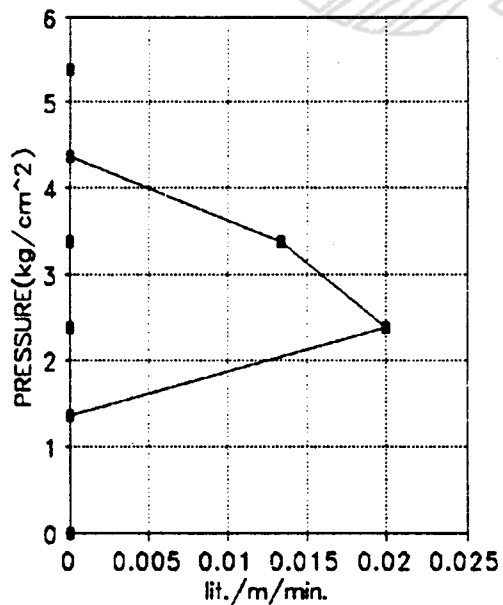
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 7		GEOLOGY		ANDESITE				
DATE	1993.11.10		HOLE DIA.	NX		PACKER		DOUBLE	
TEST SEC.	35	38	TESTED BY.	K.M DONG		G.W.D (m)		2.12	
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)
1324	1329	5	1	160	1372	57.2	57.2	0	0.000E+00
1329	1334	5	2	160	2372	57.3	57.6	0.3	9.760E-07
1334	1339	5	3	160	3372	57.7	57.9	0.2	4.577E-07
1340	1345	5	4	160	4372	58	58	0	0.000E+00
1345	1350	5	5	160	5372	58.1	58.1	0	0.000E+00
1350	1355	5	4	160	4372	58	58	0	0.000E+00
1355	1400	5	3	160	3372	57.9	57.9	0	0.000E+00
1400	1405	5	2	160	2372	57.8	57.8	0	0.000E+00
1405	1410	5	1	160	1372	57.7	57.7	0	0.000E+00
								AVE	1.593E-07

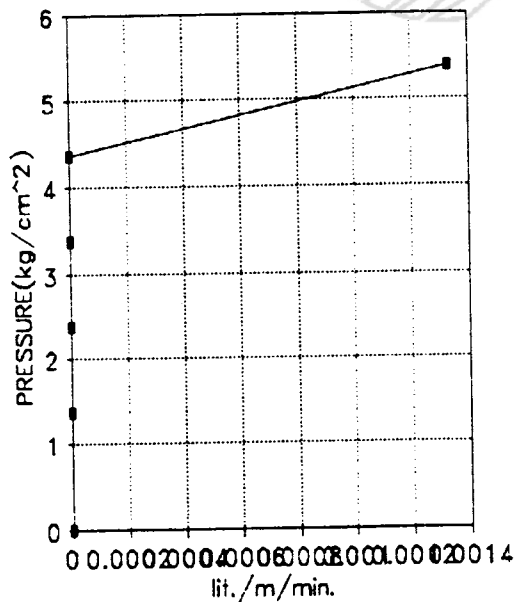
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		44	47	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1230	1235	5	1	160	1372	43	43	0	0	0.000E+00
1235	1240	5	2	160	2372	43.1	43.1	0	0	0.000E+00
1240	1245	5	3	160	3372	43.2	43.2	0	0	0.000E+00
1245	1250	5	4	160	4372	43.3	43.3	0	0	0.000E+00
1251	1256	5	5	160	5372	43.4	43.42	0.02	4	2.873E-08
1256	1301	5	4	160	4372	43.3	43.3	0	0	0.000E+00
1301	1306	5	3	160	3372	43.2	43.2	0	0	0.000E+00
1306	1311	5	2	160	2372	43.1	43.1	0	0	0.000E+00
1311	1316	5	1	160	1372	43	43	0	0	0.000E+00
									AVE	3.192E-09

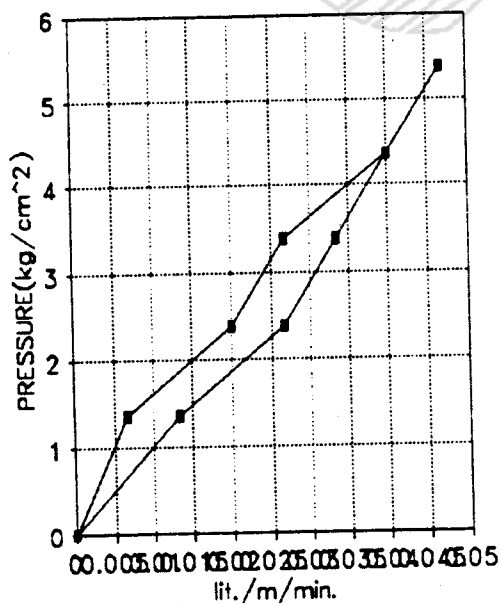
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		55	58	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1120	1125	5	1	160	1372	33.5	33.7	0.2	40	1.125E-06
1125	1130	5	2	160	2372	33.8	34.2	0.4	80	1.301E-06
1130	1135	5	3	160	3372	34.3	34.8	0.5	100	1.144E-06
1135	1140	5	4	160	4372	34.9	35.5	0.6	120	1.059E-06
1141	1146	5	5	160	5372	35.6	36.3	0.7	140	1.006E-06
1146	1151	5	4	160	4372	36.3	36.9	0.6	120	1.059E-06
1152	1157	5	3	160	3372	36.9	37.3	0.4	80	9.154E-07
1157	1202	5	2	160	2372	37.3	37.6	0.3	60	9.760E-07
1202	1207	5	1	160	1372	37.6	37.7	0.1	20	5.625E-07
									AVE	1.016E-06

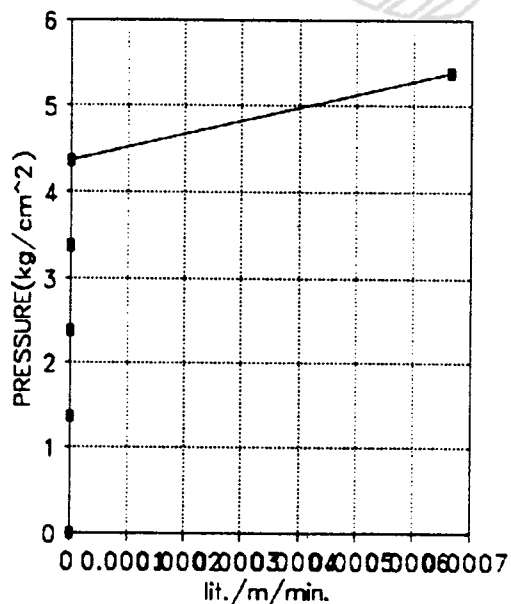
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		64	67	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1024	1029	5	1	160	1372	27.5	27.5	0	0	0.000E+00
1029	1034	5	2	160	2372	27.7	27.7	0	0	0.000E+00
1034	1039	5	3	160	3372	27.9	27.9	0	0	0.000E+00
1040	1045	5	4	160	4372	28.2	28.2	0	0	0.000E+00
1045	1050	5	5	160	5372	28.4	28.41	0.01	2	1.437E-08
1050	1055	5	4	160	4372	28.2	28.2	0	0	0.000E+00
1056	1101	5	3	160	3372	28	28	0	0	0.000E+00
1101	1106	5	2	160	2372	27.8	27.8	0	0	0.000E+00
1106	1111	5	1	160	1372	27.5	27.5	0	0	0.000E+00
									AVE	1.596E-09

P-Q CURVE

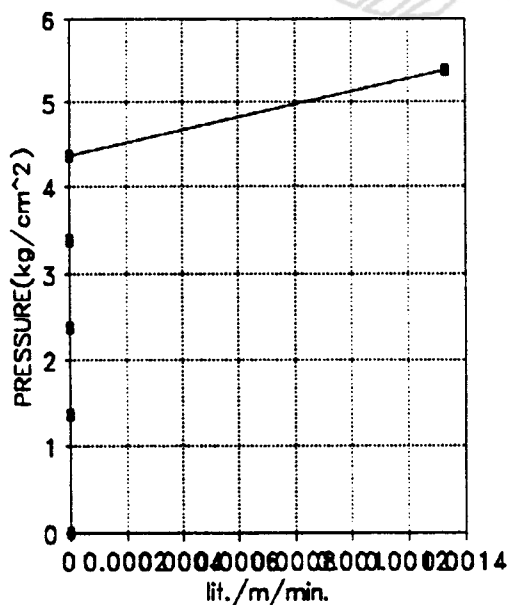


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WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		75	78	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
928	933	5	1	160	1372	21.4	21.4	0	0	0.000E+00
933	938	5	2	160	2372	21.6	21.6	0	0	0.000E+00
939	944	5	3	160	3372	21.9	21.9	0	0	0.000E+00
945	950	5	4	160	4372	22.1	22.1	0	0	0.000E+00
950	955	5	5	160	5372	22.4	22.42	0.02	4	2.873E-08
955	1000	5	4	160	4372	22	22	0	0	0.000E+00
1001	1006	5	3	160	3372	21.8	21.8	0	0	0.000E+00
1006	1011	5	2	160	2372	21.6	21.6	0	0	0.000E+00
1011	1016	5	1	160	1372	21.5	21.5	0	0	0.000E+00
									AVE	3.192E-09

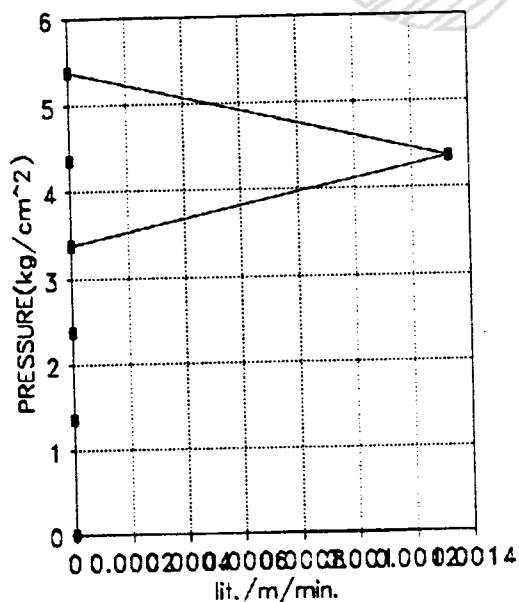
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		81	84	TESTED BY.		K.M DONG		G.W.D (m)		2.12
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
832	837	5	1	160	1372	15	15	0	0	0.000E+00
837	842	5	2	160	2372	15.2	15.2	0	0	0.000E+00
842	847	5	3	160	3372	15.4	15.4	0	0	0.000E+00
848	853	5	4	160	4372	15.5	15.5	0	0	0.000E+00
853	858	5	5	160	5372	15.6	15.6	0	0	0.000E+00
859	904	5	4	160	4372	15.5	15.52	0.02	4	3.530E-08
904	909	5	3	160	3372	15.5	15.5	0	0	0.000E+00
910	915	5	2	160	2372	15.4	15.4	0	0	0.000E+00
915	920	5	1	160	1372	15.3	15.3	0	0	0.000E+00
									AVE	3.922E-09

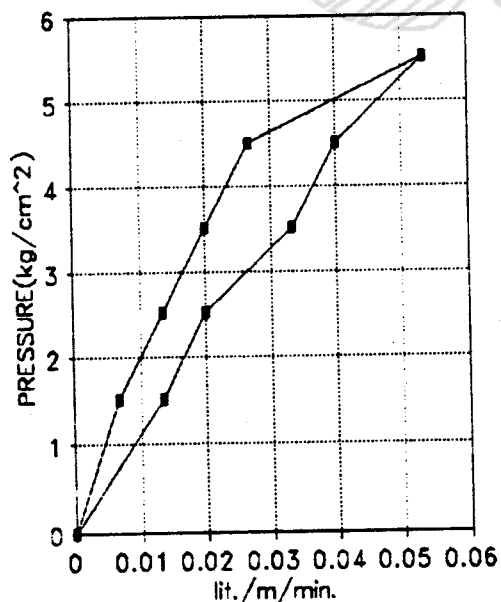
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 7		GEOLOGY		RYODASITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		86	89	TESTED BY.		K.M DONG		G.W.D (m)		3.56
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
738	743	5	1	160	1516	1.3	1.5	0.2	40	1.018E-06
743	748	5	2	160	2516	1.7	2	0.3	60	9.202E-07
748	753	5	3	160	3516	2.2	2.7	0.5	100	1.097E-06
753	758	5	4	160	4516	2.9	3.5	0.6	120	1.025E-06
759	804	5	5	160	5516	3.7	4.5	0.8	160	1.119E-06
805	810	5	4	160	4516	4.5	4.9	0.4	80	6.835E-07
810	815	5	3	160	3516	4.9	5.2	0.3	60	6.584E-07
815	820	5	2	160	2516	5.2	5.4	0.2	40	6.134E-07
821	826	5	1	160	1516	5.4	5.5	0.1	20	5.090E-07
									AVE	8.494E-07

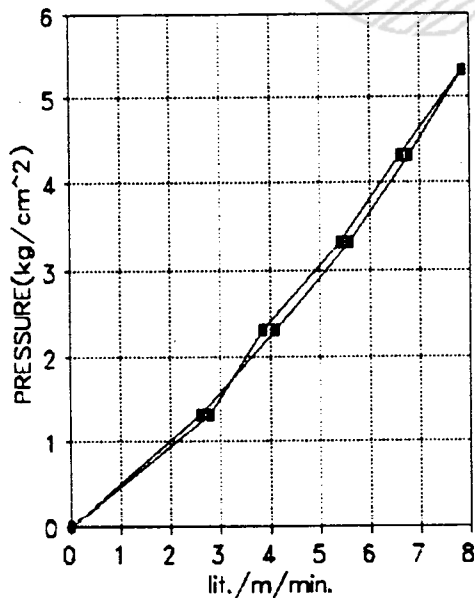
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 8		GEOLOGY		ANDESITE				
DATE		1993.11.8		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		4.5	7.5	TESTED BY.		K.M DONG		G.W.D (m)		1.55
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1510	1520	5	1	160	1315	89	131	42	8400	2.465E-04
1520	1525	5	2	160	2315	139	197	58	11600	1.933E-04
1525	1530	5	3	160	3315	208	289	81	16200	1.886E-04
1531	1536	5	4	160	4315	301	400	99	19800	1.771E-04
1536	1541	5	5	160	5315	413	531	118	23600	1.713E-04
1541	1546	5	4	160	4315	543	645	102	20400	1.824E-04
1546	1551	5	3	160	3315	654	738	84	16800	1.955E-04
1552	1557	5	2	160	2315	745	807	62	12400	2.067E-04
1558	1603	5	1	160	1315	812	851	39	7800	2.289E-04
									AVE	1.989E-04

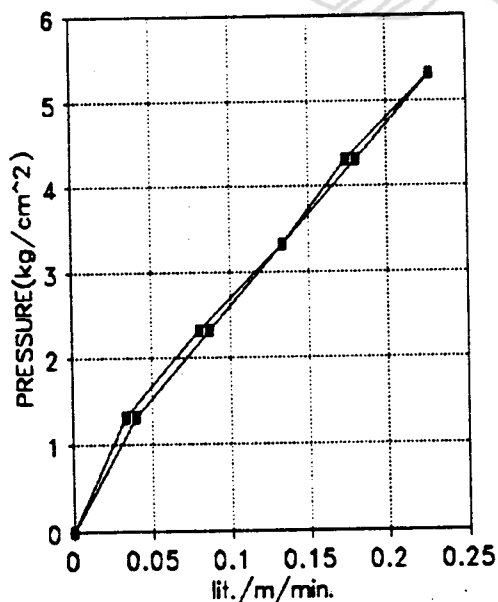
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 8		GEOLOGY		ANDESITE					
DATE		1993.11.8		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		13 16		TESTED BY.		K.M DONG		G.W.D (m)		1.55	
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1350	1355	5	1	160	1315	61.2	61.8	0.6	120	3.521E-06	
1355	1400	5	2	160	2315	62	63.3	1.3	260	4.334E-06	
1400	1405	5	3	160	3315	63.5	65.5	2	400	4.656E-06	
1405	1410	5	4	160	4315	65.7	68.3	2.6	520	4.650E-06	
1410	1415	5	5	160	5315	68.7	72.1	3.4	680	4.937E-06	
1415	1420	5	4	160	4315	72.2	74.9	2.7	540	4.829E-06	
1420	1425	5	3	160	3315	75.1	77.1	2	400	4.656E-06	
1425	1430	5	2	160	2315	77.2	78.4	1.2	240	4.000E-06	
1431	1436	5	1	160	1315	78.4	78.9	0.5	100	2.934E-06	
									AVE	4.280E-06	

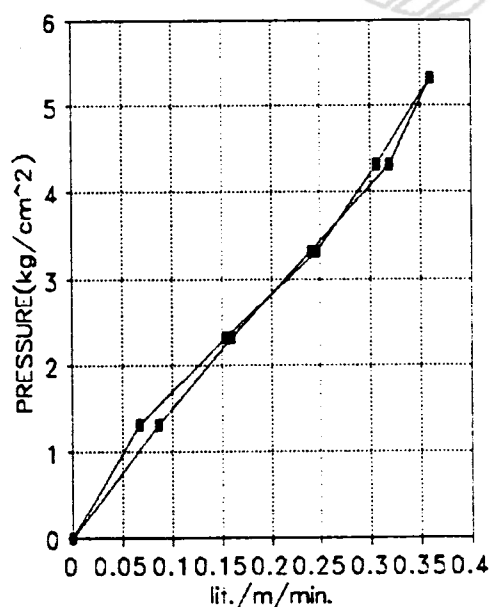
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 8		GEOLOGY		ANDESITE				
DATE		1993.11.8		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		20.5	23.5	TESTED BY.		K.M DONG		G.W.D (m)		1.55
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1240	1245	5	1	160	1315	23.3	24.3	1	200	5.868E-06
1245	1250	5	2	160	2315	24.7	27	2.3	460	7.667E-06
1251	1256	5	3	160	3315	27.3	31	3.7	740	8.613E-06
1256	1301	5	4	160	4315	31.5	36.1	4.6	920	8.227E-06
1301	1306	5	5	160	5315	36.5	41.9	5.4	1080	7.840E-06
1306	1311	5	4	160	4315	42.1	46.9	4.8	960	8.584E-06
1311	1316	5	3	160	3315	46.8	50.4	3.6	720	8.380E-06
1316	1321	5	2	160	2315	50.5	52.9	2.4	480	8.000E-06
1321	1326	5	1	160	1315	53	54.3	1.3	260	7.629E-06
									AVE	7.868E-06

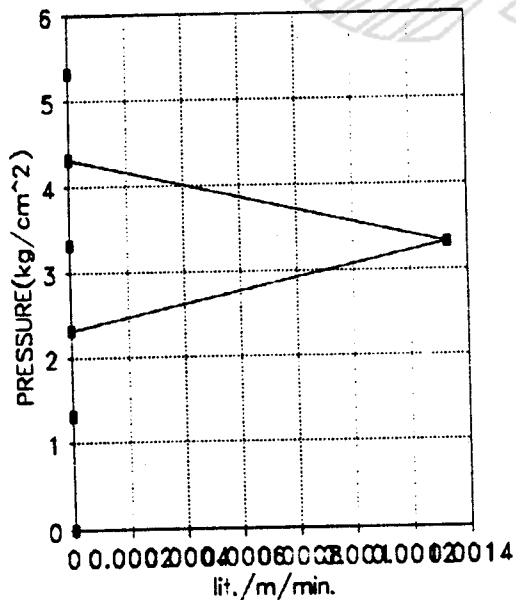
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 8		GEOLOGY		ANDESITE				
DATE		1993.11.8		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		28	31	TESTED BY.		K.M DONG		G.W.D (m)		1.55
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1130	1135	5	1	160	1315	15.2	15.2	0	0	0.000E+00
1135	1140	5	2	160	2315	15.4	15.4	0	0	0.000E+00
1141	1146	5	3	160	3315	15.5	15.52	0.02	4	4.656E-08
1146	1151	5	4	160	4315	15.6	15.6	0	0	0.000E+00
1151	1156	5	5	160	5315	15.7	15.7	0	0	0.000E+00
1156	1201	5	4	160	4315	15.6	15.6	0	0	0.000E+00
1201	1206	5	3	160	3315	15.5	15.5	0	0	0.000E+00
1206	1211	5	2	160	2315	15.4	15.4	0	0	0.000E+00
1211	1216	5	1	160	1315	15.4	15.4	0	0	0.000E+00
									AVE	5.173E-09

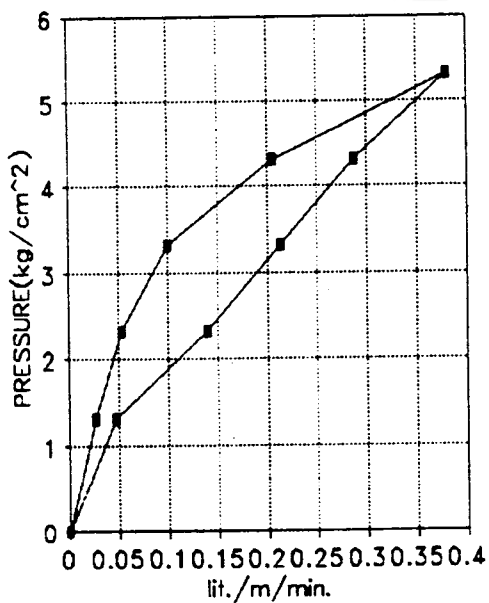
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 8		GEOLOGY		ANDESITE				
DATE		1993.11.8		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		37	40	TESTED BY.		K.M DONG		G.W.D (m)		1.55
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1021	1026	5	1	160	1315	79.2	79.9	0.7	140	4.108E-06
1026	1031	5	2	160	2315	80.2	82.3	2.1	420	7.000E-06
1031	1036	5	3	160	3315	82.7	85.9	3.2	640	7.449E-06
1036	1041	5	4	160	4315	86.4	90.7	4.3	860	7.690E-06
1042	1047	5	5	160	5315	91.1	96.8	5.7	1140	8.276E-06
1047	1052	5	4	160	4315	96.8	99.9	3.1	620	5.544E-06
1052	1057	5	3	160	3315	99.9	101.4	1.5	300	3.492E-06
1058	1103	5	2	160	2315	1.4	2.2	0.8	160	2.667E-06
1103	1108	5	1	160	1315	2.2	2.6	0.4	80	2.347E-06
									AVE	5.397E-06

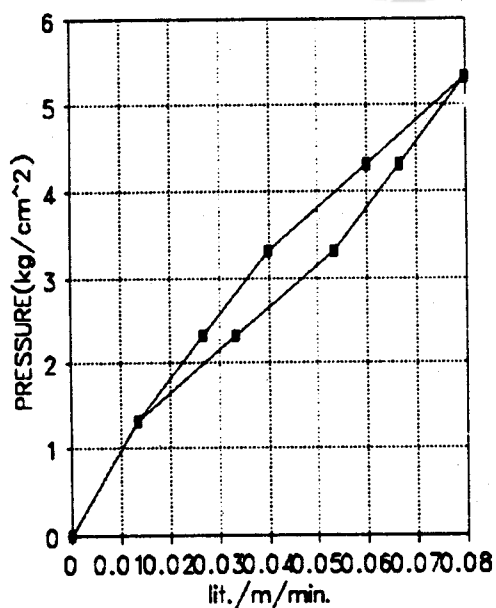
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.	P6 - 8		GEOLOGY		ANDESITE					
DATE	1993.11.8		HOLE DIA.		NX	PACKER		DOUBLE		
TEST SEC.	48	51	TESTED BY.		K.M DONG	G.W.D (m)		1.55		
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
920	925	5	1	160	1315	69.5	69.7	0.2	40	1.174E-06
925	930	5	2	160	2315	69.9	70.3	0.4	80	1.333E-06
930	935	5	3	160	3315	70.5	71.1	0.6	120	1.397E-06
936	941	5	4	160	4315	71.3	72.2	0.9	180	1.610E-06
941	946	5	5	160	5315	72.4	73.6	1.2	240	1.742E-06
946	951	5	4	160	4315	73.7	74.7	1	200	1.788E-06
952	957	5	3	160	3315	74.7	75.5	0.8	160	1.862E-06
957	1002	5	2	160	2315	75.5	76	0.5	100	1.667E-06
1002	1007	5	1	160	1315	76	76.2	0.2	40	1.174E-06
									AVE	1.527E-06

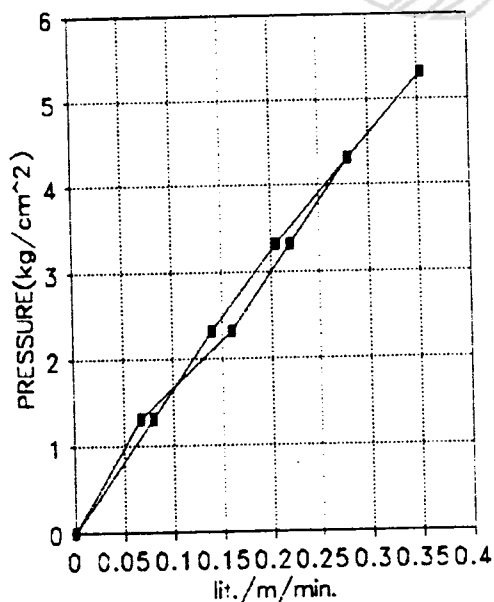
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 8		GEOLOGY		ANDESITE				
DATE		1993.11.8		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		56.5	59.5	TESTED BY.		K.M DONG		G.W.D (m)		1.55
INJECTION TIME			P	G. H.	H	FLOW METER		Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY	K(cm/sec)	
820	825	5	1	160	1315	34.5	35.5	1	200	5.868E-06
825	830	5	2	160	2315	36	38.4	2.4	480	8.000E-06
830	835	5	3	160	3315	38.9	42.2	3.3	660	7.682E-06
835	840	5	4	160	4315	42.5	46.7	4.2	840	7.511E-06
841	846	5	5	160	5315	47.2	52.5	5.3	1060	7.695E-06
846	851	5	4	160	4315	52.7	56.9	4.2	840	7.511E-06
851	856	5	3	160	3315	57.1	60.2	3.1	620	7.217E-06
856	901	5	2	160	2315	60.3	62.4	2.1	420	7.000E-06
901	906	5	1	160	1315	62.5	63.7	1.2	240	7.042E-06
AVE									7.281E-06	

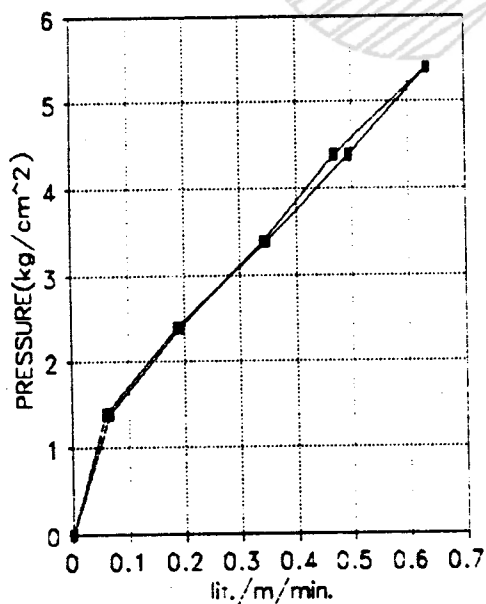
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 9		GEOLOGY		ANDESITE						
DATE			1993.11.11		HOLE DIA.		NX		PACKER		DOUBLE		
TEST SEC.			4		7		TESTED BY.		K.M DONG		G.W.D (m)	2.3	
INJECTION TIME			P		G. H.		H		FLOW METER		Q	PERM.	
FR.		TO	TIME			(cm)		(cm)	FR.	TO	Q'TY	K(cm/sec)	
1350		1400	5	1		160		1390	34.1	35	0.9	180	4.997E-06
1401		1406	5	2		160		2390	35.7	38.5	2.8	560	9.041E-06
1406		1411	5	3		160		3390	39.2	44.4	5.2	1040	1.184E-05
1411		1416	5	4		160		4390	45	52.4	7.4	1480	1.301E-05
1421		1426	5	5		160		5390	54.1	63.6	9.5	1900	1.360E-05
1426		1431	5	4		160		4390	63.8	70.8	7	1400	1.231E-05
1432		1437	5	3		160		3390	71	76.1	5.1	1020	1.161E-05
1437		1442	5	2		160		2390	76.3	79.2	2.9	580	9.364E-06
1442		1447	5	1		160		1390	79.2	80.2	1	200	5.552E-06
												AVE	1.015E-05

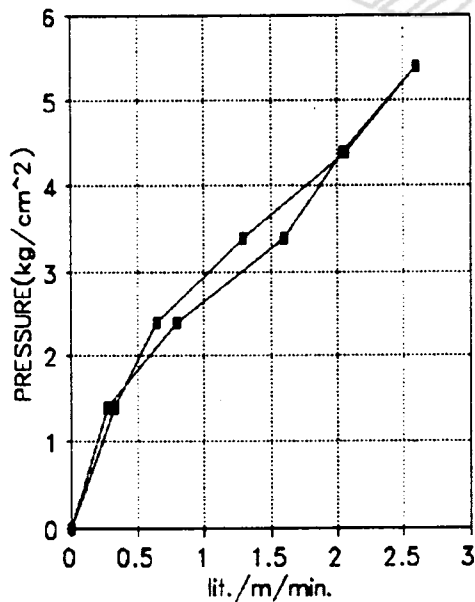
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 9		GEOLOGY		ANDESITE				
DATE		1993.11.11		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		7	10	TESTED BY.		K.M DONG		G.W.D (m)		2.3
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1235	1240	5	1	160	1390	35.1	39.2	4.1	820	2.276E-05
1240	1245	5	2	160	2390	41	53	12	2400	3.875E-05
1245	1250	5	3	160	3390	56	80	24	4800	5.463E-05
1251	1256	5	4	160	4390	84.2	114.9	30.7	6140	5.397E-05
1256	1301	5	5	160	5390	119	158	39	7800	5.584E-05
1301	1306	5	4	160	4390	161	192	31	6200	5.449E-05
1306	1311	5	3	160	3390	194.2	213.7	19.5	3900	4.439E-05
1312	1317	5	2	160	2390	214.5	224.2	9.7	1940	3.132E-05
1317	1322	5	1	160	1390	224.5	229.4	4.9	980	2.720E-05
									AVE	4.259E-05

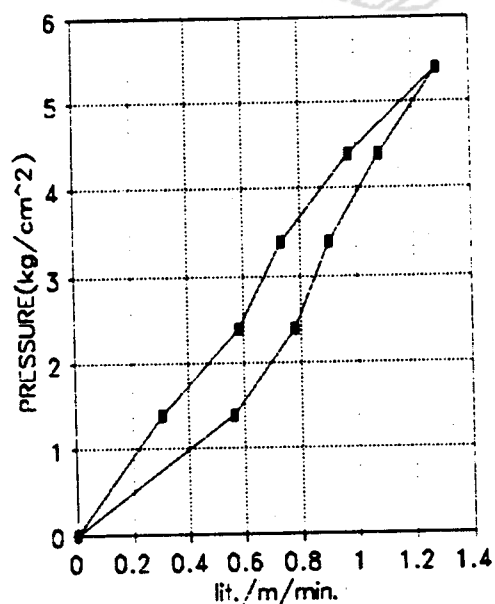
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 9		GEOLOGY		ANDESITE				
DATE			1993.11.11		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			22 25		TESTED BY.		K.M DONG		G.W.D (m)		2.3
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
1130	1135	5	1	160	1390	53.2	61.6	8.4	1680	4.664E-05	
1135	1140	5	2	160	2390	64	75.7	11.7	2340	3.778E-05	
1141	1146	5	3	160	3390	78.4	91.9	13.5	2700	3.073E-05	
1146	1151	5	4	160	4390	94.4	110.6	16.2	3240	2.848E-05	
1151	1156	5	5	160	5390	112.7	132	19.3	3860	2.763E-05	
1201	1206	5	4	160	4390	133.7	148.3	14.6	2920	2.566E-05	
1206	1211	5	3	160	3390	149.5	160.5	11	2200	2.504E-05	
1212	1217	5	2	160	2390	161.4	170.1	8.7	1740	2.809E-05	
1217	1222	5	1	160	1390	170.6	175.2	4.6	920	2.554E-05	
									AVE	3.062E-05	

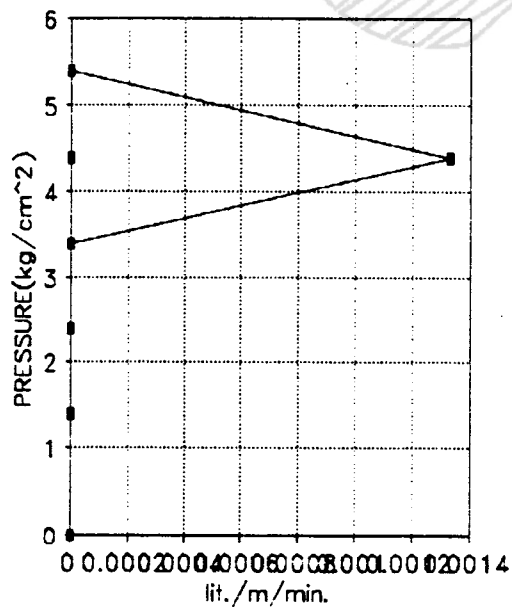
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 9		GEOLOGY		ANDESITE				
DATE			1993.11.11		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			27 30		TESTED BY.		K.M DONG		G.W.D (m)		2.3
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1029	1034	5	1		160	1390	47.2	47.2	0	0	0.000E+00
1034	1039	5	2		160	2390	47.3	47.3	0	0	0.000E+00
1039	1044	5	3		160	3390	47.5	47.5	0	0	0.000E+00
1045	1050	5	4		160	4390	47.5	47.52	0.02	4	3.516E-08
1051	1056	5	5		160	5390	47.6	47.6	0	0	0.000E+00
1056	1101	5	4		160	4390	47.7	47.7	0	0	0.000E+00
1101	1106	5	3		160	3390	47.7	47.7	0	0	0.000E+00
1107	1112	5	2		160	2390	47.7	47.7	0	0	0.000E+00
1112	1117	5	1		160	1390	47.7	47.7	0	0	0.000E+00
										AVE	3.906E-09

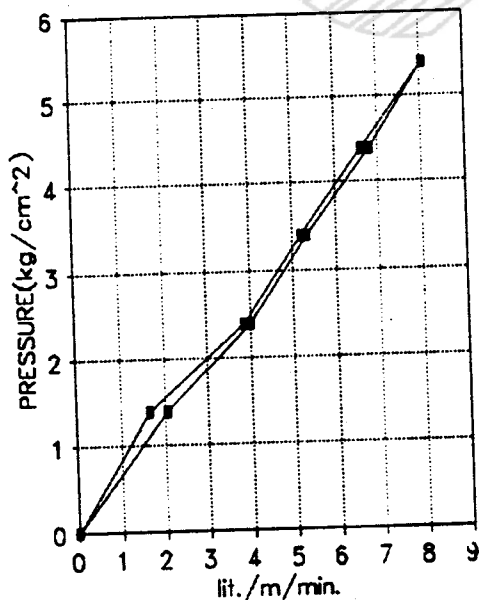
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 9		GEOLOGY		ANDESITE				
DATE			1993.11.11		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			32 35		TESTED BY.		K.M DONG		G.W.D (m)		2.3
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
930	935	5	1		160	1390	26.5	51.5	25	5000	1.388E-04
935	940	5	2		160	2390	57	115	58	11600	1.873E-04
941	946	5	3		160	3390	123	201	78	15600	1.776E-04
946	951	5	4		160	4390	212	311	99	19800	1.740E-04
951	956	5	5		160	5390	325	446	121	24200	1.732E-04
956	1001	5	4		160	4390	457	559	102	20400	1.793E-04
1001	1006	5	3		160	3390	568	648	80	16000	1.821E-04
1006	1011	5	2		160	2390	654	714	60	12000	1.937E-04
1012	1017	5	1		160	1390	717	748	31	6200	1.721E-04
										AVE	1.754E-04

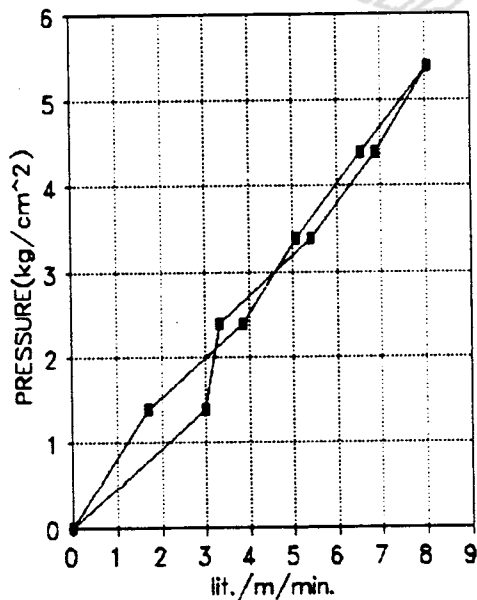
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 9		GEOLOGY		ANDESITE				
DATE		1993.11.11		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		44	47	TESTED BY.		K.M DONG		G.W.D (m)		2.3
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
820	825	5	1	160	1390	56	81.5	25.5	5100	1.416E-04
825	830	5	2	160	2390	87	145	58	11600	1.873E-04
831	836	5	3	160	3390	155	231	76	15200	1.730E-04
836	841	5	4	160	4390	245	343	98	19600	1.723E-04
842	847	5	5	160	5390	355	476	121	24200	1.732E-04
847	852	5	4	160	4390	487	590	103	20600	1.811E-04
852	857	5	3	160	3390	598	679	81	16200	1.844E-04
902	907	5	2	160	2390	684	734	50	10000	1.614E-04
907	912	5	1	160	1390	733	778	45	9000	2.498E-04
									AVE	1.805E-04

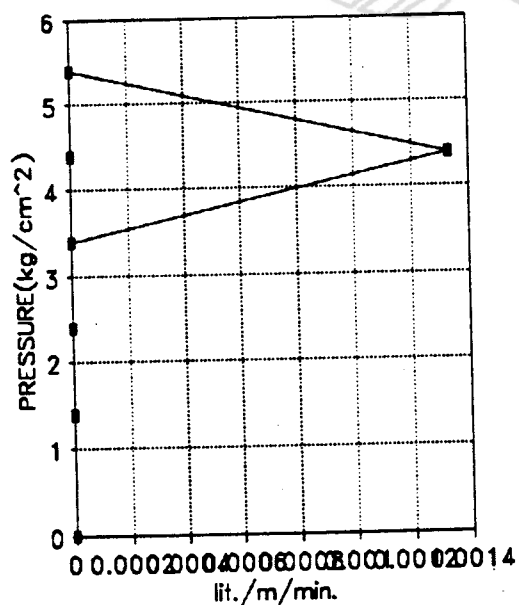
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 9		GEOLOGY		ANDESITE				
DATE		1993.11.11		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		50	53	TESTED BY.		K.M DONG		G.W.D (m)		2.3
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
720	725	5	1	160	1390	13.2	13.2	0	0	0.000E+00
725	730	5	2	160	2390	13.3	13.3	0	0	0.000E+00
731	736	5	3	160	3390	13.4	13.4	0	0	0.000E+00
736	741	5	4	160	4390	13.5	13.5	0	0	0.000E+00
741	746	5	5	160	5390	13.7	13.7	0	0	0.000E+00
746	751	5	4	160	4390	13.6	13.62	0.02	4	3.516E-08
751	756	5	3	160	3390	13.5	13.5	0	0	0.000E+00
757	802	5	2	160	2390	13.5	13.5	0	0	0.000E+00
802	807	5	1	160	1390	13.5	13.5	0	0	0.000E+00
									AVE	3.906E-09

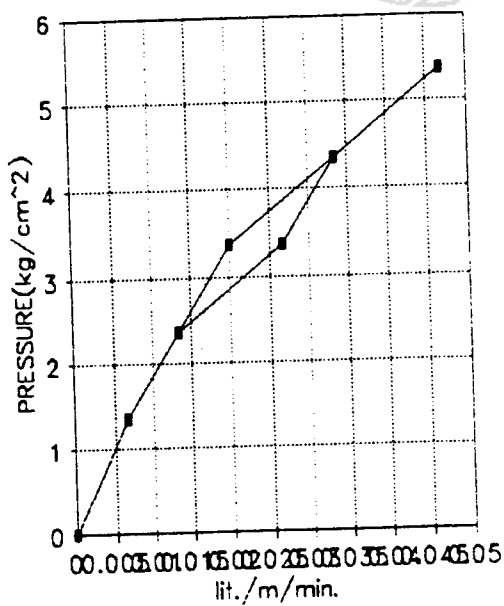
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO. P6 - 10			GEOLOGY ANDESITE			PACKER			DOUBLE	
DATE 1993.11.15			HOLE DIA. NX			G.W.D (m)			2	
TEST SEC. 18.5 21.5			TESTED BY. K.M DONG			G.W.D (m)			2	
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1510	1520	5	1	160	1360	35.2	35.3	0.1	20	5.674E-07
1520	1525	5	2	160	2360	35.4	35.6	0.2	40	6.540E-07
1525	1530	5	3	160	3360	35.8	36.2	0.4	80	9.187E-07
1531	1536	5	4	160	4360	36.4	36.9	0.5	100	8.850E-07
1536	1541	5	5	160	5360	37.2	37.9	0.7	140	1.008E-06
1541	1546	5	4	160	4360	38	38.5	0.5	100	8.850E-07
1546	1551	5	3	160	3360	38.5	38.8	0.3	60	6.890E-07
1552	1557	5	2	160	2360	38.8	39	0.2	40	6.540E-07
1558	1603	5	1	160	1360	39	39.1	0.1	20	5.674E-07
									AVE	7.587E-07

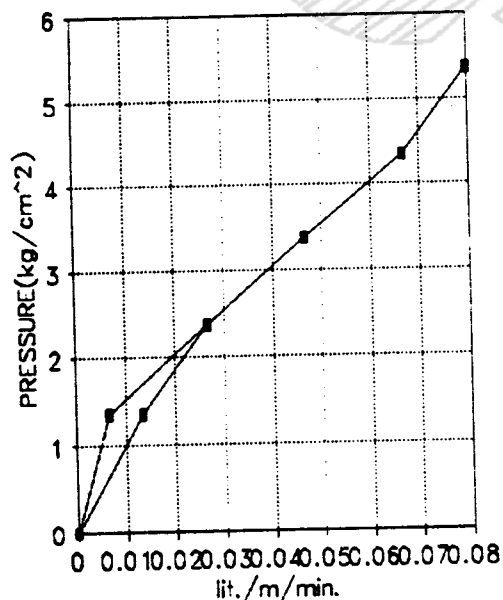
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 10		GEOLOGY		ANDESITE					
DATE		1993.11.15		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		23		26		TESTED BY.		K.M DONG		G.W.D (m)	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		PERM.	
										K(cm/sec)	
1345	1350	5	1	160	1360	22.2	22.4	0.2	40	1.135E-06	
1350	1355	5	2	160	2360	22.7	23.1	0.4	80	1.308E-06	
1356	1401	5	3	160	3360	23.4	24.1	0.7	140	1.608E-06	
1401	1406	5	4	160	4360	24.5	25.5	1	200	1.770E-06	
1406	1411	5	5	160	5360	25.8	27	1.2	240	1.728E-06	
1411	1416	5	4	160	4360	27.1	28.1	1	200	1.770E-06	
1416	1421	5	3	160	3360	28.1	28.8	0.7	140	1.608E-06	
1421	1426	5	2	160	2360	28.8	29.2	0.4	80	1.308E-06	
1426	1431	5	1	160	1360	29.2	29.3	0.1	20	5.674E-07	
										AVE	
										1.422E-06	

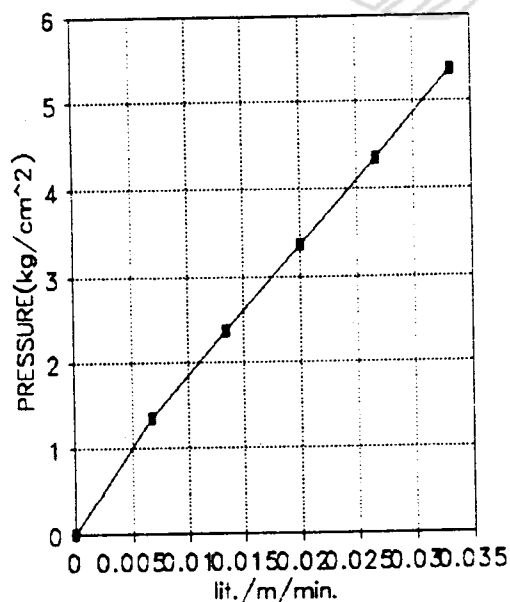
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 10		GEOLOGY		ANDESITE					
DATE		1993.11.15		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		28 31		TESTED BY.		K.M DONG		G.W.D (m)		2	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY			PERM. K(cm/sec)
1240	1245	5	1	160	1360	11.5	11.6	0.1	20		5.674E-07
1245	1250	5	2	160	2360	11.7	11.9	0.2	40		6.540E-07
1251	1256	5	3	160	3360	12.1	12.4	0.3	60		6.890E-07
1256	1301	5	4	160	4360	12.6	13	0.4	80		7.080E-07
1301	1306	5	5	160	5360	13.3	13.8	0.5	100		7.199E-07
1306	1311	5	4	160	4360	13.8	14.2	0.4	80		7.080E-07
1311	1316	5	3	160	3360	14.2	14.5	0.3	60		6.890E-07
1316	1321	5	2	160	2360	14.5	14.7	0.2	40		6.540E-07
1322	1327	5	1	160	1360	14.7	14.8	0.1	20		5.674E-07
										AVE	6.619E-07

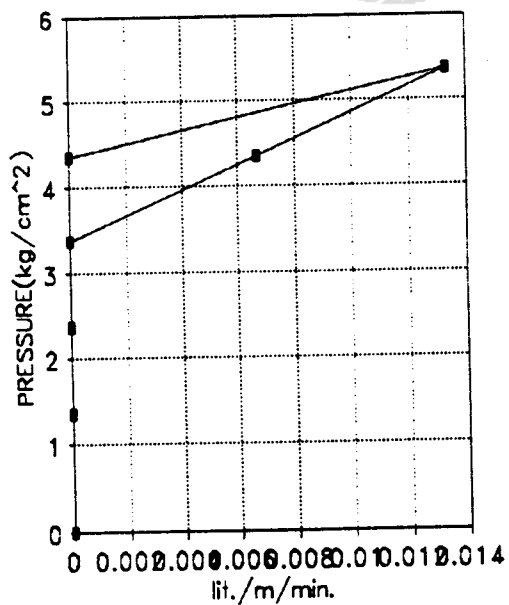
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 10		GEOLOGY		ANDESITE					
DATE		1993.11.15		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		33		36		TESTED BY.		K.M DONG		G.W.D (m)	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY			PERM. K(cm/sec)
1130	1135	5	1	160	1360	2.5	2.5	0	0		0.000E+00
1135	1140	5	2	160	2360	2.6	2.6	0	0		0.000E+00
1141	1146	5	3	160	3360	2.7	2.7	0	0		0.000E+00
1146	1151	5	4	160	4360	2.8	2.9	0.1	20		1.770E-07
1151	1156	5	5	160	5360	3	3.2	0.2	40		2.879E-07
1157	1202	5	4	160	4360	3.2	3.2	0	0		0.000E+00
1202	1207	5	3	160	3360	3.1	3.1	0	0		0.000E+00
1207	1212	5	2	160	2360	2.9	2.9	0	0		0.000E+00
1212	1217	5	1	160	1360	2.8	2.8	0	0		0.000E+00
										AVE	5.166E-08

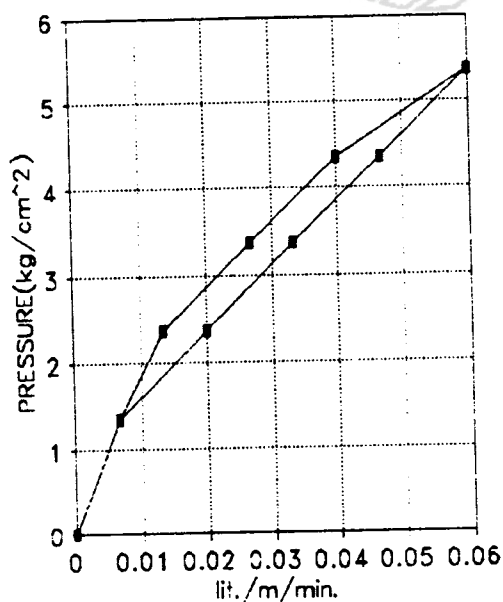
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 10		GEOLOGY		ANDESITE					
DATE		1993.11.15		HOLE DIA.		NX		PACKER		DOUBLE	
TEST SEC.		38 41		TESTED BY.		K.M DONG		G.W.D (m)		2	
INJECTION TIME		P		G. H.		H		FLOW METER		Q	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		PERM.	
										K(cm/sec)	
1015	1015	5	1	160	1360	85.2	85.3	0.1	20	5.674E-07	
1015	1020	5	2	160	2360	85.6	85.9	0.3	60	9.810E-07	
1021	1026	5	3	160	3360	86.2	86.7	0.5	100	1.148E-06	
1026	1031	5	4	160	4360	86.9	87.6	0.7	140	1.239E-06	
1031	1036	5	5	160	5360	87.9	88.8	0.9	180	1.296E-06	
1036	1041	5	4	160	4360	88.9	89.5	0.6	120	1.062E-06	
1042	1047	5	3	160	3360	89.5	89.9	0.4	80	9.187E-07	
1047	1052	5	2	160	2360	89.9	90.1	0.2	40	6.540E-07	
1052	1057	5	1	160	1360	90.1	90.2	0.1	20	5.674E-07	
AVE										9.371E-07	

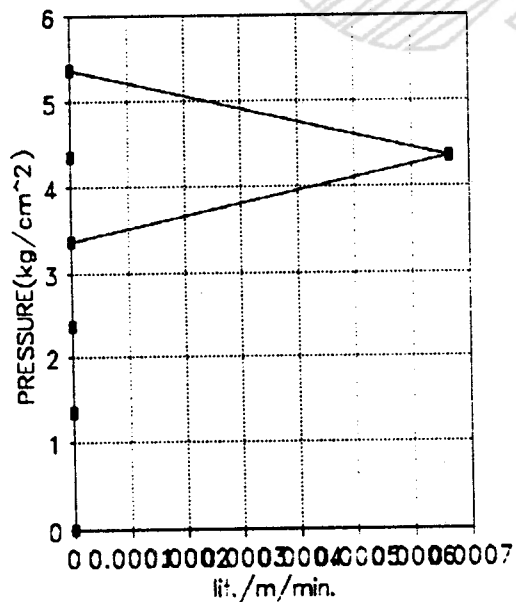
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 10		GEOLOGY		ANDESITE				
DATE		1993.11.15		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		48 51		TESTED BY.		K.M DONG		G.W.D (m)		2
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
910	915	5	1	160	1360	72	72	0	0	0.000E+00
915	920	5	2	160	2360	72.1	72.1	0	0	0.000E+00
920	925	5	3	160	3360	72.3	72.3	0	0	0.000E+00
926	931	5	4	160	4360	72.5	72.5	0	0	0.000E+00
931	936	5	5	160	5360	72.6	72.6	0	0	0.000E+00
936	941	5	4	160	4360	72.5	72.51	0.01	2	1.770E-08
941	946	5	3	160	3360	72.4	72.4	0	0	0.000E+00
946	951	5	2	160	2360	72.2	72.2	0	0	0.000E+00
952	957	5	1	160	1360	72	72	0	0	0.000E+00
									AVE	1.967E-09

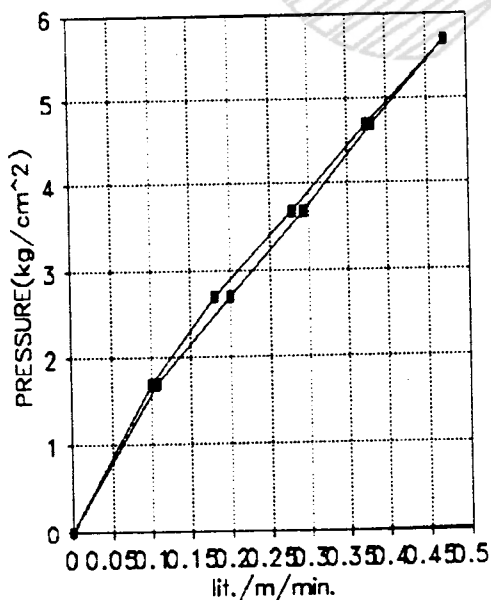
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 11		GEOLOGY		ANDESITE				
DATE		1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		7.5	10.5	TESTED BY.		K.M DONG		G.W.D (m)		5.25
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
1045	1050	5	1	160	1685	67.2	68.7	1.5	300	6.870E-06
1050	1055	5	2	160	2685	69.2	71.9	2.7	540	7.760E-06
1055	1100	5	3	160	3685	72.5	76.7	4.2	840	8.796E-06
1100	1105	5	4	160	4685	77.3	82.9	5.6	1120	9.224E-06
1106	1111	5	5	160	5685	83.7	90.8	7.1	1420	9.638E-06
1111	1116	5	4	160	4685	91.1	96.8	5.7	1140	9.389E-06
1116	1121	5	3	160	3685	97.2	101.6	4.4	880	9.214E-06
1122	1127	5	2	160	2685	102	105	3	600	8.622E-06
1127	1132	5	1	160	1685	105.1	106.7	1.6	320	7.328E-06
									AVE	8.538E-06

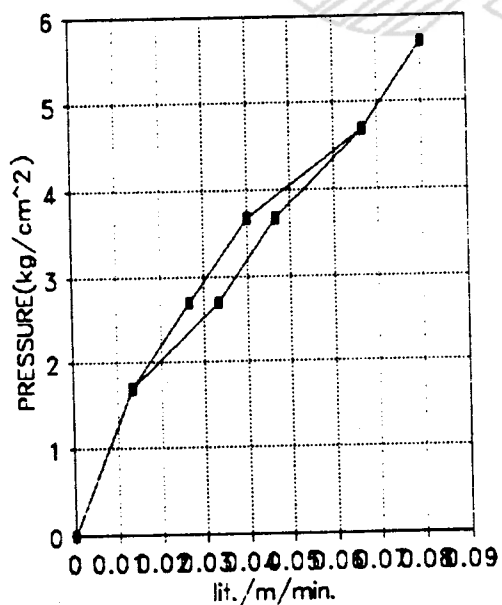
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 11		GEOLOGY		ANDESITE				
DATE			1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			13 16		TESTED BY.		K.M DONG		G.W.D (m)		5.25
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.	
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)	
940	945	5	1	160	1685	52.7	52.9	0.2	40	9.160E-07	
945	950	5	2	160	2685	53	53.5	0.5	100	1.437E-06	
951	956	5	3	160	3685	53.7	54.4	0.7	140	1.466E-06	
956	1001	5	4	160	4685	54.6	55.6	1	200	1.647E-06	
1001	1006	5	5	160	5685	55.9	57.1	1.2	240	1.629E-06	
1006	1011	5	4	160	4685	57.2	58.2	1	200	1.647E-06	
1012	1017	5	3	160	3685	58.2	58.8	0.6	120	1.257E-06	
1017	1022	5	2	160	2685	58.8	59.2	0.4	80	1.150E-06	
1022	1027	5	1	160	1685	59.2	59.4	0.2	40	9.160E-07	
									AVE	1.340E-06	

P-Q CURVE



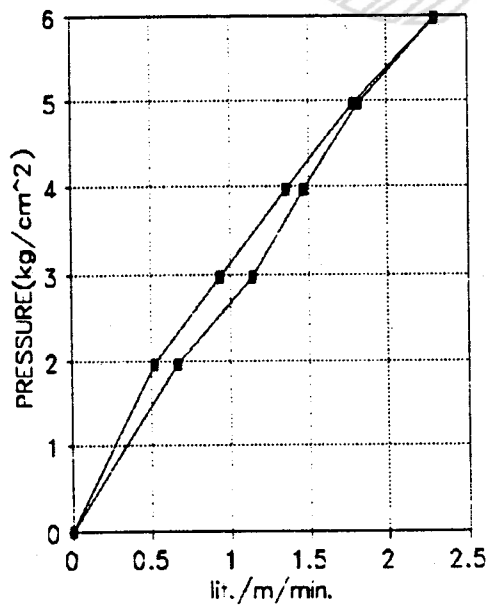
WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 11		GEOLOGY		RHYO-DACITE				
DATE			1993.11.10		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			26 29		TESTED BY.		K.M DONG		G.W.D (m)		5.25
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
840	845	5	1		160	1685	37.2	37.2	0	0	0.000E+00
845	850	5	2		160	2685	37.4	37.4	0	0	0.000E+00
851	856	5	3		160	3685	37.6	37.6	0	0	0.000E+00
856	901	5	4		160	4685	37.7	37.7	0	0	0.000E+00
901	906	5	5		160	5685	37.8	38	0.2	40	2.715E-07
906	911	5	4		160	4685	37.9	37.9	0	0	0.000E+00
911	916	5	3		160	3685	37.8	37.8	0	0	0.000E+00
916	921	5	2		160	2685	37.6	37.6	0	0	0.000E+00
922	927	5	1		160	1685	37.4	37.4	0	0	0.000E+00
										AVE	3.017E-08

WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.		P6 - 12		GEOLOGY		ANDESITE				
DATE		1993.11.9		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		18	21	TESTED BY.		K.M DONG		G.W.D (m)		8.02
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
940	945	5	1	160	1962	58.2	66	7.8	1560	3.068E-05
945	950	5	2	160	2962	68.1	82.1	14	2800	3.647E-05
951	956	5	3	160	3962	84.5	104.8	20.3	4060	3.954E-05
956	1001	5	4	160	4962	8.4	35.2	26.8	5360	4.168E-05
1001	1006	5	5	160	5962	40	74.5	34.5	6900	4.466E-05
1006	1011	5	4	160	4962	177.3	204.5	27.2	5440	4.230E-05
1012	1017	5	3	160	3962	207	229.1	22.1	4420	4.305E-05
1017	1022	5	2	160	2962	30.3	47.4	17.1	3420	4.455E-05
1022	1027	5	1	160	1962	48	58	10	2000	3.933E-05
									AVE	4.025E-05

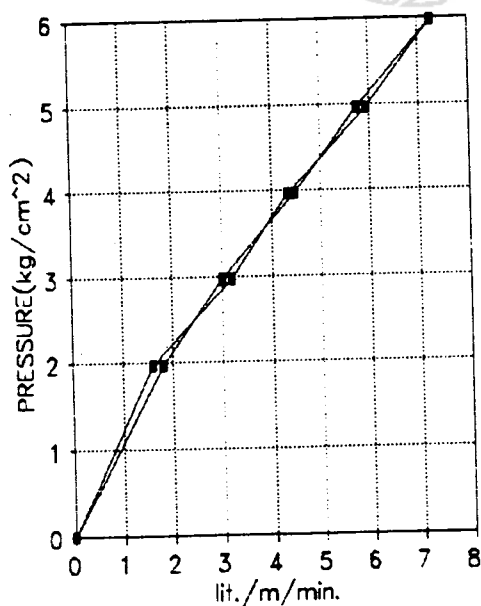
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST

HOLE NO.			P6 - 12		GEOLOGY		ANDESITE				
DATE			1993.11.9		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.			23 26		TESTED BY.		K.M DONG		G.W.D (m)		8.02
INJECTION TIME			P		G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME			(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
820	825	5	1		160	1962	24.4	48.5	24.1	4820	9.479E-05
825	830	5	2		160	2962	54	102	48	9600	1.251E-04
830	835	5	3		160	3962	109	174	65	13000	1.266E-04
836	841	5	4		160	4962	184	273	89	17800	1.384E-04
841	846	5	5		160	5962	284	393	109	21800	1.411E-04
846	851	5	4		160	4962	402	488	86	17200	1.337E-04
852	857	5	3		160	3962	495	562	67	13400	1.305E-04
858	903	5	2		160	2962	567	612	45	9000	1.172E-04
903	908	5	1		160	1962	615	642	27	5400	1.062E-04
										AVE	1.237E-04

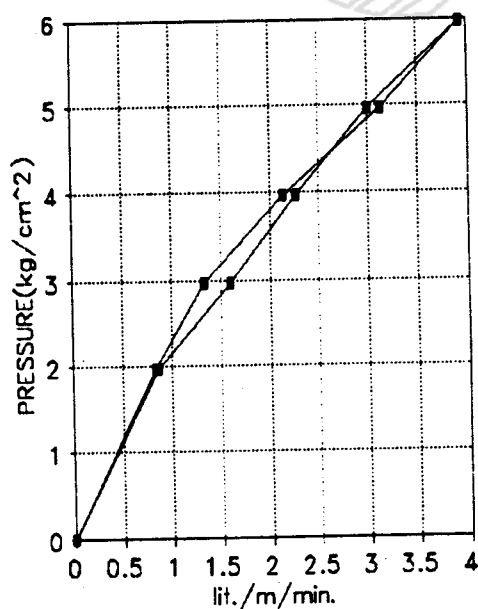
P-Q CURVE



WORKING SHEETS OF WATER PRESSURE TEST


HOLE NO.		P6 - 12		GEOLOGY		ANDESITE				
DATE		1993.11.9		HOLE DIA.		NX		PACKER		DOUBLE
TEST SEC.		26.5	29.5	TESTED BY.		K.M DONG		G.W.D (m)		8.02
INJECTION TIME			P	G. H.	H	FLOW METER			Q	PERM.
FR.	TO	TIME		(cm)	(cm)	FR.	TO	Q'TY		K(cm/sec)
720	725	5	1	160	1962	85	98	13	2600	5.113E-05
725	730	5	2	160	2962	104	128	24	4800	6.253E-05
731	736	5	3	160	3962	134	168	34	6800	6.622E-05
736	741	5	4	160	4962	174	219	45	9000	6.999E-05
741	746	5	5	160	5962	226	285	59	11800	7.637E-05
746	751	5	4	160	4962	290	337	47	9400	7.310E-05
751	756	5	3	160	3962	340	372	32	6400	6.233E-05
757	802	5	2	160	2962	374	394	20	4000	5.211E-05
802	807	5	1	160	1962	396	408.5	12.5	2500	4.917E-05
									AVE	6.255E-05


P-Q CURVE



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Specimen ID.	Diameter (cm)	Length (cm)	Specific Gravity	True/Apparent Density (gr/cm ³)	P/S wave Velocity (m/sec)	Porosity (%)	Absorption (%)	Uni. Comp. Strength (kgf/cm ²)	Young's Modulus (×10 ³ kgf/cm ²)	Poisson's Ratio	SHORE Hardness	Remarks
												Depth, m
P6 - 1 - C2	5.455	10.930	2.688		5250/4040	1.233	0.486	1870	5.435	0.209		9.90
P6 - 1 - C3	5.460	10.890	2.724		5230/3680	0.879	0.331	2180	4.571	0.219		18.00
P6 - 2 - C1	5.440	11.105	2.696		5330/4080	0.984	0.379	2390	5.714	0.240		4.90
P6 - 2 - C2	5.450	11.110	2.705		5340/4070	0.810	0.318	2180	4.158	0.247		10.30
P6 - 4 - C1	5.150	10.880	2.688		5230/3880	1.015	0.385	1480	5.594	0.266		2.60
P6 - 4 - C2	5.468	10.910	2.708		4470/3290	0.925	0.350	2060	5.109	0.234		8.10
P6 - 4 - C3	5.470	10.950	2.684		4480/3070	0.814	0.329	1870	4.079	0.214		21.20
P6 - 7 - C1	5.465	10.905	2.695		4520/3690	0.430	0.163	1270	3.714	0.214		8.90
P6 - 7 - C2	5.485	10.950	2.705		4540/3360	0.425	0.157	2040	8.147	0.371		21.10
P6 - 9 - C1	5.415	11.100	2.695		4170/3170	0.720	0.267	1990	4.367	0.273		5.20
P6 - 9 - C2	5.465	11.030	2.684		4340/3050	0.491	0.183	2100	5.472	0.285		13.20
P6 -11 - C1	5.480	11.050	2.676		4350/2970	0.859	0.321	960	5.042	0.211		14.10
P6 -11 - C2	5.480	11.030	2.670		4340/3050	1.138	0.443	1460	5.249	0.181		25.00
76 77 50												
												


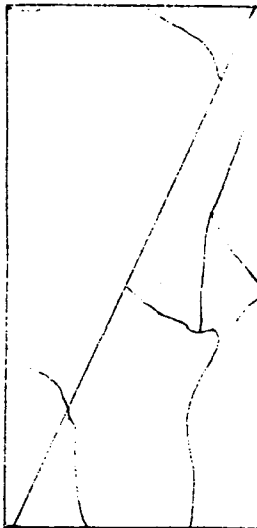
Specimen ID.	Diameter (cm)	Length (cm)	Specific Gravity	True/Apparent Density (gr/cm ³)	P/S wave Velocity (m/sec)	Porosity (%)	Absorption (%)	Uni. Comp. Strength (kgf/cm ²)	Young's Modulus ($\times 10^3$ kgf/cm ²)	Poisson's Ratio	SHORE Hardness	Remarks
P5 - 1 - C	5.220	10.785	2.601		3800/2430	1.040	0.400	530	3.000	0.135		59.00
P5 - 4 - C1	5.420	10.790	2.682		4650/2980	0.482	0.187	810	2.339	0.171		27.20
P5 - 4 - C2	5.200	10.810	2.670		4620/2850	0.479	0.186	1310	4.556	0.286		34.20
P5 - 4 - C3	5.210	10.780	2.690		4450/3000	0.500	0.186	1790	5.808	0.322		45.70
P5 - 7 - C1	5.150	10.910	2.654		4680/2346	1.157	0.453	1480	2.829	0.157		16.40
P5 - 7 - C2	5.160	10.815	2.685		4200/3600	1.150	0.455	870	1.936	0.161		16.90
P5 - 9 - C1	5.155	10.875	2.664		3780/2480	1.101	0.447	1500	3.463	0.289		13.50
P5 - 9 - C2	5.495	10.900	2.689		4080/2700	1.006	0.389	1970	4.425	0.230		19.90
P5 - 11 - C1	5.160	10.935	2.655		3800/2890	1.137	0.428	790	1.057	0.121		3.30
P5 - 11 - C2	5.430	10.775	2.712		3710/2850	1.082	0.399	1030	1.500	0.128		15.20
P5 - 15 - C1	5.455	10.800	2.623		3500/2230	1.070	0.424	830	3.168	0.208		17.20
P5 - 15 - C2	5.455	10.925	2.601		3590/2190	1.057	0.423	880	3.649	0.217		20.20
P6 - 1 - C1	5.452	10.780	2.678		5580/3870	1.252	0.485	1110	6.319	0.229		3.10
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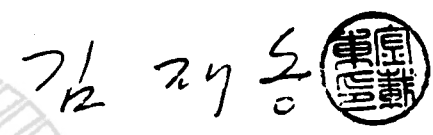
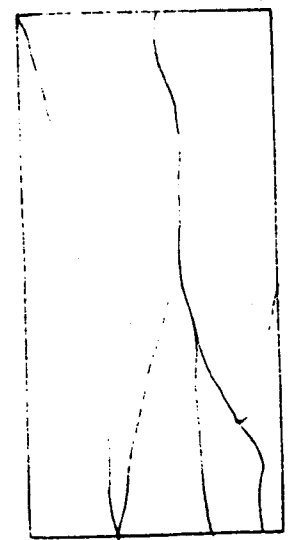
(Test Sheet - 2)


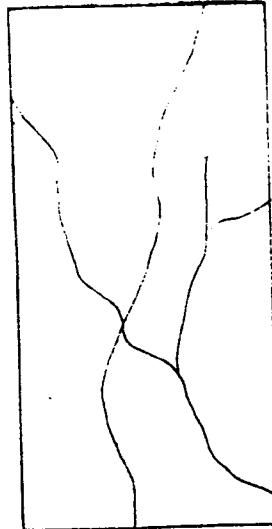
Specimen ID.	Diameter (cm)	Length (cm)	Tensile Strength (kgf/cm ²)	Shear Strength (kgf/cm ²)	Triaxial Compression Test				Remarks
					Conf. Pres. (kgf/cm ²)	Max. Stress (kgf/cm ²)	Cohesion (kgf/cm ²)	Int. Fric. Angle (°)	
P5-9-T1	5.490	10.895			50	2440			27.80
P5-9-T2	5.488	10.765			100	2470	290	59	27.90
P5-9-T3	5.485	10.980			150	2800			28.00
P6-4-T1	5.465	10.946			50	3120			20.30
P6-4-T2	5.468	10.855			100	3510	320	66	20.40
P6-4-T3	5.470	10.895			150	3300			20.50
P6-7-T1	5.475	10.766			50	2190			15.30
P6-7-T2	5.477	10.980			100	2220	360	50	15.40
P6-7-T3	5.475	10.859			150	2560			15.50
27 24 50									


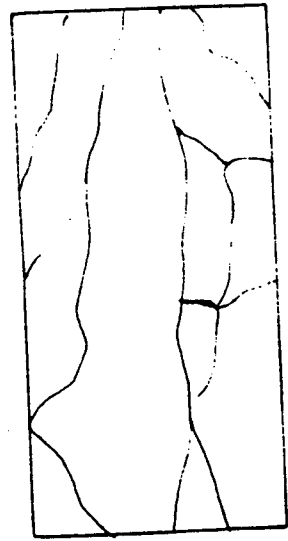


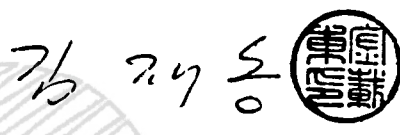
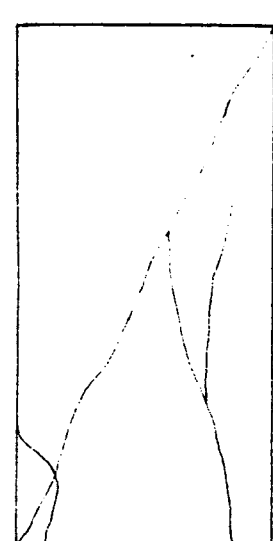
Rock Mechanics Laboratory, Dept. of Resources Engineering, Kangwon National University


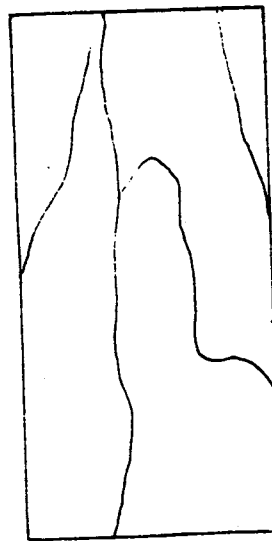
Rock Test : UNIAXIAL COMPRESSION TEST	
Specimen	Identification P5-1-C
	Lithologic Description
	Source P5-1 HOLE DEPTH 59.00
	Diameter(cm) 5.220 Height(cm) 10.785
Test Condition	Date 94. 1. 12 Experimentor
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM
	Stress Rate(kgf/cm ² /sec) 5 <i>7/6 7.7 5</i> 
Strength(kgf/cm ²) 530	
Other Physical Properties Failure Description	
Specific Gravity 2.601	
Apparent Density(gr/cm ³)	
True Density(gr/cm ³)	
Porosity(%) 1.040	
Absorption(%) 0.400	
P-Wave Velocity(m/sec) 3800	
S-Wave Velocity(m/sec) 2430	
Shore Hardness	


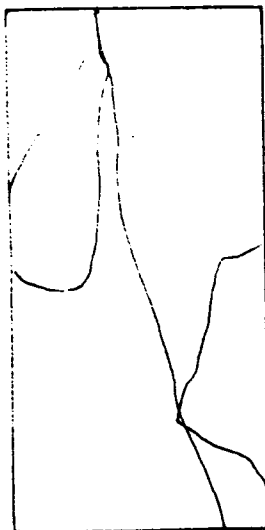
Rock Test : UNIAXIAL COMPRESSION TEST				
Specimen	Identification P5-4-C1			
	Lithologic Description			
	Source P5-4 HOLE DEPTH 27.20			
	Diameter(cm) 5.420	Height(cm) 10.790		
Test Condition	Date 94. 1. 12	Experimentor <div style="text-align: right;">  </div>		
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM			
	Stress Rate(kgf/cm ² /sec) 5			
Strength(kgf/cm ²) 810				
Other Physical Properties		Failure Description		
Specific Gravity 2.682				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%) 0.482				
Absorption(%) 0.187				
P-Wave Velocity(m/sec) 4650				
S-Wave Velocity(m/sec) 2980				
Shore Hardness				


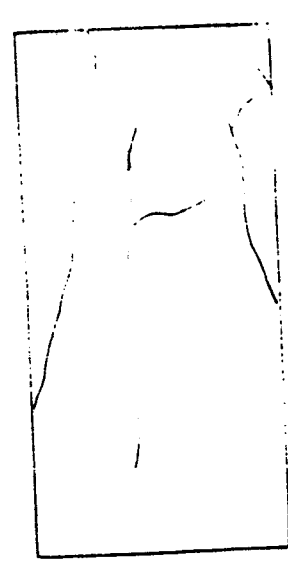
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P5-4-C2		
	Lithologic Description			
	Source	P5-4 HOLE DEPTH 34.20		
	Diameter(cm)	5.200	Height(cm)	10.810
Test Condition	Date	94. 1. 12	Experimentor 76 24 30 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf /cm ² /sec)	5		
Strength(kgf /cm ²)		1310		
Other Physical Properties		Failure Description		
Specific Gravity				
2.670				
Apparent Density(gr /cm ³)				
True Density(gr /cm ³)				
Porosity(%)				
0.479				
Absorption(%)				
0.186				
P-Wave Velocity(m/sec)				
4620				
S-Wave Velocity(m/sec)				
2850				
Shore Hardness				

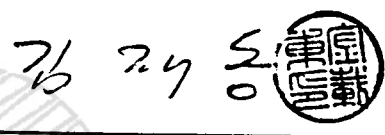
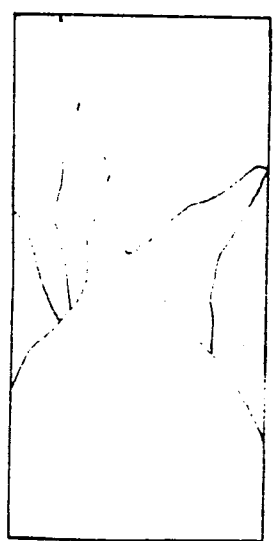
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P5-4-C3		
	Lithologic Description			
	Source	P5-4 HOLE DEPTH 45.70		
	Diameter(cm)	5.210	Height(cm)	10.780
Test Condition	Date	94. 1. 12	Experimentor 76 27 5 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf./cm ² /sec)	5		
Strength(kgf/cm ²)		1790		
Other Physical Properties		Failure Description		
Specific Gravity				
2.690				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%)				
0.500				
Absorption(%)				
0.186				
P-Wave Velocity(m/sec)				
4450				
S-Wave Velocity(m/sec)				
3000				
Shore Hardness				


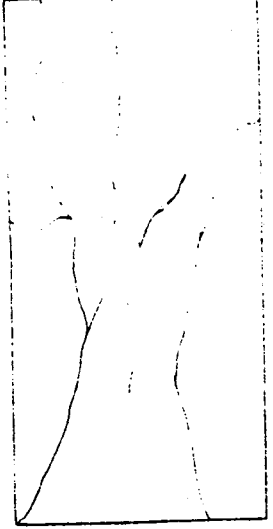
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P5-7-C1		
	Lithologic Description			
	Source	P5-7 HOLE DEPTH 16.40		
	Diameter(cm)	5.150	Height(cm)	10.910
Test Condition	Date	94. 1. 12	Experimentor 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf /cm ² /sec)	5		
Strength(kgf /cm ²)		1480		
Other Physical Properties		Failure Description		
Specific Gravity		2.654		
Apparent Density(gr /cm ³)				
True Density(gr /cm ³)				
Porosity(%)				
Absorption(%)				
P-Wave Velocity(m/sec)				
S-Wave Velocity(m/sec)				
Shore Hardness				

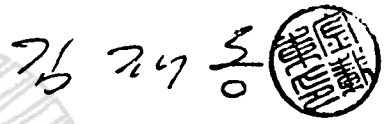
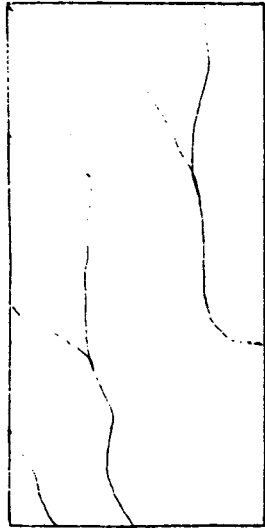
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P5-7-C2		
	Lithologic Description			
	Source	P5-7 HOLE DEPTH 16.90		
	Diameter(cm)	5.160	Height(cm)	10.815
Test Condition	Date	94. 1. 12	Experimentor 76 27 5 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf /cm ² /sec)	5		
Strength(kgf /cm ²)		870		
Other Physical Properties		Failure Description		
Specific Gravity				
2.685				
Apparent Density(gr /cm ³)				
True Density(gr /cm ³)				
1.150				
Porosity(%)				
Absorption(%)				
0.455				
P - Wave Velocity(m /sec)				
4200				
S - Wave Velocity(m /sec)				
3600				
Shore Hardness				


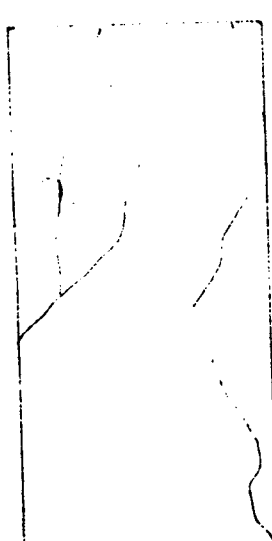
Rock Test : UNIAXIAL COMPRESSION TEST	
Specimen	Identification P5-9-C1
	Lithologic Description
	Source P5-9 HOLE DEPTH 13.50
	Diameter(cm) 5.155 Height(cm) 10.875
Test Condition	Date 94. 1. 12 Experimentor
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM
	Stress Rate(kgf /cm ² /sec) 5
<p style="text-align: right;">26 24 50 </p>	
Strength(kgf /cm ²) 1500	
Other Physical Properties	Failure Description
Specific Gravity 2.664	
Apparent Density(gr /cm ³)	
True Density(gr /cm ³)	
Porosity(%) 1.101	
Absorption(%) 0.447	
P-Wave Velocity(m/sec) 3780	
S-Wave Velocity(m/sec) 2480	
Shore Hardness	


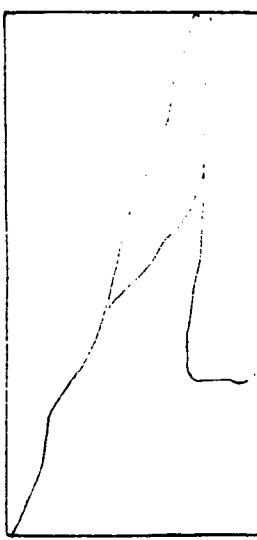
Rock Test : UNIAXIAL COMPRESSION TEST			
Specimen	Identification P5-9-C2		
	Lithologic Description		
	Source P5-9 HOLE DEPTH 19.90		
	Diameter(cm) 5.495	Height(cm) 10.900	
Test Condition	Date 94. 1. 12	Experimentor 76 27 30 	
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec) 5		
Strength(kgf/cm ²) 1970			
Other Physical Properties		Failure Description	
Specific Gravity 2.689			
Apparent Density(gr/cm ³)			
True Density(gr/cm ³)			
Porosity(%) 1.006			
Absorption(%) 0.389			
P-Wave Velocity(m/sec) 4080			
S-Wave Velocity(m/sec) 2700			
Shore Hardness			


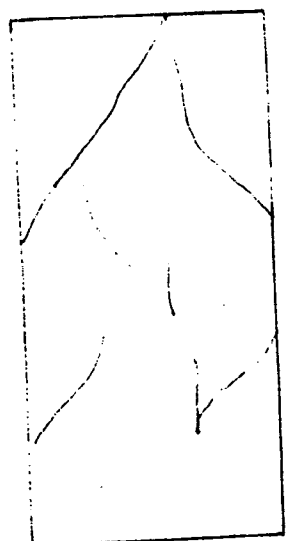
Rock Test : UNIAXIAL COMPRESSION TEST			
Specimen	Identification P5-11-C1		
	Lithologic Description		
	Source P5-11 HOLE DEPTH 3.30		
	Diameter(cm) 5.160	Height(cm) 10.935	
Test Condition	Date 94. 1. 12	Experimentor 	
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec) 5		
Strength(kgf/cm ²) 790			
Other Physical Properties		Failure Description	
Specific Gravity 2.655			
Apparent Density(gr/cm ³)			
True Density(gr/cm ³)			
Porosity(%) 1.137			
Absorption(%) 0.428			
P-Wave Velocity(m/sec) 3800			
S-Wave Velocity(m/sec) 2890			
Shore Hardness			

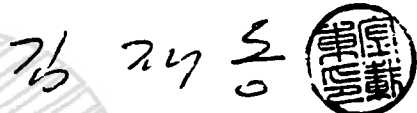
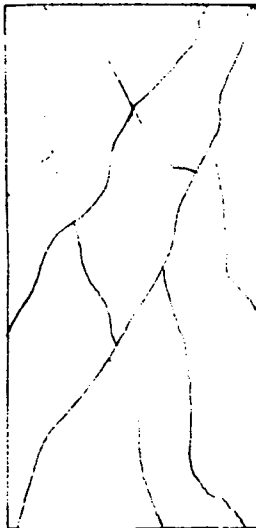
Rock Test : UNIAXIAL COMPRESSION TEST			
Specimen	Identification P5-11-C2		
	Lithologic Description		
	Source P5-11 HOLE DEPTH 15.20		
	Diameter(cm) 5.430	Height(cm) 10.775	
Test Condition	Date 94. 1. 12	Experimentor 76 27 5 	
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec) 5		
Strength(kgf/cm ²) 1030			
Other Physical Properties		Failure Description	
Specific Gravity 2.712			
Apparent Density(gr/cm ³)			
True Density(gr/cm ³)			
Porosity(%) 1.082			
Absorption(%) 0.399			
P-Wave Velocity(m/sec) 3710			
S-Wave Velocity(m/sec) 2850			
Shore Hardness			


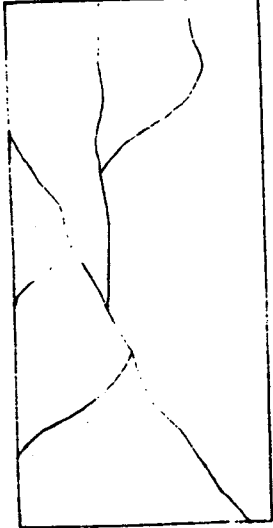
Rock Test : UNIAXIAL COMPRESSION TEST			
Specimen	Identification P5-15-C1		
	Lithologic Description		
	Source P5-15 HOLE DEPTH 17.20		
	Diameter(cm) 5.455	Height(cm) 10.800	
Test Condition	Date 94. 1. 12	Experimentor 	
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec) 5		
Strength(kgf/cm ²) 830			
Other Physical Properties		Failure Description	
Specific Gravity 2.623			
Apparent Density(gr/cm ³)			
True Density(gr/cm ³)			
Porosity(%) 1.070			
Absorption(%) 0.424			
P-Wave Velocity(m/sec) 3500			
S-Wave Velocity(m/sec) 2230			
Shore Hardness			

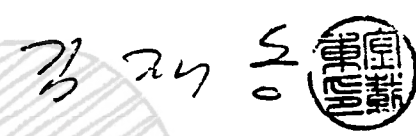
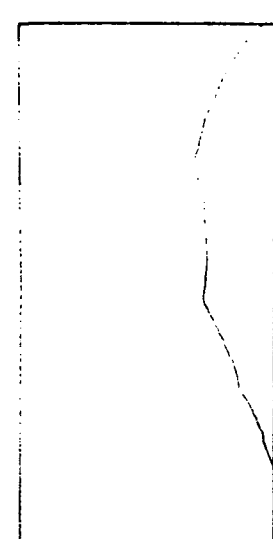
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P5-15-C2		
	Lithologic Description			
	Source	P5-15 HOLE DEPTH 20.20		
	Diameter(cm)	5.455	Height(cm)	10.925
Test Condition	Date	94. 1. 12	Experimentor 7/5 7/4 3/0 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec)	5		
Strength(kgf/cm ²)		880		
Other Physical Properties		Failure Description		
Specific Gravity				
2.601				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%)				
1.057				
Absorption(%)				
0.423				
P-Wave Velocity(m/sec)				
3590				
S-Wave Velocity(m/sec)				
2190				
Shore Hardness				


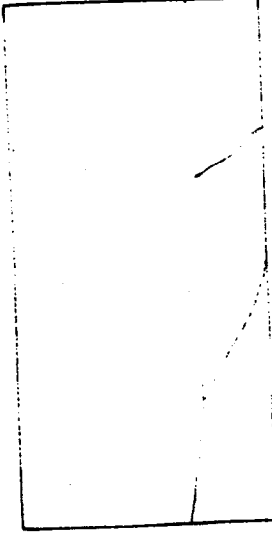
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P6-1-C1		
	Lithologic Description			
	Source	P6-1 HOLE DEPTH 3.10		
	Diameter(cm)	5.452	Height(cm)	10.780
Test Condition	Date	94. 1. 12	Experimentor 2/5 2.4 50 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec)	5		
Strength(kgf/cm ²)		1110		
Other Physical Properties		Failure Description		
Specific Gravity		2.678		
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%)		1.252		
Absorption(%)		0.485		
P-Wave Velocity(m/sec)		5580		
S-Wave Velocity(m/sec)		3870		
Shore Hardness				
				


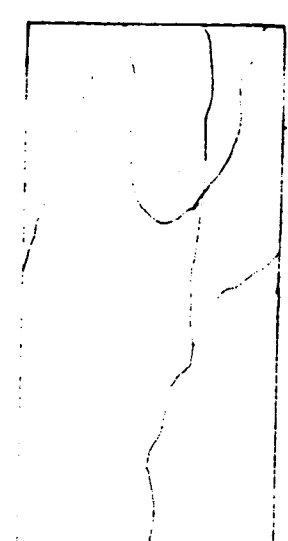
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P6-1-C2		
	Lithologic Description			
	Source	P6-1 HOLE DEPTH 9.90		
	Diameter(cm)	5.455	Height(cm)	10.930
Test Condition	Date	94. 1. 12	Experimentor 김지영 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf /cm ² /sec)	5		
Strength(kgf /cm ²)		1870		
Other Physical Properties		Failure Description		
Specific Gravity				
2.688				
Apparent Density(gr /cm ³)				
True Density(gr /cm ³)				
Porosity(%)				
1.233				
Absorption(%)				
0.486				
P-Wave Velocity(m/sec)				
5250				
S-Wave Velocity(m/sec)				
4040				
Shore Hardness				


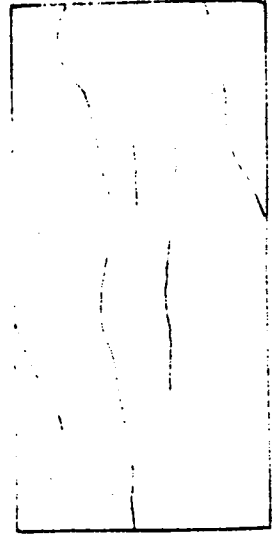
Rock Test : UNIAXIAL COMPRESSION TEST				
Specimen	Identification P6-1-C3			
	Lithologic Description			
	Source P6-1 HOLE DEPTH 18.00			
	Diameter(cm) 5.460	Height(cm) 10.890		
Test Condition	Date 94. 1. 12	Experimentor 		
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM			
	Stress Rate(kgf/cm ² /sec) 5			
Strength(kgf/cm ²) 2180				
Other Physical Properties		Failure Description		
Specific Gravity 2.724				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%) 0.879				
Absorption(%) 0.331				
P-Wave Velocity(m/sec) 5230				
S-Wave Velocity(m/sec) 3680				
Shore Hardness				


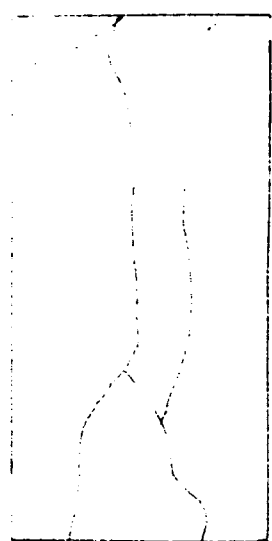
Rock Test : UNIAXIAL COMPRESSION TEST	
Specimen	Identification P6-2-C1
	Lithologic Description
	Source P6-2 HOLE DEPTH 4.90
	Diameter(cm) 5.440 Height(cm) 11.105
Test Condition	Date 94. 1. 12 Experimentor
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM
	Stress Rate(kgf /cm ² /sec) 5
<p>Strength(kgf /cm²) 2390</p> <p>76 24 5 </p>	
Other Physical Properties	Failure Description
Specific Gravity 2.696	
Apparent Density(gr /cm ³)	
True Density(gr /cm ³)	
Porosity(%) 0.984	
Absorption(%) 0.379	
P-Wave Velocity(m/sec) 5330	
S-Wave Velocity(m/sec) 4080	
Shore Hardness	



Rock Test : UNIAXIAL COMPRESSION TEST				
Specimen	Identification P6-2-C2			
	Lithologic Description			
	Source P6-2 HOLE DEPTH 10.30			
	Diameter(cm) 5.450	Height(cm) 11.110		
Test Condition	Date 94. 1. 12	Experimentor 		
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM			
	Stress Rate(kgf/cm ² /sec) 5			
Strength(kgf/cm ²) 2180				
Other Physical Properties		Failure Description		
Specific Gravity 2.705				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%) 0.810				
Absorption(%) 0.318				
P-Wave Velocity(m/sec) 5340				
S-Wave Velocity(m/sec) 4070				
Shore Hardness				

Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P6-4-C1		
	Lithologic Description			
	Source	P6-4 HOLE DEPTH 2.60		
	Diameter(cm)	5.150	Height(cm)	10.880
Test Condition	Date	94. 1. 12	Experimentor 76 27 50 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec)	5		
Strength(kgf/cm ²)		1480		
Other Physical Properties		Failure Description		
Specific Gravity				
2.688				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%)				
1.015				
Absorption(%)				
0.385				
P-Wave Velocity(m/sec)				
5230				
S-Wave Velocity(m/sec)				
3880				
Shore Hardness				


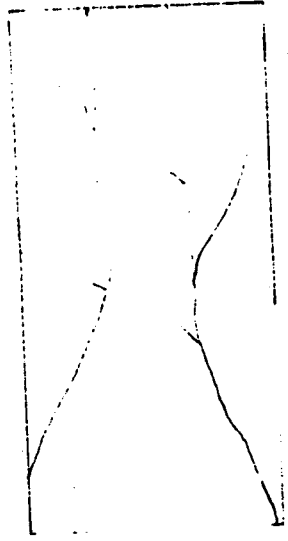
Rock Test : UNIAXIAL COMPRESSION TEST				
Specimen	Identification P6-4-C2			
	Lithologic Description			
	Source P6-4 HOLE DEPTH 8.10			
	Diameter(cm) 5.468	Height(cm) 10.910		
Test Condition	Date 94. 1. 12	Experimentor 76 27 5 		
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM			
	Stress Rate(kgf/cm ² /sec) 5			
Strength(kgf/cm ²) 2060				
Other Physical Properties		Failure Description		
Specific Gravity 2.708				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
Porosity(%) 0.925				
Absorption(%) 0.350				
P-Wave Velocity(m/sec) 4470				
S-Wave Velocity(m/sec) 3290				
Shore Hardness				

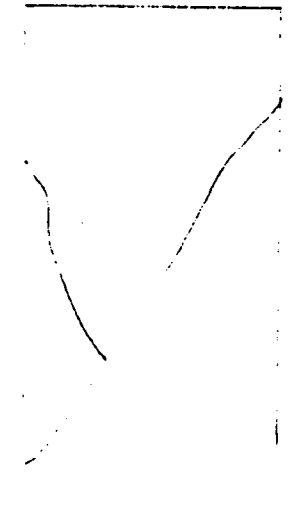
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P6-4-C3		
	Lithologic Description			
	Source	P6-4 HOLE DEPTH 21.20		
	Diameter(cm)	5.470	Height(cm)	10.950
Test Condition	Date	94. 1. 12	Experimentor 7/5 7/7 5 	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf /cm ² /sec)	5		
Strength(kgf /cm ²)		1870		
Other Physical Properties		Failure Description		
Specific Gravity				
2.684				
Apparent Density(gr /cm ³)				
True Density(gr /cm ³)				
Porosity(%)				
0.814				
Absorption(%)				
0.329				
P-Wave Velocity(m/sec)				
4480				
S-Wave Velocity(m/sec)				
3070				
Shore Hardness				

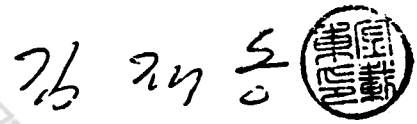
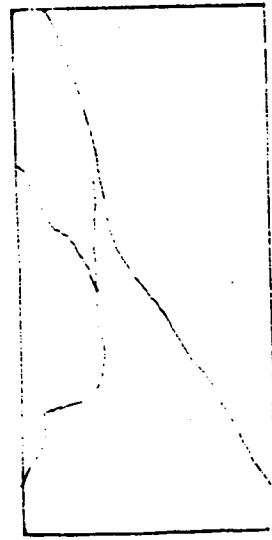
Rock Test : UNIAXIAL COMPRESSION TEST	
Specimen	Identification P6-7-C1
	Lithologic Description
	Source P6-7 HOLE DEPTH 8.90
	Diameter(cm) 5.465 Height(cm) 10.905
Test Condition	Date 94. 1. 12 Experimentor
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM
	Stress Rate(kgf / cm ² / sec) 5
<p>Strength(kgf / cm²) 1270</p> <p style="text-align: right;">7/ 7.4 3/0 </p>	
Other Physical Properties	Failure Description
Specific Gravity 2.695	
Apparent Density(gr / cm ³)	
True Density(gr / cm ³)	
Porosity(%) 0.430	
Absorption(%) 0.163	
P-Wave Velocity(m / sec) 4520	
S-Wave Velocity(m / sec) 3690	
Shore Hardness	


Rock Test : UNIAXIAL COMPRESSION TEST						
Specimen	Identification P6-7-C2					
	Lithologic Description					
	Source P6-7 HOLE DEPTH 21.10					
	Diameter(cm)	5.485	Height(cm)	10.950		
Test Condition	Date	94. 1. 12	Experimentor 76 24 5 0 			
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM					
	Stress Rate(kgf /cm ² /sec) 5					
Strength(kgf /cm ²)		2040				
Other Physical Properties		Failure Description				
Specific Gravity		2.705				
Apparent Density(gr /cm ³)						
True Density(gr /cm ³)						
Porosity(%)					0.425	
Absorption(%)					0.157	
P - Wave Velocity(m /sec)					4540	
S - Wave Velocity(m /sec)					3360	
Shore Hardness						

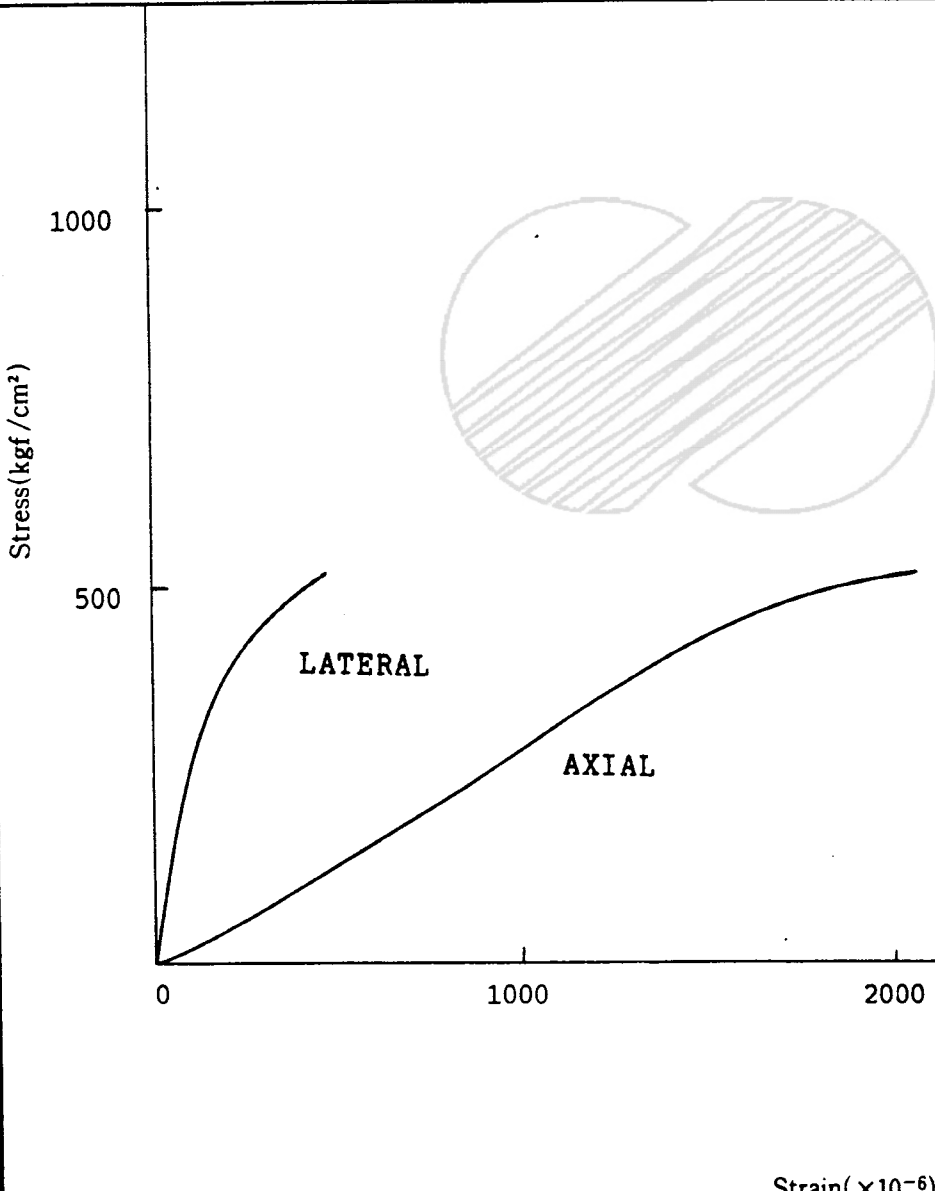
Rock Test :		UNIAXIAL COMPRESSION TEST		
Specimen	Identification	P6-9-C1		
	Lithologic Description			
	Source	P6-9 HOLE DEPTH 5.20		
	Diameter(cm)	5.415	Height(cm)	11.100
Test Condition	Date	94. 1. 12	Experimentor 76 27 30 (Seal)	
	Testing Machine	SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec)	5		
Strength(kgf/cm ²)		1990		
Other Physical Properties		Failure Description		
Specific Gravity				
2.695				
Apparent Density(gr/cm ³)				
True Density(gr/cm ³)				
0.720				
Porosity(%)				
Absorption(%)				
0.267				
P-Wave Velocity(m/sec)				
4170				
S-Wave Velocity(m/sec)				
3170				
Shore Hardness				

Rock Test : UNIAXIAL COMPRESSION TEST			
Specimen	Identification P6-9-C2		
	Lithologic Description		
	Source P6-9 HOLE DEPTH 13.20		
	Diameter(cm) 5.465	Height(cm) 11.030	
Test Condition	Date 94. 1. 12	Experimentor 76 2.7 50 	
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM		
	Stress Rate(kgf/cm ² /sec) 5		
Strength(kgf/cm ²) 2100			
Other Physical Properties		Failure Description	
Specific Gravity 2.684			
Apparent Density(gr/cm ³)			
True Density(gr/cm ³)			
Porosity(%) 0.491			
Absorption(%) 0.183			
P-Wave Velocity(m/sec) 4340			
S-Wave Velocity(m/sec) 3050			
Shore Hardness			

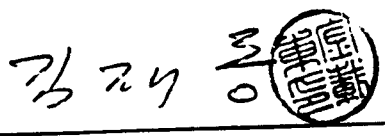
Rock Test : UNIAXIAL COMPRESSION TEST	
Specimen	Identification P6-11-C1
	Lithologic Description
	Source P6-11 HOLE DEPTH 14.10
	Diameter(cm) 5.480 Height(cm) 11.050
Test Condition	Date 94. 1. 12 Experimentor
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM
	Stress Rate(kgf/cm ² /sec) 5
960 Strength(kgf/cm ²)	
Other Physical Properties	Failure Description
Specific Gravity 2.676	
Apparent Density(gr/cm ³)	
True Density(gr/cm ³)	
Porosity(%) 0.859	
Absorption(%) 0.321	
P-Wave Velocity(m/sec) 4350	
S-Wave Velocity(m/sec) 2970	
Shore Hardness	

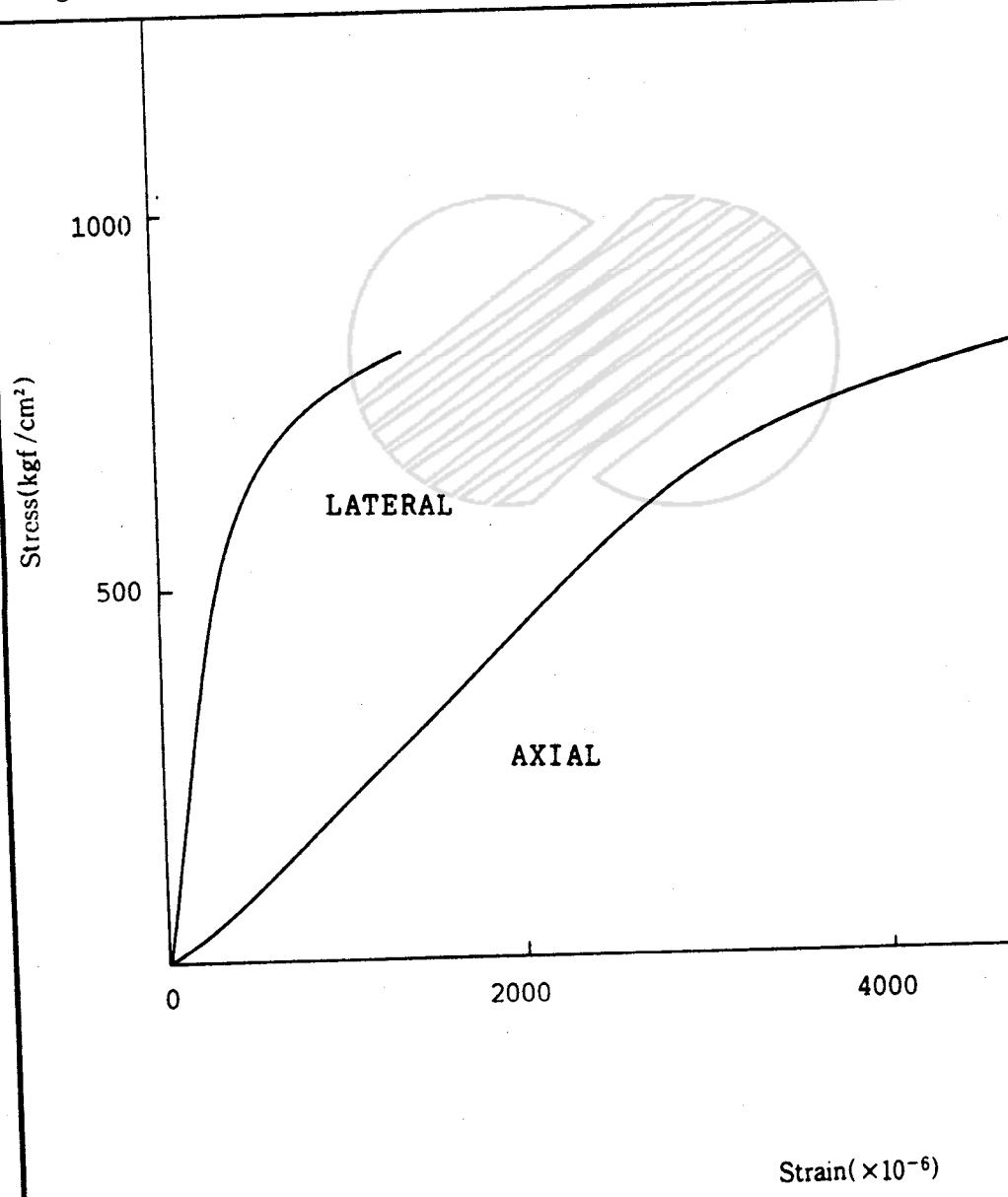
Rock Test : UNIAXIAL COMPRESSION TEST				
Specimen	Identification P6-11-C2			
	Lithologic Description			
	Source P6-11 HOLE DEPTH 25.00			
	Diameter(cm) 5.480	Height(cm) 11.030		
Test Condition	Date 94. 1. 12	Experimentor <div style="text-align: right;">  </div>		
	Testing Machine SBEL SERVO DYNAMIC TEST SYSTEM			
	Stress Rate(kgf /cm ² /sec) 5			
Strength(kgf /cm ²) 1460				
Other Physical Properties		Failure Description		
Specific Gravity 2.670				
Apparent Density(gr /cm ³)				
True Density(gr /cm ³)				
Porosity(%) 1.138				
Absorption(%) 0.443				
P-Wave Velocity(m/sec) 4340				
S-Wave Velocity(m/sec) 3050				
Shore Hardness				

Rock Deformability Test				
Specimen	Identification	P5-1-C	Test Date	94. 1. 12
	Diameter(cm)	5.220	Experimentor	7/5 2/7 5/0 
	Height(cm)	10.785		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		3.000	Poisson's Ratio	0.135



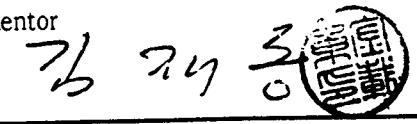
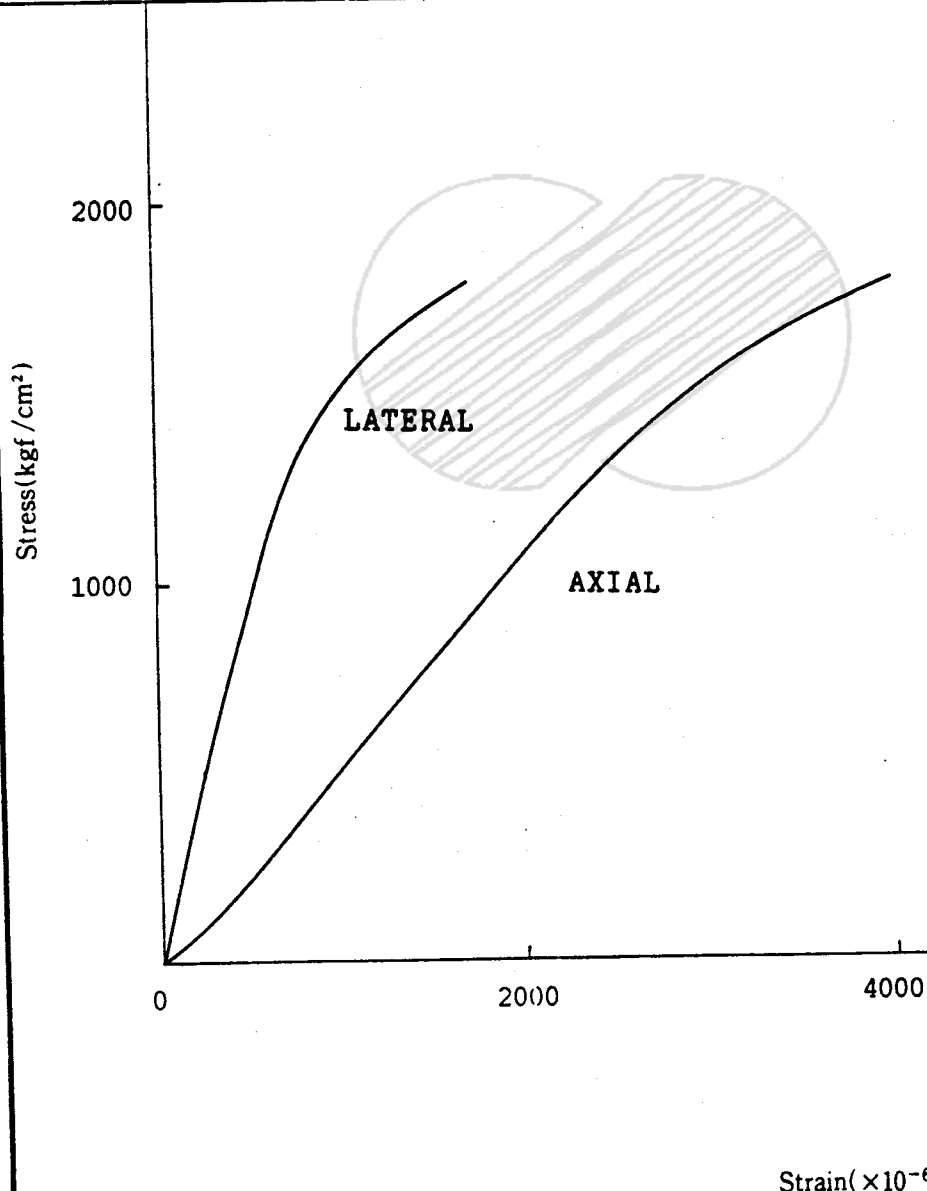
Strain ($\times 10^{-6}$)

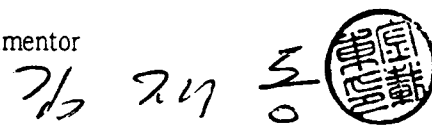
Rock Deformability Test				
Specimen	Identification	P5-4-C1	Test Date	94. 1. 12
	Diameter(cm)	5.420	Experimentor	
	Height(cm)	10.790		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIERCTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		2.339	Poisson's Ratio	0.171

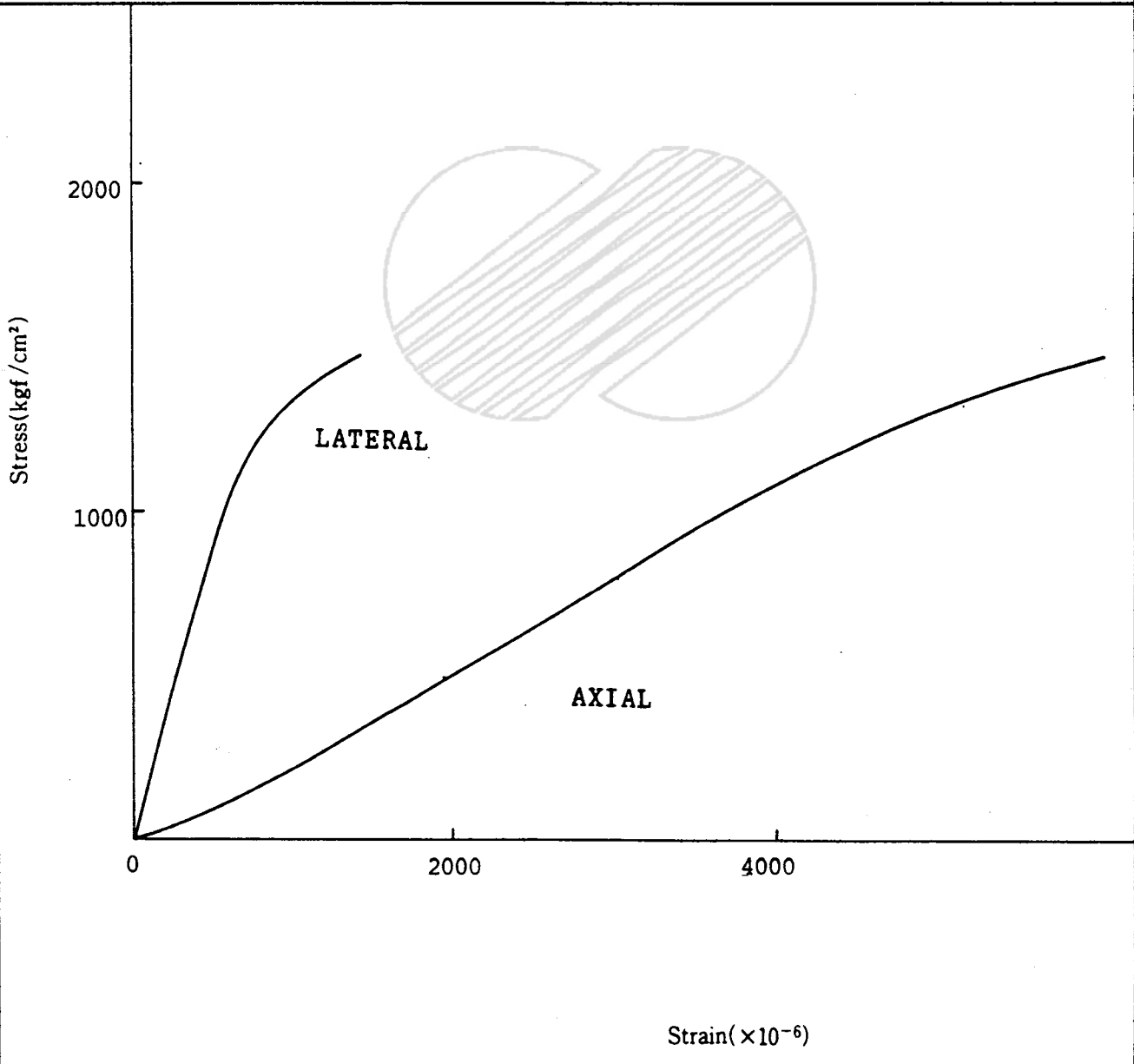


Rock Deformability Test			
Specimen	Identification	P5-4-C2	Test Date
	Diameter(cm)	5.200	Experimentor <div style="display: flex; align-items: center; justify-content: center;"> 36 27 5 </div>
	Height(cm)	10.810	
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION	
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS	
Young's Modulus ($\times 10^4 \text{ kgf/cm}^2$)		4.556	Poisson's Ratio
			0.286

Strain ($\times 10^{-6}$)

Rock Deformability Test				
Specimen	Identification	P5-4-C3	Test Date	94. 1. 12
	Diameter(cm)	5.210	Experimentor	
	Height(cm)	10.780		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		5.808	Poisson's Ratio	0.322
				

Rock Deformability Test				
Specimen	Identification	P5-7-C1	Test Date	94. 1. 12
	Diameter(cm)	5.150	Experimentor	
	Height(cm)	10.910		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIERCTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		2.829	Poisson's Ratio	0.157



Rock Deformability Test				
Specimen	Identification	P5-7-C2	Test Date	94. 1. 12
	Diameter(cm)	5.160	Experimentor	<div style="font-size: 2em; font-family: cursive;">76 27 5</div>
	Height(cm)	10.815		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		1.936	Poisson's Ratio	0.161

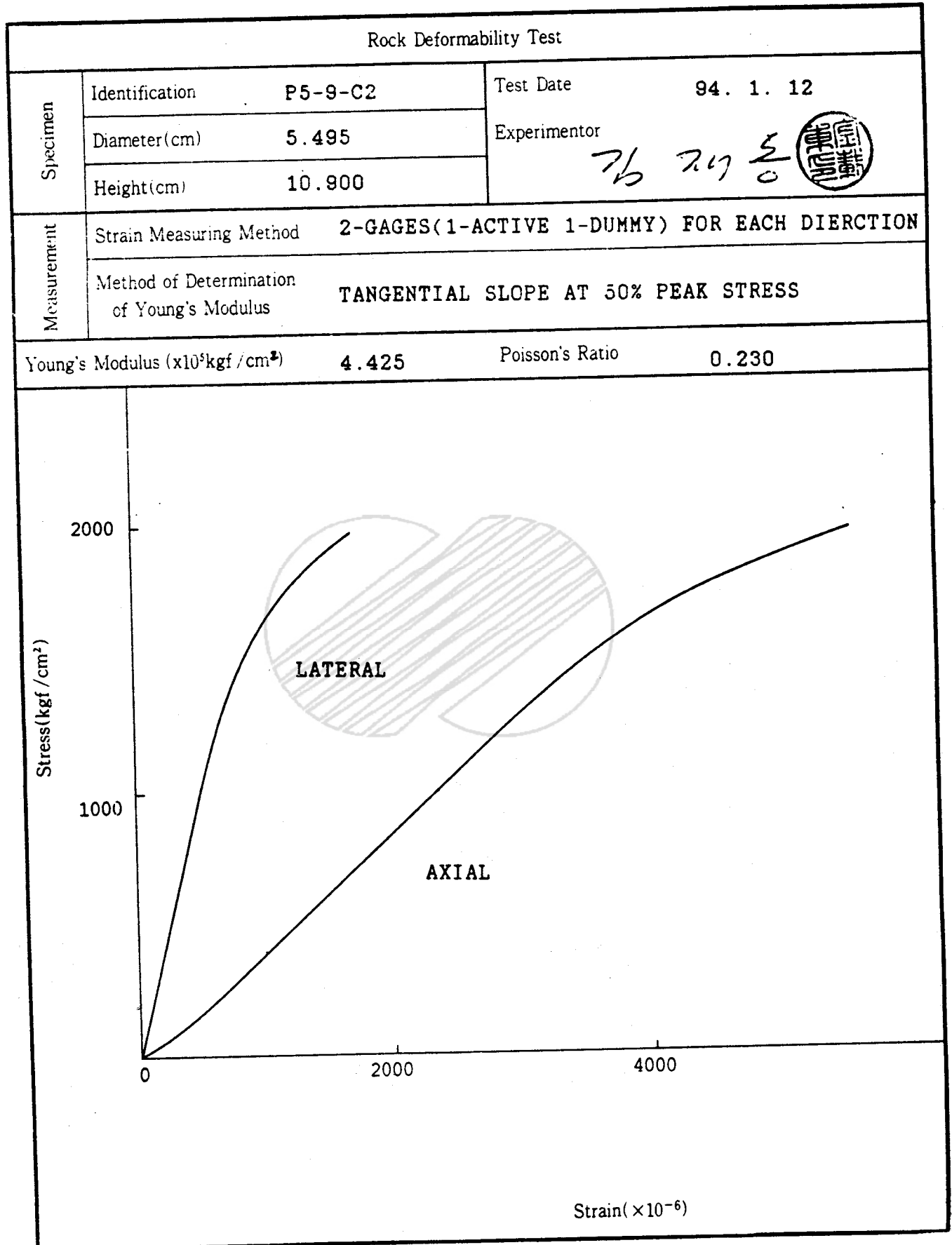
Stress(kgf/cm²)

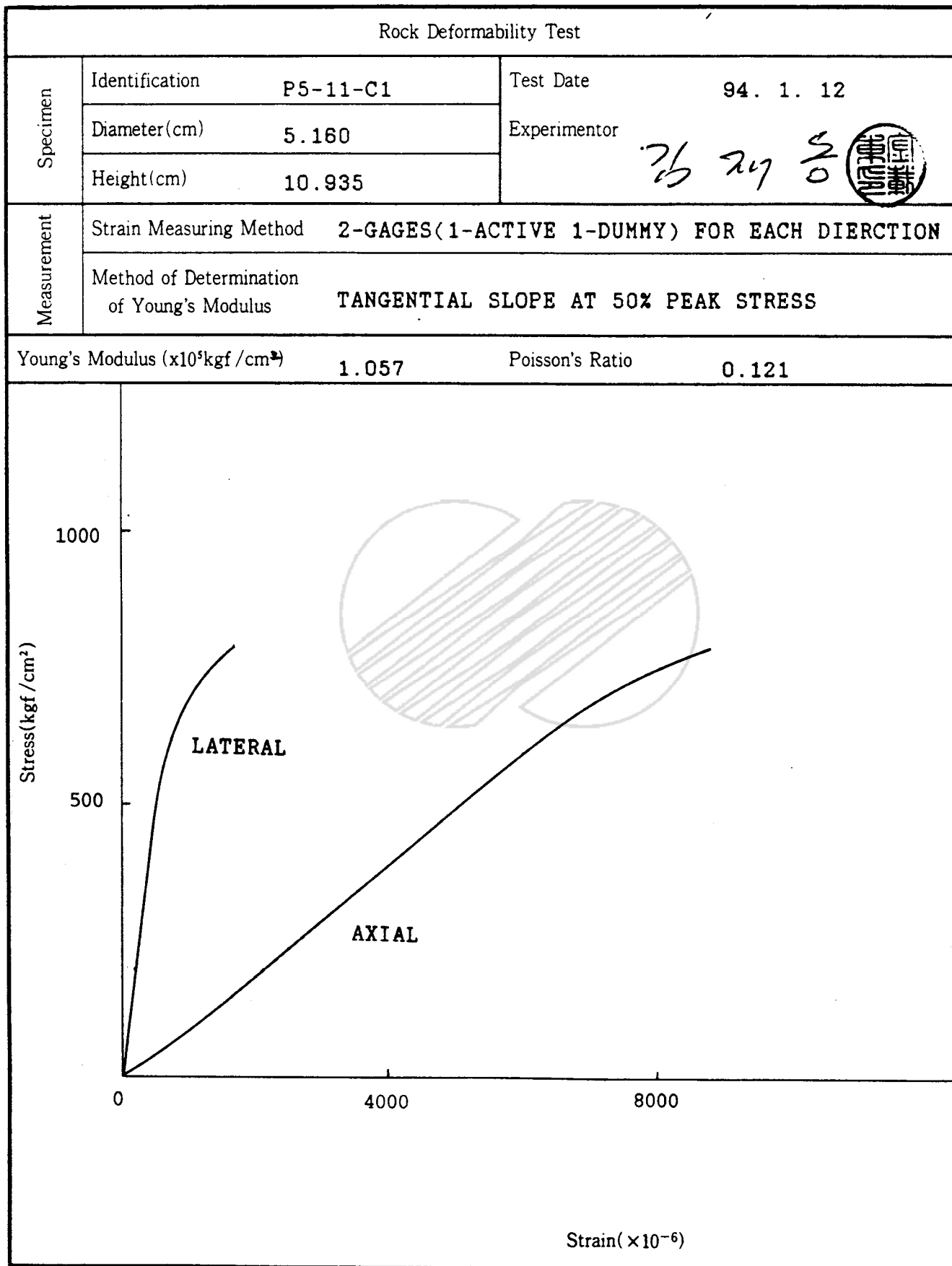
Strain($\times 10^{-6}$)


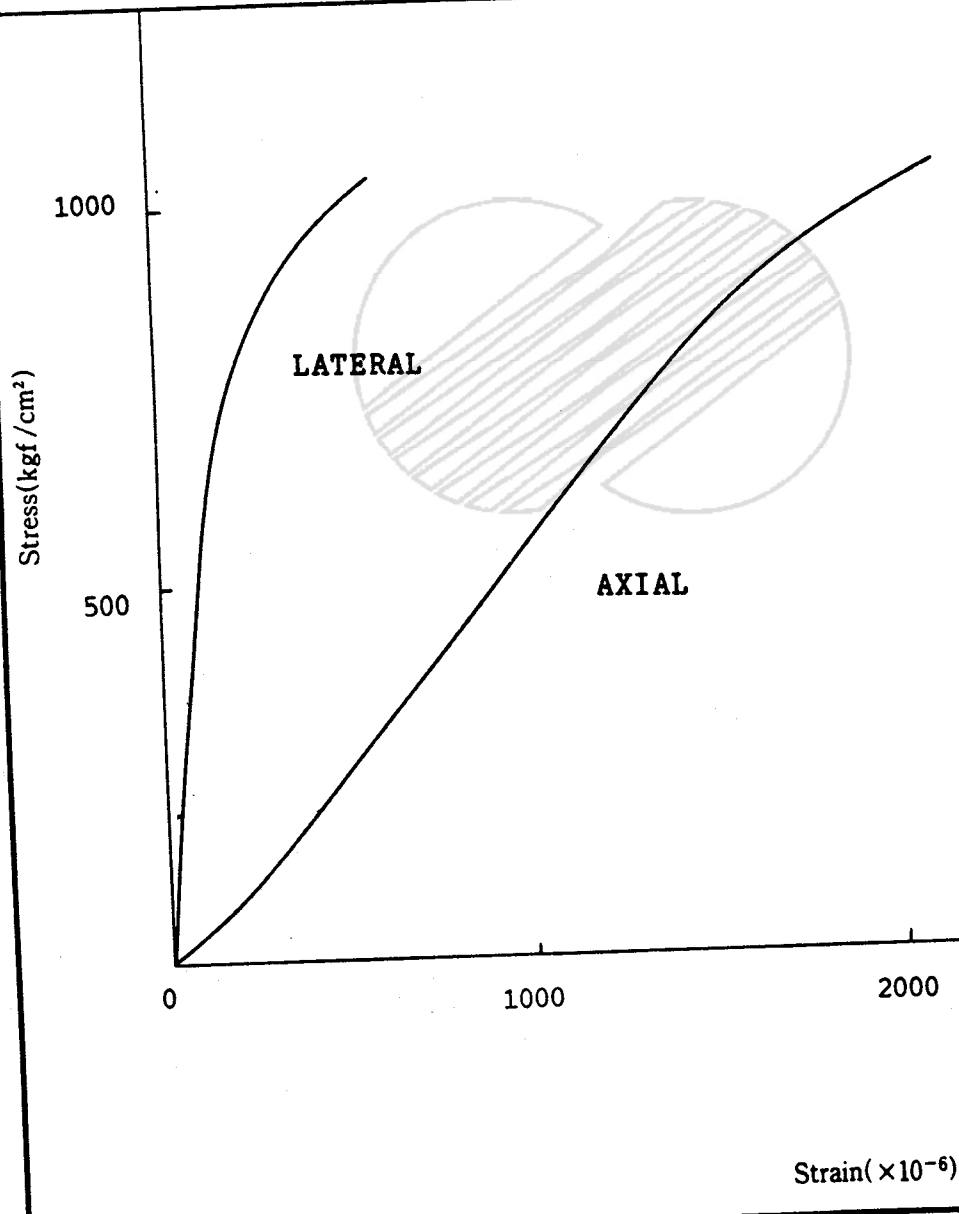
LATERAL

AXIAL

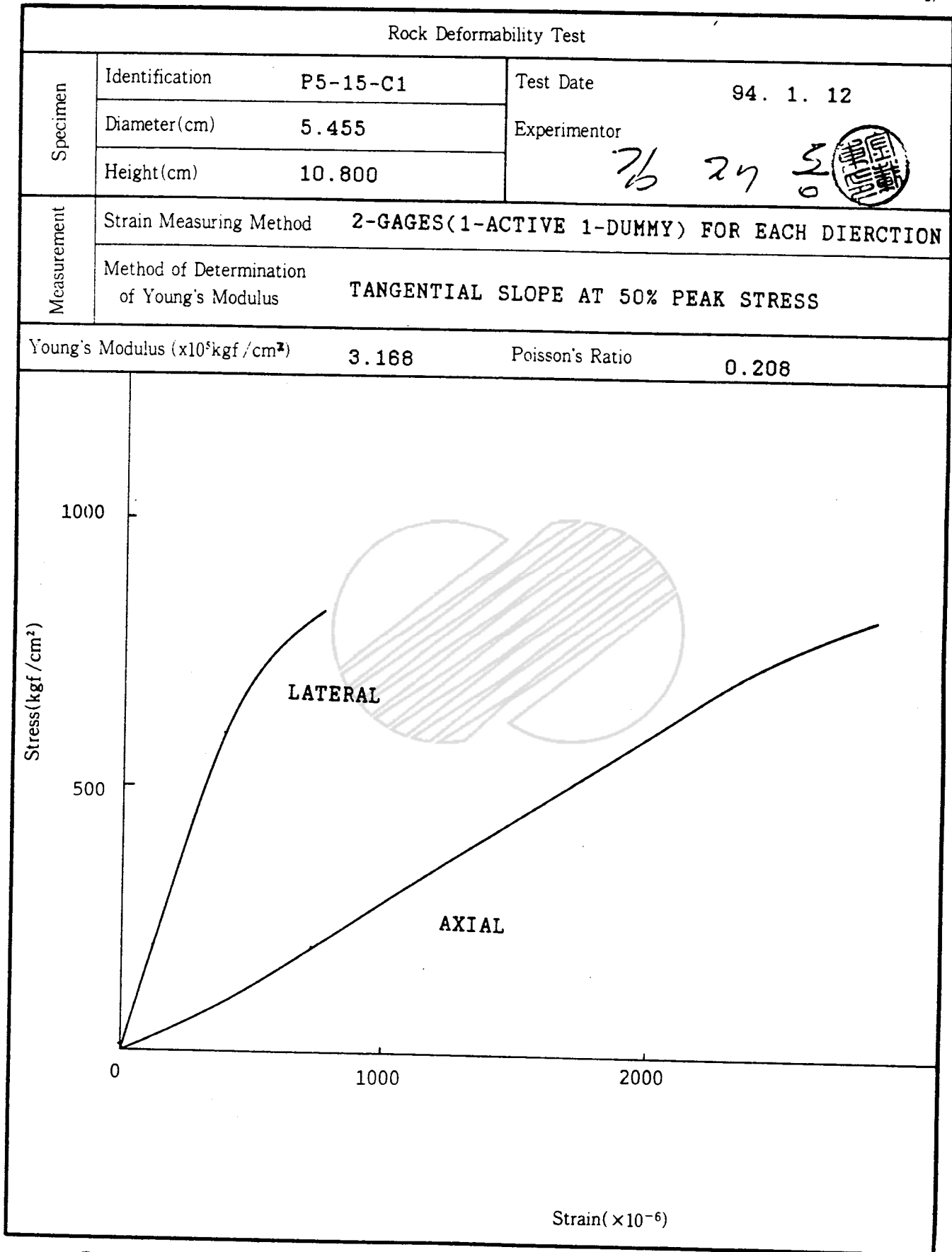
Rock Deformability Test			
Specimen	Identification	P5-9-C1	Test Date
	Diameter(cm)	5.155	Experimentor <div style="display: flex; align-items: center;"> 7.5 7.4 3 </div>
	Height(cm)	10.875	
Measurement	Strain Measuring Method 2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		3.463	Poisson's Ratio 0.289

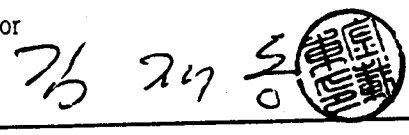


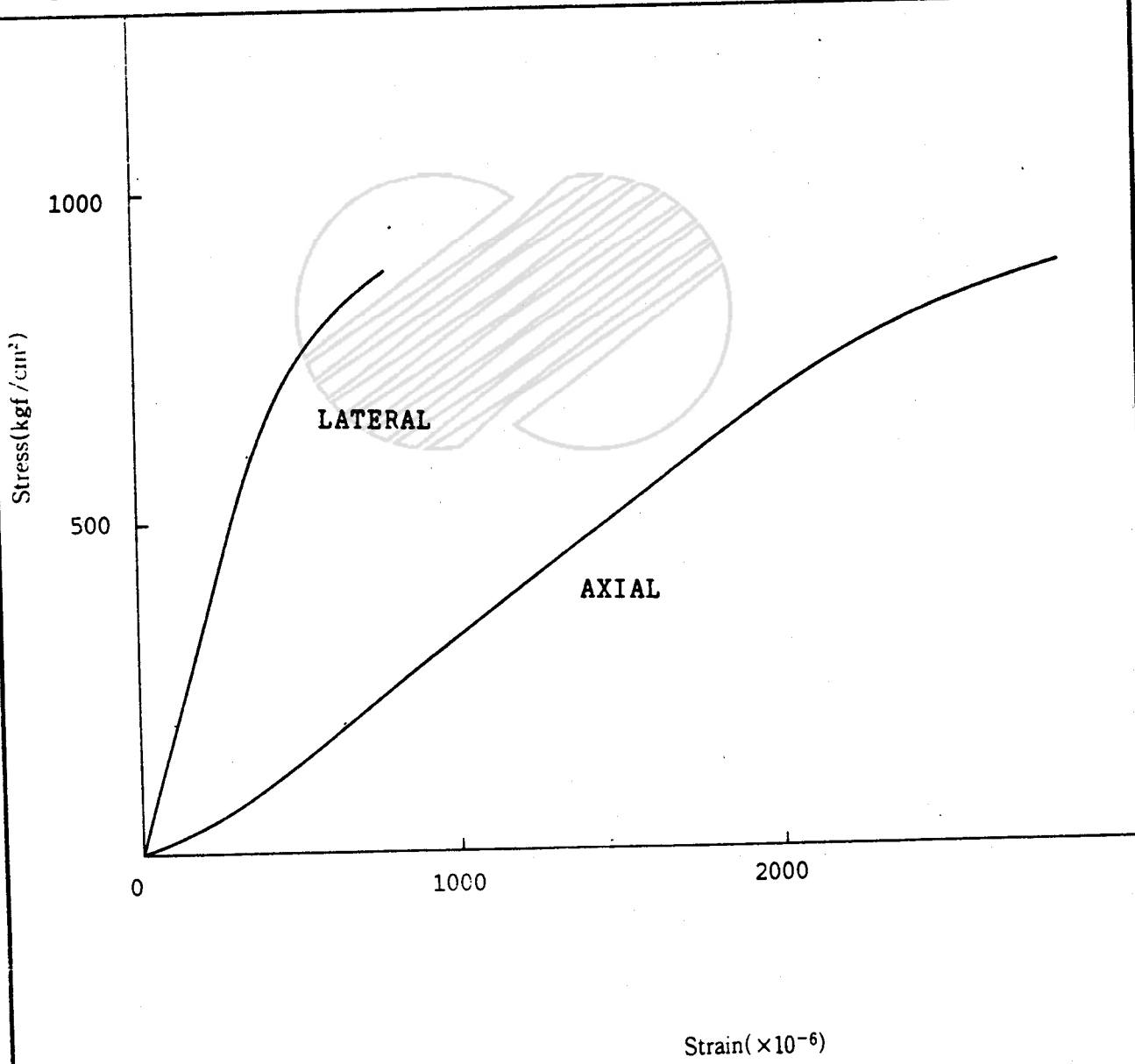


Rock Deformability Test				
Specimen	Identification	P5-11-C2	Test Date	94. 1. 12
	Diameter(cm)	5.430	Experimentor <i>7/6 2/17 S</i> 	
	Height(cm)	10.775		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		1.500	Poisson's Ratio	0.128
				

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Rock Deformability Test				
Specimen	Identification	P5-15-C2	Test Date	94. 1. 12
	Diameter(cm)	5.455	Experimentor	
	Height(cm)	10.925		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^4 \text{ kgf/cm}^2$)		3.649	Poisson's Ratio	0.217

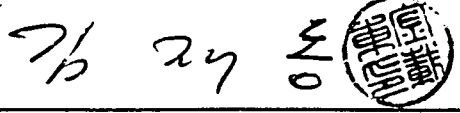
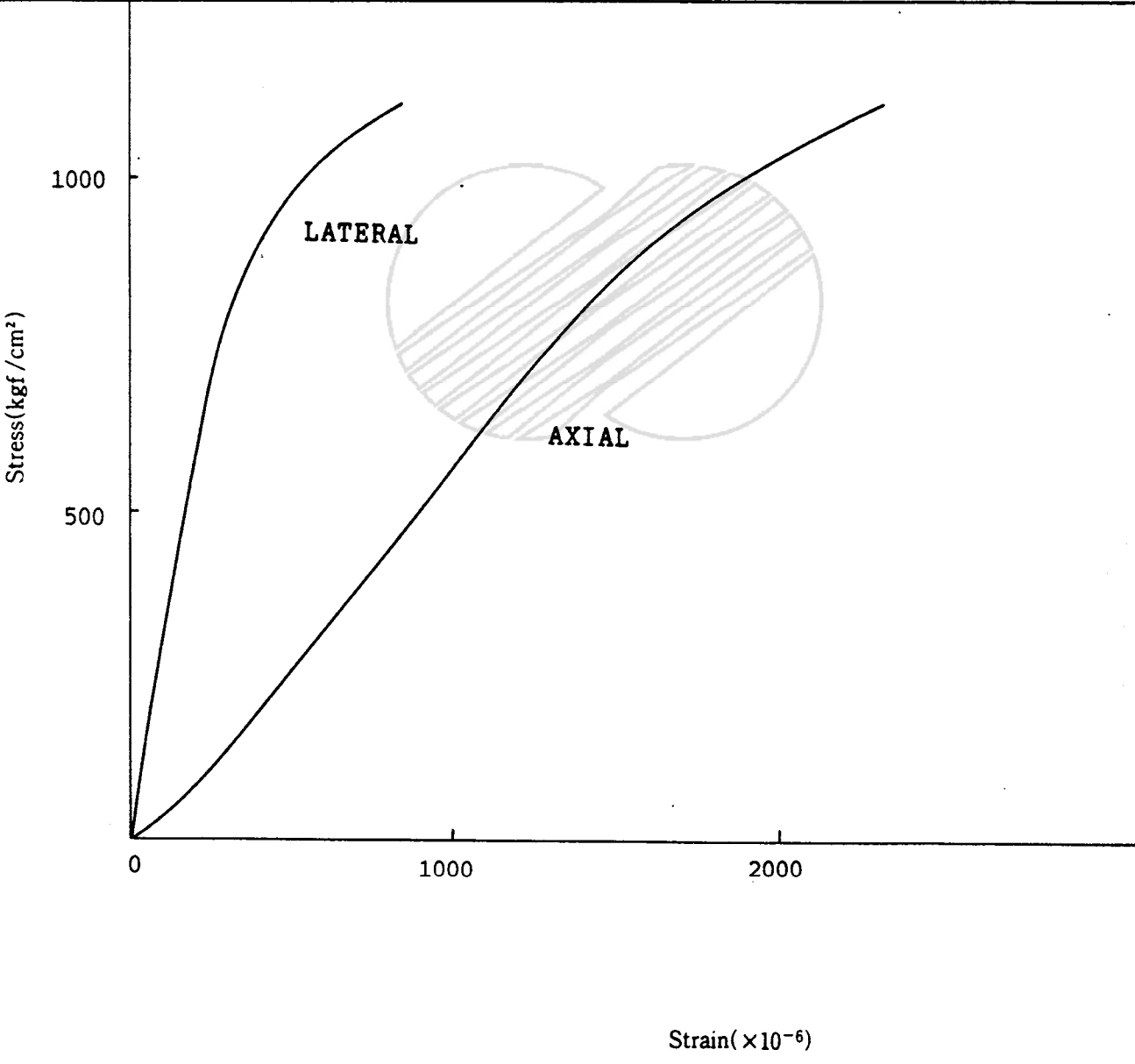


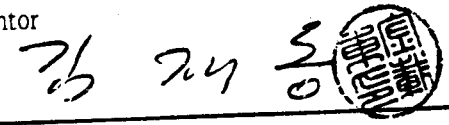
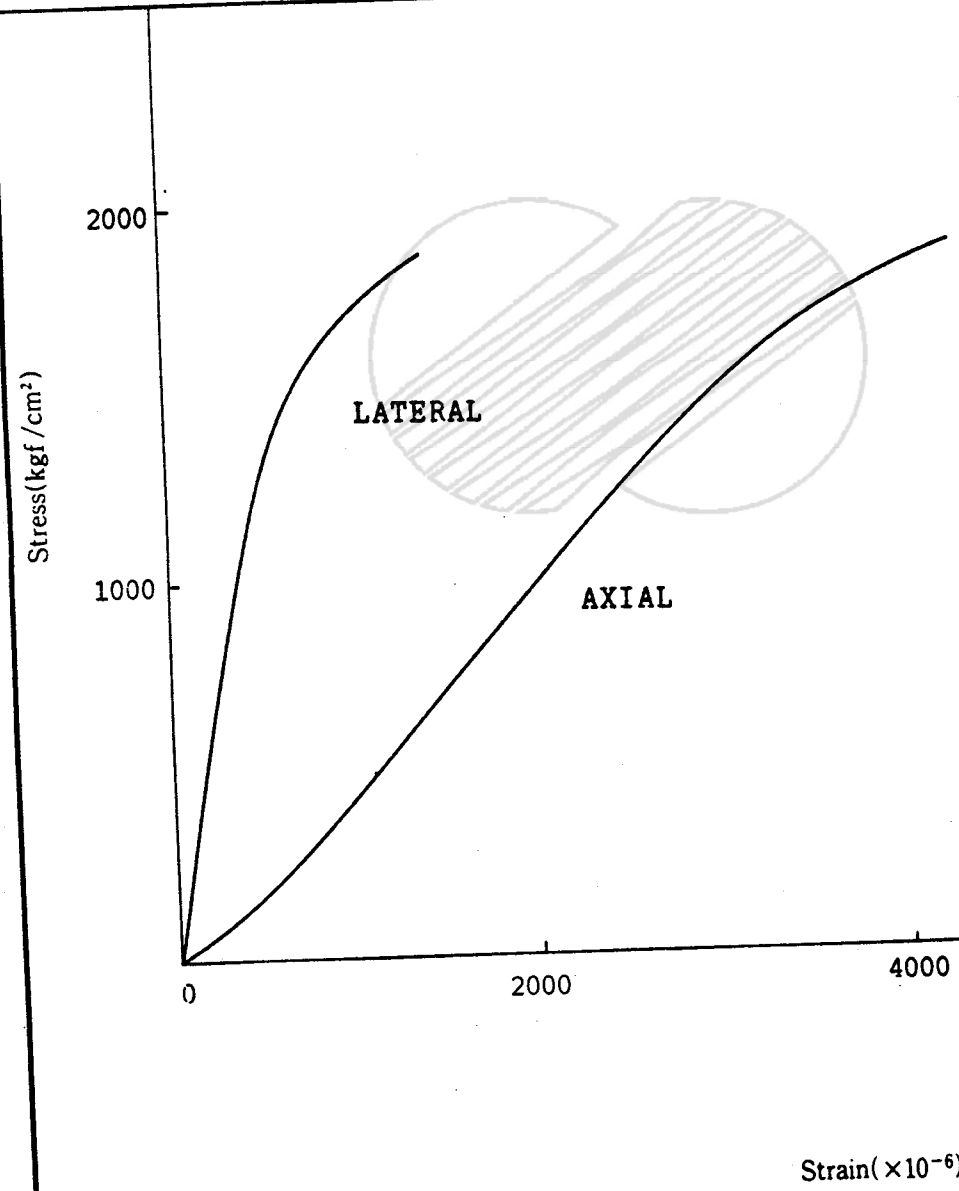
Stress (kgf/cm²)

Strain ($\times 10^{-6}$)

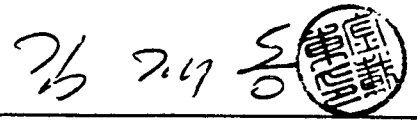
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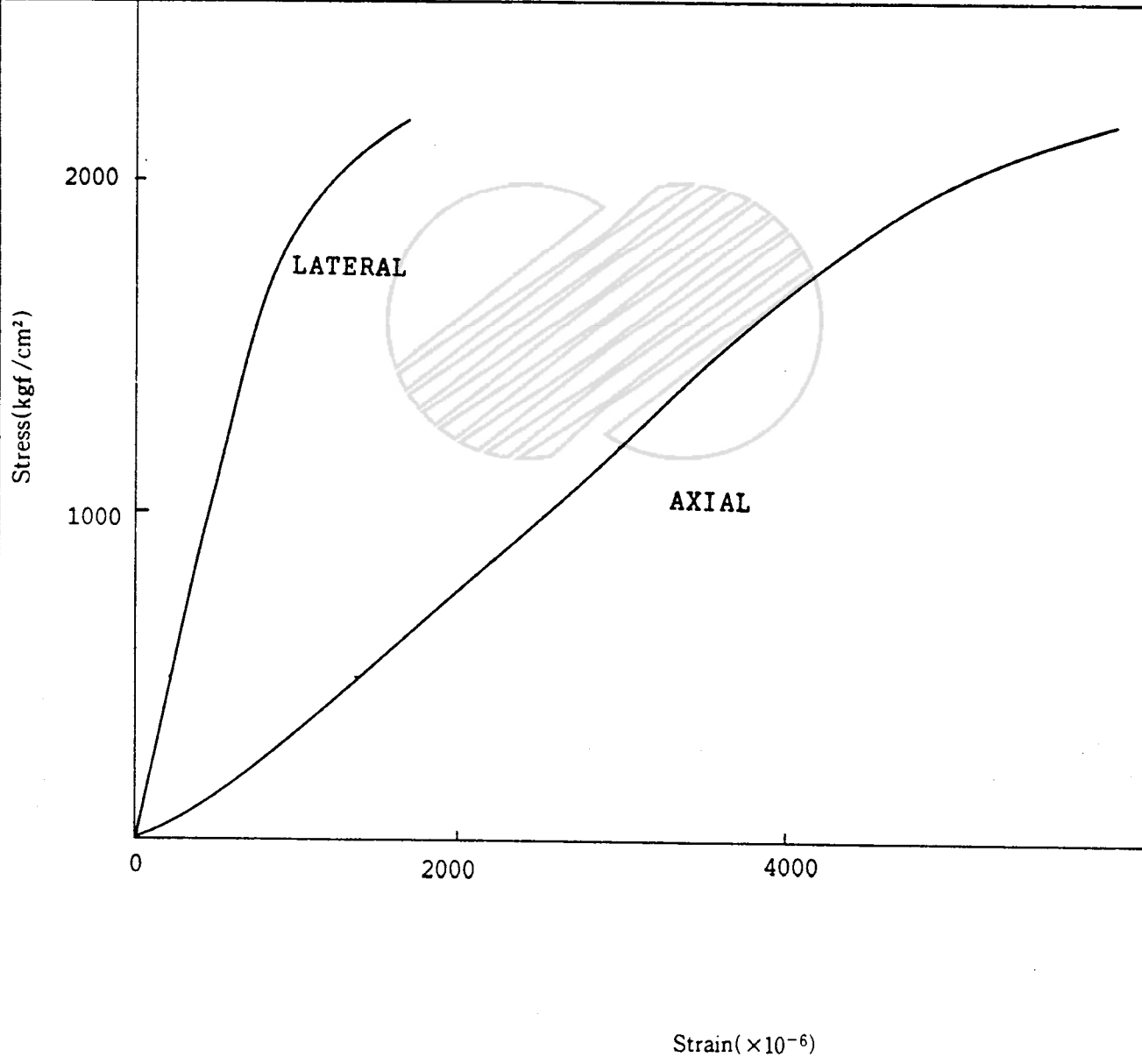
AXIAL

Rock Deformability Test				
Specimen	Identification	P6-1-C1	Test Date	94. 1. 12
	Diameter(cm)	5.452	Experimentor	
	Height(cm)	10.780		
Measurement	Strain Measuring Method 2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION			
	Method of Determination of Young's Modulus TANGENTIAL SLOPE AT 50% PEAK STRESS			
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		6.319	Poisson's Ratio	0.229
				

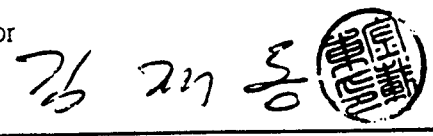
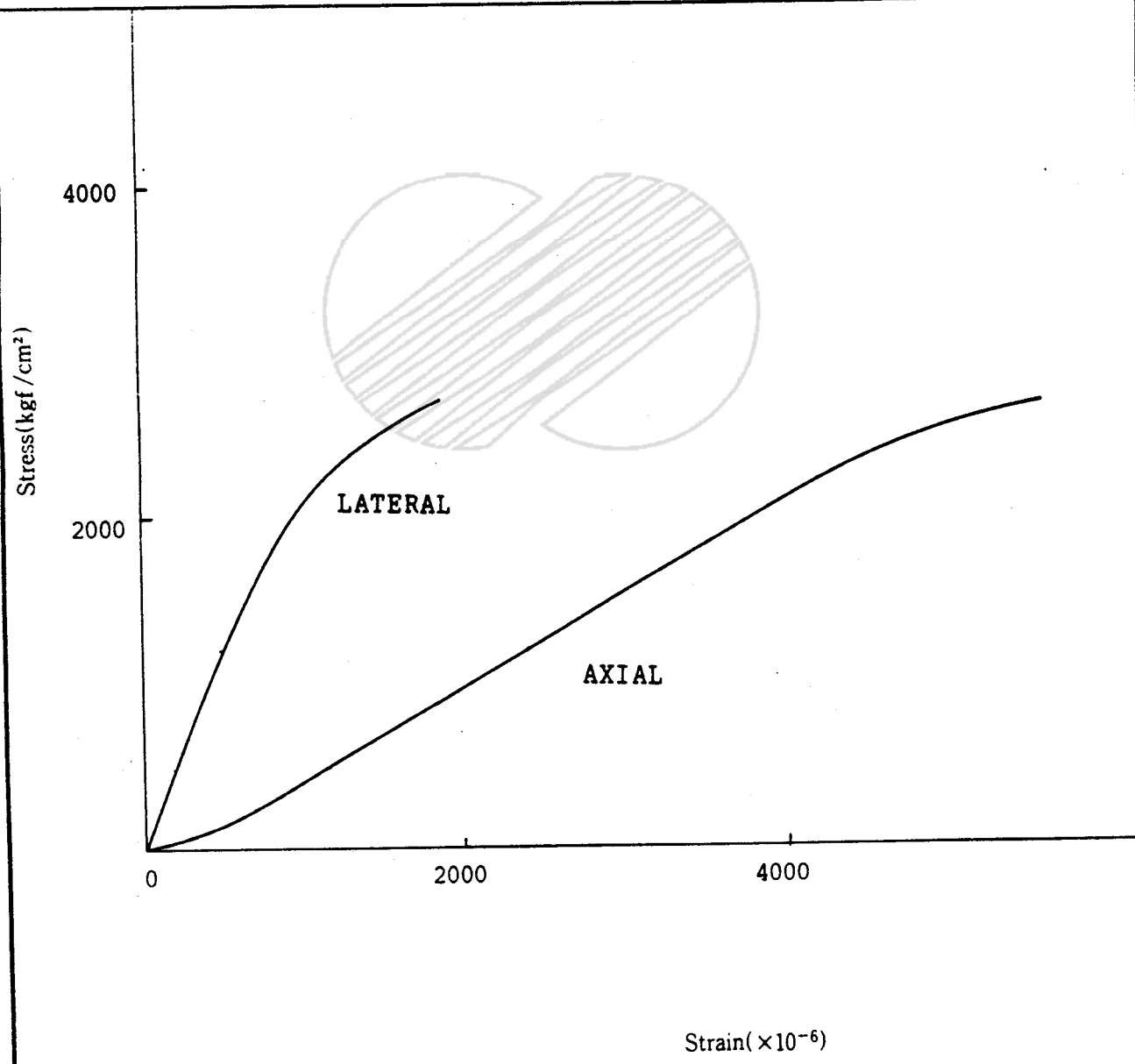
Rock Deformability Test				
Specimen	Identification	P6-1-C2	Test Date	94. 1. 12
	Diameter(cm)	5.455	Experimentor	
	Height(cm)	10.930		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^4 \text{ kgf/cm}^2$)		5.435	Poisson's Ratio	0.209
				

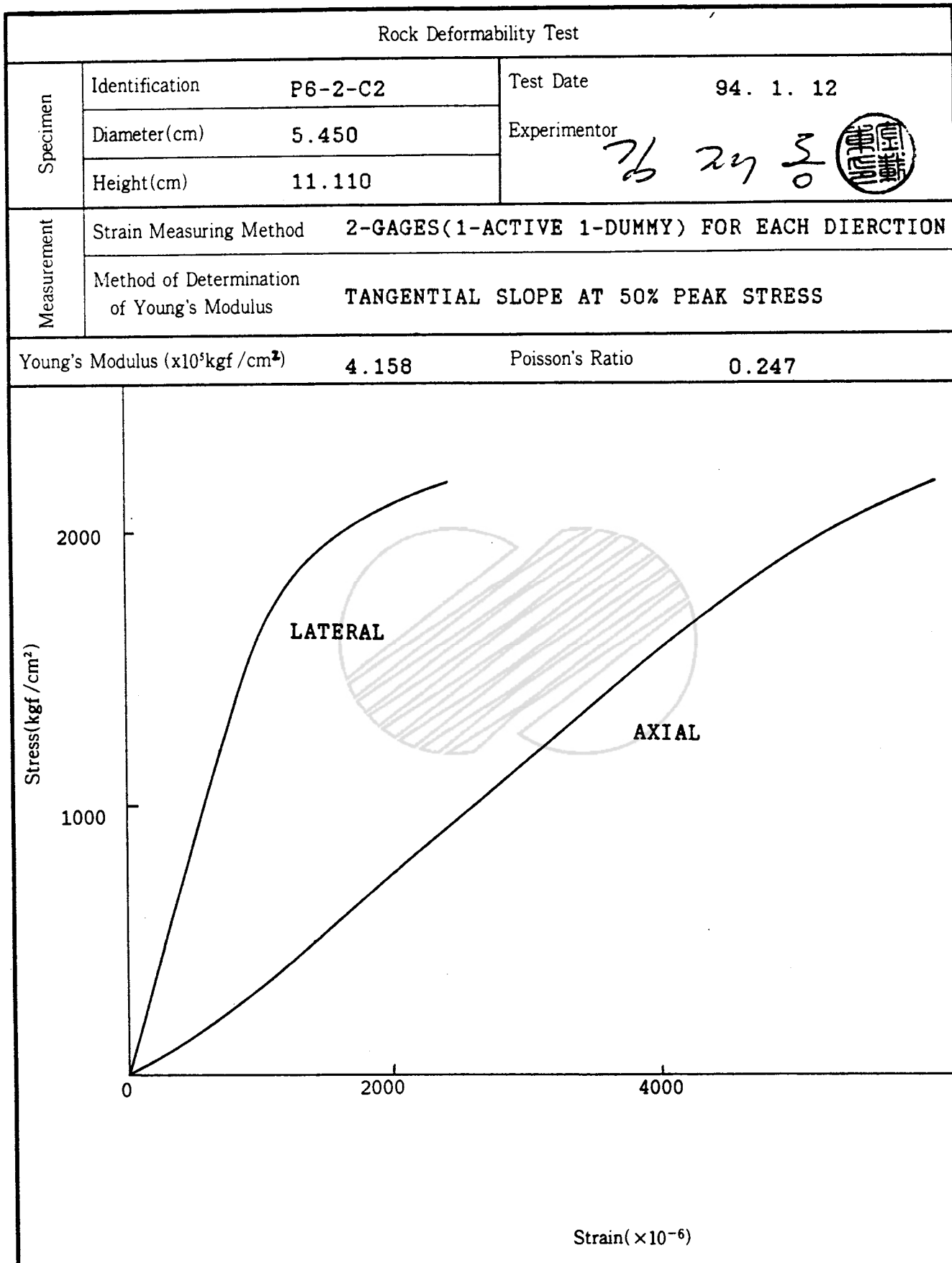
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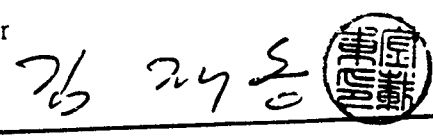
Rock Deformability Test			
Specimen	Identification	P6-1-C3	Test Date
	Diameter(cm)	5.460	Experimentor <div style="text-align: right;">  </div>
	Height(cm)	10.890	
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION	
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS	
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		4.571	Poisson's Ratio
			0.219

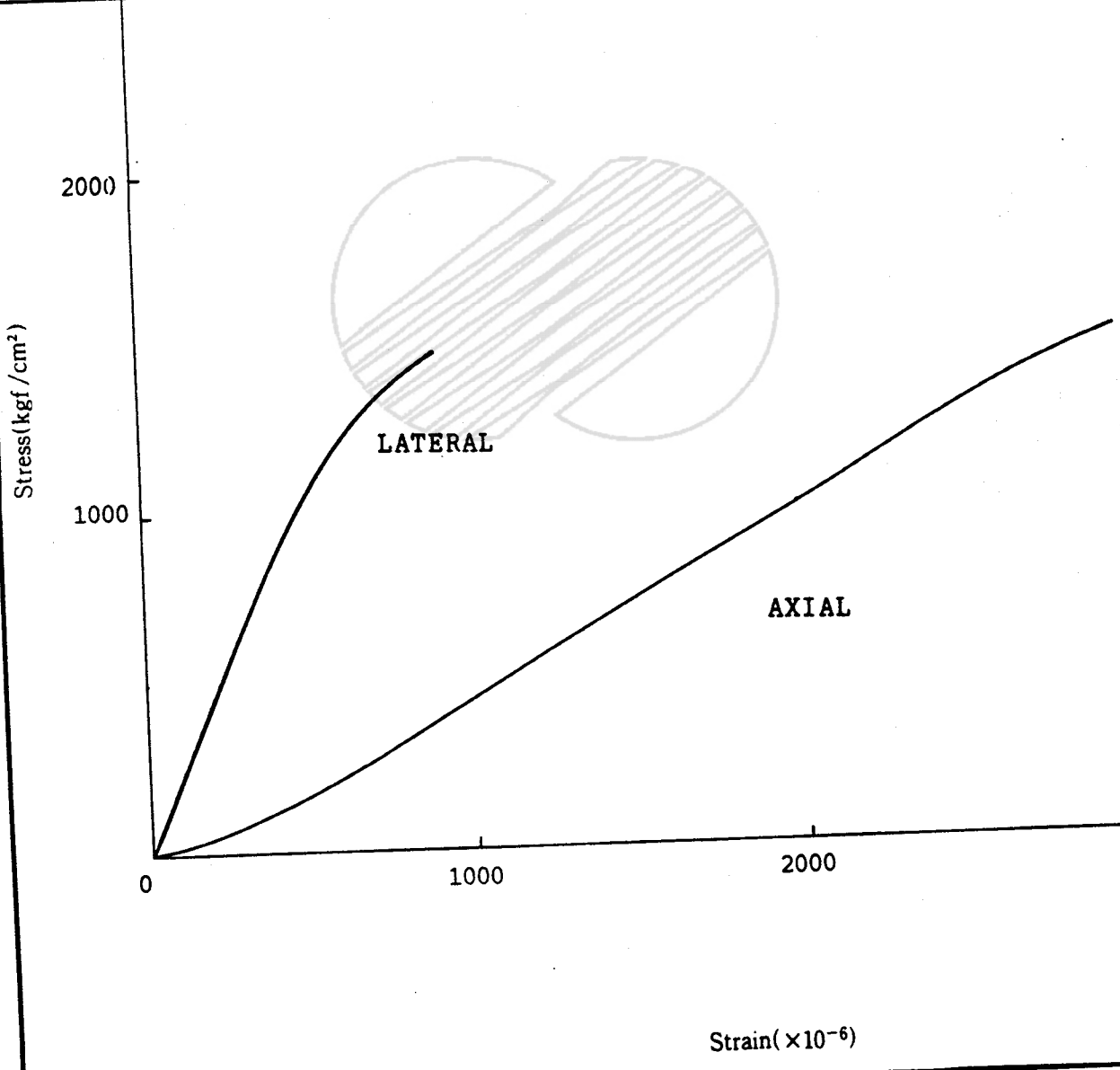


Strain ($\times 10^{-6}$)

Rock Deformability Test				
Specimen	Identification	P6-2-C1	Test Date	94. 1. 12
	Diameter(cm)	5.440	Experimentor	
	Height(cm)	11.105		
Measurement	Strain Measuring Method 2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIERCTION			
	Method of Determination of Young's Modulus TANGENTIAL SLOPE AT 50% PEAK STRESS			
Young's Modulus ($\times 10^4 \text{ kgf/cm}^2$)		5.714	Poisson's Ratio	0.240
				



Rock Deformability Test				
Specimen	Identification	P6-4-C1	Test Date	94. 1. 12
	Diameter(cm)	5.150	Experimentor	
	Height(cm)	10.880		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		5.594	Poisson's Ratio	0.266

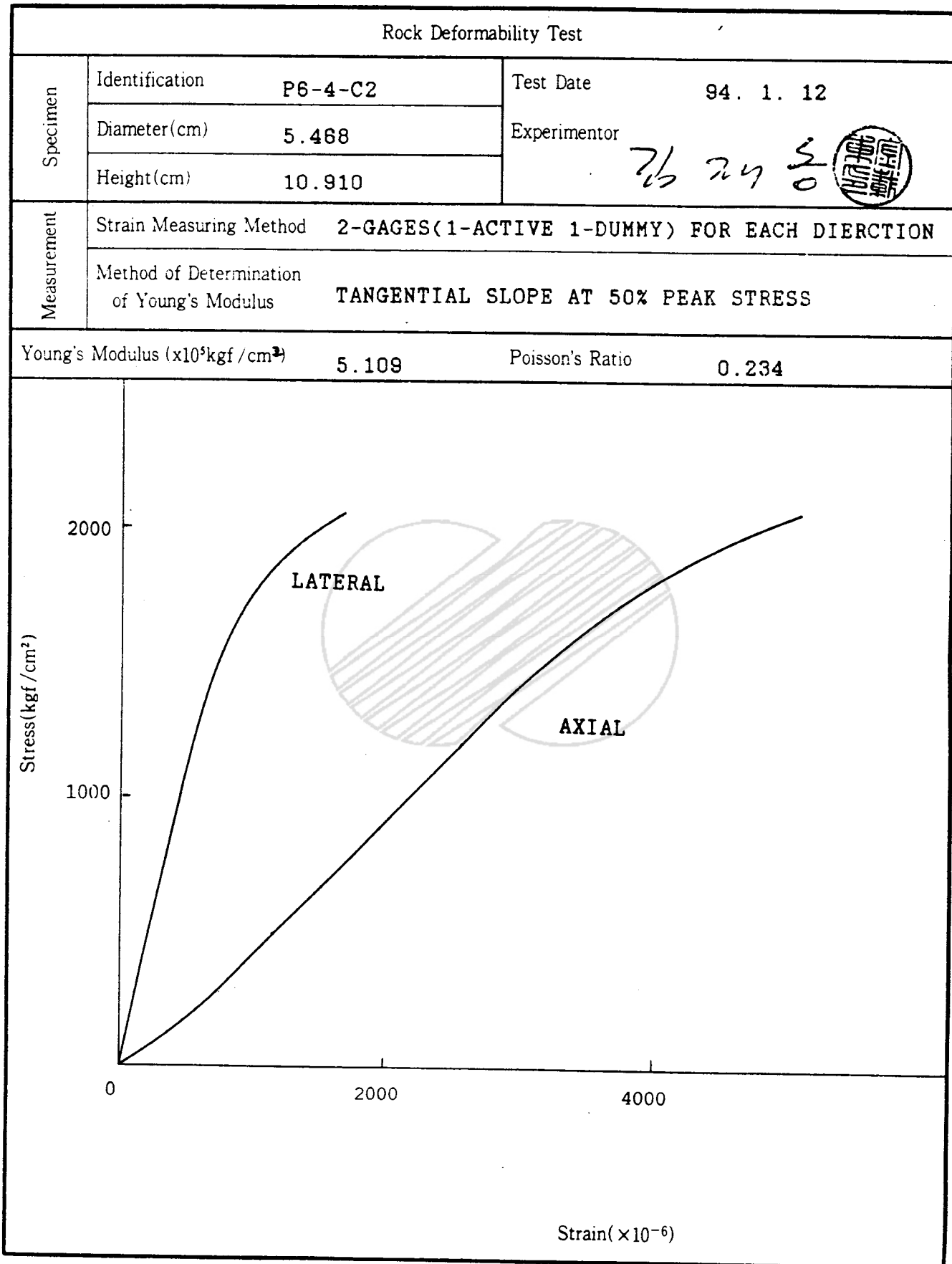


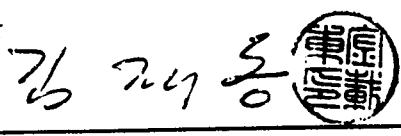
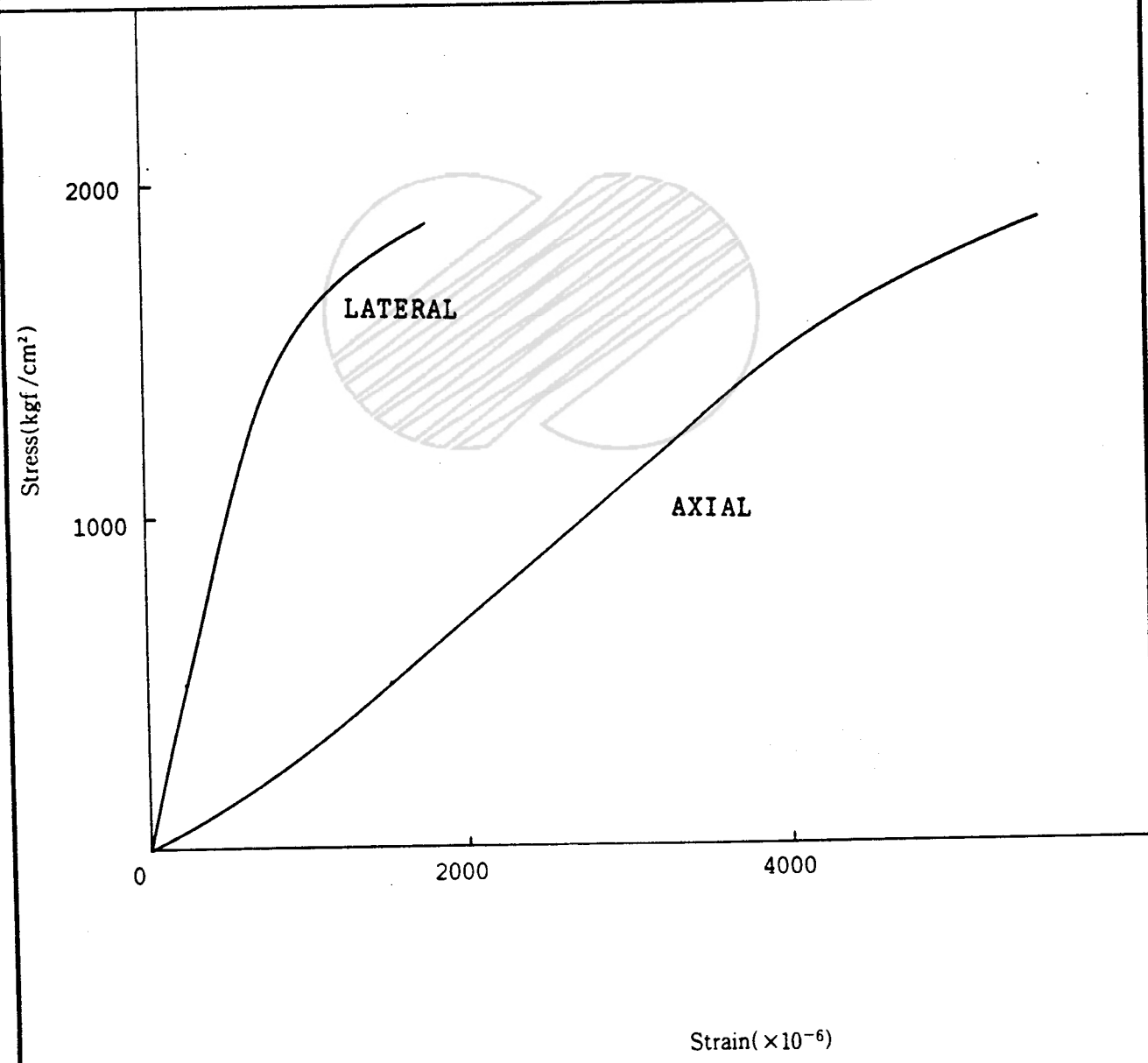
Stress(kgf/cm²)

Strain($\times 10^{-6}$)

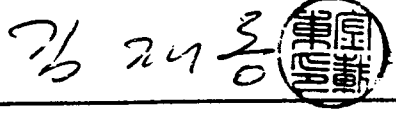
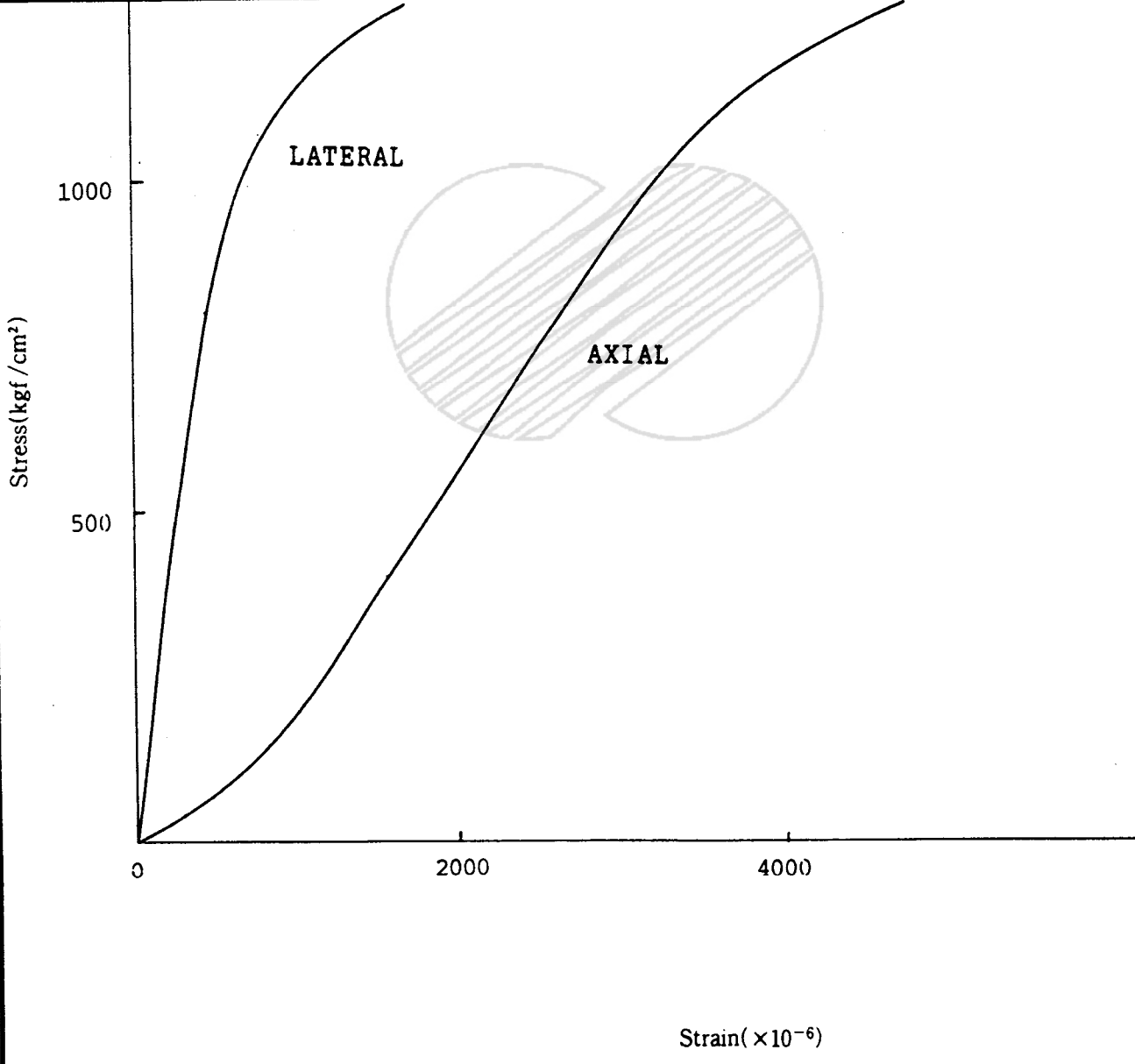
LATERAL


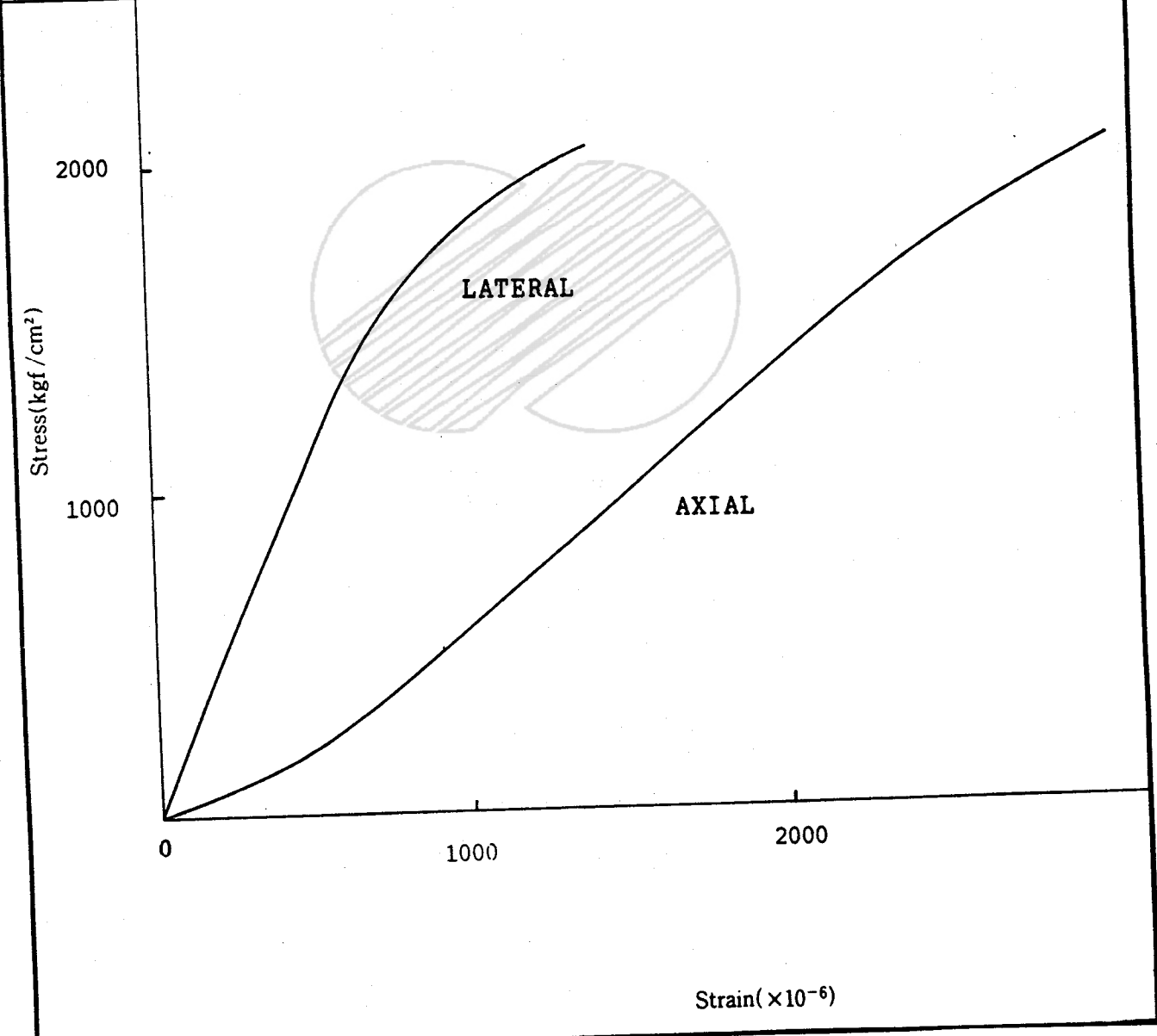
AXIAL



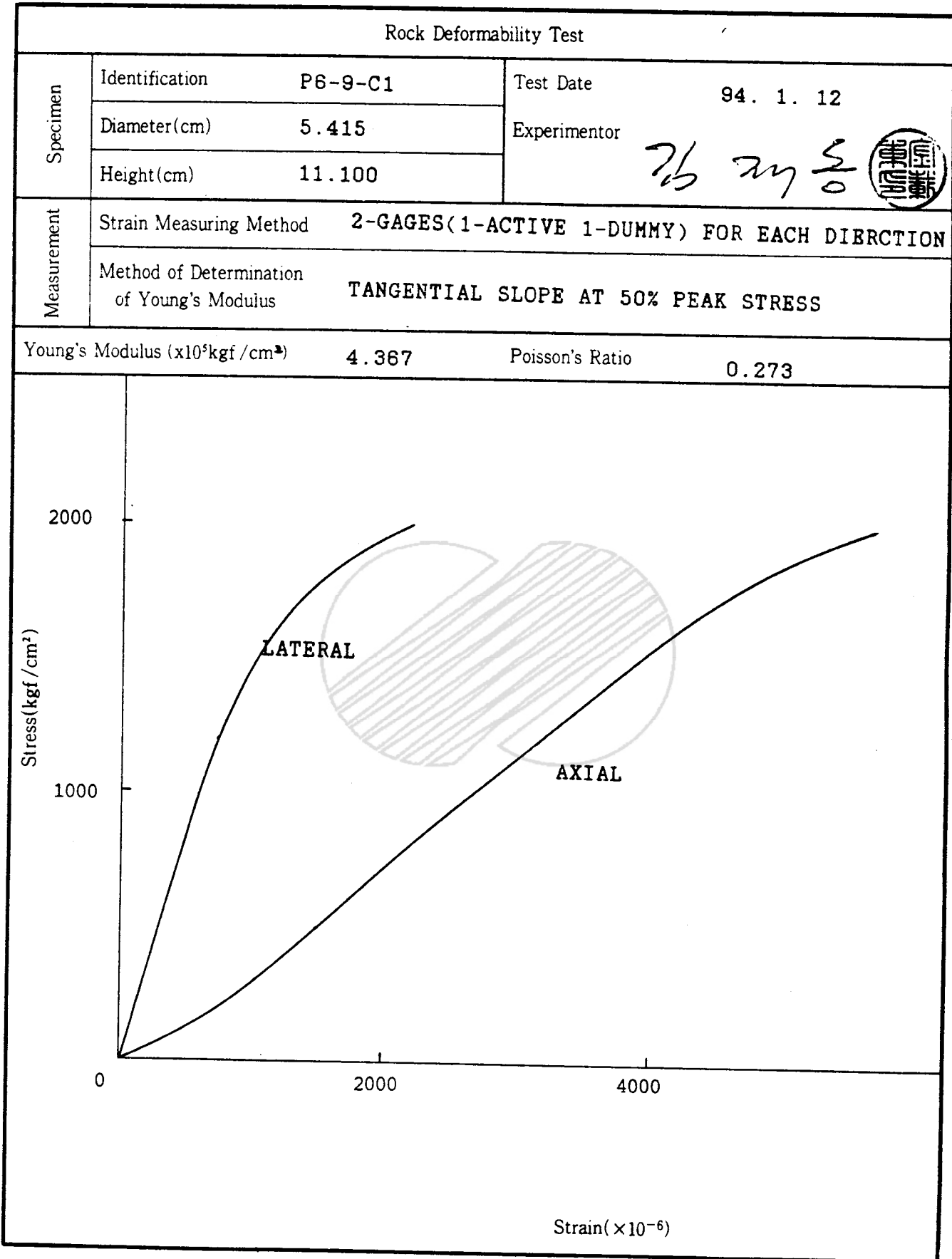
Rock Deformability Test				
Specimen	Identification	P6-4-C3	Test Date	94. 1. 12
	Diameter(cm)	5.470	Experimentor	
	Height(cm)	10.950		
Measurement	Strain Measuring Method 2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION			
	Method of Determination of Young's Modulus TANGENTIAL SLOPE AT 50% PEAK STRESS			
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		4.079	Poisson's Ratio	0.214
				

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Rock Deformability Test				
Specimen	Identification	P6-7-C1	Test Date	94. 1. 12
	Diameter(cm)	5.465	Experimentor	
	Height(cm)	10.905		
Measurement	Strain Measuring Method 2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION			
	Method of Determination of Young's Modulus TANGENTIAL SLOPE AT 50% PEAK STRESS			
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		3.714	Poisson's Ratio	0.214
				

Rock Deformability Test				
Specimen	Identification	P6-7-C2	Test Date	94. 1. 12
	Diameter(cm)	5.485	Experimentor	26 27 5 
	Height(cm)	10.950		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^4 \text{ kgf/cm}^2$)		8.147	Poisson's Ratio	0.371
				

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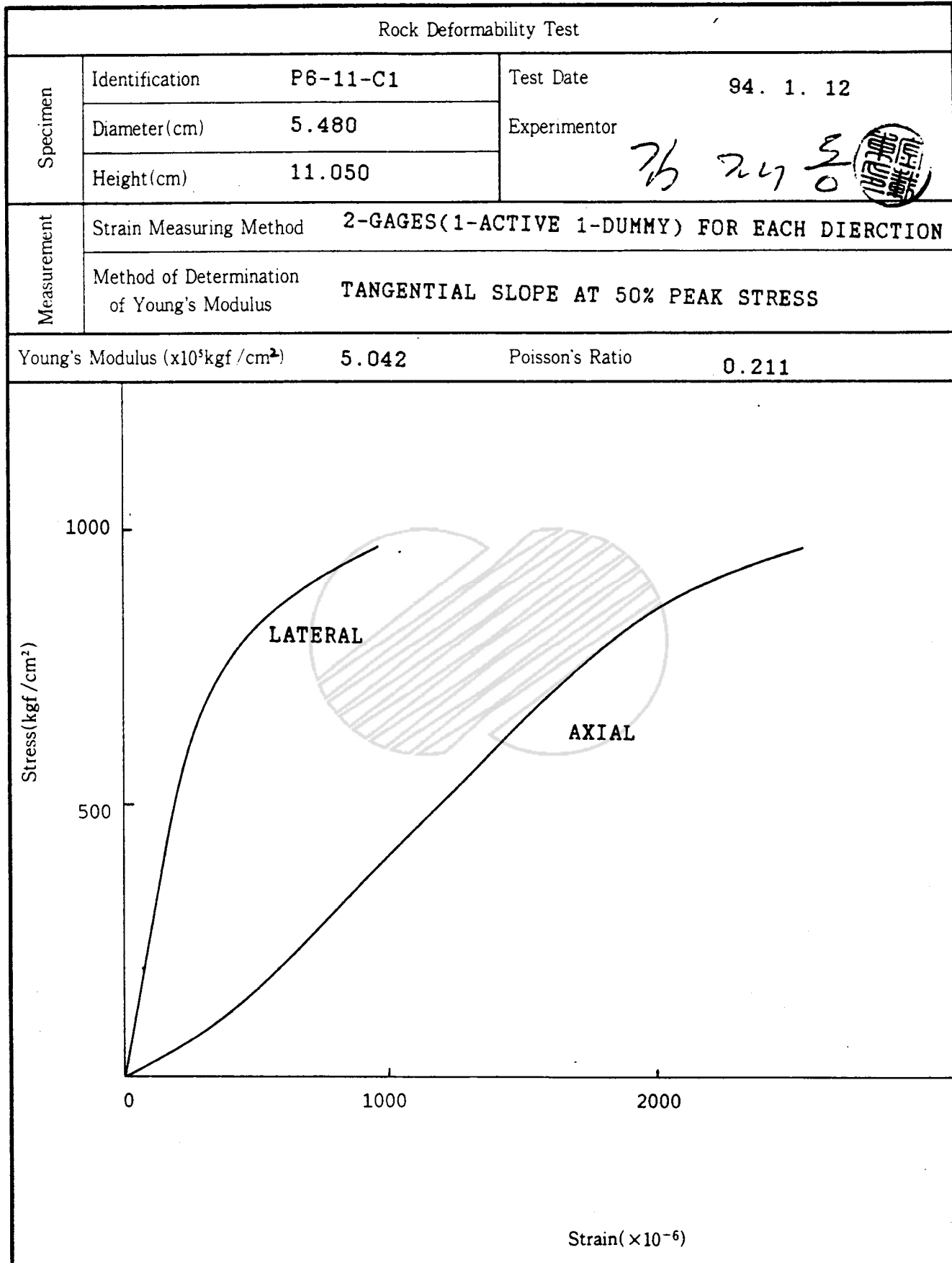
Rock Deformability Test			
Specimen	Identification	P6-9-C2	Test Date
	Diameter(cm)	5.465	Experimentor <div style="font-family: cursive; font-size: 1.5em;">김민준</div>
	Height(cm)	11.030	
Measurement	Strain Measuring Method		
	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
		Method of Determination of Young's Modulus	
		TANGENTIAL SLOPE AT 50% PEAK STRESS	
Young's Modulus ($\times 10^4 \text{ kgf/cm}^2$)		5.472	Poisson's Ratio
			0.285

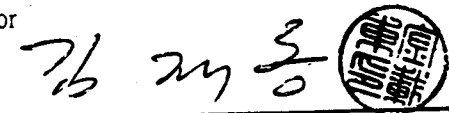
Stress(kgf/cm²)

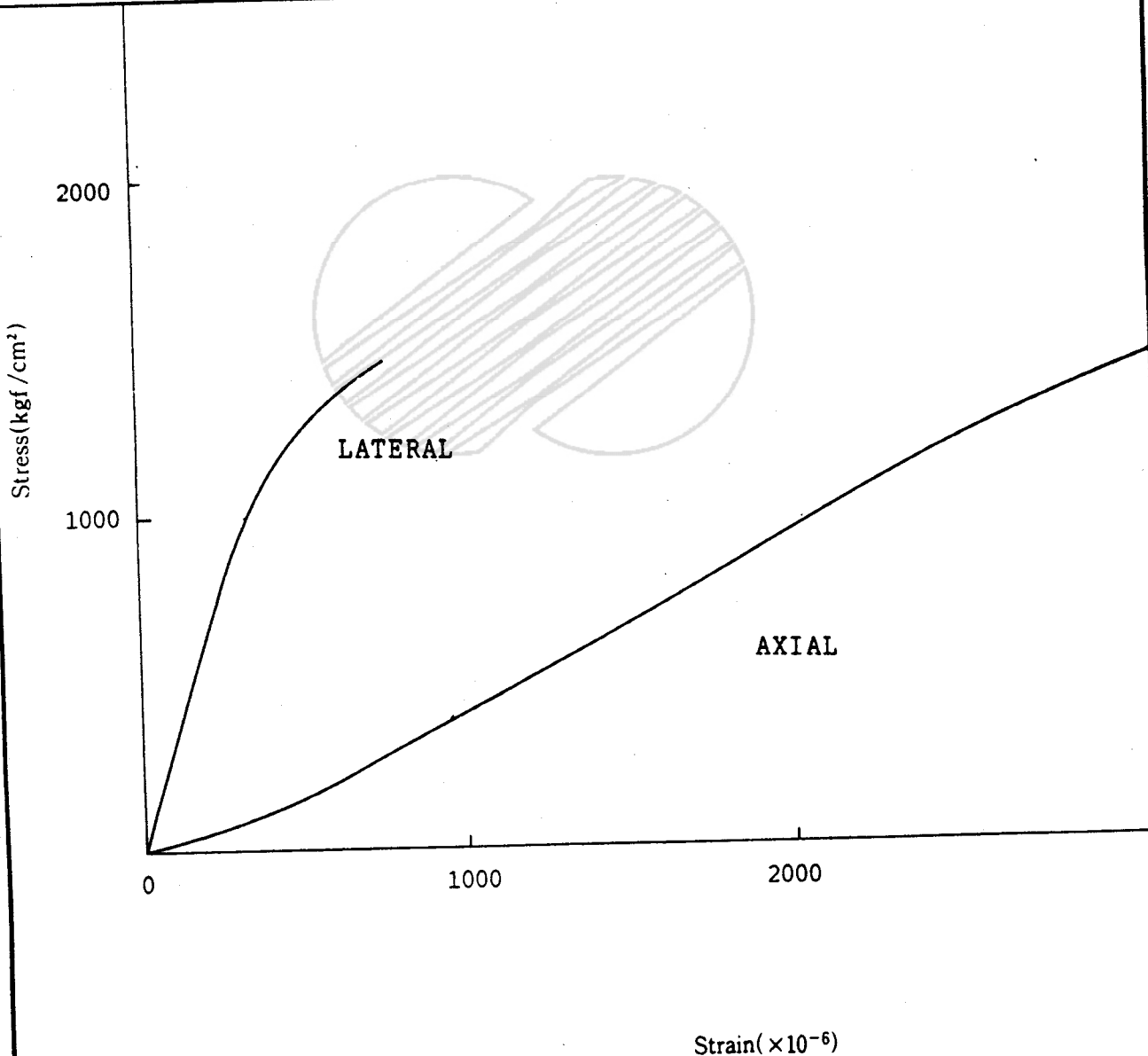
Strain($\times 10^{-6}$)

LATERAL

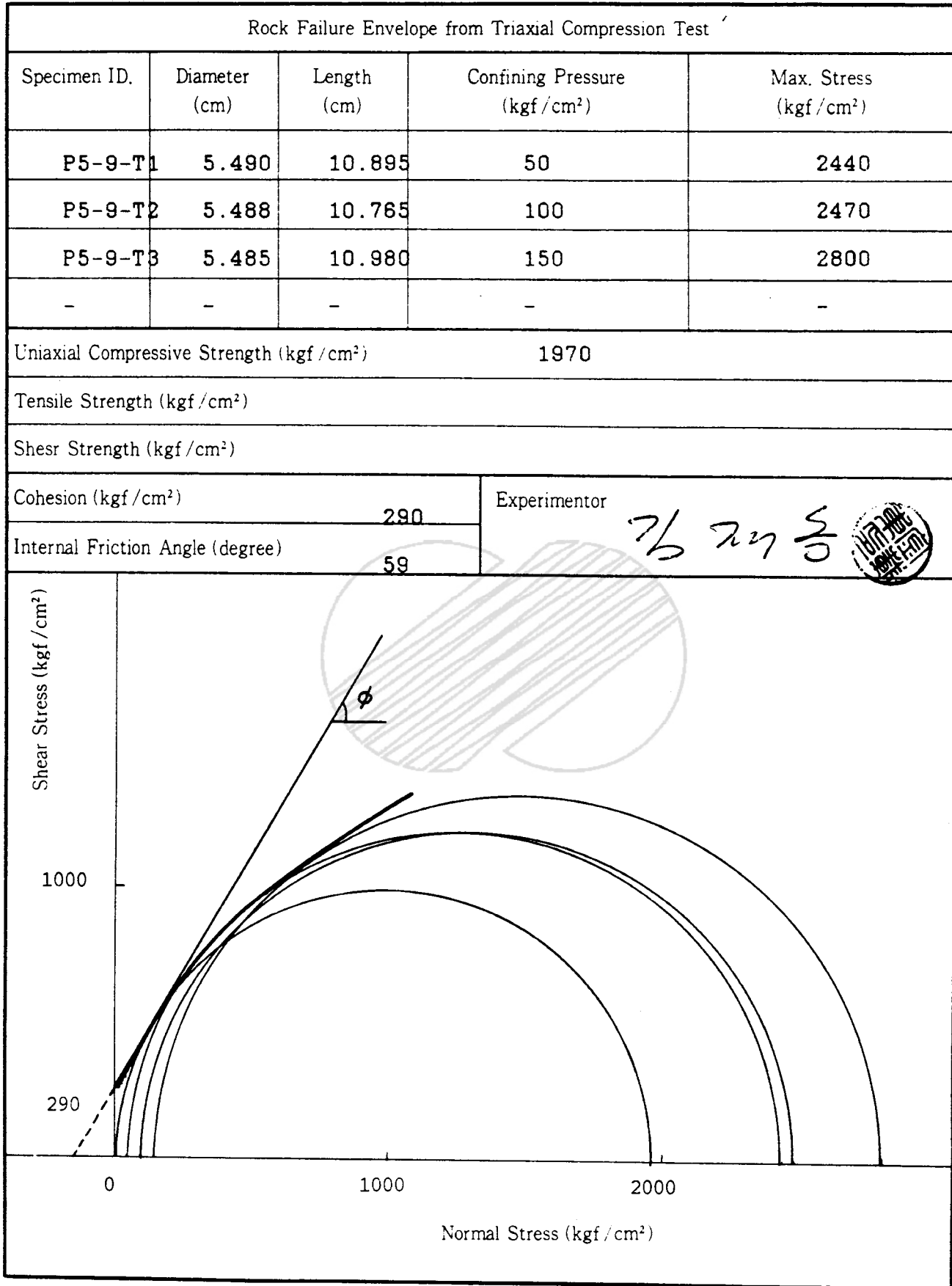
AXIAL

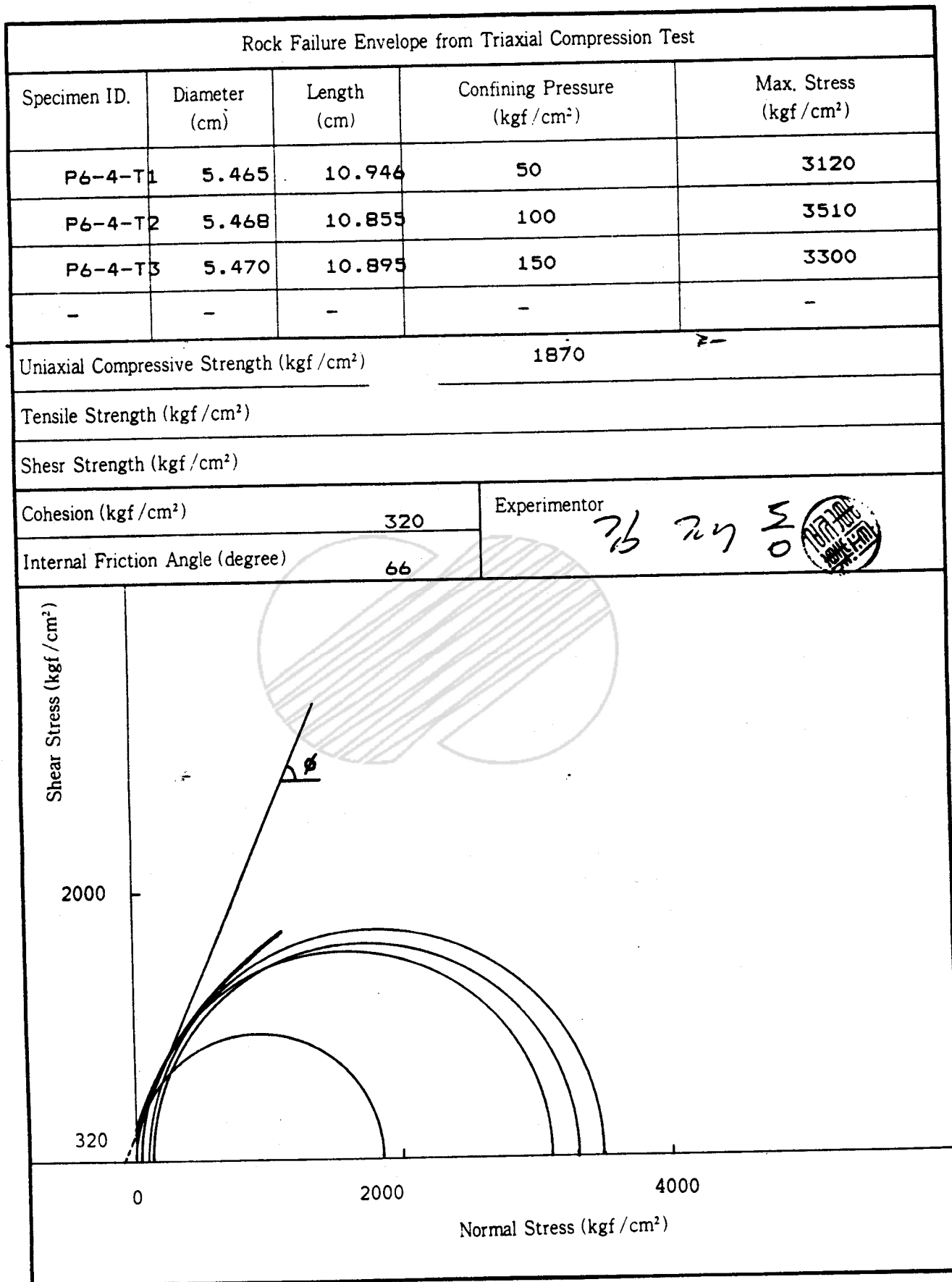


Rock Deformability Test				
Specimen	Identification	P6-11-C2	Test Date	94. 1. 12
	Diameter(cm)	5.480	Experimentor	
	Height(cm)	11.030		
Measurement	Strain Measuring Method	2-GAGES(1-ACTIVE 1-DUMMY) FOR EACH DIRECTION		
	Method of Determination of Young's Modulus	TANGENTIAL SLOPE AT 50% PEAK STRESS		
Young's Modulus ($\times 10^5 \text{ kgf/cm}^2$)		5.249	Poisson's Ratio	0.181

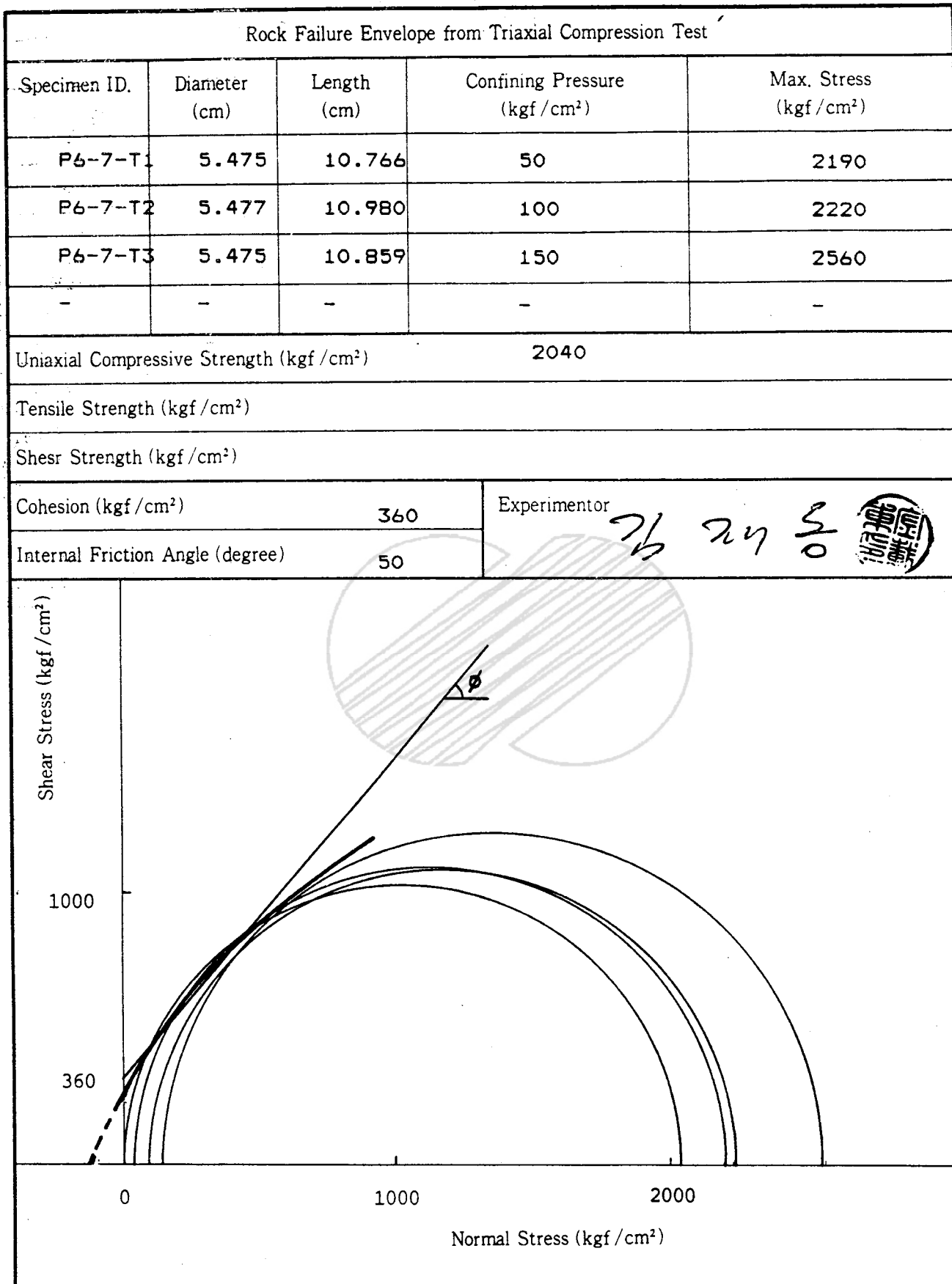


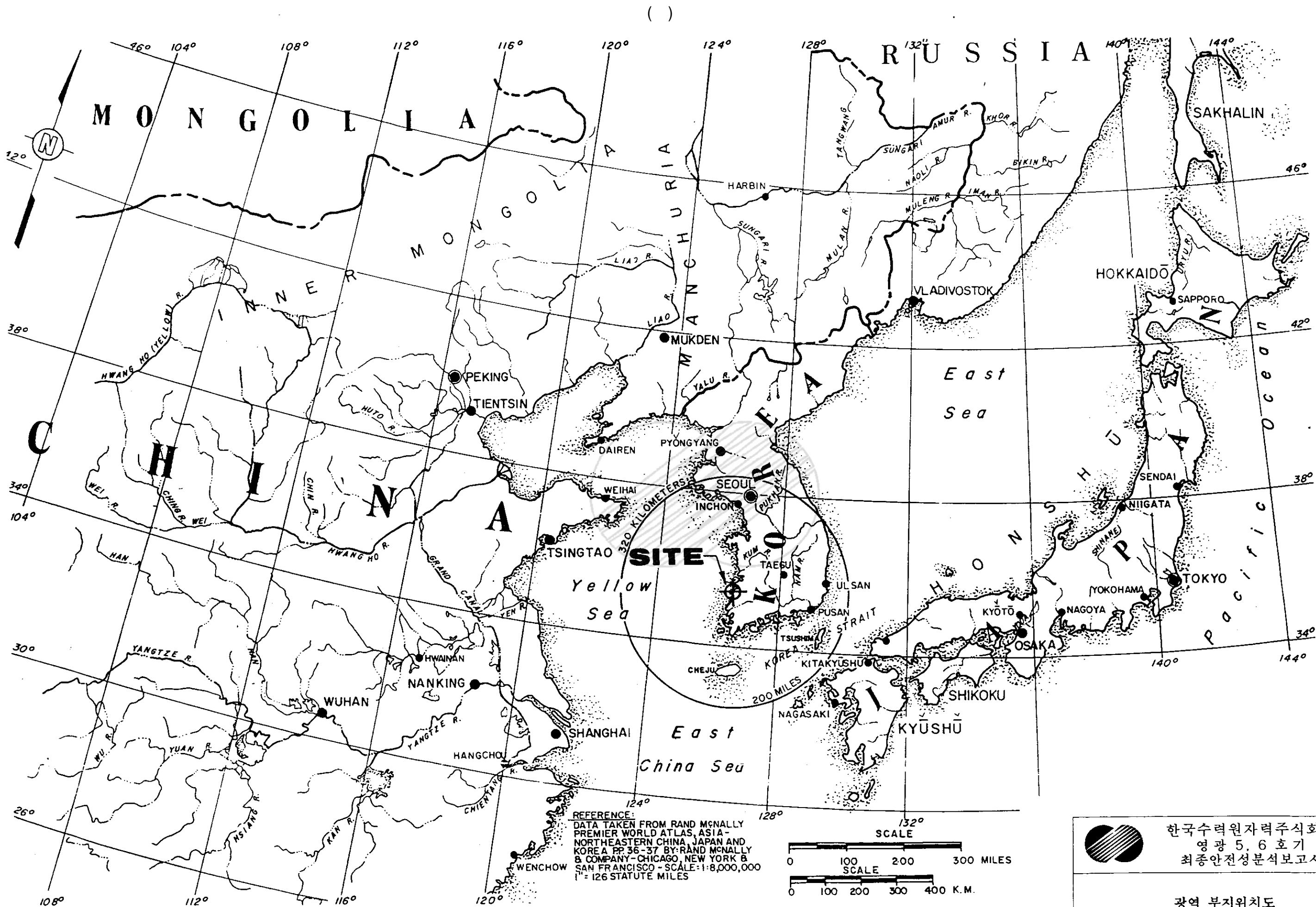
Strain ($\times 10^{-6}$)




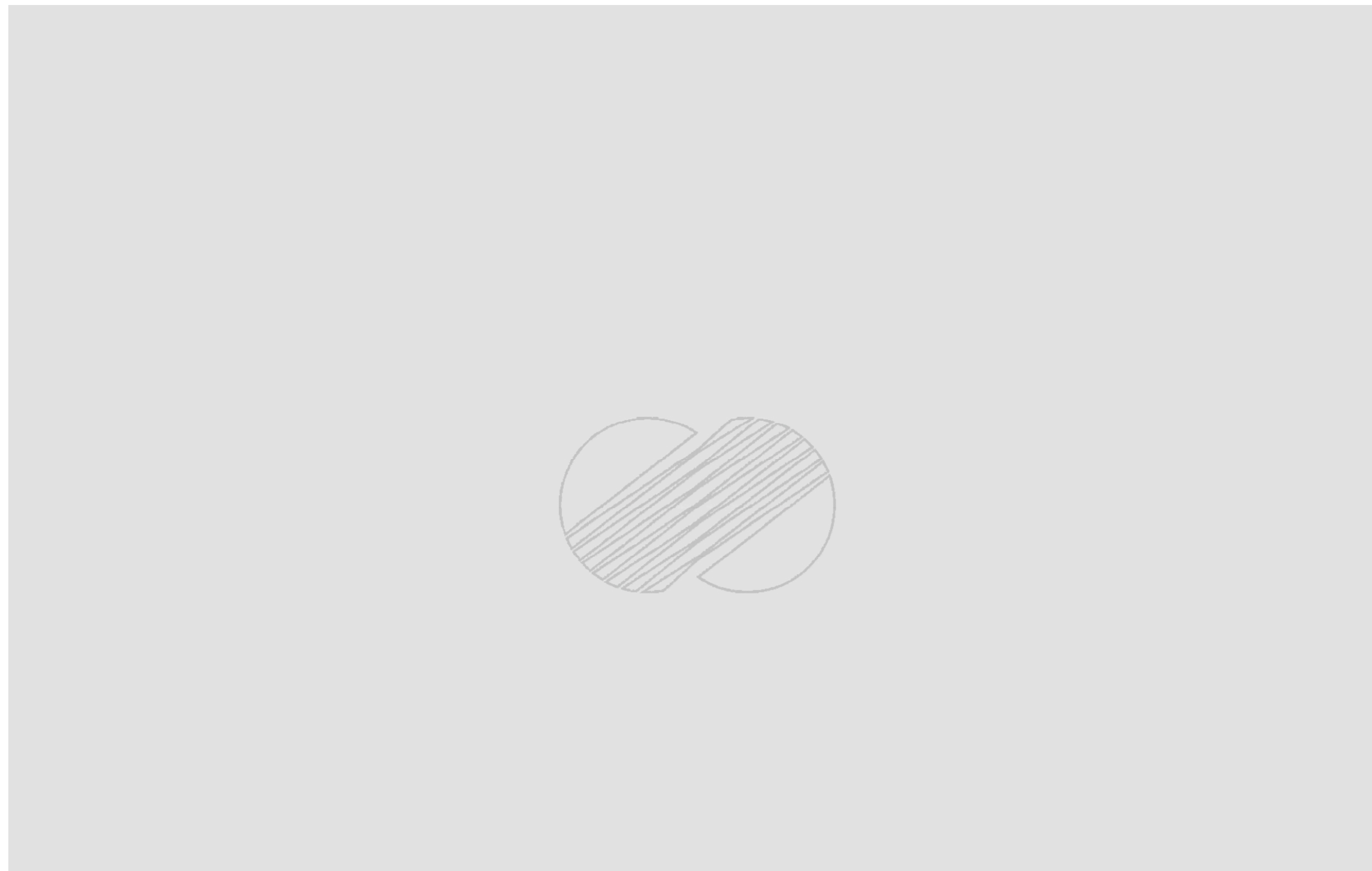


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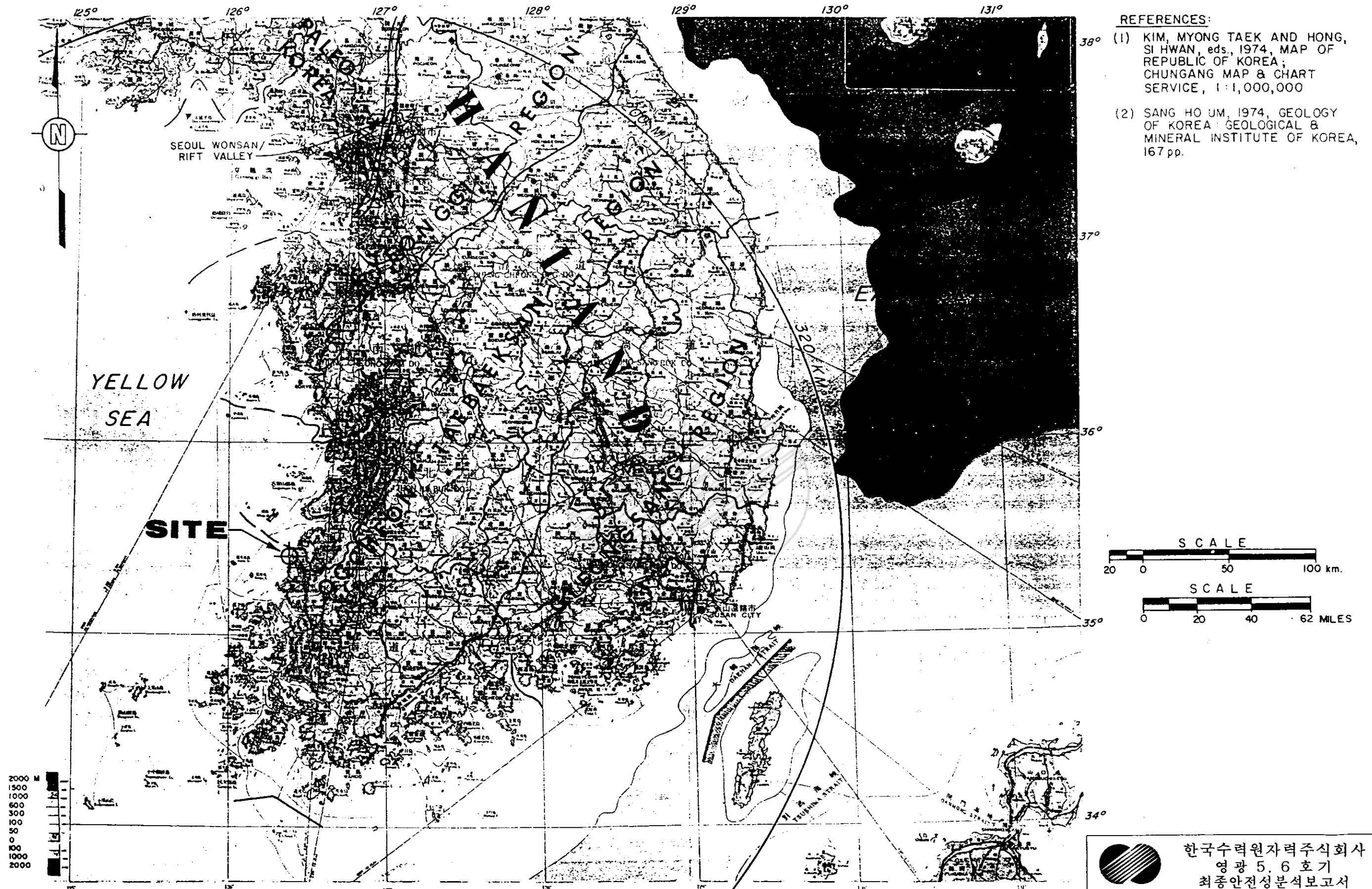


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	영광 5, 6 호기
	최종안전성분석보고서
광역 부지위치도	
그림 2.5-1	



	한국수력원자력주식회사 영광 5, 6 호기 최종안전성분석보고서
부지배치도 그림 2.5-2	

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REFERENCES:

- (1) KIM, MYONG TAEK AND HONG, SI HWAN, eds., 1974, MAP OF REPUBLIC OF KOREA; CHUNGANG MAP & CHART SERVICE, 1:1,000,000
- (2) SANG HO UM, 1974, GEOLOGY OF KOREA: GEOLOGICAL & MINERAL INSTITUTE OF KOREA, 167 pp.

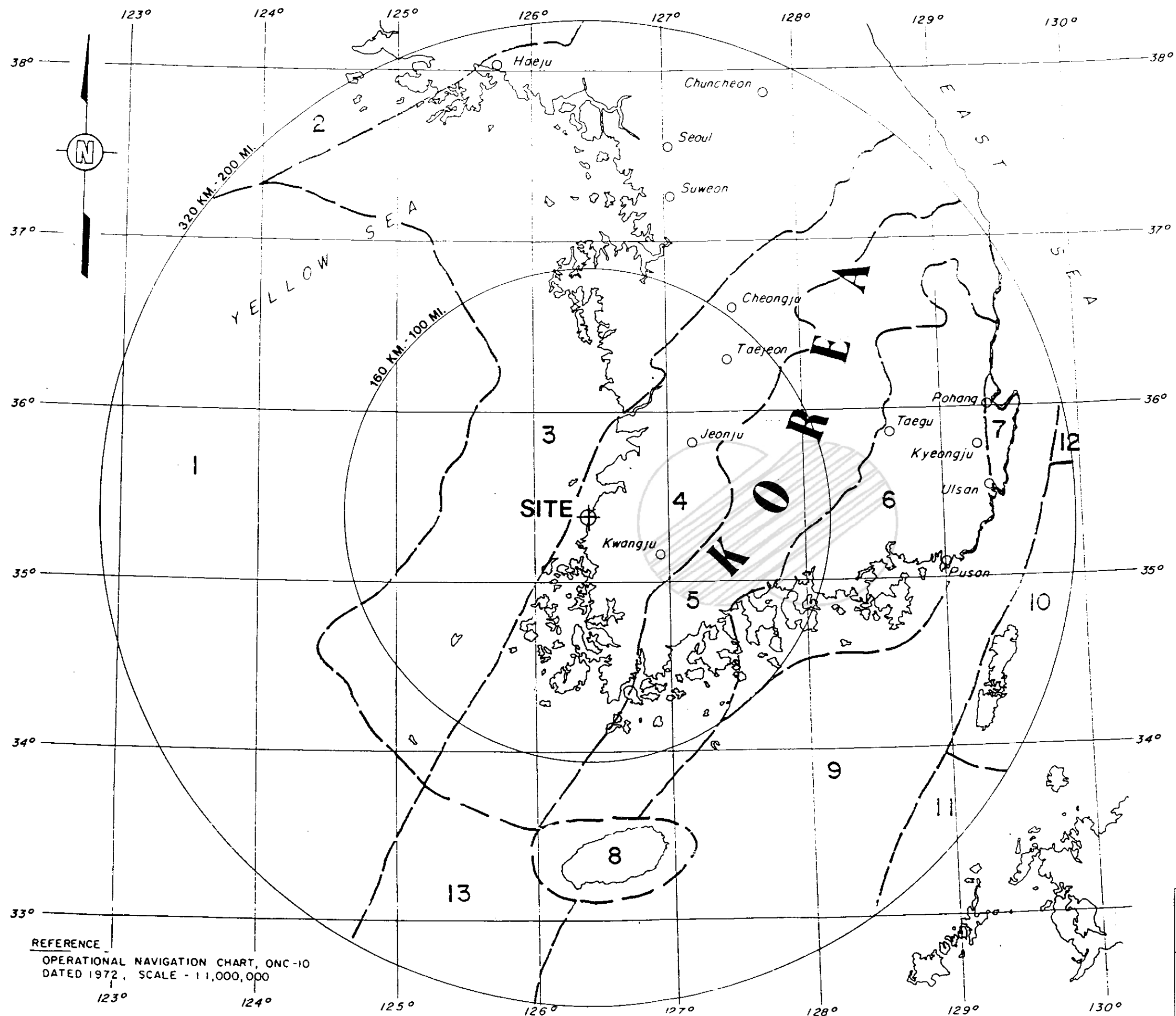


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광역지형도

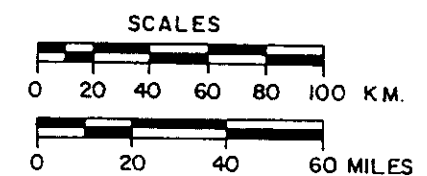
그림 2.5-3

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지체구조구

1. 황 해
2. 평안습곡대
3. 경기육괴
4. 옥천습곡대
5. 소백산육괴
6. 경상분지
7. 포항-울산 화산대
8. 제주도 화산대
9. 한국 대륙붕
10. 관문분지
11. 산군-야마구찌준
12. 동 해
13. 푸키인 레이난 육괴



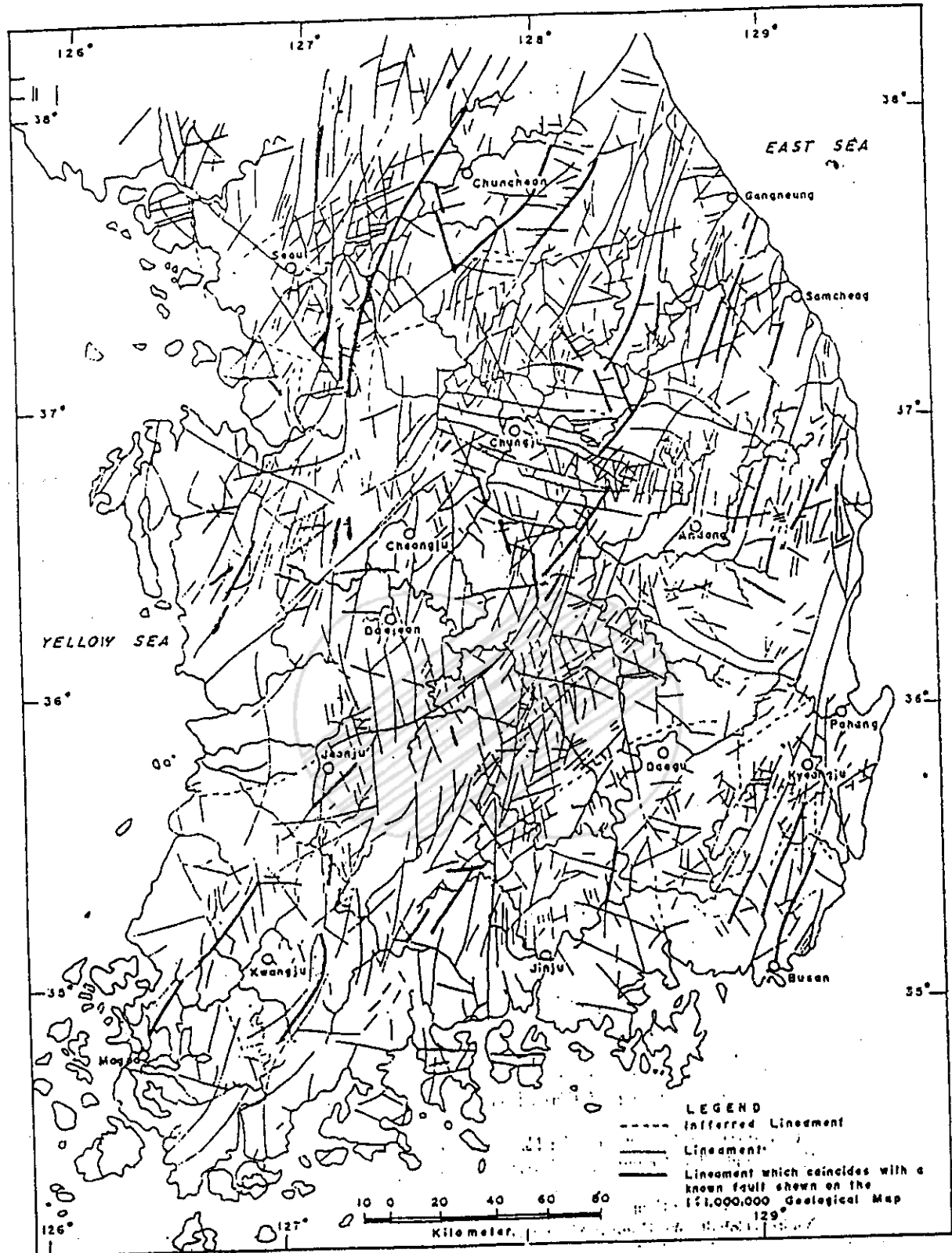
한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

지체구조도

그림 2.5-4

REFERENCE
OPERATIONAL NAVIGATION CHART, ONC-10
DATED 1972, SCALE - 1:1,000,000

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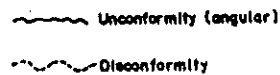
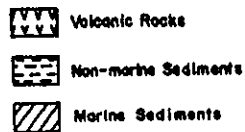
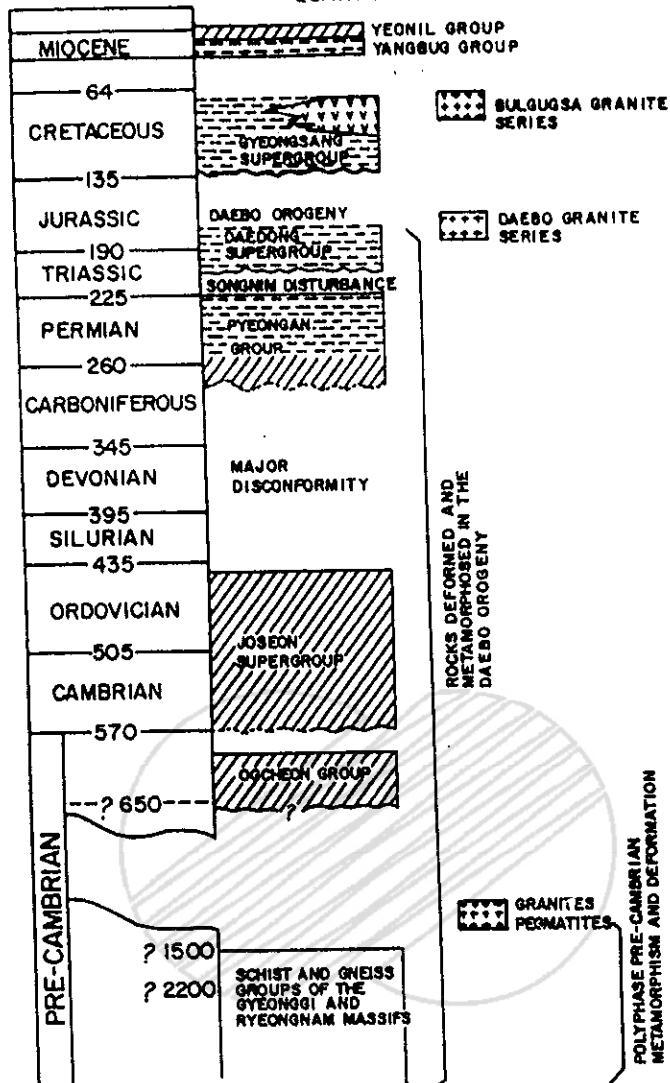
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최종안전성분석보고서

LANDSAT 영상을 이용한 남한의 선구조도

그림 2.5-5

GEOCHRONOLOGICAL
SCALE (my B.P.)

QUATERNARY VOLCANISM



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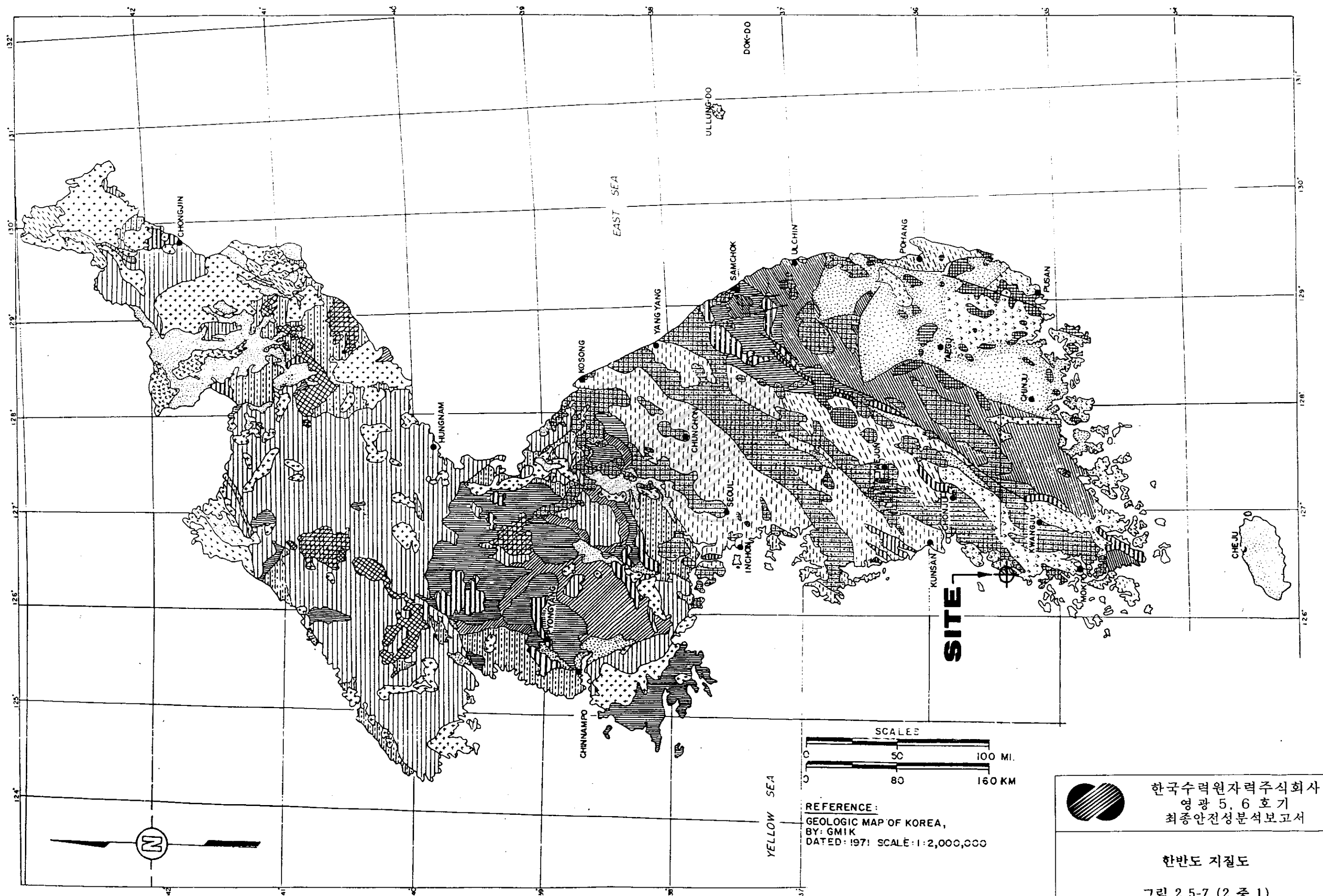
한반도 지질계통도

그림 2.5-6

REFERENCE:

THE GEOLOGY OF KOREA,
REEDMAN, A.J. AND UM, S.H., 1975

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SCALE
0 50 100 MI.
0 80 160 KM

REFERENCE:
GEOLOGIC MAP OF KOREA,
BY: GMK
DATED: 1971 SCALE: 1:2,000,000

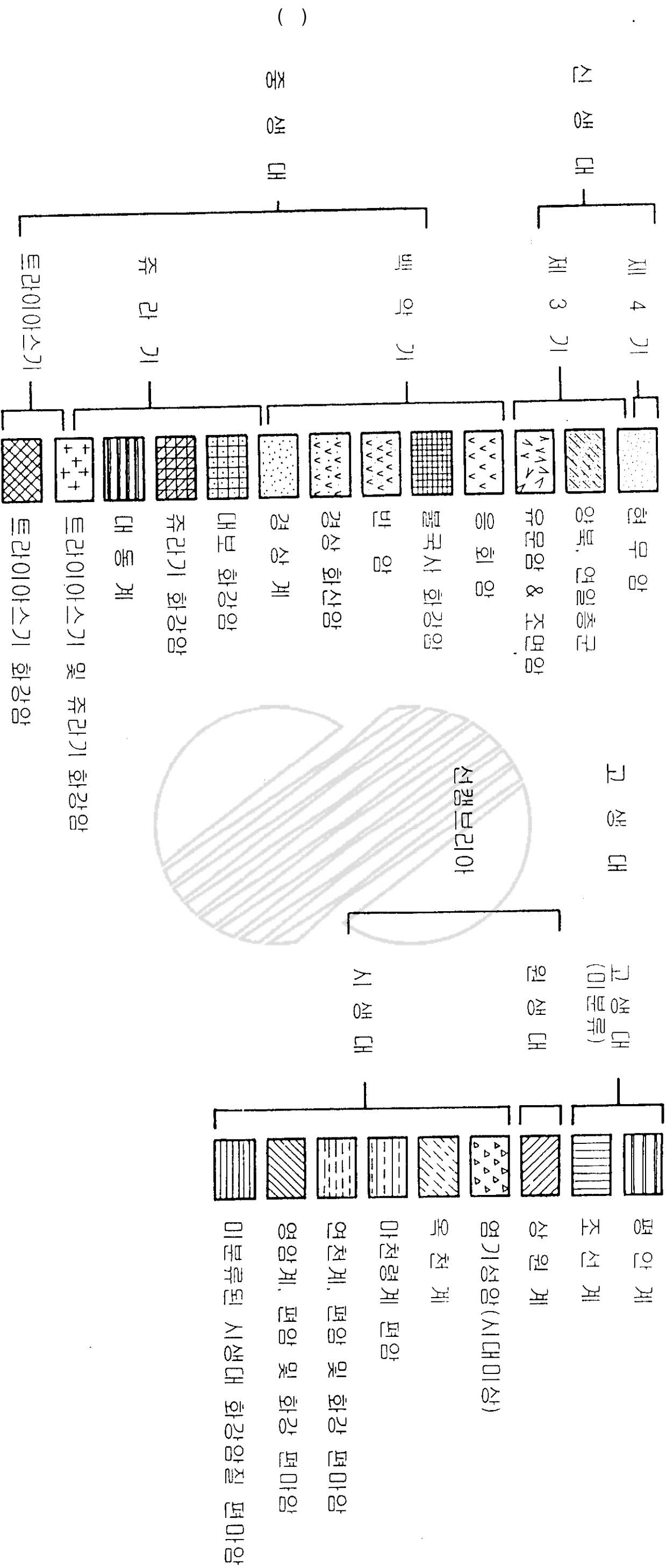


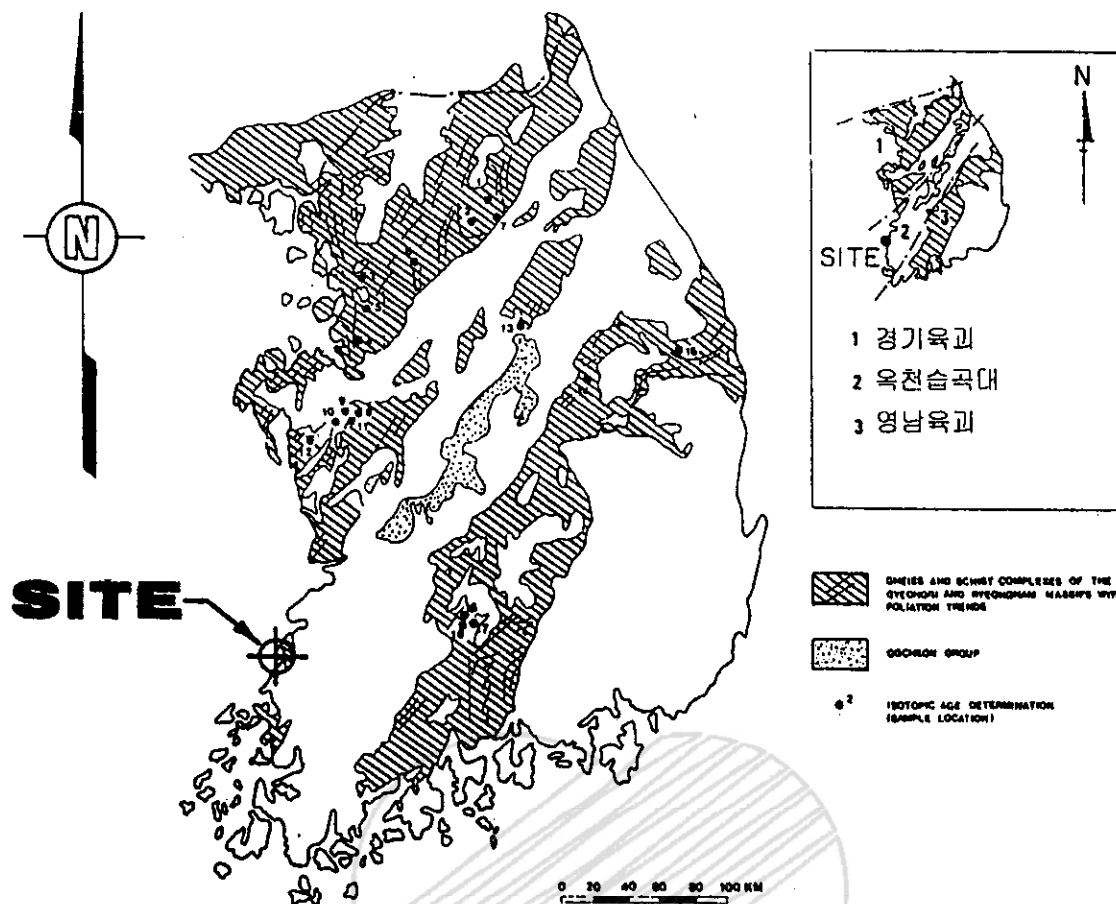
한국수력원자력주식회사
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최종안전성분석보고서

한반도 지질도

그림 2.5-7 (2 중 1)

범례





No	METHOD	AGE (MILLION YEARS)	REFERENCE
1-4	Rb/Sr isochron	2666 ± 40	Na and Lee (1973)
5	Rb/Sr whole rock	2765	Hurley et al (1970, 1972, 1973)
6	-	1700	-
7	-	1105	-
8	-	1330	-
9	-	2265	-
10	-	1271	-
11	-	1885	-
12	-	1663	-
13	-	2056	-
14	-	2010	-
15	-	1430, 1525	Nozumu Ueda (Unpubl. thesis, Tokyo University)
16	-	1243	Hurley et al (1970, 1972, 1973)
17	-	857	-
18	-	774	-
-	U-Pb Zircon	2150	Gardette and Hurley (1973)

REFERENCE:

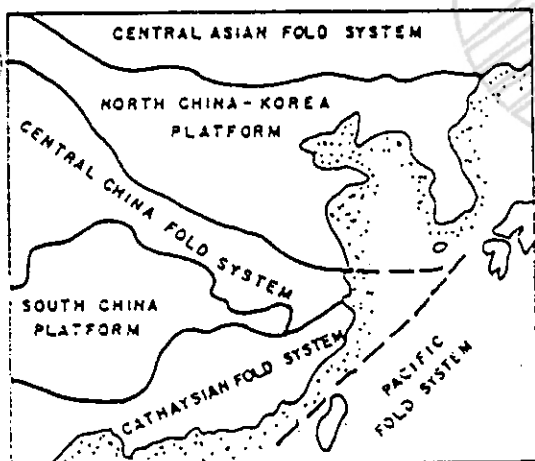
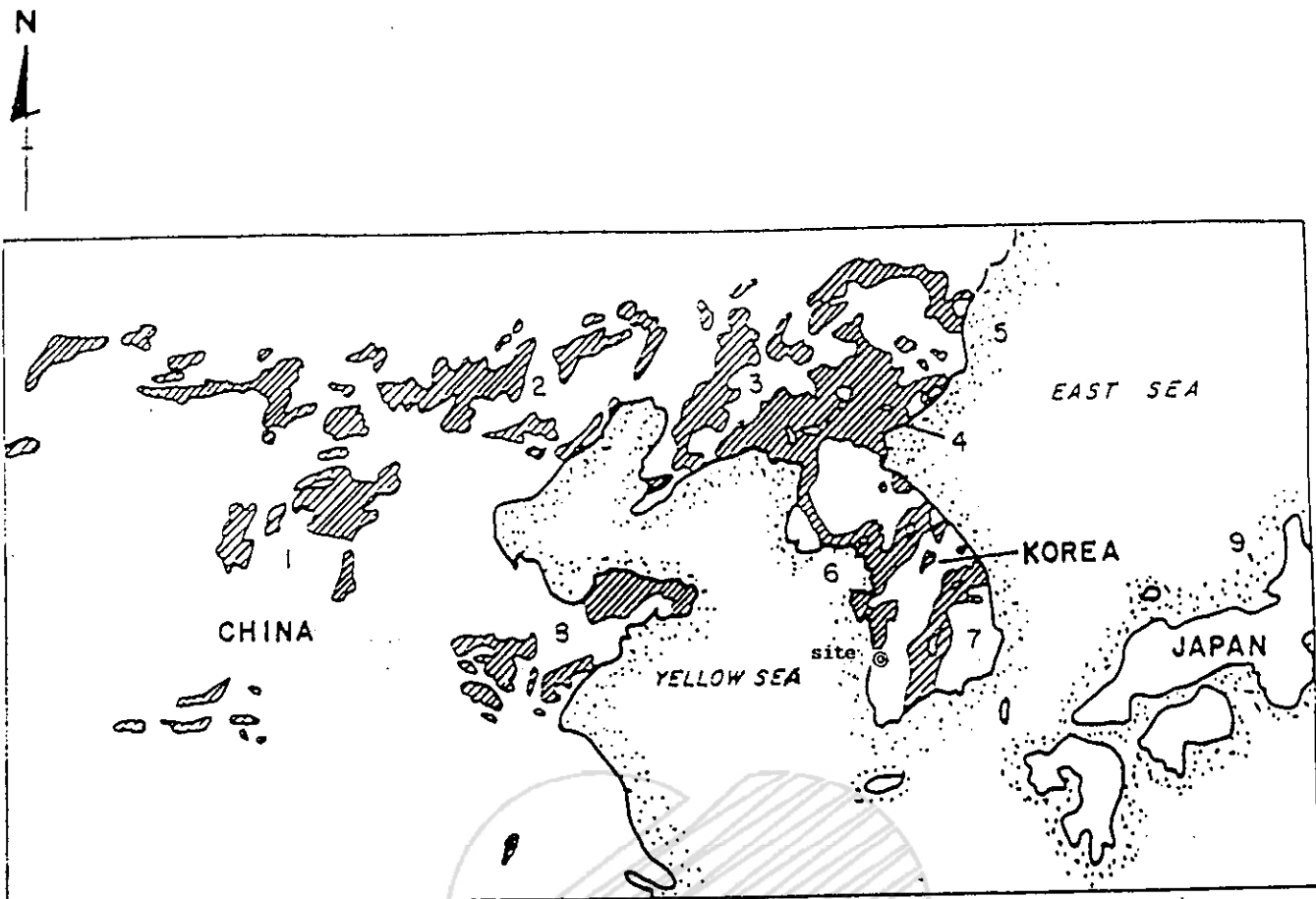
THE GEOLOGY OF KOREA,
REEDMAN, A.J. AND UM, S.H., 1975



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영광 5, 6 호기
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한반도 선캄브리언 암석분포도 및 연대측정

그림 2.5-8



AREAS OF OUTCROP OF ROCKS OF ARCHAEOZOIC TO MID PROTEROZOIC AGE

- 1 SHANSI MASSIF
- 2 YINSHAN MASSIF
- 3 LIAOTUNG MASSIF
- 4 NANGRIM MASSIF
- 5 SEONGIM MASSIF
- 6 GYEONGGI MASSIF
- 7 RYEONGNAM MASSIF
- 8 SHANTUNG MASSIF
- 9 HIDA MASSIF

SCALE



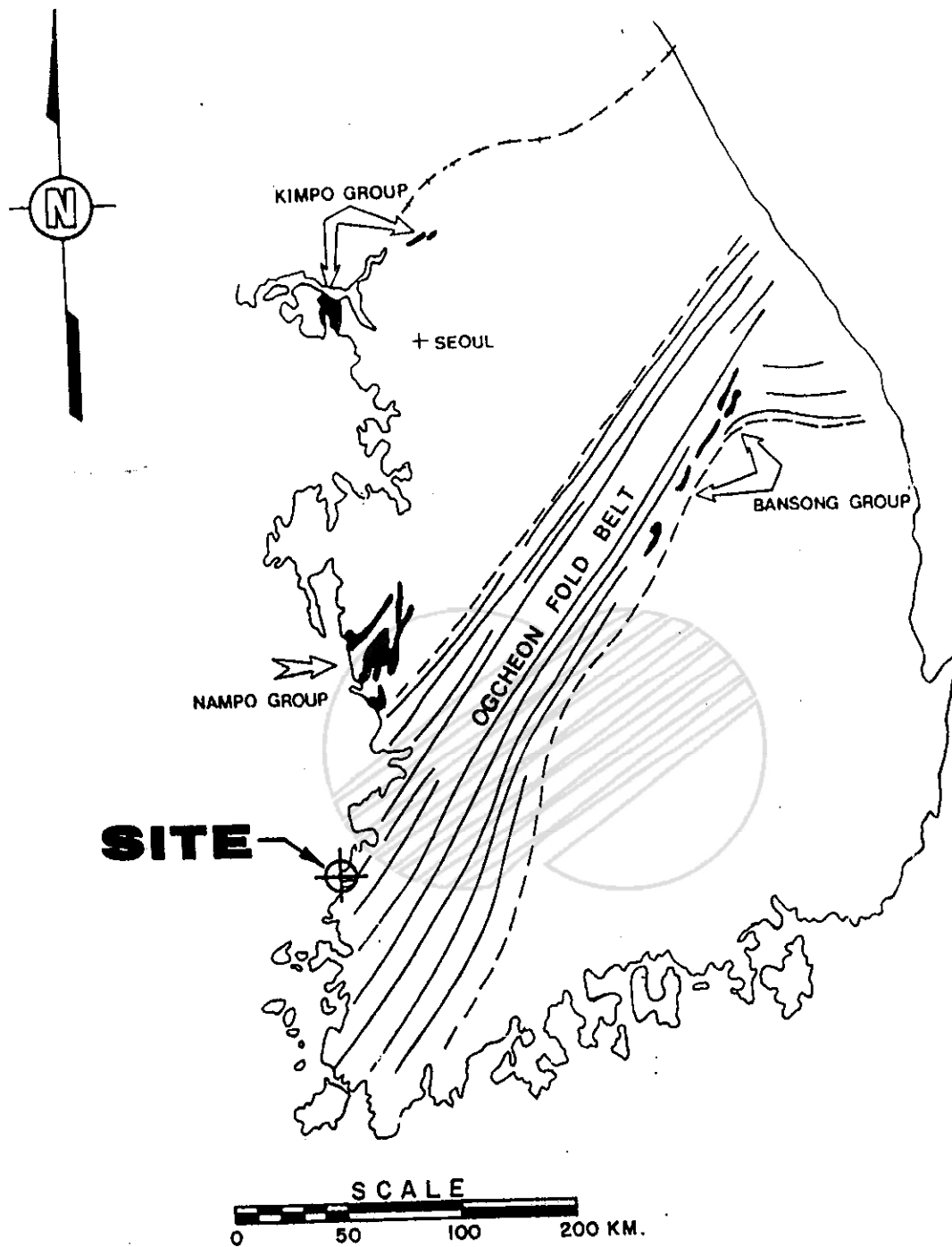
한국수력원자력주식회사
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최종안전성분석보고서

한반도 및 중국 북동부 선캠브리언 암석분포도

그림 2.5-9

REFERENCE

AFTER REEDMAN AND UM, 1975



REFERENCE

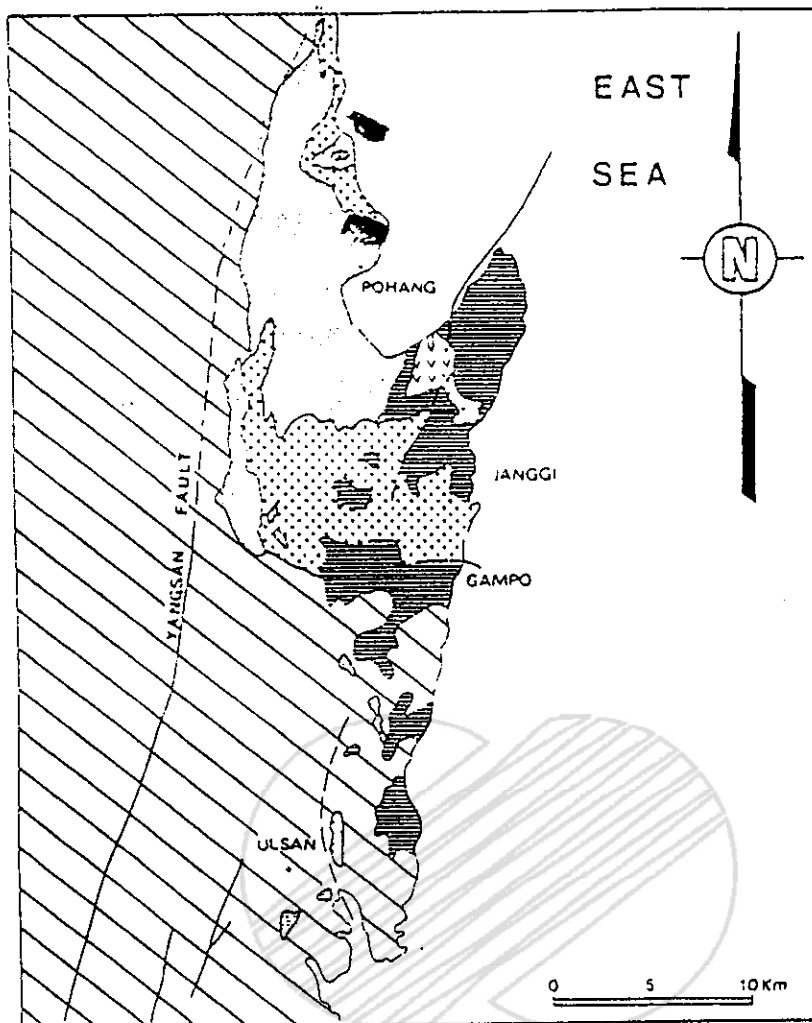
THE GEOLOGY OF KOREA
REEDMAN, A.J. AND UM,
S.H. 1975



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영광 5, 6 호기
최종안전성분석보고서

한반도 대동누층군 분포도

그림 2.5-10



- BASALT (QUATERNARY)
- RHYOLITE AND AGGLOMERATE (LATE TERTIARY ?)
INTRUSION
- YEONIL GROUP (L. MIOCENE - PIOCENE)
- YANGBUG GROUP (OLIGOCENE - L. MIOCENE)
- CRETACEOUS SEDIMENTARY, VOLCANIC AND IGNEOUS ROCKS
- FAULT

REFERENCE

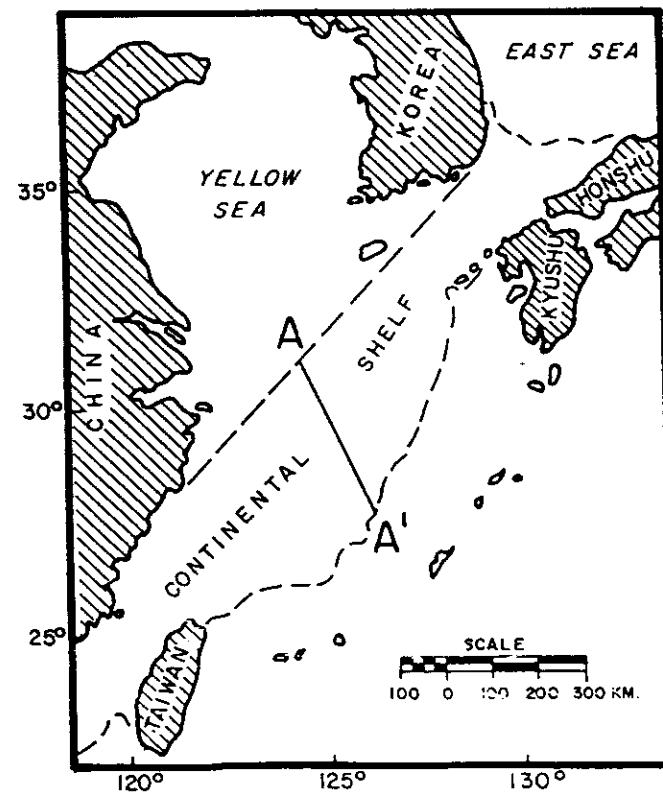
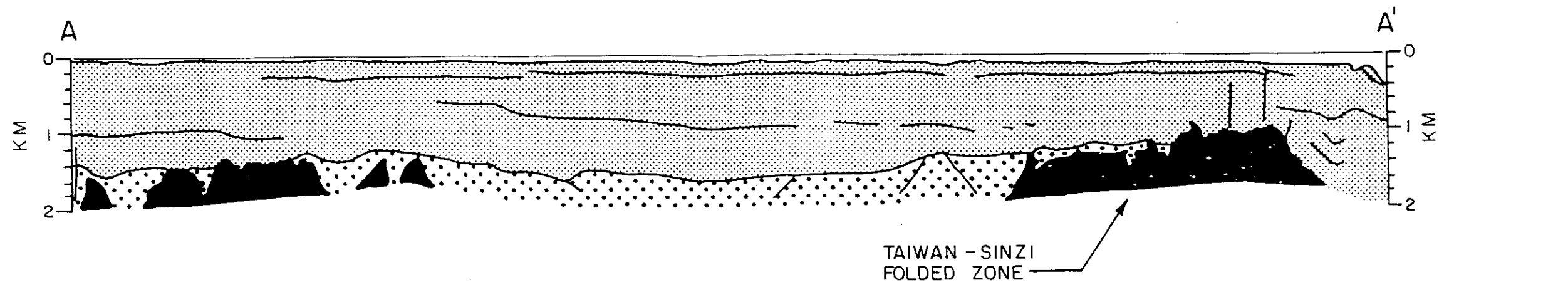
MODIFIED FROM REEDMAN
AND UM 1975.






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영광 5, 6 호기
최종안전성분석보고서

포항-울산 화산대의 양북 및 연일층군 분포도

그림 2.5-11



LEGEND

-  POST-DEFORMATION SEDIMENTS
-  PRE-DEFORMATION SEDIMENTS
-  IGNEOUS AND METAMORPHIC ROCKS (PRE-TERTIARY)

0 10 20 30 40 50 100
HORIZONTAL SCALE IN KILOMETERS

0 10 20 30 40 50 62
HORIZONTAL SCALE IN MILES

REFERENCE: WAGEMAN, J.M., T.W.C. HILDE AND K.O. EMERY, 1970, STRUCTURAL FRAMEWORK OF EAST CHINA SEA AND YELLOW SEA, AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS BULLETIN, v. 54, p. 1611-1643.

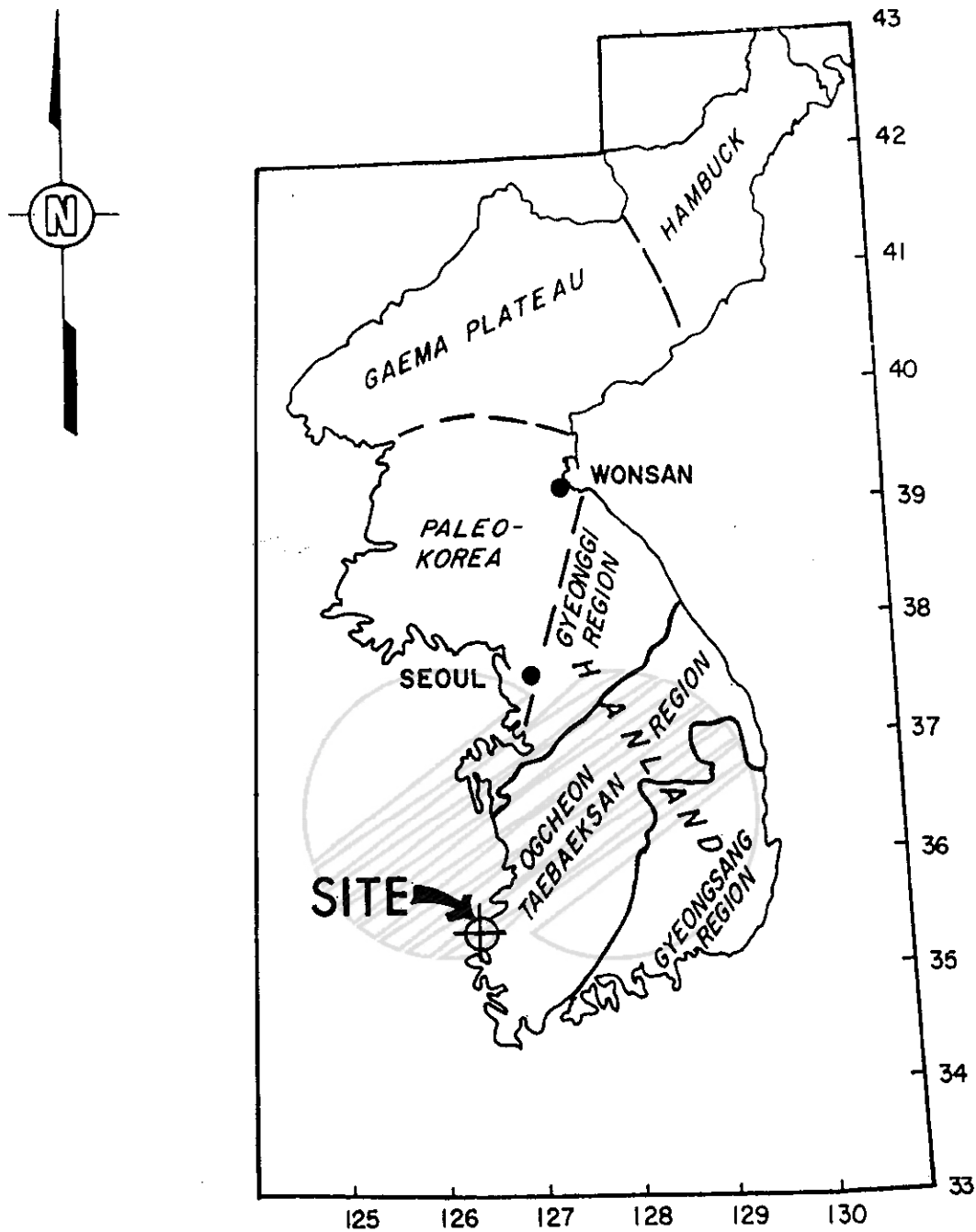


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영광 5, 6 호기
최종안전성분석보고서

중앙대륙붕의 지구물리탐사 단면도

그림 2.5-12

()



REFERENCE:
AFTER S.H. UM, 1974

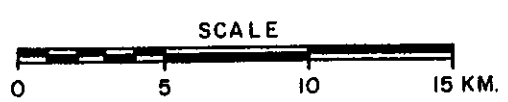
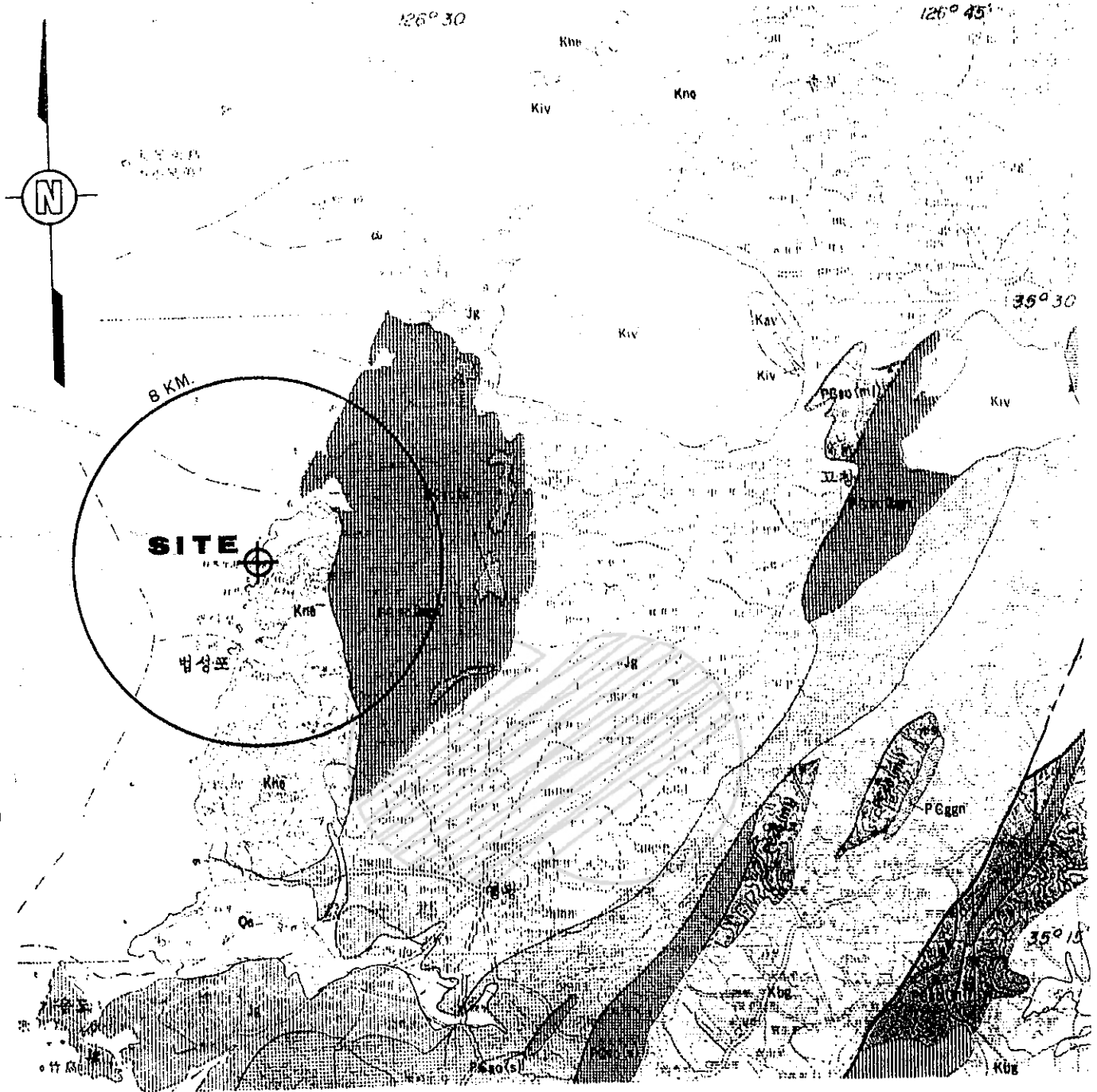


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영광 5, 6 호기
최종안전성분석보고서

한반도 지형분할도

그림 2.5-13

()



REFERENCE:

GWANGJU QUADRANGLE, BY: GEOLOGICAL AND MINERAL INSTITUTE OF KOREA, DATED: 1973, SCALE: 1:250,000.

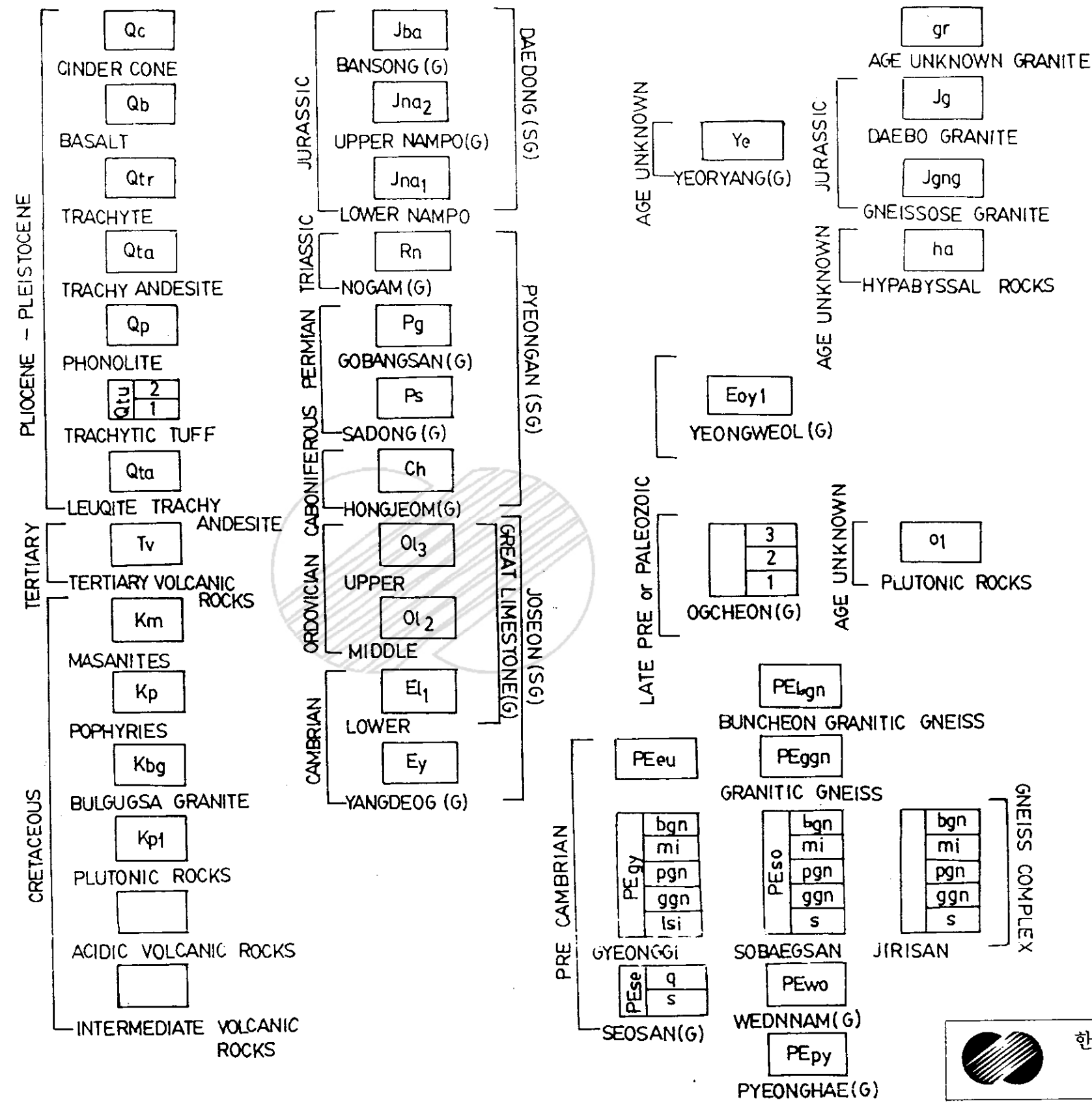
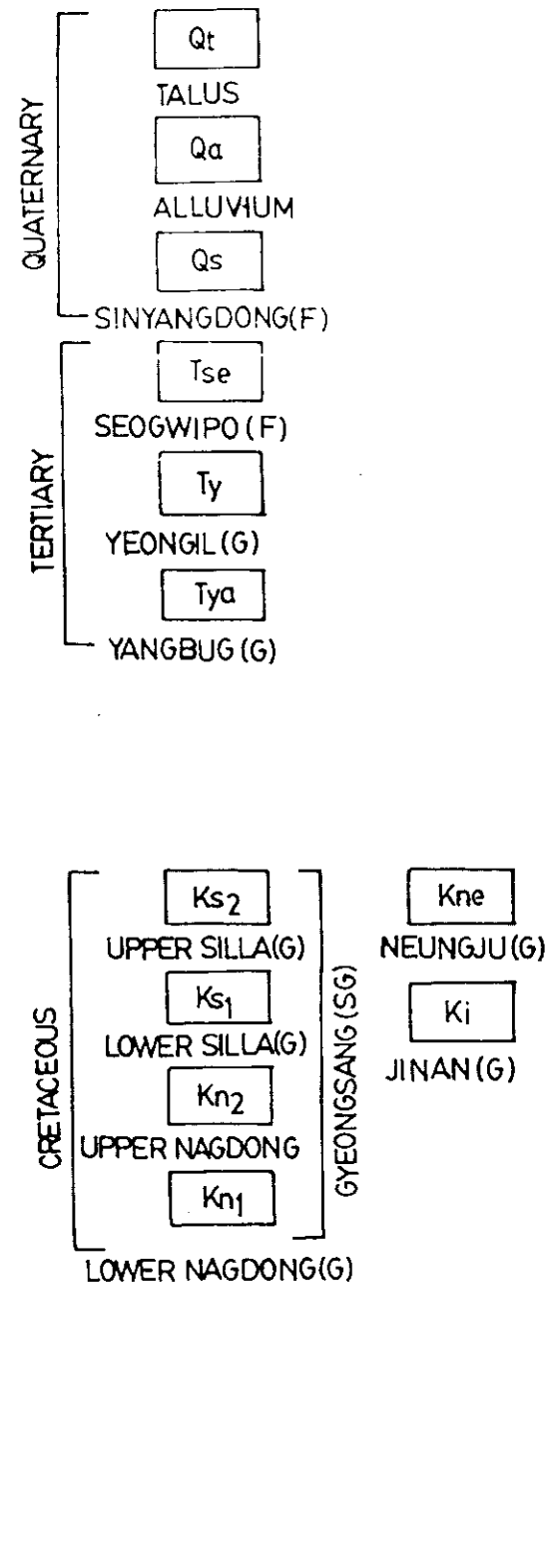


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영광 5, 6 호기
최종안전성분석보고서

부지 및 인근지질도

그림 2.5-14A

LEGEND



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

부지 및 인근지질도

그림 2.5-14B

중 국 북동부			북 한	남 한
PROTEROZOIC	UPPER	SINIAN HSIHO SERIES WUANGSHAN S. FANHO SYSTEM HUIHITUN SERIES 1300 \pm 50my	SANGWEON SYSTEM KUHYEON SERIES SADONGMOR SERIES CHIKYEON SERIES	OGCHEON GROUP (CHUNSEONG GROUP, O. J. KIM 1973)
	MIDDLE	HUTUOAN HUTO SERIES PAYUN OBO SERIES LIAOHU SERIES 1850 \pm 50my	NAMDECHEON SERIES (MACHYOLLYONG SYSTEM)	21500 my YULRI GROUP, (JANGRAK GROUP)
	LOWER	WUTAIAN WUTAI SYSTEM 2400 \pm 50my		?
ARCHAEOZOIC	TAISHANIAN	ANSHAN GROUP GNEISS COMPLEXES OF S. MANCHURIA, SHANSI AND SHANTUNG	GNEISS COMPLEXES OF THE SONGJIN AND NANGRIM MASSIFS	2600 - 2000 my [SEOSAN GROUP, (JANGRAK GROUP)] GYEONGGI METAMORPHIC COMPLEX WEONNAM GROUP, PYEONGHAE GROUP SOBAEGSAN GNEISS COMPLEX

REFERENCE

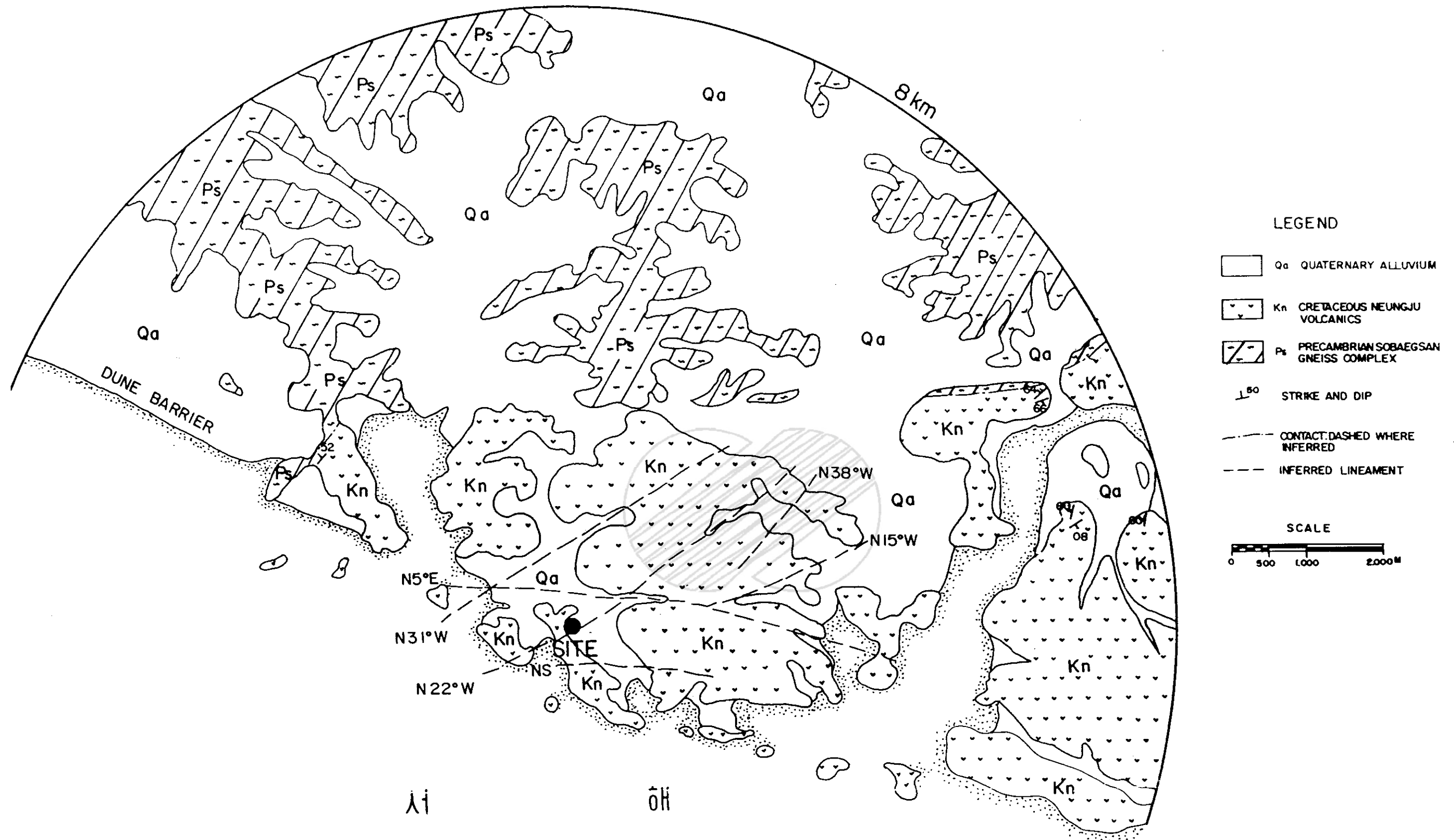
AFTER REEDMAN AND UM, 1975



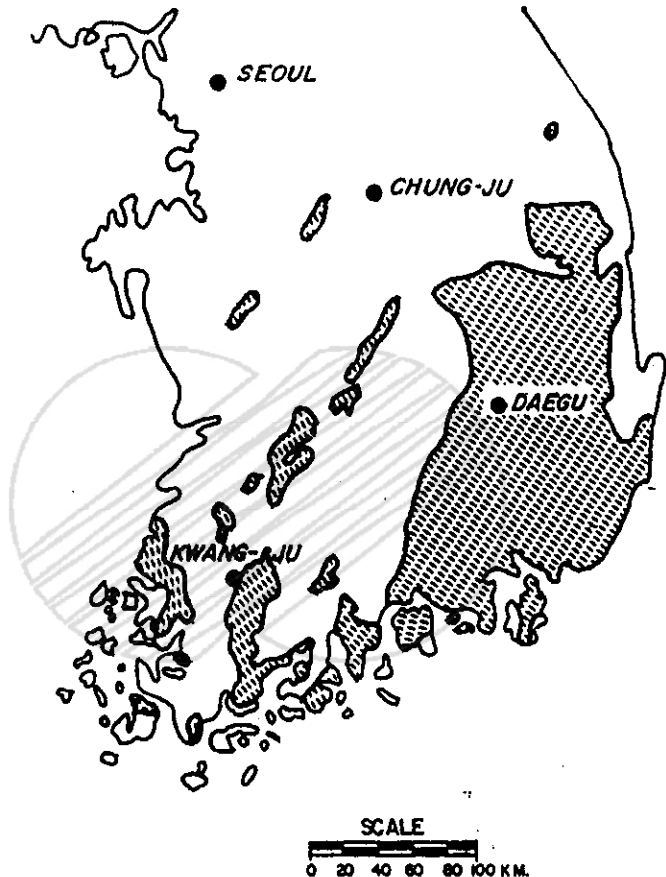
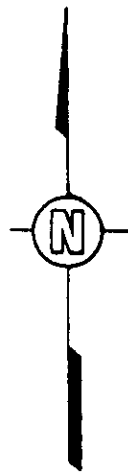
한국수력원자력주식회사
영 광 5, 6 호 기
최종안전성분석보고서

선캠브리언 지층대비 관계도

그림 2.5-15



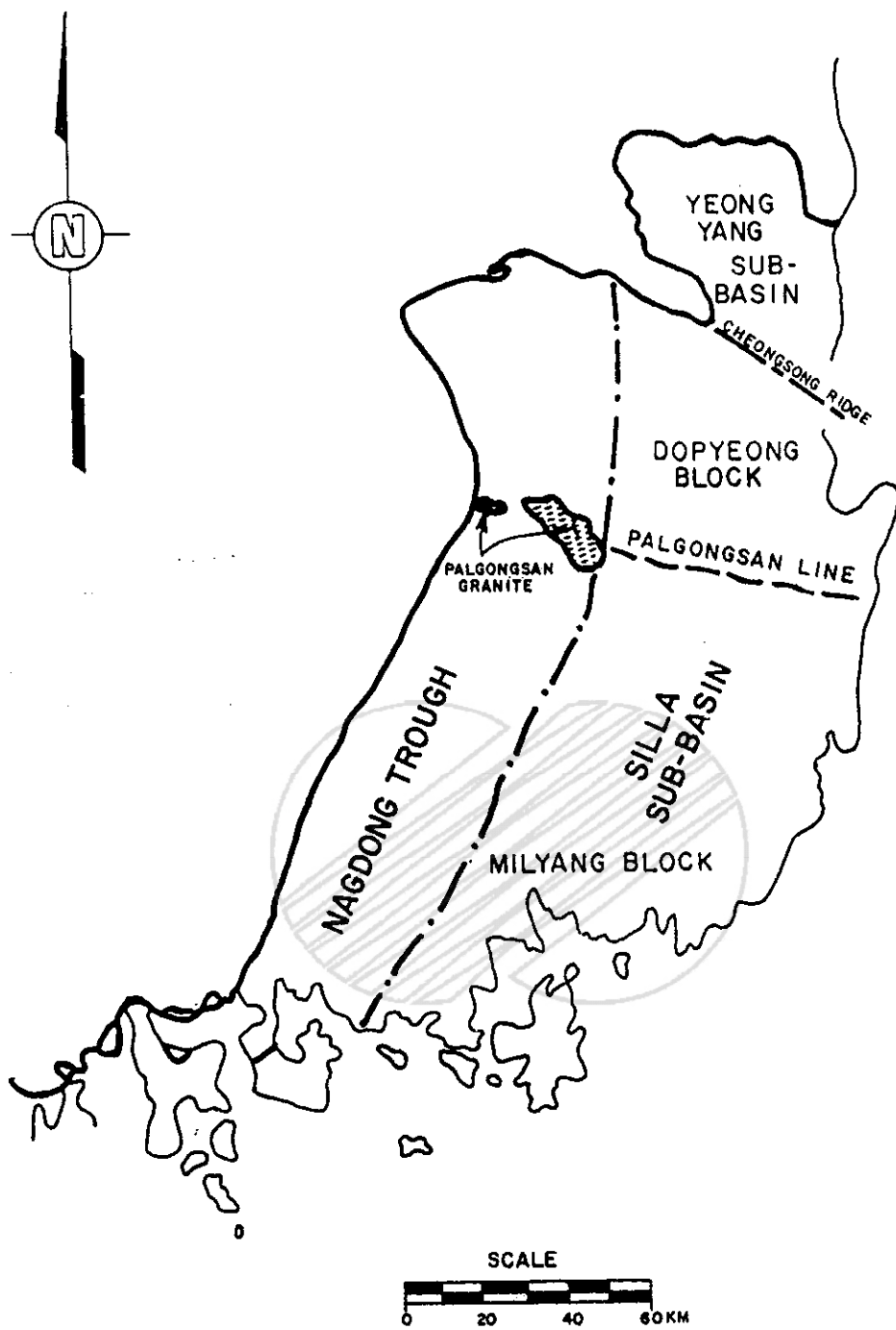
()



REFERENCE
AFTER REEDMAN AND UM, 1975

	한국수력원자력주식회사 영광 5, 6 호기 최종안전성분석보고서
경상누충군 암석분포 분지	
그림 2.5-17	

()



REFERENCE

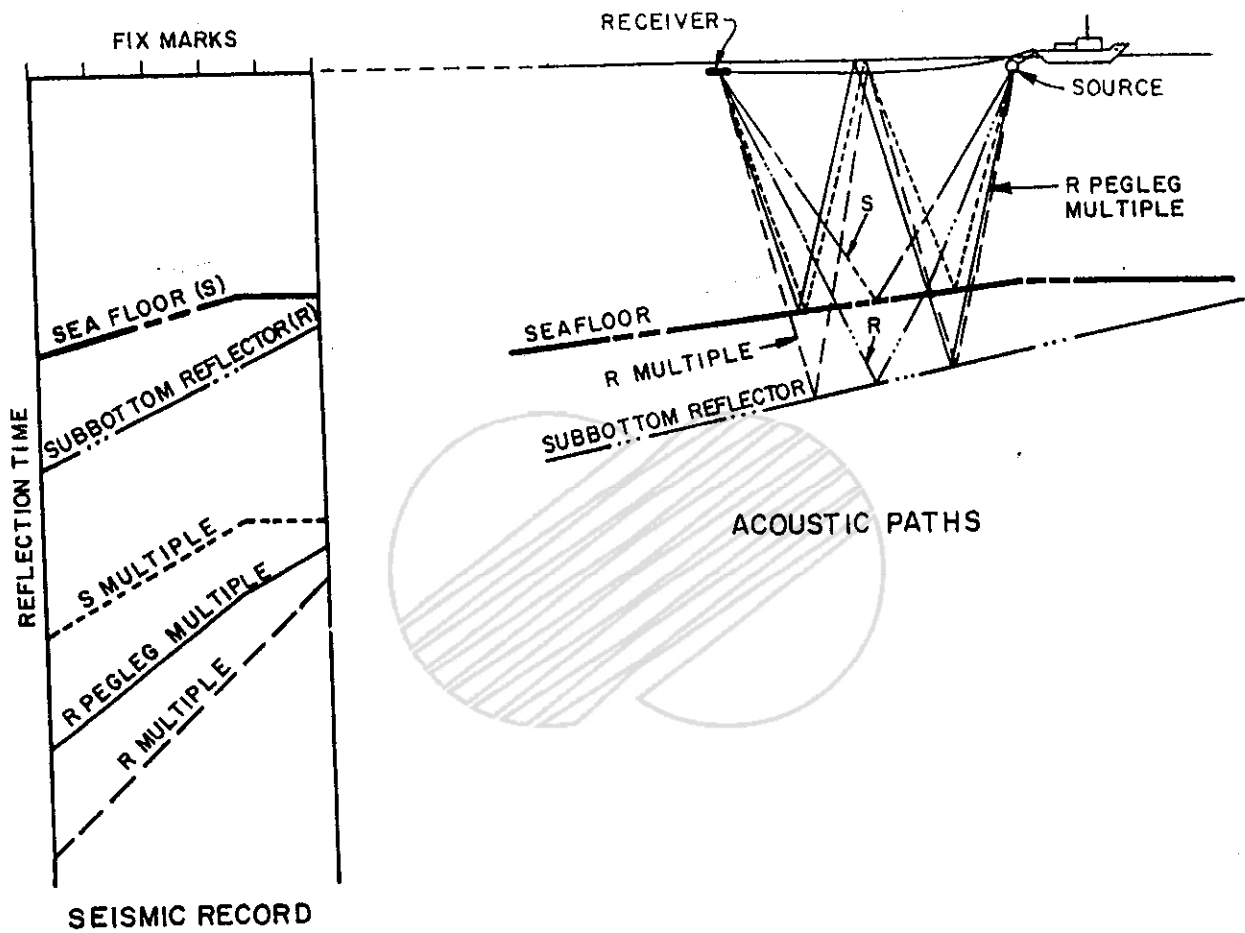
AFTER REEDMAN AND UM, 1975



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

경상분지의 소구조구

그림 2.5-18

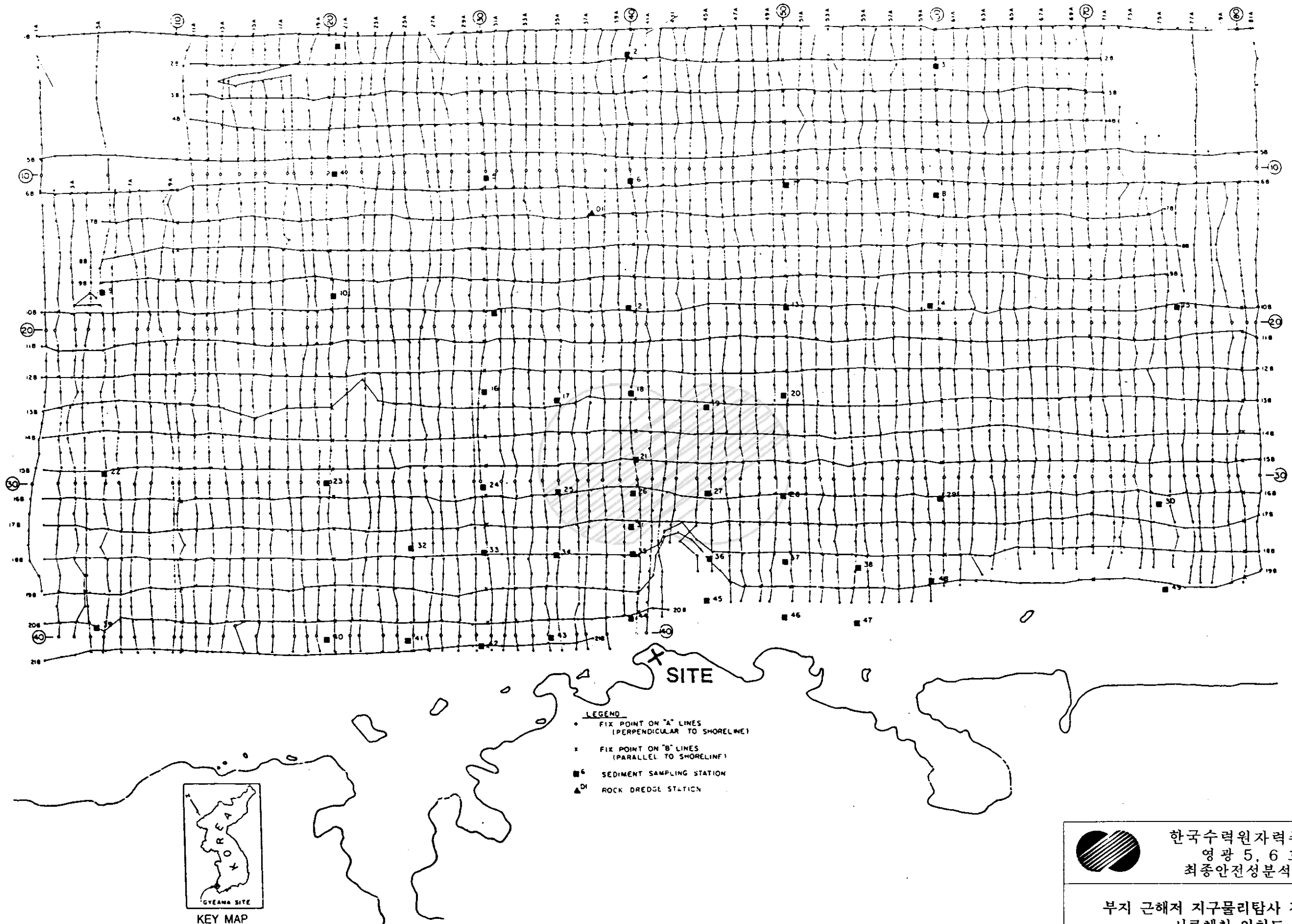



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영광 5, 6 호기
최종안전성분석보고서

다중음파반향 모식도

그림 2.5-19

()



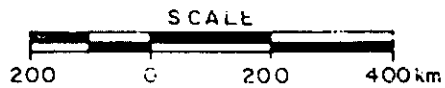
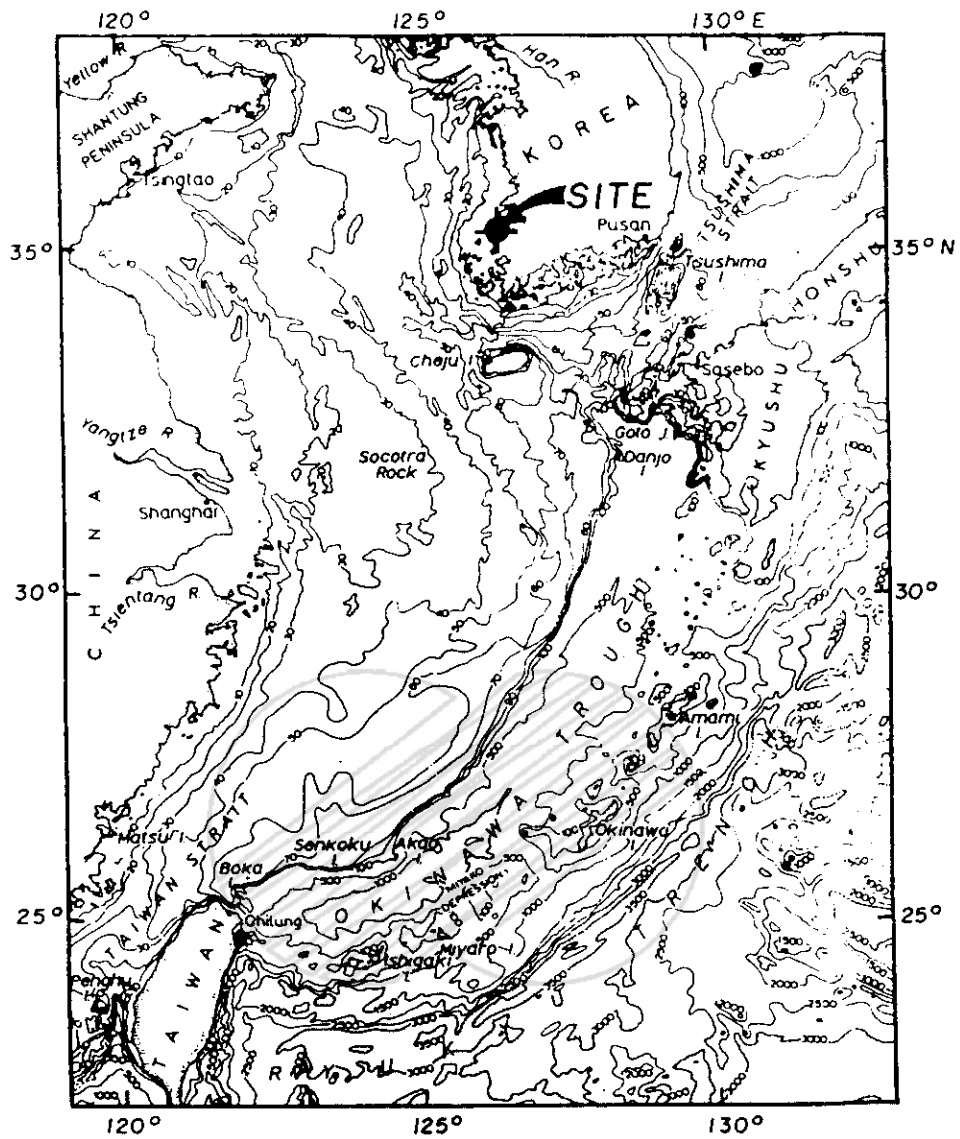
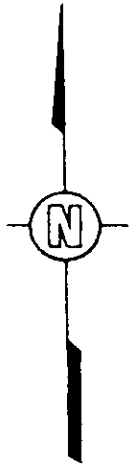


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

부지 근해저 지구물리탐사 격자망 및
시료채취 위치도

그림 2.5-20

()

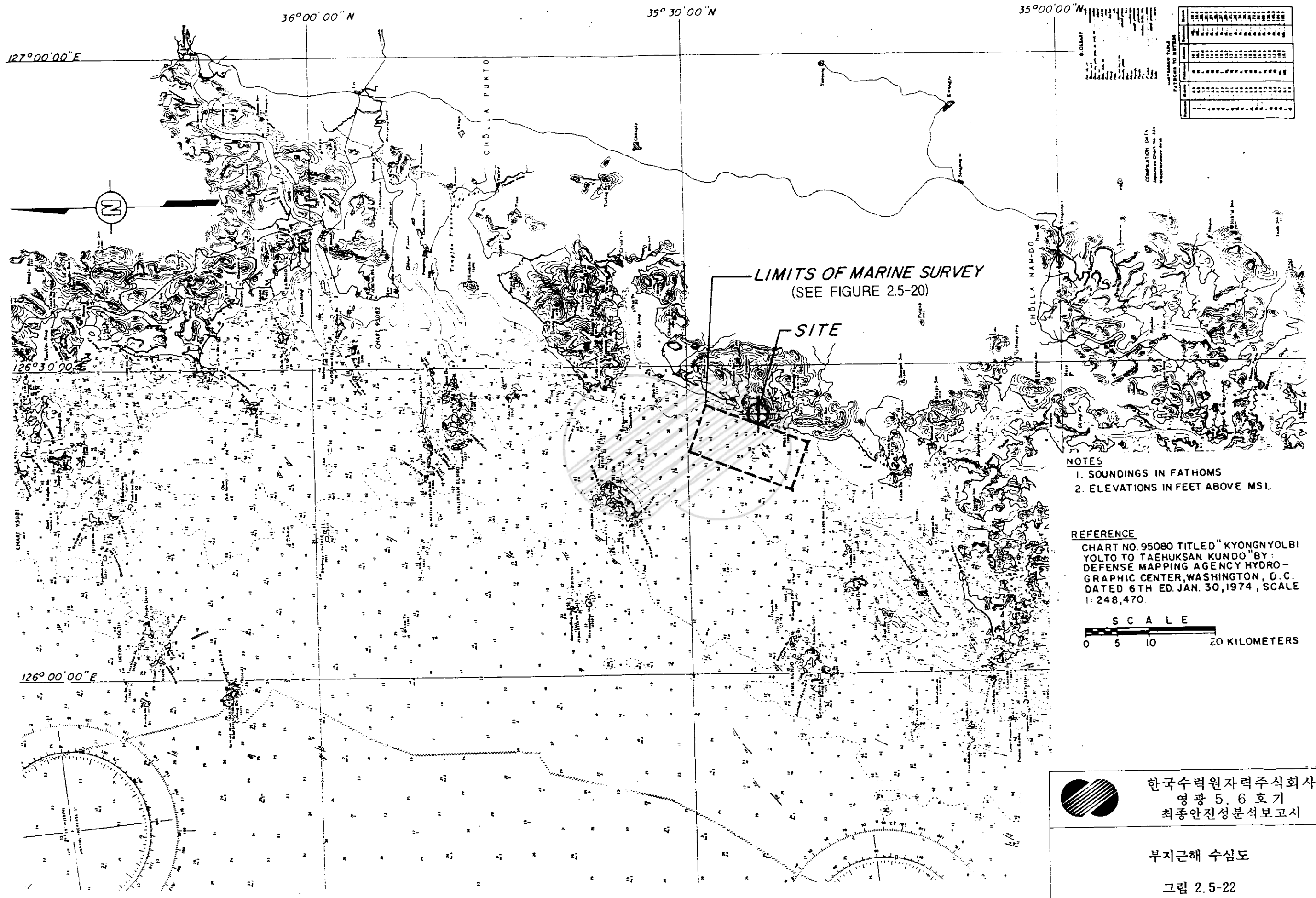


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

REFERENCE:
WAGEMAN, HILDE & EMERY, 1970

황해 및 동지나해 수심도

그림 2.5-21



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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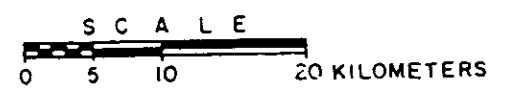
COMPILATION DATA
Reference Chart No. 24
Hydrographic data

LIMITS OF MARINE SURVEY
(SEE FIGURE 2.5-20)

SITE

- NOTES
1. SOUNDINGS IN FATHOMS
 2. ELEVATIONS IN FEET ABOVE MSL

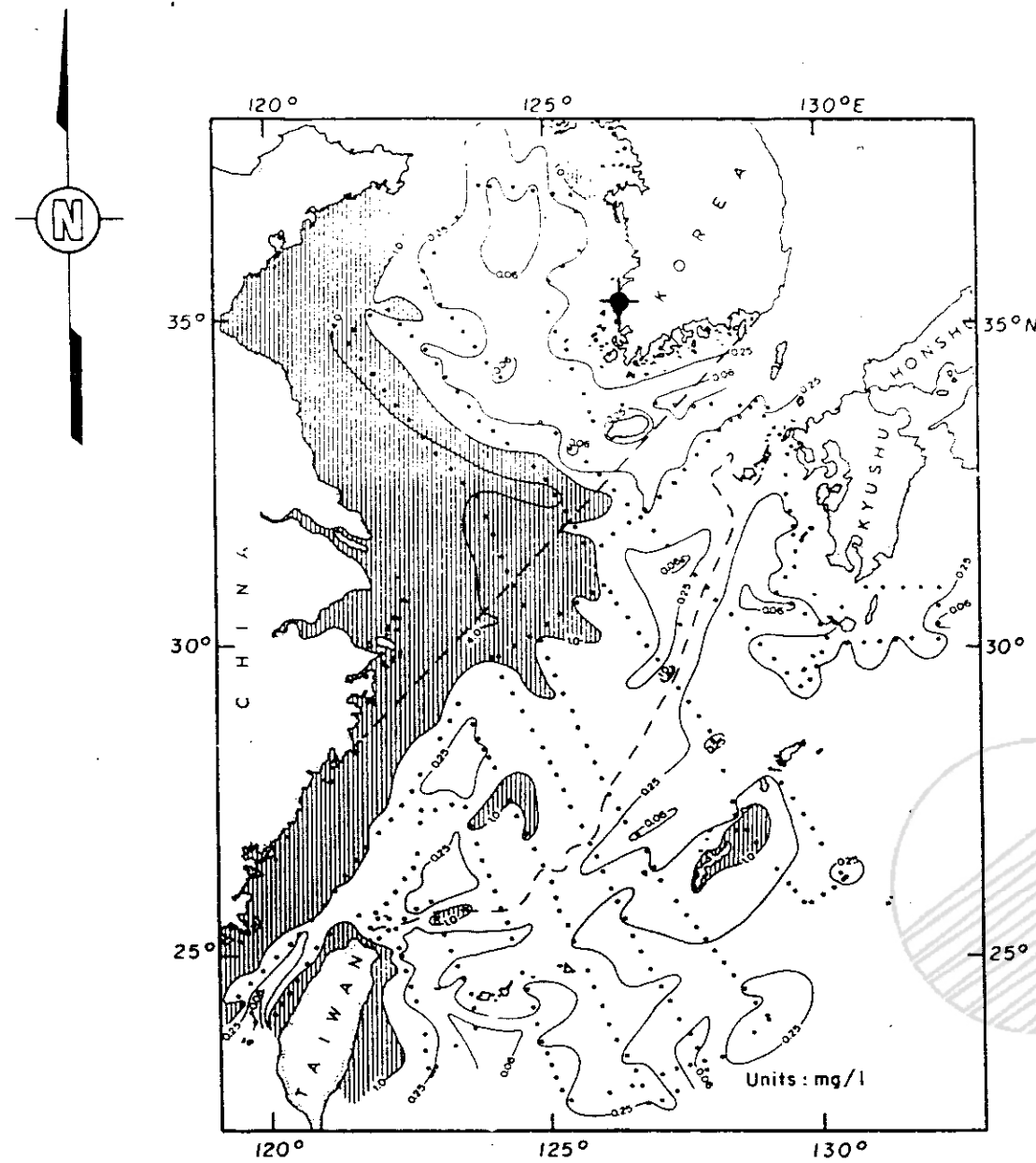
REFERENCE
CHART NO. 95080 TITLED "KYONGNYOLBI
YOLTO TO TAEHUKSAN KUNDO" BY:
DEFENSE MAPPING AGENCY HYDRO-
GRAPHIC CENTER, WASHINGTON, D.C.
DATED 6TH ED. JAN. 30, 1974, SCALE
1: 248,470.



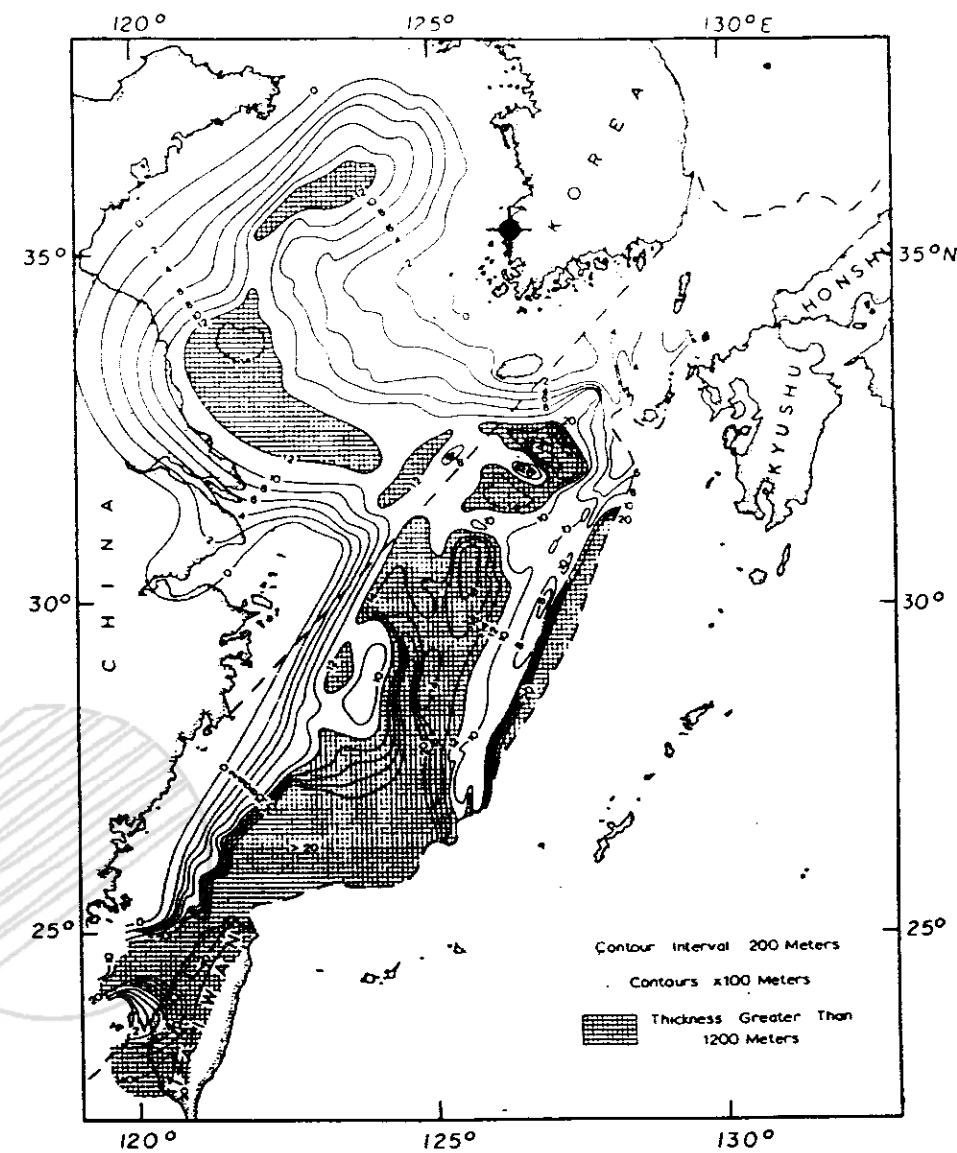
한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

부지근해 수심도

그림 2.5-22



**A. SURFACE WATER SUSPENDED
SEDIMENTS - OCT. & NOV. 1968**



**B. ISOPACH OF POST DEPOSITIONAL
(NEOGENE) FACIES**

REFERENCE:
WAGEMAN, HILDE & EMERY, 1970

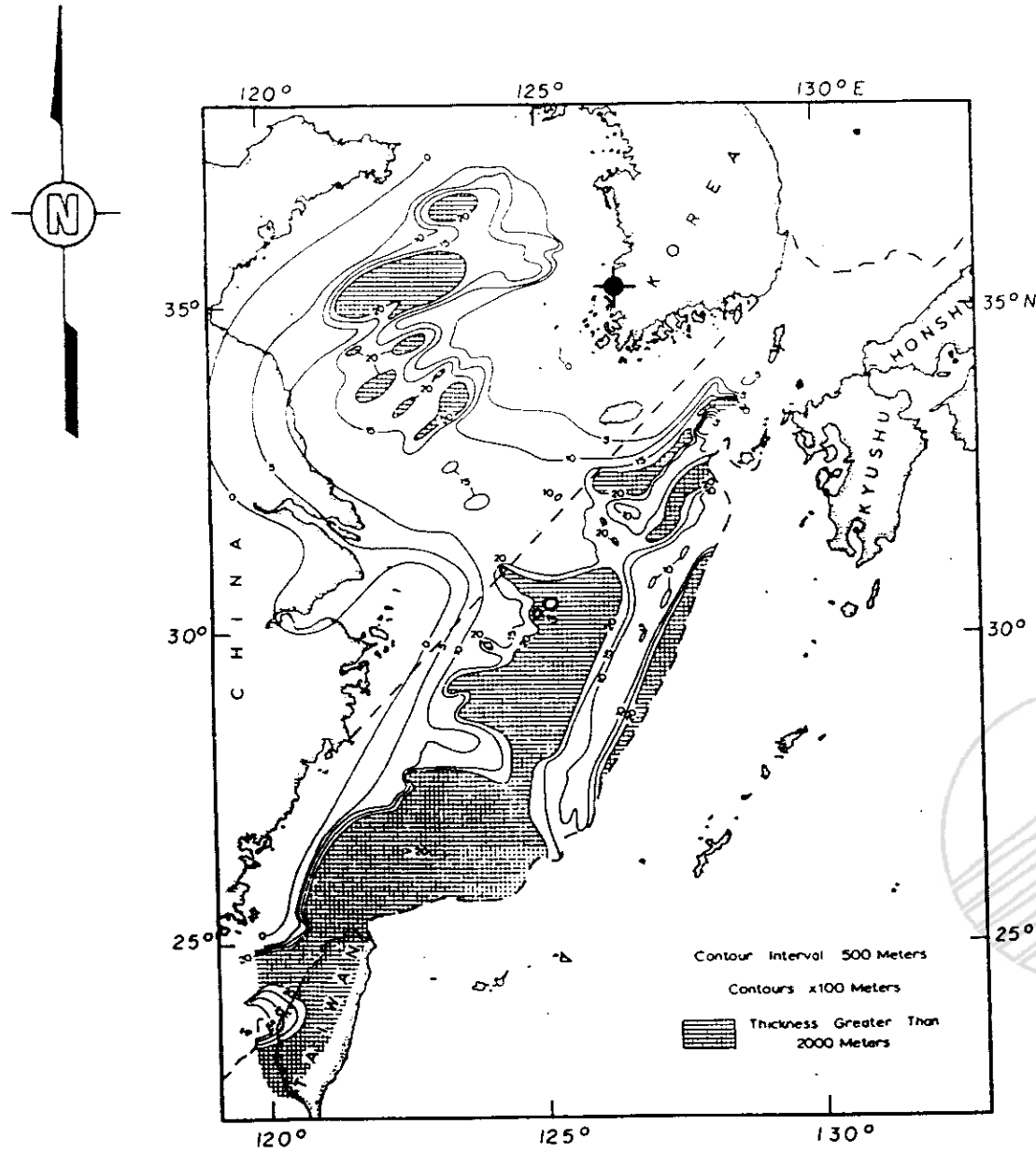
SCALE
200 0 200 400 km



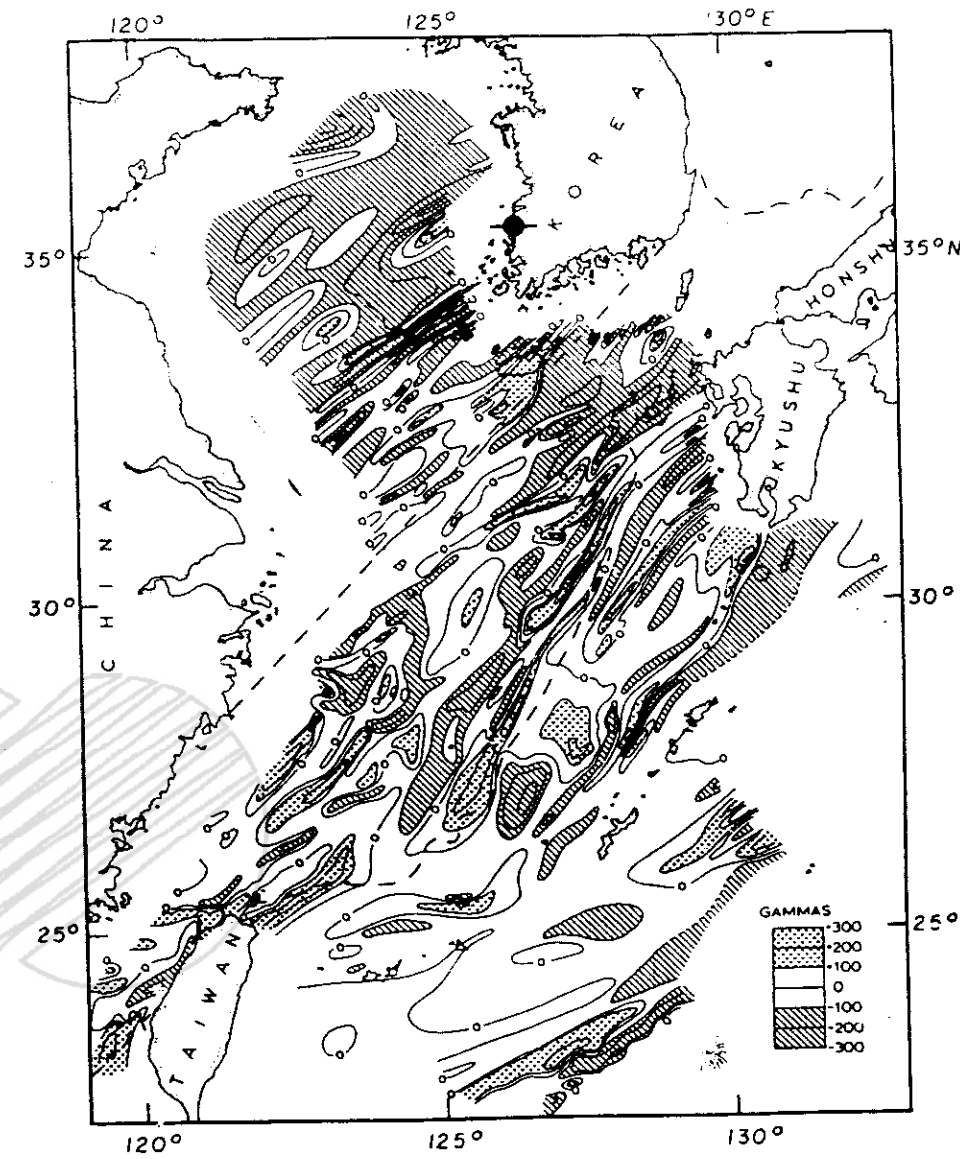
한국수력원자력주식회사
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황해 및 동지나해의 해저상태

그림 2.5-23A



**C. ISOPACH OF TOTAL SEDIMENTS
OVERLYING ACOUSTIC BASEMENT**



D. MAGNETIC ANOMALIES

REFERENCE:
WAGEMAN, HILDE & EMERY, 1970

SCALE
200 0 200 400 km



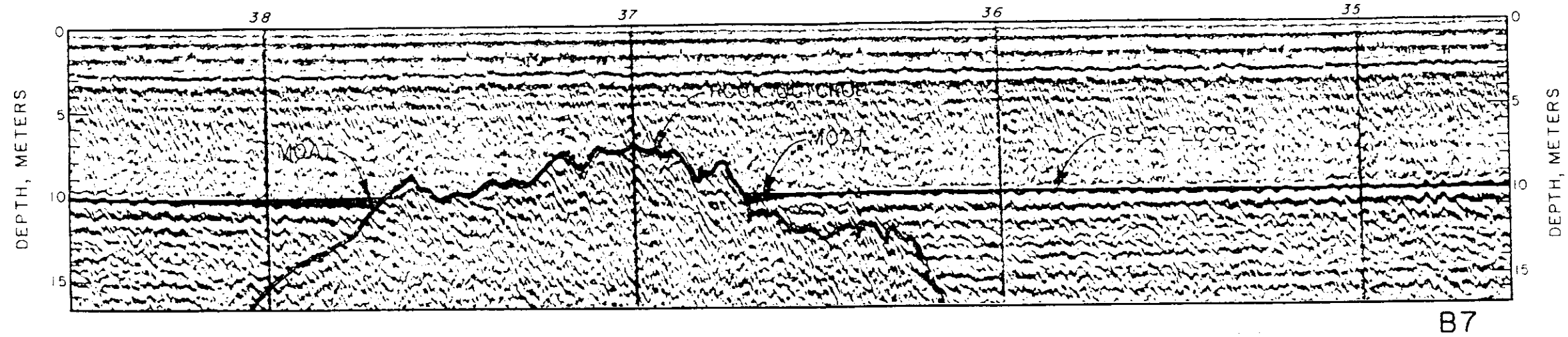
한국수력원자력주식회사
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최종안전성분석보고서

황해 및 동지나해의 해저상태

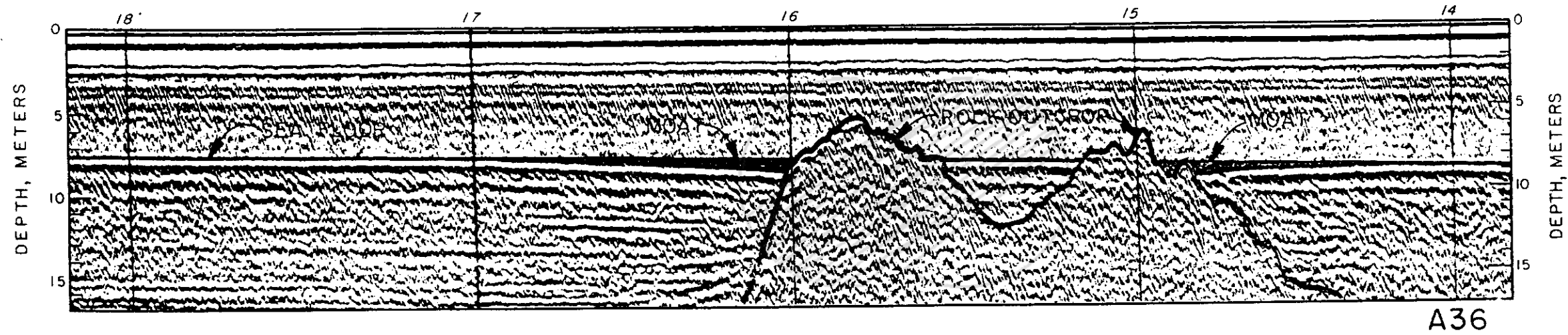
그림 2.5-23B

()

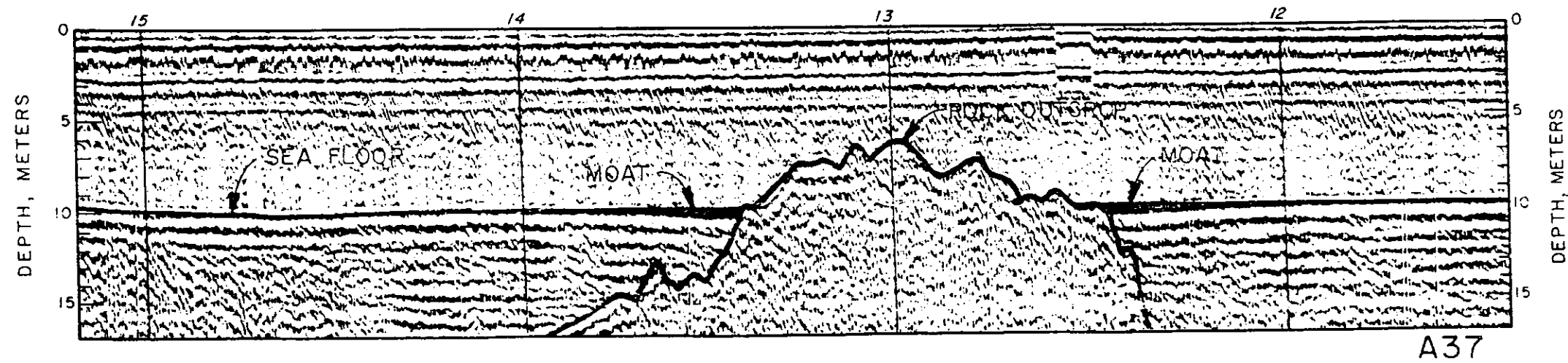
FIX MARKS



FIX MARKS



FIX MARKS



NOTE:

NOMINAL HORIZONTAL
SCALE = 200M BETWEEN
FIX MARKS

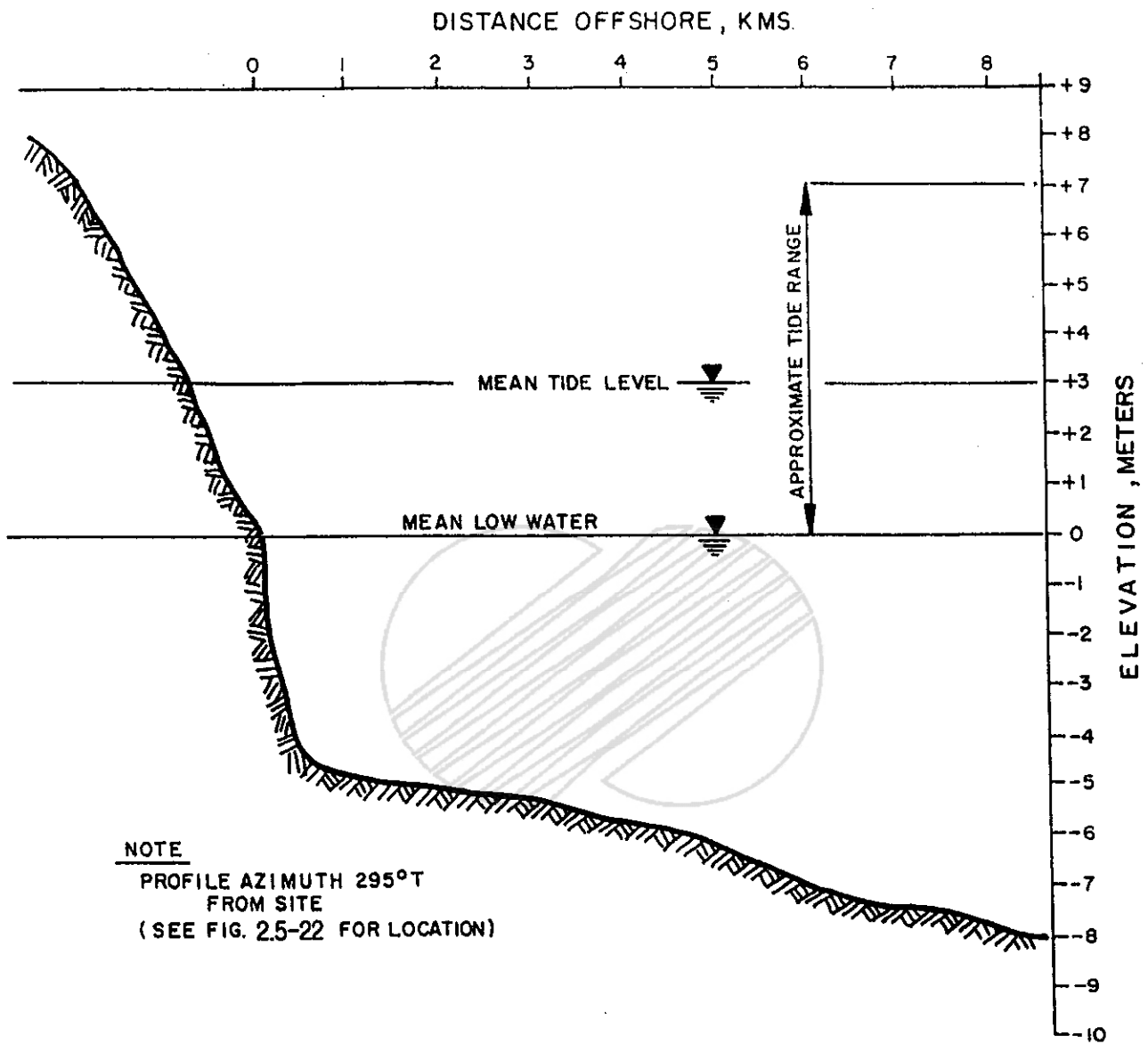


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영광 5, 6 호기
최종안전성분석보고서

노두부근 퇴적상에서의 조류 영향

그림 2.5-24

()

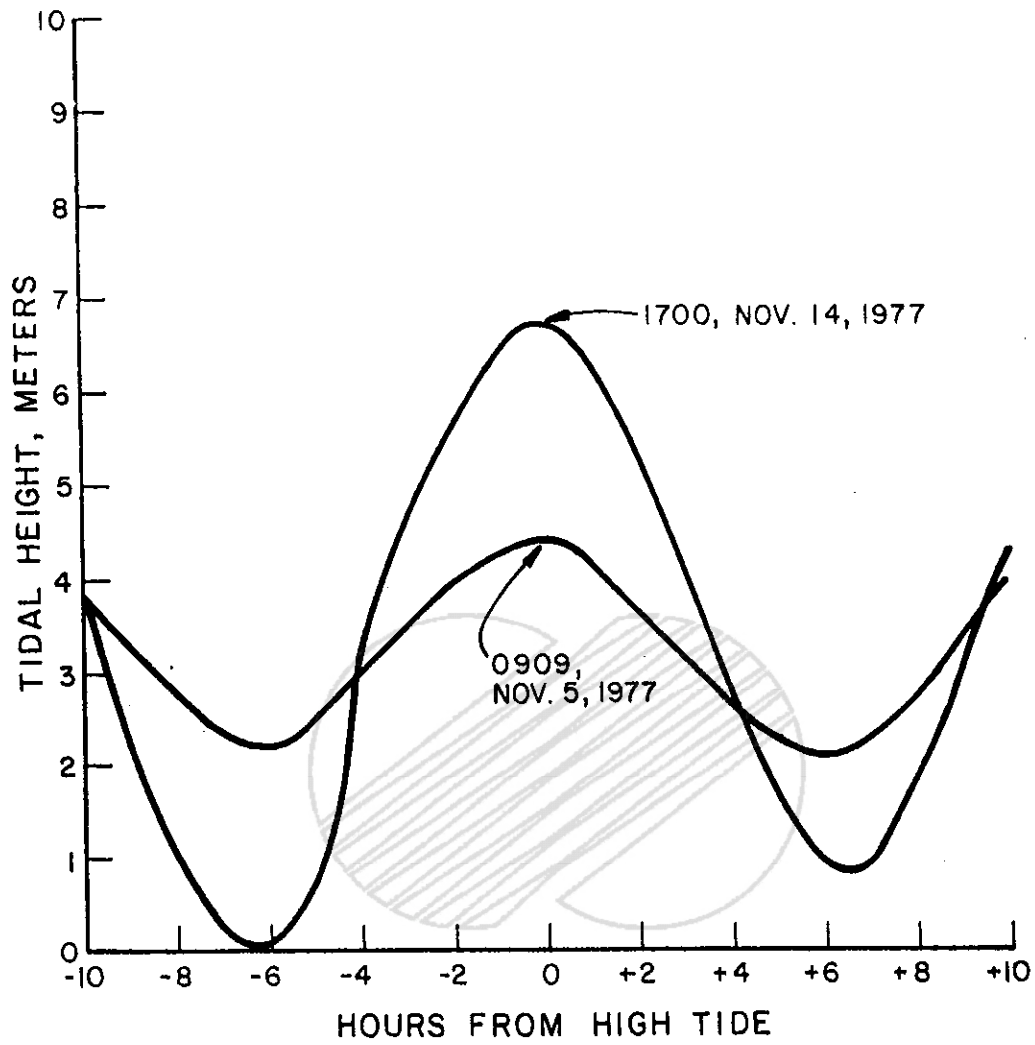


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최종안전성분석보고서

부지근해의 수심단면도

그림 2.5-25

()



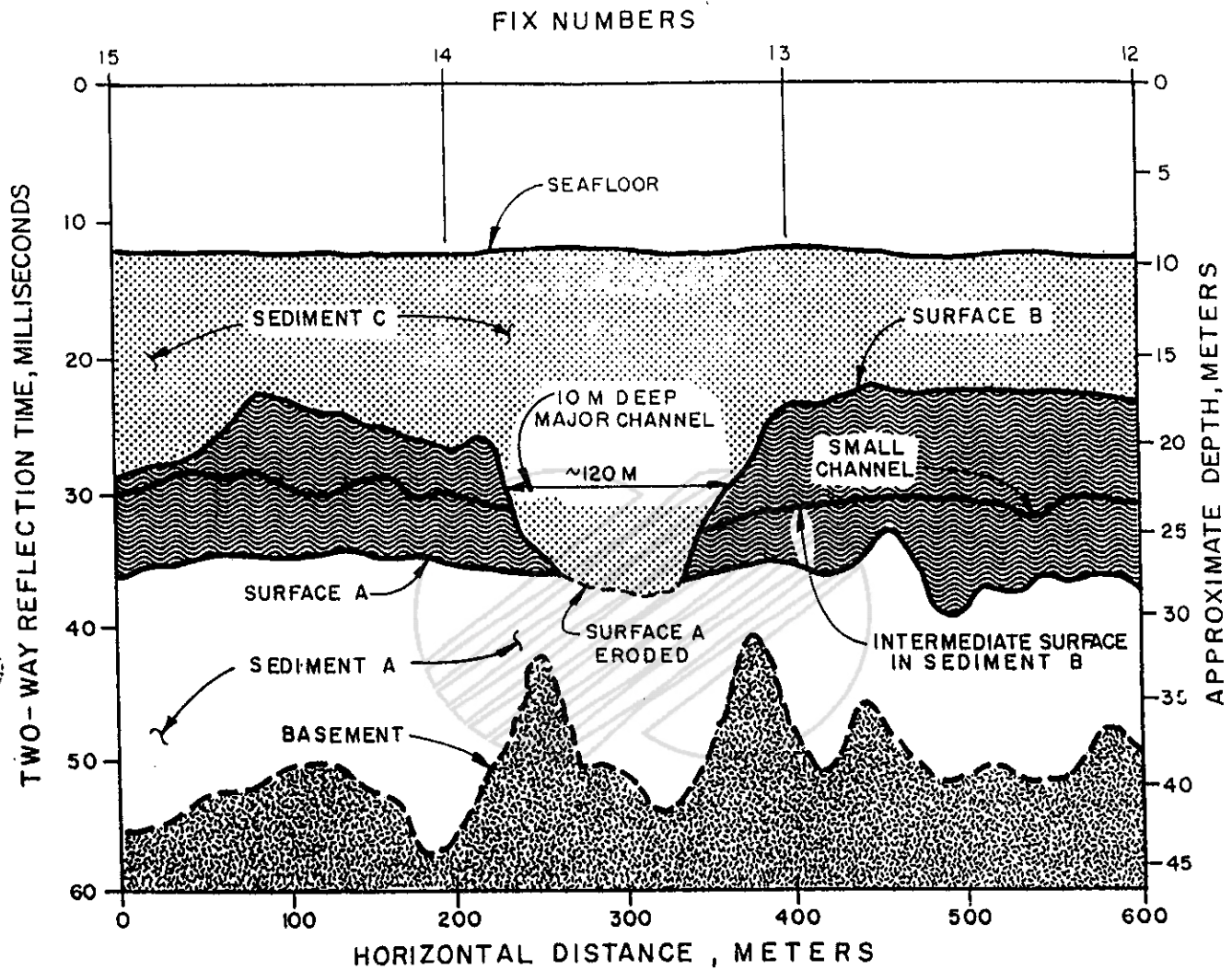
SOURCE: KIGAM



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최종안전성분석보고서

부지파고의 최대, 최소치

그림 2.5-26

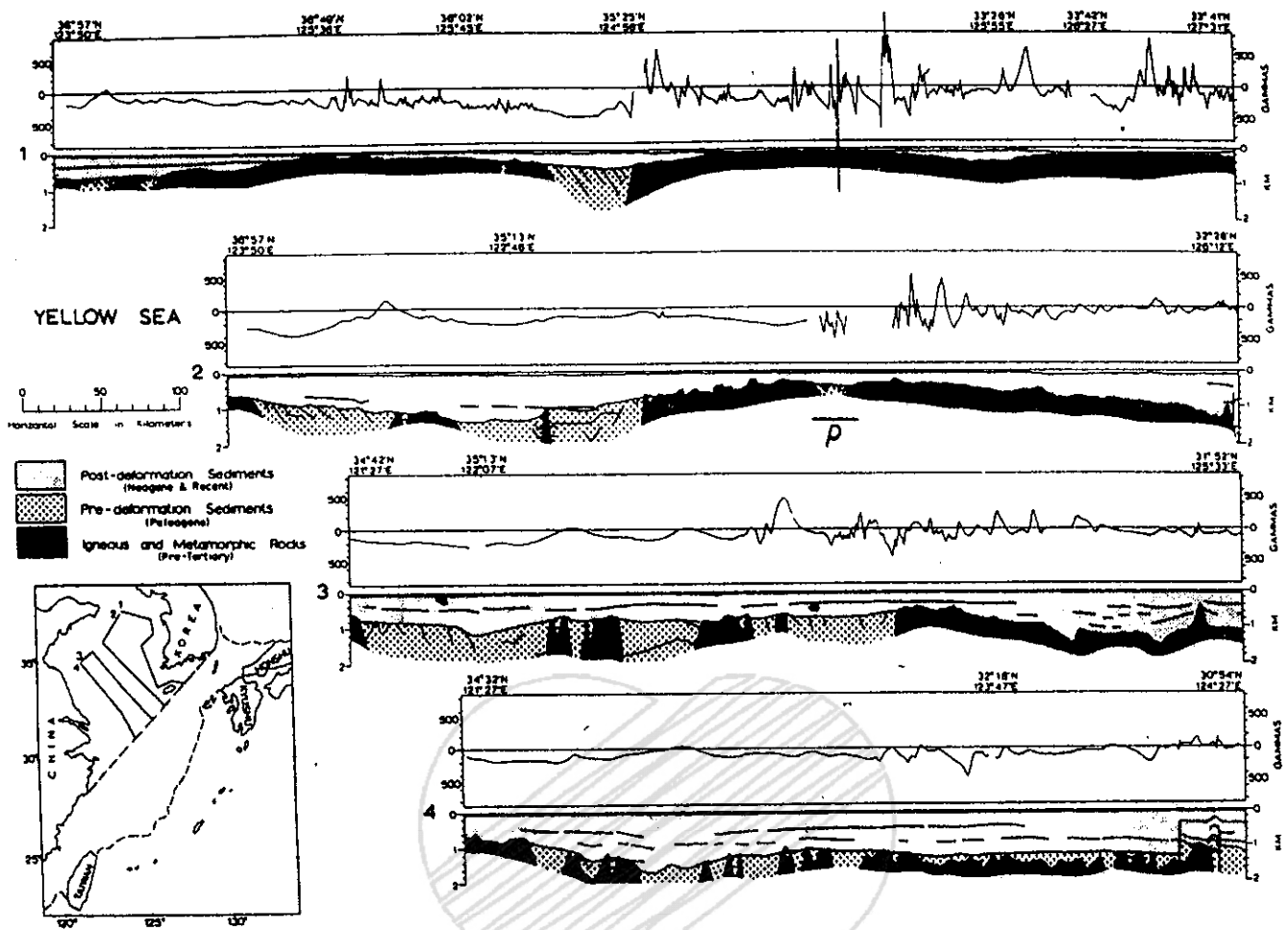


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최종안전성분석보고서

부지근해의 물리탐사 해석도

그림 2.5-27

()



REFERENCE
WAGEMAN, HILDE & EMERY,
1970.

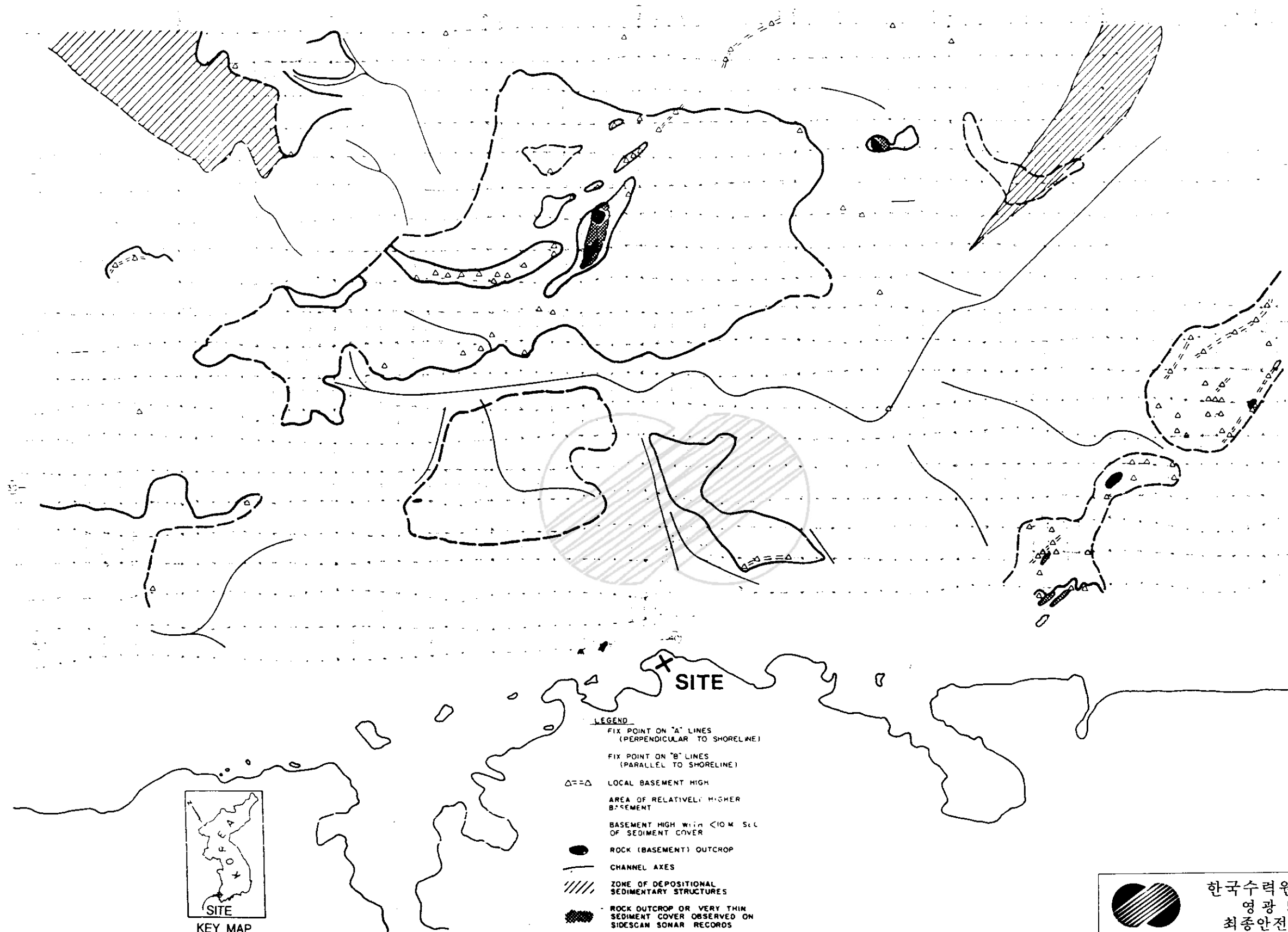



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최종안전성분석보고서

황해중앙부의 물리탐사 단면도

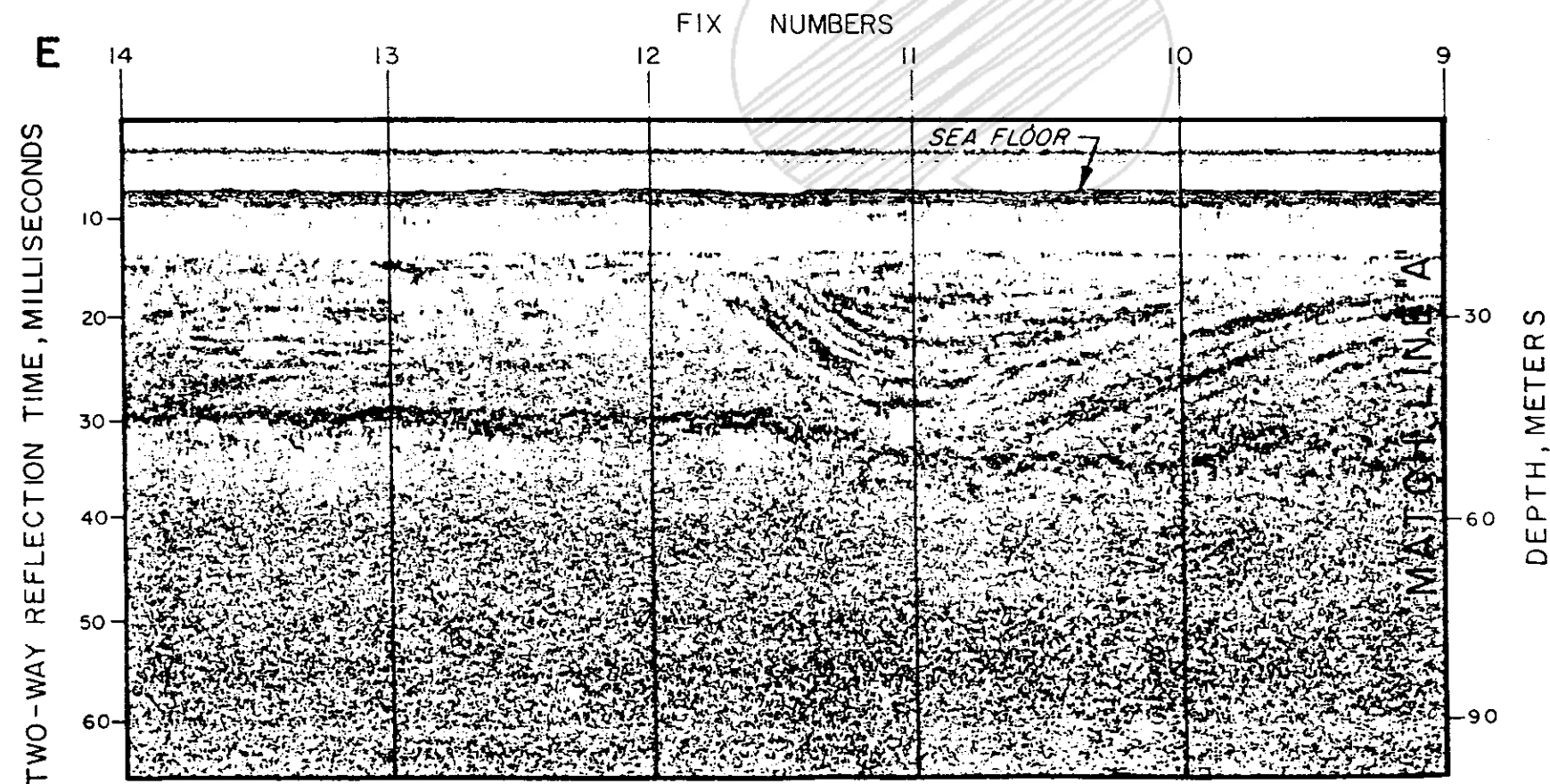
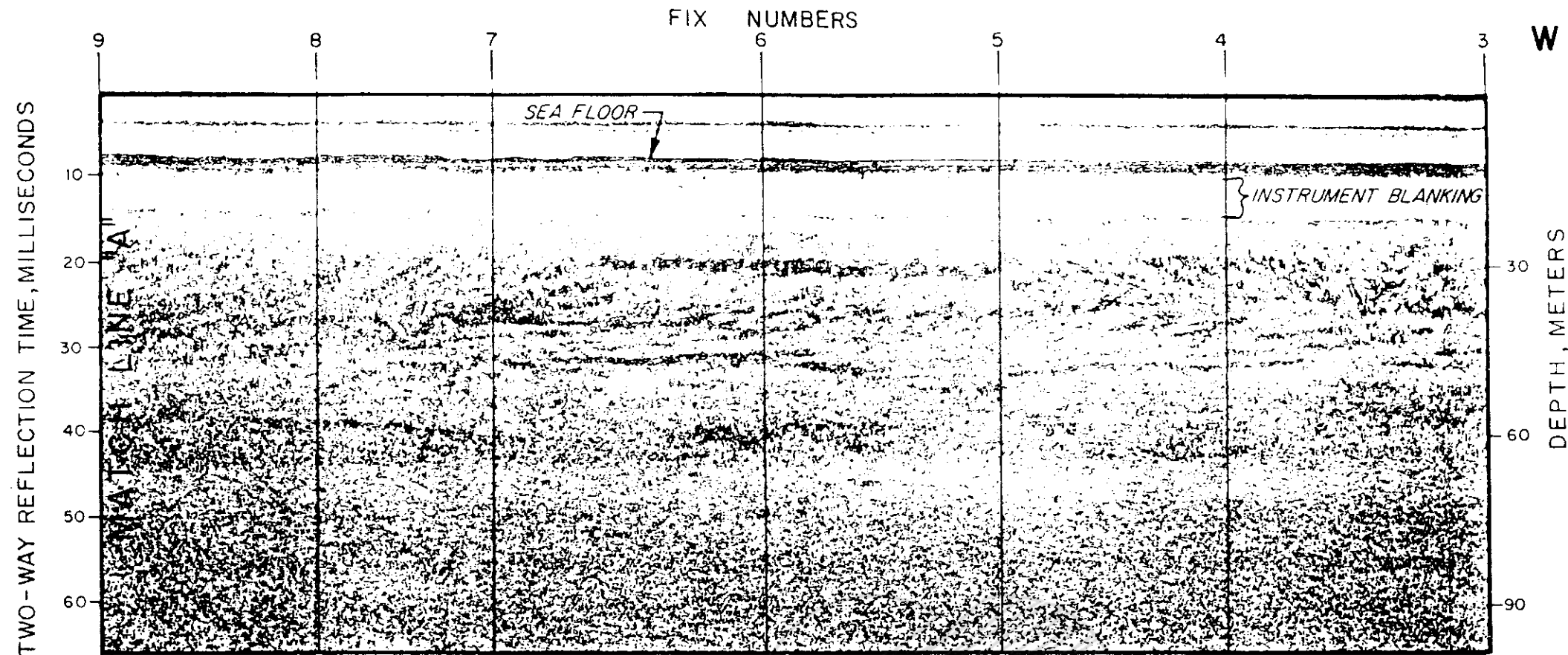
그림 2.5-28

()



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	영광 5, 6 호기
	최종안전성분석보고서
부지근해저 지질도	
그림 2.5-29	

()



NOTE: INSTRUMENT BLANKING
DUE TO STRONG REFLECTION FROM
SEA FLOOR. NO DATA IN THIS ZONE.

NOTE:
NOMINAL HORIZONTAL SCALE=
200M BETWEEN FIX NUMBERS



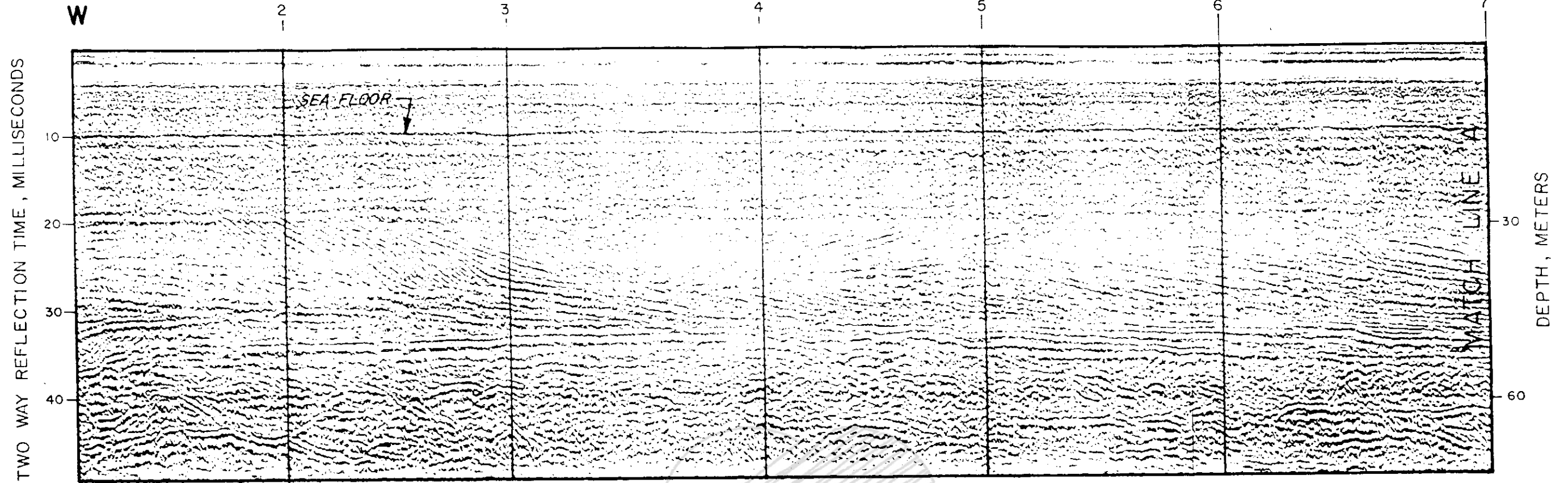
한국수력원자력주식회사
영광 5. 6 호기
최종안전성분석보고서

A70선 SUBBOTTOM 단면도

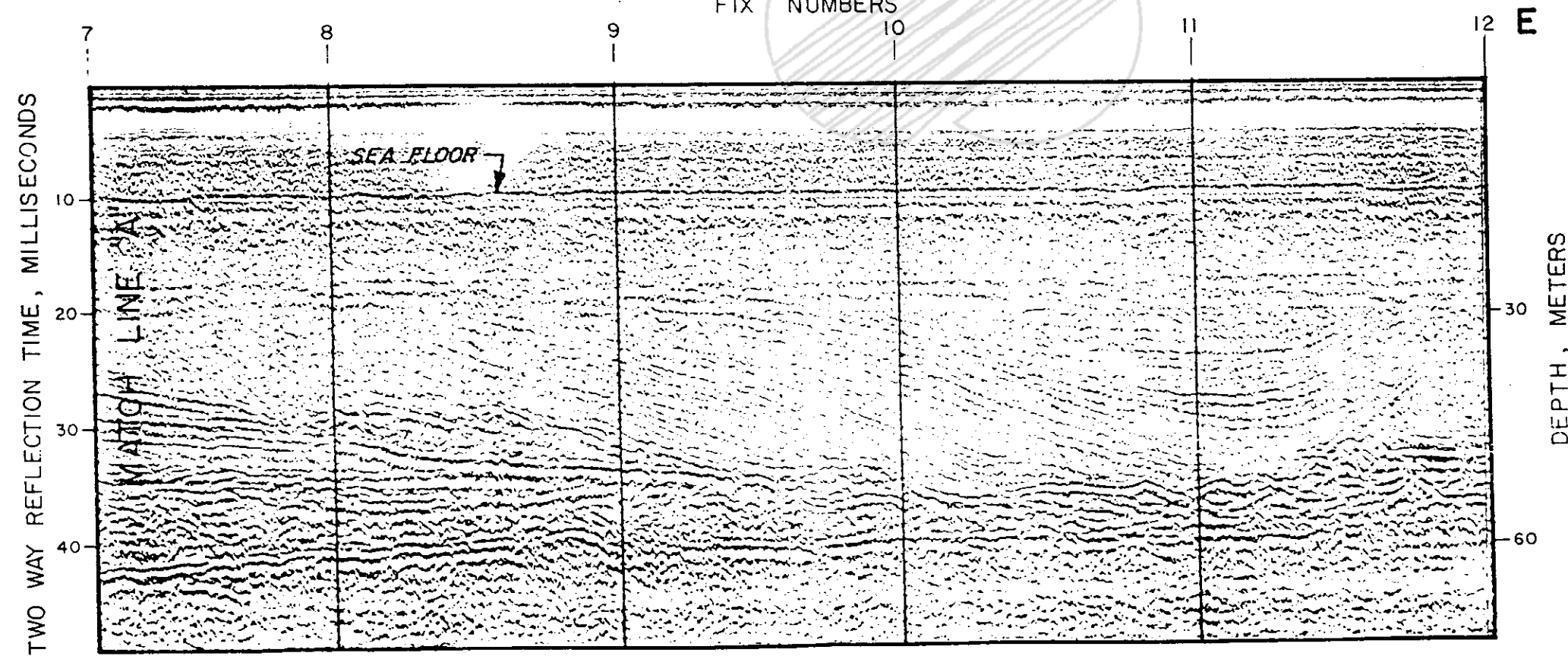
그림 2.5-30

()

FIX NUMBERS



FIX NUMBERS



NOTE:

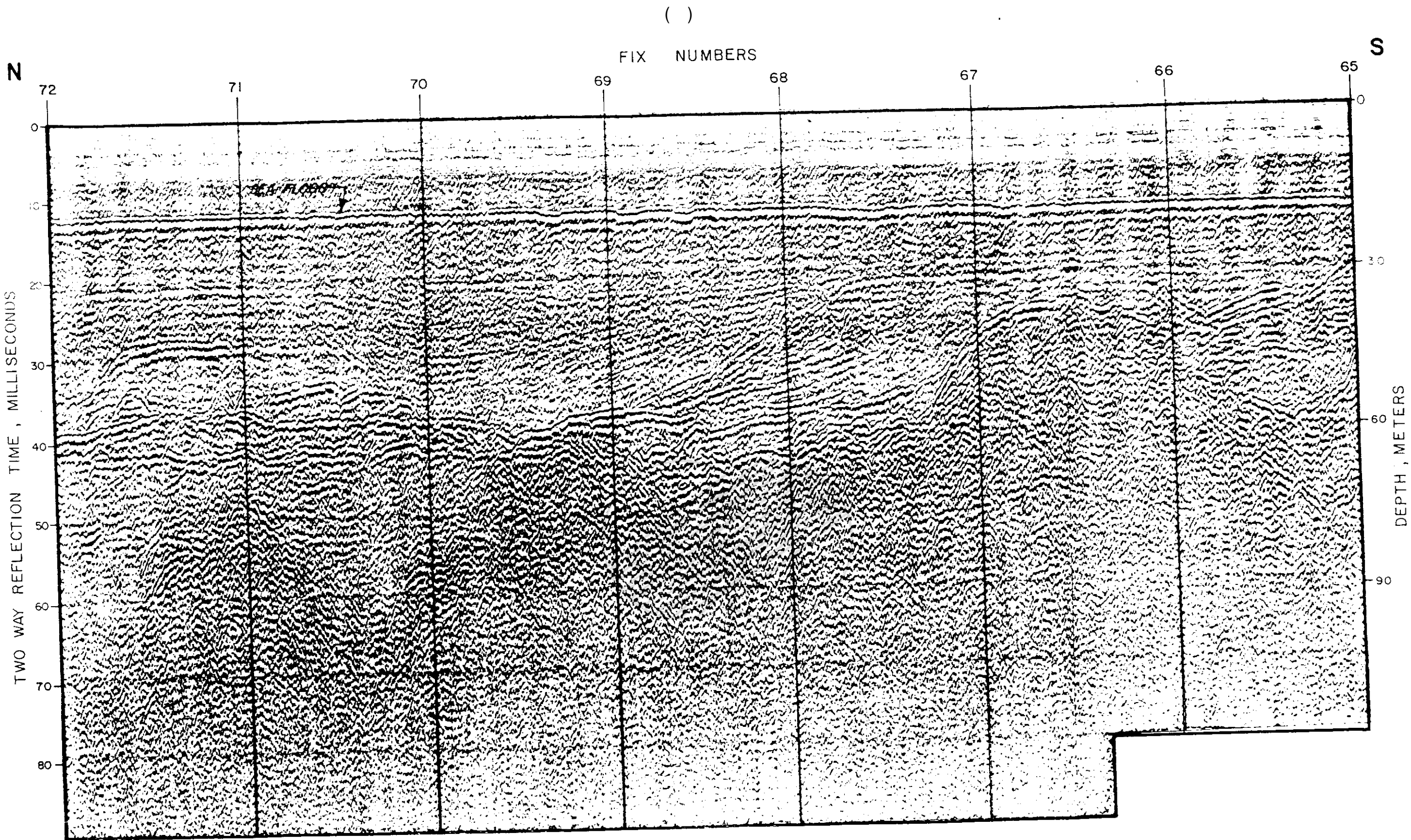
NOMINAL HORIZONTAL
SCALE = 200M BETWEEN
FIX NUMBERS



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영광 5, 6 호기
최종안전성분석보고서

A70선 UNIBOOM 단면도

그림 2.5-31



NOTE:

NOMINAL HORIZONTAL
SCALE = 200M BETWEEN
FIX NUMBERS

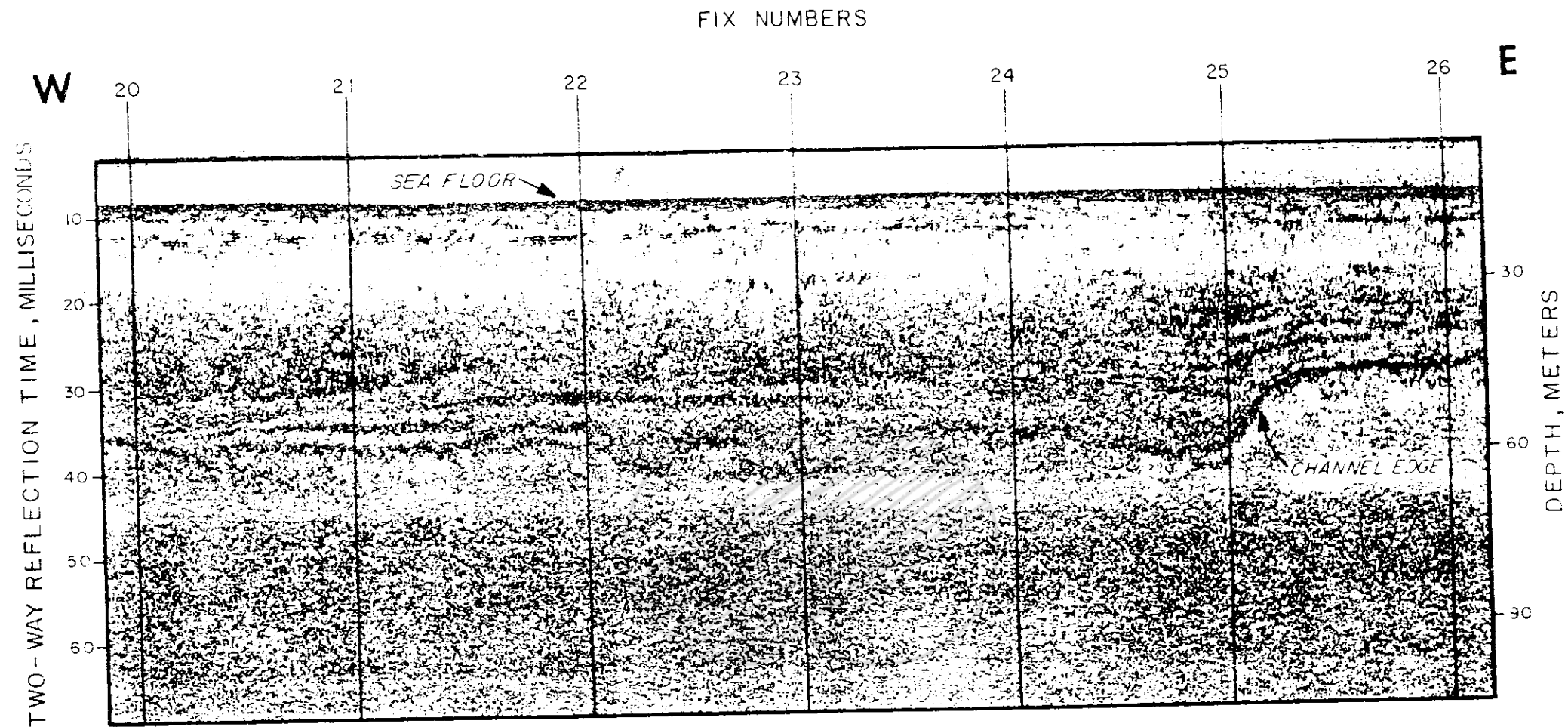


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영광 5, 6 호기
최종안전성분석보고서

B6선 UNIBOOM 단면도

그림 2.5-32

()



NOTE:

NOMINAL HORIZONTAL
SCALE = 200 M BETWEEN
FIX NUMBERS



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

A49선 SUBBOTTOM 단면도

그림 2.5-33

MODIFIED MERCALLI	JAPANESE METEOROLOGICAL AGENCY	MEDVEDEV SPONHEUER, KARNIK
I	0	I
II	I	II
III		III
IV	II	IV
V	III	V
VI	IV	VI
VII	V	VII
VIII		VIII
IX	VI	IX
X		X
XI	VII	XI
XII		XII

REFERENCE:

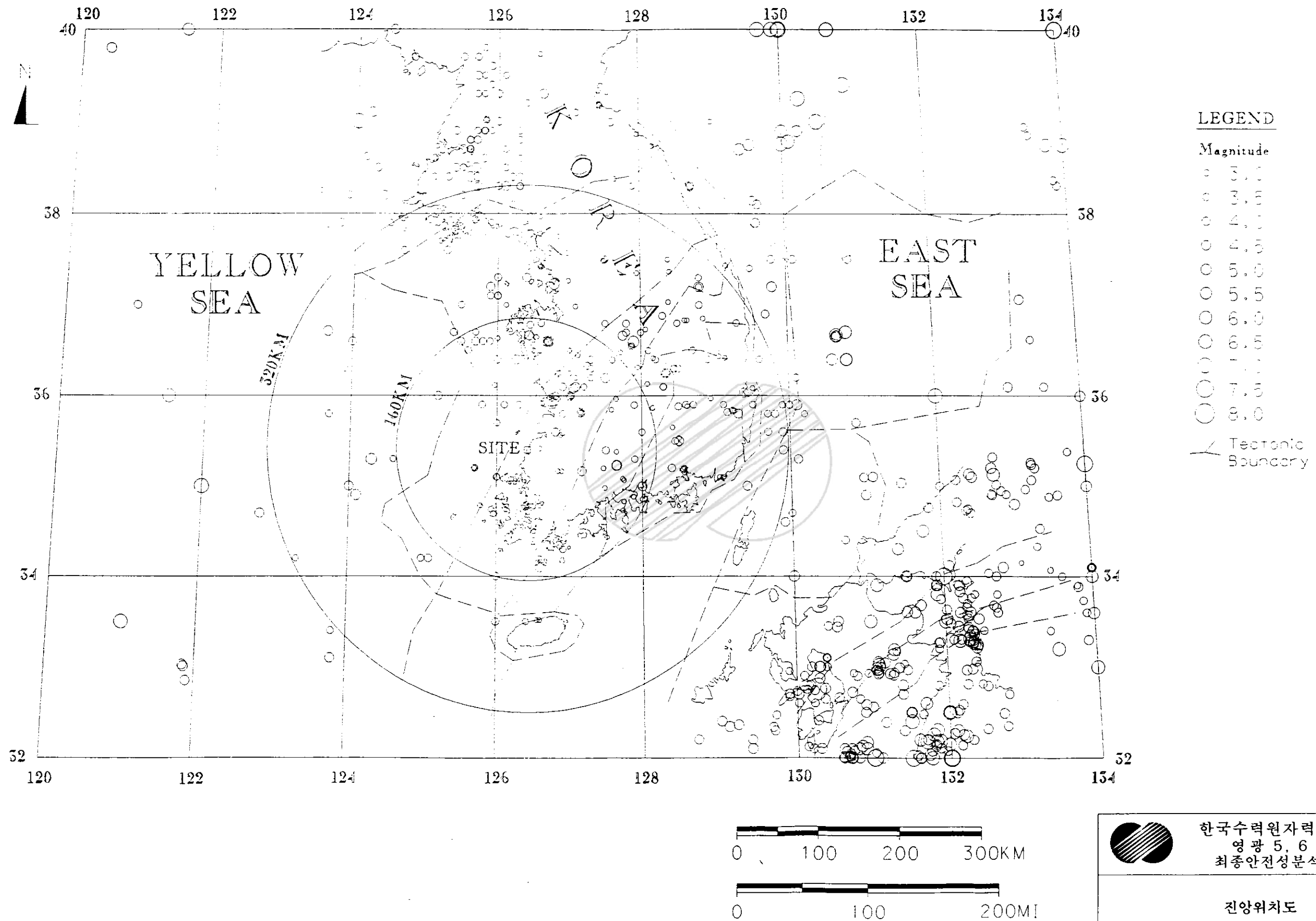
O'BRIEN ET AL, 1976 BASED ON
STUDIES BY BAROSH, 1969.



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

진도척도(MM, MSK, JMA)의 비교

그림 2.5-34

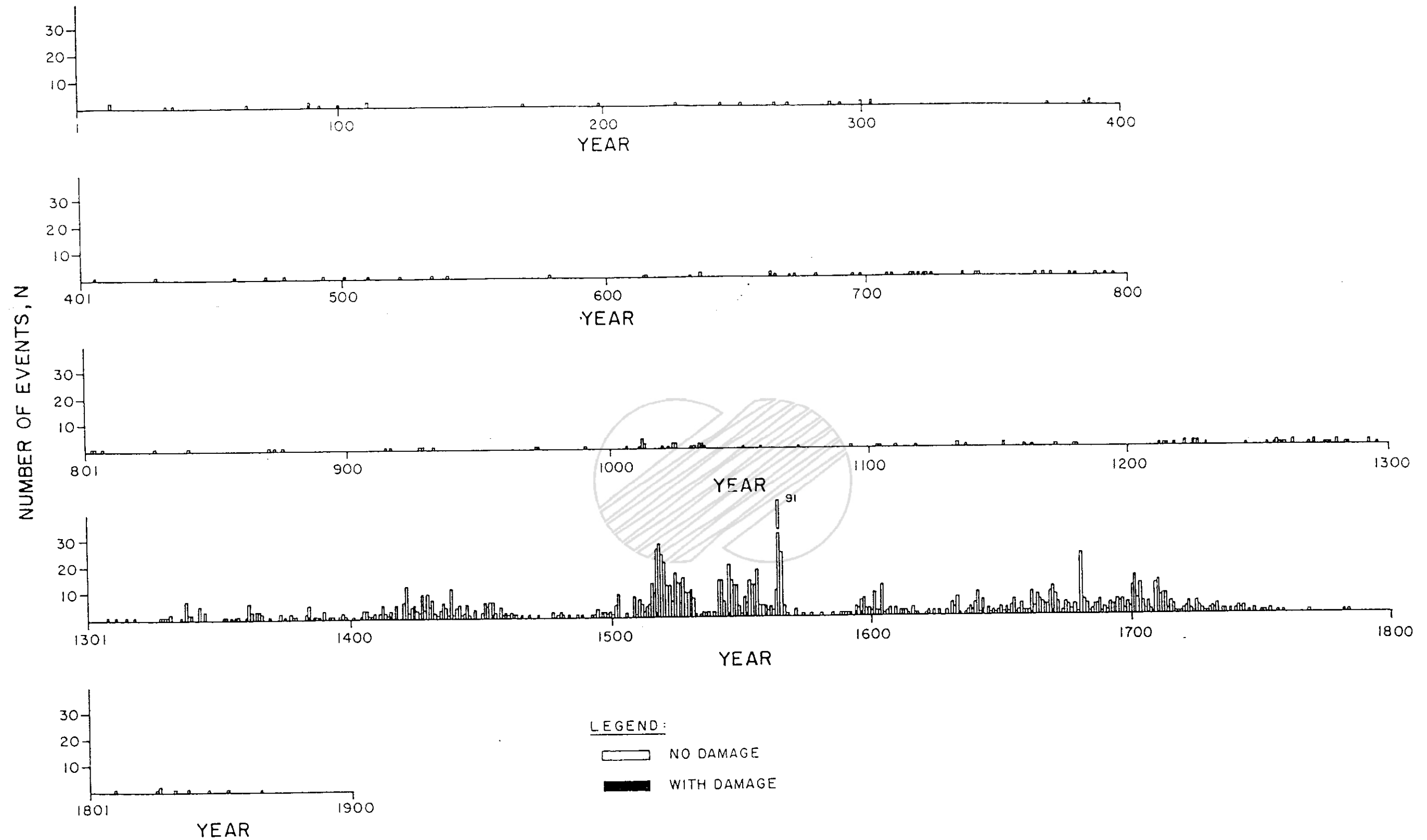


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영광 5, 6 호기
최종안전성분석보고서

진앙위치도

그림 2.5-35

()



REFERENCE:
BITATSUO, 1974.

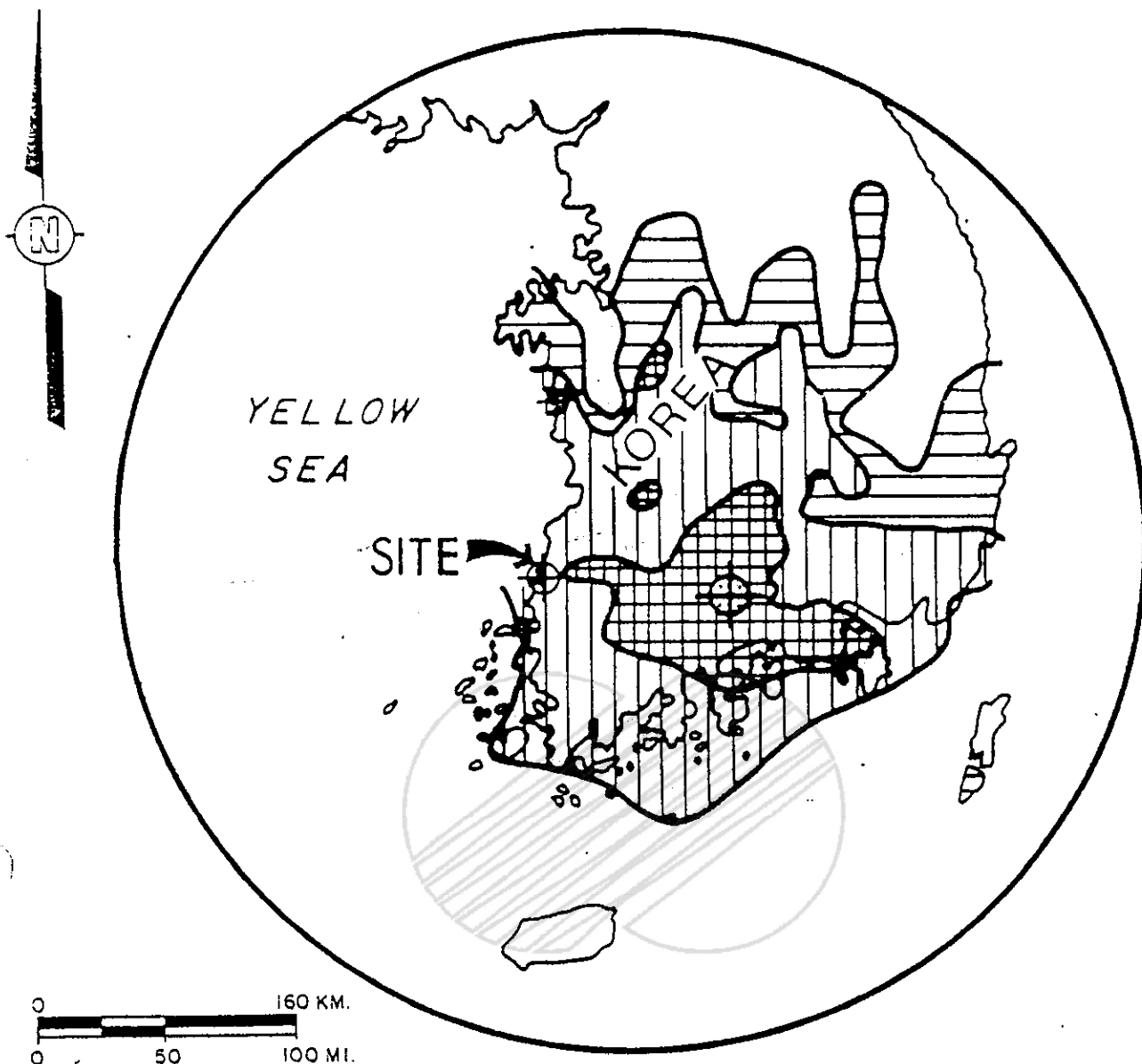


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최종안전성분석보고서

한국 감지지진 연보 (13-1866년)

그림 2.5-36

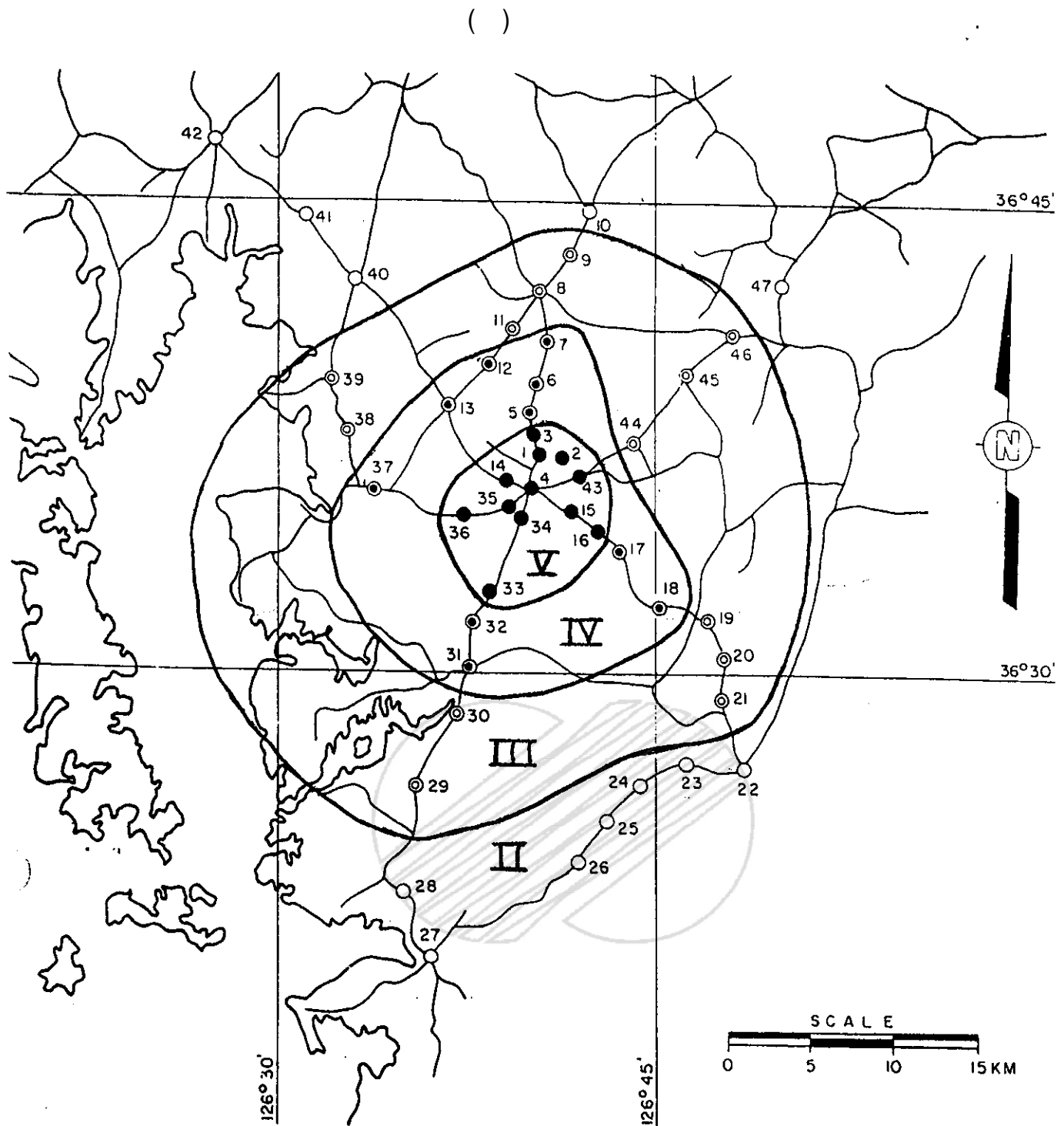
()



MT. CHIRI EARTHQUAKE, JULY 3, 1936, $\lambda = 35.2$ N, $\phi = 127.7$ E.
(SEE FIG. 2.5-42 B, CURVE 4, FOR ATTENUATION CURVE)

- LEGEND:
AREAS OF EQUAL
INTENSITY (JMA)
- | | |
|--|------------------|
| | INTENSITY I |
| | INTENSITY II |
| | INTENSITY III |
| | INTENSITY IV - V |

	한국수력원자력주식회사 영광 5, 6 호기 최종안전성분석보고서
지리산지진의 등진도도	
그림 2.5-37	



JMA INTENSITY SCALE

●	V
⊙	IV
⊕	III
○	II

REFERENCE:

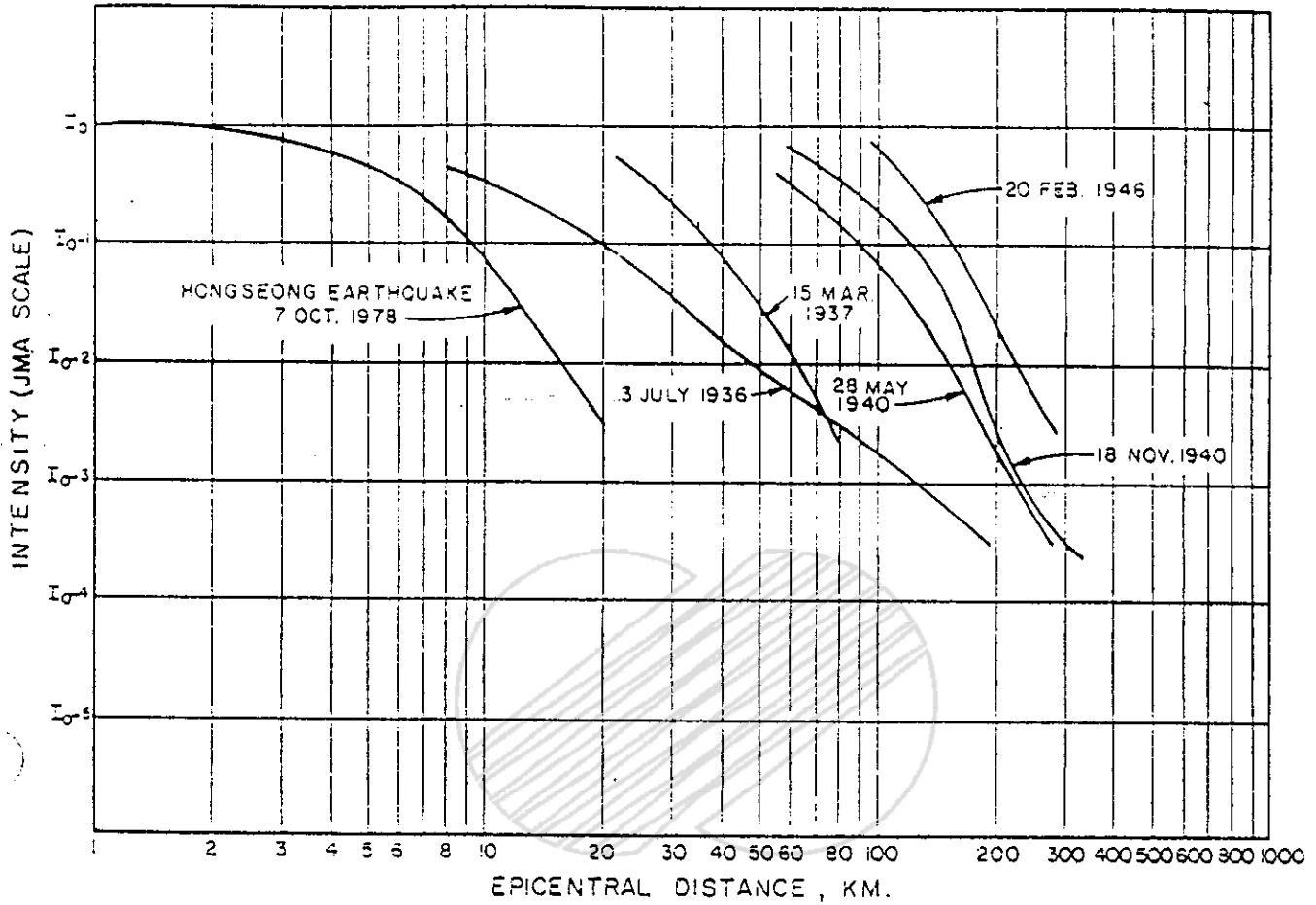
DATA PROVIDED BY KIGAM, 1978



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

홍성지진의 JMA 진도분포 및 등진도도

그림 2.5-38



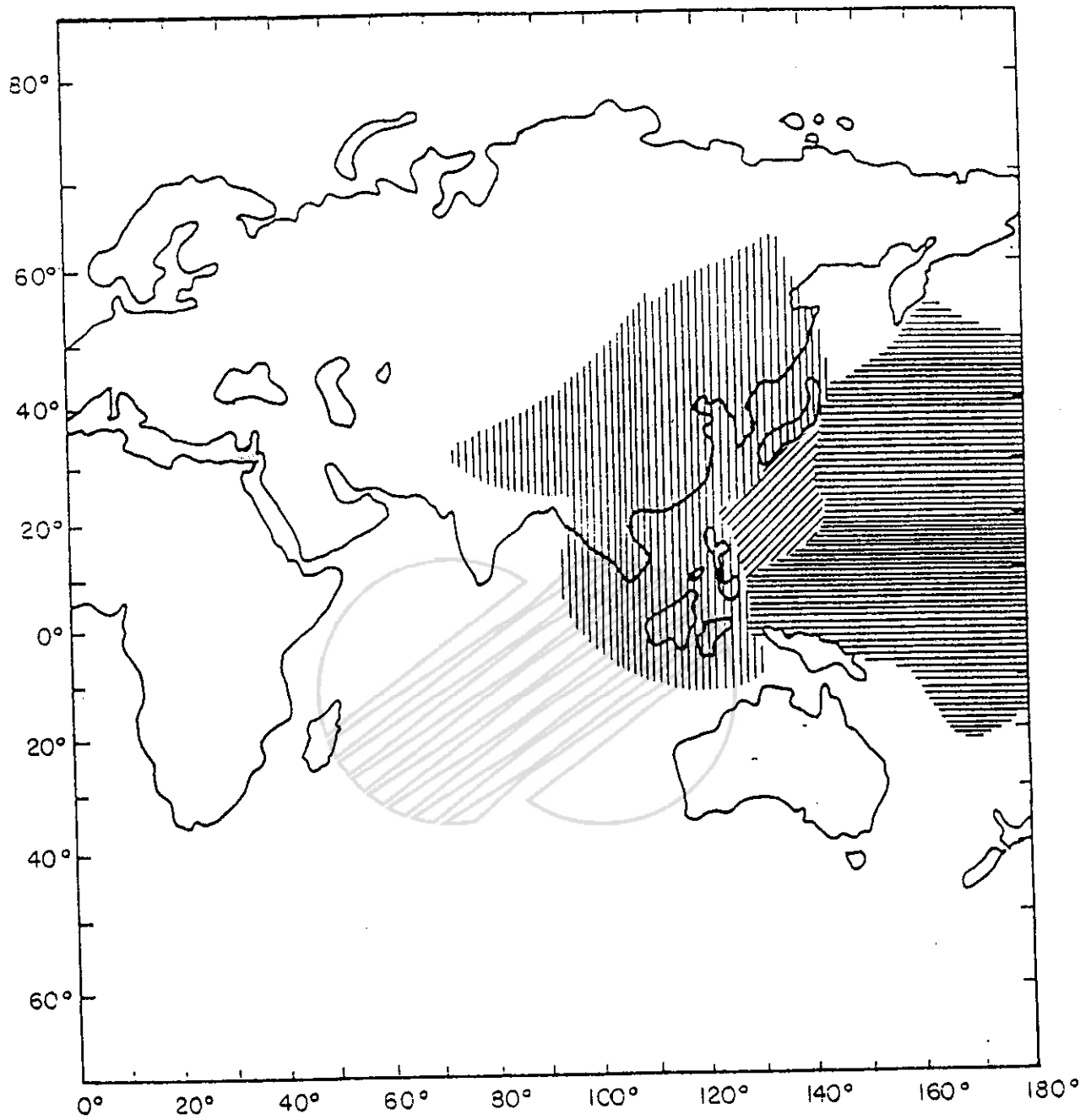
NOTE:

EPICENTRAL INTENSITY = I_0 

한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

홍성지진의 감쇠곡선 비교

그림 2.5-39



LEGEND:

-  ASIAN PLATE
 PACIFIC PLATE
 PHILIPPINE PLATE

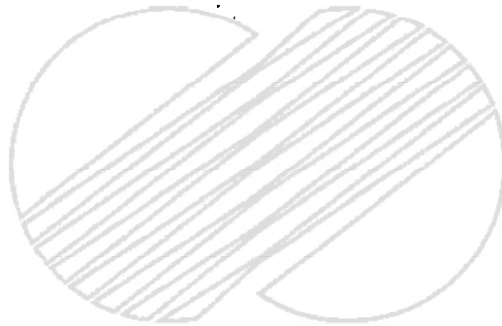


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영광 5, 6 호기
최종안전성분석보고서

서태평양의 판구조

그림 2.5-40

()



REFERENCE:

DEWEY AND BIRD, 1970

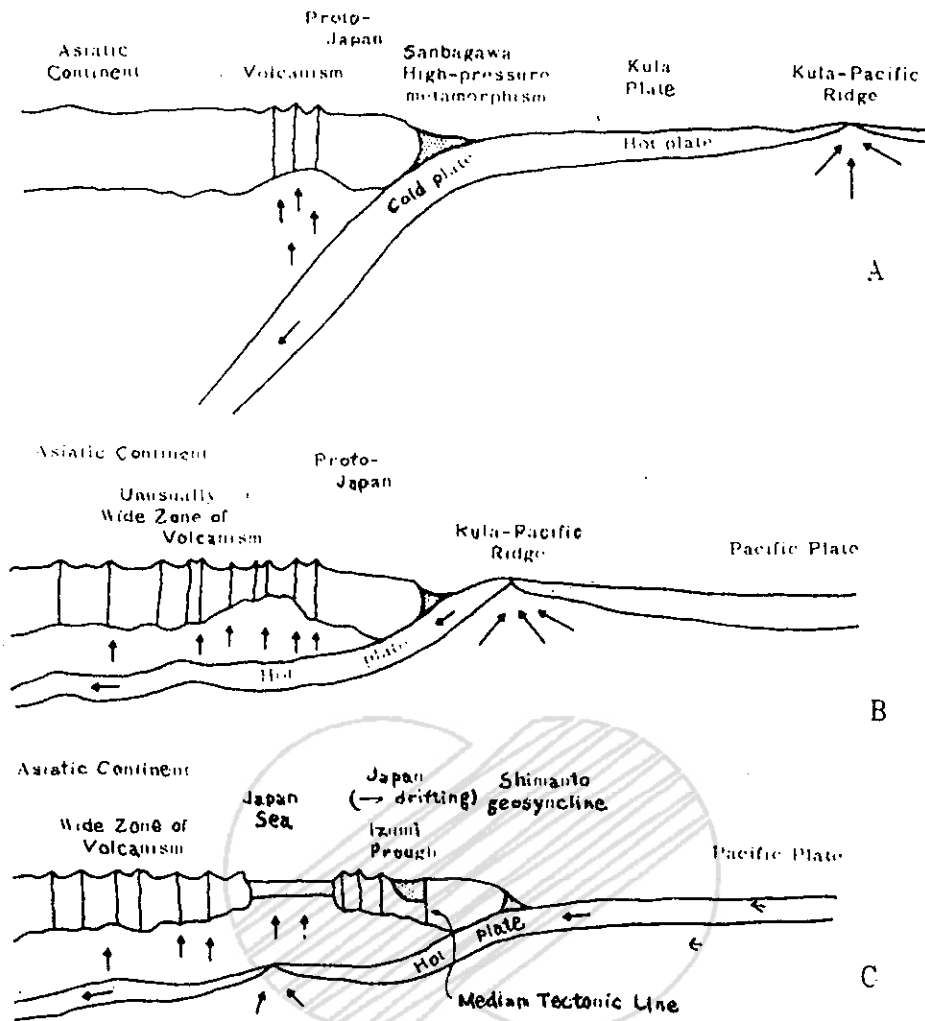


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

지체구조판들의 관계모식도

그림 2.5-41

()



- A. 120 m.y. ago. The ridge is approaching the Asiatic continent. The rapid underthrusting of the cold plate causes the Sanbagawa high-pressure metamorphism in the subduction zone with the Ryoke metamorphism on the continental side.
- B. 90 m.y. ago. The ridge is so close to the continent that high-pressure metamorphism is no longer taking place. The light, hot Kula plate is underthrust with a very small dip. Its thermal effect reduces the thickness of the continental plate above and causes extensive volcanism.
- C. 70 m.y. ago. The ridge is submerged beneath the continental plate. Its thermal effect further reduces the thickness of a part of the continental plate, which eventually is broken by tensional force. The oceanic-side fragment of the continental plate drifts away to form the Japanese Islands, leaving the newly opened Japan Sea behind. The same system of tensional force produces the Izumi Trough in Japan, where sandstone formations as thick as 10 km are deposited.

REFERENCE: UYEDA AND MIYASHIRO, 1974

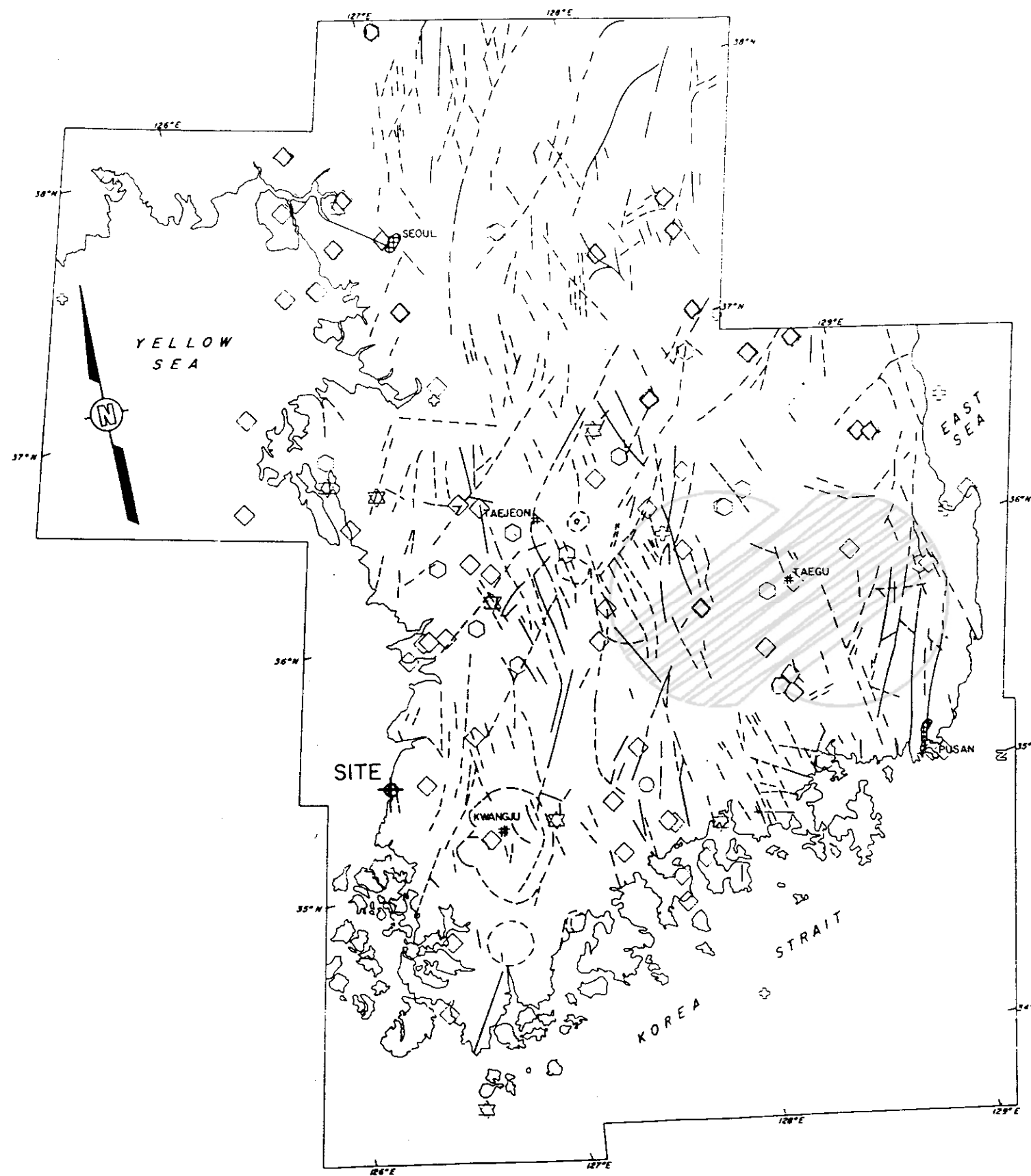


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

쿠라-태평양 해령의 침강과정

그림 2.5-42

()



LEGEND:

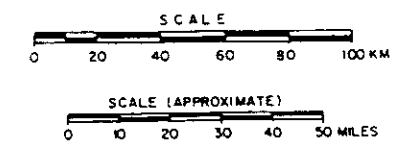
MAGNITUDE

- UNKNOWN
- 3.00 - 3.49
- ▽ 3.50 - 3.99
- ⊞ 4.00 - 4.49
- △ 4.50 - 4.99
- 5.00 - 5.49
- 5.50 - 5.99
- ⊞ 6.00 - 6.49
- ▽ 6.50 - 6.99
- ⊞ 7.00 - 7.49
- △ 7.50 - 7.99
- 8.00 - 8.49
- 8.50 - 8.99

JAPAN METEOROLOGICAL AGENCY INTENSITY

- UNKNOWN
- ◇ JMA I
- JMA II
- ⊞ JMA III
- JMA IV

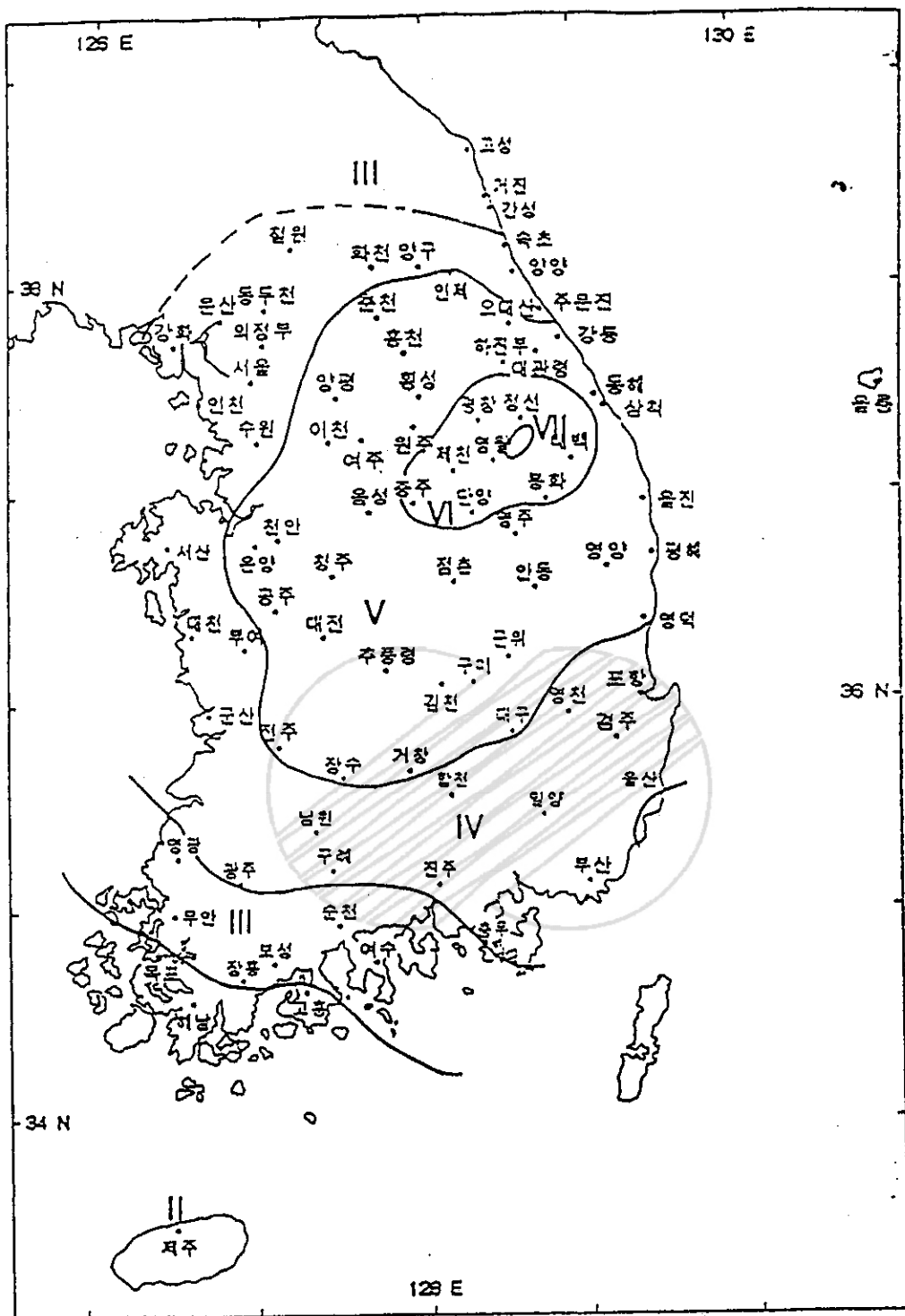
- WELL-DEFINED LINEAMENT
- - - LINEAMENT DRAWN ON THE BASIS OF TOPOGRAPHIC AND TONAL ALIGNMENTS
- ⊞ CITIES



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

한반도 남부의 선구조도(위성사진 이용)

그림 2.5-43

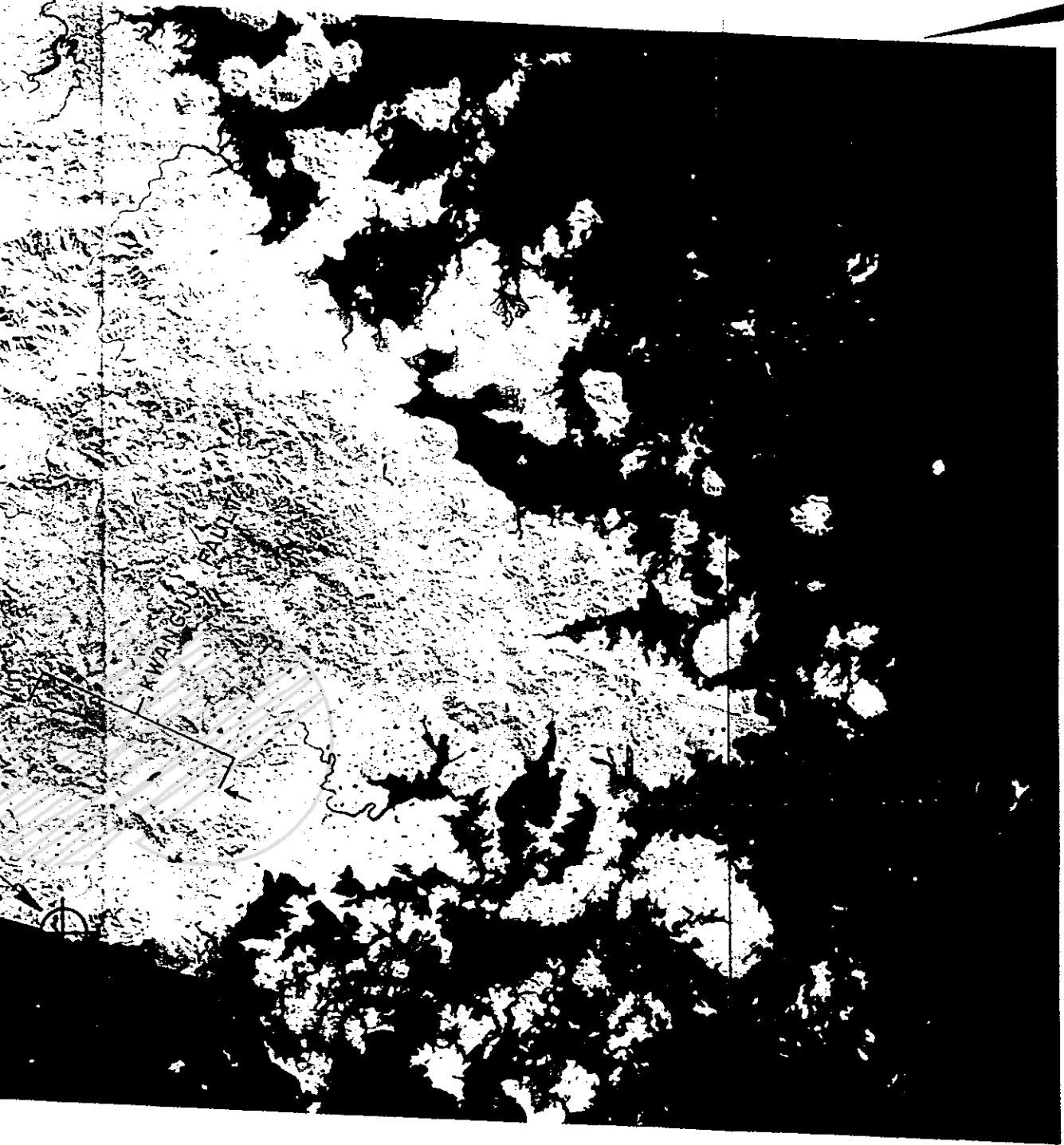


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

영월지진의 등진도도

그림 2.5-44

1128 001
E127-301
E127-00
E127-00




E127-301
E127-001
E126-301
E126-00

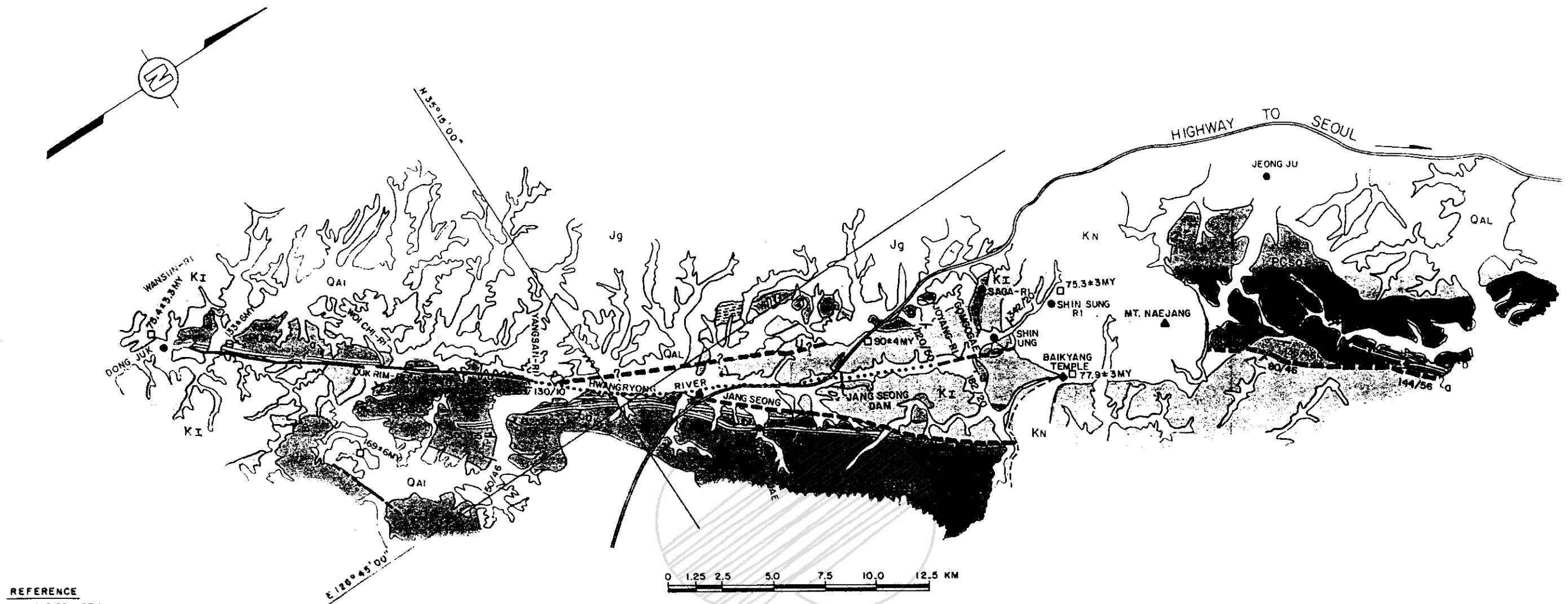
Z000-001 Z000-001 W-N0-001 W-N0-001 Z000-001 Z000-001

REFERENCE:
U.S.G.S. EROS DATA CENTER, SIOUX FALLS,
SOUTH DAKOTA, "LANDSAT IMAGERY FOR
SOUTHWESTERN KOREA," SCENE NO.
E-2059-01285-7-02 DATED: MARCH 22, 1975
AND SCENE NO. E-1207-01403-7-02
DATED: FEBRUARY 15, 1973
SCALE: 1:1,000,000.



	한국수력원자력주식회사 영광 5, 6 호기 최종안전성분석보고서
	한반도 남서부의 인공위성영상 그림 2.5-45

()



REFERENCE
MODIFIED AFTER ORIGINAL MAPPING
PERFORMED BY KIGAM, 1978

STRATA		AGE
<div>Qa1</div> ALLUVIUM	CENOZOIC	
-UNCONFORMITY-		
<div>Kn</div> NAEJANGSAN ACIDIC VOLCANICS	CRETACEOUS	
<div>a b</div> -INTRUSION/FLOW-		
<div>KI</div> Q: SEDIMENTARY FORMATION b: SYNDEPOSITIONAL INTERMEDIATE VOLCANICS		
-INTRUSION/FLOW-		
<div>Jg</div> GRANITE	JURASSIC	
-INTRUSION-		
<div></div> SCHIST AND GNEISS QUACZTITE VEIN	AGE UNKNOWN	
<div>a b</div>		
<div></div> SOBAEGSAN GNEISS COMPLEX	PRECAMBRIAN	
a: QUARTZ SCHIST		
b: MARBLE		

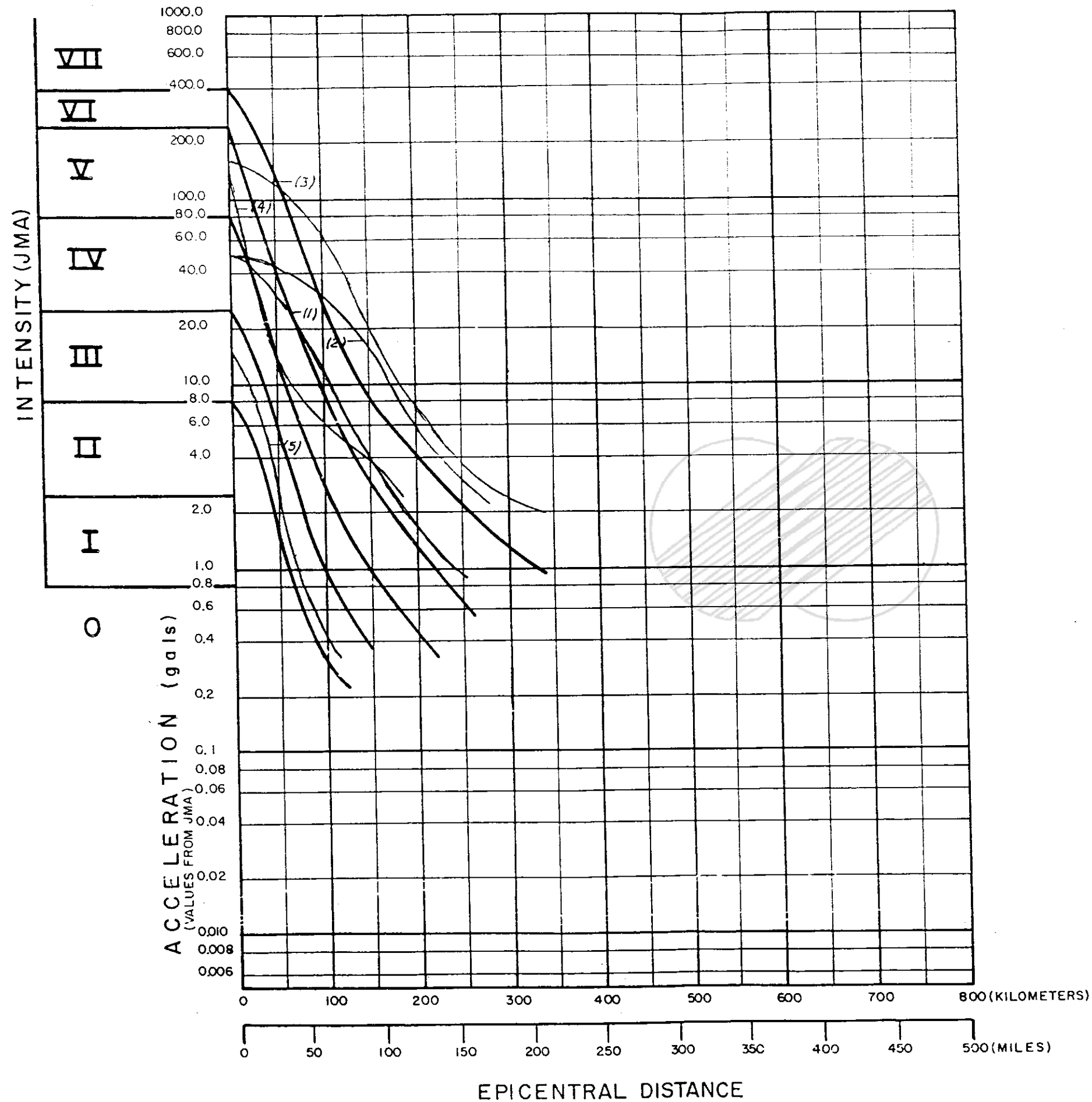
	BEARING DIRECTION AND DIP OF FOLIATION
	FAULT TRACE
	INFERRED FAULT
	CONCEALED FAULT
	LITHOLOGIC BOUNDARY
	INFERRED LITHOLOGIC BOUNDARY
	LOCATION OF K/AR AGE DETERMINATION
	VILLAGE LOCATION

한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

광주단층지역 지질도

그림 2.5-46

()



LEGEND

FROM JMA EQUATIONS

— UPPER AND LOWER LIMITS
FOR EACH INTENSITY VALUE
(FOR FOCAL DEPTH OF 18 KM)

FROM ISOSEISMAL MAPS

CURVE	DATE	EPICENTER LOCATION
(1)	5-23-1940	33.8N 134.5E
(2)	2-20-1946	35.6N 140.0E
(3)	11-18-1940	34.0N 135.5E
(4)*	7-03-1936	35.2N 127.7E
(5)**	3-15-1937	38.5N 125.7E

* SEE FIGURE 2.5-45 FOR MAP

** NOT A MAP BUT A LIST OF INTENSITIES

REFERENCES:

JMA EQUATIONS FROM KAWASUMI(1951) AS CORRECTED
AND CONFIRMED BY JAPAN METEOROLOGICAL AGENCY
SEISMOLOGICAL DIVISION.

ISOSEISMAL MAPS FROM SEISMOLOGICAL BULLETIN
OF WEATHER BUREAU OF TYÖSEN FOR 1936, PUBLISHED
1938, AND FROM EPICENTERS OF THE CONSPICUOUS
EARTHQUAKES IN JAPAN, CENTRAL METEOROLOGICAL
OFFICE, JAPAN, 1940 - 1949.

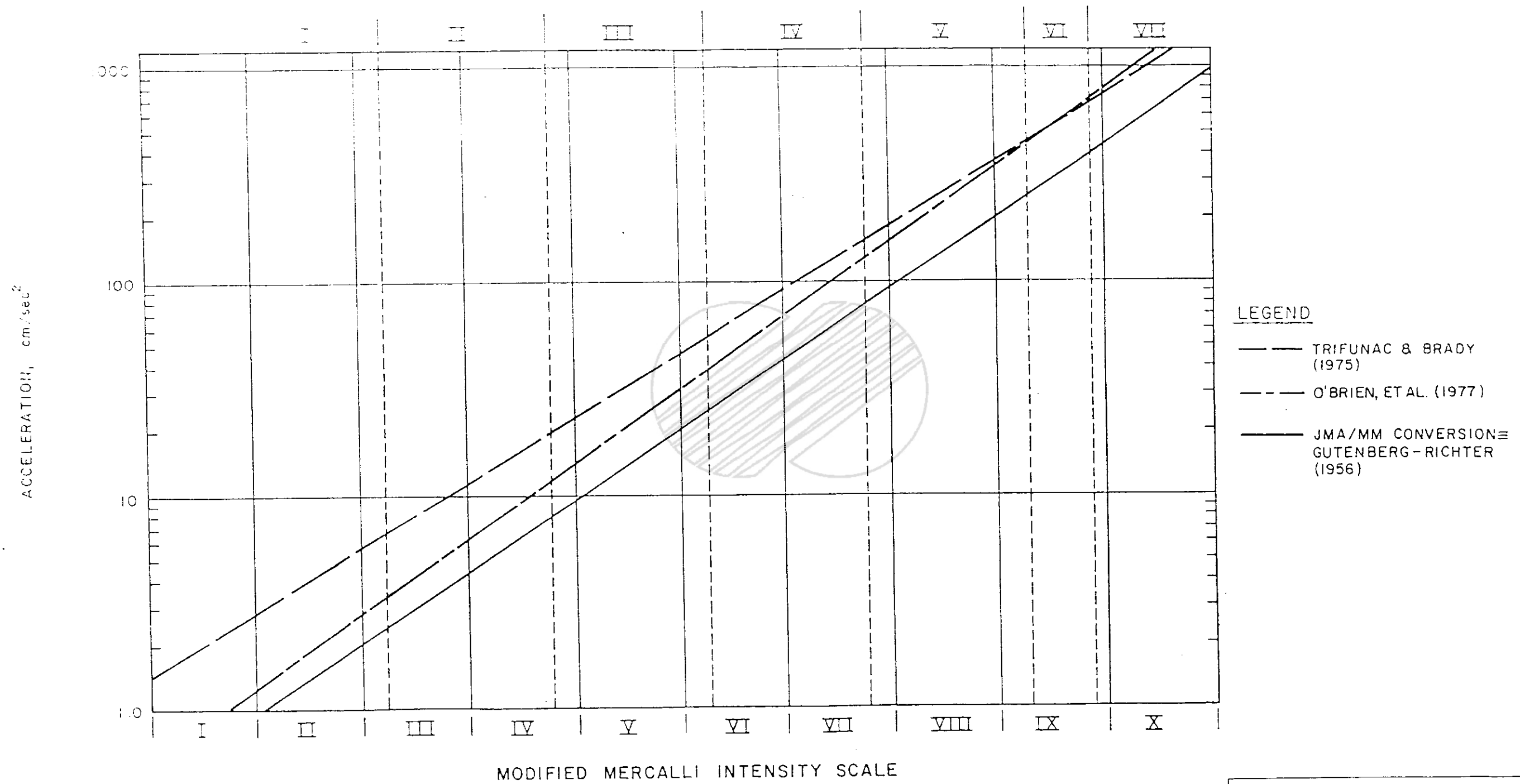


한국수력원자력주식회사
영광 5.6 호기
최종안전성분석보고서

한반도 및 일본부근의 감쇠곡선

그림 2.5-47

JAPAN METEOROLOGICAL AGENCY INTENSITY SCALE

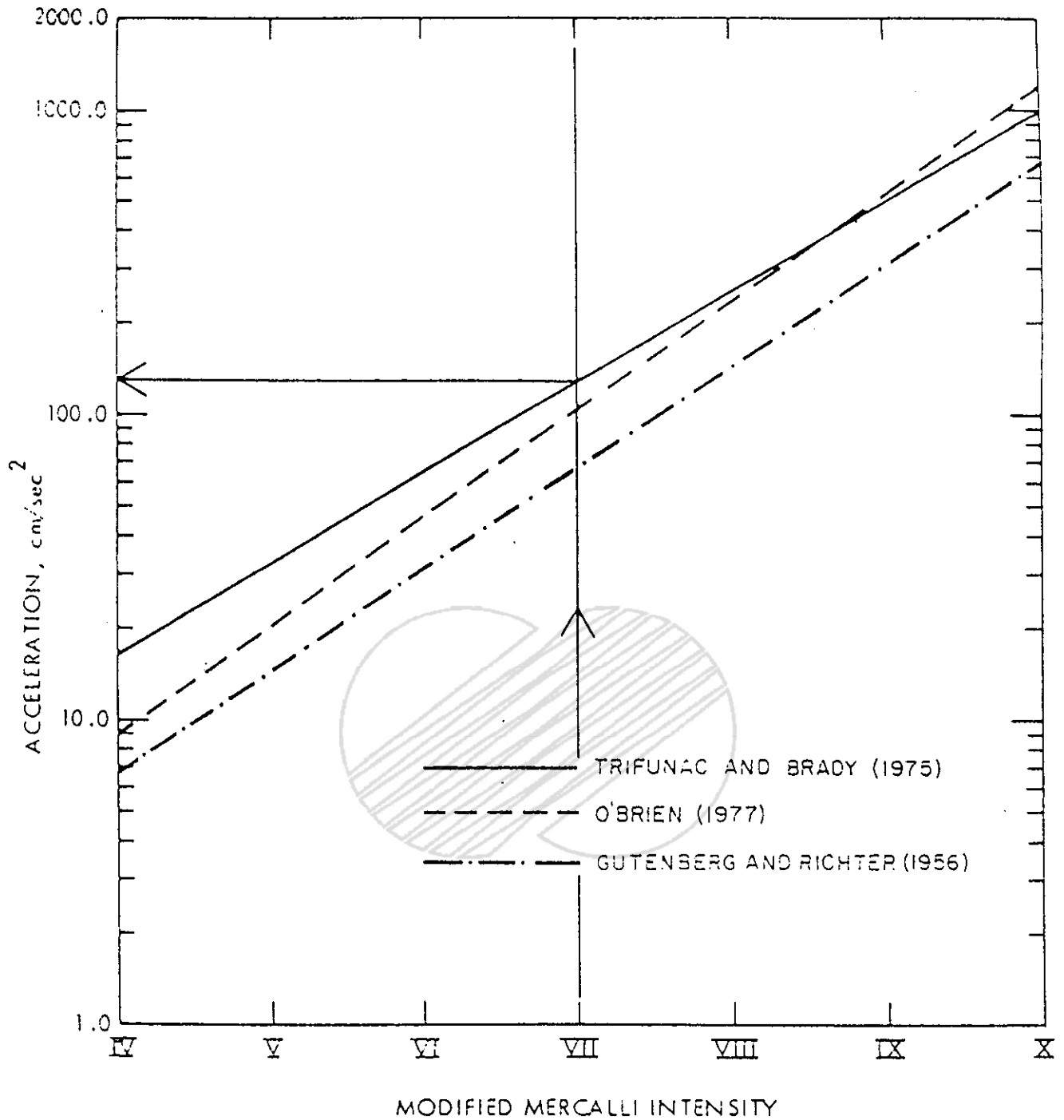


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영광 5, 6 호기
최종안전성분석보고서

진도(JMA/MM)와 가속도와 의 관계

그림 2.5-48

()



REFERENCE:
O'BRIEN, ET AL, 1977

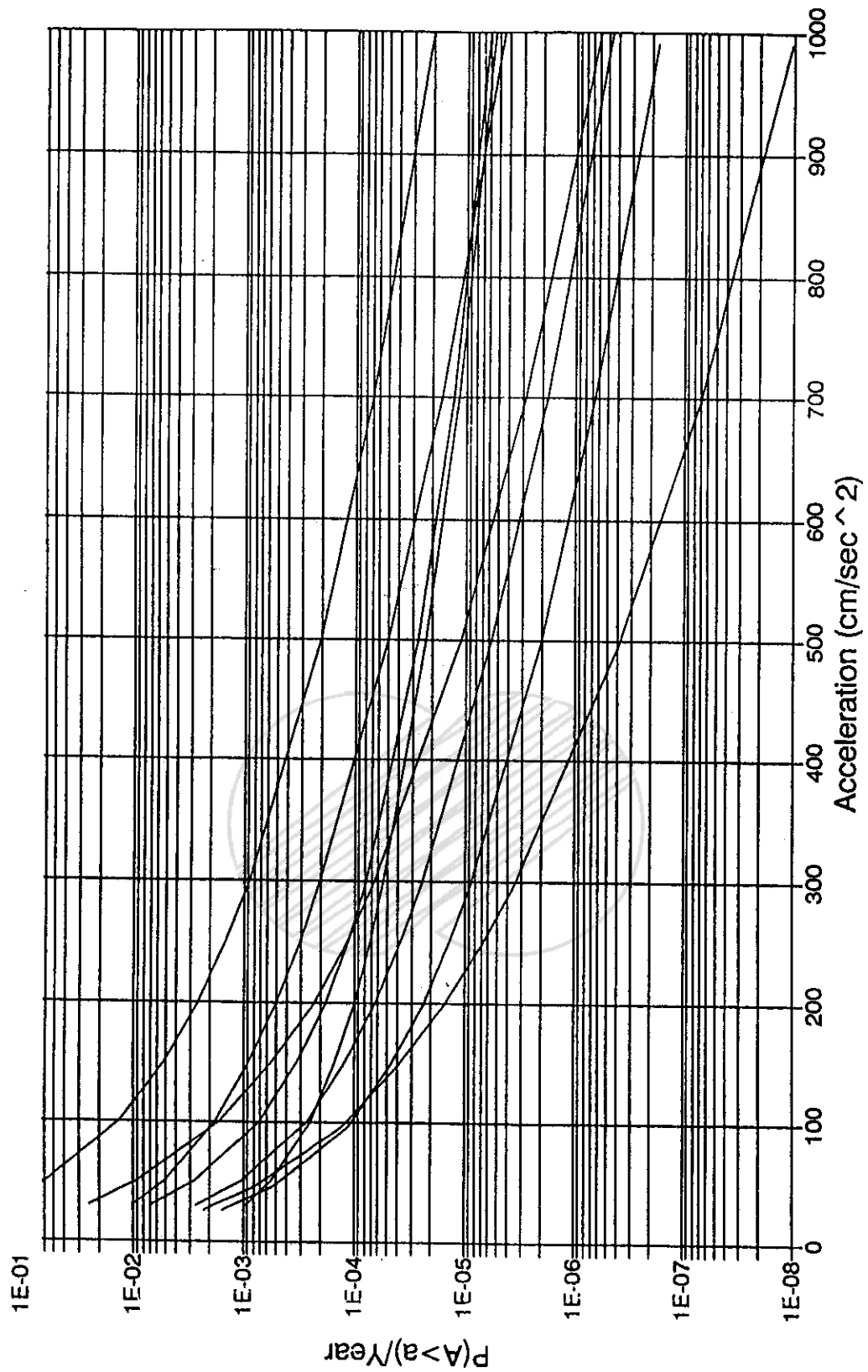


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

진도/가속도 관계 비교

그림 2.5-49

()

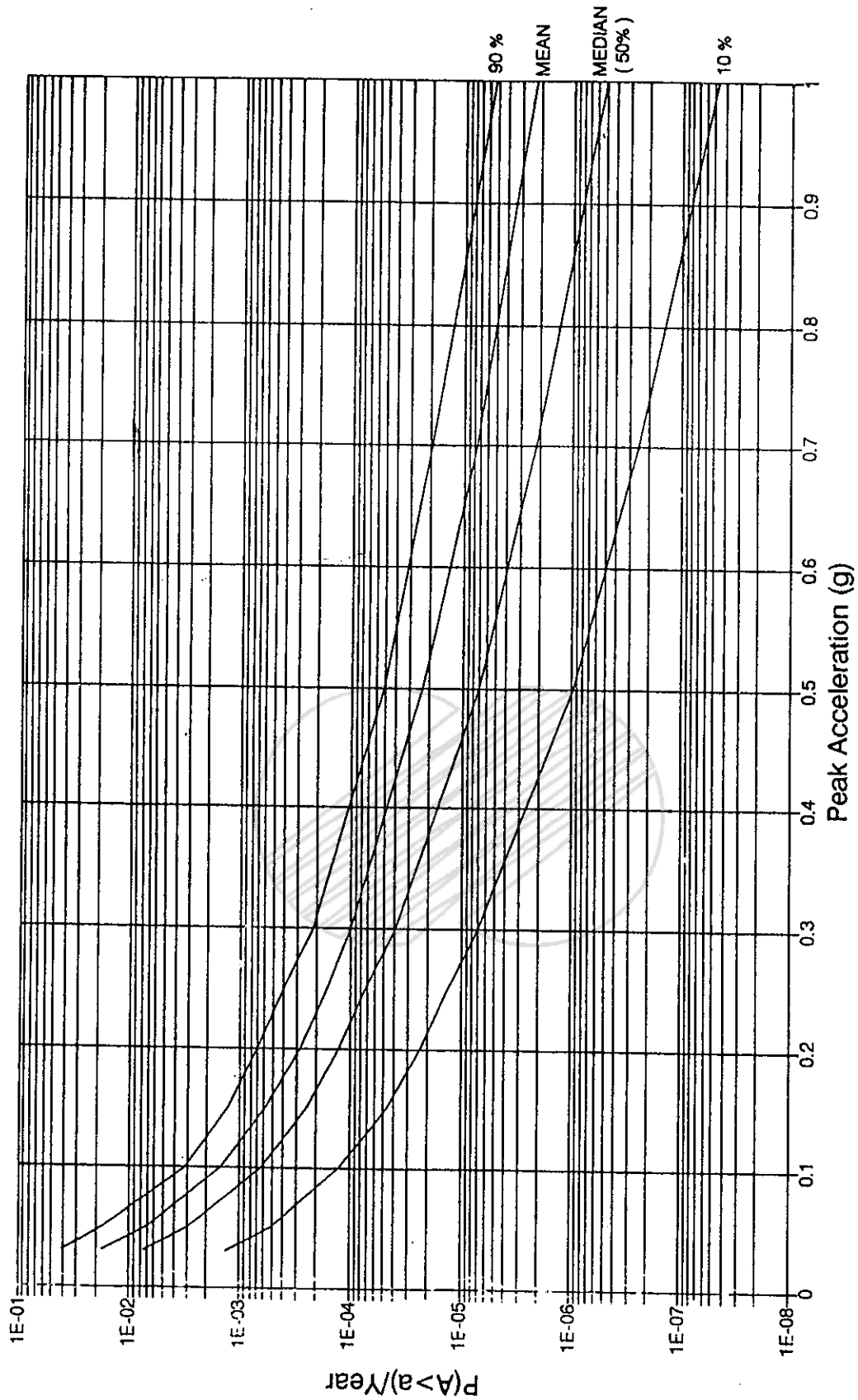


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

집성 지진재해도 곡선

그림 2.5-50

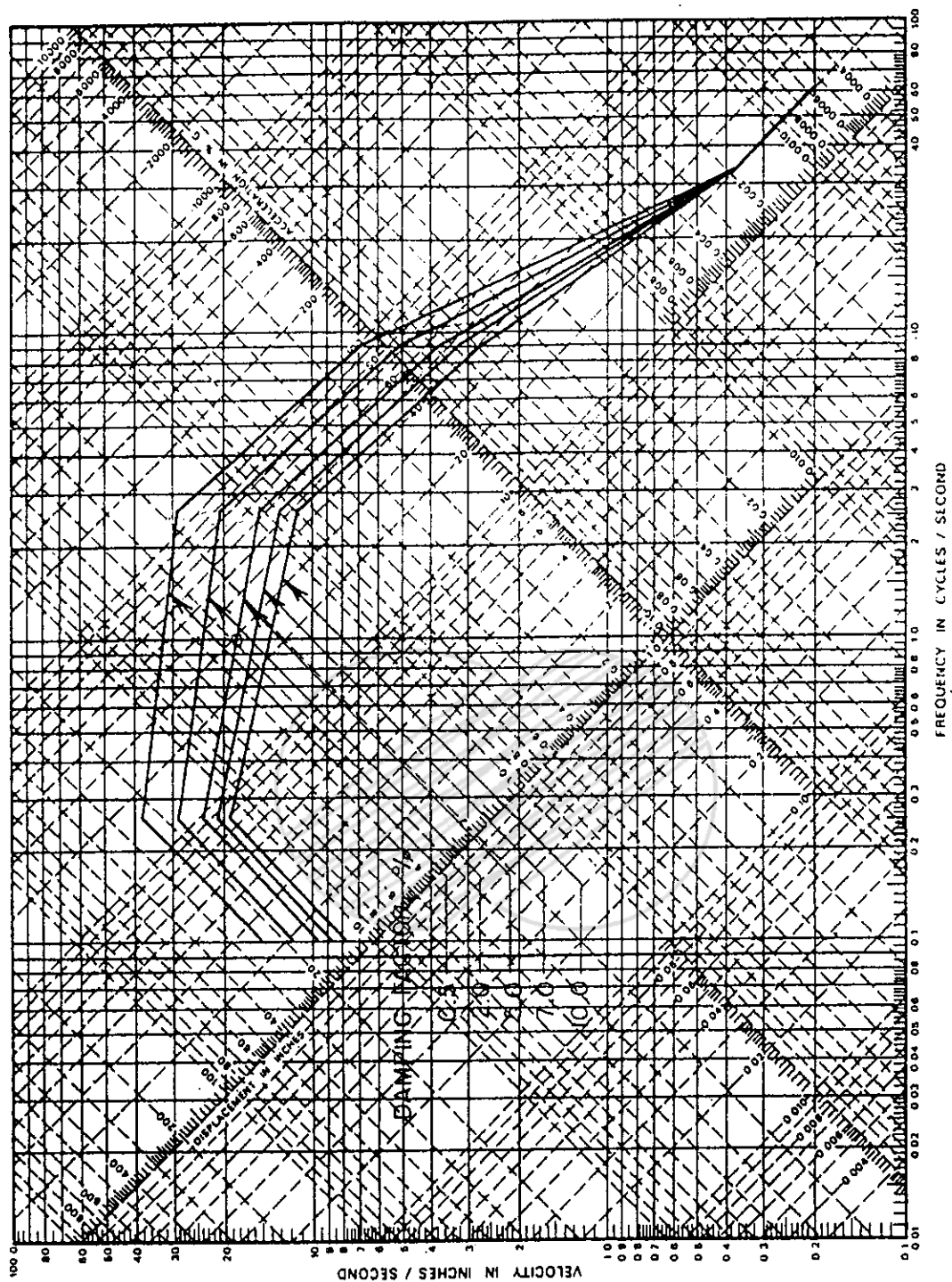
()



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

최적 지진재해도 곡선(10~90%)

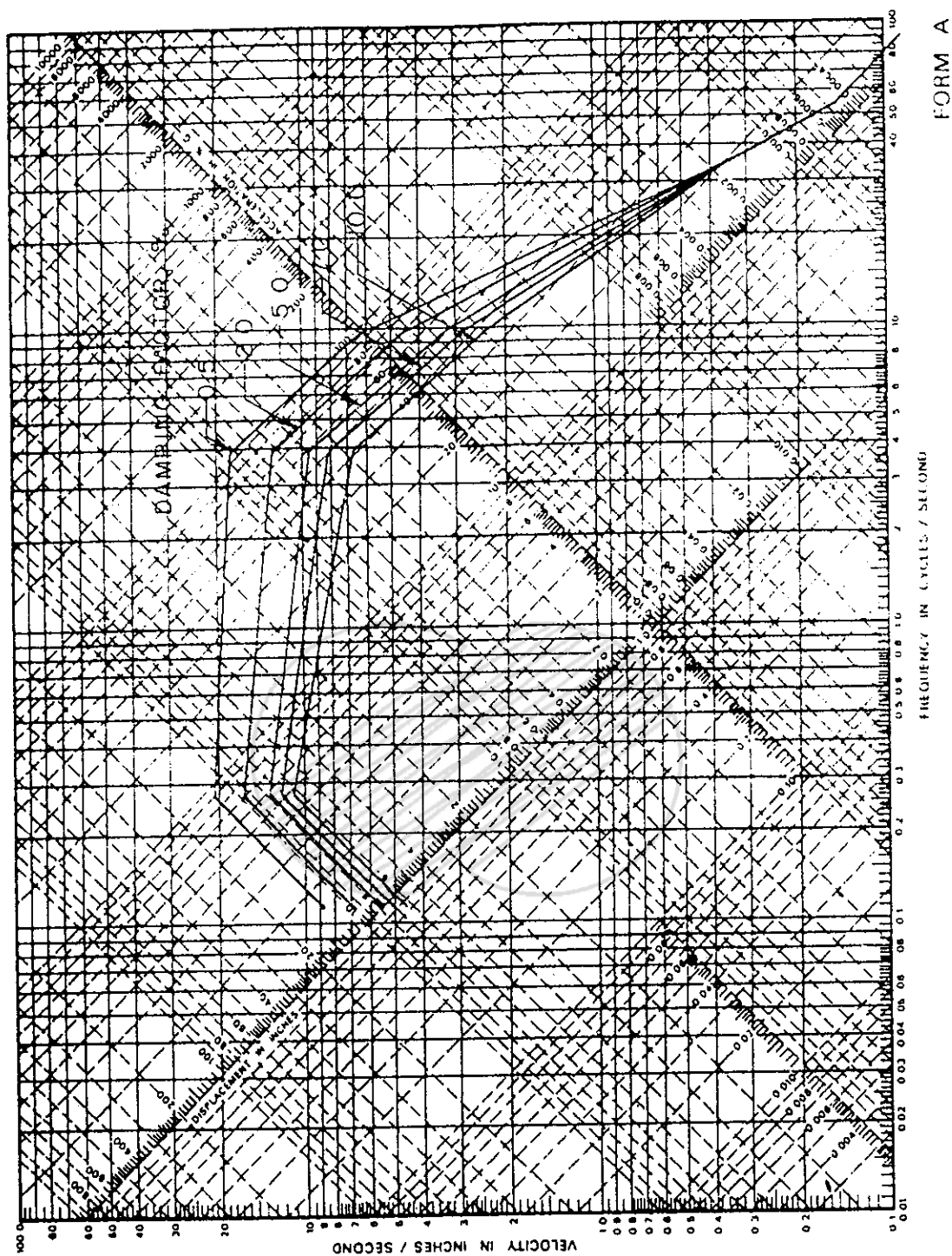
그림 2.5-51



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

안전정지지진(0.2g 수평지면가속도)의
수평설계 응답 스펙트럼

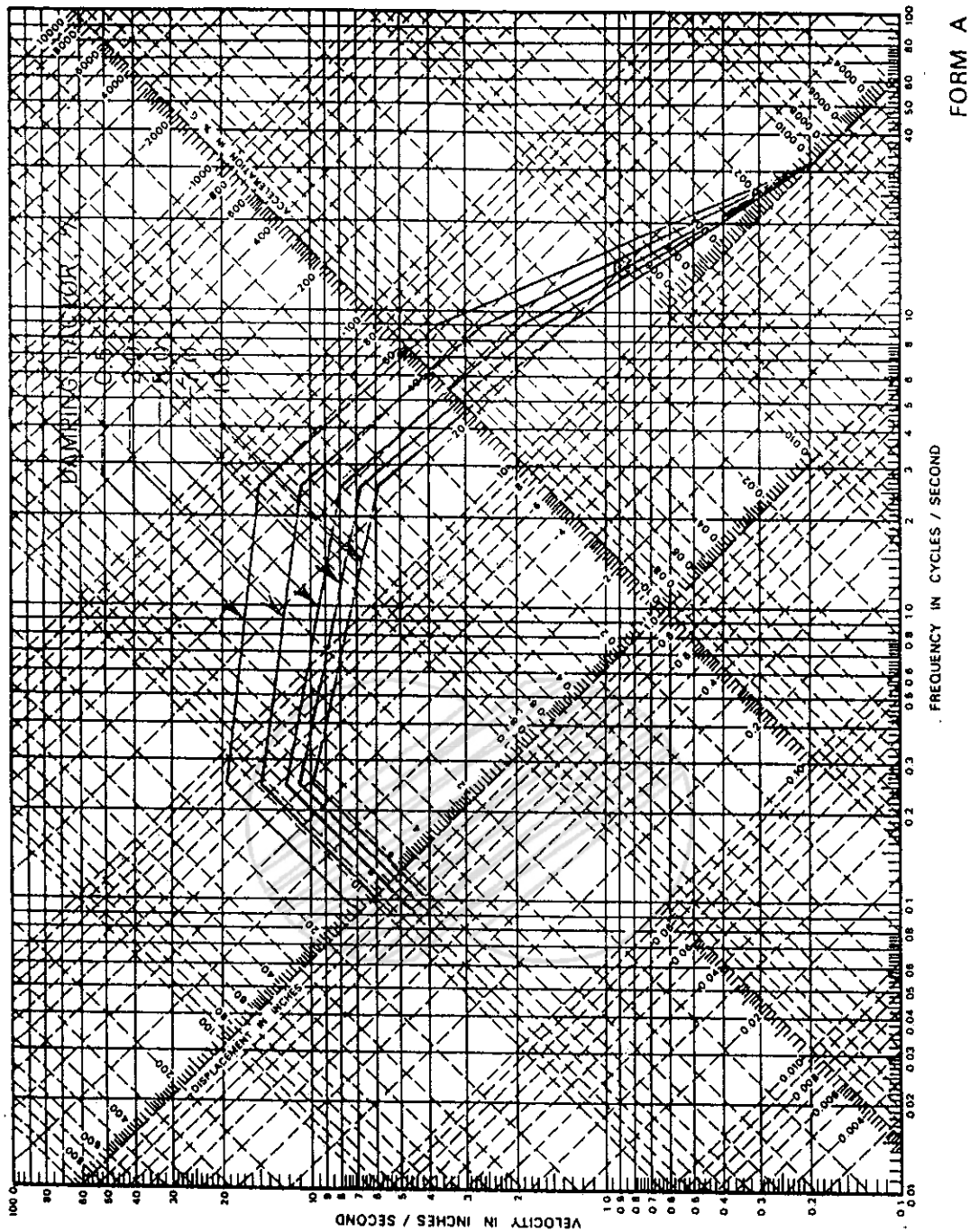
그림 2.5-52



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

안전정지지진(0.13g 수직지면가속도)의
수직설계 응답 스펙트럼

그림 2.5-53



FORM A

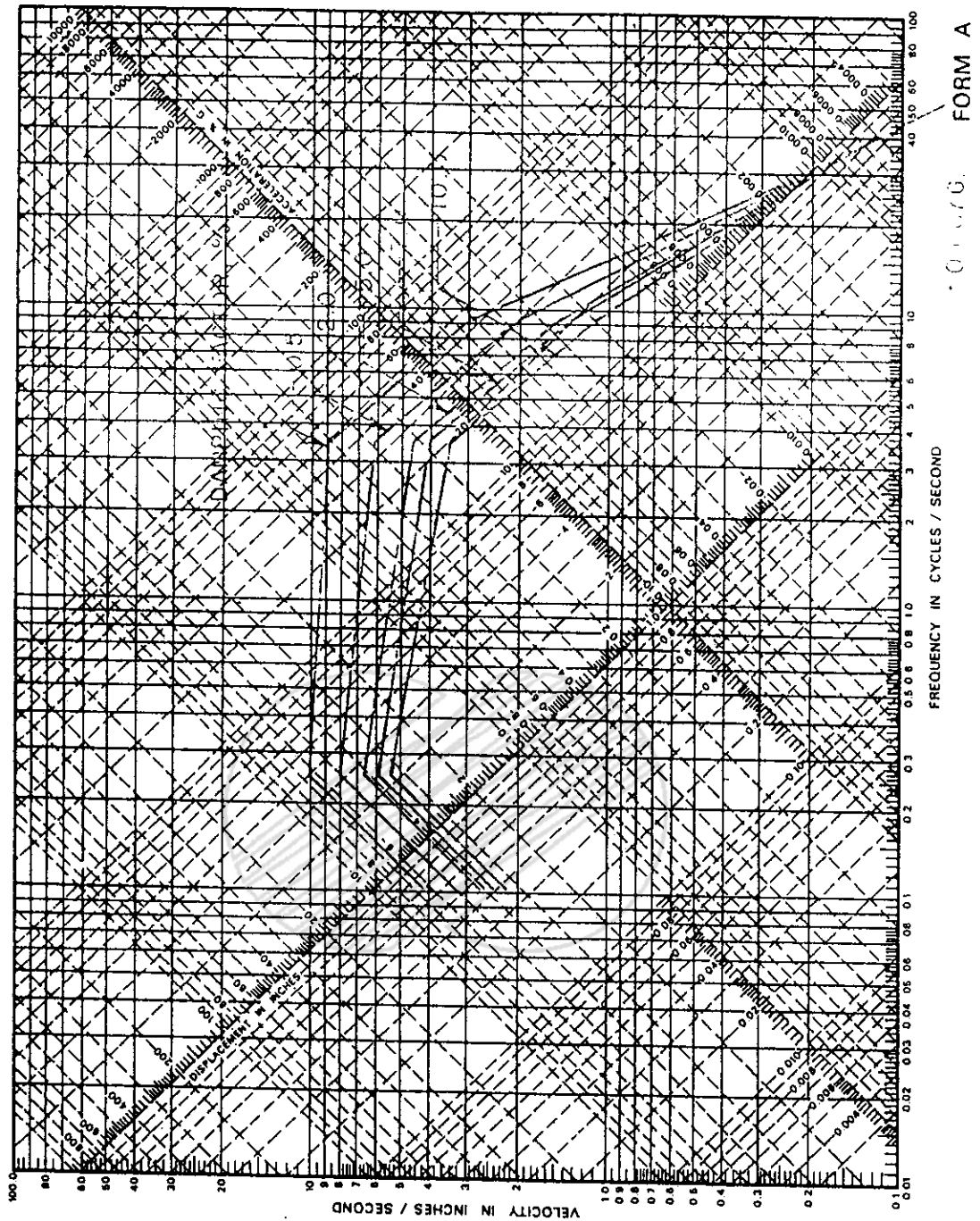


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

운전기준지진(0.10g 수평지면가속도)의
수평설계 응답 스펙트럼

그림 2.5-54

()



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영광 5, 6 호기
최종안전성분석보고서

운전기준지진(0.067g 수직지면가속도)의
수직설계 응답 스펙트럼

그림 2.5-55



E' ↓

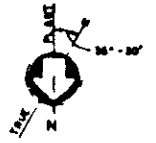
D' ↓



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영광 5, 6 호기
최종안전성분석보고서

시추위치도

그림 2.5-56



	<p>한국수력원자력주식회사 영광 5, 6 호기 최종안전성분석보고서</p>
	<p>파쇄대 분포도 그림 2.5-57</p>



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

지층단면도 (A-A' 구간)

그림 2.5-58

()



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영광 5, 6 호기
최종안전성분석보고서

지층단면도 (B-B' 구간)

그림 2.5-59



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

지층단면도 (C-C' 구간)

그림 2.5-60



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

지층단면도 (D-D' 구간)

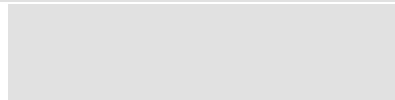
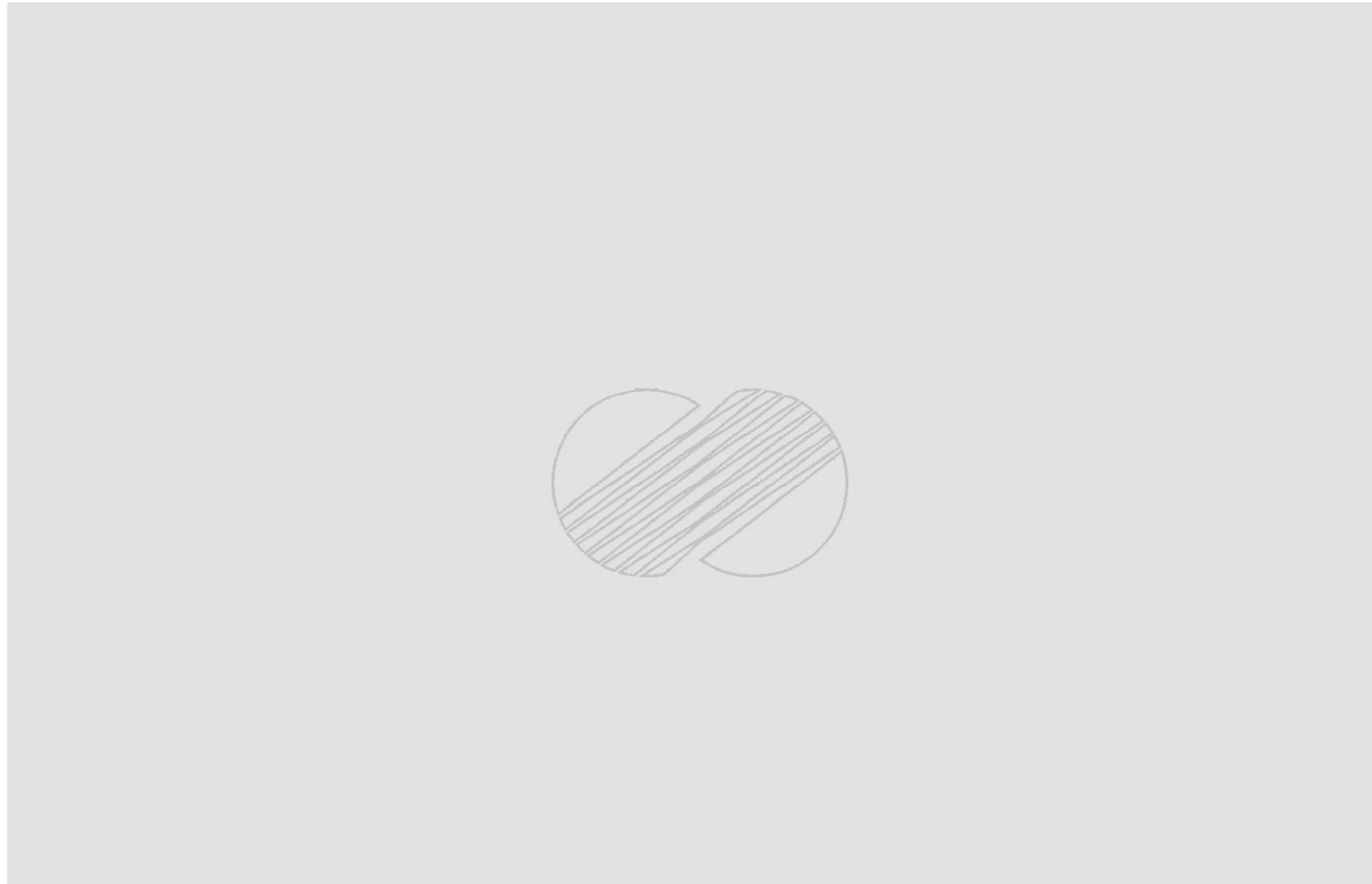
그림 2.5-61A




한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

지층단면도 (D-D' 구간)

그림 2.5-61B



 <div>한국수력원자력주식회사 영광 5, 6 호기 최종안전성분석보고서</div>
<div>지층단면도 (E-E' 구간)</div> <div>그림 2.5-62A</div>



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

지층단면도 (E-E' 구간)

그림 2.5-62B

()



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

연암반 등고선도

그림 2.5-63



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

경암반 등고선도

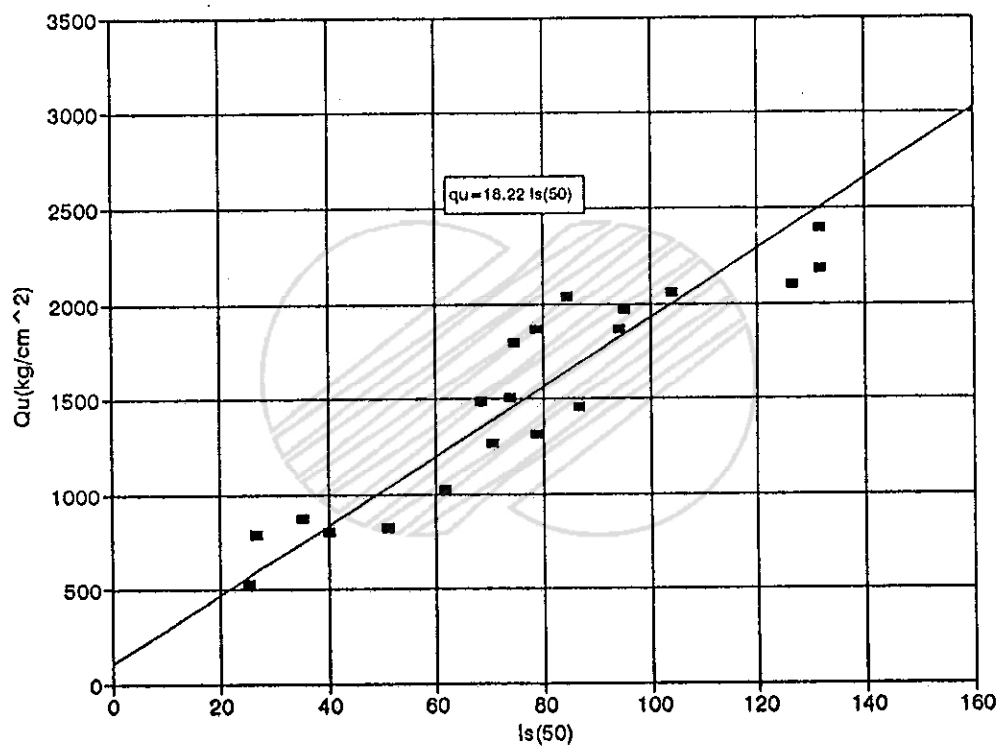
그림 2.5-64



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

COMPETENT ROCK 등고선도

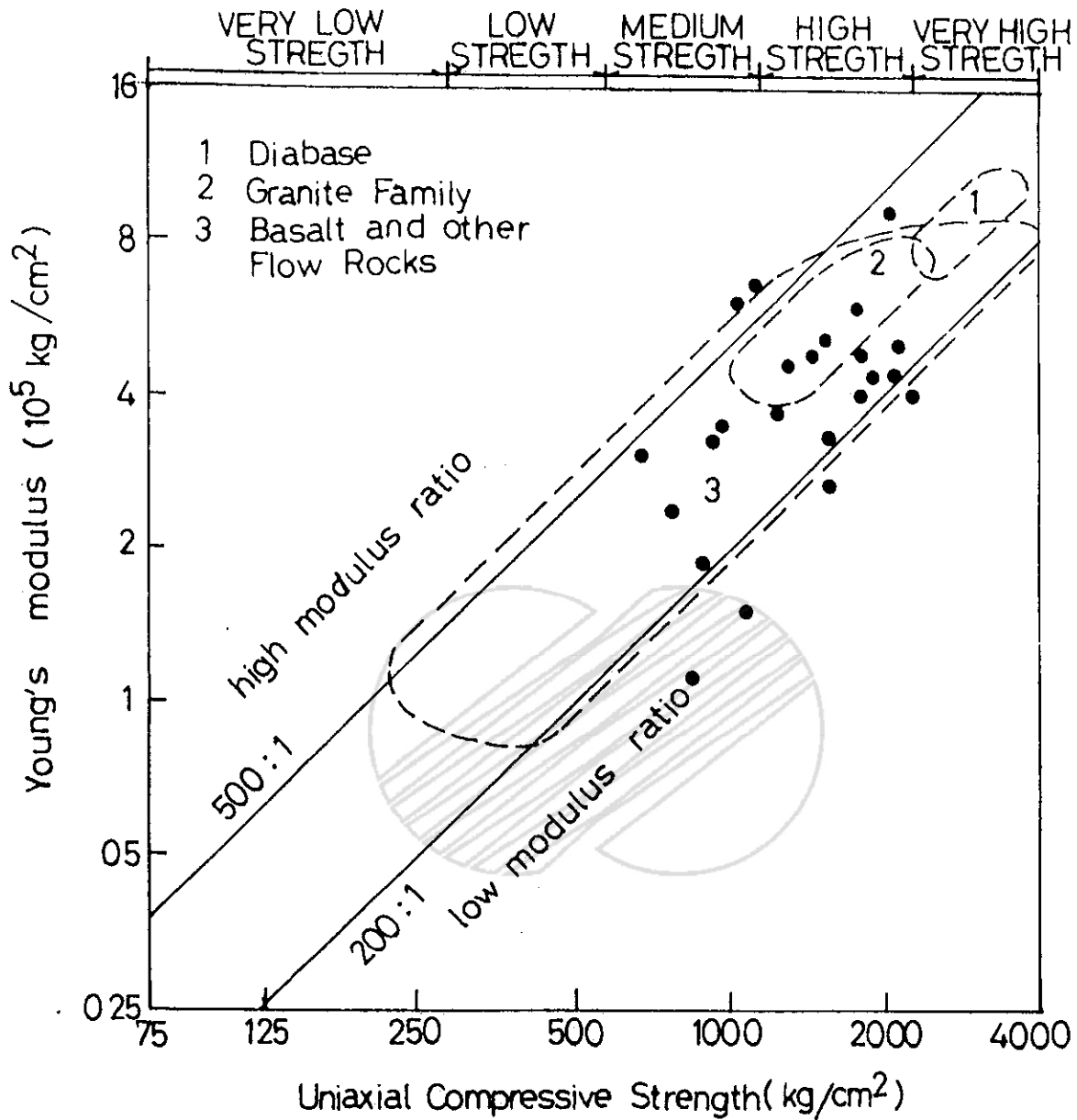
그림 2.5-65



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

POINT LOAD 지수와 일축압축강도 상관관계

그림 2.5-66



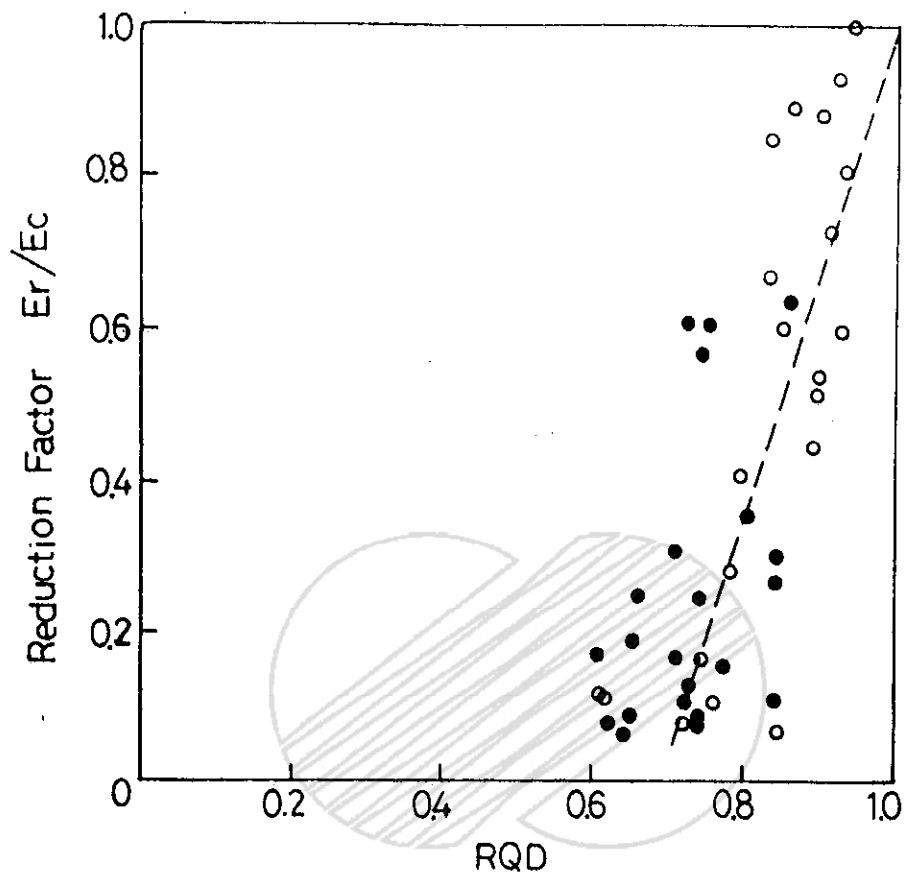
Data source : Deere and Miller (1966)



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

일축압축강도 대비 탄성계수 관계

그림 2.5-67



- Buried Gages - Carlson Joint Meters
- Surface Gages - Ames Dial Gage

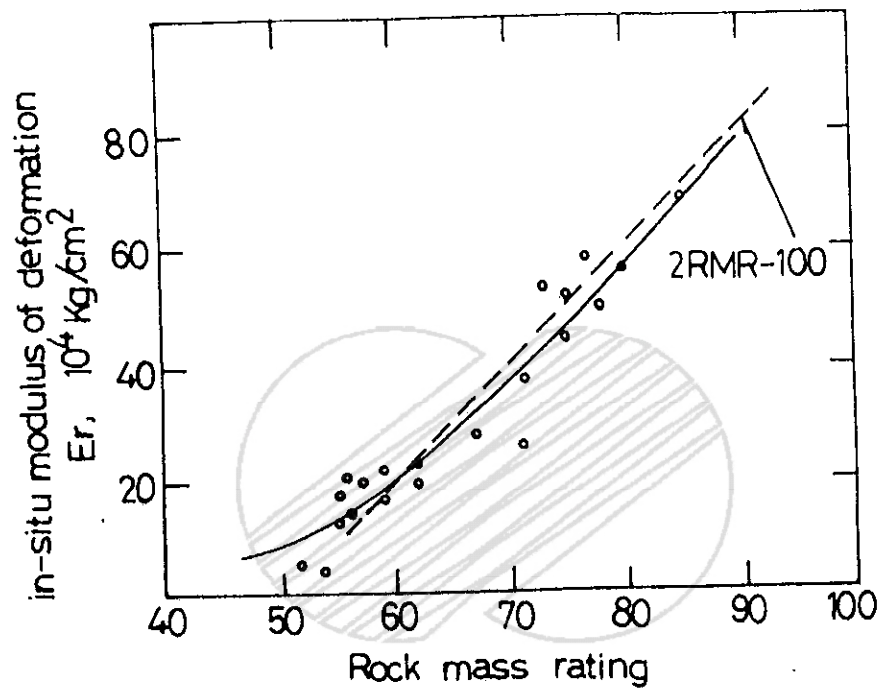
Data source : Deere and others (1967)



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

RQD 대비 감소계수 관계

그림 2.5-68



Data source : Bieniawski(1978)



한국수력원자력주식회사
 영광 5, 6 호기
 최종안전성분석보고서

RMR 대비 변형계수 관계

그림 2.5-69

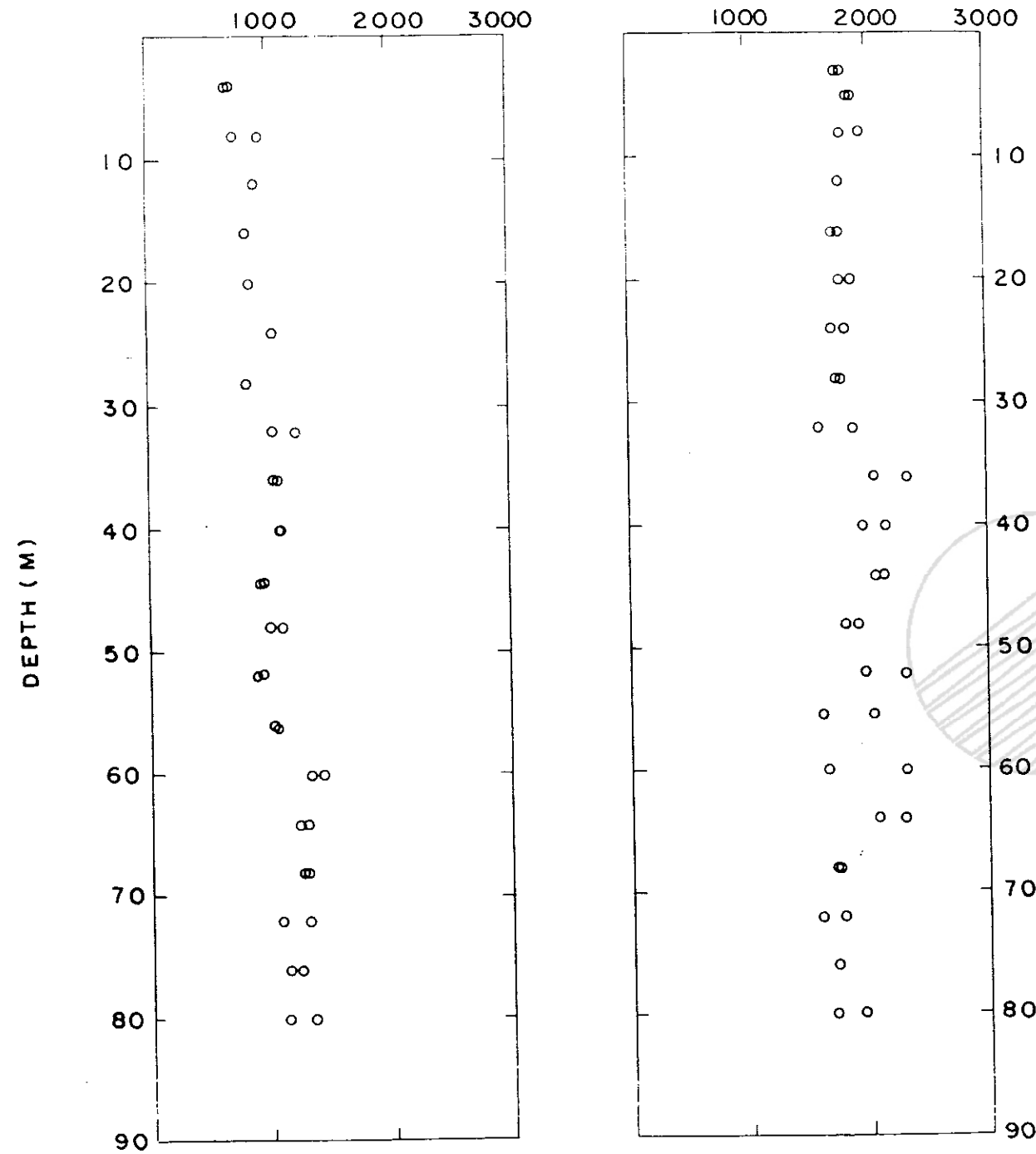
()

CROSSHOLE TEST

SHEAR WAVE VELOCITY (m/sec)

5

6

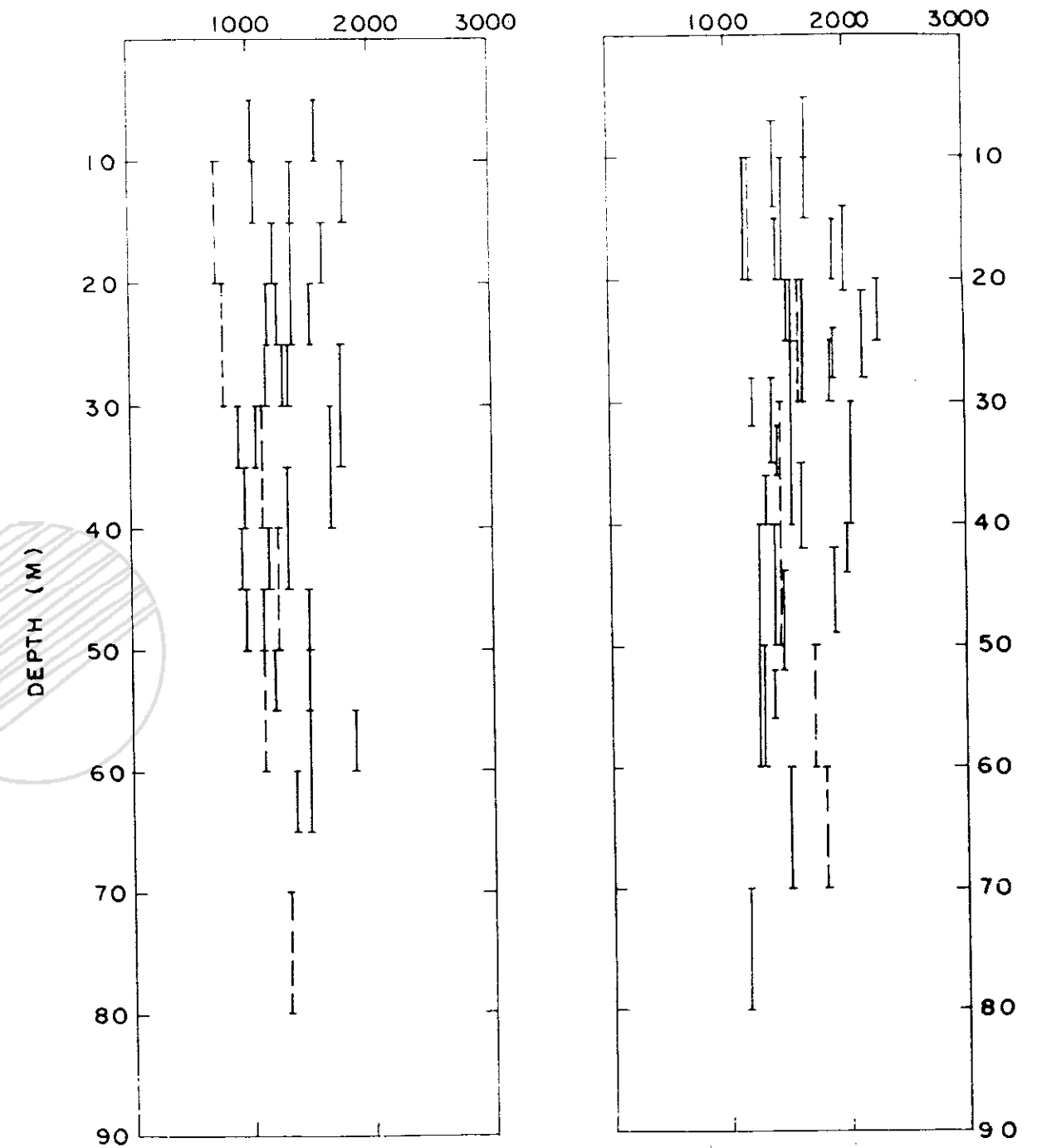


DOWNHOLE TEST

SHEAR WAVE VELOCITY (m/sec)

5

6



--- CONTAINMENT BUILDING

— OTHER BUILDINGS.



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

전단파속도 분포도

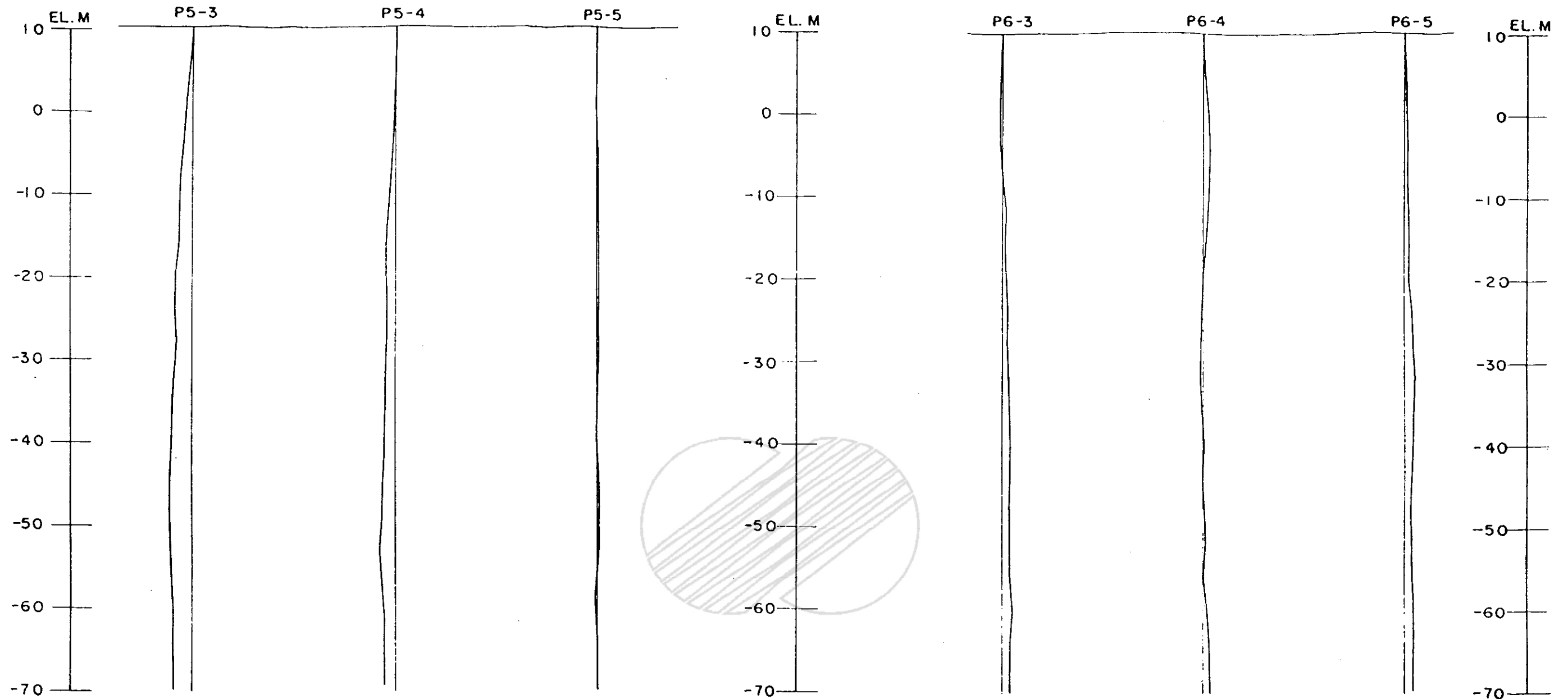
그림 2.5-70

()

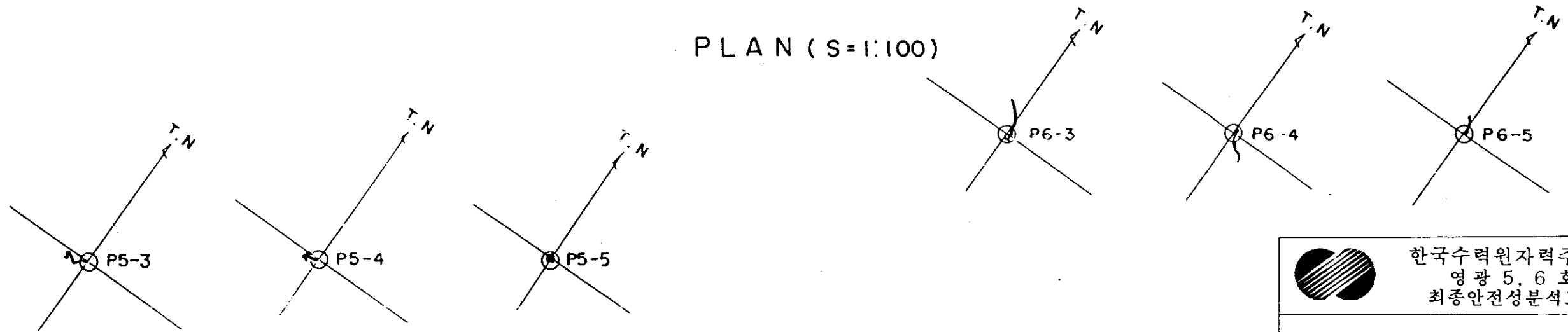
A - A'

VERTICAL PROJECTION (H=1:100, V=1:500)

B - B'



PLAN (S=1:100)



한국수력원자력주식회사
영광 5.6 호기
최종안전성분석보고서

공곡측정결과

그림 2.5-71



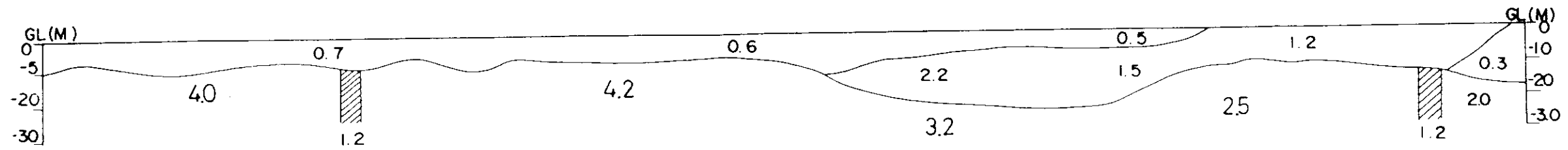
한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

탄성파탐사 위치도 및 저속도대

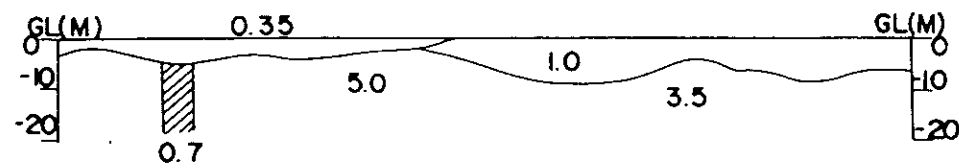
그림 2.5-72

()

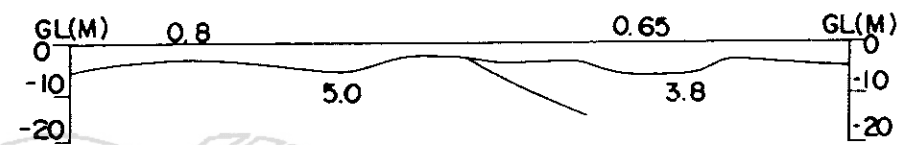
LINE A-A'



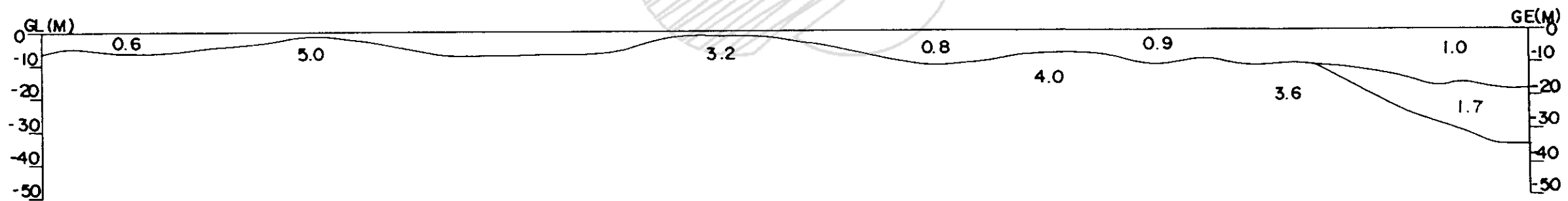
LINE B-B'



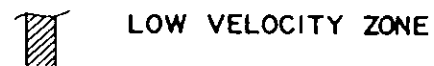
LINE C-C'



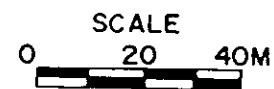
LINE D-D'



LEGEND



UNIT : KM/SEC

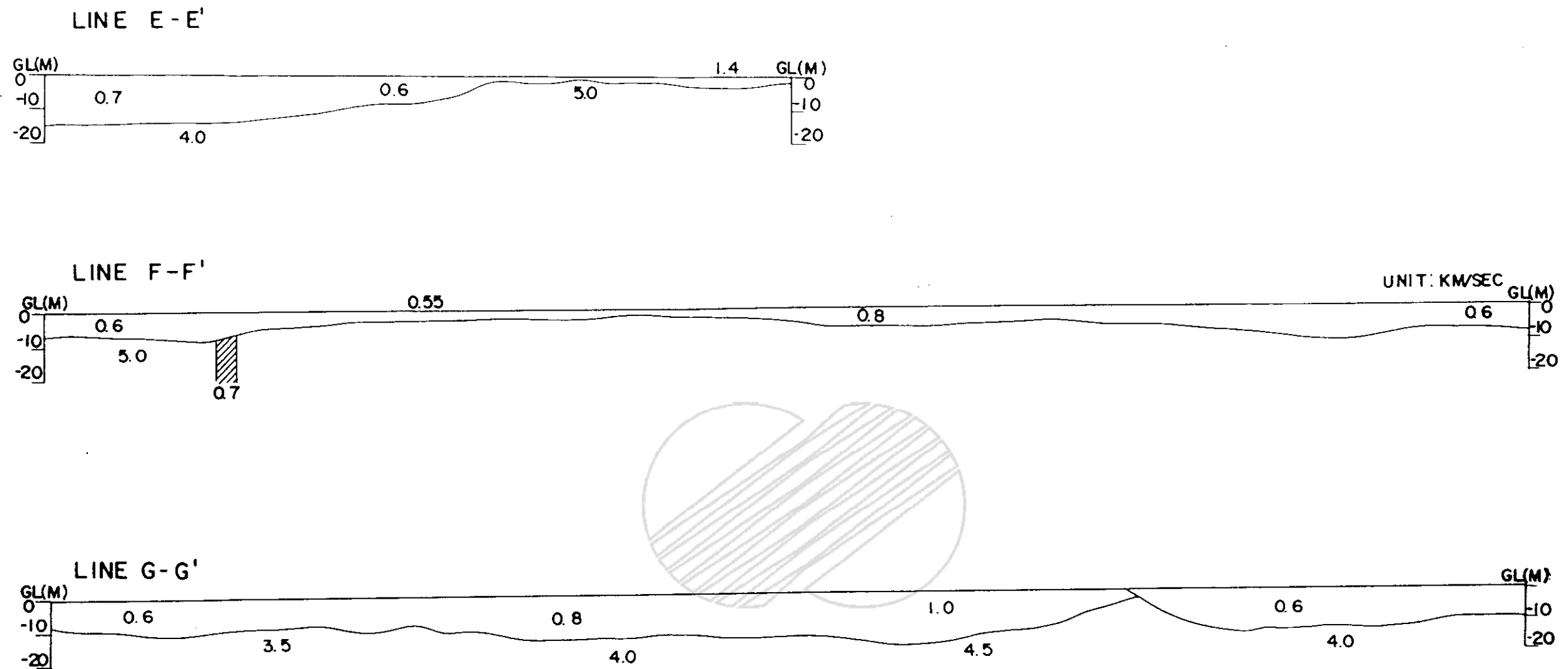


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최종안전성분석보고서

탄성파탐사 단면도

그림 2.5-73A

()



LEGEND



LOW VELOCITY ZONE

UNIT : KM / SEC



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탄성파탐사 단면도

그림 2.5-73B



E' ↓

D' ↓

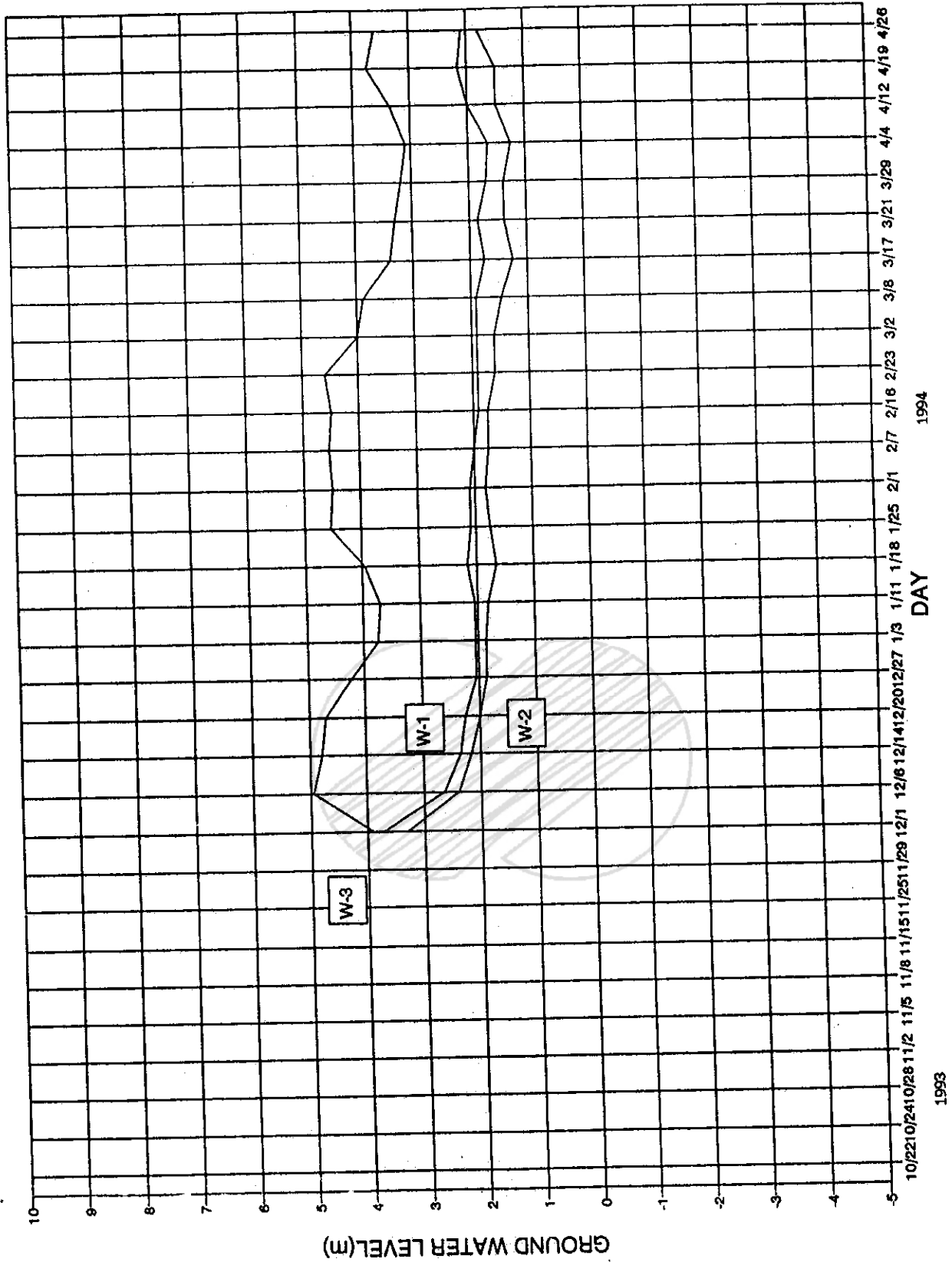


한국수력원자력주식회사
영광 5, 6 호 기
최종안전성분석보고서

지하수위 등고선도

그림 2.5-74

()

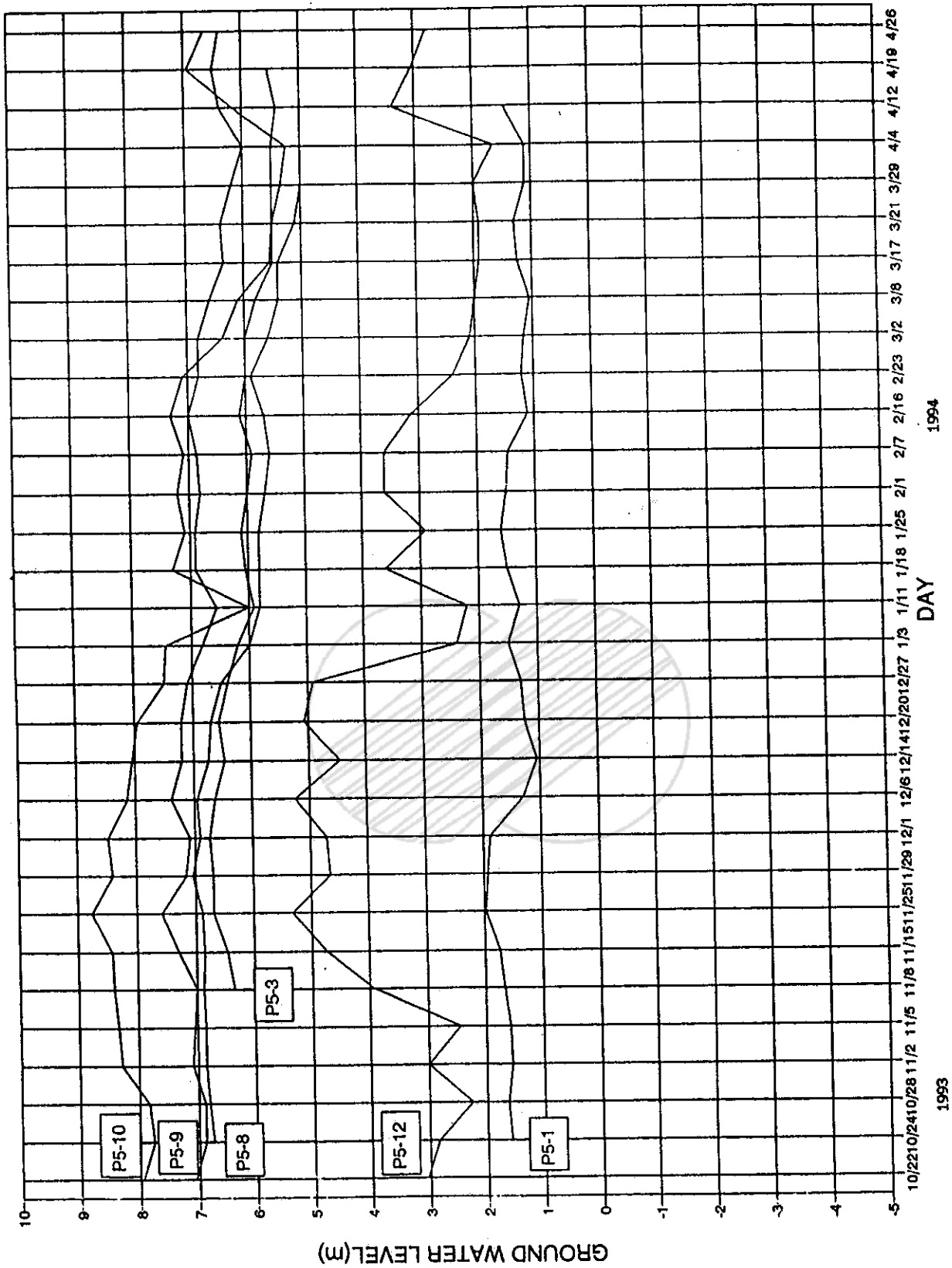


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영광 5, 6 호기
최종안전성분석보고서

지하수위 관측결과 (피조메타공)

그림 2.5-75A

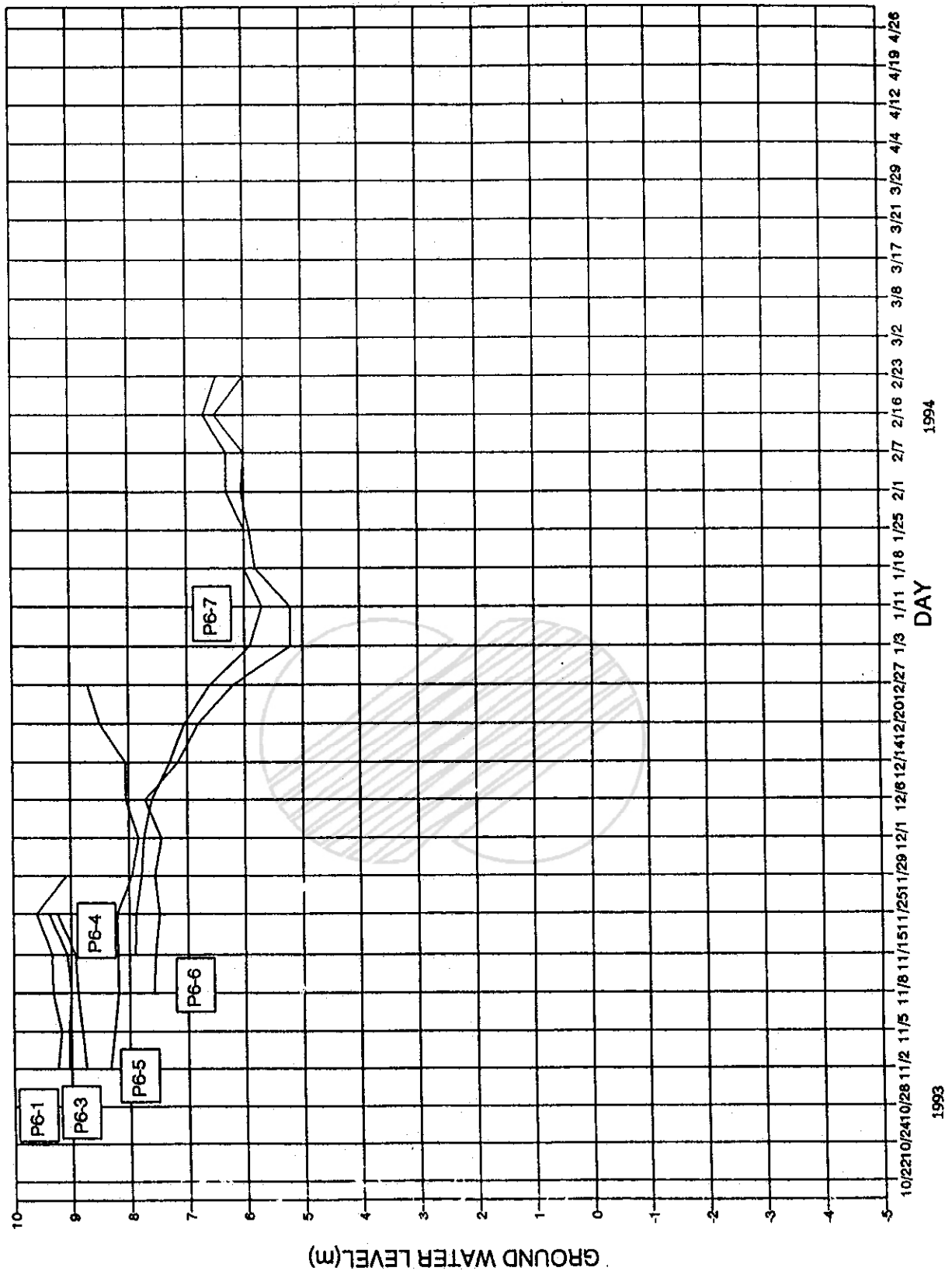
()



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최종안전성분석보고서

지하수위 관측결과 (5호기)

그림 2.5-75B

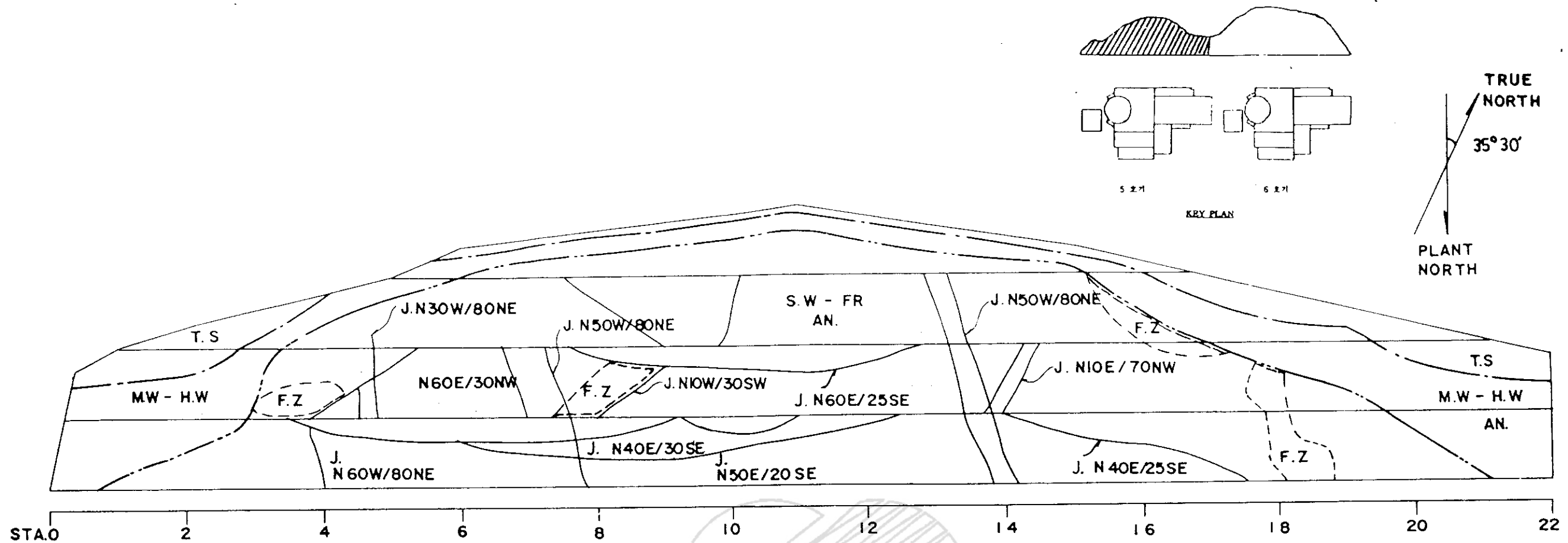


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영광 5, 6 호기
최종안전성분석보고서

지하수위 관측결과 (6호기)

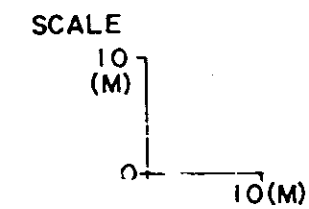
그림 2.5-75C

()



LEGEND

- T. S : TOP SOIL
H. W : HIGHLY WEATHERED ROCK
M. W : MODERATELY WEATHERED ROCK
FR. : FRESH ROCK
- F. Z : MINOR FRACTURED ZONE
(JOINT SPACING : CLOSE (<30cm)
JOINT APERTURE : TIGHT
- AN. : ANDESITE
J. : JOINT

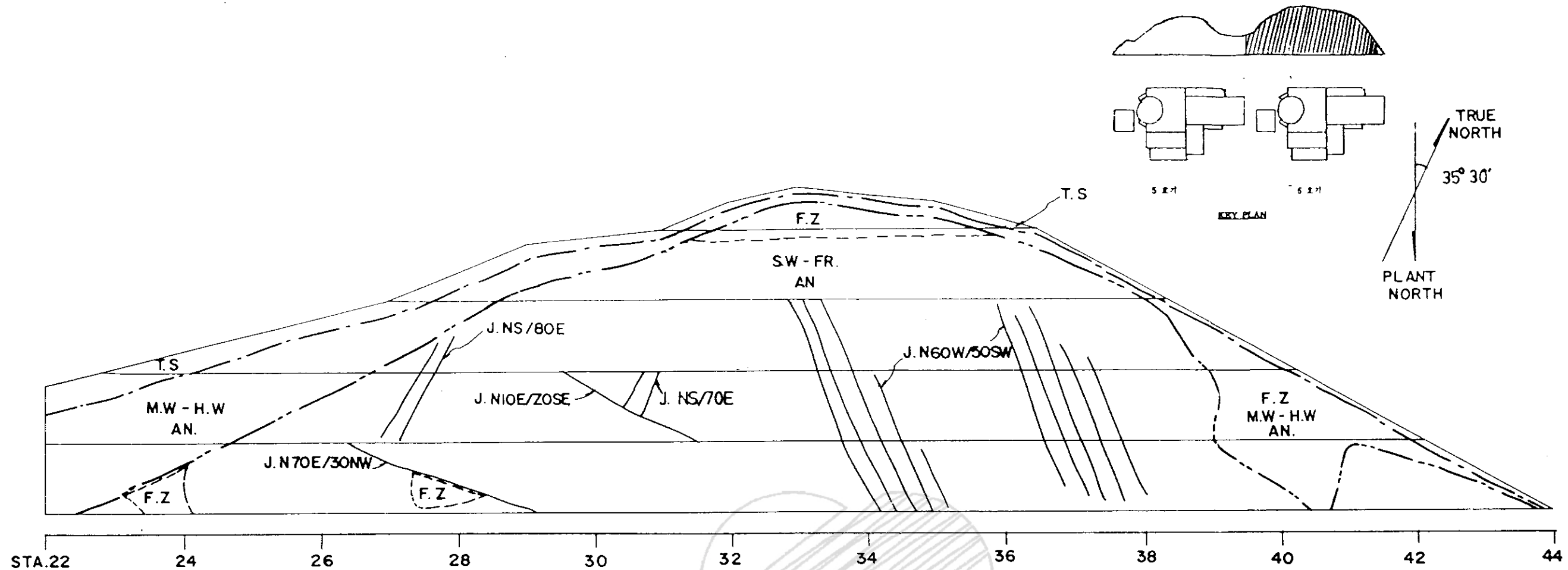


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

사면지질도

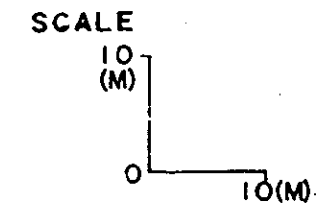
그림 2.5-76A

()



LEGEND

- T. S : TOP SOIL
H. W : HIGHLY WEATHERED ROCK
M. W : MODERATELY WEATHERED ROCK
F. R. : FRESH ROCK
- F. Z : MINOR FRACTURED ZONE
(JOINT SPACING : CLOSE (< 30cm)
JOINT APERTURE : TIGHT
- AN. : ANDESITE
J. : JOINT



한국수력원자력주식회사
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최종안전성분석보고서

사면지질도

그림 2.5-76B

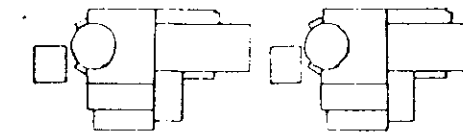
()

ROCK SLOPE STABILITY ASSESSMENT DIAGRAM

(SCHMIDT EQUAL AREA NET, LOWER HEMISPHERE)

SLOPE FACE : 150/45

FRICTION ANGLE : 40



5 호기

6 호기

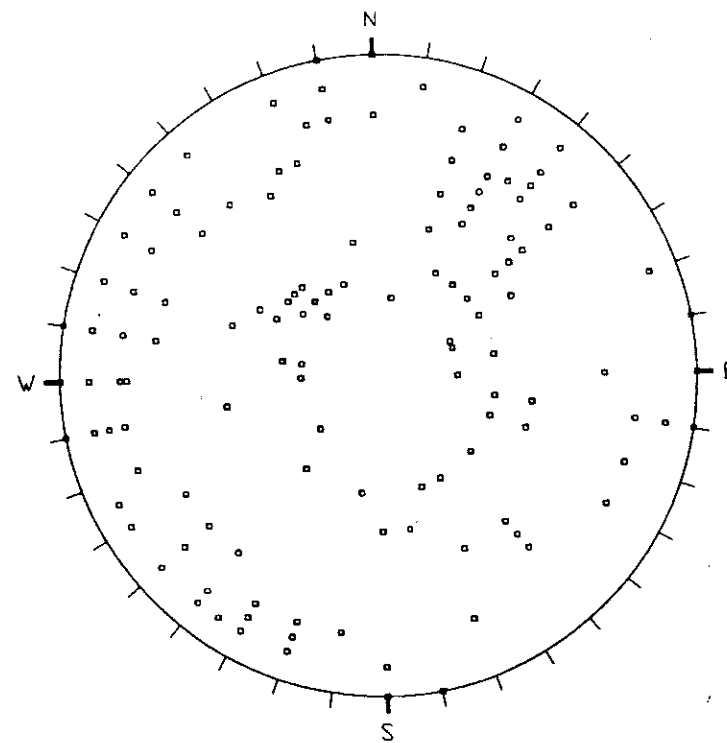
KEY PLAN

TRUE
NORTH

35° 30'

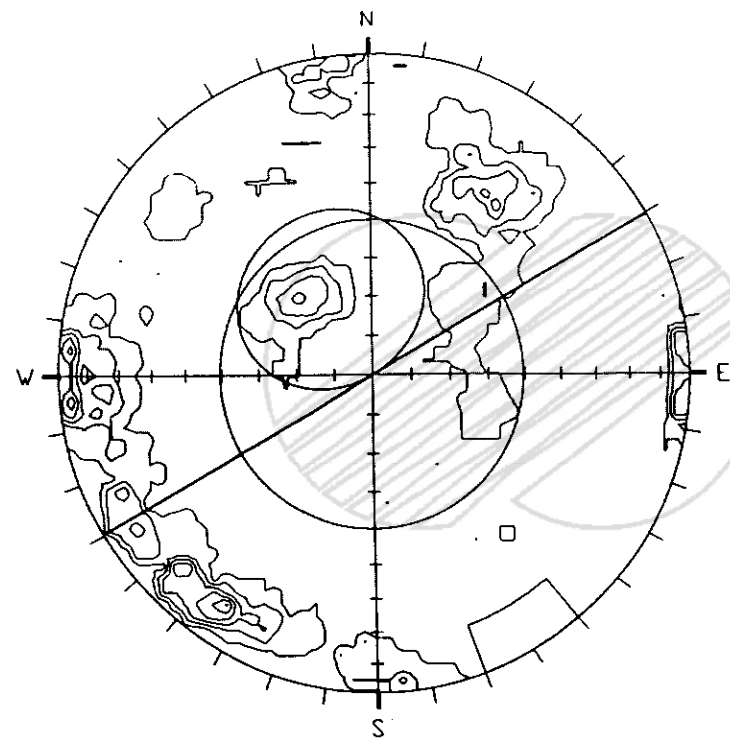
PIANT
NORTH

POLE PLOT



195 POLES

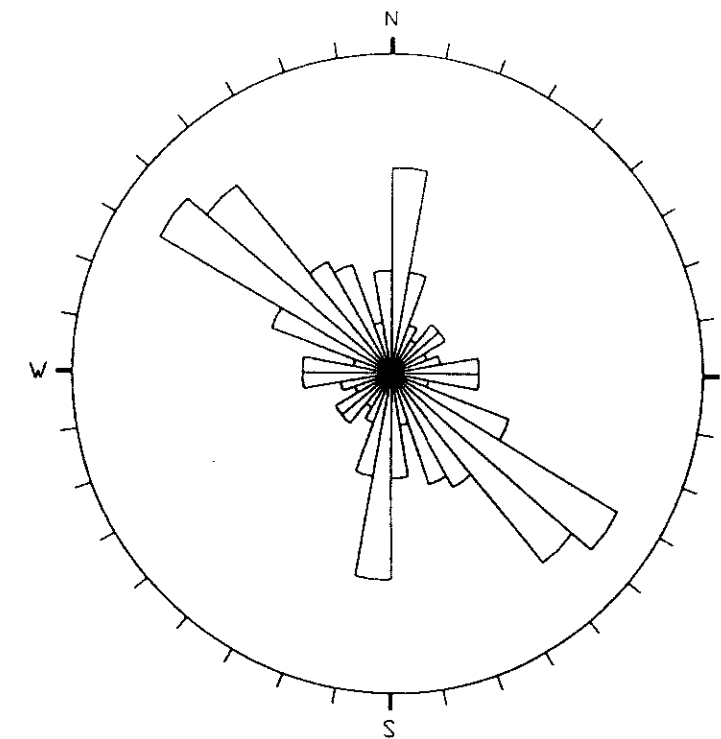
CONTOUR PLOT



MAXIMUM CONCENTRATION : 9.2%

CONTOUR INTERVAL : 1.5%

ROSETTE



MAXIMUM CONCENTRATION : 11.5%



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영광 5, 6 호기
최종안전성분석보고서

사면의 절리 분포도

그림 2.5-77



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영광 5, 6 호기
최종안전성분석보고서

굴착 및 매립 단면도 (A-A' 구간)

그림 2.5-78



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최종안전성분석보고서

굴착 및 매립 단면도 (B-B' 구간)

그림 2.5-79

()



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영광 5, 6 호기
최종안전성분석보고서

굴착 및 매립 단면도 (C-C'구간)

그림 2.5-80



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영광 5, 6 호기
최종안전성분석보고서

굴착 및 매립 단면도 (D-D' 구간)

그림 2.5-81A



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

굴착 및 매립 단면도 (D-D' 구간)

그림 2.5-81B



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

굴착 및 매립 단면도 (E-E' 구간)

그림 2.5-82A

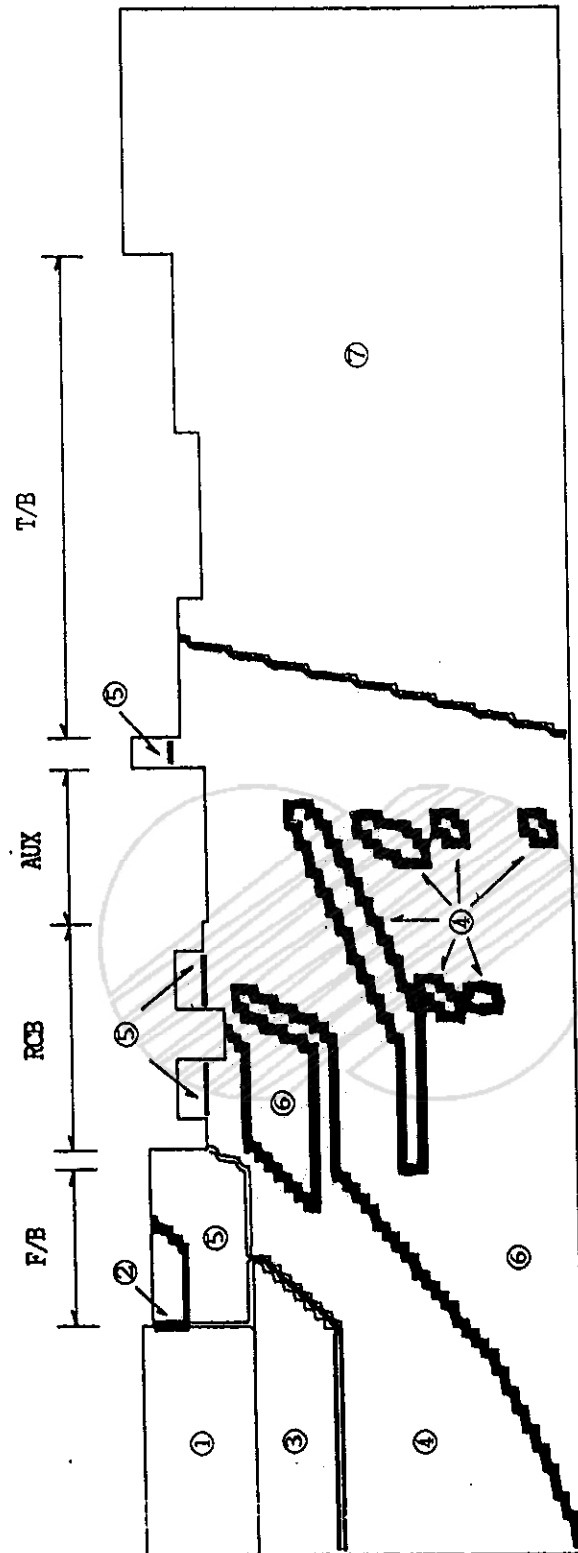


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

굴착 및 매립 단면도 (E-E' 구간)

그림 2.5-82B

BOUNDARY PLOT OF FOUNDATION FOR UNIT 5

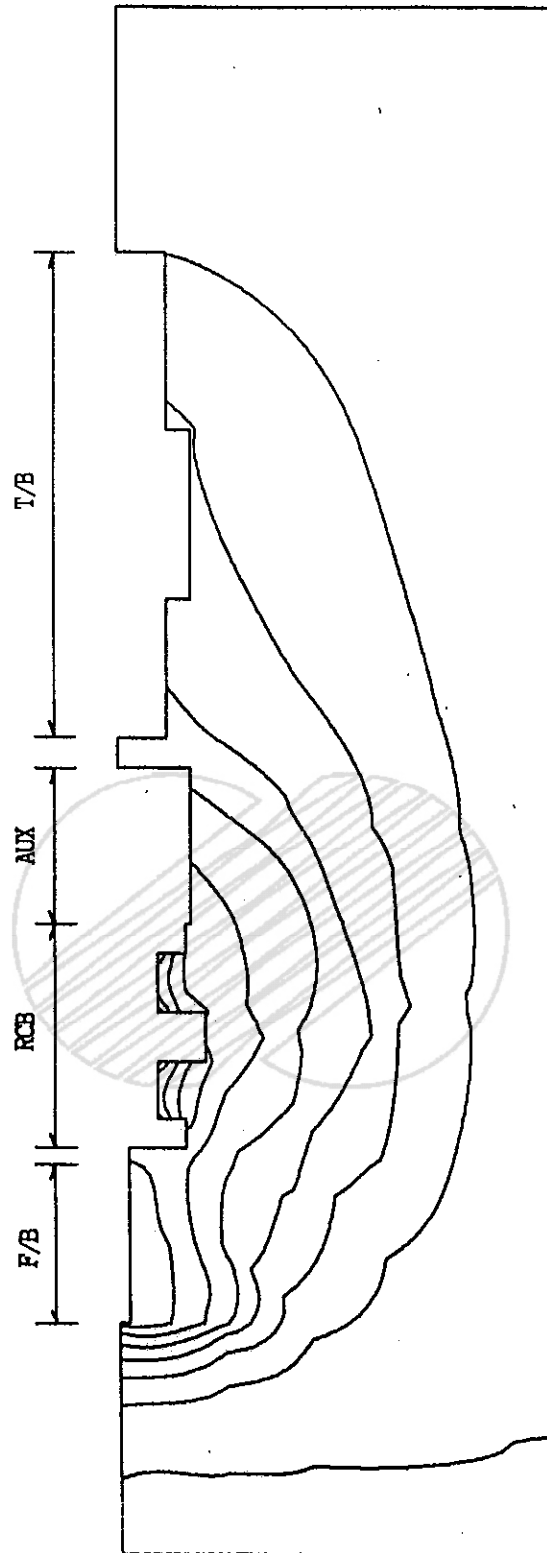


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

기초 지반 경계도 (5호기)

그림 2.5-83

DISPLACEMENT CONTOURS OF UNIT 5



Contour interval : 2.50E-04
 Minimum : -2.50E-03
 Maximum : 0.00E+00

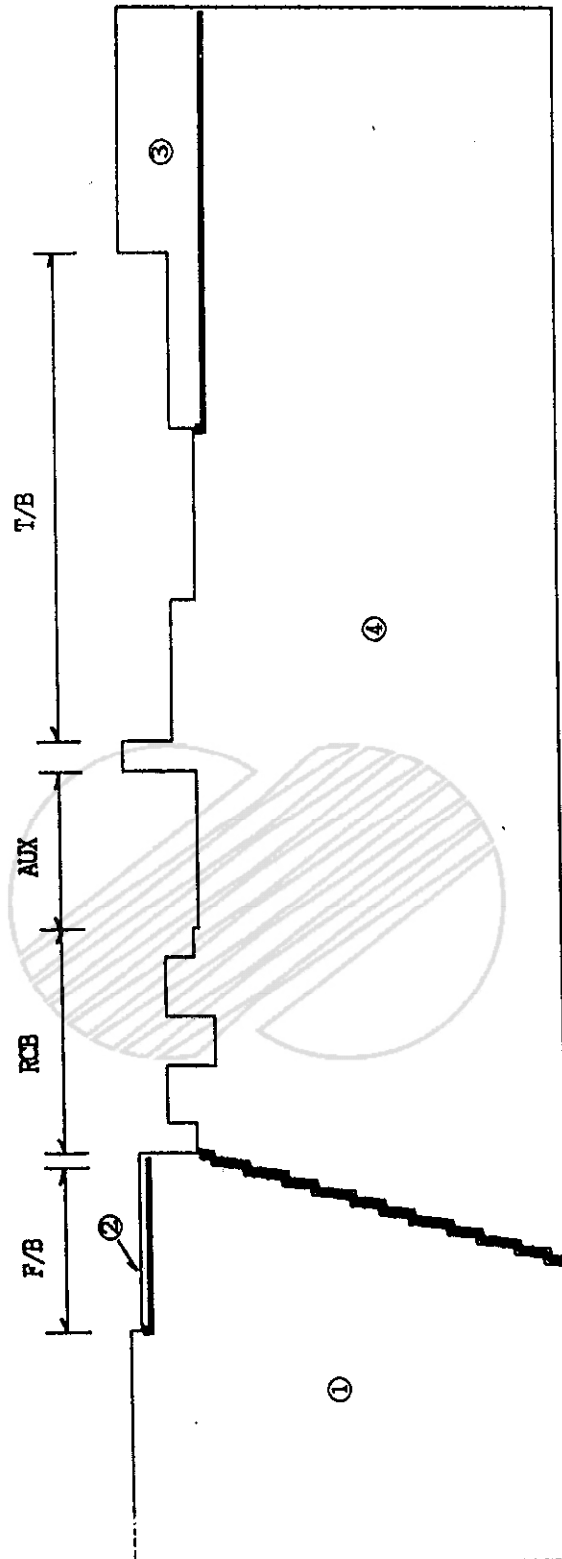


한국수력원자력주식회사
 영광 5, 6 호기
 최종안전성분석보고서

등변위도 (5호기)

그림 2.5-84

BOUNDARY PLOT OF FOUNDATION FOR UNIT 6



- ① Fuel Bldg
- ② Minor Fractured Zone
- ③ Fractured Zone
- ④ Reactor & Other Bldgs

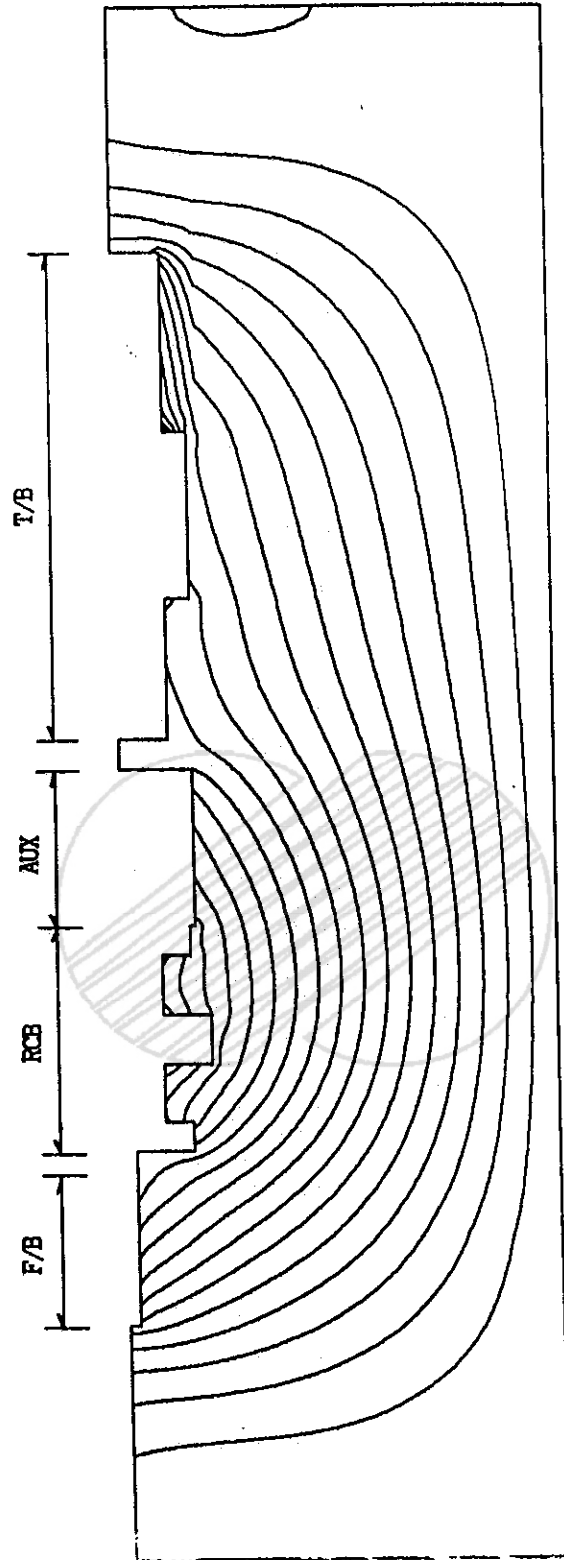


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

기초 지반 경계도 (6호기)

그림 2.5-85

DISPLACEMENT CONTOURS OF UNIT 6



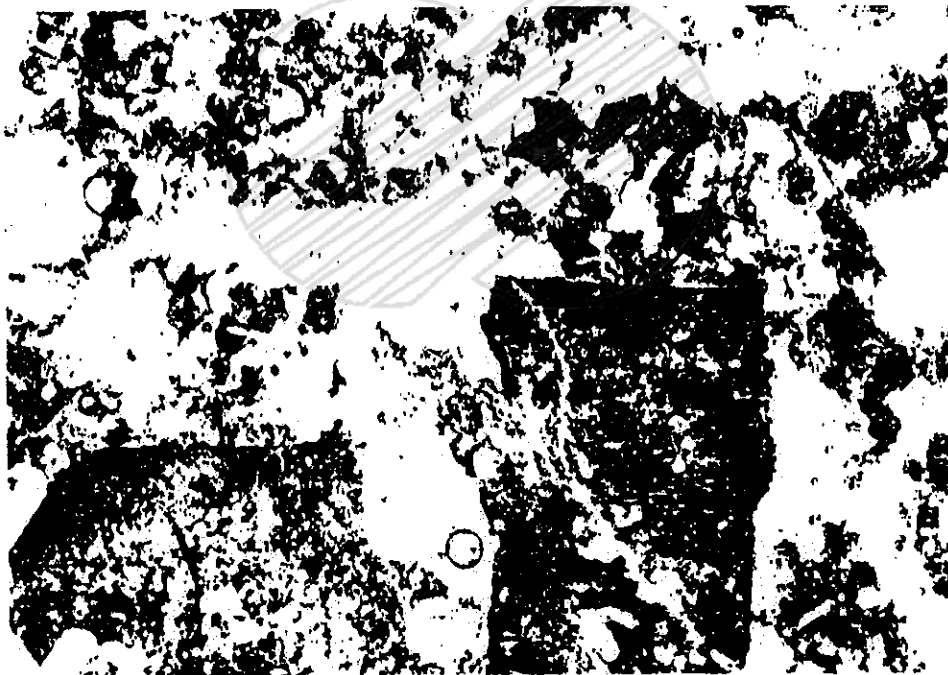
Contour interval : 5.00E-05
 Minimum : -8.50E-04
 Maximum : 0.00E+00



한국수력원자력주식회사
 영광 5, 6 호기
 최종안전성분석보고서

등변위도 (6호기)

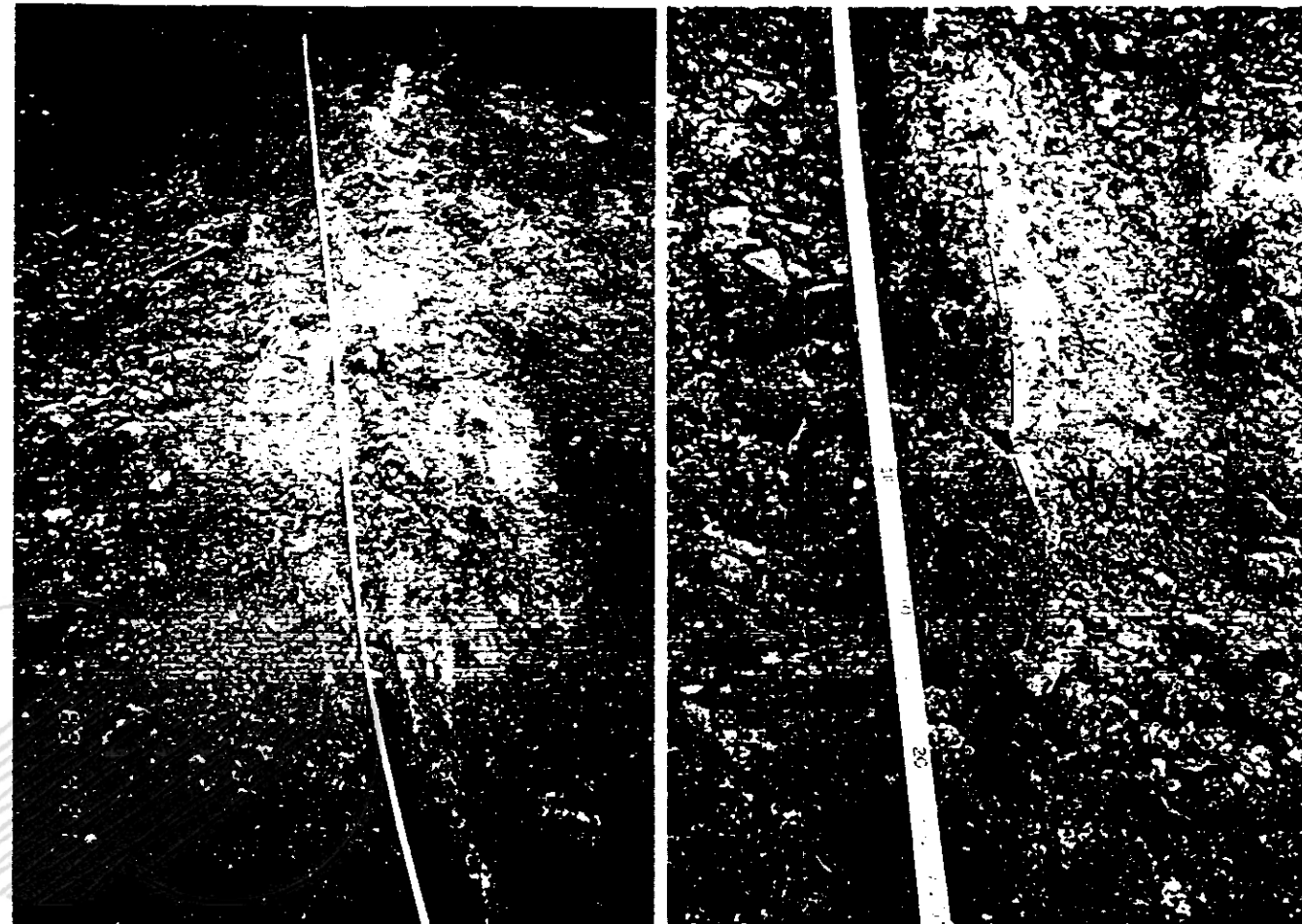
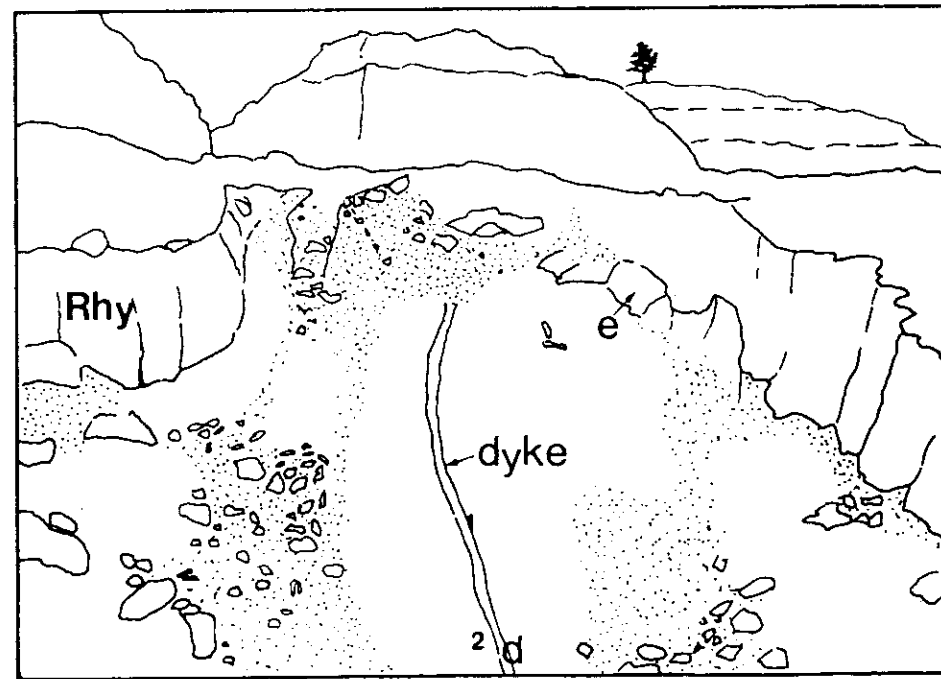
그림 2.5-86



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

부지 분포 암석의 박편현미경분석

그림 2.5-87

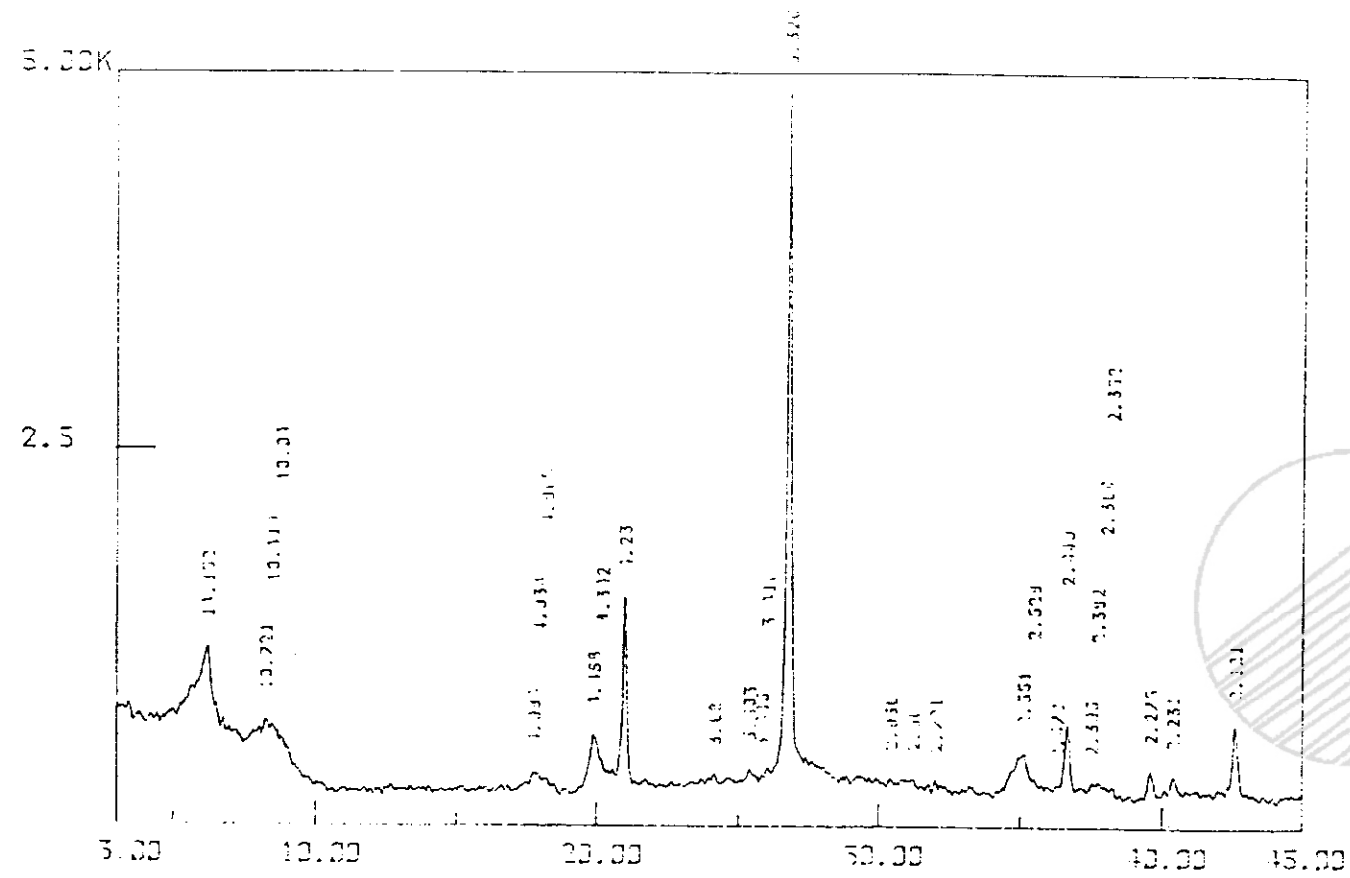


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물 지역의 Felsic dyke

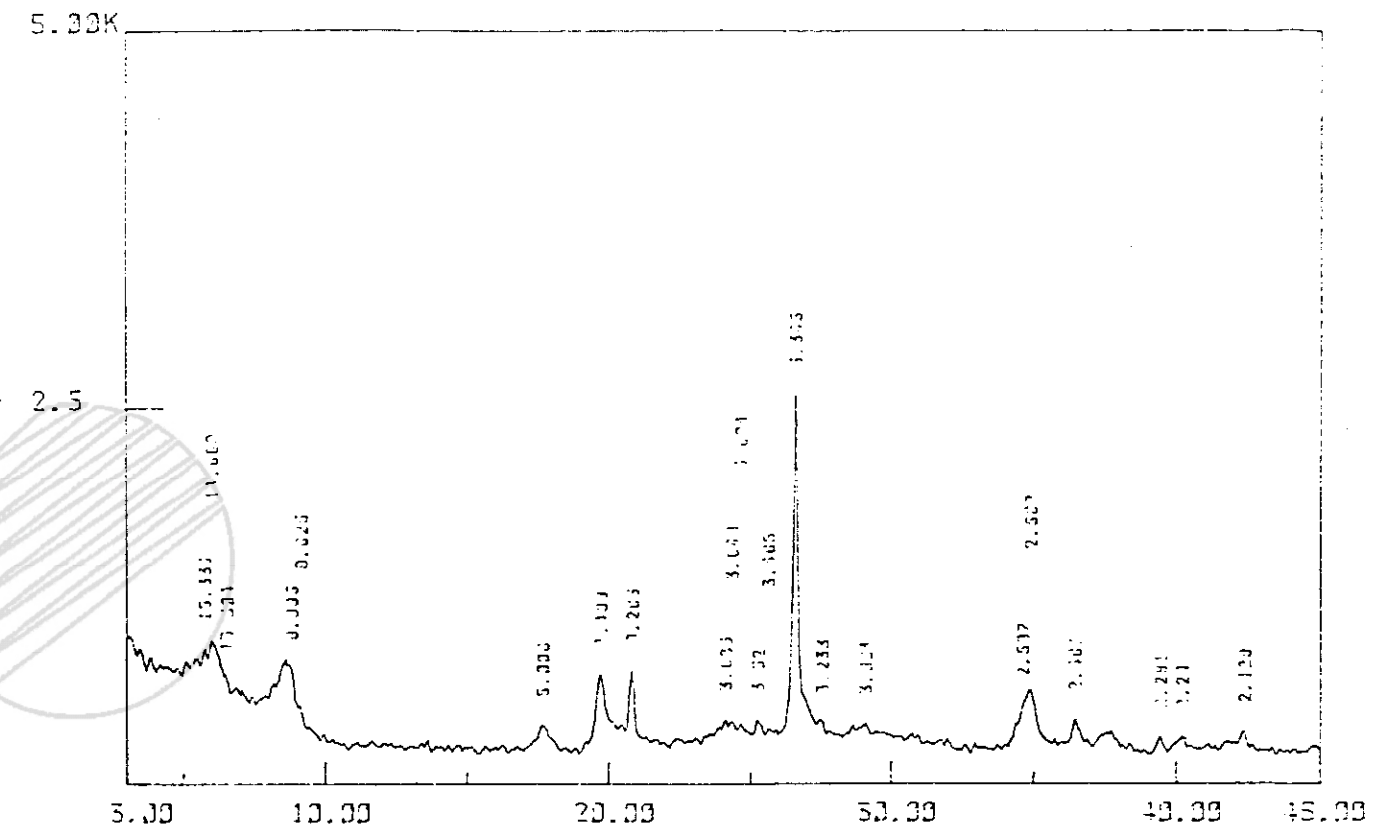
그림 2.5-88

Sample Name : 973525cn31



1) 5호기 핵연료건물 기초지반

Sample Name : 973525cn33



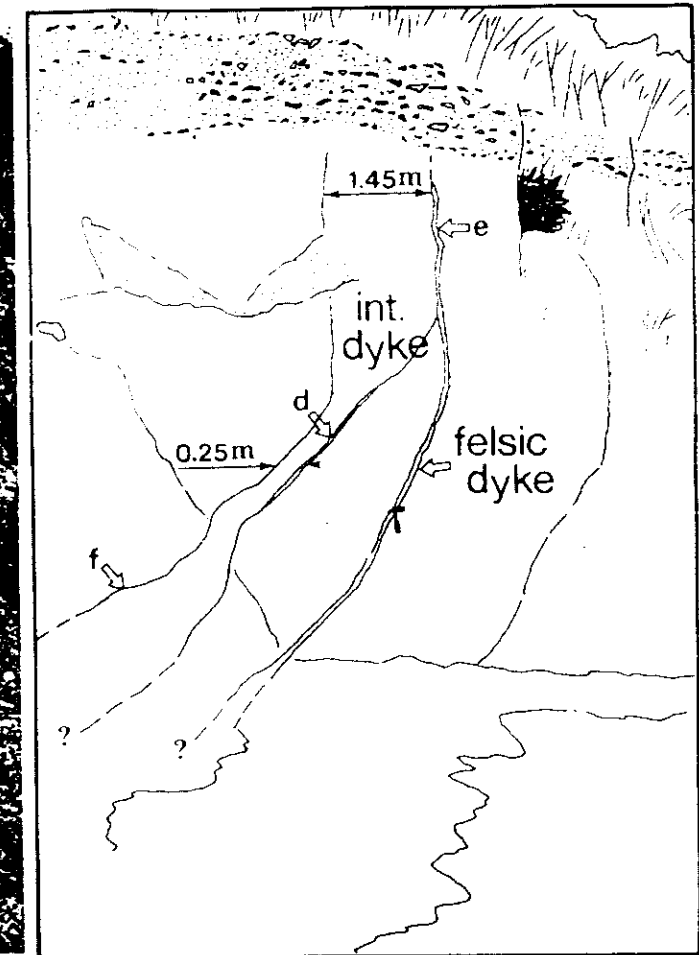
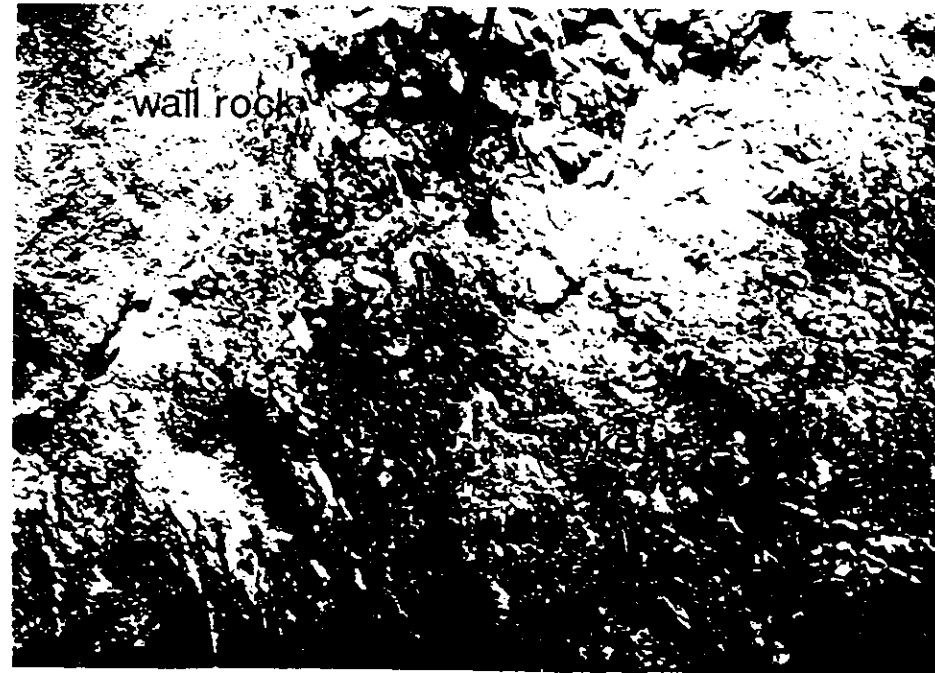
2) 제4기층에 의해 피복된 중성암맥 분포지역



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최종안전성분석보고서

점토광물의 XRD 분석결과

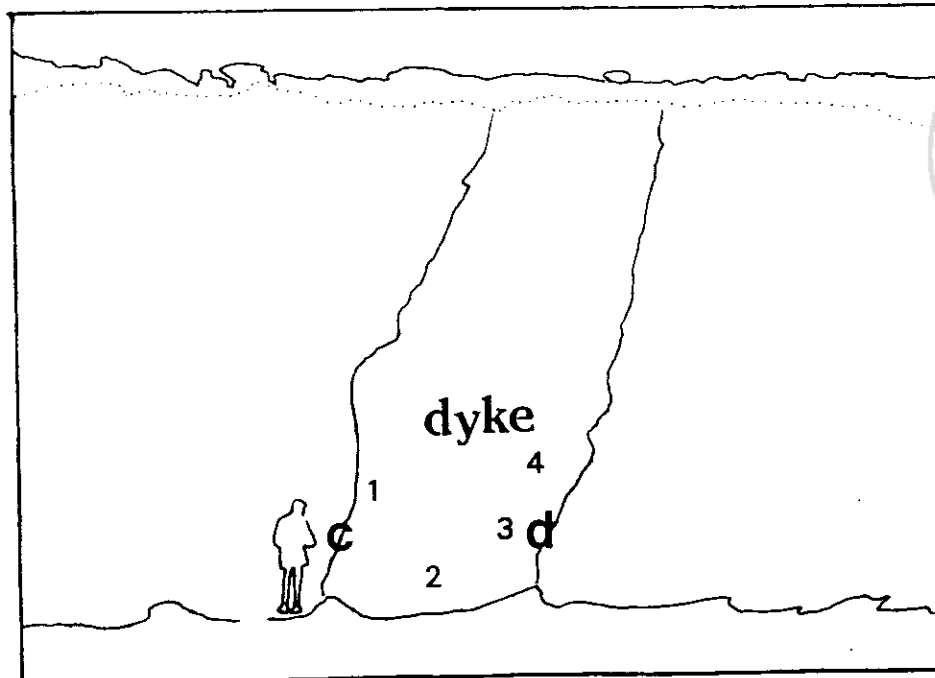
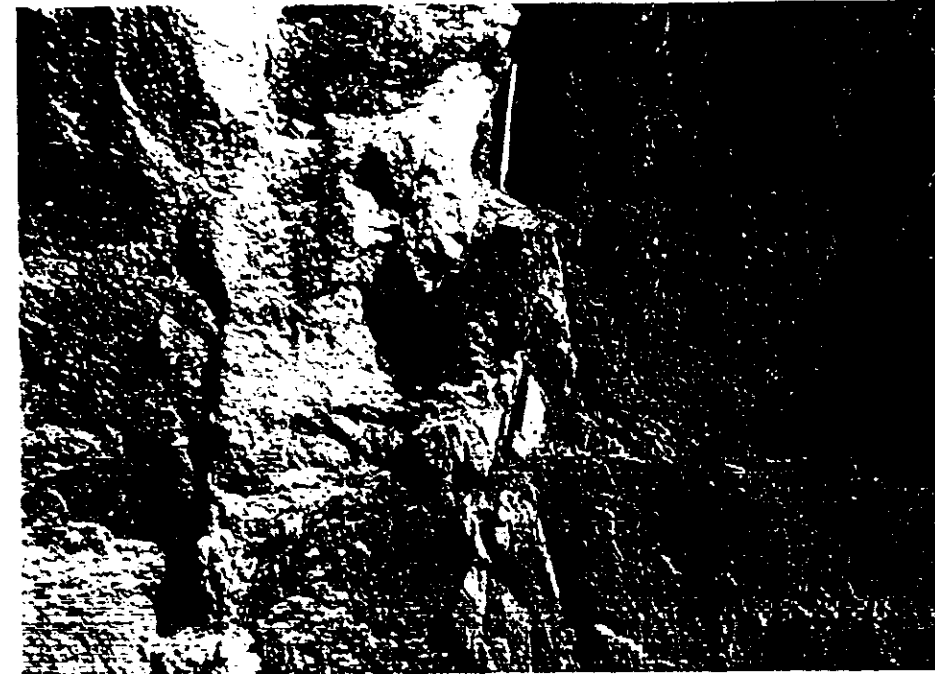
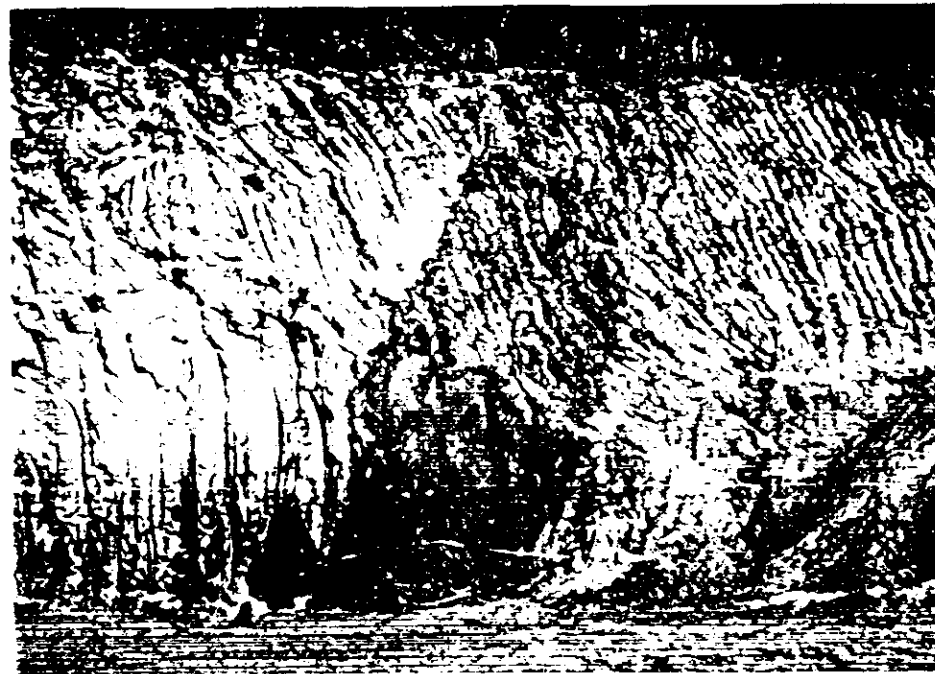
그림 2.5-89



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영광 5, 6 호기
최종안전성분석보고서

Granophyre내의 중성암맥(제4기층 피복)

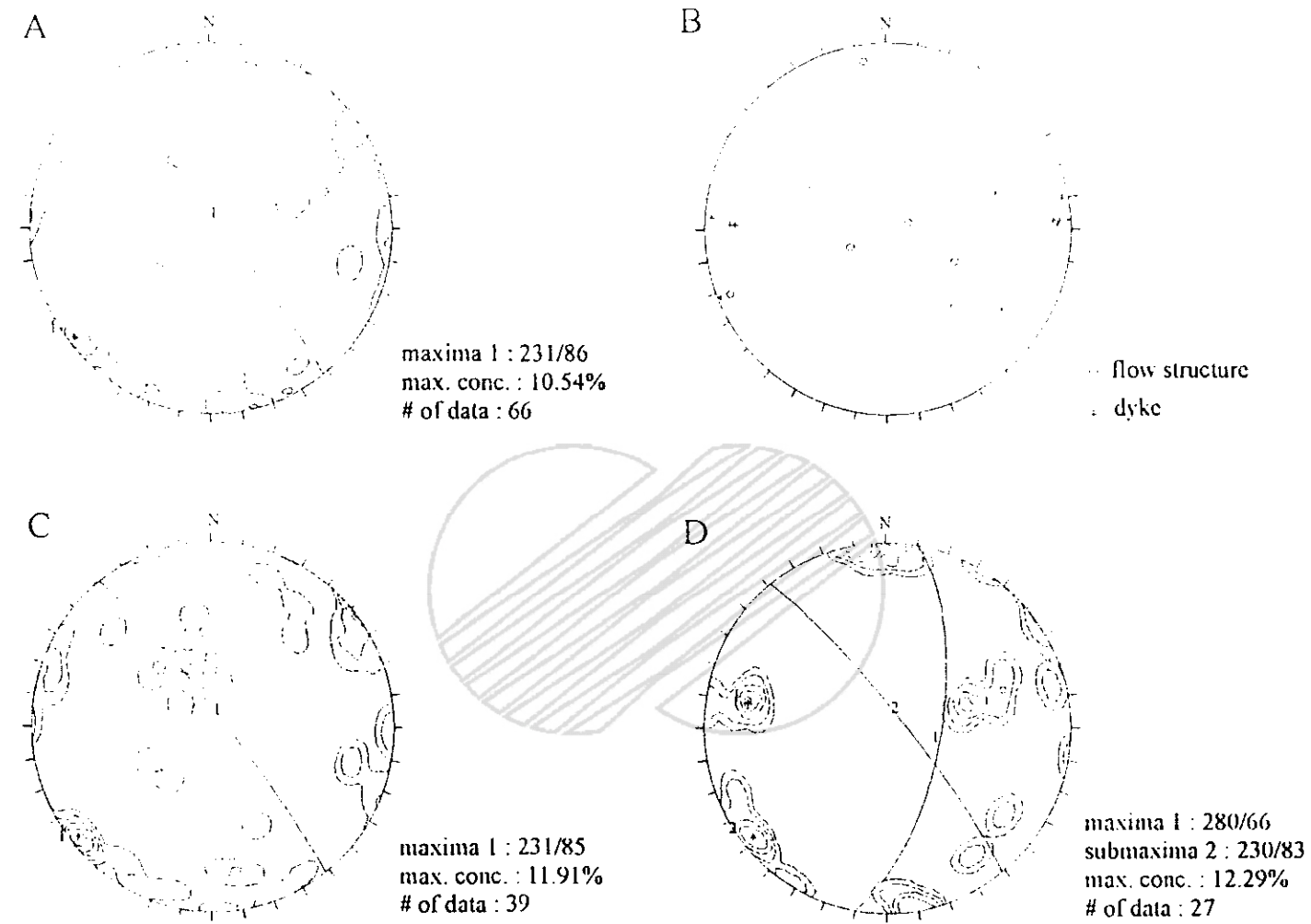
그림 2.5-90



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영광 5, 6 호기
최종안전성분석보고서

Granophyre내의 중성암맥

그림 2.5-91



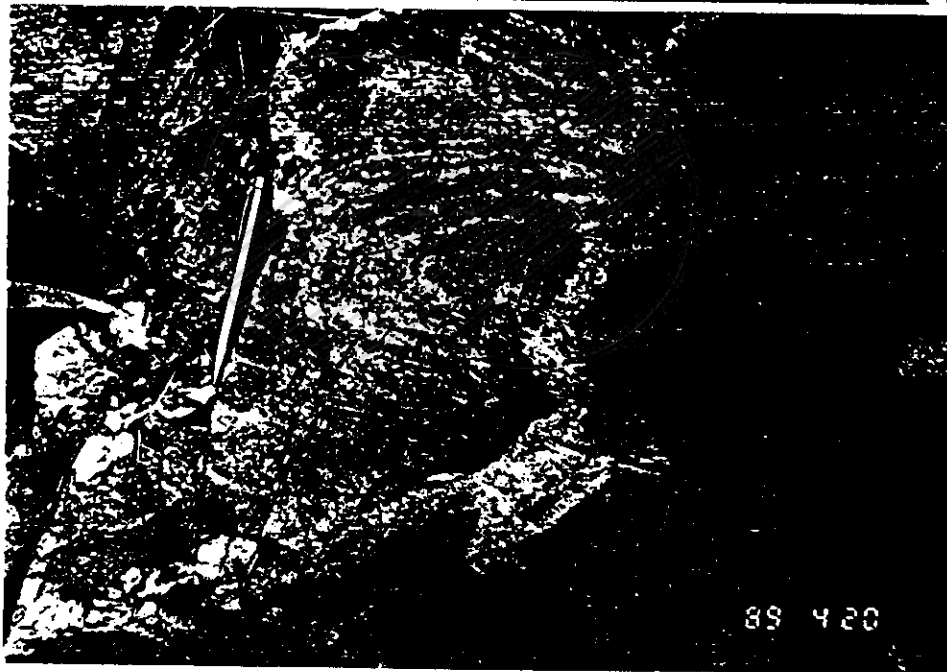
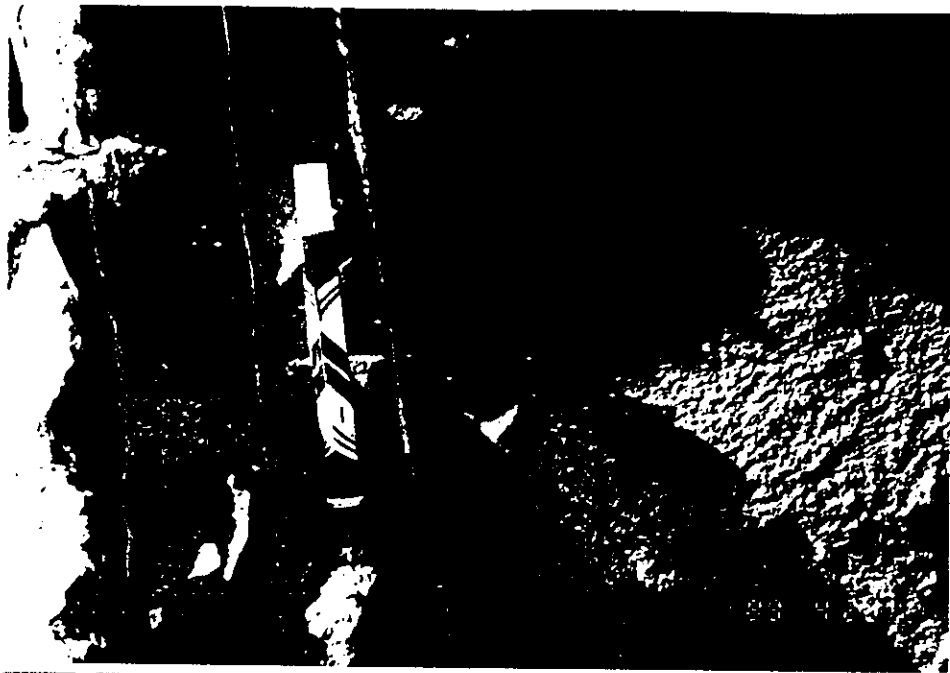
Lower hemisphere, equal-area stereographic projections of discontinuities: A - total joints, B - poles of dykes and primary flow structures, C - joints of the hill slope of YGN 4 & 5 and D - nearby around areas.



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영광 5, 6 호기
최종안전성분석보고서

4,5호기 영구사면내의 불연속면 분포도

그림 2.5-92

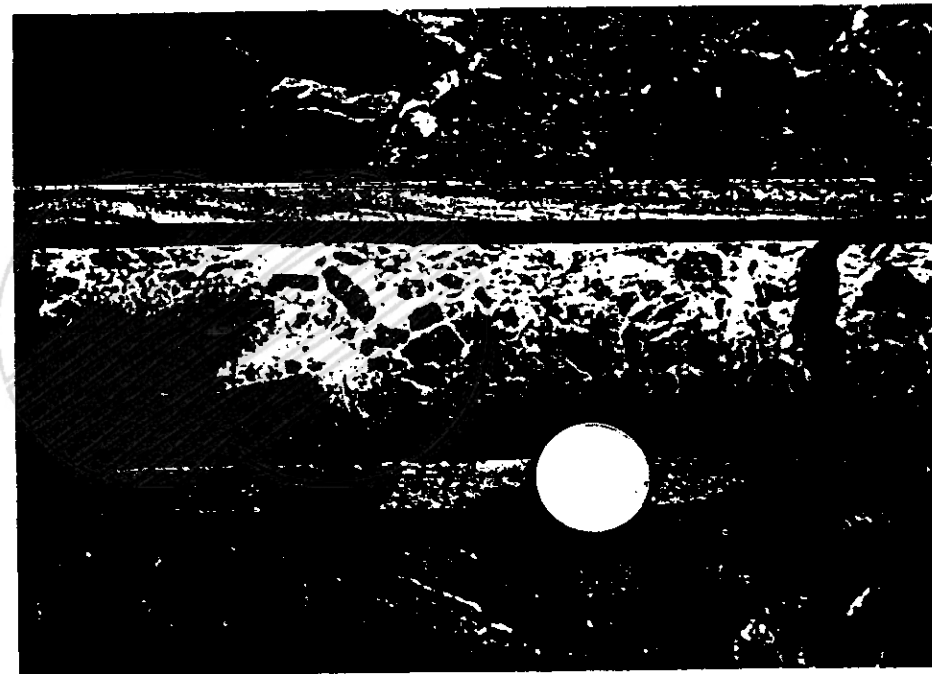
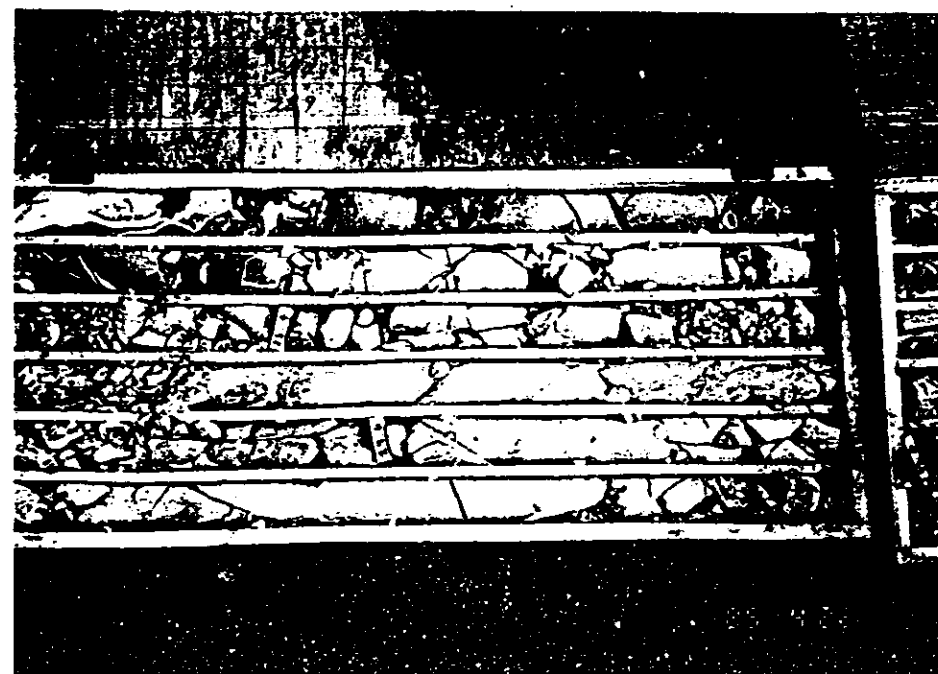
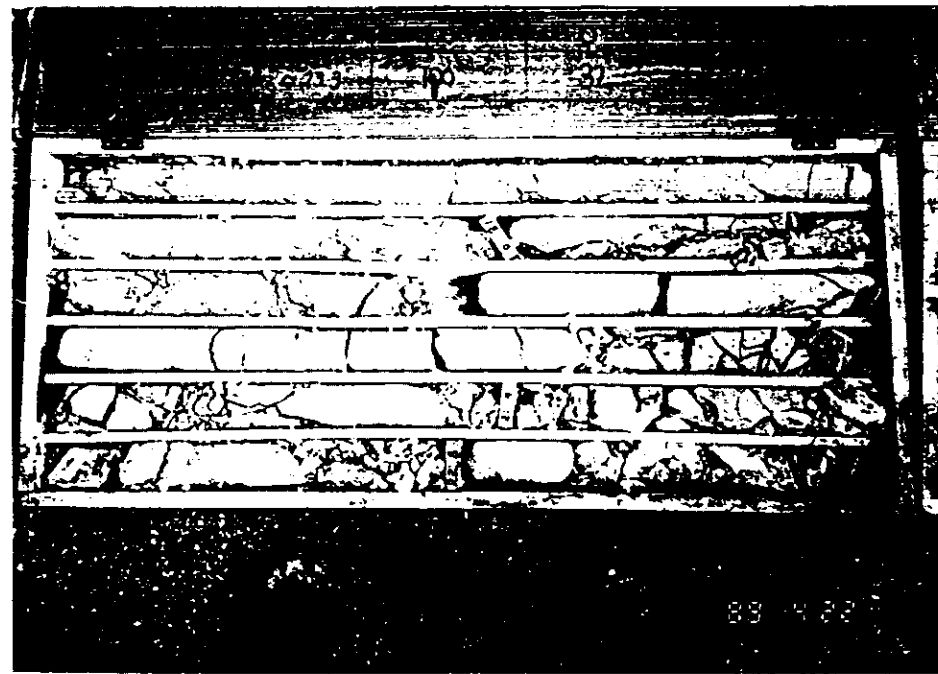
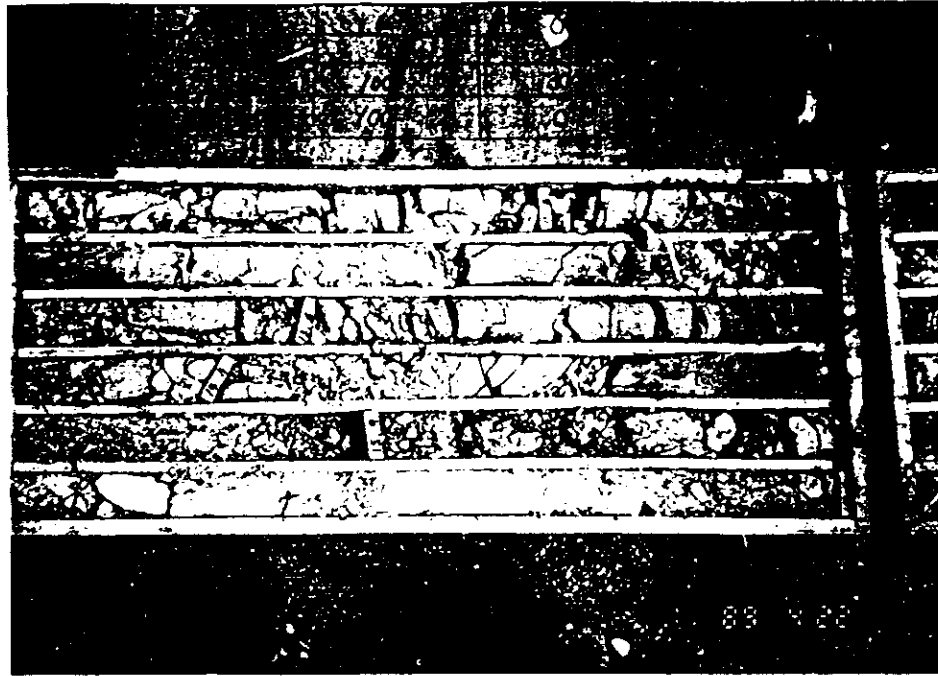


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영광 5, 6 호기
최종안전성분석보고서

금정산 계곡지역의 암상구조

그림 2.5-93

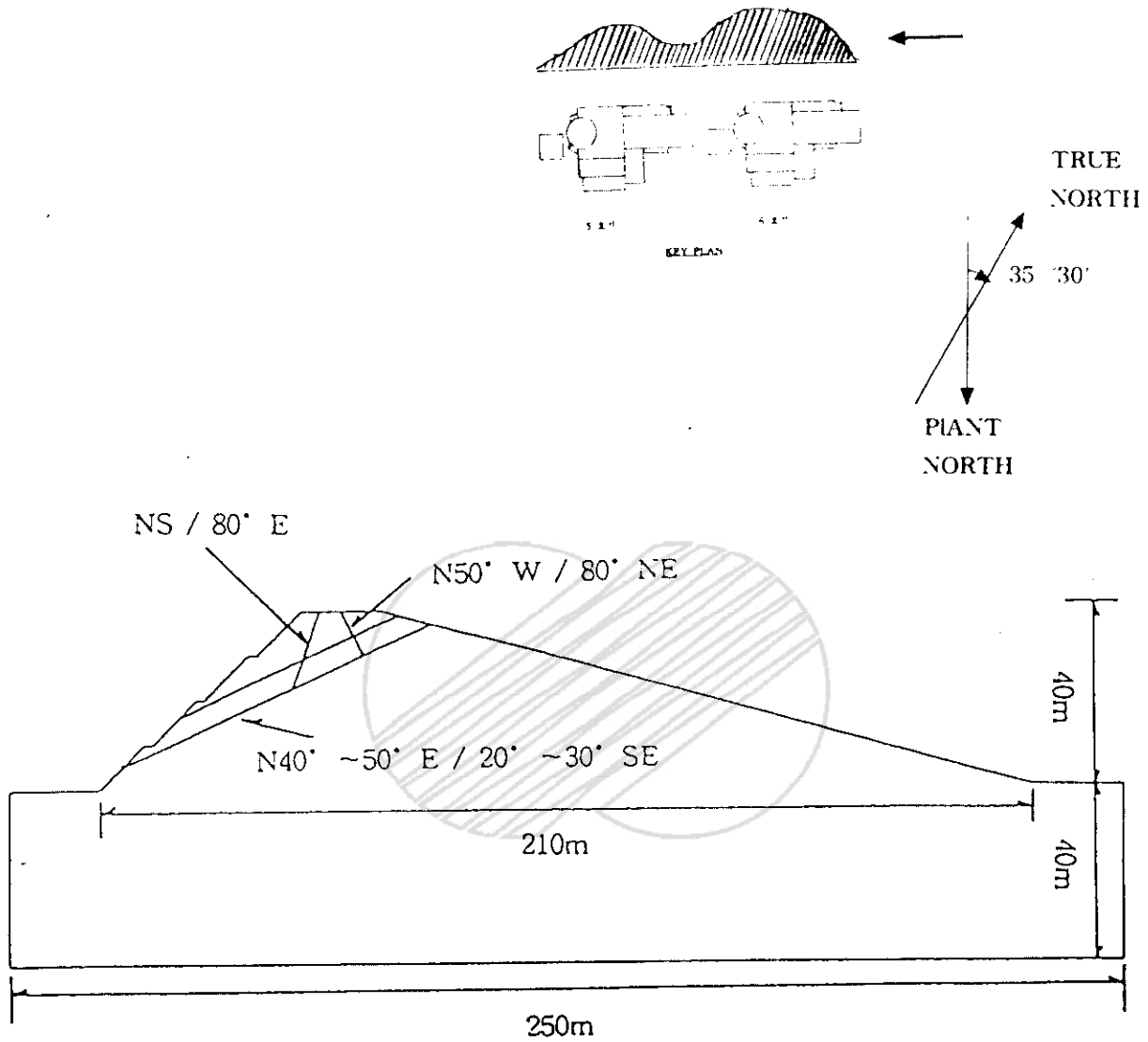
()



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물지역 시추코아

그림 2.5-94



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

사면해석 모델

그림 2.5-95



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물 기초지질도 및
추가지질조사위치도

그림 2.5-96

()



한국수력원자력주식회사
영광 5. 6 호기
최종안전성분석보고서

5호기 핵연료건물 추가지질조사 지질단면도
(A-A')

그림 2.5-97

()



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물 추가지질조사 지질단면도
(B-B')

그림 2.5-98

()



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영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물 추가지질조사 지질단면도
(C-C')

그림 2.5-99

()



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물 추가지질조사 지질단면도
(D-D')

그림 2.5-100

()




한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물 추가지질조사 지질단면도
(E-E')

그림 2.5-101

()



	<p>한국수력원자력주식회사 영광 5, 6 호기 최종안전성분석보고서</p>
<p>5호기 핵연료건물 추가지질조사 지질단면도 (F-F')</p>	
<p>그림 2.5-102</p>	



한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

5호기 핵연료건물 기초보강 단면도

그림 2.5-103

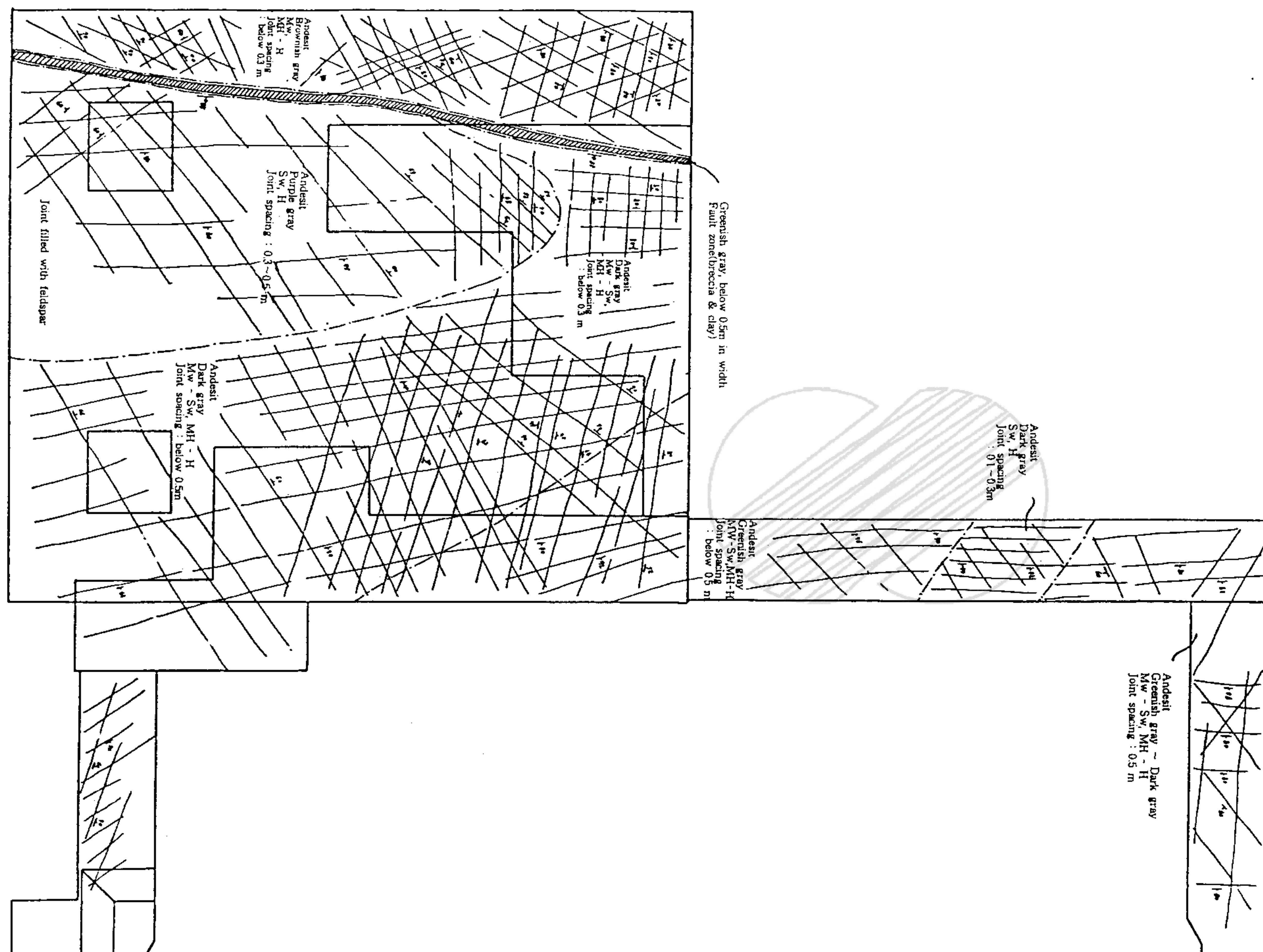


한국수력원자력주식회사
영광 5, 6 호기
최종안전성분석보고서

영구사면 표면보호 시공도 및
배수로 설치도
그림 2.5-104



	:	Rock Boundary
	:	Fault
	:	Joint
MW	:	Moderately Weathered
SW	:	Slightly Weathered
MH	:	Medium Hard
H	:	Hard



5호기 핵연료건물 기초지질도
그림 2.5-105

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영광 5,6호기 최종안전성분석보고서

표 2.5-1

영광부지 해양저 물질

A. SURFICIAL SEDIMENT SAMPLES			
SAMPLE NO.	LOCATION		FIELD CLASSIFICATION ⁽¹⁾
	B-LINE	FIX NO.	
1	2	20	A
2	2	40	A
3 ⁽²⁾	3	60	A
4	6	20	A
5	6	30	A
6	6	40	A
7	6	50	A
8	6	60	A
9	10	5	A
10	10	20	A
11	10	30	A
12	10	40	A
13	10	50	A
14	10	60	A
15	10	75	A
16	13	30	A
17	13	35	A
18	13	40	A
19	13	45	A
20	13	50	B
21	15	40	A
22	16	5	A
23	16	20	A
24	16	30	A
25	16	35	A
26	16	40	A
27	16	45	A
28	16	50	A
29	16	60	B
30	16	75	A
31	17	40	A
32	18	25	B
33	18	30	A
34	18	35	A
35	18	40	A
36	18	45	A
37	18	50	A
38	18	55	B
39	21	5	A
40	20	20	B
41	21	25	A
42	21	30	A
43	21	35	A
44	20	40	A
45 ⁽²⁾	20	45	B
46 ⁽²⁾	20	50	C
47	20	55	C
48	19	60	C
49	19	75	C
B. ROCK DREDGE SAMPLE			
D1A	7	37	Gneiss
D1B	7	37	Gneiss
D1C	7	37	Schist

⁽¹⁾Field Classification :
A = Gray silt with trace to fine sand
B = Brown-gray fine sandy silt
C = Fine sand.
⁽²⁾Laboratory tested for grain size.

영광 5,6호기 최종안전성분석보고서

표 2.5-2 (11 중 1)

유감지진 및 계기지진 목록

DATE YEAR MO DA	GMT HR MN	SEC	LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
			LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1905	6	2	5	41	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1905	7	6	16	10	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1905	7	9	4	2	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1905	9	29	11	32	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1905	9	29	11	40	0.0	34.783N	126.583E	-	JMA I	70.12	4	SUPP. SHP
1905	10	24	1	24	0.0	37.783N	126.583E	-	JMA I	265.16	3	SUPP. SHP
1905	11	21	22	22	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1905	12	8	3	13	0.0	37.417N	126.600E	-	JMA I	224.67	3	SUPP. SHP
1905	12	10	18	19	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1905	12	10	23	9	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1905	12	12	1	33	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1906	4	6	5	5	0.0	37.417N	126.417E	-	JMA I	224.09	3	SUPP. SHP
1906	6	19	11	39	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1906	6	24	11	21	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1906	9	6	18	57	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1906	10	24	14	59	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1906	10	31	1	53	0.0	37.433N	126.583E	-	JMA I	226.34	3	SUPP. SHP
1906	12	28	18	30	0.0	37.417N	126.417E	-	JMA I	224.09	3	SUPP. SHP
1907	3	3	21	15	0.0	35.417N	126.583E	-	JMA I	14.94	4	SUPP. SHP
1907	10	19	10	25	0.0	39.183N	127.433E	-	JMA I	429.87	2	SUPP. SHP
1908	4	13	16	40	0.0	40.100N	124.383E	-	JMA I	552.34	? 2	SUPP. SHP
1908	4	13	22	19	0.0	39.183N	127.433E	-	JMA I	429.87	? 2	SUPP. SHP
1909	10	17	17	45	0.0	34.783N	126.383E	-	JMA I	68.61	4	SUPP. SHP
1910	1	8	14	49	30.0	35.000N	122.000E	0	6.75	405.36	1	ISC. GUTE
1910	1	8	14	49	30.0	35.000N	122.000E	-	6.75	405.36	1	NOAA. G-R
1911	2	26	0	40	0.0	34.783N	125.783E	-	JMA I	89.87	3	SUPP. SHP
1911	7	8	18	25	0.0	34.783N	125.783E	-	JMA I	89.87	3	SUPP. SHP
1911	8	15	21	23	0.0	36.250N	126.833E	-	JMA I	101.54	3	SUPP. SHP
1912	2	2	11	27	0.0	39.183N	127.433E	-	JMA II	429.87	? 2	SUPP. SHP
1913	5	11	16	35	0.0	36.250N	126.833E	-	JMA II	101.54	3	SUPP. SHP
1913	8	28	4	20	0.0	36.500N	126.500E	-	JMA I	122.41	3	SUPP. SHP
1913	12	10	17	5	0.0	35.967N	126.833E	-	JMA I	73.26	4	SUPP. SHP
1914	3	3	8	16	0.0	35.967N	126.833E	-	JMA I	73.26	4	SUPP. SHP
1914	4	10	13	12	0.0	35.500N	128.450E	-	JMA II	184.83	6	SUPP. SHP
1914	4	16	2	30	0.0	34.983N	127.483E	-	JMA I	107.42	5	SUPP. SHP
1914	5	9	19	38	0.0	36.650N	126.533E	-	JMA I	139.24	3	SUPP. SHP
1914	10	18	10	2	0.0	36.250N	127.000E	-	JMA I	108.02	4	SUPP. SHP
1914	11	20	18	3	0.0	35.500N	128.500E	-	JMA III	189.37	6	SUPP. SHP
1914	12	23	6	16	0.0	35.000N	128.000E	-	JMA III	150.74	6	SUPP. SHP
1915	1	2	17	9	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1915	1	7	13	45	0.0	36.833N	128.633E	-	JMA I	255.19	5	SUPP. SHP
1915	3	16	9	20	0.0	38.733N	125.133E	-	JMA I	387.66	2	SUPP. SHP
1915	3	31	1	10	0.0	35.467N	128.500E	-	JMA I	189.23	6	SUPP. SHP
1915	4	14	15	39	0.0	37.750N	128.900E	-	JMA I	342.84	3	SUPP. SHP
1915	7	20	21	10	0.0	34.783N	126.383E	-	JMA I	68.61	4	SUPP. SHP
1915	8	22	10	53	0.0	39.017N	125.817E	-	JMA II	405.47	2	SUPP. SHP
1915	9	28	6	21	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1915	10	21	15	25	0.0	33.517N	126.583E	-	JMA I	209.65	8	SUPP. SHP
1915	12	29	23	30	0.0	35.150N	128.567E	-	JMA I	197.51	6	SUPP. SHP
1916	3	26	2	51	0.0	33.517N	126.533E	-	JMA I	209.37	8	SUPP. SHP
1916	5	27	15	55	0.0	36.000N	127.000E	-	JMA I	84.87	4	SUPP. SHP
1916	6	8	1	6	0.0	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1916	11	24	1	23	0.0	40.100N	124.433E	-	JMA I	550.92	? 2	SUPP. SHP
1917	3	14	8	54	0.0	36.417N	129.133E	-	JMA I	269.94	6	SUPP. SHP
1917	4	20	10	1	0.0	37.750N	126.500E	-	JMA I	261.19	3	SUPP. SHP
1917	5	28	9	37	0.0	40.000N	124.500E	-	JMA III	538.54	? 2	SUPP. SHP
1917	8	13	6	26	0.0	34.500N	126.500E	-	JMA I	100.22	4	SUPP. SHP

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영광 5,6호기 최종안전성분석보고서

표 2.5-2 (11 중 2)

DATE YEAR	MO	DA	GMT		SEC	LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
			HR	MIN		LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1917	11	12	22	22	0.0	35.183N	128.550E	-			JMA II		195.46	6	SUPP. SHP
1918	1	2	17	25	0.0	39.017N	125.817E	-			JMA I		405.47	2	SUPP. SHP
1918	2	21	13	18	0.0	40.100N	124.433E	-			JMA I		550.92	? 2	SUPP. SHP
1918	5	6	13	0	0.0	38.733N	128.183E	-			JMA I		402.22	2	SUPP. SHP
1918	5	21	20	57	0.0	37.417N	126.583E	-			JMA I		224.56	3	SUPP. SHP
1918	6	3	11	0	0.0	38.733N	128.183E	-			JMA I		402.22	2	SUPP. SHP
1918	7	13	14	13	0.0	37.417N	126.583E	-			JMA I		224.56	3	SUPP. SHP
1918	8	23	11	21	0.0	36.250N	127.000E	-			JMA I		108.02	4	SUPP. SHP
1918	9	20	23	30	0.0	36.450N	127.117E	-			JMA I		132.55	4	SUPP. SHP
1918	10	30	21	20	0.0	35.467N	128.500E	-			JMA I		189.23	6	SUPP. SHP
1918	11	23	1	43	0.0	36.417N	129.133E	-			JMA I		269.94	6	SUPP. SHP
1919	1	23	5	51	0.0	35.183N	128.550E	-			JMA I		195.46	6	SUPP. SHP
1919	5	27	12	29	0.0	36.200N	127.083E	-			JMA I		107.22	4	SUPP. SHP
1919	7	13	20	7	0.0	36.983N	127.083E	-			JMA I		185.72	3	SUPP. SHP
1919	7	31	23	10	0.0	36.250N	126.833E	-			JMA I		101.54	3	SUPP. SHP
1919	11	5	7	41	0.0	37.500N	127.500E	-			JMA II		252.64	3	SUPP. SHP
1919	12	22	7	53	0.0	34.783N	126.383E	-			JMA III		68.61	4	SUPP. SHP
1920	1	27	15	0	0.0	36.483N	127.717E	-			JMA I		167.93	4	SUPP. SHP
1920	2	6	4	15	0.0	36.550N	127.867E	-			JMA II		182.73	4	SUPP. SHP
1920	2	6	14	0	0.0	36.483N	127.717E	-			JMA I		167.93	4	SUPP. SHP
1920	3	19	19	7	0.0	40.750N	125.800E	-			JMA II		597.09	? 2	SUPP. SHP
1920	10	17	11	0	0.0	36.417N	128.167E	-			JMA I		194.13	5	SUPP. SHP
1920	12	5	19	50	0.0	36.250N	127.000E	-			JMA I		108.02	4	SUPP. SHP
1920	12	5	21	19	0.0	36.250N	127.000E	-			JMA I		108.02	4	SUPP. SHP
1920	12	6	2	1	0.0	37.350N	127.950E	-			JMA I		256.56	3	SUPP. SHP
1920	12	31	23	36	0.0	36.333N	127.250E	-			JMA II		127.96	4	SUPP. SHP
1921	1	16	0	10	0.0	36.733N	128.067E	-			JMA I		209.74	4	SUPP. SHP
1921	1	16	0	27	0.0	36.883N	128.300E	-			JMA II		236.29	4	SUPP. SHP
1921	1	24	6	14	-	37.750N	126.833E	-			JMA I		263.70	3	SUPP. SHP
1921	2	11	11	30	0.0	36.483N	127.717E	-			JMA I		167.93	4	SUPP. SHP
1921	3	20	12	26	0.0	35.833N	129.217E	-			JMA II		258.20	6	SUPP. SHP
1921	4	2	12	10	0.0	36.433N	129.050E	-			JMA I		263.89	6	SUPP. SHP
1921	4	14	9	20	0.0	35.983N	126.717E	-			JMA I		70.13	4	SUPP. SHP
1921	11	15	13	51	0.0	35.100N	129.033E	-			JMA I		240.39	6	SUPP. SHP
1922	2	4	7	30	0.0	36.483N	127.717E	-			JMA I		167.93	4	SUPP. SHP
1922	8	21	6	25	0.0	36.550N	127.867E	-			JMA I		182.73	4	SUPP. SHP
1922	12	7	16	50	0.0	35.100N	129.033E	-			JMA I		240.39	6	SUPP. SHP
1922	12	14	0	0	0.0	34.883N	127.883E	-			JMA I		145.30	6	SUPP. SHP
1923	1	2	14	20	0.0	36.483N	127.717E	-			JMA I		167.93	4	SUPP. SHP
1923	1	12	13	17	0.0	36.667N	127.750E	-			JMA III		184.96	4	SUPP. SHP
1923	2	12	13	30	0.0	37.500N	127.500E	-			JMA I		252.64	3	SUPP. SHP
1923	3	30	12	27	0.0	36.000N	127.000E	-			JMA II		84.87	4	SUPP. SHP
1923	8	27	18	58	0.0	36.200N	127.083E	-			JMA I		107.22	4	SUPP. SHP
1923	12	27	8	11	0.0	36.250N	126.833E	-			JMA I		101.54	3	SUPP. SHP
1924	2	23	5	29	0.0	33.517N	126.550E	-			JMA I		209.45	8	SUPP. SHP
1924	4	6	17	39	0.0	37.983N	125.333E	-			JMA I		303.01	2	SUPP. SHP
1924	4	12	18	8	0.0	36.200N	127.083E	-			JMA I		107.22	4	SUPP. SHP
1924	8	28	23	50	36.0	33.500N	131.000E	0 6.0	-		-		471.14	11	ISC. GUTE
1924	8	28	23	50	36.0	33.500N	131.000E	-			6.00	-	471.14	11	NOAA, G-R
1925	1	16	11	30	0.0	37.033N	128.383E	-			JMA I		253.24	4	SUPP. SHP
1925	4	4	22	56	0.0	34.100N	126.583E	-			JMA III		145.15	5	SUPP. SHP
1925	5	11	10	23	0.0	35.567N	126.867E	-			JMA I		44.65	4	SUPP. SHP
1925	6	6	23	55	-	37.417N	126.583E	-			JMA I		224.56	3	SUPP. SHP
1925	6	6	23	55	0.0	37.417N	126.583E	-			JMA I		224.56	3	SUPP. SHP
1925	8	19	2	42	0.0	36.500N	127.000E	-			JMA I		132.95	3	SUPP. SHP
1925	9	3	22	19	0.0	36.250N	128.333E	-			JMA III		197.14	5	SUPP. SHP
1925	12	9	7	6	0.0	36.600N	126.667E	-			JMA III		135.16	3	SUPP. SHP
1925	12	14	13	53	0.0	36.600N	126.667E	-			JMA I		135.16	3	SUPP. SHP
1926	2	5	13	8	0.0	39.300N	126.633E	-			JMA III		433.79	2	SUPP. SHP
1926	2	13	4	45	0.0	35.183N	128.550E	-			JMA I		195.46	6	SUPP. SHP

영광 5,6호기 최종안전성분석보고서

표 2.5-2 (11 중 3)

DATE YEAR MO DA	GMT HR MN	SEC	LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
			LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1926	3	18	8	19	0.0	35.817N	127.150E	-	JMA II	80.81	4	SUPP. SHP
1926	5	8	10	35	0.0	36.200N	127.083E	-	JMA I	107.22	4	SUPP. SHP
1926	6	2	14	28	0.0	37.433N	129.167E	-	JMA I	334.42	4	SUPP. SHP
1926	6	3	9	50	0.0	35.817N	127.150E	-	JMA I	80.81	4	SUPP. SHP
1926	7	20	16	20	0.0	35.817N	127.150E	-	JMA I	80.81	4	SUPP. SHP
1926	7	24	12	32	0.0	36.833N	128.633E	-	JMA I	255.19	5	SUPP. SHP
1926	8	1	3	33	0.0	34.783N	126.383E	-	JMA II	68.61	4	SUPP. SHP
1926	10	4	23	43	0.0	36.250N	128.333E	-	JMA II	197.14	5	SUPP. SHP
1926	11	4	7	30	0.0	39.183N	127.433E	-	JMA I	429.87	2	SUPP. SHP
1927	1	24	6	14	0.0	37.750N	126.833E	-	JMA I	263.70	3	SUPP. SHP
1927	2	3	3	53	10.0	33.500N	121.000E	0 6.5	-	541.30	? 1	ISC, GUTE
1927	2	3	3	53	10.0	33.500N	121.000E	-	6.50	541.30	? 1	NOAA, G-R
1927	5	11	16	12	0.0	36.500N	127.000E	-	JMA I	132.95	3	SUPP. SHP
1927	5	21	1	25	0.0	35.183N	128.550E	-	JMA I	195.46	6	SUPP. SHP
1927	9	19	2	35	0.0	36.250N	127.000E	-	JMA I	108.02	4	SUPP. SHP
1927	11	30	15	47	0.0	38.033N	125.700E	-	JMA I	299.54	3	SUPP. SHP
1927	12	4	21	11	0.0	37.500N	127.500E	-	JMA I	252.64	3	SUPP. SHP
1928	1	11	15	46	0.0	35.167N	127.167E	-	JMA III	72.79	5	SUPP. SHP
1928	3	24	18	55	0.0	35.167N	126.883E	-	JMA I	49.48	4	SUPP. SHP
1928	4	17	15	30	0.0	36.850N	128.850E	-	JMA I	271.85	5	SUPP. SHP
1928	4	18	15	30	0.0	36.850N	128.850E	-	JMA I	271.85	5	SUPP. SHP
1928	5	7	20	12	0.0	35.967N	128.933E	-	JMA I	236.28	6	SUPP. SHP
1928	6	29	19	27	0.0	35.200N	127.467E	-	JMA I	97.89	5	SUPP. SHP
1928	7	3	15	26	0.0	35.167N	126.833E	-	JMA I	45.66	4	SUPP. SHP
1928	7	14	16	30	0.0	36.483N	127.717E	-	JMA I	167.93	4	SUPP. SHP
1928	9	14	10	33	0.0	39.017N	125.817E	-	JMA I	405.47	2	SUPP. SHP
1928	11	30	18	1	0.0	35.817N	127.150E	-	JMA II	80.81	4	SUPP. SHP
1929	1	14	22	59	0.0	37.567N	126.717E	-	JMA I	242.22	3	SUPP. SHP
1929	1	30	2	14	0.0	37.417N	126.583E	-	JMA I	224.56	3	SUPP. SHP
1929	2	10	18	11	0.0	38.533N	125.567E	-	JMA I	356.32	2	SUPP. SHP
1929	12	18	4	3	0.0	35.067N	127.750E	-	JMA I	126.72	5	SUPP. SHP
1929	12	26	18	15	0.0	39.017N	125.817E	-	JMA II	405.47	2	SUPP. SHP
1930	5	1	21	7	-	36.250N	127.000E	-	JMA I	108.02	4	SUPP. SHP
1930	7	7	9	43	-	35.967N	127.650E	-	JMA I	128.03	5	SUPP. SHP
1930	8	12	6	44	-	37.567N	126.967E	-	JMA I	245.70	3	SUPP. SHP
1930	9	2	20	18	0.0	39.183N	127.433E	-	JMA I	429.87	2	SUPP. SHP
1930	9	12	10	56	-	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1930	9	16	22	0	-	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1930	5	1	21	7	0.0	36.250N	127.000E	-	JMA I	108.02	4	SUPP. SHP
1930	7	7	9	40	0.0	35.967N	127.650E	-	JMA I	128.03	5	SUPP. SHP
1930	8	12	6	44	0.0	37.567N	126.967E	-	JMA I	245.70	3	SUPP. SHP
1930	9	12	10	56	0.0	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1930	9	16	22	0	0.0	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1930	11	1	18	5	0.0	36.083N	129.500E	-	JMA I	289.05	7	SUPP. SHP
1930	11	19	13	10	0.0	36.483N	127.717E	-	JMA I	167.93	4	SUPP. SHP
1930	11	19	13	10	-	36.483N	127.717E	-	JMA I	167.93	4	SUPP. SHP
1930	12	19	19	18	0.0	37.967N	126.583E	-	JMA I	285.58	3	SUPP. SHP
1930	12	20	9	15	0.0	36.783N	126.450E	-	JMA II	153.66	3	SUPP. SHP
1930	12	20	9	15	-	37.783N	126.450E	-	JMA II	264.77	3	SUPP. SHP
1930	12	24	23	19	0.0	39.017N	125.817E	-	JMA I	405.47	2	SUPP. SHP
1932	2	3	17	0	0.0	39.733N	126.583E	-	JMA I	481.73	? 2	SUPP. SHP
1932	3	3	12	20	0.0	36.850N	128.850E	-	JMA I	271.85	5	SUPP. SHP
1932	3	14	13	53	0.0	35.817N	127.150E	-	JMA II	80.81	4	SUPP. SHP
1932	4	19	11	13	0.0	35.533N	128.500E	-	JMA I	189.58	6	SUPP. SHP
1932	7	7	10	58	0.0	39.017N	125.817E	-	JMA II	405.47	2	SUPP. SHP
1932	8	17	5	5	0.0	39.183N	127.433E	-	JMA II	429.87	2	SUPP. SHP
1932	8	22	11	12	37.0	36.000N	121.500E	0 6.25	-	450.69	1	ISC, GUTE
1932	8	22	11	12	37.0	36.000N	121.500E	-	6.25	450.69	1	NOAA, G-R
1932	8	24	16	9	0.0	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1932	10	28	2	48	0.0	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1932	10	28	23	16	0.0	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1932	12	9	2	54	-	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP
1932	12	16	13	10	0.0	35.567N	126.867E	-	JMA I	44.65	4	SUPP. SHP
1932	12	19	2	54	0.0	35.883N	128.617E	-	JMA I	206.30	6	SUPP. SHP

영광 5.6호기 최종안전성분석보고서

표 2.5-2 (11 중 4)

DATE			GMT		SEC	LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
YEAR	MO	DA	HR	MIN		LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1932	12	20	22	16	0.0	35.883N	128.617E	-				JMA I	206.30	6	SUPP. SHP
1933	1	16	11	27	0.0	35.883N	128.500E	-				JMA II	196.08	6	SUPP. SHP
1933	2	11	3	7	0.0	37.367N	128.400E	-				JMA I	281.75	4	SUPP. SHP
1933	3	7	12	57	0.0	35.883N	128.617E	-				JMA I	206.30	6	SUPP. SHP
1933	3	9	3	46	0.0	35.883N	128.617E	-				JMA I	206.30	6	SUPP. SHP
1933	5	21	4	37	0.0	36.000N	126.750E	-				JMA I	73.05	4	SUPP. SHP
1933	5	23	2	31	0.0	36.117N	125.967E	-				JMA I	89.59	3	SUPP. SHP
1933	5	24	14	15	0.0	34.833N	127.750E	-				JMA I	136.74	6	SUPP. SHP
1933	7	12	16	18	0.0	37.567N	126.967E	-				JMA I	245.70	3	SUPP. SHP
1933	12	15	20	59	0.0	36.000N	127.000E	-				JMA III	84.87	4	SUPP. SHP
1933	12	20	14	53	0.0	35.817N	127.150E	-				JMA III	80.81	4	SUPP. SHP
1934	5	14	3	14	0.0	36.117N	125.967E	-				JMA I	89.59	3	SUPP. SHP
1934	5	14	12	53	0.0	36.117N	125.967E	-				JMA I	89.59	3	SUPP. SHP
1934	6	9	0	15	0.0	36.633N	126.000E	-				JMA I	142.12	3	SUPP. SHP
1934	8	28	19	0	0.0	36.483N	127.717E	-				JMA I	167.93	4	SUPP. SHP
1935	1	29	12	42	0.0	35.967N	126.750E	-				JMA I	69.72	4	SUPP. SHP
1935	2	1	10	31	0.0	35.967N	126.750E	-				JMA I	69.72	4	SUPP. SHP
1935	2	3	9	50	0.0	35.967N	126.750E	-				JMA I	69.72	4	SUPP. SHP
1935	2	4	4	30	0.0	35.967N	126.750E	-				JMA I	69.72	4	SUPP. SHP
1935	6	3	0	48	0.0	36.833N	128.600E	-				JMA I	252.88	5	SUPP. SHP
1935	7	16	14	40	0.0	35.200N	128.567E	-				JMA I	196.75	6	SUPP. SHP
1935	7	16	15	0	0.0	34.300N	131.400E	5 5.4				-	471.96	11	SUPP. WBT
1935	7	28	14	45	0.0	36.317N	127.950E	-				JMA I	171.81	4	SUPP. SHP
1935	11	11	13	50	0.0	36.850N	128.850E	-				JMA I	271.85	5	SUPP. SHP
1935	12	7	11	11	0.0	36.300N	128.450E	-				JMA II	209.04	5	SUPP. SHP
1936	1	25	17	50	0.0	35.650N	128.417E	-				JMA I	183.45	6	SUPP. SHP
1936	1	25	22	20	0.0	37.700N	125.200E	-				JMA I	277.95	3	SUPP. SHP
1936	2	2	7	41	0.0	37.267N	126.983E	-				JMA I	213.50	3	SUPP. SHP
1936	2	23	22	7	0.0	37.267N	126.983E	-				JMA I	213.50	3	SUPP. SHP
1936	2	24	7	41	0.0	37.267N	126.983E	-				JMA I	213.50	3	SUPP. SHP
1936	3	5	12	30	0.0	34.983N	127.483E	-				JMA I	107.42	5	SUPP. SHP
1936	3	10	2	41	0.0	37.483N	127.483E	-				JMA I	250.31	3	SUPP. SHP
1936	4	28	11	45	0.0	36.133N	128.083E	-				JMA I	171.16	5	SUPP. SHP
1936	4	28	18	46	0.0	37.500N	128.383E	-				JMA I	292.34	3	SUPP. SHP
1936	6	1	17	50	0.0	35.817N	127.150E	-				JMA I	80.81	4	SUPP. SHP
1936	6	4	13	5	0.0	35.917N	126.617E	-				JMA I	60.14	4	SUPP. SHP
1936	6	20	22	35	0.0	38.867N	127.967E	-				JMA I	409.07	2	SUPP. SHP
1936	7	3	21	2	0.0	35.233N	127.650E	-				JMA III	113.50	5	SUPP. SHP
1936	7	3	21	2	0.0	35.233N	127.650E	-				(5.0)JMA V	113.50	5	SUPP. SHP
1936	7	4	7	42	0.0	35.083N	127.733E	-				JMA I	124.71	5	SUPP. SHP
1936	7	4	11	40	0.0	35.083N	127.733E	-				JMA I	124.71	5	SUPP. SHP
1936	7	5	4	49	0.0	35.083N	127.733E	-				JMA I	124.71	5	SUPP. SHP
1936	9	2	2	49	0.0	38.250N	123.500E	-				JMA I	410.19	?	1
1936	9	26	21	30	0.0	35.867N	128.150E	-				JMA I	165.23	5	SUPP. SHP
1936	10	25	15	15	0.0	35.850N	127.583E	-				JMA I	116.72	5	SUPP. SHP
1936	11	2	21	50	0.0	34.733N	127.733E	-				JMA I	140.93	6	SUPP. SHP
1937	2	1	22	43	0.0	35.383N	127.650E	-				JMA I	111.89	5	SUPP. SHP
1937	2	21	19	43	0.0	38.383N	127.650E	-				JMA I	349.14	3	SUPP. SHP
1937	3	15	17	45	0.0	38.500N	125.683E	-				JMA III	350.66	2	SUPP. SHP
1937	7	29	0	55	0.0	35.833N	129.250E	-				JMA I	261.14	6	SUPP. SHP
1937	9	8	13	39	0.0	37.417N	126.583E	-				JMA I	224.56	3	SUPP. SHP
1937	12	17	13	50	0.0	36.317N	127.950E	-				JMA I	171.81	4	SUPP. SHP
1939	1	9	16	4	0.0	36.083N	127.050E	-				JMA III	94.93	4	SUPP. SHP
1939	1	23	0	55	0.0	37.000N	126.117E	-				JMA I	179.83	3	SUPP. SHP
1939	4	27	17	25	0.0	35.817N	127.150E	-				JMA I	80.81	4	SUPP. SHP
1939	6	15	22	36	0.0	35.383N	127.650E	-				JMA I	111.89	5	SUPP. SHP
1939	6	16	6	43	0.0	39.017N	125.817E	-				JMA I	405.47	2	SUPP. SHP
1939	8	2	10	47	0.0	35.100N	129.083E	-				JMA I	244.90	6	SUPP. SHP
1939	8	25	0	34	0.0	35.083N	127.733E	-				JMA I	124.71	5	SUPP. SHP
1939	8	31	5	8	0.0	36.100N	127.083E	-				JMA III	98.24	4	SUPP. SHP
1939	9	21	16	7	0.0	35.100N	129.033E	-				JMA I	240.39	6	SUPP. SHP
1939	9	22	2	35	0.0	35.100N	129.033E	-				JMA I	240.39	6	SUPP. SHP
1939	9	22	10	37	0.0	35.883N	128.617E	-				JMA I	206.30	6	SUPP. SHP

영광 5,6호기 최종안전성분석보고서

표 2.5-2 (11 중 5)

DATE YEAR MO DA	GMT HR MN	SEC	LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
			LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1939 9 22	12 8	0.0	35.100N	129.033E	-			JMA I		240.39	6	SUPP. SHP
1939 10 22	11 4	0.0	35.833N	129.217E	-			JMA I		258.20	6	SUPP. SHP
1940 8 13	15 36	40.0	36.000N	132.000E	0 6.75			-		509.89	12	ISC. GUTE
1940 8 13	15 36	40.0	36.000N	132.000E	-			6.75	-	509.89	12	NOAA, G-R
1941 4 5	16 49	48.0	34.500N	131.750E	60 5.75			-		497.47	11	ISC. GUTE
1941 4 5	16 49	48.0	34.500N	131.750E	60 -			5.75	-	497.47	11	NOAA, G-R
1943 9 10	8 36	53.0	35.250N	134.000E	-			7.40		690.02	?11	ISC. GUTE
1943 9 10	8 36	53.0	35.250N	134.000E	-			7.40		690.02	?11	NOAA, G-R
1944 12 19	14 8	56.0	39.000N	124.000E	0 6.75			-		454.15	? 2	ISC. GUTE
1944 12 19	14 8	56.0	39.000N	124.000E	-			6.75	-	454.15	? 2	NOAA, G-R
1949 10 -	- -	-	36.033N	129.383E	- -			JMA III(?)	-	277.46	7	SUPP. SHP
1950 8 22	2 4	7.0	35.200N	132.700E	-			MM VI		572.16	11	ISC. ISS
1950 8 22	2 4	7.0	35.200N	132.700E	-			MM VI		572.16	11	NOAA, ISS
1952 11 28	4 34	48.0	35.200N	133.300E	30 -			MM V		626.73	11	ISC. ISS
1952 11 28	4 34	48.0	34.900N	133.600E	-			MM V		657.18	11	ISC. ISS
1952 11 28	4 34	48.0	35.200N	133.300E	30 -			MM V		626.73	11	NOAA, JMA
1953 7 30	8 24	51.0	35.200N	132.700E	-			MM VI		572.16	11	ISC. ISS
1960 2 25	20 34	-	37.833N	126.500E	-					270.41	5	SUPP. SHP
1960 5 10	23 17	56.0	34.000N	131.500E	4.5					491.12	11	ISC. MOS
1960 5 10	23 17	57.0	34.000N	131.500E	100 5.3					491.12	11	ISC, BCIS
1961 3 25	14 55	47.4	35.067N	132.217E	-			MM V		529.49	11	NOAA, JMA
1961 8 14	22 5	21.0	34.000N	130.000E	0 5.0					363.27	10	ISC. JMA
1961 10 14	15 8	8.8	35.033N	131.483E	40 4.6					463.23	11	ISC. JMA
1961 10 14	15 8	8.8	35.033N	131.483E	40 -			4.60		463.23	11	NOAA, JMA
1962 12 4	8 16	4.0	36.100N	133.500E	33 4.0					645.65	?11	ISC. PEK
1963 3 31	12 26	5.0	35.133N	132.400E	5.1					545.46	11	ISC. JMA
1963 3 31	15 2	17.9	35.100N	132.433E	-			5.00		548.78	11	ISC. JMA
1963 4 6	14 11	37.0	37.000N	121.000E	3.75					519.28	? 1	NOAA, CGS
1963 9 6	6 3	39.0	36.400N	130.800E	5.8					411.12	12	ISC. QUE
1963 9 6	6 3	47.1	36.650N	130.667E	5.4					407.58	12	ISC. JMA
1963 9 6	6 3	48.0	36.400N	130.800E	5.4					411.12	12	ISC. OBM
1963 9 6	6 3	52.0	36.400N	130.800E	6.0					411.12	12	ISC. MOS
1963 9 6	6 3	52.1	36.400N	130.600E	33 5.4					393.75	12	NOAA, CGS
1963 9 6	6 4	0.0	36.650N	130.667E	-			JMA III		407.58	12	SUPP. SHP
1963 9 7	1 16	44.0	36.700N	130.800E	5.9					420.64	12	ISC. QUE
1963 9 7	1 16	50.6	36.667N	130.667E	40 6.2					408.19	12	ISC. JMA
1963 9 7	1 16	55.1	36.400N	130.600E	33 5.3					393.75	12	NOAA, CGS
1963 9 7	1 16	57.0	36.700N	130.800E	6.0					420.64	12	ISC. MOS
1963 9 7	1 17	1.0	36.667N	130.667E	-			JMA III		408.19	12	ISC. SHP
1964 4 12	12 14	55.2	34.000N	131.900E	70 4.4					526.03	11	NOAA, CGS
1964 4 29	2 11	36.6	32.400N	129.000E	33 4.6					409.87	?11	NOAA, CGS
1964 4 29	2 11	39.6	32.340N	129.100E	47 4.8					420.74	?11	ISC. ISC
1964 6 24	12 56	26.0	32.360N	129.220E	38 4.7					425.61	?11	ISC. ISC
1964 6 24	12 56	26.0	32.200N	129.400E	48 4.4					450.00	?11	NOAA, CGS
1964 9 14	7 48	0.0	35.817N	129.150E	-			JMA II		251.92	6	SUPP. SHP
1964 11 8	17 56	31.1	34.800N	133.000E	42 5.0					604.18	11	NOAA, CGS
1965 2 26	6 42	53.6	35.320N	132.730E	2 4.4					574.11	11	ISC. ISC
1965 2 26	6 43	2.2	36.100N	133.000E	33 4.5					600.76	11	NOAA, CGS
1965 7 13	14 3	42.0	33.000N	130.400E	20 3.8					453.66	11	ISC. JMA
1965 8 27	15 14	11.2	33.100N	130.400E	20 3.7					447.06	11	ISC. JMA
1965 9 24	15 10	43.9	32.100N	129.400E	20 4.7					458.91	?11	ISC. JMA
1965 10 13	3 36	22.3	34.900N	132.700E	20 4.3					575.46	11	ISC. JMA
1965 12 8	5 25	15.0	33.000N	130.200E	33 4.5					438.87	11	NOAA, CGS
1966 1 2	10 13	0.0	36.400N	126.260E	-			JMA III		112.02	5	SUPP. KMA

() 영광 5,6호기 최종안전성분석보고서

표 2.5-2 (11 중 6)

DATE			GMT			LOCATION		DEPTH	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
YEAR	MO	DA	HR	MN	SEC	LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1966	1	2	10	13	0.0	36.667N	126.433E	-			JMA III		140.75	5	SUPP. SHP
1966	11	12	12	1	42.2	33.000N	130.300E	7	5.0				446.23	11	NOAA, CGS
1966	11	12	12	1	44.1	33.000N	130.310E	20	5.0				446.97	11	ISC, ISC
1967	6	24	9	25	38.0	34.700N	132.400E	33	4.2				551.59	11	NOAA, CGS
1967	7	20	7	5	27.0	35.000N	132.000E	0	3.9				510.58	11	ISC, LAO
1967	10	1	10	10	16.4	33.100N	130.400E	20	3.3				447.06	11	ISC, JMA
1968	4	20	9	49	11.0	35.000N	129.400E	0	4.3				275.27	9	ISC, LAO
1969	7	18	5	23	0.0	38.617N	124.133E	-			JMA II		411.43	2	SUPP. SHP
1969	7	26	19	36	43.0	32.740N	130.230E	10	4.2				459.49	11	ISC, ISC
1969	9	7	0	23	44.8	33.606N	131.490E	91	5.2				506.82	11	NOAA, CGS
1969	9	7	0	23	45.9	33.680N	131.680E	101	5.2				519.65	11	ISC, ISC
1970	2	11	19	45	52.0	39.800N	120.400E	33	4.6				722.44	? 2	ISC, ISC
1970	3	13	13	27	3.1	34.947N	132.823E	1	4.3				585.99	11	NOAA, CGS
1970	7	10	0	13	28.6	32.793N	130.154E	10	4.1				450.25	11	NOAA, CGS
1970	8	9	15	28	34.5	32.800N	130.180E	0	4.2				451.58	11	ISC, JMA
1970	9	29	10	11	37.2	34.529N	133.330E	4	4.3			MM III	638.99	11	NOAA, CGS
1971	2	15	2	57	37.6	32.790N	130.092E	12	4.6				446.10	11	NOAA, NOS
1971	2	15	2	57	39.3	32.695N	130.020E	31	4.6				448.20	11	ISC, ISC
1971	3	6	22	14	49.0	33.450N	130.430E	20	4.1				427.79	11	ISC, JMA
1971	3	30	16	0	0.7	32.750N	130.130E	10	3.9				451.71	11	ISC, JMA
1971	5	15	4	22	7.0	34.820N	132.220E	0	4.3				533.17	11	ISC, JMA
1971	11	6	18	36	6.5	32.470N	129.720E	10	3.8				446.18	?11	ISC, JMA
1972	4	13	19	29	8.4	34.908N	132.893E	30	3.9				592.87	11	ISC, ISC
1972	5	27	13	55	12.9	36.714N	123.655E	33	4.7				288.97	1	ISC, ISC
1972	9	6	11	42	23.9	32.874N	130.299E	15	4.8	-	-	-	454.85	11	NOAA, ERL
1972	10	21	13	4	44.8	32.670N	129.900E	10	4.0	-	-	-	441.96	?11	ISC, JMA
1972	10	27	7	9	3.0	32.600N	130.020E	3	3.9	-	-	-	455.46	?11	ISC, JMA
1972	11	2	10	57	18.5	32.700N	129.900E	10	4.4	-	-	-	439.65	?11	ISC, JMA
1973	2	25	10	9	44.8	34.728N	132.337E	19	4.2	-	-	-	545.37	11	NOAA, ERL
1973	2	25	10	9	44.9	34.745N	132.364E	12	4.0	-	-	-	547.50	11	ISC, ISC
1973	9	1	20	37	24.8	33.502N	130.568E	18	4.8	-	-	-	435.87	11	NOAA, GS
1973	9	1	20	37	26.4	33.439N	130.550E	29	4.7	-	-	-	437.98	11	ISC, ISC
1973	10	27	4	44	3.3	35.237N	133.258E	17	4.4			MM IV	622.64	11	NOAA, GS
1973	10	27	4	44	5.3	35.260N	133.251E	30	-			4.4	621.84	11	ISC
1974	6	30	4	49	5.6	32.730N	130.000E	0	4.2	-	-	-	444.18	11	ISC, JMA
1974	7	4	2	26	18.8	32.339N	129.678E	0	4.3	-	-	-	454.45	?11	ISC, ISC
1974	8	7	12	45	51.8	35.094N	130.979E	33	4.2	-	-	-	416.74	10	ISC, ISC
1974	8	28	5	49	43.1	34.964N	133.159E	14	4.1	-	-	-	616.29	11	NOAA, GS
1975	2	2	5	13	32.8	36.621N	133.349E	425	-			3.6	639.77	?11	ISC
1975	3	29	7	23	23.0	35.014N	132.762E	28	4.3	-	-	-	579.62	11	ISC, ISC
1975	3	29	7	23	23.1	34.910N	132.684E	33	4.4	-	-	-	573.87	11	NOAA, GS
1975	4	2	4	30	34.9	35.128N	132.729E	10	0.0	6.1	-	-	575.42	11	ISC, ISC
1975	6	5	12	18	39.5	34.760N	131.833E	19	4.5	-	-	-	499.23	11	NOAA, GS
1975	6	23	13	48	59.6	34.330N	133.280E	10	-			3.5	638.95	11	ISC
1975	11	22	13	58	26.2	34.880N	133.480E	-	-			3.9	646.55	11	ISC
1975	12	15	22	31	4.8	32.950N	129.900E	20	3.4	-	-	-	420.86	11	ISC, JMA
1976	2	1	21	19	42.6	34.118N	132.079E	43	4.8			-	537.77	11	NOAA, GS
1976	10	6	1	1	11.1	35.296N	124.297E	33	5.2	5.2	-	-	193.54	1	NOAA, GS
1976	10	6	1	2	0.0	35.000N	124.000E	-	-			JMA III	225.05	1	SUPP. KMA
1976	10	19	12	44	15.0	36.200N	127.500E	-	-			JMA III	132.09	4	SUPP. KMA
1977	8	23	18	56	13.0	35.200N	125.700E	-	-			JMA I	69.22	3	NOAA, KMA
1977	8	23	19	42	0.0	35.200N	125.700E	-	-			JMA II	69.22	3	NOAA, KMA
1978	9	15	2	6	-	37.230N	126.780E	50	-			5.0(JMA III)	205.87	3	SUPP. JMA, N
1978	9	16	2	9	5.8	36.600N	127.900E	-	-			5.2	188.72	4	KMA
1978	10	07	18	19	52.2	36.600N	126.700E	-	-			JMA V	5.0	3	KMA
1978	11	23	11	6	5.0	38.400N	125.600E	-	-			-	4.6	2	KMA
1978	12	12	21	58	38.0	35.900N	126.300E	-	-			3.3	56.60	3	KMA

영광 5,6호기 최종안전성분석보고서

표 2.5-2 (11 중 7)

DATE YEAR	MO	DA	GMT			LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
			HR	MN	SEC	LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1979	1	24	0	40	57.0	35.700N	126.000E	-	-	-	3.0	50.64	3	KMA	
1979	1	29	10	6	02.0	38.300N	126.000E	-	-	-	3.3	324.39	2	KMA	
1979	1	30	0	33	12.0	36.100N	128.300E	-	-	-	3.0	187.15	5	KMA	
1979	2	4	9	29	18.0	38.400N	125.700E	-	-	-	3.7	339.46	2	KMA	
1979	2	8	8	52	19.5	36.600N	126.700E	-	-	JMA III	4.0	135.68	3	KMA	
1979	3	12	11	09	24.0	36.600N	126.700E	-	-	-	3.8	135.68	4	KMA	
1979	4	9	8	49	33.0	39.700N	125.700E	-	-	-	3.3	482.07	? 2	KMA	
1979	4	24	5	44	27.0	36.800N	128.500E	-	-	-	3.0	243.61	5	KMA	
1979	8	13	12	12	01.6	36.300N	128.500E	-	-	-	3.5	213.02	6	KMA	
1979	8	24	8	30	17.4	36.600N	124.000E	-	-	-	3.8	255.90	1	KMA	
1979	8	30	0	39	53.8	38.300N	127.900E	-	-	JMA II	3.0	348.25	3	KMA	
1979	10	10	6	59	48.1	38.900N	125.700E	-	-	-	3.1	394.14	2	KMA	
1979	10	27	12	59	40.8	39.500N	125.700E	-	-	-	3.7	460.05	? 2	KMA	
1979	11	19	4	13	36.9	35.900N	126.100E	-	-	-	3.2	62.66	3	KMA	
1979	12	19	7	32	54.1	35.400N	127.500E	-	-	JMA II	3.5	98.22	5	KMA	
1979	12	20	15	7	56.3	36.200N	127.300E	-	-	JMA II	3.0	119.33	4	KMA	
1979	12	25	16	55	5.4	38.800N	126.300E	-	-	-	3.2	377.95	2	KMA	
1980	1	8	8	44	13.3	40.200N	125.000E	10	-	-	5.3	547.92	? 2	KMA	
1980	5	15	14	43	29.0	38.300N	125.700E	-	-	-	3.1	328.57	2	KMA	
1980	6	30	23	00	48.0	34.000N	126.000E	-	-	-	3.6	160.18	4	KMA	
1980	7	26	5	59	29.3	38.800N	125.700E	-	-	-	3.5	383.19	2	KMA	
1981	3	10	15	24	39.2	38.900N	125.700E	-	-	-	3.0	394.14	2	KMA	
1981	4	6	18	42	38.2	38.900N	125.400E	-	-	-	3.7	399.34	2	KMA	
1981	4	15	11	47	00.0	35.900N	130.100E	33	-	JMA IV	4.8	338.21	9	KMA	
1981	5	21	18	9	32.2	38.700N	126.100E	-	-	-	3.0	367.78	2	KMA	
1981	6	10	12	59	15.7	39.500N	125.800E	-	-	-	3.0	458.91	? 2	KMA	
1981	8	27	21	35	30.0	35.800N	129.800E	-	-	-	3.5	309.82	9	KMA	
1981	9	23	8	13	37.0	36.900N	126.300E	-	-	JMA II	3.5	166.99	3	KMA	
1981	9	25	3	18	32.5	39.700N	125.500E	-	-	-	3.4	484.72	? 2	KMA	
1981	12	3	12	25	07.0	38.900N	125.900E	-	-	-	3.0	391.65	2	KMA	
1982	2	14	23	37	32.1	38.300N	125.700E	53	5.1	-	4.5	328.57	2	KMA	
1982	2	25	19	14	28.4	38.800N	125.700E	-	-	-	3.4	383.19	2	KMA	
1982	3	1	0	28	02.1	37.200N	129.800E	10	-	JMA IV	4.7	363.79	9	KMA	
1982	3	28	1	4	32.2	37.600N	125.300E	-	-	-	3.6	264.26	3	KMA	
1982	3	30	6	13	05.0	36.400N	127.600E	-	-	JMA II	3.0	153.99	4	KMA	
1982	5	27	19	21	04.0	38.600N	125.800E	-	-	-	3.5	359.83	2	KMA	
1982	8	29	3	18	40.7	37.200N	125.900E	50	-	JMA III	4.0	205.37	3	KMA	
1982	8	29	15	29	13.2	37.100N	125.900E	-	-	-	3.3	194.57	3	KMA	
1982	8	29	15	34	01.3	37.100N	126.000E	-	-	-	3.5	192.60	3	KMA	
1982	8	31	20	49	46.5	37.100N	126.000E	-	-	-	3.2	192.60	3	KMA	
1982	10	11	17	32	25.1	36.400N	129.600E	-	-	-	3.1	308.11	9	KMA	
1983	1	11	1	51	0.3	38.700N	125.600E	-	-	-	3.4	373.88	2	KMA	
1983	5	9	18	59	40.4	38.900N	126.300E	-	-	-	3.2	389.06	2	KMA	
1983	6	8	21	25	22.0	36.800N	127.800E	-	-	JMA II	3.4	199.16	4	KMA	
1983	6	21	0	52	18.1	36.800N	127.500E	-	-	-	3.0	183.49	4	KMA	
1983	8	21	5	13	17.5	36.400N	126.000E	-	-	-	3.5	117.39	3	KMA	
1983	9	17	12	17	42.6	38.300N	126.100E	-	-	-	4.2	323.48	2	KMA	
1983	10	11	13	47	21.8	38.800N	125.700E	-	-	-	3.5	383.19	6	KMA	
1983	12	23	22	40	16.0	36.500N	128.100E	-	-	-	3.0	194.82	4	KMA	
1984	1	13	17	6	36.3	37.400N	129.500E	-	-	-	3.0	354.77	9	KMA	
1984	2	13	11	31	25.6	37.000N	125.500E	-	-	-	3.2	196.10	3	KMA	
1984	3	17	13	00	48.7	39.500N	126.100E	-	-	-	3.0	456.49	? 2	KMA	
1984	3	21	00	15	9.4	36.800N	126.600E	-	-	-	3.2	156.37	3	KMA	
1984	4	30	11	59	14.5	39.300N	125.700E	-	-	-	3.1	438.05	? 2	KMA	
1984	5	11	15	00	42.7	38.600N	125.100E	-	-	-	3.2	374.50	2	KMA	
1984	7	19	13	57	07.1	36.000N	125.200E	-	-	-	3.9	129.08	1	KMA	
1985	1	14	12	44	53.9	34.600N	129.900E	-	-	-	4.2	330.19	10	KMA	
1985	1	15	9	59	24.2	34.700N	130.000E	-	-	-	3.4	336.07	10	KMA	
1985	6	7	12	59	56.8	39.400N	125.900E	-	-	-	3.1	446.88	? 2	KMA	
1985	6	20	5	03	31.3	35.900N	128.600E	-	-	JMA III	3.3	205.30	6	KMA	
1985	6	25	6	40	33.8	37.300N	126.400E	-	-	-	4.0	211.09	3	KMA	
1985	6	25	11	13	42.9	36.900N	129.700E	-	-	-	3.8	339.23	9	KMA	
1985	8	8	16	47	34.9	38.400N	125.100E	-	-	-	3.1	353.52	2	KMA	

영광 5,6호기 최종안전성분석보고서

표 2.5-2 (11 중 8)

DATE YEAR	MO	DA	GMT			LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST. TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
			HR	MM	SEC	LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1985	11	10	17	23	09.4	39.800N	125.800E	-	-	-	-	3.1	492.03	? 2	KMA
1985	12	10	21	42	04.8	35.800N	129.700E	-	-	-	-	3.2	300.84	9	KMA
1985	12	22	12	09	21.2	39.300N	125.800E	-	-	-	-	3.0	436.85	? 2	KMA
1986	1	19	11	20	59.2	33.500N	126.400E	-	-	JMA II	-	3.0	211.00	8	KMA
1986	2	9	7	04	39.9	35.900N	125.800E	-	-	-	-	3.3	79.02	3	KMA
1986	3	17	11	52	04.7	35.900N	129.500E	-	-	-	-	3.2	284.70	7	KMA
1986	3	20	16	46	47.1	34.200N	125.100E	-	-	-	-	3.6	179.95	3	KMA
1986	4	26	4	24	51.6	36.600N	125.500E	-	-	JMA II	-	3.5	157.06	3	KMA
1986	4	27	9	03	05.1	36.500N	125.600E	-	-	-	-	3.3	142.89	3	KMA
1986	5	2	12	44	16.3	36.600N	125.800E	-	-	JMA II	-	3.4	144.58	3	KMA
1986	5	2	17	26	49.3	36.700N	125.700E	-	-	-	-	3.0	158.35	3	KMA
1986	5	11	4	03	39.4	36.600N	125.900E	-	-	-	-	3.1	141.33	3	KMA
1986	7	11	16	43	20.0	34.300N	126.900E	-	-	-	-	3.2	129.83	4	KMA
1986	8	11	9	52	46.7	37.100N	126.000E	-	-	-	-	3.5	192.60	3	KMA
1987	3	6	07	10	47.0	38.700N	125.500E	-	-	-	-	4.0	375.72	2	KMA
1987	10	6	07	04	45.0	35.900N	129.900E	-	-	-	-	3.1	320.34	9	KMA
1987	10	6	23	36	53.7	36.200N	130.100E	-	-	-	-	3.5	344.65	9	KMA
1987	10	25	13	23	56.5	37.500N	130.100E	-	-	-	-	3.7	404.33	12	KMA
1988	5	3	14	59	53.4	38.300N	126.300E	-	-	-	-	3.4	322.40	2	KMA
1988	10	15	17	26	25.0	38.400N	126.200E	-	-	-	-	3.4	333.91	2	KMA
1989	1	5	15	13	16.0	38.500N	126.100E	-	-	-	-	3.2	345.63	2	KMA
1989	3	3	15	15	18.3	38.100N	124.900E	-	-	-	-	3.4	329.32	2	KMA
1989	3	13	16	03	41.8	38.200N	125.500E	-	-	-	-	3.4	321.78	2	KMA
1989	3	29	15	00	58.8	37.900N	125.900E	-	-	-	-	3.1	281.63	3	KMA
1989	4	30	15	27	51.1	36.300N	127.300E	-	-	-	-	3.4	127.78	4	KMA
1989	5	22	14	59	19.9	37.800N	125.800E	-	-	-	-	3.2	272.37	3	KMA
1989	5	25	14	58	34.4	38.600N	126.300E	-	-	-	-	3.1	355.72	2	KMA
1989	6	20	15	28	10.4	38.100N	126.200E	-	-	-	-	3.2	300.63	2	KMA
1989	6	23	00	26	00.1	36.700N	127.800E	-	-	JMA III	-	3.5	190.66	4	KMA
1990	2	18	21	29	36.6	38.200N	123.900E	-	-	-	-	3.3	384.00	? 2	KMA
1990	2	28	15	01	51.6	38.300N	126.300E	-	-	-	-	3.1	322.40	2	KMA
1990	10	22	18	09	35.3	35.900N	130.000E	-	-	-	-	3.4	329.27	9	KMA
1991	1	3	14	39	14.9	37.600N	124.700E	-	-	-	-	3.4	289.03	2	KMA
1991	2	2	11	08	33.4	33.400N	123.800E	-	-	-	-	3.4	327.83	1	KMA
1991	4	14	01	48	32.5	36.500N	128.700E	-	-	-	-	3.1	239.45	5	KMA
1991	4	27	20	01	01.5	36.100N	127.200E	-	-	-	-	3.0	105.05	4	KMA
1991	7	20	12	25	30.1	35.300N	127.900E	-	-	-	-	3.1	135.14	5	KMA
1991	7	23	23	08	50.0	35.600N	128.000E	-	-	-	-	3.1	145.22	5	KMA
1991	10	11	07	20	46.4	36.800N	129.300E	-	-	-	-	3.2	302.64	5	KMA
1991	10	28	10	10	-	33.900N	131.100E	-	-	-	-	6.0	460.61	11	KMA
1991	11	10	23	37	-	34.400N	130.700E	-	-	-	-	3.7	407.02	10	KMA
1992	1	21	03	36	17.9	35.400N	129.900E	-	-	-	-	4.0	316.47	10	KMA
1992	7	19	17	01	05.6	39.100N	127.100E	-	-	-	-	3.1	415.55	? 2	KMA
1992	11	4	02	30	12.7	34.700N	122.800E	-	-	-	-	4.4	339.62	1	KMA
1992	11	11	09	32	16.3	35.800N	123.700E	-	-	-	-	3.4	250.72	1	KMA
1992	11	12	08	02	28.1	38.500N	125.400E	-	-	-	-	3.8	356.25	2	KMA
1992	11	13	02	47	09.9	38.400N	125.300E	-	-	-	-	3.4	347.98	2	KMA
1992	12	13	20	22	38.9	35.300N	130.100E	-	-	-	-	4.0	335.04	10	KMA
1993	3	1	11	59	29.1	35.600N	126.900E	-	-	-	-	3.3	48.93	4	KMA
1993	3	1	12	00	43.4	35.600N	126.800E	-	-	-	-	3.9	41.05	4	KMA
1993	3	28	10	16	09.4	33.100N	123.800E	-	-	-	-	4.5	351.53	1	KMA
1993	7	8	11	10	59.4	35.200N	128.400E	-	-	-	-	3.6	181.65	6	KMA
1993	12	8	11	43	57.1	39.600N	125.900E	-	-	-	-	3.4	468.99	? 2	KMA
1993	12	24	08	13	23.0	35.900N	129.100E	-	-	-	-	3.1	249.24	6	KMA
1994	1	11	08	09	09.1	36.300N	123.900E	-	-	-	-	3.0	248.86	1	KMA
1994	2	12	11	58	14.3	36.400N	127.300E	-	-	-	-	3.5	136.62	4	KMA
1994	4	15	16	04	24.4	38.500N	125.500E	-	-	-	-	3.1	354.08	2	KMA
1994	4	22	02	05	27.1	34.900N	131.000E	-	-	-	-	4.6	421.43	10	KMA
1994	4	23	12	41	41.9	35.100N	131.100E	-	-	-	-	4.5	427.66	10	KMA
1994	4	23	13	03	24.0	35.700N	130.900E	-	-	-	-	4.1	408.00	11	KMA

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표 2.5-2 (11 중 9)

DATE YEAR	MO	DA	GMT			LOCATION		DEPTH KM	MAGNITUDE (OR INTENSITY)				DIST.TO SITE KM	TECTONIC PROVINCE	DATA SOURCE
			HR	MIN	SEC	LATITUDE	LONGITUDE		BODY	SURFACE	OTHER	TB			
1994	7	26	02	41	46.3	34.900N	124.100E	-	-	-	4.9	218.79	1	KMA	
1994	9	21	03	35	45.8	36.400N	128.900E	-	-	-	3.2	250.15	6	KMA	
1994	10	14	21	51	44.2	38.800N	125.600E	-	-	-	3.5	384.77	2	KMA	
1994	11	1	09	11	09.6	38.900N	125.800E	-	-	-	3.4	392.80	2	KMA	
1994	12	2	00	42	38.9	37.900N	123.800E	-	-	-	3.6	363.51	2	KMA	
1995	1	14	06	43	25.3	37.900N	124.500E	-	-	-	3.0	326.62	2	KMA	
1995	1	21	07	39	58.9	34.200N	125.000E	-	-	-	3.3	186.23	3	KMA	
1995	3	11	09	30	26.1	38.700N	125.600E	-	-	-	3.0	373.88	2	KMA	
1995	5	10	08	46	28.2	39.300N	126.000E	-	-	-	3.4	434.97	2	KMA	
1995	6	19	18	09	21.5	36.400N	128.200E	-	-	-	3.0	195.50	5	KMA	
1995	7	24	19	02	52.0	38.200N	124.400E	-	-	-	4.2	359.64	2	KMA	
1995	8	12	03	17	49.0	38.000N	124.600E	-	-	-	3.6	331.59	2	KMA	
1995	10	6	21	07	33.3	37.500N	129.800E	-	-	-	3.7	382.66	9	KMA	
1995	10	8	08	33	37.5	35.600N	129.700E	-	-	-	3.5	298.74	9	KMA	
1995	11	10	14	03	52.3	38.900N	125.800E	-	-	-	3.0	392.80	2	KMA	
1995	12	24	03	47	18.3	35.300N	124.600E	-	-	-	3.0	165.99	1	KMA	
1996	2	9	08	51	52.1	39.200N	126.400E	-	-	-	3.1	422.26	2	KMA	
1996	4	14	05	22	11.8	35.900N	127.900E	-	-	-	3.1	145.22	5	KMA	
1996	5	13	00	49	39.0	35.800N	130.200E	-	-	-	3.0	345.76	12	KMA	
1996	5	21	17	15	57.8	38.800N	125.600E	-	-	-	3.1	384.77	2	KMA	
1996	5	26	08	34	55.3	33.500N	126.000E	-	-	-	3.5	214.50	8	KMA	
1996	7	27	01	22	44.4	34.200N	123.300E	-	-	-	3.0	315.34	1	KMA	
1996	8	14	18	10	03.8	36.700N	128.000E	-	-	-	3.0	202.90	4	KMA	
1996	9	14	22	38	58.4	39.000N	126.000E	-	-	-	3.6	401.76	2	KMA	
1996	10	16	04	45	32.3	36.100N	128.300E	-	-	-	3.3	187.15	5	KMA	
1996	11	10	21	33	21.0	36.700N	125.400E	-	-	-	3.5	171.24	1	KMA	
1996	11	17	08	49	15.1	39.000N	127.600E	-	-	-	3.6	413.54	2	KMA	
1996	12	13	13	10	17.3	37.200N	128.800E	-	-	-	4.5	292.89	4	KMA	
1996	12	13	13	27	08.0	37.200N	128.800E	-	-	-	3.0	292.89	4	KMA	
1997	1	15	05	34	14.7	38.300N	128.700E	-	-	-	3.2	381.11	9	KMA	
1997	5	9	21	40	03.8	35.200N	126.000E	-	-	-	3.2	44.23	3	KMA	
1997	5	9	21	43	40.8	35.200N	126.000E	-	-	-	3.0	44.23	3	KMA	
1997	5	22	07	47	37.9	36.000N	126.800E	-	-	-	3.5	75.02	4	KMA	
1997	6	26	03	50	22.2	35.800N	129.300E	-	-	-	4.2	265.01	6	KMA	
1997	10	11	19	50	25.3	35.900N	128.700E	-	-	-	3.2	214.04	6	KMA	
1997	10	18	19	35	31.0	37.300N	128.800E	-	-	-	3.0	300.49	4	KMA	
1997	11	10	18	26	36.3	37.800N	125.400E	-	-	-	3.0	281.86	3	KMA	
1998	1	18	01	16	05.3	35.600N	129.900E	-	-	-	3.9	316.86	9	KMA	
1998	2	10	21	11	25.2	37.800N	123.600E	-	-	-	4.1	367.27	2	KMA	
1998	4	16	03	58	10.1	38.400N	126.300E	-	-	-	3.5	333.50	2	KMA	
1998	6	8	11	45	9.5	38.500N	124.300E	-	-	-	3.7	392.89	2	KMA	
1998	9	3	16	52	47.8	36.600N	125.700E	-	-	-	3.8	148.30	3	KMA	
1998	9	13	20	42	13.3	36.100N	126.900E	-	-	-	3.6	89.08	4	KMA	
1998	9	30	22	29	2.8	35.800N	126.900E	-	-	-	3.3	62.21	4	KMA	
1999	1	11	13	7	14.1	38.300N	128.700E	-	-	-	4.2	381.11	9	KMA	
1999	1	24	1	1	52.1	37.000N	128.800E	-	-	-	3.3	278.40	5	KMA	
1999	2	24	2	14	32.2	37.300N	126.000E	-	-	-	3.5	214.43	3	KMA	

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표 2.5-2 (11 중 10)

KEY TO TECTONIC PROVINCES

- | | |
|-----------------|----------------|
| 1. 황해 | 11. 상군-야마구찌대 |
| 2. 평남향사대 | 12. 울릉분지 |
| 3. 경기육괴 | 13. 푸키인 레이난 육괴 |
| 4. 옥천습곡대 | |
| 5. 영남육괴 | |
| 6. 경상분지 | |
| 7. 환동해 알카리 화산지구 | |
| 8. 제주도 화산대 | |
| 9. 한국 대륙붕 | |
| 10. 관문분지 | |

KEY TO MAGNITUDES AND INTENSITIES

Magnitudes in Arabic numerals; JMA intensities in Roman numerals, preceded by "JMA."

Magnitudes in "OTHER" column followed by abbreviation for agency responsible for assigning magnitude. See "KEY TO DATA SOURCE ABBREVIATIONS" below.

JMA intensities followed by "S" and "K" are those intensities as felt in Seoul and Kwangju, respectively.

TB Tsuboi magnitude

KEY TO DATA SOURCE ABBREVIATIONS

Entries in "DATA SOURCE" column contain source and authority.

Sources:	NOAA	National Oceanic and Atmospheric Administration magnetic tape file.
	ISC	International Seismological Centre magnetic tape file.
	SUPP	Supplementary sources.

Authorities:

BCIS	Bureau of Central International de Seismologie, Strasbourg Cedex, France
BRK	Seismographic Station, Department of Geology and Geophysics, University of California, Berkeley, California, USA
CFR	Charles F. Richter (Richter, 1958)
CGS	United States Coast and Geodetic Survey
ERL	Environmental Research Laboratories
G-R	Gutenberg-Richter (Gutenberg and Richter, 1954)
GS	United States Geological Survey, Denver, Colorado, USA
GUTE	Gutenberg and Richter, 1954
ISC	International Seismological Centre, Newbury, England, UK
ISS	International Seismological Summary, Kew, England, UK
JMA	Japan Meteorological Agency, Tokyo, Japan
KMA	Korea Meteorological Administration

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표 2.5-2 (11 중 11)

LAO	Large Aperture Seismic Array, Seismic Discrimination Group, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA
MAT	Matsushiro, Honshu, Japan
MOS	Institute of Physics of the Earth, Moscow, USSR
NOS	National Ocean Survey
OBM	Ulan Bator, Mongolia
PAS	Seismological Laboratory, California Institute of Technology, Pasadena, California, USA
PDE	Preliminary Determination of Epicenters
PEK	Division of Seismology, Institute of Geophysics and Meteorology, Peking, China
PMG	Port Moresby, Papua
PRA	Praha (Prague), Czechoslovakia
QUE	Geophysical Centre, Pakistan Meteorological Department, Quetta, Pakistan
SHL	Central Seismological Observatory, Shillong, India
SHP	Soo Hi Park (Park, S. H., 1969)
UPP	Seismological Institute, Uppsala, Sweden
USCGS	United States Coast and Geodetic Survey
WBT	Weather Bureau of Tyosen, Korea

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표 2.5-3 (2 중 1)

한반도에서 발생한 주요 역사지진 목록

DATE (A.D)	LOCALE FELT	SOURCE	DESCRIPTION
11/27	Kwangju (Province of Kyonggi-do)	Rustanovich, et al.	destroyed
Lunar 10/28	Near Seoul	K. Kanhanghoe	Buildings damaged
Lunar 2/34	Kyungju	K. Kanhanghoe, Rustanovich, et al.	Surface cracks, water spouted from ground
Lunar 6/89	Near Seoul	K. Kanhanghoe, Rustanovich, et al.	Houses Damaged, many killed
89	E. Coast, Kyungsangnam-do	S. H. Park	Houses Damaged, many lives lost
Lunar 10/100	Kyungju	K. Kanhanghoe	Building damaged, people killed
Lunar 5/123	Kyungju	K. Kanhanghoe	Devastating quaks
Lunar 5/278	Seoul	K. Kanhanghoe	Three days of quakes:30-foot crack with drop of 5 feet of water table
Lunar 5/304	Kyungju	K. Kanhanghoe, Rustanovich, et al.	Water spouted from ground; houses destroyed, many dead
Lunar 2/458	Kyungju	K. Kanhanghoe	South gate damaged
Lunar 3/471	Kyungju	K. Kanhanghoe, Rustanovich, et al.	Wide cracks, water spouted from ground, mud eruptions
501	Pyungambook-do	S. H. Park,	Houses damaged and many people buried and killed
Lunar 10/502	Pyungyang	K. Kanhanghoe	People killed, buildings damaged
Lunar 6/510	Kyungju, E. Coast Kyungnam	S.H. Park, Rustanovich, et al.	Houses damaged, lives lost due to burial
Lunar 5/511	Kyungju	K. Kanhanghoe,	People killed, buildings damaged
630	Kyungju	K. Kanhanghoe	Crack in palace grounds of king
Lunar 8/664	Kyungju, Southeast Korea	K. Kanhanghoe, Rustanovich, et al.	Severe damage:houses destroyed, many dead
Lunar 2/766	Kyungju	K. Kanhanghoe	50-foot diameter subsidence, lake created
769	Kyungju	Rustanovich, et al.	Water in wells clouded
Lunar 3/779	Kyungju	K. Kanhanghoe	100 people killed
780	Kyungju	S.H. Park, Rustanovich, et al.	Houses destroyed, 100 or more dead
11/23/880	Southwest Honshu, Japan	Japan Meteorological Agency	Unknown
1002	Kaesong, Island of Cheju	K. Kanhanghoe, Rustanovich, et al.	Subsidence in three rice paddies
Lunar 6/1037	Kyungju Area, Kaesong, Kwangju	K. Kanhanghoe, Rustanovich, et al.	Three days of quakes, damage to a wide area: houses destroyed
Lunar 11/1191	Suwon	K. Kanhanghoe	
Lunar 5/1214	Pyungyang	K. Kanhanghoe	80-foot diameter with 20-foot drop, lake created
Lunar 8/1222	Pyungyang	K. Kanhanghoe	Several days of quakes
11/1226	Kaesong	Rustanovich, et al.	Roofs destroyed (tiles fell), earthquake followed by strong tremor
7/1260	W. Part of Kyonggi-do	Rustanovich, et al.	Fences and stone buildings destroyed
3/1298	W. Part of Kyonggi-do	Rustanovich, et al.	Gushers of water more than 1m high
11/1311	W. Part of Kyonggi-do	Rustanovich, et al.	
8/1385	Kaesong	Rustanovich, et al.	Earthquakes for 4 days, house walls collapsed, boulder falls from mountains, some water gushers
5/1416	NW Part of Chollabook-do	Rustanovich, et al.	Gushers of water in places
1/1455	Western Kyongsang-do	Rustanovich, et al.	Houses destroyed, many dead
7/1513	Western Kyonggi-do	Rustanovich, et al.	Temples damaged, fortress walls in mountains destroyed, landslide fissures formed on mountain slopes

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표 2.5-3 (2 중 2)

DATE (A.D)	LOCALE FELT	SOURCE	DESCRIPTION
6/27/1546	Western Kyonggi-do	Rustanovich, et al.	Stone Walls destroyed, fissures in the ground
6/29/1546	SW Hwanghaebook-do, All of Korea	Rustanovich, et al.	Damage to houses and loss of lives very severe, serious dislocations in ground
7/1/1546	W. Kyonggi-do, Chungchongnam-do, Pyungannambook-do	S.H. Park, Rustanovich, et al.	Houses destroyed and many lives lost
3/1553	Kyongsang-do, Western Chollabook-do	Rustanovich, et al.	Houses and fortress walls in towns and mountains destroyed
2/1564	Kanggye (Pyunganbook-do)	Rustanovich, et al.	Cracks on hard snow
9/1565 - 1/1566	Sanwan (Hwanghaebook-do)	Rustanovich, et al.	103 quakes, 1 destructive (143 days)
7/20/1594	Chunam, Kyungname; SW Chungchongnam-do and NW Chollabook-do	Rustanovich, et al.	Many lives lost, houses and fortress walls damaged
2/1596	Pyongyang (Kangwan-do)	Rustanovich, et al.	
10/1597	Samsu Pyongan-do	Rustanovich, et al.	Volcanic eruption accompanied by earthquakes. Fortress at two places destroyed, landslides on slopes, turbid springs developed. Earthquake observed between Oct. 6-8. Explosions heard, fountain of fire seen 2 km from town, sky darkened by smoke. Rocks hurled into air
3/7/1601	S. part of Kyonggi-do	Rustanovich, et al.	Many eruptions fo turbid water
3/19/1601	Kyonsangnam-do	Rustanovich, et al.	
Lunar 10/1637	Boopyong	K. Kanhanghoe	Subsidence >200 feet wide - very deep
5/30/1643	SW Kyonsangnam-do, E. part of Chollanam-do	Rustanovich, et al.	Earthquake in Seoul. Earth displaced, roads destroyed, some dead. 50-60 pine trees fell. Cliff collapsed.
6/9/1643	Chanju (Pyunganbook-do)	Rustanovich, et al.	8 dead. Cliff collapsed and trees fell
7/27/1643	SW Kyonsangnam-do, E part of Chollanam-do	Rustanovich, et al.	Springs of turbid water developed. Some dead
4/1662	Chungchong-do	Rustanovich, et al.	
8/12/1664	Mt. Chieui, Namdo, Chonju, Chollabook-do	S.H. Park, Rustanovich, et al.	Severs damages, 50 dead
7/31/1668	Pyongyang, SW Hwanghaebook-do, E part of Hwanghae-do, Provinces of Pyongan-do, Hamgen-do, Chunchong-do, Cholla-do, Kensa-do	Rustanovich, et al.	Tsunamis in coastal areas, houses destroyed, deaths
10/8/1669	Pyongyang, Pyongsannam-do Province, Sunan, Sunchon (Pyongyang District)	Rustanovich, et al.	Earthquake at night. Houses shattered. Gate wall destroyed. Total of three earthquakes.
10/30/1670	Chollanam-do	Rustanovich, et al.	Houses shattered and distorted
12/30/1670	Chunrabook-do	S.H. Park.	Houses damaged; other public facilities damaged
6/12/1681	Throughout Korea	Rustanovich, et al.	Houses rocked in Seoul, some walls collapsed
6/17/1681	Pyongan-do, Kensa-do, Kangwon-do Cholla-do	Rustanovich, et al.	Earthquake affected a large area
6/20/1681	S. part of Hwanghaebook-do, W. part of Kangwon-do, Kyanggi-do, Chungchong-do	Rustanovich, et al.	Mud wall destroyed, walls collapsed, tile roofs damaged
6/27/1681	S. part of Hwanghawbook-do, Kangwan-do	Rustanovich, et al.	Earth caved in 3m (Kangwon Do Province). Several earthquakes felt over a large area.
4/18/1684	Changson Sakju (Pyunganbook-do)	Rustanovich, et al.	Tiles fell
4/29/1700	S. part of Kyongsannam-do	Rustanovich, et al.	Fortress destroyed
9/12/1700	Kensa-do, Chungchong-do	Rustanovich, et al.	Large surface cracks in Changson. Tsunamis occurred.
6/20/1727	Hamgyungnam-do	Rustanovich, et al.	Houses flattened, fortress walls damaged

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표 2.5-4

일본 기상청(JMA) 진도척도

The intensity of the shock is estimated according to the scales 0 ~ VII as follows:

0 : No Feeling. Shocks to cause human feelings and registered only by a seismograph, but special symbol (X) is used when shocks are felt by some neighbors, by not by observer.	Less than 0.8 gal
I : Slight. Extremely feeble shocks only felt by persons at rest or by those who are observant to an earthquake.	0.8 ~ 2.5 gal
II : Weak. Shocks felt by most persons, slight shaking of doors and Japanese latticed sliding doors (shoji).	2.5 ~ 8.0 gal
III : Rather strong. Slight shaking of houses and buildings; rattling of doors and Japanese latticed sliding doors (shoji); swinging of hanging objects like electric lamps; moving of liquids in vessels.	8.0 ~ 25.0 gal
IV : Strong. Strong shaking of houses and buildings, overturning of unstable objects, spilling of liquids out of vessels.	25 ~ 80 gal
V : Very strong. Cracks in the walls, overturning of gravestones, stone lanterns, etc., damage to chimneys and mud-and-plaster warehouses.	80 ~ 250 gal
VI : Disastrous. Demolition of houses by less than 30% in total number, landslips in the ground, etc.	250 ~ 400 gal
VII : Very disastrous. Demolition of houses by more than 30%, intense landslips, large fissures in the ground, faults.	More than 400 gal

Source : IAEA, 1972.

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표 2.5-5 (2 중 1)

수정 MERCALLI(MM) 진도척도(Richter, 1956판)

Masonry A, B, C, D. To avoid ambiguity of language, the quality of Masonry, brick, or otherwise is specified by the following lettering.

Masonry A. Good workmanship, mortar, and design; reinforced, especially laterally, and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B. Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

Masonry C. Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at corners, but neither reinforced nor designed against horizontal forces.

Masonry D. Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.

INTENSITY
VALUE

DESCRIPTION

- | | |
|-----|---|
| I | Not felt. Marginal and long-period effects of large earthquakes. |
| II | Felt by persons at rest, on upper floors, or favorably placed. |
| III | Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake. |
| IV | Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frame creak. |
| V | Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate. |
| VI | Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and Masonry D cracked. Small bells ring (church, school). Trees, bushes shaken visibly, or heard to rustle. |

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표 2.5-5 (2 중 2)

<u>INTENSITY VALUE</u>	<u>DESCRIPTION</u>
VII	Difficult to stand. Noticed by drivers. Hanging objects quiver. Furniture broken. Damage to Masonry D including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices, also unbraced parapets and architectural ornaments. Some cracks in Masonry C. Waves on ponds, water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.
VIII	Steering of cars affected. Damage to Masonry C: partial collapse. Some damage to Masonry B: none to Masonry A. Fall of stucco and some Masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down: loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.
IX	General panic. Masonry D destroyed; Masonry C heavily damaged, sometimes with complete collapse; Masonry B seriously damaged. General damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames racked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluviated areas sand and mud ejected, earthquake foundations, sand craters.
X	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.
XI	Rails bent greatly. Underground pipelines completely out of service.
XII	Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

Source : Richter, 1958.

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표 2.5-6 (5 중 1)

MEDVEDEV-SPONHEUER-KARNIK (MSK)

진도척도

Classification of the Scale

Types of structures (buildings not antiseismic)

Structure A : Buildings in field-stone, rural structures, adobe houses, clay houses.

B : Ordinary brick buildings, buildings of the large block and prefabricated type, half timbered structures, buildings in natural hewn stone.

C : Reinforced buildings, well-built wooden structures.

Definition of quantity

Single, few : about 5%

Many : about 50%

Most : about 75%

Classification of Damage to Buildings

Grade 1 : Slight damage : Fine cracks in plaster; fall of small pieces of plaster.

Grade 2 : Moderate damage : Small cracks in walls; fall of fairly large pieces of plaster; pantiles slip off; cracks in chimneys; parts of chimneys fall down.

Grade 3 : Heavy damage : Large and deep cracks in walls; fall of chimneys.

Grade 4 : Destruction : Gaps in walls; parts of buildings may collapse; separate parts of the building lose their cohesion; inner walls and filled-in walls of the frame collapse.

Grade 5 : Total damage : Total collapse of buildings.

Arrangement of the Scale

a) Persons and surroundings

b) Structures of all kinds

c) Nature

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표 2.5-6 (5 중 2)

Intensity Grades

I. Not noticeable

The intensity of the vibration is below the limit of sensibility: the tremor is detected and recorded by seismographs only.

II. Scarcely noticeable (very slight)

Vibration is felt only by individual people at rest in houses, especially on upper floors of buildings.

III. Weak, partially observed only

The earthquake is felt indoors by a few people, outdoors only in favorable circumstances. The vibration is like that due to the passing of a light truck. Attentive observers notice a slight swinging of hanging objects, somewhat more heavily on upper floors.

IV. Largely observed

The earthquake is felt indoors by many people, outdoors by few. Here and there people awake, but no one is frightened. The vibration is like that due to the passing of a heavily loaded truck. Windows, doors, and dishes rattle. Floors and walls creak. Furniture begins to shake. Hanging objects swing slightly. Liquids in open vessels are slightly disturbed. In standing motor cars the shock is noticeable.

V. Awakening

(a) The earthquake is felt indoors by all, outdoors by many. Many sleeping people awake. A few run outside. Animals become uneasy. Buildings tremble throughout. Hanging objects swing considerably. Pictures knock against walls or swing out of place. Occasionally pendulum clocks stop. Unstable objects may be overturned or shifted. Open doors and windows are thrust open and slam back again. Liquids spill in small amounts from well-filled open containers. The sensation of vibration is like that due to a heavy object falling inside the buildings.

(b) Slight damages of Grade 1 in buildings of Type A are possible.

(c) Sometimes change in flow of springs.

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표 2.5-6 (5 중 3)

VI. Frightening

- (a) Felt by most indoors and outdoors. Many people in buildings are frightened and run outdoors. A few persons lose their balance. Domestic animals run out of their stalls. In few instances, dishes and glassware may break, books fall down. Heavy furniture may possibly move and small steeple bells may ring.
- (b) Damage of Grade 1 is sustained in single buildings of Type B and in many of Type A. Damage in few buildings of Type A is of Grade 2.
- (c) In few cases cracks up to widths of 1 cm possible in wet ground; in mountains, occasional landslips; changes in flow of springs and in level of well water are observed.

VII. Damage to buildings

- (a) Most people are frightened and run outdoors. Many find it difficult to stand. The vibration is noticed by persons driving motor cars. Large bells ring.
- (b) In many buildings of Type C, damage of Grade 1 is caused; in many buildings of Type B, damage is of grade 2. Many buildings of Type A suffer damage of grade 3, few of Grade 4. In some instances, landslips of roadway on steep slopes; cracks in roads; seams of pipelines damaged; cracks in stone walls.
- (c) Waves are formed on water and water is made turbid by mud stirred up. Water levels in wells change and the flow of springs changes. In few cases, dry springs have their flow restored and existing springs stop flowing. In isolated instances, parts of sandy or gravelly banks slip off.

VIII. Destruction of buildings

- (a) Fright and panic; also persons driving motor cars are disturbed. Here and there branches of trees break off. Even heavy furniture moves and partly overturns. Hanging lamps are in part damaged.
- (b) Many buildings of Type C suffer damage of Grade 2, few of Grade 3. Many buildings of Type B suffer damage of Grade 3 and few of grade 4 and many buildings of Type A suffer damage of Grade 4 and few of Grade 5. Occasional breakage of pipe seams. Memorials and monuments move and twist. Tombstones overturn. Stone walls collapse.
- (c) Small landslips in hollows and on banked roads on steep slopes; cracks in ground up to widths of several centimeters. Water in lakes becomes turbid. Dry wells refill and existing wells become dry. In many cases, change in flow and level of water.

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표 2.5-6 (5 중 4)

IX. General damage to buildings

- (a) General panic; considerable damage to furniture. Animals run to and fro in confusion and cry.
- (b) Many buildings of Type C suffer damage of Grade 3, a few of Grade 4. Many buildings of Type B show damage of Grade 4, a few of Grade 5. Many buildings of Type A suffer damage of Grade 5. Monuments and columns fall. Considerable damage to reservoirs; underground pipes partly broken. In individual cases, railway lines are bent and roadways damaged.
- (c) On flat land, overflow of water, sand, and mud is often observed. Ground cracks to widths of up to 10 cm, on slopes and river banks more than 10 cm; furthermore, a large number of slight crack in ground; falls of rock, many landslides and earth flows; large waves on water. Dry wells renew their flow and existing wells dry up.

X. General description of buildings

- (a) Many buildings of Type C suffer damage of Grade 4, a few of Grade 5. Many buildings of Type B show damage of Grade 5; most of Type A have destruction Grade 5; critical damage to dams and dykes and severe damage to bridges. Railway lines are bent slightly. Underground pipes are broken or bent. Road paving and asphalt show waves.
- (b) In ground, cracks up to widths of more than 10 cm, sometimes up to 1 meter. Parallel to water courses occur broad fissures. Loose ground slides from steep slopes. From river banks and steep coasts considerable landslides are possible. In coastal areas, displacement of sand and mud; change of water level in wells; water from canals, lakes, rivers, etc., thrown on land. New lakes occur.

XI. Catastrophe

- (a) Severe damage even to well-built buildings, bridges, water dams, and railway lines; highways become useless; underground pipes destroyed
- (b) Ground considerably distorted by broad cracks and fissures as well as by movement in horizontal and vertical directions; numerous land slips and falls of rock. The intensity of the earthquake requires to be investigated especially.

영광 5,6호기 최종안전성분석보고서

표 2.5-6 (5 중 5)

XII. Landscape changes

- (a) Practically all structures above and below ground are greatly damaged or destroyed
- (b) The surface of the ground is radically changed. Considerable ground cracks with extensive vertical and horizontal movements are observed. Fall of rock and slumping of river banks over wide areas; lakes are dammed; waterfalls appear, and rivers are deflected. The intensity of the earthquake requires to be investigated specially.

Source : IAEA, 1972.



영광 5.6호기 최종안전성분석보고서

표 2.5-7

홍성지진(1978년 10월 7일)에 의한 지표면 및 건물의 균열

LOCATION	AZIMUTH (°)	LENGTH (m)	WIDTH (mm)	COMMENTS
Monument of Choachin Kim	345	6	6(max)	
Monument of Choachin Kim (SW Part)	313	3	2	
Honju Middle School Building	337	7.2	10(max)	
Honju Middle School Building	280	1	2	Damage
Honju Middle School Building	260	6	10(max)	
Honju Middle School Playground	170	48	20(max)	
Hongseong Girl's Middle School	355	1	2	
Hongseong Girl's Middle School	273	10.8	6	
Hongseong High School Gym	257	1	2	
Hongseong Girl's High School	270	13.8	5	
Hongseong Girl's High School	240	7.8	2	
Hongdong-myen, Kuryong-ri, Bacamsin	33	3	5(max)	
Hongseong-up, Namjang-ri, Namsan	230	4.2	3	Weathered Rock
Military Base	20-25	60	3	

From KIGAM (1978)

영광 5.6호기 최종안전성분석보고서

표 2.5-8

지체구조와 관련한 최대 지진

TECTONIC PROVINCE	DATE OF MAXIMUM EARTHQUAKES (GMT)			EPICENTER OR PLACE OF MAXIMUM INTENSITY		DEPTH OF FOCUS (if known) (km)	EPICENTRAL DISTANCE TO SITE (km)	ADJUSTED DISTANCE TO SITE (km)		LIBRARY AND SOURCE	MAGNITUDE (TSUBOI OR RICHTER) OR INTENSITY (JMA or MMI)
	Year	Month	Day	N-Latitude	E-Longitude			EPICENTRAL	HYPOCENTRAL		
1. 황해	1910	JAN	8	35.000	122.000	-	405.4	90	91	ISC, GUTE NOAA, G-R	M = 6.75
2. 평남항사대	1944	DEC	19	39.000	124.000	-	454.2	285	285	ISC, GUTE NOAA, G-R	M = 6.75
3. 경기육괴	1978	OCT	7	36.600	126.700	10	135.7	10	14	ICMA	JMA V M = 5.0
4. 육천습곡대	1919	DEC	22	34.783	126.383	-	68.6			SUPP, SHP	JMA III
	1923	JAN	12	36.667	127.750	-	185.0			SUPP, SHP	JMA III
	1933	DEC	15	36.000	127.000	-	84.9			SUPP, SHP	JMA III
	1933	DEC	20	35.817	127.150	-	80.8			SUPP, SHP	JMA III
	1939	JAN	9	36.083	127.050	-	94.9	0	10	SUPP, SHP	JMA III
	1939	AUG	31	36.100	127.083	-	98.2			SUPP, SHP	JMA III
	1976	OCT	19	36.200	127.500	-	132.1			SUPP, KMA	JMA III
	1978	SEP	16	36.600	127.900	-	188.7			SUPP, KMA	JMA III
	1989	JUN	23	36.700	127.800	-	190.7			ICMA	M = 5.2
	1936	JUL	3	35.233	127.650	-	113.5	65	NA	SUPP, SHP	JMA V
6. 경상분지	1914	NOV	20	35.500	128.500	-	189.4			SUPP, SHP	JMA III
	1914	DEC	23	35.000	128.000	-	150.7	113	113	SUPP, SHP	JMA III
	1985	JUN	20	35.900	128.600	-	205.3			ICMA	M = 3.3, JMA III
	1997	JUN	26	35.800	129.300	-	265.0			ICMA	M = 4.2
7. 원동해 일카리 화산지구	1949	OCT	Unk.	36.033	129.383	-	277.5	265	NA	SUPP, SHP	Unknown (JMA III?)
8. 제주도 화산대	1996	MAY	26	33.500	126.000	-	214.5	203	203	ICMA	M = 3.5
9. 한국 대륙붕	1981	APR	15	35.900	130.100	33	338.2	160	163	ICMA	JMA IV M = 4.8
10. 관문분지	1961	AUG	14	34.000	130.000	-	363.3	275	275	ISC, MOS	M = 5.0
11. 상군-마구찌대	1943	SEP	10	35.250	134.000	-	690.0	280	280	ISC, GUTE NOAA, G-R	M = 7.4
	880 (Historic Quake) Southwest Honshu, Japan						-			ISC, GUTE NOAA, G-R	M = 7.4
12. 울릉분지	1940	AUG	13	36.000	132.000	-	509.9	305	305	ISC, GUTE NOAA, G-R	M = 6.75
13. 푸키인 레이난 육괴	No Earthquakes			-	-	-	-	210	-	-	-

영광 5,6호기 최종안전성분석보고서

표 2.5-9

광주단층 지역에 분포하는 암석의 연대측정 기록

ROCK TYPE (Field Identification)	TYPE OF DATE	% K (average) of two analyses)	RADIOMETRIC AGE (millions of years)	GEOLOGIC AGE
Agglomerate, Chloritized ⁽¹⁾	Whole Rock K/Ar	3.128	75.3 ± 3.0	Upper Cretaceous
Agglomerate, Chloritized ⁽¹⁾	Whole Rock K/Ar	1.336	75.4 ± 3.3	Upper Cretaceous
Andesite	Whole Rock K/Ar	0.621	90.0 ± 4.6	Middle Cretaceous
Andesite	Whole Rock K/Ar	3.745	77.9 ± 3.0	Upper Cretaceous
Biotite Granite	Biotite K/Ar	7.100	169 ± 6	Jurassic
Granitic Gneiss, Chloritized	Biotite, Chloritized ⁽²⁾ K/Ar	0.932	133 ± 6	Lower Cretaceous

(1) Agglomerates treated with HF and HNO₃ to remove secondary minerals due to alteration

(2) Age determination on chloritized biotite reflects the approximate time of the alteration of the biotite. See section 2.5.2.3.2 for discussion.

표 2.5-10
최대지진에 의한 부지가속도

TECTONIC PROVINCE	MAXIMUM MAGNITUDE - OR EPICENTER INTENSITY	ADJUSTED DISTANCE TO SITE (km)	SITE INTENSITY	JMA RANGE	HORIZONTAL GROUND ACCELERATION (g)						SSE
					INTENSITY DATA ^{o)}			MAGNITUDE DATA ^{o)}			
					K	T/B	D	E/V	D/B		
1. 황해	M = 6.75	90 ^{o)}	NA	NA	NA	NA	0.061	0.075	0.050	0.20	
2. 평안습곡대	M = 6.75	285 ^{o)}	NA	NA	NA	NA	0.017	0.012	0.017		
3. 경기육괴	JMA V	10 ^{o)}	JMA V	0.080~0.250	0.145	NA	NA	NA	NA		
4. 육천습곡대	M = 5.0	10 ^{o)}	NA	NA	NA	NA	0.123	0.125	0.150	0.20	
	JMA III	0 ^{o)}	JMA III	0.008~0.025	0.015	NA	NA	NA	NA		
	M = 5.2	10 ^{o)}	NA	NA	NA	NA	0.136	0.146	0.165		
5. 소백산육괴	JMA V	65 ^{o)}	JMA V	0.080~0.250	0.015	NA	NA	NA	NA		
	M = 5.0	65 ^{o)}	NA	NA	NA	NA	0.035	0.028	0.016		
	JMA III	113 ^{o)}	JMA 0	<0.0008	0.0005	NA	NA	NA	NA		
6. 경상분지	M = 4.2	113 ^{o)}	NA	NA	NA	NA	0.010	0.004	0.002		
	JMA III	265 ^{o)}	JMA 0	<0.0008	0.0005	NA	NA	NA	NA		
	M = 3.5	203 ^{o)}	NA	NA	NA	NA	0.005	0.002	0.001		
7. 포항-울산 화산대	JMA IV	160 ^{o)}	JMA II	0.0025~0.008	0.005	NA	NA	NA	NA		
	M = 4.8	160 ^{o)}	NA	NA	NA	NA	0.012	0.007	0.004		
	M = 5.0	275 ^{o)}	NA	NA	NA	NA	0.007	0.003	0.002		
8. 한국 대륙붕	M = 7.4	280 ^{o)}	NA	NA	NA	NA	0.023	0.021	0.036		
	M = 6.75	305 ^{o)}	NA	NA	NA	NA	0.015	0.011	0.016		
	No Earthquakes	210 ^{o)}	-	-	-	-	-	-	-		
9. 관동분지											
10. 산간-아마구찌대											
11. 울릉분지											
12. 푸키인 레이난 육괴											

(1) References : K : Kawasumi(1951)
E/V : Esteva and Villaverde (1973) D/B : Donovan and Bornstein (1977)

T/B : Trifunac and Brady (1975)

D : Donovan (1973)

(2) Epicentral

(3) Hypocentral or distance to causative fault

영광 5,6호기 최종안전성분석보고서

표 2.5-11

부지 특성값

	UNIT 7, 8 (D'Appolonia)	FUTURE 3, 4 (W.C. I)		PSAR 3, 4 (S & L)		PSAR 5, 6 (KOPEC)			
		3 호기	4 호기	3 호기	4 호기	5 호기			6 호기
단위중량(Unit Weight)	2.55	2.53	2.53	2.44	2.46	파쇄대	원자로	기 타	
비중(Specific Gravity)	2.55	2.53	2.53	2.58	2.58	2.60	2.60	2.60	2.60
투수계수(Permeability)	$10^{-4} \sim 10^{-5}$	$10^{-4} \sim 10^{-5}$	$10^{-3} \sim 10^{-5}$	$10^{-4} \sim 10^{-5}$	$10^{-3} \sim 10^{-5}$	2.63	2.63	2.63	2.68
포아손비	Static	0.16	0.19	0.18	0.19	-	0.20	0.20	0.24
	Dynamic	0.33	0.33	0.34	0.35	-	0.31	0.31	0.31
일축압축강도(kg/cm ²)	1177	1150	1450	1011	1167	386	1073	1273	1466
허용지지력(kg/cm ²)	66	70	70	-	-	20	70	70	70
탄성계수 ($\times 10^5$ kg/cm ²)	Static	2.5	2.3	2.4	2.3	0.53	1.6	2.0	2.5
	Dynamic	2.8	2.4	2.6	2.6	0.65	1.6	2.0	2.5
전단파속도(V_s : m/sec)				1960	1928	966	1306	1565	1884
압축파속도(V_p : m/sec)				4000	4300	1850	2500	3200	4000

표 2.5-12 (2 중 1)

암석 실내시험 총괄표

SAMPLE NO.	DEPTH (m)	ROCK TYPE	DRY UNIT WEIGHT	SPECIFIC GRAVITY	POROSITY (%)	Qu (kg/cm ²)	VELOCITY(m/sec)		E(x10 ⁵ kg/cm ²)		POISSON'S RATIO		G(x10 ⁵ kg/cm ²)		비 고
							Vp	Vs	STATIC	DYNAMIC	STATIC	DYNAMIC	STATIC	DYNAMIC	
P5-1-C1	59.0	SW/AD	2.574	2.601	1.040	530	3,800	2,430	3.000	3.580	0.135	0.154	1.322	1.551	
P5-4-C1	27.2	SW/AD	2.669	2.682	0.482	810	4,650	2,980	2.339	5.570	0.171	0.152	0.999	2.419	
P5-4-C2	34.2	SW/AD	2.657	2.670	0.479	1,310	4,620	2,850	4.556	5.254	0.286	0.193	1.771	2.202	
P5-4-C3	45.7	SW/AD	2.677	2.690	0.500	1,790	4,450	3,000	5.808	5.326	0.322	0.083	2.197	2.458	
P5-7-C1	16.4	SW/AD	2.623	2.654	1.157	1,480	4,680	2,346	2.829	3.925	0.157	0.332	1.223	1.473	*
P5-7-C2	16.9	SW/AD	2.654	2.685	1.150	870	4,200	3,600	1.936		0.161		0.834		
P5-9-C1	13.5	SW/AD	2.635	2.664	1.101	1,500	3,780	2,480	3.463	3.711	0.289	0.122	1.343	1.653	
P5-9-C2	19.9	SW/AD	2.662	2.689	1.006	1,970	4,080	2,700	4.425	4.398	0.230	0.110	1.799	1.980	
P5-11-C1	3.3	SW/AD	2.625	2.655	1.137	790	3,800	2,890	1.057		0.121		0.471		*
P5-11-C2	15.2	FR/AD	2.683	2.712	1.082	1,030	3,710	2,850	1.500		0.128		0.665		*
P5-15-C1	17.2	FR/RD	2.595	2.623	1.070	830	3,500	2,230	3.168	3.050	0.208	0.158	1.311	1.317	
P5-15-C2	20.2	FR/RD	2.574	2.601	1.057	880	3,590	2,190	3.649	3.032	0.217	0.204	1.499	1.259	

* 이상치

영광 5,6호기 최종안전성분석보고서

표 2.5-12 (2 중 2)

SAMPLE NO.	DEPTH (m)	ROCK TYPE	DRY UNIT WEIGHT	SPECIFIC GRAVITY	POROSITY (%)	Qu (kg/cm ²)	VELOCITY(m/sec)		E(x10 ⁵ kg/cm ²)		POISSON'S RATIO		G(x10 ⁵ kg/cm ²)		비 고
							Vp	Vs	STATIC	DYNAMIC	STATIC	DYNAMIC	STATIC	DYNAMIC	
P6-1-C1	3.1	FR/RD	2.644	2.678	1.252	1,110	5,580	3,870	6.319	8.379	0.229	0.037	2.571	4.041	*
P6-1-C2	9.9	FR/RD	2.655	2.688	1.233	1,870	5,250	4,040	5.435		0.209		2.248		
P6-1-C3	18.0	FR/AD	2.700	2.724	0.879	2,180	5,230	3,680	4.571	7.535	0.219	0.010	1.875	3.731	
P6-2-C1	4.9	FR/AD	2.669	2.696	0.984	2,390	5,330	4,080	5.714		0.240		2.304		*
P6-2-C2	10.3	FR/AD	2.683	2.705	0.810	2,180	5,340	4,070	4.158		0.247		1.667		
P6-4-C1	2.6	SW/AD	2.661	2.688	1.015	1,480	5,230	3,880	5.594		0.266		2.209		
P6-4-C2	8.1	FR/AD	2.683	2.708	0.925	2,060	4,470	3,290	5.109		0.234		2.070		*
P6-4-C3	21.2	FR/AD	2.662	2.684	0.814	1,870	4,480	3,070	4.079	5.414	0.214	0.057	1.680	2.560	
P6-7-C1	8.9	SW/AD	2.683	2.695	0.430	1,270	4,520	3,690	3.714		0.214		1.530		
P6-7-C2	21.1	FR/AD	2.694	2.705	0.425	2,040	4,540	3,360	8.147		0.371		2.971		*
P6-9-C1	5.2	SW/AD	2.676	2.695	0.720	1,990	4,170	3,170	4.367		0.273		1.715		
P6-9-C2	13.2	FR/AD	2.671	2.684	0.491	2,100	4,340	3,050	5.472	5.132	0.285	0.012	2.129	2.535	
P6-11-C1	14.1	FR/AD	2.653	2.676	0.859	960	4,350	2,970	5.042	5.079	0.211	0.063	2.082	2.388	*
P6-11-C2	25.0	FR/RD	2.640	2.670	1.138	1,460	4,340	3,050	5.249	5.072	0.181	0.012	2.222	2.506	

* 이상치

영광 5,6호기 최종안전성분석보고서

표 2.5-13 (6 중 1)
Point Load 시험

HOLE NO.	DEPTH (m)	DIAMETER (mm) (inch)		STRESS (psi)	LOAD (lb)	Is (psi)	Is(50) (kg/cm ²)	ROCK TYPE	Qu=18.22*Is (kg/cm ²)	E=285*Qu (x10 ⁻⁵)	비 고
P5-1	14.3	52.1	2.0	600	3000	714.4	51.1	SW RH-DA	930	2.652	
P5-1	21.2	51.5	2.0	300	1500	365.6	26.0	MW RH-DA	474	1.350	
P5-1	30.5	50.7	2.0	170	850	213.8	15.1	MW AD	275	0.784	
P5-1	48.4	52.2	2.1	520	2600	615.6	44.1	SW AD	803	2.288	
P5-1	53.0	52.2	2.1	240	1200	284.1	20.3	SW AD	371	1.056	*
P5-1	59.8	52.4	2.1	300	1500	352.4	25.3	SW AD	460	1.312	*
P5-2	30.0	52.1	2.1	880	4400	1045.8	74.8	SW RH-DA	1,363	3.883	
P5-3	5.5	49.4	1.9	120	600	158.9	11.1	MW AD	202	0.576	
P5-3	13.8	54.8	2.2	180	900	193.4	14.1	SW AD	258	0.735	*
P5-3	23.0	54.4	2.1	880	4400	959.2	69.9	SW AD	1,274	3.632	
P5-3	25.5	54.4	2.1	1200	6000	1308.0	95.4	FR AD	1,738	4.953	
P5-3	32.5	54.8	2.2	1000	5000	1074.2	78.6	FR AD	1,432	4.081	
P5-3	53.0	54.9	2.2	1520	7600	1626.8	119.1	FR AD	2,170	6.185	
P5-3	65.2	54.7	2.2	300	1500	324.0	23.7	FR AD	431	1.229	*
P5-4	21.8	54.2	2.1	500	2500	550.1	40.0	SW AD	729	2.078	
P5-4	34.5	52.1	2.0	60	300	71.4	5.1	FR AD	93	0.265	*
P5-4	44.9	52.2	2.1	880	4400	1041.8	74.6	FR AD	1,359	3.872	
P5-4	54.1	52.1	2.1	1000	5000	1188.4	85.0	FR AD	1,548	4.413	
P5-4	69.0	52.3	2.1	640	3200	754.8	54.1	FR AD	985	2.808	

* 이상치

영광 5.6호기 최종안전성분석보고서

표 2.5-13 (6 중 2)

HOLE NO.	DEPTH (m)	DIAMETER (mm) (inch)		STRESS (psi)	LOAD (lb)	Is (psi)	Is(50) (kg/cm ²)	ROCK TYPE	Qu=18.22*Is (kg/cm ²)	E=285*Qu (x10 ⁵)	비 고
P5-4	75.1	52.3	2.1	1120	5600	1320.8	94.6	FR RH-DA	1,724	4.913	
P5-4	86.9	52.2	2.1	620	3100	734.0	52.5	FR AD	957	2.728	
P5-5	4.0	52.0	2.0	260	1300	310.2	22.2	MW AD	404	1.151	
P5-5	27.8	52.2	2.1	600	3000	710.3	50.8	SW AD	926	2.640	
P5-5	45.5	54.4	2.1	1240	6200	1351.6	98.6	SW AD	1,796	5.118	
P5-5	65.5	53.6	2.1	660	3300	741.1	53.7	SW AD	978	2.787	
P5-5	79.3	52.2	2.1	360	1800	426.2	30.5	SW RH-DA	556	1.584	
P5-5	90.0	54.0	2.1	860	4300	951.4	69.1	FR RH-DA	1,260	3.590	
P5-6	9.4	54.6	2.1	1200	6000	1298.5	94.8	FR AD	1,728	4.925	
P5-6	22.1	54.8	2.2	1160	5800	1248.3	91.3	FR AD	1,663	4.740	
P5-6	29.8	54.5	2.1	140	700	152.0	11.1	FR PROPYL	202	0.576	*
P5-6	58.0	54.7	2.2	1140	5700	1229.0	89.8	FR AD	1,637	4.665	
P5-6	80.0	52.4	2.1	1020	5100	1198.3	85.9	FR AD	1,565	4.461	
P5-7	10.2	52.4	2.1	420	2100	493.4	35.4	MW AD	645	1.837	
P5-7	43.0	54.4	2.1	860	4300	937.4	68.4	SW AD	1,245	3.549	
P5-7	57.0	54.4	2.1	1520	7600	1656.9	120.8	FR AD	2,201	6.273	
P5-7	69.3	52.0	2.0	640	3200	763.5	54.6	FR AD	994	2.833	
P5-7	76.4	54.5	2.1	860	4300	934.0	68.2	SW AD	1,242	3.539	
P5-8	4.8	52.1	2.1	280	1400	332.8	23.8	MW RH-DA	434	1.236	
P5-8	17.7	54.2	2.1	1200	6000	1317.7	95.9	FR AD	1,748	4.981	

* 이상치

영광 5,6호기 최종안전성분석보고서

HOLE NO.	DEPTH (m)	DIAMETER (mm) (inch)		STRESS (psi)	LOAD (lb)	Is (psi)	Is(50) (kg/cm ²)	ROCK TYPE	Qu=18.22*Is (kg/cm ²)	E=285*Qu (x10 ⁵)	비고
P5-8	37.0	54.3	2.1	1160	5800	1269.1	92.5	FR AD	1,685	4.801	
P5-8	51.4	54.2	2.1	360	1800	395.3	28.8	FR AD	524	1.494	
P5-8	59.3	54.2	2.1	480	2400	527.1	38.4	FR AD	699	1.992	
P5-9	12.0	51.7	2.0	380	1900	458.6	32.7	SW AD	595	1.697	
P5-9	21.0	51.5	2.0	1100	5500	1337.9	95.2	FR AD	1,734	4.942	
P5-9	35.0	54.9	2.2	940	4700	1006.1	73.7	FR AD	1,342	3.825	
P5-9	45.0	54.7	2.2	900	4500	972.1	71.0	FR AD	1,294	3.688	
P5-9	58.2	54.8	2.2	820	4100	880.8	64.4	FR AD	1,174	3.346	
P5-10	12.3	54.9	2.2	1220	6100	1305.7	95.6	FR AD	1,742	4.964	
P5-10	21.6	54.2	2.1	600	3000	658.9	48.0	FR AD	874	2.490	
P5-10	37.6	54.1	2.1	520	2600	573.1	41.7	FR AD	760	2.165	
P5-10	52.1	54.4	2.1	1040	5200	1133.6	82.7	FR AD	1,506	4.292	
P5-10	60.0	55.0	2.2	80	400	85.5	6.3	SW PROPYLE	114	0.325	*
P5-11	9.8	54.8	2.2	340	1700	365.2	26.7	FR AD	487	1.387	*
P5-11	18.3	54.5	2.1	200	1000	217.2	15.9	FR AD	289	0.823	*
P5-11	26.0	54.8	2.2	300	1500	322.3	23.6	FR RH-DA	430	1.224	*
P5-11	28.3	54.6	2.1	780	3900	844.0	61.6	FR RH-DA	1,123	3.201	
P5-12	5.9	52.0	2.0	640	3200	763.5	54.6	SW AD	994	2.833	
P5-12	17.6	54.6	2.1	900	4500	973.9	71.1	FR AD	1,296	3.693	
P5-12	24.0	51.7	2.0	990	4950	1194.8	85.1	FR AD	1,551	4.421	

* 이상치

영광 5,6호기 최종안전성분석보고서

표 2.5-13 (6 중 4)

HOLE NO.	DEPTH (m)	DIAMETER (mm) (inch)		STRESS (psi)	LOAD (lb)	Is (psi)	Is(50) (kg/cm ²)	ROCK TYPE	Qu=18.22*Is (kg/cm ²)	E=285*Qu (x10 ⁵)	비 고
P5-12	30.0	51.9	2.0	1060	5300	1269.4	90.6	FR AD	1,651	4.706	
P6-1	3.8	54.7	2.2	1000	5000	1078.1	78.8	FR RH-DA	1,436	4.092	
P6-1	20.1	54.7	2.2	940	4700	1015.3	74.2	FR AD	1,352	3.852	
P6-1	31.4	54.9	2.2	360	1800	385.3	28.2	FR AD	514	1.465	*
P6-1	54.0	52.4	2.1	1240	6200	1456.8	104.4	FR AD	1,903	5.424	
P6-2	11.7	54.5	2.1	1660	8300	1802.8	131.6	FR AD	2,397	6.832	
P6-3	5.0	54.9	2.2	1340	6700	1434.2	105.0	FR AD	1,913	5.453	
P6-3	15.3	54.7	2.2	760	3800	819.4	59.9	FR AD	1,091	3.110	
P6-3	32.4	54.7	2.2	540	2700	583.2	42.6	FR AD	776	2.213	
P6-3	56.4	54.5	2.1	860	4300	934.0	68.2	FR AD	1,242	3.539	
P6-3	69.5	54.9	2.2	1100	5500	1177.3	86.2	FR AD	1,571	4.476	
P6-4	5.6	51.5	2.0	1200	6000	1462.3	104.0	FR AD	1,895	5.400	
P6-4	15.7	54.8	2.2	1200	6000	1289.0	94.3	FR AD	1,718	4.897	
P6-4	26.0	54.8	2.2	720	3600	774.8	56.7	FR AD	1,032	2.942	
P6-4	36.8	54.8	2.2	1260	6300	1353.5	99.0	FR AD	1,804	5.142	
P6-4	45.8	54.9	2.2	1200	6000	1284.3	94.0	FR AD	1,713	4.883	
P6-4	54.4	54.8	2.2	1060	5300	1138.6	83.3	FR AD	1,518	4.325	
P6-4	65.2	54.9	2.2	1020	5100	1091.7	79.9	FR AD	1,456	4.150	
P6-4	79.1	54.9	2.2	1080	5400	1155.9	84.6	FR AD	1,542	4.395	
P6-4	87.7	54.8	2.2	1360	6800	1460.9	106.9	FR AD	1,947	5.550	

* 이상치

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영광 5,6호기 최종안전성분석보고서

표 2.5-13 (6 중 5)

HOLE NO.	DEPTH (m)	DIAMETER (mm) (inch)		STRESS (psi)	LOAD (lb)	Is (psi)	Is(50) (kg/cm ²)	ROCK TYPE	Qu=18.22*Is (kg/cm ²)	E=285*Qu (x10 ⁵)	비 고
P6-5	8.9	54.8	2.2	730	3650	784.2	57.4	FR AD	1,045	2,979	
P6-5	15.0	54.9	2.2	580	2900	620.8	45.4	FR AD	828	2,360	
P6-5	25.7	54.8	2.2	850	4250	913.1	66.8	FR AD	1,217	3,468	
P6-5	34.1	54.8	2.2	1190	5950	1278.3	93.5	FR AD	1,704	4,856	
P6-5	48.8	54.8	2.2	1060	5300	1138.6	83.3	FR AD	1,518	4,325	
P6-5	56.0	54.9	2.2	1000	5000	1070.3	78.4	FR AD	1,428	4,069	
P6-5	67.0	54.8	2.2	1500	7500	1611.3	117.9	FR AD	2,148	6,121	
P6-5	77.2	54.8	2.2	1120	5600	1203.1	88.0	FR AD	1,604	4,570	
P6-5	85.7	55.0	2.2	1160	5800	1239.3	90.8	FR AD	1,654	4,713	
P6-6	7.2	54.6	2.1	520	2600	562.7	41.1	FR AD	749	2,134	
P6-6	20.0	54.1	2.1	880	4400	969.9	70.5	FR AD	1,285	3,663	
P6-6	36.9	54.2	2.1	1100	5500	1207.9	87.9	FR AD	1,602	4,566	
P6-6	49.0	54.3	2.1	920	4600	1006.5	73.3	FR AD	1,336	3,808	
P6-6	73.5	54.2	2.1	1400	7000	1537.3	111.9	FR AD	2,039	5,811	
P6-7	13.6	54.9	2.2	920	4600	984.6	72.1	FR AD	1,314	3,744	
P6-7	37.4	54.9	2.2	900	4500	963.2	70.5	FR AD	1,285	3,662	
P6-7	47.3	55.0	2.2	1080	5400	1153.8	84.5	FR AD	1,540	4,388	
P6-7	67.9	54.7	2.2	900	4500	970.3	70.9	FR AD	1,292	3,683	
P6-7	87.7	54.9	2.2	740	3700	792.0	58.0	FR AD	1,057	3,011	
P6-8	10.0	54.7	2.2	520	2600	560.6	41.0	FR AD	747	2,128	

* 이상치

영광 5,6호기 최종안전성분석보고서

표 2.5-13 (6 중 6)

HOLE NO.	DEPTH (m)	DIAMETER (mm) (inch)		STRESS (psi)	LOAD (lb)	Is (psi)	Is(50) (kg/cm ²)	ROCK TYPE	Qu=18.22*Is (kg/cm ²)	E=285*Qu (x10 ⁵)	비 고
P6-8	22.8	54.9	2.2	680	3400	727.8	53.3	FR AD	971	2.767	
P6-8	36.4	54.7	2.2	1840	9200	1983.7	145.0	FR AD	2,642	7.530	
P6-8	58.0	54.7	2.2	680	3400	733.1	53.6	FR AD	976	2.783	
P6-9	7.1	54.3	2.1	860	4300	940.9	68.5	FR AD	1,249	3.560	
P6-9	11.0	54.3	2.1	560	2800	612.7	44.6	FR AD	813	2.318	
P6-9	23	54.6	2.1	1600	8000	1731.3	126.4	FR AD	2,304	6.566	
P6-9	42.8	54.8	2.2	840	4200	902.3	66.0	FR AD	1,203	3.428	
P6-9	51.6	54.4	2.1	520	2600	566.8	41.3	FR AD	753	2.146	
P6-10	14.5	52.6	2.1	500	2500	583.0	41.9	MW AD	763	2.174	
P6-10	19.5	55.0	2.2	1260	6300	1343.6	98.5	FR AD	1,794	5.113	
P6-10	28.1	54.7	2.2	600	3000	646.9	47.3	FR AD	862	2.455	
P6-10	32.8	54.8	2.2	1460	7300	1568.3	114.7	FR AD	2,090	5.958	
P6-10	48.6	55.2	2.2	400	2000	423.5	31.1	FR AD	566	1.614	*
P6-11	8.0	54.4	2.1	960	4800	1046.4	76.3	FR AD	1,390	3.962	
P6-11	11.0	54.8	2.2	740	3700	794.9	58.2	FR AD	1,060	3.020	
P6-11	16.5	54.7	2.2	880	4400	948.7	69.3	FR AD	1,264	3.601	
P6-11	26.0	54.7	2.2	1100	5500	1185.9	86.7	FR RH-DA	1,579	4.501	
P6-12	18.0	51.9	2.0	80	400	95.8	6.8	HW AD	125	0.355	
P6-12	24.0	52.4	2.1	100	500	117.5	8.4	MW AD	153	0.437	

* 이상치

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영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 1)

공내재하시험

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P5-4	26.0	1ST	1.95	2.10	98.08	228.85	871.8	7.84E+04	8.84E+04	**
		2ND	2.19	2.34	294.23	425.01	871.9	7.86E+04		
		3RD	2.36	2.51	425.01	555.78	871.8	7.88E+04		
							AVE	7.86E+04		
P5-4	31.0	1ST	2.71	2.92	32.69	228.85	934.1	8.48E+04	1.14E+05	
		2ND	2.94	3.07	228.85	359.62	1005.9	9.15E+04		
		3RD	3.06	3.32	294.23	555.78	1006.0	9.17E+04		
							AVE	8.93E+04		
P5-4	34.5	1ST	1.75	1.93	32.69	228.85	1089.8	9.77E+04	1.61E+05	
		2ND	1.88	1.98	163.46	294.23	1307.7	1.17E+05		
		3RD	2.01	2.16	294.23	490.39	1307.7	1.18E+05		
							AVE	1.11E+05		
P5-4	36.5	1ST	2.93	3.00	163.46	228.85	934.1	8.49E+04	1.20E+05	
		2ND	2.98	3.07	196.16	294.23	1089.7	9.91E+04		
		3RD								
							AVE	9.20E+04		
P5-4	43.5	1ST	1.41	1.45	163.46	359.62	4904.0	4.38E+05	7.89E+05	*
		2ND	1.42	1.54	163.46	359.62	1634.7	1.46E+05		
		3RD	1.51	1.63	294.23	490.39	1634.7	1.46E+05		
							AVE	2.43E+05		
P5-4	46.0	1ST	0.36	-0.25	98.08	228.85	1188.8	1.04E+05	2.03E+05	
		2ND	0.20	-0.12	294.23	425.01	1634.7	1.43E+05		
		3RD	0.16	-0.04	359.62	555.78	1634.7	1.43E+05		
							AVE	1.30E+05		
P5-4	53.5	1ST	0.66	-0.63	163.46	228.85	2179.7	1.89E+05	4.71E+05	*
		2ND	0.66	-0.54	163.46	425.01	2179.6	1.90E+05		
		3RD	0.59	-0.49	294.23	555.78	2615.5	2.28E+05		
							AVE	2.02E+05		
P5-4	62.5	1ST	0.55	0.69	98.08	228.85	901.9	7.97E+04	1.55E+05	
		2ND	0.69	0.79	228.85	359.62	1307.7	1.16E+05		
		3RD	0.76	0.85	294.23	425.01	1453.1	1.29E+05		
							AVE	1.08E+05		
P5-5	18.0	1ST	0.87	1.15	98.08	228.85	467.0	4.15E+04	4.42E+04	**
		2ND	1.17	1.55	228.85	425.01	516.2	4.60E+04		
		3RD	1.71	1.84	490.39	555.78	503.0	4.51E+04		
							AVE	4.42E+04		
P5-5	30.0	1ST	0.85	0.91	163.46	228.85	1089.8	9.66E+04	1.71E+05	
		2ND	0.94	1.04	228.85	359.62	1307.7	1.16E+05		
		3RD	1.07	1.20	359.62	555.78	1508.9	1.34E+05		
							AVE	1.16E+05		
P5-5	41.0	1ST	0.83	0.95	98.08	228.85	1089.8	9.66E+04	1.85E+05	
		2ND	0.96	1.10	228.85	425.01	1401.1	1.24E+05		
		3RD	1.11	1.19	425.01	555.78	1634.6	1.45E+05		
							AVE	1.22E+05		

* 이상치
** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 2)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P5-5	60.0	1ST	1.02	1.37	98.08	228.85	373.6	3.32E+04	4.29E+04	**
		2ND	1.28	1.64	163.46	359.62	544.9	4.86E+04		
		3RD	1.71	1.96	359.62	490.39	523.1	4.69E+04		
		AVE						4.29E+04		
P5-5	70.0	1ST	0.95	1.13	98.08	228.85	726.5	6.45E+04	8.77E+04	**
		2ND	1.06	1.28	163.46	359.62	891.6	7.93E+04		
		3RD	1.19	1.51	228.85	555.78	1021.7	9.11E+04		
		AVE						7.83E+04		
P5-6	18.5	1ST	0.60	0.72	98.08	228.85	1089.8	9.63E+04	1.30E+05	
		2ND	0.72	0.90	228.85	425.01	1089.8	9.65E+04		
		3RD	0.90	1.02	425.01	555.78	1089.8	9.67E+04		
		AVE						9.65E+04		
P5-6	25.0	1ST	0.26	0.30	163.46	228.85	1634.8	1.44E+05	3.17E+05	
		2ND	0.31	0.41	228.85	425.01	1961.6	1.73E+05		
		3RD	0.36	0.45	294.23	490.39	2179.6	1.92E+05		
		AVE						1.69E+05		
P5-6	29.0	1ST	0.42	0.52	32.69	163.46	1307.7	1.15E+05	1.93E+05	
		2ND	0.58	0.67	228.85	359.62	1453.0	1.28E+05		
		3RD	0.64	0.77	294.23	490.39	1508.9	1.33E+05		
		AVE						1.26E+05		
P5-6	36.0	1ST	0.54	0.58	163.46	228.85	1634.8	1.44E+05	2.80E+05	
		2ND	0.55	0.70	163.46	425.01	1743.7	1.54E+05		
		3RD	0.64	0.77	294.23	555.78	2011.9	1.78E+05		
		AVE						1.59E+05		
P5-6	42.0	1ST	0.52	0.60	98.08	228.85	1634.6	1.44E+05	3.10E+05	
		2ND	0.65	0.72	294.23	425.01	1868.3	1.65E+05		
		3RD	0.70	0.79	359.62	555.78	2179.6	1.93E+05		
		AVE						1.67E+05		
P5-6	46.0	1ST	0.68	0.86	32.69	228.85	1089.8	9.64E+04	1.48E+05	
		2ND	0.86	1.03	228.85	425.01	1153.9	1.02E+05		
		3RD	1.00	1.15	359.62	555.78	1307.7	1.16E+05		
		AVE						1.05E+05		
P5-6	50.0	1ST	0.24	0.34	98.08	228.85	1307.7	1.15E+05	2.24E+05	
		2ND	0.35	0.46	228.85	425.01	1783.3	1.57E+05		
		3RD	0.46	0.54	425.01	555.78	1634.6	1.44E+05		
		AVE						1.39E+05		
P5-6	55.0	1ST	0.44	0.49	163.46	228.85	1307.8	1.15E+05	2.39E+05	
		2ND	0.46	0.61	163.46	425.01	1743.7	1.54E+05		
		3RD	0.55	0.69	294.23	555.78	1868.2	1.65E+05		
		AVE						1.45E+05		
P5-6	61.0	1ST	0.23	0.32	98.08	228.85	1453.0	1.28E+05	2.89E+05	
		2ND	0.35	0.42	294.23	425.01	1868.3	1.65E+05		
		3RD	0.33	0.48	228.85	555.78	2179.5	1.92E+05		
		AVE						1.61E+05		

* 이상치
** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 3)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P5-6	71.0	1ST	0.41	0.88	32.69	228.85	417.4	3.69E+04	4.13E+04	
		2ND	0.92	1.40	228.85	425.01	408.7	3.63E+04		
		3RD	1.44	1.67	425.01	555.78	568.6	5.08E+04		
P5-7	10.0	1ST	1.06	1.71	65.39	228.85	251.5	2.24E+04	2.27E+04	**
		2ND	1.81	2.51	228.85	425.01	280.2	2.52E+04		
		3RD	2.77	3.06	490.39	555.78	225.5	2.05E+04		
P5-7	15.0	1ST	3.04	3.57	65.39	130.77	123.4	1.13E+04	1.13E+04	**
		2ND					AVE	2.27E+04		
		3RD					AVE	1.13E+04		
P5-7	20.0	1ST	2.85	3.41	65.39	196.16	233.5	2.13E+04	2.13E+04	**
		2ND					AVE	2.13E+04		
		3RD					AVE	2.13E+04		
P5-7	25.0	1ST	0.70	0.83	98.08	228.85	1005.9	8.90E+04	1.71E+05	**
		2ND	1.00	1.13	228.85	425.01	1508.9	1.34E+05		
		3RD	0.92	1.06	294.23	490.39	1401.1	1.24E+05		
P5-7	30.0	1ST	0.77	0.89	98.08	228.85	1089.8	9.65E+04	1.83E+05	**
		2ND	0.85	1.04	163.46	425.01	1376.6	1.22E+05		
		3RD	0.94	1.14	228.85	555.78	1634.7	1.45E+05		
P5-7	35.0	1ST	1.27	1.41	98.08	228.85	934.1	8.32E+04	1.15E+05	**
		2ND	1.47	1.61	294.23	425.01	934.1	8.35E+04		
		3RD	1.52	1.75	294.23	555.78	1137.2	1.02E+05		
P5-7	45.0	1ST	0.48	0.64	98.08	228.85	817.3	7.21E+04	9.22E+04	**
		2ND	0.65	0.87	228.85	425.01	891.6	7.89E+04		
		3RD	0.89	1.02	425.01	555.78	1005.9	8.92E+04		
P5-7	55.0	1ST	0.24	-0.18	163.46	228.85	1089.8	9.53E+04	1.55E+05	**
		2ND	0.18	-0.08	228.85	359.62	1307.7	1.14E+05		
		3RD	0.02	0.08	425.01	555.78	1307.7	1.15E+05		
P5-7	65.0	1ST	2.11	2.39	98.08	196.16	350.3	3.16E+04	3.16E+04	**
		2ND					AVE	3.16E+04		
		3RD					AVE	3.16E+04		
P5-7	75.0	1ST	0.95	-0.84	163.46	228.85	594.5	5.15E+04	6.35E+04	**
		2ND	0.92	-0.55	163.46	425.01	706.9	6.14E+04		
		3RD	0.66	-0.44	294.23	490.39	891.6	7.76E+04		
							AVE	6.35E+04		

* 이상치
** 파쇄대

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영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 4)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P5-9	11.5	1ST	1.45	1.53	163.46	228.85	817.4	7.30E+04	7.25E+04	**
		2ND	1.47	1.64	163.46	294.23	769.2	6.87E+04		
		3RD	1.61	1.92	228.85	490.39	843.7	7.56E+04		
		AVE						7.24E+04		
P5-9	20.0	1ST	2.04	2.26	228.85	425.01	891.6	8.03E+04		
		2ND	2.32	2.39	490.39	555.78	934.1	8.43E+04		
		3RD								
		AVE						8.23E+04		
P5-9	25.0	1ST	0.91	0.98	163.46	294.23	1868.1	1.66E+05		
		2ND	1.04	1.14	359.62	555.78	1961.6	1.74E+05		
		3RD								
		AVE						1.70E+05		
P5-9	30.0	1ST	0.71	0.81	98.08	228.85	1307.7	1.16E+05		
		2ND	0.81	0.93	228.85	425.01	1634.7	1.45E+05		
		3RD	0.86	0.99	294.23	555.78	2011.9	1.78E+05		
		AVE						1.46E+05		
P5-9	49.5	1ST	1.87	1.98	163.46	228.85	594.5	5.34E+04		
		2ND	2.09	2.32	294.23	425.01	568.6	5.12E+04		
		3RD	2.26	2.53	359.62	555.78	726.5	6.56E+04		
		AVE						5.67E+04		
P5-9	56.0	1ST	0.14	0.19	163.46	228.85	1307.8	1.15E+05		
		2ND	0.23	0.28	294.23	425.01	2615.6	2.30E+05		
		3RD	0.26	0.35	359.62	555.78	2179.6	1.92E+05		
		AVE						1.79E+05		
P5-9	58.7	1ST	0.96	1.06	228.85	359.62	1307.7	1.16E+05		
		2ND	1.02	1.20	294.23	555.78	1453.1	1.29E+05		
		3RD								
		AVE						1.23E+05		
P5-10	10.0	1ST	0.06	-0.02	163.46	228.85	1634.7	1.43E+05		
		2ND	0.02	0.10	228.85	425.01	1634.7	1.43E+05		
		3RD	0.03	0.16	294.23	555.78	2011.9	1.77E+05		
		AVE						1.54E+05		
P5-10	20.5	1ST	0.10	0.13	163.46	228.85	2179.7	1.91E+05		
		2ND	0.11	0.20	163.46	359.62	2179.6	1.91E+05		
		3RD	0.24	0.30	425.01	555.78	2179.5	1.92E+05		
		AVE						1.91E+05		
P5-10	25.0	1ST	0.20	0.30	98.08	228.85	1307.7	1.15E+05		
		2ND	0.26	0.42	163.46	425.01	1634.7	1.44E+05		
		3RD	0.39	0.48	359.62	555.78	2179.6	1.92E+05		
		AVE						1.50E+05		
P5-10	30.0	1ST	0.01	0.11	98.08	228.85	1307.7	1.15E+05		
		2ND	0.11	0.23	228.85	425.01	1634.7	1.44E+05		
		3RD	0.17	0.31	294.23	555.78	1868.2	1.64E+05		
		AVE						1.41E+05		

* 이상치
** 파쇄대

영광 5.6호기 최종안전성분석보고서

표 2.5-14 (10 중 5)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P5-10	39.5	1ST	0.17	0.28	98.08	228.85	1188.8	1.04E+05	1.35E+05	
		2ND	0.28	0.46	228.85	425.01	1089.8	9.60E+04		
		3RD	0.52	0.58	490.39	555.78	1089.8	9.62E+04		
		AVE						9.89E+04		
P5-10	50.0	1ST	0.12	-0.04	98.08	228.85	1634.6	1.43E+05	3.05E+05	
		2ND	0.00	0.07	294.23	425.01	1868.3	1.64E+05		
		3RD	0.07	0.13	425.01	555.78	2179.5	1.91E+05		
		AVE						1.66E+05		
P5-10	55.0	1ST	0.60	0.66	163.46	228.85	1089.8	9.63E+04	1.39E+05	
		2ND	0.72	0.84	294.23	425.01	1089.8	9.65E+04		
		3RD	0.80	0.96	359.62	555.78	1226.0	1.09E+05		
		AVE						1.00E+05		
P5-11	10.0	1ST	0.83	0.89	163.46	228.85	1089.8	9.65E+04	2.00E+05	
		2ND	0.93	1.01	294.23	425.01	1634.8	1.45E+05		
		3RD	0.98	1.10	359.62	555.78	1634.7	1.45E+05		
		AVE						1.29E+05		
P5-11	15.0	1ST	0.72	0.76	163.46	228.85	1634.7	1.45E+05	2.30E+05	
		2ND	0.77	0.90	228.85	425.01	1508.9	1.34E+05		
		3RD	0.90	0.98	425.01	555.78	1634.6	1.45E+05		
		AVE						1.41E+05		
P5-11	29.0	1ST	0.08	0.05	32.69	163.46	1005.9	8.81E+04	1.32E+05	
		2ND	0.16	0.28	294.23	425.01	1089.8	9.58E+04		
		3RD	0.23	0.39	359.62	555.78	1226.0	1.08E+05		
		AVE						9.73E+04		
P5-12	3.0	1ST	0.39	0.69	98.08	228.85	435.9	3.85E+04	4.03E+04	
		2ND	0.88	1.19	294.23	425.01	421.9	3.75E+04		
		3RD	1.35	1.48	490.39	555.78	503.0	4.49E+04		
		AVE						4.03E+04		
P5-12	10.0	1ST	0.46	0.60	32.69	163.46	934.1	8.24E+04	7.85E+04	
		2ND	0.67	0.85	228.85	359.62	726.5	6.43E+04		
		3RD	0.94	1.09	425.01	555.78	871.8	7.74E+04		
		AVE						7.47E+04		
P5-12	29.0	1ST	0.70	0.94	32.69	228.85	817.3	7.24E+04	9.44E+04	
		2ND	1.02	1.17	294.23	425.01	871.9	7.75E+04		
		3RD	1.08	1.33	294.23	555.78	1046.2	9.31E+04		
		AVE						8.10E+04		
P6-1	15.0	1ST	1.32	-1.19	98.08	228.85	1005.9	8.68E+04	1.87E+05	
		2ND	1.19	-1.05	228.85	425.01	1401.1	1.21E+05		
		3RD	1.05	-0.98	425.01	555.78	1868.1	1.62E+05		
		AVE						1.23E+05		
P6-1	20.0	1ST	1.28	-1.15	98.08	228.85	1005.9	8.68E+04	2.15E+05	
		2ND	1.15	-1.02	228.85	425.01	1508.9	1.30E+05		
		3RD	1.02	-0.96	425.01	555.78	2179.5	1.89E+05		
		AVE						1.35E+05		

* 이상치
** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 6)

HOLE NO.	DPETH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P6-1	25.0	1ST	1.35	-1.30	163.46	228.85	1307.8	1.13E+05	2.05E+05	
		2ND	1.24	-1.15	294.23	425.01	1453.1	1.25E+05		
		3RD	1.18	-1.07	359.62	555.78	1783.3	1.54E+05		
		AVE						1.31E+05		
P6-1	30.0	1ST	0.96	-0.90	163.46	228.85	1089.8	9.44E+04	2.04E+05	
		2ND	0.84	-0.75	294.23	425.01	1453.1	1.26E+05		
		3RD	0.79	-0.69	359.62	555.78	1961.6	1.70E+05		
		AVE						1.30E+05		
P6-1	35.0	1ST	1.37	-1.24	98.08	228.85	1005.9	8.67E+04	1.82E+05	
		2ND	1.35	-1.19	98.08	294.23	1225.9	1.06E+05		
		3RD	1.13	-1.03	359.62	555.78	1961.6	1.70E+05		
		AVE						1.21E+05		
P6-1	40.0	1ST	1.23	-1.09	98.08	228.85	934.1	8.07E+04	1.83E+05	
		2ND	1.09	-0.95	228.85	425.01	1401.1	1.21E+05		
		3RD	0.95	-0.88	425.01	555.78	1868.1	1.62E+05		
		AVE						1.21E+05		
P6-1	50.0	1ST	1.35	-1.21	98.08	228.85	934.1	8.05E+04	2.07E+05	
		2ND	1.15	-1.06	294.23	425.01	1453.1	1.26E+05		
		3RD	1.09	-1.00	359.62	555.78	2179.6	1.88E+05		
		AVE						1.32E+05		
P6-4	22.0	1ST	0.33	0.49	32.69	228.85	1226.0	1.08E+05	2.25E+05	
		2ND	0.49	0.61	228.85	425.01	1634.7	1.44E+05		
		3RD	0.54	0.68	294.23	555.78	1868.2	1.65E+05		
		AVE						1.39E+05		
P6-4	26.5	1ST	0.76	0.86	98.08	228.85	1307.7	1.16E+05	2.44E+05	
		2ND	0.90	0.98	294.23	425.01	1634.8	1.45E+05		
		3RD	0.91	1.04	294.23	555.78	2011.9	1.78E+05		
		AVE						1.46E+05		
P6-4	31.0	1ST	0.14	0.23	98.08	228.85	1453.0	1.28E+05	2.89E+05	
		2ND	0.26	0.33	294.23	425.01	1868.3	1.64E+05		
		3RD	0.31	0.40	359.62	555.78	2179.6	1.92E+05		
		AVE						1.61E+05		
P6-4	38.5	1ST	0.45	0.61	32.69	228.85	1226.0	1.08E+05	2.62E+05	
		2ND	0.57	0.68	163.46	359.62	1783.3	1.58E+05		
		3RD	0.66	0.78	294.23	555.78	2179.6	1.93E+05		
		AVE						1.53E+05		
P6-4	42.0	1ST	0.48	0.59	98.08	228.85	1188.8	1.05E+05	2.14E+05	
		2ND	0.58	0.71	228.85	425.01	1508.9	1.33E+05		
		3RD	0.71	0.78	425.01	555.78	1868.1	1.65E+05		
		AVE						1.34E+05		
P6-4	52.0	1ST	0.10	0.14	163.46	228.85	1634.7	1.43E+05	2.76E+05	
		2ND	0.14	0.21	228.85	359.62	1868.1	1.64E+05		
		3RD	0.26	0.33	425.01	555.78	1868.1	1.64E+05		
		AVE						1.57E+05		

* 이상치
** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 7)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P6-4	56.0	1ST	0.01	0.05	163.46	228.85	1634.7	1.43E+05	3.40E+05	
		2ND	0.05	0.11	228.85	359.62	2179.5	1.91E+05		
		3RD	0.15	0.21	425.01	555.78	2179.5	1.91E+05		
		AVE						1.75E+05		
P6-4	61.0	1ST	0.28	0.37	98.08	228.85	1453.0	1.28E+05	2.69E+05	
		2ND	0.40	0.47	294.23	425.01	1868.3	1.65E+05		
		3RD	0.44	0.54	359.62	555.78	1961.6	1.73E+05		
		AVE						1.55E+05		
P6-4	69.0	1ST	0.24	0.35	98.08	228.85	1188.8	1.05E+05	2.45E+05	
		2ND	0.39	0.47	294.23	425.01	1634.8	1.44E+05		
		3RD	0.47	0.50	425.01	490.39	2179.3	1.92E+05		
		AVE						1.47E+05		
P6-4	73.5	1ST	0.75	0.86	98.08	228.85	1188.8	1.05E+05	1.85E+05	
		2ND	0.91	1.01	294.23	425.01	1307.8	1.16E+05		
		3RD	0.93	1.09	294.23	555.78	1634.7	1.45E+05		
		AVE						1.22E+05		
P6-6	13.0	1ST	0.02	0.11	98.08	228.85	1453.0	1.27E+05	2.52E+05	
		2ND	0.15	0.23	294.23	425.01	1634.7	1.44E+05		
		3RD	0.16	0.29	294.23	555.78	2011.9	1.77E+05		
		AVE						1.49E+05		
P6-6	17.0	1ST	0.02	0.07	98.08	228.85	1453.0	1.27E+05	2.60E+05	
		2ND	0.07	0.18	228.85	425.01	1783.3	1.57E+05		
		3RD	0.15	0.25	359.62	555.78	1961.6	1.72E+05		
		AVE						1.52E+05		
P6-6	21.0	1ST	0.16	-0.07	98.08	228.85	1453.0	1.27E+05	3.18E+05	
		2ND	0.03	0.03	294.23	425.01	2179.7	1.91E+05		
		3RD	0.01	0.10	359.62	555.78	2179.6	1.91E+05		
		AVE						1.70E+05		
P6-6	28.0	1ST	0.19	0.23	163.46	228.85	1634.7	1.44E+05	1.91E+05	
		2ND	0.28	0.38	294.23	425.01	1307.8	1.15E+05		
		3RD	0.43	0.48	490.39	555.78	1307.8	1.15E+05		
		AVE						1.25E+05		
P6-6	33.0	1ST	0.08	-0.04	163.46	228.85	1634.7	1.43E+05	3.05E+05	
		2ND	0.00	0.07	294.23	425.01	1868.3	1.64E+05		
		3RD	0.01	0.13	294.23	555.78	2179.6	1.91E+05		
		AVE						1.66E+05		
P6-6	39.5	1ST	0.12	-0.09	163.46	228.85	2179.7	1.91E+05	4.10E+05	
		2ND	0.05	0.01	294.23	425.01	2179.7	1.91E+05		
		3RD	0.01	0.08	359.62	555.78	2179.6	1.91E+05		
		AVE						1.91E+05		
P6-6	48.5	1ST	0.08	0.19	98.08	228.85	1188.8	1.04E+05	2.15E+05	
		2ND	0.23	0.31	294.23	425.01	1634.8	1.44E+05		
		3RD	0.28	0.39	359.62	555.78	1783.3	1.57E+05		
		AVE						1.35E+05		

* 이상치
** 파쇄대

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영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 8)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P6-6	55.0	1ST	0.17	0.21	163.46	228.85	1634.8	1.44E+05	3.07E+05	
		2ND	0.25	0.32	294.23	425.01	1868.3	1.64E+05		
		3RD	0.29	0.35	359.62	490.39	2179.5	1.92E+05		
		AVE						1.67E+05		
P6-6	62.5	1ST	0.10	-0.01	98.08	228.85	1453.0	1.27E+05	2.33E+05	
		2ND	0.05	0.13	294.23	425.01	1634.7	1.43E+05		
		3RD	0.10	0.21	359.62	555.78	1783.3	1.57E+05		
		AVE						1.42E+05		
P6-6	70.0	1ST	0.01	0.10	98.08	228.85	1453.0	1.27E+05	2.48E+05	
		2ND	0.16	0.20	359.62	425.01	1634.7	1.44E+05		
		3RD	0.17	0.27	359.62	555.78	1961.6	1.72E+05		
		AVE						1.48E+05		
P6-7	19.0	1ST	0.35	0.39	163.46	228.85	1634.7	1.44E+05	3.08E+05	
		2ND	0.43	0.50	294.23	425.01	1868.3	1.65E+05		
		3RD	0.50	0.56	425.01	555.78	2179.5	1.92E+05		
		AVE						1.67E+05		
P6-7	24.0	1ST	0.15	-0.07	98.08	228.85	1634.6	1.43E+05	2.96E+05	
		2ND	0.07	0.04	228.85	425.01	1783.3	1.56E+05		
		3RD	0.03	0.09	294.23	555.78	2179.6	1.91E+05		
		AVE						1.63E+05		
P6-7	30.0	1ST	0.02	0.06	163.46	228.85	1634.7	1.43E+05	2.84E+05	
		2ND	0.09	0.16	294.23	425.01	1868.3	1.64E+05		
		3RD	0.13	0.23	359.62	555.78	1961.6	1.72E+05		
		AVE						1.60E+05		
P6-7	38.0	1ST	0.03	0.02	163.46	228.85	1307.8	1.15E+05	2.63E+05	
		2ND	0.11	0.14	359.62	425.01	2179.7	1.91E+05		
		3RD	0.07	0.22	294.23	555.78	1743.7	1.53E+05		
		AVE						1.53E+05		
P6-7	41.0	1ST	0.11	0.16	98.08	163.46	1307.6	1.15E+05	2.00E+05	
		2ND	0.29	0.38	294.23	425.01	1453.1	1.28E+05		
		3RD	0.38	0.42	425.01	490.39	1634.5	1.44E+05		
		AVE						1.29E+05		
P6-7	47.0	1ST	0.08	-0.03	98.08	163.46	1307.6	1.15E+05	2.53E+05	
		2ND	0.05	0.08	294.23	359.62	2179.7	1.91E+05		
		3RD	0.09	0.13	359.62	425.01	1634.7	1.43E+05		
		AVE						1.50E+05		
P6-7	55.0	1ST	0.09	0.00	98.08	228.85	1453.0	1.27E+05	2.40E+05	
		2ND	0.04	0.11	294.23	425.01	1868.3	1.64E+05		
		3RD	0.14	0.18	490.39	555.78	1634.8	1.44E+05		
		AVE						1.45E+05		
P6-7	60.5	1ST	0.15	0.18	163.46	228.85	2179.7	1.91E+05	6.16E+05	
		2ND	0.25	0.28	359.62	425.01	2179.7	1.92E+05		
		3RD	0.29	0.31	425.01	490.39	3269.0	2.88E+05		
		AVE						2.24E+05		

* 이상치
** 파쇄대

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영광 5.6호기 최종안전성분석보고서

표 2.5-14 (10 중 9)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P6-7	64.0	1ST	0.08	0.01	98.08	228.85	1453.0	1.27E+05	3.19E+05	
		2ND	0.01	0.07	228.85	359.62	2179.5	1.91E+05		
		3RD	0.12	0.18	425.01	555.78	2179.5	1.91E+05		
		AVE						1.70E+05		
P6-7	71.5	1ST	0.01	0.03	163.46	228.85	1634.7	1.43E+05	3.05E+05	
		2ND	0.03	0.10	228.85	359.62	1868.1	1.64E+05		
		3RD	0.14	0.17	425.01	490.39	2179.3	1.91E+05		
		AVE						1.66E+05		
P6-9	8.0	1ST	0.17	-0.13	163.46	228.85	1634.7	1.43E+05	2.74E+05	
		2ND	0.10	-0.03	294.23	425.01	1868.3	1.64E+05		
		3RD	0.02	0.05	425.01	555.78	1868.1	1.64E+05		
		AVE						1.57E+05		
P6-9	12.0	1ST	0.24	-0.14	98.08	228.85	1307.7	1.14E+05	1.90E+05	
		2ND	0.07	-0.02	359.62	425.01	1307.8	1.15E+05		
		3RD	0.01	0.05	490.39	555.78	1634.7	1.43E+05		
		AVE						1.24E+05		
P6-9	16.0	1ST	0.23	-0.14	98.08	228.85	1453.0	1.27E+05	2.95E+05	
		2ND	0.14	-0.04	228.85	425.01	1961.6	1.72E+05		
		3RD	0.04	0.02	425.01	555.78	2179.5	1.91E+05		
		AVE						1.63E+05		
P6-9	32.0	1ST	0.18	-0.14	163.46	228.85	1634.8	1.43E+05	2.35E+05	
		2ND	0.10	-0.06	294.23	359.62	1634.7	1.43E+05		
		3RD	0.02	0.06	425.01	555.78	1634.6	1.43E+05		
		AVE						1.43E+05		
P6-9	38.0	1ST	0.19	-0.15	163.46	228.85	1634.7	1.43E+05	2.81E+05	
		2ND	0.11	-0.05	294.23	425.01	2179.7	1.91E+05		
		3RD	0.01	0.03	490.39	555.78	1634.7	1.43E+05		
		AVE						1.59E+05		
P6-9	47.0	1ST	0.13	-0.04	98.08	228.85	1453.0	1.27E+05	2.33E+05	
		2ND	0.02	0.10	294.23	425.01	1634.7	1.43E+05		
		3RD	0.07	0.18	359.62	555.78	1783.3	1.57E+05		
		AVE						1.42E+05		
P6-9	59.0	1ST	0.26	-0.22	163.46	228.85	1634.7	1.43E+05	2.82E+05	
		2ND	0.18	-0.11	294.23	425.01	1868.3	1.63E+05		
		3RD	0.15	-0.05	359.62	555.78	1961.6	1.72E+05		
		AVE						1.59E+05		
P6-10	19.0	1ST	0.33	0.38	163.46	228.85	1307.8	1.15E+05	2.24E+05	
		2ND	0.42	0.50	294.23	425.01	1634.7	1.44E+05		
		3RD	0.46	0.57	359.62	555.78	1783.3	1.57E+05		
		AVE						1.39E+05		
P6-10	23.0	1ST	0.81	0.86	163.46	228.82	1307.2	1.16E+05	2.16E+05	
		2ND	0.97	1.01	359.62	425.01	1634.7	1.45E+05		
		3RD	1.06	1.10	490.39	555.78	1634.7	1.45E+05		
		AVE						1.35E+05		

* 이상치
** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-14 (10 중 10)

HOLE NO.	DEPTH (m)	CYCLE	A1 (mm)	A2 (mm)	P1 (kg/cm ²)	P2 (kg/cm ²)	K	Ec (kg/cm ²)	Etrue (kg/cm ²)	비 고
P6-10	27.0	1ST	0.42	0.52	98.08	228.85	1307.7	1.15E+05	2.31E+05	
		2ND	0.52	0.60	228.85	359.62	1634.6	1.44E+05		
		3RD	0.57	0.71	294.23	555.78	1868.2	1.65E+05		
		AVE						1.42E+05		
P6-10	36.0	1ST	0.22	0.26	163.46	228.85	1634.7	1.44E+05	3.07E+05	
		2ND	0.29	0.36	294.23	425.01	1868.3	1.64E+05		
		3RD	0.34	0.43	359.62	555.78	2179.6	1.92E+05		
		AVE						1.67E+05		
P6-10	42.0	1ST	0.52	0.55	163.46	228.85	2179.7	1.92E+05	3.01E+05	
		2ND	0.61	0.69	294.23	425.01	1634.8	1.44E+05		
		3RD	0.65	0.76	359.62	555.78	1783.3	1.58E+05		
		AVE						1.65E+05		
P6-10	52.0	1ST	0.78	0.88	98.08	228.85	1307.7	1.16E+05	2.58E+05	
		2ND	0.93	1.01	294.23	425.01	1634.8	1.45E+05		
		3RD	1.01	1.07	425.01	555.78	2179.5	1.94E+05		
		AVE						1.51E+05		
P6-10	58.8	1ST	0.49	0.59	98.08	228.85	1307.7	1.15E+05	2.77E+05	
		2ND	0.63	0.70	294.23	425.01	1868.3	1.65E+05		
		3RD	0.67	0.76	359.62	555.78	2179.6	1.93E+05		
		AVE						1.58E+05		
P6-11	10.0	1ST	0.23	-0.19	163.46	228.85	1634.7	1.43E+05	2.82E+05	
		2ND	0.15	-0.08	294.23	425.01	1868.3	1.63E+05		
		3RD	0.10	0.00	359.62	555.78	1961.6	1.72E+05		
		AVE						1.59E+05		
P6-11	13.0	1ST	0.03	0.11	98.08	228.85	1634.6	1.43E+05	3.06E+05	
		2ND	0.11	0.18	228.85	359.62	1868.1	1.64E+05		
		3RD	0.22	0.25	425.01	490.39	2179.3	1.92E+05		
		AVE						1.66E+05		
P6-11	16.0	1ST	0.20	-0.11	98.08	228.85	1453.0	1.27E+05	2.58E+05	
		2ND	0.07	0.00	294.23	425.01	1868.3	1.64E+05		
		3RD	0.00	0.07	425.01	555.78	1868.1	1.64E+05		
		AVE						1.52E+05		
P6-11	18.0	1ST	0.08	-0.05	163.46	228.85	2179.7	1.91E+05	3.39E+05	
		2ND	0.00	0.04	294.23	359.62	1634.7	1.43E+05		
		3RD	0.05	0.11	359.62	490.39	2179.5	1.91E+05		
		AVE						1.75E+05		
P6-11	21.0	1ST	0.32	-0.22	98.08	228.85	1307.7	1.14E+05	2.46E+05	
		2ND	0.18	-0.11	294.23	425.01	1868.3	1.63E+05		
		3RD	0.14	-0.07	359.62	490.39	1868.1	1.64E+05		
		AVE						1.47E+05		
P6-11	25.5	1ST	0.53	-0.41	98.08	228.85	1089.7	9.49E+04	2.34E+05	
		2ND	0.36	-0.28	294.23	425.01	1634.8	1.43E+05		
		3RD	0.27	-0.21	425.01	555.78	2179.5	1.90E+05		
		AVE						1.43E+05		

* 이 상치
** 파 쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-15 (2 중 1)

시추공간 탄성파시험

IMPACT HOLE : P5-4									
LISTENING HOLE : P5-3					LISTENING HOLE : P5-5				
DEPTH (m)	TIME(T) (1/1000sec)	DISTANCE(D) (m)	Vs=D/T (m/sec)	비고	DEPTH (m)	TIME(T) (1/1000sec)	DISTANCE(D) (m)	Vs=D/T (m/sec)	비고
4.0	7.250	5.030	693	*	4.0	7.050	5.031	714	*
8.0	6.550	5.076	775	*	8.0	5.150	5.038	978	*
12.0	5.550	5.120	923	**	12.0	5.250	5.055	963	**
16.0	5.850	5.144	879	**	16.0	5.850	5.108	873	**
20.0	5.550	5.168	935	**	20.0	5.650	5.162	914	**
24.0	4.550	5.185	1,140		24.0	4.550	5.199	1,143	
28.0	5.650	5.205	921	**	28.0	5.650	5.219	924	**
32.0	4.550	5.219	1,147		32.0	3.850	5.230	1,358	
36.0	4.550	5.229	1,149		36.0	4.350	5.227	1,202	
40.0	4.350	5.251	1,207		40.0	4.350	5.209	1,197	
44.0	4.850	5.268	1,086	**	44.0	4.850	5.192	1,071	**
48.0	4.250	5.266	1,239		48.0	4.650	5.217	1,122	
52.0	5.050	5.252	1,040	**	52.0	4.950	5.276	1,066	**
56.0	4.450	5.261	1,182		56.0	4.450	5.315	1,194	
60.0	3.450	5.245	1,520		60.0	3.250	5.321	1,637	
64.0	3.550	5.196	1,464		64.0	3.800	5.319	1,400	
68.0	3.650	5.169	1,416		68.0	3.550	5.311	1,496	
72.0	4.250	5.178	1,218		72.0	3.650	5.301	1,452	
76.0	4.050	5.227	1,291		76.0	3.850	5.281	1,372	
80.0	4.150	5.271	1,270		80.0	3.450	5.259	1,524	

* Bearing Elevation 이상구간

** 파쇄대구간

영광 5,6호기 최종안전성분석보고서

표 2.5-15 (2 중 2)

IMPACT HOLE : P6-4									
LISTENING HOLE : P6-3					LISTENING HOLE : P6-5				
DEPTH (m)	TIME(T) (1/1000sec)	DISTANCE(D) (m)	Vs=D/T (m/sec)	비고	DEPTH (m)	TIME(T) (1/1000sec)	DISTANCE(D) (m)	Vs=D/T (m/sec)	비고
3.0	2.950	5.066	1,717	*	3.0	2.750	4.984	1,812	*
5.0	2.750	5.109	1,858	*	5.0	2.650	4.973	1,877	*
8.0	2.650	5.191	1,959	*	8.0	2.750	4.938	1,796	*
12.0	2.950	5.278	1,789		12.0	2.750	4.897	1,781	
16.0	2.950	5.250	1,780		16.0	2.850	4.911	1,723	
20.0	2.850	5.119	1,796		20.0	2.650	4.978	1,878	
24.0	2.750	5.020	1,825		24.0	2.950	5.061	1,716	
28.0	2.850	4.964	1,742		28.0	2.850	5.120	1,796	
32.0	3.050	4.879	1,600		32.0	2.750	5.187	1,886	
36.0	2.350	4.843	2,061		36.0	2.250	5.238	2,328	
40.0	2.450	4.813	1,964		40.0	2.450	5.271	2,151	
44.0	2.250	4.807	2,136		44.0	2.550	5.257	2,062	
48.0	2.550	4.851	1,902		48.0	3.050	5.187	1,701	
52.0	2.450	4.853	1,981		52.0	2.250	5.177	2,301	
56.0	3.050	4.873	1,598		56.0	2.550	5.173	2,029	
60.0	2.950	4.859	1,647		60.0	2.250	5.159	2,293	
64.0	2.350	4.892	2,082		64.0	2.250	5.186	2,305	
68.0	2.850	4.939	1,733		68.0	3.050	5.178	1,698	
72.0	2.850	5.045	1,770		72.0	3.250	5.135	1,580	
76.0	2.950	5.123	1,737		76.0	2.950	5.128	1,738	
80.0	2.650	5.128	1,935		80.0	3.050	5.156	1,690	

* Bearing Elevation 이상구간

** 파쇄대구간

영광 5,6호기 최종안전성분석보고서

표 2.5-16 (6 중 1)

하향식 탄성파시험

HOLE NO.	DEPTH (m)	TIME (msec)	T (msec)	S (m)	Vs (m/sec)	비 고
P5-4	10.0	10.75				
	20.0	24.45	13.7	10.0	730	
	30.0	37.35	12.9	10.0	775	
	40.0	46.45	9.1	10.0	1,099	
	50.0	54.55	8.1	10.0	1,235	
	60.0	63.55	9.0	10.0	1,111	
	70.0	67.45	3.9	10.0	2,564	*
	80.0	75.15	7.7	10.0	1,299	
P5-6	10.0	6.15				
	15.0	10.95	4.8	5.0	1,042	**
	20.0	14.65	3.7	5.0	1,351	
	25.0	18.35	3.7	5.0	1,351	
	35.0	24.05	5.7	10.0	1,754	
	45.0	31.65	7.6	10.0	1,316	
	65.0	45.25	13.6	20.0	1,471	
P5-7	20.0	30.45				
	25.0	34.75	4.3	5.0	1,163	
	30.0	40.55	5.8	5.0	862	***
	35.0	46.05	5.5	5.0	909	***
	40.0	51.35	5.3	5.0	943	***
	45.0	55.65	4.3	5.0	1,163	***
	50.0	60.15	4.5	5.0	1,111	***
	55.0	64.25	4.1	5.0	1,220	***
	60.0	66.95	2.7	5.0	1,852	
	65.0	70.65	3.7	5.0	1,351	

* 이상치

** Bearing Elevation 이상구간

*** 파쇄대구간

영광 5,6호기 최종안전성분석보고서

표 2.5-16 (6 중 2)

HOLE NO.	DEPTH (m)	TIME (msec)	T (msec)	S (m)	Vs (m/sec)	비 고
P5-9	5.0	4.75				
	10.0	9.65	4.9	5.0	1,020	**
	15.0	13.35	3.7	5.0	1,351	
	20.0	17.55	4.2	5.0	1,190	
	25.0	21.65	4.1	5.0	1,220	
	30.0	25.90	4.3	5.0	1,176	
	35.0	30.65	4.8	5.0	1,053	
P5-10	25.0	26.95				
	30.0	30.75	3.8	5.0	1,316	
	40.0	36.75	6.0	10.0	1,667	
	45.0	42.15	5.4	5.0	926	***
	50.0	47.35	5.2	5.0	962	***
	55.0	50.65	3.3	5.0	1,515	
P5-11	5.0	10.75				
	10.0	13.95	3.2	5.0	1,563	
	15.0	16.75	2.8	5.0	1,786	
	20.0	19.85	3.1	5.0	1,613	
	25.0	23.15	3.3	5.0	1,515	
	30.0	26.95	3.8	5.0	1,316	

* 이상치
 ** Bearing Elevation 이상구간
 *** 파쇄대구간

영광 5,6호기 최종안전성분석보고서

표 2.5-16 (6 중 3)

HOLE NO.	DEPTH (m)	TIME (msec)	T (msec)	S (m)	Vs (m/sec)	비 고
P6-1	7.0	10.05				
	14.0	15.05	5.0	7.0	1,400	
	21.0	18.55	3.5	7.0	2,000	
	28.0	21.80	3.3	7.0	2,154	
	35.0	26.85	5.1	7.0	1,386	
	42.0	31.15	4.3	7.0	1,628	
	49.0	34.85	3.7	7.0	1,892	
P6-4	10.0	13.25				
	20.0	21.55	8.3	10.0	1,205	
	30.0	27.75	6.2	10.0	1,613	
	50.0	41.45	13.7	20.0	1,460	
	60.0	47.25	5.8	10.0	1,724	
	70.0	52.75	5.5	10.0	1,818	
P6-6	10.0	25.15				
	20.0	33.85	8.7	10.0	1,149	
	30.0	39.95	6.1	10.0	1,635	
	40.0	46.85	6.9	10.0	1,449	
	50.0	53.95	7.1	10.0	1,408	
	60.0	61.65	7.7	10.0	1,299	
	70.0	68.25	6.6	10.0	1,515	
	80.0	76.85	8.6	10.0	1,163	
P6-7	10.0	7.15				
	20.0	13.95	6.8	10.0	1,471	
	40.0	26.95	13.0	20.0	1,538	
	60.0	42.75	15.8	20.0	1,266	

* 이상치

** Bearing Elevation 이상구간

*** 파쇄대구간

영광 5,6호기 최종안전성분석보고서

표 2.5-16 (6 중 4)

HOLE NO.	DEPTH (m)	TIME (msec)	T (msec)	S (m)	Vs (m/sec)	비 고
P6-9	5.0	2.75				**
	10.0	5.75	3.0	5.0	1,667	
	15.0	8.75	3.0	5.0	1,667	
	20.0	11.35	2.6	5.0	1,923	
	25.0	14.65	3.3	5.0	1,515	
	30.0	17.85	3.2	5.0	1,562	
	40.0	22.75	4.9	10.0	2,041	
P6-10	24.0	2.05				
	28.0	4.15	2.1	4.0	1,905	
	32.0	7.45	3.3	4.0	1,212	
	36.0	10.25	2.8	4.0	1,429	
	40.0	13.25	3.0	4.0	1,333	
	44.0	15.25	2.0	4.0	2,000	
	52.0	20.65	5.4	8.0	1,481	
P6-11	56.0	23.55	2.9	4.0	1,379	
	10.0	13.85				
	15.0	16.85	3.0	5.0	1,667	
	20.0	20.35	3.5	5.0	1,429	
	25.0	22.55	2.2	5.0	2,273	
	30.0	25.35	2.8	5.0	1,786	

* 이상치

** Bearing Elevation 이상구간

*** 파쇄대구간

영광 5,6호기 최종안전성분석보고서

표 2.5-16 (6 중 5)

HOLE NO.	DEPTH (m)	TIME (msec)	T (msec)	S (m)	Vs (m/sec)	비 고
P5-A	17.0	18.65				
	21.0	22.65	4.0	4.0	1,000	***
	25.0	29.45	6.8	4.0	588	***
	29.0	35.75	6.3	4.0	635	***
	33.0	39.35	3.6	4.0	1,111	
	37.0	42.25	2.9	4.0	1,379	
	41.0	45.55	3.3	4.0	1,212	
	45.0	49.95	4.4	4.0	909	***
P5-B	15.0	17.25				
	19.0	21.25	4.0	4.0	1,000	***
	23.0	26.15	4.9	4.0	816	***
	27.0	29.25	3.1	4.0	1,290	***
	31.0	33.95	4.7	4.0	851	***
	35.0	38.45	4.5	4.0	889	***
	39.0	42.50	4.05	4.0	988	***
	43.0	46.75	4.25	4.0	941	***
	47.0	49.15	2.4	4.0	1,667	
	50.0	52.15	3.0	3.0	1,000	

* 이상치

** Bearing Elevation 이상구간

*** 파쇄대구간

영광 5.6호기 최종안전성분석보고서

표 2.5-16 (6 중 6)

HOLE NO.	DEPTH (m)	TIME (msec)	T (msec)	S (m)	Vs (m/sec)	비 고
P5-C	6.0	7.85				
	10.0	11.05	3.2	4.0	1,250	**
	14.0	15.45	4.4	4.0	909	***
	18.0	19.25	3.8	4.0	1,053	***
	22.0	24.05	4.8	4.0	833	***
	26.0	27.55	3.5	4.0	1,143	
	30.0	30.75	3.2	4.0	1,250	
	34.0	34.45	3.7	4.0	1,081	
	38.0	37.95	3.5	4.0	1,143	
	42.0	40.65	2.7	4.0	1,481	
P5-D	30.0	14.05				
	34.0	17.95	3.9	4.0	1,026	
	38.0	21.25	3.3	4.0	1,212	
	42.0	23.95	2.7	4.0	1,481	
	46.0	26.35	2.4	4.0	1,667	
	50.0	28.95	2.6	4.0	1,538	

* 이상치

** Bearing Elevation 이상구간

*** 파쇄대구간

영광 5,6호기 최종안전성분석보고서

표 2.5-17 (6 중 1)

수 압 시 험

HOLE NO.	DEPTH: FROM(m)	DEPTH: TO(m)	LENGTH(m)	K(cm/sec)	비 고
P5-1	47.8	50.8	3.0	1.901E-06	*
P5-2	14.5	17.5	3.0	2.074E-04	**
P5-2	22.0	25.0	3.0	1.932E-04	**
P5-2	26.0	29.0	3.0	1.412E-04	*
P5-3	13.0	16.0	3.0	8.274E-05	**
P5-3	17.0	20.0	3.0	8.877E-05	**
P5-3	23.0	26.0	3.0	4.477E-06	*
P5-3	27.0	30.0	3.0	1.422E-05	
P5-3	33.0	36.0	3.0	3.895E-04	
P5-3	36.0	39.0	3.0	6.172E-05	
P5-3	44.0	47.0	3.0	3.359E-06	*
P5-3	50.0	53.0	3.0	2.365E-06	*
P5-3	54.0	57.0	3.0	4.113E-06	*
P5-3	62.0	65.0	3.0	4.222E-06	
P5-3	73.0	76.0	3.0	6.495E-06	*
P5-3	78.0	81.0	3.0	3.858E-04	
P5-3	84.0	87.0	3.0	4.177E-04	
P5-4	22.0	25.0	3.0	1.517E-05	*
P5-4	28.0	31.0	3.0	4.583E-06	*
P5-4	34.0	37.0	3.0	9.569E-06	*
P5-4	38.0	41.0	3.0	4.278E-06	*
P5-4	42.0	45.0	3.0	2.777E-06	*
P5-4	49.0	52.0	3.0	4.100E-04	
P5-4	56.0	59.0	3.0	1.806E-05	*
P5-4	61.0	64.0	3.0	1.329E-07	*
P5-4	69.0	72.0	3.0	1.399E-07	*
P5-4	72.0	75.0	3.0	9.995E-05	*
P5-4	80.0	83.0	3.0	2.421E-04	
P5-4	86.0	89.0	3.0	1.341E-05	
P5-5	7.0	10.0	3.0	4.389E-06	*
P5-5	14.0	17.0	3.0	3.059E-05	**
P5-5	21.0	24.0	3.0	5.812E-07	*
P5-5	30.0	33.0	3.0	2.326E-06	
P5-5	40.0	43.0	3.0	1.440E-05	*
P5-5	50.0	53.0	3.0	4.114E-06	
P5-5	60.0	63.0	3.0	2.637E-06	*

* 이상치

** 파쇄대

영광 5.6호기 최종안전성분석보고서

표 2.5-17 (6 중 2)

HOLE NO.	DEPTH: FROM(m)	DEPTH: TO(m)	LENGTH(m)	K(cm/sec)	비 고
P5-5	68.0	71.0	3.0	1.682E-04	*
P5-5	71.0	74.0	3.0	3.011E-07	*
P5-5	78.0	81.0	3.0	1.335E-07	*
P5-5	87.0	90.0	3.0	1.937E-07	*
P5-6	7.0	10.0	3.0	1.170E-06	
P5-6	19.0	22.0	3.0	1.848E-04	
P5-6	29.0	32.0	3.0	1.660E-04	
P5-6	38.0	41.0	3.0	8.321E-05	
P5-6	44.5	47.5	3.0	2.209E-04	
P5-6	54.0	57.0	3.0	1.052E-05	
P5-6	61.0	64.0	3.0	1.454E-06	
P5-6	71.0	74.0	3.0	1.609E-06	
P5-6	81.0	84.0	3.0	3.101E-09	*
P5-7	11.0	14.0	3.0	1.211E-03	*
P5-7	22.0	25.0	3.0	2.742E-04	
P5-7	34.0	37.0	3.0	9.849E-04	
P5-7	37.0	40.0	3.0	1.434E-03	*
P5-7	45.0	48.0	3.0	LEAKAGED	*
P5-7	53.0	56.0	3.0	3.829E-04	
P5-7	64.0	67.0	3.0	1.459E-03	*
P5-7	79.0	82.0	3.0	6.961E-04	
P5-7	86.0	89.0	3.0	1.437E-04	*
P5-8	15.0	18.0	3.0	1.064E-04	
P5-8	25.0	28.0	3.0	5.640E-05	
P5-8	40.0	43.0	3.0	6.717E-05	*
P5-8	43.0	46.0	3.0	5.120E-05	
P5-8	54.0	57.0	3.0	1.346E-05	*
P5-8	57.0	60.0	3.0	2.020E-06	*
P5-9	3.5	6.5	3.0	2.935E-05	
P5-9	16.0	19.0	3.0	7.635E-05	
P5-9	24.0	27.0	3.0	4.499E-05	
P5-9	31.0	34.0	3.0	2.062E-04	
P5-9	35.5	38.5	3.0	1.308E-05	
P5-9	46.0	49.0	3.0	4.711E-09	*
P5-9	55.0	58.0	3.0	1.576E-04	

* 이상치

** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-17 (6 중 3)

HOLE NO.	DEPTH: FROM(m)	DEPTH: TO(m)	LENGTH(m)	K(cm/sec)	비 고
P5-10	1.5	4.5	3.0	2.751E-04	
P5-10	5.5	8.5	3.0	1.143E-04	
P5-10	13.5	16.5	3.0	5.906E-07	*
P5-10	33.0	36.0	3.0	9.304E-05	
P5-10	43.5	46.5	3.0	2.716E-04	
P5-10	56.0	59.0	3.0	2.245E-04	
P5-11	3.0	6.0	3.0	2.062E-04	
P5-11	16.0	19.0	3.0	2.172E-05	
P5-11	8.5	11.5	3.0	7.350E-05	
P5-11	25.5	28.5	3.0	1.534E-08	*
P5-12	4.5	7.5	3.0	1.870E-04	
P5-12	12.0	15.0	3.0	1.122E-04	
P5-12	21.0	24.0	3.0	1.616E-04	
P5-12	26.0	29.0	3.0	5.569E-05	*
P5-13	4.0	7.0	3.0	6.062E-06	*
P5-13	10.5	13.5	3.0	5.040E-04	*
P5-13	14.0	17.0	3.0	1.921E-04	*
P5-14	3.0	6.0	3.0	3.012E-05	
P5-14	10.0	13.0	3.0	1.043E-04	
P5-14	16.0	19.0	3.0	LEAKAGED	*
P5-14	21.0	24.0	3.0	1.018E-05	*
P5-15	4.5	7.5	3.0	1.108E-04	
P5-15	7.0	10.0	3.0	1.873E-04	*
P5-15	18.0	21.0	3.0	1.579E-04	*
P5-16	2.0	5.0	3.0	1.476E-03	*
P5-16	6.0	9.0	3.0	1.572E-04	
P5-16	14.0	17.0	3.0	5.811E-06	*
P5-17	2.0	5.0	3.0	6.222E-05	
P5-17	8.0	11.0	3.0	4.655E-05	*
P5-17	12.0	15.0	3.0	1.440E-03	*
P5-17	21.0	24.0	3.0	3.123E-05	*
P5-18	7.5	10.5	3.0	6.022E-05	*
P5-18	12.0	15.0	3.0	7.112E-06	
P5-18	17.0	20.0	3.0	1.331E-05	
P5-19	20.0	23.0	3.0	7.354E-05	
P5-19	23.0	26.0	3.0	6.024E-05	*
P5-19	26.5	29.5	3.0	8.114E-06	

* 이상치

** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-17 (6 중 4)

HOLE NO.	DEPTH: FROM(m)	DEPTH: TO(m)	LENGTH(m)	K(cm/sec)	비 고
P6-1	1.0	4.0	3.0	9.991E-05	*
P6-1	9.0	12.0	3.0	2.913E-05	
P6-1	15.0	18.0	3.0	2.847E-05	
P6-1	28.0	31.0	3.0	5.495E-05	
P6-1	32.0	35.0	3.0	3.453E-05	
P6-1	40.0	43.0	3.0	1.343E-04	*
P6-1	51.0	54.0	3.0	3.366E-05	*
P6-2	2.0	5.0	3.0	3.586E-05	
P6-2	7.0	10.0	3.0	3.314E-05	
P6-2	11.0	14.0	3.0	6.728E-05	
P6-2	25.0	28.0	3.0	1.468E-04	*
P6-3	2.5	5.5	3.0	2.159E-04	
P6-3	16.0	19.0	3.0	4.894E-05	
P6-3	20.0	23.0	3.0	1.675E-09	*
P6-3	30.0	33.0	3.0	3.349E-09	*
P6-3	38.0	41.0	3.0	1.835E-05	
P6-3	48.0	51.0	3.0	5.431E-09	*
P6-3	61.0	64.0	3.0	5.024E-09	*
P6-3	70.0	73.0	3.0	8.249E-07	*
P6-3	86.0	89.0	3.0	2.712E-05	
P6-4	4.5	7.5	3.0	2.546E-04	
P6-4	8.0	11.0	3.0	3.342E-09	*
P6-4	16.5	19.5	3.0	3.683E-05	
P6-4	27.0	30.0	3.0	2.414E-06	*
P6-4	33.0	36.0	3.0	3.122E-06	*
P6-4	46.5	49.5	3.0	6.308E-06	*
P6-4	56.5	59.5	3.0	2.455E-04	
P6-4	70.0	73.0	3.0	9.061E-07	*
P6-4	86.0	89.0	3.0	1.125E-05	*
P6-5	3.0	6.0	3.0	1.197E-05	
P6-5	6.0	9.0	3.0	7.557E-06	*
P6-5	9.0	12.0	3.0	5.337E-09	*
P6-5	15.0	18.0	3.0	2.055E-05	*
P6-5	22.0	25.0	3.0	2.167E-05	
P6-5	32.0	35.0	3.0	1.648E-09	*
P6-5	41.0	44.0	3.0	1.167E-04	

* 이상치

** 파쇄대

영광 5,6호기 최종안전성분석보고서

표 2.5-17 (6 중 5)

HOLE NO.	DEPTH: FROM(m)	DEPTH: TO(m)	LENGTH(m)	K(cm/sec)	비 고
P6-5	48.0	51.0	3.0	1.956E-06	*
P6-5	56.0	59.0	3.0	2.079E-04	
P6-6	4.0	7.0	3.0	6.429E-05	
P6-6	14.0	17.0	3.0	9.225E-06	*
P6-6	21.0	24.0	3.0	7.064E-07	*
P6-6	32.0	35.0	3.0	2.272E-06	*
P6-6	38.5	41.5	3.0	6.187E-06	*
P6-6	48.5	51.5	3.0	1.317E-06	*
P6-6	58.0	61.0	3.0	1.587E-09	*
P6-6	67.0	70.0	3.0	3.175E-09	*
P6-6	76.0	79.0	3.0	2.905E-06	*
P6-6	86.0	89.0	3.0	1.621E-06	*
P6-7	6.8	9.8	3.0	1.643E-04	
P6-7	13.5	16.5	3.0	4.208E-05	
P6-7	26.5	29.5	3.0	7.264E-07	*
P6-7	35.0	38.0	3.0	1.593E-07	*
P6-7	44.0	47.0	3.0	3.192E-09	*
P6-7	55.0	58.0	3.0	1.016E-06	
P6-7	64.0	67.0	3.0	1.596E-09	*
P6-7	75.0	78.0	3.0	3.192E-09	*
P6-7	81.0	84.0	3.0	3.922E-09	*
P6-7	86.0	89.0	3.0	8.494E-07	
P6-8	4.5	7.5	3.0	1.989E-04	
P6-8	13.0	16.0	3.0	4.280E-06	
P6-8	20.5	23.5	3.0	7.868E-06	
P6-8	28.0	31.0	3.0	5.173E-09	*
P6-8	37.0	40.0	3.0	5.397E-06	
P6-8	48.0	51.0	3.0	1.527E-06	*
P6-8	56.5	59.5	3.0	7.281E-06	
P6-9	4.0	7.0	3.0	1.015E-05	
P6-9	7.0	10.0	3.0	4.259E-05	
P6-9	22.0	25.0	3.0	3.062E-05	
P6-9	27.0	30.0	3.0	3.906E-09	*
P6-9	32.0	35.0	3.0	1.754E-04	
P6-9	44.0	47.0	3.0	1.805E-04	
P6-9	50.0	53.0	3.0	3.906E-09	*

* 이상치

** 파쇄대

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영광 5,6호기 최종안전성분석보고서

표 2.5-17 (6 중 6)

HOLE NO.	DEPTH: FROM(m)	DEPTH: TO(m)	LENGTH(m)	K(cm/sec)	비 고
P6-10	18.5	21.5	3.0	7.587E-07	*
P6-10	23.0	26.0	3.0	1.422E-06	*
P6-10	28.0	31.0	3.0	6.619E-07	
P6-10	33.0	36.0	3.0	5.166E-08	*
P6-10	39.0	42.0	3.0	9.317E-07	
P6-10	48.0	51.0	3.0	1.967E-09	*
P6-11	7.5	10.5	3.0	8.538E-06	*
P6-11	13.0	16.0	3.0	1.340E-06	
P6-11	26.0	29.0	3.0	3.017E-08	*
P6-12	18.0	21.0	3.0	4.025E-05	*
P6-12	23.0	26.0	3.0	1.237E-04	
P6-12	26.5	29.5	3.0	6.255E-05	

* 이상치
** 파쇄대

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