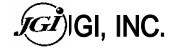
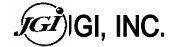


SEISMIC OBSERVER'S REPORT FORM-B



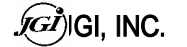
PROSPECT				LINE				DATE		WEATHER		WIND		TEMP	OBSERVER		PAGE		
ISHIKARI HEIYA HOKUBU 3D				BLOCK-1				2001/10/17		FINE		LIGHT			K.AOKI		12		
FIELD TAPE		SOURCE							RECEIVER				PROCESS()		BAD TRACES	REMARKS			
REEL NO. 4		Force Out (%)	No. of Vibrators	Vibrator Interval (m)	Source Array Length (m)	LATERAL OFFSET(m)	INLINE OFFSET(m)	SOURCE POSITION	SPREAD (FIX SPREAD) (GEOPHONE LOCATIONS USED)				No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(P) SWEEP FREQUENCY		
FIELD REC. FILE NO.	SP or VP NO.								ch	ch	loc	loc							
188	L.V.							1	-	72	1001	-	1072					LEVITATE	B.O.T.
189	P.R.							73	-	143	2001	-	2071					PULSE RESPONSE	
190	G.N.							144	-	215	3001	-	3072					GROUND NOISE	
191		90%	4	12.5	50			216	-	285	4001	-	4070	9					
192		90%	4	12.5	50			286	-	356	5001	-	5071	9					
193		90%	4	12.5	50			357	-	428	6001	-	6072	9					
194		90%	4	12.5	50			429	-	500	7001	-	7072	9					
195		90%	4	12.5	50			501	-	569	8001	-	8069	9					
196		90%	4	12.5	50			570	-	627	9001	-	9058	9					
197		90%	4	12.5	50			628	-	673	10001	-	10046	9					
198		90%	4	12.5	50			674	-	705	11001	-	11032	9					
199		90%	4	12.5	50			705	-	727	12001	-	11032	9					
200		90%	4	12.5	50			728	-	742	13001	-	13015	9					
201		90%	4	12.5	50			743	-	753	14001	-	14011	9					
202		90%	4	12.5	50			754	-	760	15001	-	15006	9					
203		90%	4	12.5	50									9					
204		90%	4	12.5	50									9					
205		90%	4	12.5	50									9					
206		90%	4	12.5	50									9					
207		90%	4	12.5	50									9					

SEISMIC OBSERVER'S REPORT FORM-B



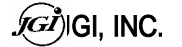
PROSPECT				LINE				DATE		WEATHER		WIND		TEMP	OBSERVER		PAGE	
ISHIKARI HEIYA HOKUBU 3D				BLOCK-1				2001/10/17		FINE		LIGHT			K.AOKI		13	
FIELD TAPE		SOURCE							RECEIVER				PROCESS()			BAD TRACES	REMARKS	
REEL NO. 4		Force Out (%)	No. of Vibrators	Vibrator Interval (m)	Source Array Length (m)	LATERAL OFFSET(m)	INLINE OFFSET(m)	SOURCE POSITION	SPREAD (FIX SPREAD) (GEOPHONE LOCATIONS USED)				No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(P) SWEEP FREQUENCY	
FIELD REC. FILE NO.	SP or VP NO.								ch	ch	loc	loc						
208		90%	4	12.5	50				1	-	72	1001	-	1072				
209		90%	4	12.5	50				73	-	143	2001	-	2071				
210		90%	4	12.5	50				144	-	215	3001	-	3072				
211		90%	4	12.5	50				216	-	285	4001	-	4070	9			
212		90%	4	12.5	50				286	-	356	5001	-	5071	8			
213		90%	4	12.5	50				357	-	428	6001	-	6072	9			
214		90%	4	12.5	50				429	-	500	7001	-	7072	9			
215		90%	4	12.5	50				501	-	569	8001	-	8069	9			
216		90%	4	12.5	50				570	-	627	9001	-	9058	9			
217		90%	4	12.5	50				628	-	673	10001	-	10046	9			
218		90%	4	12.5	50				674	-	705	11001	-	11032	9			
219		90%	4	12.5	50				705	-	727	12001	-	11032	9			
220		90%	4	12.5	50				728	-	742	13001	-	13015	9			
221		90%	4	12.5	50				743	-	753	14001	-	14011	9			
222		90%	4	12.5	50				754	-	760	15001	-	15006	9			
223		90%	4	12.5	50									9				
224		90%	4	12.5	50									9				
225		90%	4	12.5	50									9				
226		90%	4	12.5	50									9				
227		90%	4	12.5	50									9				

SEISMIC OBSERVER'S REPORT FORM-B



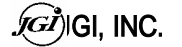
PROSPECT				LINE				DATE		WEATHER		WIND		TEMP	OBSERVER		PAGE	
ISHIKARI HEIYA HOKUBU 3D				BLOCK-1				2001/10/17		FINE		LIGHT			K.AOKI		14	
FIELD TAPE		SOURCE							RECEIVER				PROCESS()			BAD TRACES	REMARKS	
REEL NO. 4		Force Out (%)	No. of Vibrators	Vibrator Interval (m)	Source Array Length (m)	LATERAL OFFSET(m)	INLINE OFFSET(m)	SOURCE POSITION	SPREAD (FIX SPREAD) (GEOPHONE LOCATIONS USED)				No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(P) SWEEP FREQUENCY	
FIELD REC. FILE NO.	SP or VP NO.								ch	ch	loc	loc						
228		90%	4	12.5	50				1	-	72	1001	-	1072	9			
229		90%	4	12.5	50				73	-	143	2001	-	2071	9			
230		90%	4	12.5	50				144	-	215	3001	-	3072	9			
231		90%	4	12.5	50				216	-	285	4001	-	4070	9			
232		90%	4	12.5	50				286	-	356	5001	-	5071	8			
233		90%	4	12.5	50				357	-	428	6001	-	6072	9			
234		90%	4	12.5	50				429	-	500	7001	-	7072	9			
235		90%	4	12.5	50				501	-	569	8001	-	8069	9			
236		90%	4	12.5	50				570	-	627	9001	-	9058	9			
237		90%	4	12.5	50				628	-	673	10001	-	10046	9			
238		90%	4	12.5	50				674	-	705	11001	-	11032	9			
239		90%	4	12.5	50				705	-	727	12001	-	11032	9			
240		90%	4	12.5	50				728	-	742	13001	-	13015	9			
241		90%	4	12.5	50				743	-	753	14001	-	14011	9			
242		90%	4	12.5	50				754	-	760	15001	-	15006	9			
243		90%	4	12.5	50									9				
244		90%	4	12.5	50									9				
245		90%	4	12.5	50									9				
246		90%	4	12.5	50									9				
247		90%	4	12.5	50									9				

SEISMIC OBSERVER'S REPORT FORM-B



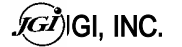
PROSPECT				LINE				DATE		WEATHER		WIND		TEMP		OBSERVER		PAGE		
ISHIKARI HEIYA HOKUBU 3D				BLOCK-1				2001/10/17		FINE		LIGHT				K.AOKI		1		
FIELD TAPE				SOURCE					RECEIVER				PROCESS()		BAD TRACES	REMARKS				
REEL NO. 4				Force Out (%)	No. of Vibrators	Vibrator Interval (m)	Source Array Length (m)	LATERAL OFFSET(m)	INLINE OFFSET(m)	SOURCE POSITION	SPREAD (FIX SPREAD) (GEOPHONE LOCATIONS USED)				No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(F) SWEEP FREQUENCY	
FIELD REC. FILE NO.	SP or VP NO.										ch	ch	loc	loc						
1	L.V.									1	-	78	1001	-	1078				LEVITATE	B.O.T.
2	P.R.									79	-	155	2001	-	2077				PULSE RESPONSE	
3	G.N.									156	-	233	3001	-	3078				GROUND NOISE	
4				90%	4	12.5	50			234	-	311	4001	-	4078	9				
5				90%	4	12.5	50			312	-	388	5001	-	5077	9				
6				90%	4	12.5	50			389	-	466	6001	-	6078	9				
7				90%	4	12.5	50			467	-	544	7001	-	7078	9				
8				90%	4	12.5	50			545	-	619	8001	-	8075	9				
9				90%	4	12.5	50			620	-	683	9001	-	9064	9				
10				90%	4	12.5	50			684	-	736	10001	-	10053	9				
11				90%	4	12.5	50			737	-	774	11001	-	11038	9				
12				90%	4	12.5	50			775	-	804	12001	-	12030	9				
13				90%	4	12.5	50			805	-	825	13001	-	13021	9				
14				90%	4	12.5	50			826	-	843	14001	-	14018	9				
15				90%	4	12.5	50			844	-	854	15001	-	15011	9				
16				90%	4	12.5	50									9				
17				90%	4	12.5	50									9				
18				90%	4	12.5	50									9				
19				90%	4	12.5	50									9				
20				90%	4	12.5	50									9				
21				90%	4	12.5	50									9				
22				90%	4	12.5	50									9				
23				90%	4	12.5	50									9				
24				90%	4	12.5	50									9				
25				90%	4	12.5	50									9				
26				90%	4	12.5	50									9				
27				90%	4	12.5	50									9				
28				90%	4	12.5	50									9				
29				90%	4	12.5	50									9				
30				90%	4	12.5	50									9				
31				90%	4	12.5	50									9				
32				90%	4	12.5	50									9				
33				90%	4	12.5	50									9				
34				90%	4	12.5	50									9				
35				90%	4	12.5	50									9				
36				90%	4	12.5	50									9				
37				90%	4	12.5	50									9				
38				90%	4	12.5	50									9				
39				90%	4	12.5	50									9				
40				90%	4	12.5	50									9				

SEISMIC OBSERVER'S REPORT FORM-B



PROSPECT				LINE				DATE		WEATHER		WIND		TEMP		OBSERVER		PAGE		
ISHIKARI HEIYA HOKUBU 3D				BLOCK-1				2001/10/17		FINE		LIGHT				K.AOKI		2		
FIELD TAPE				SOURCE					RECEIVER				PROCESS()			BAD TRACES	REMARKS			
REEL NO. 4				Force Out (%)	No. of Vibrators	Vibrator Interval (m)	Source Array Length (m)	LATERAL OFFSET(m)	INLINE OFFSET(m)	SOURCE POSITION	SPREAD (FIX SPREAD) (GEOPHONE LOCATIONS USED)				No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(I) SWEEP FREQUENCY	
FIELD REC. FILE NO.	SP or VP NO.	ch	ch								loc	loc								
41			90%	4	12.5	50				1	-	78	1001	-	1078	9				
42			90%	4	12.5	50				79	-	155	2001	-	2077	9				
43			90%	4	12.5	50				156	-	233	3001	-	3078	9				
44			90%	4	12.5	50				234	-	311	4001	-	4078	9				
45			90%	4	12.5	50				312	-	388	5001	-	5077	9				
46			90%	4	12.5	50				389	-	466	6001	-	6078	9				
47			90%	4	12.5	50				467	-	544	7001	-	7078	9				
48			90%	4	12.5	50				545	-	619	8001	-	8075	9				
49			90%	4	12.5	50				620	-	683	9001	-	9064	9				
50			90%	4	12.5	50				684	-	736	10001	-	10053	9				
51			90%	4	12.5	50				737	-	774	11001	-	11038	9				
52			90%	4	12.5	50				775	-	804	12001	-	12030	9				
53			90%	4	12.5	50				805	-	825	13001	-	13021	9				
54			90%	4	12.5	50				826	-	843	14001	-	14018	9				
55			90%	4	12.5	50				844	-	854	15001	-	15011	9				
56			90%	4	12.5	50										9				
57			90%	4	12.5	50										9				
58			90%	4	12.5	50										9				
59			90%	4	12.5	50										9				
60			90%	4	12.5	50										9				
61			90%	4	12.5	50										9				
62			90%	4	12.5	50										9				
63			90%	4	12.5	50										9				
64			90%	4	12.5	50										9				
65			90%	4	12.5	50										9				
66			90%	4	12.5	50										9				
67			90%	4	12.5	50										9				
68			90%	4	12.5	50										9				
69			90%	4	12.5	50										9				
70			90%	4	12.5	50										9				
71			90%	4	12.5	50										9				
72			90%	4	12.5	50										9				
73			90%	4	12.5	50										9				
74			90%	4	12.5	50										9				
75			90%	4	12.5	50										9				
76			90%	4	12.5	50										9				
77			90%	4	12.5	50										9				
78			90%	4	12.5	50										9				
79			90%	4	12.5	50										9				
80			90%	4	12.5	50										9				

SEISMIC OBSERVER'S REPORT FORM-B



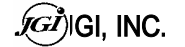
PROSPECT		LINE		DATE		WEATHER		WIND		TEMP		OBSERVER		PAGE				
宮城県地下構造調査02		MYG02-1		2002/12/18		FINE		LIGHT				S.Sasaki		53				
FIELD TAPE		SOURCE							RECEIVER				PROCESS()		BAD TRACES		REMARKS	
REEL NO. 13		Force Out (%)	No. of Vibrators	Array Pattern	Off set (m)	Source Array Length (m)	Vibrator Interval (m)	Source Position	SPREAD (GEOPHONE LOCATIONS USED)		No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(I) SWEEP FREQUENCY	REMARKS		
FIELD REC. FILE NO.	SP or VP NO.								ch1	ch78						Rec5sec/Sampling4msec/SweepFreq8-50Hz(24sec) [Correlation Type] C.B.S Slave Operation		
537	G.P.							535	- 612								Geophone Pulse	
538	S.R.							535	- 612								System Response	
539	G.N.							535	- 612								Ground Noise	
540	355	90%	3	Move			355	535	- 612	10	5	-	3					
541	358	70%	3	Move			358	535	- 612	10	5	-	3					
542	361	70%	3	Move			361	535	- 612	10	5	-	3					
543	364	70%	3	Move			364	535	- 612	10	5	-	3					
544	367	70%	3	Move			367	535	- 612	10	5	-	3					
545	370	50%	3	Move			370	535	- 612	10	5	-	3					
546	373	50%	3	Move			373	535	- 612	10	5	-	3					
547	376	50%	3	Move			376	535	- 612	10	5	-	3					
548	379	50%	3	Move			379	535	- 612	10	5	-	3					
549	381	50%	1	Move			381	535	- 612	10	5	-	3					
550	388	30%	1	Move			388	535	- 612	3	5	-	3					
551	399	50%	1	Move			399	535	- 612	5	5	-	3					
552	402	50%	3	Move			402	535	- 612	10	5	-	3					
553	405	50%	3	Move			405	535	- 612	10	5	-	3					
554	409	90%	3	Move			409	535	- 612	20	5	-	3				OFFSET SHOT	
555	412	50%	3	Move			412	535	- 612	10	5	-	3					
556	415	50%	3	Move			415	535	- 612	10	5	-	3					

SEISMIC OBSERVER'S REPORT FORM-B

PROSPECT		LINE						DATE	WEATHER	WIND	TEMP	OBSERVER	PAGE			
宮城県地下構造調査02		MYG02-1						2002/12/18	FINE	LIGHT		S.Sasaki	54			
FIELD TAPE		SOURCE						RECEIVER	PROCESS()				BAD TRACES	REMARKS		
REEL NO. 13		Force Out (%)	No. of Vibrators	Array Pattern	Off set (m)	Source Array Length (m)	Vibrator Interval (m)	Source Position	SPREAD (GEOPHONE LOCATIONS USED)		No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(I) SWEEP FREQUENCY	REMARKS
FIELD REC. FILE NO.	SP or VP NO.								ch1	ch78						
557	418	50%	3	Move			418	535	- 612	10	5	-	3			
558	421	50%	3	Move			421	535	- 612	10	5	-	3			
559	424	50%	3	Move			424	535	- 612	10	5	-	3			
560	426	50%	3	Move			426	535	- 612	10	5	-	3			
561	428	90%	3	Move			428	535	- 612	20	5	-	3			OFFSET SHOT
562	G.N.						G.N.	535	- 612							Ground Noise

Rec5sec/Sampling4msec/SweepFreq8-50Hz(24sec)
[Correlation Type] C.B.S
Slave Operation

SEISMIC OBSERVER'S REPORT FORM-B



PROSPECT		LINE		DATE		WEATHER		WIND		TEMP		OBSERVER		PAGE				
宮城県地下構造調査02		MYG02-1		2002/12/19		CLOUDY		LIGHT				S.Sasaki		55				
FIELD TAPE		SOURCE							RECEIVER				PROCESS()		BAD TRACES		REMARKS	
REEL NO. 13		Force Out (%)	No. of Vibrators	Array Pattern	Off set (m)	Source Array Length (m)	Vibrator Interval (m)	Source Position	SPREAD (GEOPHONE LOCATIONS USED)		No. of Sweeps	N/E window length (sec)	Window Overlap (sec)	Suppression factor	DEAD(D), WILD(W)) or POLARITY INVERSE(I) SWEEP FREQUENCY	Rec5sec/Sampling4msec/SweepFreq8-50Hz(24sec) [Correlation Type] C.B.S Slave Operation		
FIELD REC. FILE NO.	SP or VP NO.								ch1	ch78								
563	G.P.							535	- 612								Geophone Pulse	
564	S.R.							535	- 612								System Response	
565	G.N.							535	- 612								Ground Noise	
566	432	90%	3	Move			432.0	535	- 612	20	5	-	3					
567	437	50%	3	Move			437.0	535	- 612	5	5	-	3					
568	440	50%	3	Move			440.0	535	- 612	5	5	-	3					
569	443	70%	3	Move			443.0	535	- 612	10	5	-	3					
570	446	70%	3	Move			446.0	535	- 612	10	5	-	3					
571	449	70%	3	Move			449.0	535	- 612	10	5	-	3					
572	453	50%	3	Move			453.0	535	- 612	10	5	-	3					
573	459	70%	3	Move			459.0	535	- 612	10	5	-	3					
574	470	70%	3	Move			470.0	535	- 612	10	5	-	3					
575	473	50%	1	Move			473.5	535	- 612	5	5	-	3					
576	479	90%	3	Move			479.0	535	- 612	10	5	-	3					
577	486	90%	3	Move			486.0	535	- 612	10	5	-	3				OFFSET SHOT	
578	490	90%	3	Move			490.0	535	- 612	10	5	-	3					
579	493	90%	3	Move			493.0	535	- 612	5	5	-	3					
580	497	90%	3	Move			497.0	535	- 612	20	5	-	3				OFFSET SHOT	
581	500	90%	3	Move			500.0	535	- 612	20	5	-	3					
582	503	90%	3	Move			503.0	535	- 612	20	5	-	3					

