LINE 23 – LINE ID 23

OBSERVER'S LOG SHOT POINT	NAVIGATION SHOT POINT
361	361
↓	↓
3229	3229
NO RECORD	3230
3230	3231
↓	↓
3326	3327
NO RECORD	3328
3327	3329
3328	3330
3329	3331
NO RECORD	3332
3330	3333
~~3331~~	3334
3332	3335
NO RECORD	3336
3333	3337
↓	↓
3561	3565
3562 ←	DELETED BY NAVIGATION
3563	3566
↓	↓
3780	3783
3781 ←	DELETED BY NAVIGATION
3782	3784
↓	↓
~~3871~~	3873
NO RECORD	3874
3872	3875
↓	↓

OBSERVER'S LOG SHOT POINT	NAVIGATION SHOT POINT
4552	4555
NO RECORD	4556
4553	4557
↓	↓
4563	4567
NO RECORD	4568
4564	4569
↓	↓
4577	4582
NO RECORD	4583
4578	4584
↓	↓
4580	4586
NO RECORD	4587
4581	4588
NO RECORD	4589
4582	4590
↓	↓
4603	4611
NO RECORD	4612
4604	4613
↓	↓
4618	4627
NO RECORD	4628
4619	4629
↓	↓
4650	4660
4651 ←	DELETED BY NAVIGATION
4652	[redacted]
↓	

CONTINUED

LINE 23 (CONT)

OBSERVER'S LOG SHOT POINT	NAVIGATION SHOT POINT
5391	5400
NO RECORD	5401
5392	5402
↓	↓
6258	6268

MARINE SEISMIC OBSERVER'S LOG

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CLIENT: U.S.G.S.	PROSPECT: AOCS	AREA: EAST COAST	LINE NO.: 23				
VESSEL: CARINO	PARTY NO: 2912	INST. ENG.	DATE: MO JUNE DAY 29 YR 78				

CAMERA DISPLAY: ☒ 1 SYSTEM ☐ 2 SYSTEMS ☐ NEAR AND FARS ☐ ODD AND EVEN

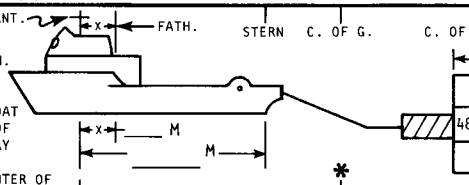
TYPE: ☐ DFS III ☒ DFS IV OTHER ____ ☒ 9 TRACK ☐ 21 TRACK

FORMAT: SEG B "PE" ☒ GAPPED ☐ UNGAPPED

NO. BYTES IN HEADER: 132	NO. BYTES IN RECORD ID: 2	NO. OF BYTES IN SCAN: 134	TIMING TRACE CHANNEL: AUX-4	RECORD NUMBERS: ☒ DEC. ☐ OCT.	PACKING DENSITY: (LO) ☐ 356 ☐ 800 (HI) ☐ 712 ☒ 1600		
SAMPLE RATE: ☐ 1 ☐ 2 ☒ 4 ☐ 8 OTHER ____	RECORD LENGTH: 12 SEC.	DELAY START RECORD MODULE: (T_o) = 0 SEC	GAIN CONSTANT: 30 DB				

MAIN STREAMER RECORDING:	WATER BREAK RECORDING:	MINI STREAMER RECORDING:	DIRECTION:
NUMBER OF TRACES 48	LOCATION 1 2 3 4 5 6	NUMBER OF TRACES	N
TRACE NUMBERS 1-48	CHANNEL (ON TAPE)	TRACE NUMBERS	W E
CHANNEL NOS. (ON MAG TAPE) 1-48	TRACE (ON DISPLAY)	CHANNEL NOS. (ON MAG TAPE)	S 153
GROUP INTERVAL 50.00 M STREAMER LENGTH 3600 M	CABLE NOISE: MAIN ____ μBARS MINI ____ μBARS	GROUP INTERVAL ____ M STREAMER LENGTH ____ M	
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ____ M		DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ____ M	

COVERAGE: 36 FOLD	SHOTPOINT INTERVAL: 50 M	SHOTPOINT INCREMENT: +1	GUN DEPTH: 21 ft 6.4m *	WATER VELOCITY: cms M/SEC		
FILTERS MAIN STREAMER: LOW 8/18 HIGH 62	FILTERS MINI STREAMER: LOW ____ HIGH ____	RECORD GAIN MODE: ☐ INIT ☐ MAN ☐ OPER ☒ IFP	REPRODUCE MODE: ☐ FLOAT ☐ DEFLOAT ☒ AGC	AIRGUN ARRAY: 2K IN³	AIRGUN PRESSURE: 2K PSI	
SYSTEM DELAYS: AIRGUN DELAY 51 MS. FILTER DELAY ____ MS. DISPLAY DELAY 51 MS.	POLARITY: PRESSURE INCREASE ON PHONE: ☒ NEGATIVE ☐ POSITIVE } NUMBERS ON TAPE ☐ DOWNBREAK ☐ UPBREAK } ON DISPLAY				ALIASING FILTER 62	



X: DISTANCE FROM ANTENNA TO FATH.
ANT=ANTENNA
FATH=FATHOMETER
STERN=STERN OF BOAT
C. OF G.=CENTER OF GUN ARRAY
*=GUN ARRAY
C. OF NR. GRP=CENTER OF NEAR GROUP

INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

3600 METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

POP PER SHOTPOINT: 1

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT	RPT	REC # OR DUMMY (-1)	REEL NUMBER	XPORT	W. DEPTH (M)	OFFSET (M)	STREAMER DEPTH 6	5	4	3	2	1	MINI STR	MINI-STR OFFSET(M)	POP SP	TIME LOCAL/GMT	FS	LS 6268	FR	LR	AZ	INX	N	LINE
1	361		061	7541871	A	43	368	44	45	47	37	40	36				1847								START OF LINE DELAYED
2	414		-1																						PARITY
3	453		-1																						PARITY
4	471		111	7541830		46		43	45	50	49	44	36				1922								TB 181° SH 154°
5	471		-1																						PARITY
6	580 ~~590~~		~~590~~ 590	7641891	A	50	377	41	45	45	42	49	40				1956								TB 186° SH 160°
7	589		-1																						PARITY
8	690		330	7541906	B	53		41	45	45	42	47	42				2030								TB 176° SH 159°
9	698		337	7541911	A												2033								TAPE CHANGE
10	697		-1																						MISSED OFF
11	753		-1																						PARITY
12	808		447	7541923		56	376	43	45	43	46	36	38				2104								TB 175° SH 163°
13	808		-1																						MISSED OFF
14	855		-1																						~~PARITY~~ PARITY
15	882		-1																						PARITY
16	903		-1														2130								HIGH PARITY
17	918		556	7541931	A	59	381	44	47	42	37	40	37				2137								TB 175° SH 163°

TI-23287A

MARINE SEISMIC OBSERVER'S LOG

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CLIENT: U.S.G.S.	PROSPECT: AOCS	AREA: EAST COAST, US	LINE NO.: 23
VESSEL: M/V CARINO	PARTY NO: 2912	INST. ENG.	DATE: MO 06 DAY 29 YR 78

CAMERA DISPLAY: ☒ SYSTEM ☐ 2 SYSTEMS ☐ NEAR AND FARS ☐ ODD AND EVEN

TYPE: ☐ DFS III ☐ DFS IV OTHER ___ ☐ 9 TRACK ☐ 21 TRACK

FORMAT: SEG 13 ☒ GAPPED ☐ UNGAPPED

NO. BYTES IN HEADER:	NO. BYTES IN RECORD ID:	NO. OF BYTES IN SCAN:	TIMING TRACE CHANNEL:	RECORD NUMBERS:	PACKING DENSITY:
132	2	134		☒ DEC. ☐ OCT.	(LO) ☐ 356 ☐ 800 (HI) ☐ 712 ☒ 1600

SAMPLE RATE: ☐ 1 ☐ 2 ☒ 4 ☐ 8 OTHER ___ RECORD LENGTH: 12 SEC. DELAY START RECORD MODULE: (T_o) = ___ SEC GAIN CONSTANT:

MAIN STREAMER RECORDING:	WATER BREAK RECORDING:	MINI STREAMER RECORDING:
NUMBER OF TRACES 48	LOCATION ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6	NUMBER OF TRACES
TRACE NUMBERS 1-48	CHANNEL (ON TAPE)	TRACE NUMBERS
CHANNEL NOS. (ON MAG TAPE) 5-52	TRACE (ON DISPLAY)	CHANNEL NOS. (ON MAG TAPE)
GROUP INTERVAL ___ M STREAMER LENGTH ___ M	CABLE NOISE: MAIN ___ μBARS MINI ___ μBARS	GROUP INTERVAL ___ M STREAMER LENGTH ___ M
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M		DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

DIRECTION: N / W E / S

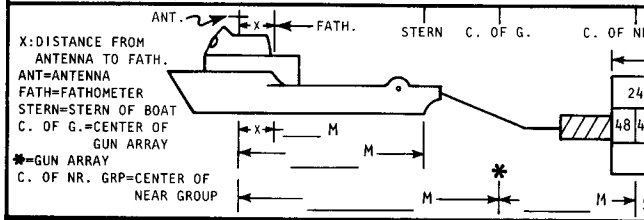
COVERAGE:	SHOTPOINT INTERVAL:	SHOTPOINT INCREMENT:	GUN DEPTH:	WATER VELOCITY:
36 FOLD	50 M	+1	6.4 M	___ M/SEC

FILTERS MAIN STREAMER:	FILTERS MINI STREAMER:	RECORD GAIN MODE:	REPRODUCE MODE:	AIRGUN ARRAY:	AIRGUN PRESSURE:
LOW 8/18 HIGH 62	LOW ___ HIGH ___	☐ INIT ☐ MAN ☐ OPER ☒ IFP	☐ FLOAT ☐ DEFLOAT ☒ AGC	2000 IN^3	2000 PSI

SYSTEM DELAYS: AIRGUN DELAY 51 MS. FILTER DELAY ___ MS. DISPLAY DELAY ___ MS.

POLARITY: PRESSURE INCREASE ON PHONE: ☒ NEGATIVE ☐ POSITIVE } NUMBERS ON TAPE ☒ DOWNBREAK ☐ UPBREAK } ON DISPLAY

ALIASING FILTER: 62



INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

3600 METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

POP PER SHOTPOINT: 1

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT	RPT	REC # OR DUMMY (-1)	REEL NUMBER	XPORT	W. DEPTH (M)	OFFSET (M)	STREAMER DEPTH	MINI STR	MINI-STR OFFSET(M)	POPSP	TIME ~~LOCAL~~/ GMT	FS	LS	FR	LR	AZ	INX	N	LINE	
	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								
1				754193	A	~~65~~	387					2246									
2	10027		665	754194	B	69	387	44471461363537				2301		TB 187° SH 163°							
3	10074		-1											PWR							
4	11135		773	754195	A	70	363	45484343635338				2235		TB 172° SH 161°							
5	11144		781	754196	B		363	46494336363 9				2237		TAPE CHANGE ~~OBS~~							
6	11192		-1											PARITY							
7	12227		-1											PARITY							
8	~~12253~~		890	754197	A	72	394	45494237354 0				2308		TB 184° SH 160°							
9	12263		-1											PARITY							
10	13334		-1											PARITY							
11	13339		880	754198	B	74	363	45454433854 0				2339		TB 175° SH 165°							
12	14143		-1											PARITY							
13	14227		-1											PARITY							
14	14440		78											MIDNIGHT SHOT							
15	14471		1091	754199	A	77	363	46454234854 0				0009		TB 176° SH 159°							
16	14497		-1											PARITY							
17	15579		2166	754200	B	76	392	45454338354 0				0039		TB SH							
	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								

TI-23287A

MARINE SEISMIC OBSERVER'S LOG

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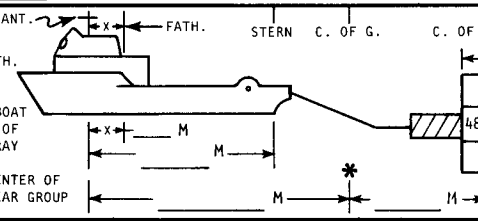
CLIENT: U.S.G.S. [1]	PROSPECT: AOCS [2]	AREA: EAST COAST U.S.A [3]	LINE NO.: 23 [4]				
VESSEL: M/V CARINO [5]	PARTY NO: 2912 [6]	INST. ENG. [7]	DATE: MO 06 DAY 30 YR 78 [8]				
CAMERA DISPLAY: ☐1 SYSTEM ☐2 SYSTEMS ☐NEAR AND FARS ☐ODD AND EVEN [9]	TYPE: ☐DFS III ☐DFS IV OTHER [10]	☐9 TRACK ☐21 TRACK [11]	FORMAT: SEG ☐GAPPED ☐UNGAPPED [12]				
NO. BYTES IN HEADER: [13]	NO. BYTES IN RECORD ID: [14]	NO. OF BYTES IN SCAN: [15]	TIMING TRACE CHANNEL: [16]	RECORD NUMBERS: ☐DEC. ☐OCT. [17]	PACKING DENSITY: (LO) ☐356 ☐800 (HI) ☐712 ☐1600 [18]		
SAMPLE RATE: ☐1 ☐2 ☐4 ☐8 OTHER [19]	RECORD LENGTH: SEC. [20]	DELAY START RECORD MODULE: (T_o)= SEC [21]	GAIN CONSTANT: [22]				
MAIN STREAMER RECORDING: [23] NUMBER OF TRACES / TRACE NUMBERS / CHANNEL NOS. (ON MAG TAPE)	WATER BREAK RECORDING: [24] 1 2 3 4 5 6 — LOCATION / CHANNEL (ON TAPE) / TRACE (ON DISPLAY)	MINI STREAMER RECORDING: [25] NUMBER OF TRACES / TRACE NUMBERS / CHANNEL NOS. (ON MAG TAPE)	DIRECTION: [26] N W E S				
GROUP INTERVAL ____ M STREAMER LENGTH ____ M [27] DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ____ M	CABLE NOISE: [28] MAIN ____ μBARS MINI ____ μBARS	GROUP INTERVAL ____ M STREAMER LENGTH ____ M [29] DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ____ M					
COVERAGE: ____ FOLD [30]	SHOTPOINT INTERVAL: ____ M [31]	SHOTPOINT INCREMENT: [32]	GUN DEPTH: M [33]	WATER VELOCITY: M/SEC [34]			
FILTERS MAIN STREAMER: LOW ____ HIGH ____ [35]	FILTERS MINI STREAMER: LOW ____ HIGH ____ [36]	RECORD GAIN MODE: ☐INIT ☐MAN ☐OPER ☐IFP [37]	REPRODUCE MODE: ☐FLOAT ☐DEFLOAT ☐AGC [38]	AIRGUN ARRAY: ____ IN^3 [39]	AIRGUN PRESSURE: ____ PSI [40]		
SYSTEM DELAYS: AIRGUN DELAY ____ MS. FILTER DELAY ____ MS. DISPLAY DELAY ____ MS. [41]	POLARITY: PRESSURE INCREASE ON PHONE: ☐NEGATIVE ☐POSITIVE } NUMBERS ON TAPE ☐DOWNBREAK ☐UPBREAK } ON DISPLAY	ALIASING FILTER [42] [43]					



X:DISTANCE FROM ANTENNA TO FATH.
ANT=ANTENNA
FATH=FATHOMETER
STERN=STERN OF BOAT
C. OF G.=CENTER OF GUN ARRAY
*=GUN ARRAY
C. OF NR. GRP=CENTER OF NEAR GROUP

INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

POP PER SHOTPOINT [44]

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER	XPORT [45]	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48] 6 5 4 3 2 1	MINI STR [49]	MINI-STR OFFSET(M) [50]	POP SP [51]	TIME [52] ~~LOCAL~~ / GMT	F S [53] A Z [57]	L S [54] I N X [58]	F R [55] N [59]	L R [56] L I N E [60]
1	~~1578~~															MISSED OFS SP [61]
2	1688		32	7542018		83		44434	1	40	35	40		0108		TB 175° SH 160°
3	1693		-1													PARITY
4	1744		-1													PARITY
5	1798		436	7542026		93	40	45545	43	38	32	38		0139		TB 175° SH 158°
6	1831		-1													PARITY, PE ERROR
7	1859		-1													PARITY
8	1875		-1													PARITY
9	1907		546	7542038		86	40	45545	41	38	36	40		0207		TB 180° SH 157°
10	2016		654	7542048		87	41	44745	43	39	35	40		0236		TB 179° SH 164°
11	2048		-1													PARITY
12	2060		-1											0250		PARITY
13	2125		763	7542058		90	41	46545	44	37	37	40		0309		TB 179° SH 157°
14	2154		-1		(1)											PARITY
15	2238		875	7542068		95	41	47746	43	37	39	40		0341		TB 177° SH 158°
16	2235		-1													MISSED SP OFS
17	2314		-1													SYNC

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MARINE SEISMIC OBSERVER'S LOG

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CLIENT: U.S.G.S. [1] | PROSPECT: AOCS [2] | AREA: EAST COAST USA. [3] | LINE NO.: 23 [4]

VESSEL: m/v CARINO [5] | PARTY NO: 2912 [6] | INST. ENG. [7] | DATE: MO 06 DAY 30 YR 78 [8]

CAMERA DISPLAY: [9] ☐1 SYSTEM ☐2 SYSTEMS ☐NEAR AND FARS ☐ODD AND EVEN | TYPE: [10] ☐DFS III ☐DFS IV OTHER ____ | [11] ☐9 TRACK ☐21 TRACK | FORMAT: [12] SEG ____ ☐GAPPED ☐UNGAPPED

NO. BYTES IN HEADER: [13] | NO. BYTES IN RECORD ID: [14] | NO. OF BYTES IN SCAN: [15] | TIMING TRACE CHANNEL: [16] | RECORD NUMBERS: [17] ☐DEC. ☐OCT. | PACKING DENSITY: [18] (LO) ☐356 ☐800 (HI) ☐712 ☐1600

SAMPLE RATE: [19] ☐1 ☐2 ☐4 ☐8 OTHER ____ | RECORD LENGTH: [20] ____ SEC. | DELAY START RECORD MODULE: [21] (T_o)= ____ SEC | GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES ____
TRACE NUMBERS ____
CHANNEL NOS. (ON MAG TAPE) ____
GROUP INTERVAL ____ M STREAMER LENGTH ____ M [27]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ____ M

WATER BREAK RECORDING: [24]
LOCATION 1 2 3 4 5 6
CHANNEL (ON TAPE) ____
TRACE (ON DISPLAY) ____
CABLE NOISE: [28] MAIN ____ μBARS | MINI ____ μBARS

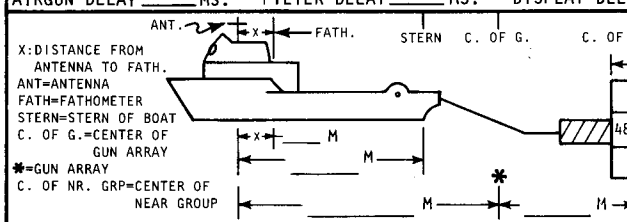
MINI STREAMER RECORDING: [25]
NUMBER OF TRACES ____
TRACE NUMBERS ____
CHANNEL NOS. (ON MAG TAPE) ____
GROUP INTERVAL ____ M STREAMER LENGTH ____ M [29]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ____ M

DIRECTION: [26] N W E S

COVERAGE: [30] ____ FOLD | SHOTPOINT INTERVAL: [31] ____ M | SHOTPOINT INCREMENT: [32] | GUN DEPTH: [33] ____ M | WATER VELOCITY: [34] ____ M/SEC

FILTERS MAIN STREAMER: [35] LOW ____ HIGH ____ | FILTERS MINI STREAMER: [36] LOW ____ HIGH ____ | RECORD GAIN MODE: [37] ☐INIT ☐MAN ☐OPER ☐IFP | REPRODUCE MODE: ☐FLOAT ☐DEFLOAT ☐AGC [38] | AIRGUN ARRAY: [39] ____ IN^3 | AIRGUN PRESSURE: [40] ____ PSI

SYSTEM DELAYS: AIRGUN DELAY ____ MS. FILTER DELAY ____ MS. DISPLAY DELAY ____ MS. | POLARITY: [41] PRESSURE INCREASE ON PHONE: ☐NEGATIVE ☐POSITIVE } NUMBERS ON TAPE ☐DOWNBREAK ☐UPBREAK } ON DISPLAY | ALIASING FILTER [42] [43]



INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

POP PER SHOTPOINT [44]

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER [45]	XPORT	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48] 6	5	4	3	2	1	MINI STR [49]	MINI-STR OFFSET(M) [50]	POPSP [51]	TIME LOCAL/GMT [52]	FS [53] / AZ [57]	LS [54] / INX [58]	FR [55] / N [59]	LR [56] / LINE [60]	
1	2327		-1																				PARITY ERROR
2	2396		983	7542074	A	101	377	46	47	44	37	39	39				0416						TAPE CH4 FSP 2396 FRN 983
3	2363		001																				COUNTER ADVANCE
4	2436		-1																				AF
5	2440		-1																				SYNC at end of record,
6	2445		083																				head 051° stern 160°
7	2455		93	7542081	B																		
8	2455		-1			118	3634	47	45	43	40	38	40				0414						TAPE CH4 FSP 2455 FRN 93
9	2496		-1																				Parity & Sync
10	2507		-1																				Parity Sync error,
11	2564		202	7541209	A		363	45	44	40	40	34	40				0515						TAPE CH4 FSP 2564 FRN 202
12	2600		238																				read 154° stern 178°
13	2673		31	7542109	A	459	3644	43	41	41	37	39					0546						TAPE CH4 FSP 2673 FRN 311
14	2776		-1																				SYNC & PARITY ERRORS
15	2777		-1																				PARITY
16	2778		-1																				PARITY
17	2779		-1																				PARITY

TI-23287A

MARINE SEISMIC OBSERVER'S LOG

PAGE 5 OF ___ PAGES

CLIENT: USGS [1]	PROSPECT: AOCS [2]	AREA: EAST COAST [3]	LINE NO.: #23. [4]
VESSEL: CARINO [5]	PARTY NO: 2912 [6]	INST. ENG. [7]	DATE: MO 306 DAY 30 YR 78 [8]

CAMERA DISPLAY: [9] ☐1 SYSTEM ☐2 SYSTEMS ☐NEAR AND FARS ☐ODD AND EVEN

TYPE: [10] ☐DFS III ☐DFS IV OTHER ___

[11] ☐9 TRACK ☐21 TRACK

FORMAT: [12] SEG ___ ☐GAPPED ☐UNGAPPED

NO. BYTES IN HEADER: [13]

NO. BYTES IN RECORD ID: [14]

NO. OF BYTES IN SCAN: [15]

TIMING TRACE CHANNEL: [16]

RECORD NUMBERS: [17] ☐DEC. ☐OCT.

PACKING DENSITY: [18] (LO) ☐356 ☐800 (HI) ☐712 ☐1600

SAMPLE RATE: [19] ☐1 ☐2 ☐4 ☐8 OTHER ___

RECORD LENGTH: [20] ___ SEC.

DELAY START RECORD MODULE: [21] (T_o) = ___ SEC

GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

WATER BREAK RECORDING: [24] 1 2 3 4 5 6
LOCATION
CHANNEL (ON TAPE)
TRACE (ON DISPLAY)

MINI STREAMER RECORDING: [25]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

DIRECTION: [26] N W E S

CABLE NOISE: [27] MAIN ___ μBARS | MINI ___ μBARS [28]

[29]

COVERAGE: [30] ___ FOLD

SHOTPOINT INTERVAL: [31] ___ M

SHOTPOINT INCREMENT: [32]

GUN DEPTH: [33] ___ M

WATER VELOCITY: [34] ___ M/SEC

FILTERS MAIN STREAMER: [35] LOW ___ HIGH ___

FILTERS MINI STREAMER: [36] LOW ___ HIGH ___

RECORD GAIN MODE: [37] ☐INIT ☐MAN ☐OPER ☐IFP

REPRODUCE MODE: ☐FLOAT ☐DEFLOAT ☐AGC

[38]

AIRGUN ARRAY: [39] ___ IN^3

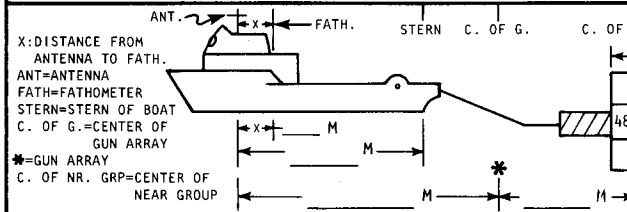
AIRGUN PRESSURE: [40] ___ PSI

SYSTEM DELAYS: AIRGUN DELAY ___ MS. FILTER DELAY ___ MS. DISPLAY DELAY ___ MS.

POLARITY: [41] PRESSURE INCREASE ON PHONE: ☐NEGATIVE ☐POSITIVE } NUMBERS ON TAPE ☐DOWNBREAK ☐UPBREAK } ON DISPLAY

ALIASING FILTER: [42] [43]

POP PER SHOTPOINT [44]



INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER [45]	XPORT	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48] 6 5 4 3 2 1	MINI STR [49]	MINI-STR OFFSET(M) [50]	POP SP [51]	TIME LOCAL/GMT [52]	FS [53] / AZ [57]	LS [54] / INX [58]	FR [55] / N [59]	LR [56] / LINE [60]	[61]
1	2778		-1														PARITY
2	2781		-1														PARITY
3	2782		420	754211A			3.61	45 42 40 42 35 40									TAPE CH FSP 2782 FRN 420
4	2800		-1	(A)													head 182 tail 182°
5	2883		521			981											1 valve (1 sec.)
6	2892		-1														DFS manual mode
7	2893		530														Good Rec
8	2894		531	7542128			3.62										TAPE CH FSP 2894 FRN 531
9	3003		640	754213A			3.59	46 41 40 40 35 40									TAPE CH FSP 3003 FRN 640
10	3027		664														SYNC ERROR
11	3047		-1														SYNC ERROR
12	3059		696			1500											DELAY (1.5) SEC
13	3068		-1														PARITY
14	3100		737														head 154° tail 183°
15	3112		749	754214B		1650	3.64	45 43 40 41 35 35		258							TAPE CH FSP 3112 FRN 749
16	3116		753	753													PARITY
17	3184		821														DELAY (2.0 SEC)

TI-23287A

MARINE SEISMIC OBSERVER'S LOG

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CLIENT: GSO USGS. [1]	PROSPECT: AOCS [2]	AREA: EAST COAST [3]	LINE NO.: #23 [4]
VESSEL: C ARINO [5]	PARTY NO: 2912 [6]	INST. ENG. [7]	DATE: MO 6 DAY 30 YR 78 [8]

CAMERA DISPLAY: [9] ☐ 1 SYSTEM ☐ 2 SYSTEMS ☐ NEAR AND FARS ☐ ODD AND EVEN

TYPE: [10] ☐ DFS III ☐ DFS IV OTHER ___ [11] ☐ 9 TRACK ☐ 21 TRACK

FORMAT: [12] SEG ___ ☐ GAPPED ☐ UNGAPPED

NO. BYTES IN HEADER: [13] | NO. BYTES IN RECORD ID: [14] | NO. OF BYTES IN SCAN: [15] | TIMING TRACE CHANNEL: [16] | RECORD NUMBERS: [17] ☐ DEC. ☐ OCT. | PACKING DENSITY: [18] (LO) ☐ 356 ☐ 800 (HI) ☐ 712 ☐ 1600

SAMPLE RATE: [19] ☐ 1 ☐ 2 ☐ 4 ☐ 8 OTHER ___ | RECORD LENGTH: [20] ___ SEC. | DELAY START RECORD MODULE: [21] (T_o) = ___ SEC | GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___

WATER BREAK RECORDING: [24]
	1	2	3	4	5	6
LOCATION	⧸	⧸	⧸	⧸	⧸	⧸
CHANNEL (ON TAPE)						
TRACE (ON DISPLAY)						

MINI STREAMER RECORDING: [25]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___

DIRECTION: [26] N / W E / S

GROUP INTERVAL ___ M STREAMER LENGTH ___ M [27]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

CABLE NOISE: [28] MAIN ___ μBARS | MINI ___ μBARS

GROUP INTERVAL ___ M STREAMER LENGTH ___ M [29]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

COVERAGE: [30] ___ FOLD | SHOTPOINT INTERVAL: [31] ___ M | SHOTPOINT INCREMENT: [32] | GUN DEPTH: [33] ___ M | WATER VELOCITY: [34] ___ M/SEC

FILTERS MAIN STREAMER: [35] LOW ___ HIGH ___ | FILTERS MINI STREAMER: [36] LOW ___ HIGH ___

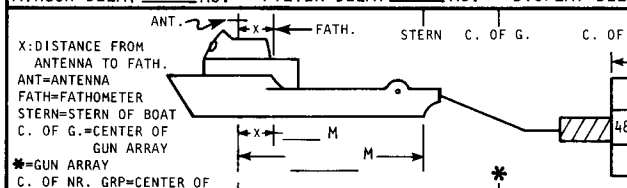
RECORD GAIN MODE: [37] ☐ INIT ☐ MAN ☐ OPER ☐ IFP | REPRODUCE MODE: ☐ FLOAT ☐ DEFLOAT ☐ AGC [38] | AIRGUN ARRAY: [39] ___ IN^3 | AIRGUN PRESSURE: [40] ___ PSI

SYSTEM DELAYS: [41] AIRGUN DELAY ___ MS. FILTER DELAY ___ MS. DISPLAY DELAY ___ MS.

POLARITY: PRESSURE INCREASE ON PHONE: ☐ NEGATIVE ☐ POSITIVE } NUMBERS ON TAPE ☐ DOWNBREAK ☐ UPBREAK } ON DISPLAY

ALIASING FILTER [42] [43]

POP PER SHOTPOINT [44]



INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER	XPORT [45]	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48]	MINI STR [49]	MINI-STR OFFSET(M) [50]	POP SP [51]	TIME LOCAL/GMT [52]	FS [53] / AZ [57]	LS [54] / IN [58]	FR [55] / N [59]	LR [56] / LINE [60]
1	3223		858	75,42,15A			364	45 54 24 41 42 34 37				823				REEL CH FSP 3112 FRN 858
2	~~3230~~															~~DFS MAL~~
3	3229		-1													TAPE CH FSP DFS MAL
4	3230		866	75,42,16B			358									TAPE CH FSP 3230 FRN 866
5	3232		-1													PARITY
6	3306		-1													AF
7	3325		961									0856				Delay to 2.5 sec
8	3338		974	75,42,17A			358	47 42 41 40 37 36		358		~~0900~~				TAPE CH FSP 3338 FRN 974
9	3364		001													COUNTER ADVANCE
10	3400		37			8365										RE
11	3447		84	75,42,18B			356	47 36 40 37 41 37		~~935~~		935				REEL CH (FSP) 3447 (FRN) 84
12	3556		193	75,42,19A			358	48 47 43 36 42 40				1011				REEL CH FSP 3556 (FRN) 193
13	3629		215									~~1046~~				DELAY (3 sec.)
14	3666		302	75,43,20B			358	47 40 35 25 39 37				1946				REEL CH (FSP) 3666 (FRN) 302
15	3763		-1													PARITY
16	3773		-1													PARITY
17	3725		411	75,44,22A			357	44 32 30 24 41 39				2122				TAPE CH FSP 3725 FRN 411

3234

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MARINE SEISMIC OBSERVER'S LOG

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CLIENT: USGS [1]	PROSPECT: AOCS [2]	AREA: East Coast US [3]	LINE NO.: 23 [4]	
VESSEL: mv CARINO [5]	PARTY NO: 2912 [6]	INST. ENG. [7]	DATE: MO 6 DAY 30 YR 78 [8]	

CAMERA DISPLAY: [9] ☐1 SYSTEM ☐2 SYSTEMS ☐NEAR AND FARS ☐ODD AND EVEN

TYPE: [10] ☐DFS III ☐DFS IV OTHER ___ ☐9 TRACK ☐21 TRACK [11]

FORMAT: [12] SEG ___ ☐GAPPED ☐UNGAPPED

NO. BYTES IN HEADER: [13] | NO. BYTES IN RECORD ID: [14] | NO. OF BYTES IN SCAN: [15] | TIMING TRACE CHANNEL: [16] | RECORD NUMBERS: [17] ☐DEC. ☐OCT. | PACKING DENSITY: [18] (LO) ☐356 ☐800 (HI) ☐712 ☐1600

SAMPLE RATE: [19] ☐1 ☐2 ☐4 ☐8 OTHER ___ | RECORD LENGTH: [20] ___ SEC. | DELAY START RECORD MODULE: [21] (T_o) = ___ SEC | GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

WATER BREAK RECORDING: [24]
LOCATION 1 2 3 4 5 6
CHANNEL (ON TAPE) ___ ___ ___ ___ ___ ___
TRACE (ON DISPLAY) ___ ___ ___ ___ ___ ___

MINI STREAMER RECORDING: [25]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

DIRECTION: [26] N / W E / S

CABLE NOISE: [27] MAIN ___ μBARS | MINI ___ μBARS [28]

COVERAGE: [30] ___ FOLD | SHOTPOINT INTERVAL: [31] ___ M | SHOTPOINT INCREMENT: [32] ___ | GUN DEPTH: [33] ___ M | WATER VELOCITY: [34] ___ M/SEC

FILTERS MAIN STREAMER: [35] LOW ___ HIGH ___ | FILTERS MINI STREAMER: [36] LOW ___ HIGH ___

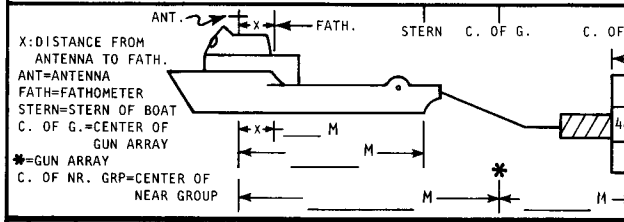
RECORD GAIN MODE: [37] ☐INIT ☐MAN ☐OPER ☐IFP | REPRODUCE MODE: [38] ☐FLOAT ☐DEFLOAT ☐AGC | AIRGUN ARRAY: [39] ___ IN^3 | AIRGUN PRESSURE: [40] ___ PSI

SYSTEM DELAYS: [41] AIRGUN DELAY ___ MS. FILTER DELAY ___ MS. DISPLAY DELAY ___ MS.

POLARITY: PRESSURE INCREASE ON PHONE: ☐NEGATIVE ☐POSITIVE } NUMBERS ON TAPE ☐DOWNBREAK ☐UPBREAK } ON DISPLAY [42]

ALIASING FILTER [43] ___

POP PER SHOTPOINT [44] ___



X:DISTANCE FROM ANTENNA TO FATH.
ANT=ANTENNA
FATH=FATHOMETER
STERN=STERN OF BOAT
C. OF G.=CENTER OF GUN ARRAY
*=GUN ARRAY
C. OF NR. GRP=CENTER OF NEAR GROUP

INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER [45]	XPORT	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48]	MINI STR [49]	MINI-STR OFFSET(M) [50]	POPSP [51]	TIME LOCAL/GMT [52]	FSP [53]	LSP [54]	FRP [55]	LRP [56]	AZ [57]	INX [58]	N [59]	LINE [60]	
	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
1	38823		-1																		PARITY [61]
2	38824		-1																		PARITY
3	38825		460																		good record
4	38858		493																		Ohead 149° tail 176°
5	38859		628,075,4222B				3,58	4,34	2,35	3,6	4,14,1										1154 Reel ch. FSP(3859) FRP(628)
6	39528		-1																		PARITY
7	39710		-1																		PARITY
8	39933		628	75,4223A			3,60	4,34	3,43	4,34	3,42	4,1									1227 REEL CH. FSP(3993) FRP(628)
9	40095		640																		PARITY
10	40335		-1				4														PARITY
11	41006		736	75H224B			3,59	4,6	4,34	0,40	4,24	0									1259 Reel CH.
12	41011		-1																		Parity
13	41022		-1																		Parity
14	41033		-1																		Parity
15	41044		739																		good record
16	41055																				
17	41072					2987															
	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

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MARINE SEISMIC OBSERVER'S LOG

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CLIENT: USGS [1]	PROSPECT: AOCS [2]	AREA: EAST COAST [3]	LINE NO.: #23 [4]	
VESSEL: CARINO [5]	PARTY NO: 2912. [6]	INST. ENG. [7]	DATE: MO 6 DAY 30 YR 78 [8]	

CAMERA DISPLAY: [9] ☐1 SYSTEM ☐2 SYSTEMS ☐NEAR AND FARS ☐ODD AND EVEN

TYPE: [10] ☐DFS III ☐DFS IV OTHER ___ ☐9 TRACK ☐21 TRACK [11]

FORMAT: [12] SEG ___ ☐GAPPED ☐UNGAPPED

NO. BYTES IN HEADER: [13] | NO. BYTES IN RECORD ID: [14] | NO. OF BYTES IN SCAN: [15] | TIMING TRACE CHANNEL: [16] | RECORD NUMBERS: [17] ☐DEC. ☐OCT. | PACKING DENSITY: [18] (LO) ☐356 ☐800 (HI) ☐712 ☐1600

SAMPLE RATE: [19] ☐1 ☐2 ☐4 ☐8 OTHER ___ | RECORD LENGTH: [20] ___ SEC. | DELAY START RECORD MODULE: [21] (T_o)= ___ SEC | GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M [27]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

WATER BREAK RECORDING: [24]
LOCATION ☐1 ☐2 ☐3 ☐4 ☐5 ☐6
CHANNEL (ON TAPE) ___
TRACE (ON DISPLAY) ___

CABLE NOISE: [28]
MAIN ___ μBARS | MINI ___ μBARS

MINI STREAMER RECORDING: [25]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M [29]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

DIRECTION: [26] N / W E / S

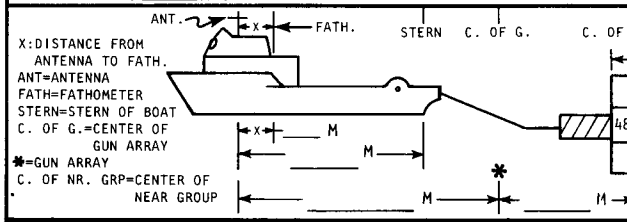
COVERAGE: [30] ___ FOLD	SHOTPOINT INTERVAL: [31] ___ M	SHOTPOINT INCREMENT: [32]	GUN DEPTH: [33] ___ M	WATER VELOCITY: [34] ___ M/SEC		
FILTERS MAIN STREAMER: [35] LOW ___ HIGH ___	FILTERS MINI STREAMER: [36] LOW ___ HIGH ___	RECORD GAIN MODE: [37] ☐INIT ☐MAN ☐OPER ☐IFP	REPRODUCE MODE: [38] ☐FLOAT ☐DEFLOAT ☐AGC	AIRGUN ARRAY: [39] ___ IN^3	AIRGUN PRESSURE: [40] ___ PSI	

SYSTEM DELAYS: [41] AIRGUN DELAY ___ MS. FILTER DELAY ___ MS. DISPLAY DELAY ___ MS.

POLARITY: PRESSURE INCREASE ON PHONE: ☐NEGATIVE ☐POSITIVE } NUMBERS ON TAPE ☐DOWNBREAK ☐UPBREAK } ON DISPLAY [42]

ALIASING FILTER [43] ___

POP PER SHOTPOINT [44] ___



INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER [45]	XPORT	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48]	MINI STR [49]	MINI-STR OFFSET(M) [50]	POPSP [51]	TIME LOCAL/GMT [52]	F S [53] / A Z [57]	L S [54] / I N X [58]	F R [55] / N [59]	L R [56] / L I N E [60]	[61]
1	4191		886	754224A	B												PARITY
2	4209		844	754226A			36345474246473	6				1334					Reel Ch FSP(4209) FRN(844)
3	4222		-1														PARITY
4	4318		953	754228B			36246504044404	0				1467					TAPE CH FSP 4318 FRN 953
5	4365		001						-1	auto	pre						sounder advance.
6	4373		08														Delay to 3.5 sec.
7	4386		-1														parity.
8	4392		-1														Parity.
9	4409		-1														Parity.
10	4422		-1														Parity.
11	4427		63	754228A			35947	5043	46	41	2	1441					TAPE CH FSP 4427 FRN 63
12	4536		172	754228B			36444	4340	46	46	0	1515					TAPE CH FSP 4536 FRN 172
13	4543		-1+79				$										PARITY
14	4566		-1														PARITY
15	4579		-1														PARITY
16	4641		-1														PARITY
17	4644		280	754229A			36050	4904	41	40	3	1551					TAPE CH FSP 4644 FRN 280

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MARINE SEISMIC OBSERVER'S LOG

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CLIENT: USGS [1]	PROSPECT: AOCS. [2]	AREA: EAST COAST [3]	LINE NO.: #23 [4]
VESSEL: CARINO [5]	PARTY NO: 2912 [6]	INST. ENG. [7]	DATE: MO ___ DAY ___ YR ___ [8]

CAMERA DISPLAY: [9] ☐1 SYSTEM ☐2 SYSTEMS ☐NEAR AND FARS ☐ODD AND EVEN

TYPE: [10] ☐DFS III ☐DFS IV OTHER ___ ☐9 TRACK ☐21 TRACK [11]

FORMAT: [12] SEG ___ ☐GAPPED ☐UNGAPPED

NO. BYTES IN HEADER: [13]

NO. BYTES IN RECORD ID: [14]

NO. OF BYTES IN SCAN: [15]

TIMING TRACE CHANNEL: [16]

RECORD NUMBERS: [17] ☐DEC. ☐OCT.

PACKING DENSITY: [18] (LO) ☐356 ☐800 (HI) ☐712 ☐1600

SAMPLE RATE: [19] ☐1 ☐2 ☐4 ☐8 OTHER ___

RECORD LENGTH: [20] ___ SEC.

DELAY START RECORD MODULE: [21] (T_o) = ___ SEC

GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

WATER BREAK RECORDING: [24] 1 2 3 4 5 6
LOCATION
CHANNEL (ON TAPE)
TRACE (ON DISPLAY)

CABLE NOISE: [27][28] MAIN ___ μBARS | MINI ___ μBARS

MINI STREAMER RECORDING: [25]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___
GROUP INTERVAL ___ M STREAMER LENGTH ___ M [29]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

DIRECTION: [26] N W E S

COVERAGE: [30] ___ FOLD

SHOTPOINT INTERVAL: [31] ___ M

SHOTPOINT INCREMENT: [32]

GUN DEPTH: [33] ___ M

WATER VELOCITY: [34] ___ M/SEC

FILTERS MAIN STREAMER: [35] LOW ___ HIGH ___

FILTERS MINI STREAMER: [36] LOW ___ HIGH ___

RECORD GAIN MODE: [37] ☐INIT ☐MAN ☐OPER ☐IFP

REPRODUCE MODE: [38] ☐FLOAT ☐DEFLOAT ☐AGC

AIRGUN ARRAY: [39] ___ IN^3

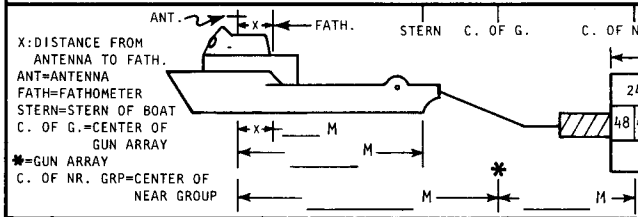
AIRGUN PRESSURE: [40] ___ PSI

SYSTEM DELAYS: AIRGUN DELAY ___ MS. FILTER DELAY ___ MS. DISPLAY DELAY ___ MS.

POLARITY: [41] PRESSURE INCREASE ON PHONE: ☐NEGATIVE ☐POSITIVE } NUMBERS ON TAPE ☐DOWNBREAK ☐UPBREAK } ON DISPLAY

ALIASING FILTER: [42] [43] ___

POP PER SHOTPOINT [44] ___



INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT [6]	REC # OR DUMMY (-1) [44]	REEL NUMBER [45]	XPORT [18]	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48]	MINI STR [49]	MINI-STR OFFSET(M) [50]	POPSP [46]	TIME ~~LOCAL~~/GMT [52]	FS [53] / AZ [57]	LS [54] / IN [58]	FR [55] / N [59]	LR [56] / LINE [60]
1	4,7,9,0		335	7542294	A	2,9,1,3						1,6,0,9				FORWARD [61]
2	4,7,6,6		-1									~~1,6,2,7~~				PARITY
3	4,7,5,5		390	7542306	B	2,9,2,1	3,5,9	47 47 40 45 42 42				1,6,2,8				TB 183° SH 146°
4	4,8,5,0		-1													PARITY
5	4,8,5,9		-1													PARITY
6	4,8,6,3		498	7542331	A		3,6,2	47 43 40 38 43 40				1,7,0,6				TB 180° SH 152°
7	4,8,7,1		50	7542328	B	2,9,1,3						1,7,0,9				TAPE CHANGE DFS
8	4,8,7,4		-1													PARITY
9	4,8,8,0		-1			2,9,1,3	3,6,2									PARITY
10	4,9,6,2		-1													PARITY
11	4,9,8,0		613	7542333	A	2,9,1,5	3,6,0	48 46 40 42 41 40				1,7,4,5				TB 181° SH 155°
12	4,9,6,9											1,7,9,8				MISSED SP DFS
13	4,8,7,0							~~46~~				1,7,0,7				MISSED SP DFS
14	5,0,9,0		723	7542341	B	2,9,6,7	3,6,0	46 48 40 43 41 41				1,8,2,3				TB 179° SH 159°
15	5,1,2,4		-1													PARITY
16	5,1,9,9		832	7542356	A	2,9,9,7	3,5,9	49 47 40 44 40 40				1,8,5,7				TB 181° SH 156°
17	5,2,6,3		-1													PARITY

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CLIENT: USGS [1]	PROSPECT: AOCS [2]	AREA: EAST COAST USA [3]	LINE NO.: 23 [4]	
VESSEL: m/v CARINO [5]	PARTY NO: 2712 [6]	INST. ENG. [7]	DATE: MO 6 DAY 30 YR 78 [8]	

CAMERA DISPLAY: [9] ☐ 1 SYSTEM ☐ 2 SYSTEMS ☐ NEAR AND FARS ☐ ODD AND EVEN

TYPE: [10] ☐ DFS III ☐ DFS IV OTHER ___ ☐ 9 TRACK ☐ 21 TRACK [11]

FORMAT: [12] SEG ___ ☐ GAPPED ☐ UNGAPPED

NO. BYTES IN HEADER: [13] NO. BYTES IN RECORD ID: [14] NO. OF BYTES IN SCAN: [15] TIMING TRACE CHANNEL: [16] RECORD NUMBERS: [17] ☐ DEC. ☐ OCT. PACKING DENSITY: [18] (LO) ☐ 356 ☐ 800 (HI) ☐ 712 ☐ 1600

SAMPLE RATE: [19] ☐ 1 ☐ 2 ☐ 4 ☐ 8 OTHER ___ RECORD LENGTH: [20] ___ SEC. DELAY START RECORD MODULE: [21] (T_o) = ___ SEC GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___

WATER BREAK RECORDING: [24]
LOCATION 1 2 3 4 5 6
CHANNEL (ON TAPE) ___ ___ ___ ___ ___ ___
TRACE (ON DISPLAY) ___ ___ ___ ___ ___ ___

MINI STREAMER RECORDING: [25]
NUMBER OF TRACES ___
TRACE NUMBERS ___
CHANNEL NOS. (ON MAG TAPE) ___

DIRECTION: [26] N / W E / S

GROUP INTERVAL ___ M STREAMER LENGTH ___ M [27]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

CABLE NOISE: [28] MAIN ___ μBARS | MINI ___ μBARS

GROUP INTERVAL ___ M STREAMER LENGTH ___ M [29]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: ___ M

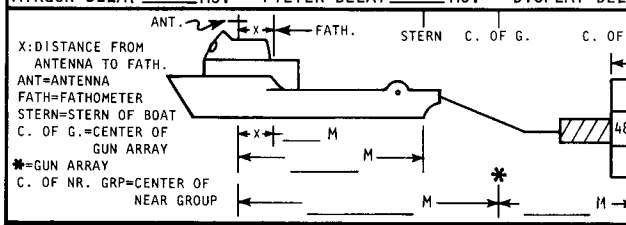
COVERAGE: [30] ___ FOLD SHOTPOINT INTERVAL: [31] ___ M SHOTPOINT INCREMENT: [32] GUN DEPTH: [33] ___ M WATER VELOCITY: [34] ___ M/SEC

FILTERS MAIN STREAMER: [35] LOW ___ HIGH ___ FILTERS MINI STREAMER: [36] LOW ___ HIGH ___

RECORD GAIN MODE: [37] ☐ INIT ☐ MAN ☐ OPER ☐ IFP REPRODUCE MODE: ☐ FLOAT ☐ DEFLOAT ☐ AGC [38] AIRGUN ARRAY: [39] ___ IN^3 AIRGUN PRESSURE: [40] ___ PSI

SYSTEM DELAYS: AIRGUN DELAY ___ MS. FILTER DELAY ___ MS. DISPLAY DELAY ___ MS. [41]

POLARITY: PRESSURE INCREASE ON PHONE: ☐ NEGATIVE ☐ POSITIVE } NUMBERS ON TAPE ☐ DOWNBREAK ☐ UPBREAK } ON DISPLAY [42] ALIASING FILTER [43]



INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

POP PER SHOTPOINT [44]

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER [45]	XPORT	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48]	MINI STR [49]	MINI-STR OFFSET(M) [50]	POPSP [51]	TIME LOCAL/GMT [52]	FS [53] AZ [57]	LS [54] IN [58]	FR [55] N [59]	LR [56] LINE [60]
1	52833															CARITY [61]
2	53098		941	7542368		3029	360	44443432				1936				TG 180° SH 159°
3	53335		-1													CARITY
4	53612		091													FIRE CHANGE
5	54166		050	7542374		3043	359	4941433342				2009				TG 178° SH 159°
6	55285		159	7542398		3066	359	4846434944340				2046				TG 178 SH 159°
7	55529		-1													FIRE TX
8	55796		051													CARITY
9	56333		247	7542391	4	3104	358	4843404134345				2125				TG 181 SH 157°
10	57111		3447	7542490	B	3181	359	4745444242341				2150				FIRE CHANGE DFS
11	57510											2150				NO RECORD DFS
12	58209		453	7542414	A		359	4746433433433				2224				TG 181 SH 156°
13	58271		460									2228				4 SEC DELAY
14	59001		-1													PARITY
15	59299		562	7542442	C	3130	359	4945404442433				2268				TG 178 SH 156
16	59330		-1													PARITY
17	59736															REVERSE DFS

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CLIENT: USGS [1]	PROSPECT: AOCS [2]	AREA: EAST COAST USA [3]	LINE NO.: 23 [4]				
VESSEL: M/V CAMPO [5]	PARTY NO: 2912 [6]	INST. ENG. [7]	DATE: MO 6 DAY 30 YR 78 [8]				

CAMERA DISPLAY: [9] ☐1 SYSTEM ☐2 SYSTEMS ☐NEAR AND FARS ☐ODD AND EVEN

TYPE: [10] ☐DFS III ☐DFS IV OTHER _____

☐9 TRACK ☐21 TRACK [11]

FORMAT: [12] SEG _____ ☐GAPPED ☐UNGAPPED

NO. BYTES IN HEADER: [13]

NO. BYTES IN RECORD ID: [14]

NO. OF BYTES IN SCAN: [15]

TIMING TRACE CHANNEL: [16]

RECORD NUMBERS: [17] ☐DEC. ☐OCT.

PACKING DENSITY: [18] (LO) ☐356 ☐800 (HI) ☐712 ☐1600

SAMPLE RATE: [19] ☐1 ☐2 ☐4 ☐8 OTHER _____

RECORD LENGTH: [20] _____ SEC.

DELAY START RECORD MODULE: [21] (T_o) = _____ SEC

GAIN CONSTANT: [22]

MAIN STREAMER RECORDING: [23]
NUMBER OF TRACES _____
TRACE NUMBERS _____
CHANNEL NOS. (ON MAG TAPE) _____

WATER BREAK RECORDING: [24]
LOCATION ☐1 ☐2 ☐3 ☐4 ☐5 ☐6
CHANNEL (ON TAPE) _____
TRACE (ON DISPLAY) _____

MINI STREAMER RECORDING: [25]
NUMBER OF TRACES _____
TRACE NUMBERS _____
CHANNEL NOS. (ON MAG TAPE) _____

DIRECTION: [26] N / W E / S

GROUP INTERVAL _____ M STREAMER LENGTH _____ M [27]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: _____ M

CABLE NOISE: [28] MAIN _____ μBARS | MINI _____ μBARS

GROUP INTERVAL _____ M STREAMER LENGTH _____ M [29]
DISTANCE FROM CENTER GUN TO CENTER NEAR GRP: _____ M

COVERAGE: [30] _____ FOLD

SHOTPOINT INTERVAL: [31] _____ M

SHOTPOINT INCREMENT: [32]

GUN DEPTH: [33] _____ M

WATER VELOCITY: [34] _____ M/SEC

FILTERS MAIN STREAMER: [35] LOW _____ HIGH _____

FILTERS MINI STREAMER: [36] LOW _____ HIGH _____

RECORD GAIN MODE: [37] ☐INIT ☐MAN ☐OPER ☐IFP

REPRODUCE MODE: [38] ☐FLOAT ☐DEFLOAT ☐AGC

AIRGUN ARRAY: [39] _____ IN^3

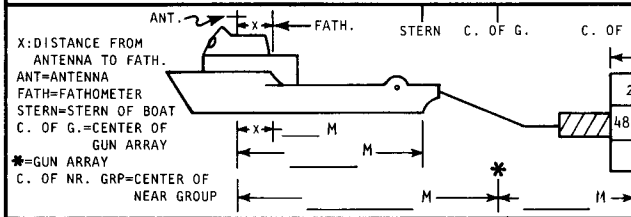
AIRGUN PRESSURE: [40] _____ PSI

SYSTEM DELAYS: [41]
AIRGUN DELAY _____ MS. FILTER DELAY _____ MS. DISPLAY DELAY _____ MS.

POLARITY: [41]
PRESSURE INCREASE ON PHONE: ☐NEGATIVE ☐POSITIVE } NUMBERS ON TAPE ☐DOWNBREAK ☐UPBREAK } ON DISPLAY

ALIASING FILTER [42] [43]

POP PER SHOTPOINT [44]



X:DISTANCE FROM ANTENNA TO FATH.
ANT=ANTENNA
FATH=FATHOMETER
STERN=STERN OF BOAT
C. OF G.=CENTER OF GUN ARRAY
✱=GUN ARRAY
C. OF NR. GRP=CENTER OF NEAR GROUP

INDICATE ALL DISTANCES (WITH UNITS OF MEASUREMENT-FEET OR METERS)

METERS

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

NOTE: INDICATE STREAMER DIAGRAM IF DIFFERENT THAN THE ABOVE GROUPS HERE

INDICATE LOCATIONS ON THE STREAMER FOR THE FOLLOWING:
STREAMER DEPTH SENSORS=△; WATER BREAK SENSORS=X; STREAMER POS. SENSORS=Ⓧ; CON DEP FINS (BIRDS)=↑

	SHOTPOINT [43]	RPT	REC # OR DUMMY (-1) [44]	REEL NUMBER [45]	XPORT	W. DEPTH (M) [46]	OFFSET (M) [47]	STREAMER DEPTH [48] 6	5	4	3	2	1	MINI STR [49]	MINI-STR OFFSET(M) [50]	POPSP [51]	TIME [52] LOCAL/GMT	F S [53] A Z	L S [54] I N X	F R [55] N	L R [56] L I N E 23 [60]
	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
1	5937		669	7542434	A		359														TAPE CHANGE
2	5949		-1																		PARITY
3	6049		680	7542444	B		3584	8	43	40	40	42	43				2335				1L 180° SH 165°
4	6047																				DATA MISSED DUE
5	6048																				DATA MISSED DUE
6	6056		-1																		PARITY
7	6063		-1																		PARITY
8	6072		-1																		PARITY
9	6118		749														2400				MIDNIGHT SHOT POINT
10	6157		788	7542454	A	3166	3584	8	44	40	43	43					0013				TB 179° SH 163°
11	6258		889			3217	357	48	42	40	40	41	42				0043				END OF LINE
12	6259		890																		NOISE
13			891																		NOISE
14																					
15																					
16																					
17																					
	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

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