

# RECORDING LOG MCS

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R/V ROBERT D. CONRAD

Cruise: 21-11

Line: 147

N.A. BASIN

DFS IV

Format: 800 B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
6/24/78	6513	00001	2133	5000	2480	20.5	4ms	12000	TPX-1 Pop RATE is dialled 20.0
	6514	94	2205	"	2472	"	"	"	TPX-2 so average is 20.5
	6515	196	2239	↓	2482	↓	↓	↓	TPX-1 missing from shot change over TPX-2 due to randomize
	6516	288	2311	↓	2480	↓	↓	↓	
	6517	382	2343	↓		↓	↓	↓	
		<del>474</del>							
		473	0019?			compressor down			473 last shot tape 6517
6/25/78	6518	684	0126	5000	2482	20.5	4ms	12000	
	6519	778	0158	"	2480	"	"	"	
	6520	870	0229	"	2478	"	"	"	
6/25/78		943	0254	"	2480	"	"	"	last shot tape 6520 compressor down
6/25/78	6521	1225	0430	5000	2482	20.5	4ms	12000	
	6522	1318	0502	"	2455	"	"	"	
	6523	1412	0534	"	2470	"	"	"	
	6524	1505	0606	"	2501	"	"	"	
	6525	1605	0640		2516				TAPE wouldn't start for 6 shots
			0643						A/C → 070°
	6526	1688	0712		2530				DAMAGED TAPC only four shots on it
			0714						AIR GUNS OFF last shot #1702
	<del>6527</del>	<del>1702</del>	<del>0714</del>	<del>5000</del>		<del>20.5</del>	<del>4ms</del>	<del>12000</del>	<del>RECORDED</del>

R/V ROBERT D. CONRAD

Cruise: 21-11

Line: 1A7

RECORDING LOG  
MCS

DFS IV

Format: Seg B

BPI: 800

N.A. BASIN

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
6/25/78	6527	2213	1007	5000	2594	20.5	4ms	12000	
	6528	2339	1050	"	2590	"	"	"	
	6529	2434	1123	"	2572	"	"	"	
	at	2478	1139	→ COMPRESSOR DOWN					
	6530	2682	1247	5000		20.5	4	12000	not not straight yet!
	"	2763	1315	5500	2586	*TRIP Delg → 5500*			To this point The delay on DFSIV
									Format module was reading 0500 msec
									should have been 5000 msec, however
									black box control was 5.0 sec.
									not DFSIV header = 5500, BBOX = 5.5 sec
	6531	2776	1320	5500	2592	20.5	4	12K	
	6532	2869	1351	"	2595	"	"	"	
		2961	1423	6000					
	6533	2962	1423	"	2598	20.5	4	12K	change tape delay to 6000 msec
	6534	3055	1455	"	2614	"	"	"	
	6535	3148	1526	"	2620	"	"	"	
			1530						A/C → 034°
	6536	3241	1558	6000	2628	"	"	12000	

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## RECORDING LOG

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DFS IV

Format: SCG B

BPI: 800

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Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
6/25/78	6539	3523	1734	6000	2649	20 <sup>5</sup> sec	4MS	12000	TPX-2
*	6540	3616	1806	6000	2651	"	"	"	* TAPES ID IS WRONG FROM 6540 TO 6549
	6541	3710	1838	6000	2651	"	"	"	
	6542	3803	1910	"	2652	"	"	"	
			1902						SOUND BUOY # 208 WENT OVER THE SIDE
	6543	3897	1942	"	2652	"	"	"	
*	6544	3990	2014	"	2652	"	"	"	
	et	4029	2028						stop Recording, compressor down.
	et	4076	2043						Restarting recording.
	et	4089	2048						stop Recording, compressor down.
	6545	4145	2107	6000	2653	20 <sup>5</sup> sec	4MS	12000	start Recording at Sp 4145
	et	4188	2123						Compressor down.
	et	4227	2135						Cont Recording
	6546	4275	2151	6000	2652	20 <sup>5</sup> sec	4MS	12000	
	6547	4368	2223	"		"	"	"	
	6548	4461	2255	"	2652	"	"	"	S.B. # 209 @ 2319
	6549	4555	2327	"	2650	"	"	"	
	6550	4648	2358	"	2642	"	"	"	

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## MCS

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Cruise: RC21-11

Line: 147

N.A. BASIN

DFS IV

Format: <sup>4</sup>Seg B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth fms	Pop Rate sec	Samp. Rate msec	Rec. L msec	Comments
26	6553	4928	0134	6000	2638	20.5	4	12K	
JUNE	6554	5021	0206	"	2638	"	"	"	
1978	6555	5115	0238	"	2638	"	"	"	
	6556	5208	0309	"	2638	"	"	"	
	6557	5302	0341	"	2636	"	"	"	none missed but actual numbering
	6558	5398	0416	"	2635	"	"	"	may vary by 1 or 2 between end 6557 and beginning 6558
	6559	5489	0445	"	2637	"	"	"	
	6560	5584	0518	"	2637	"	"	"	Discarded to tape 6560 ID at 6550 reset Possibly tape reads 6550
	6561	5675	0549	"	2637	"	"	"	
	6562	5768	0620	"	2637	"	"	"	
	6563	5862	0653	"	2637	"	"	"	
	6564	5955	0724	"	2637	"	"	"	
	6565	6049	0756	"	2637	"	"	"	
	6566	6142	0828	"	2637	"	"	"	
	6567	6236	0900	"	2636	"	"	"	
	6568	6329	0932	"	2636	"	"	"	
	<del>6569</del>	<del>6423</del>	<del>1004</del>						
	6569	6423	1004	6000	2634	20.5	4	12000	

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DFS IV

Format: Seg B

BPI: 800

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Cruise: PC21-11

Line: 147

N. A. BASIN

Date	Tape #	Shot Point #	Time	Trip Delay MSEC	Depth fms	Pop Rate SEC	Samp. Rate MSEC	Rec. L. MSEC	Comments
06/24/78	6572	6704	1140	6000	2614	20.5	4	12000	although guns are synchronized
	6573	6797	1212	6000	2608	20.5	4	12000	The delay readouts are 17 msec
	6574	6890	1243	"	2604	"	"	"	different - due to early voltage
	6575	6983	1315	"	2601	"	"	"	spike not associated w/ gun firing
		6987(?)	1317						Sonobuoy #210 on aux #3
	6576	7076	1347	6000	2599	20.5	4	12000	
	6577	7169	1419	"	2602	"	"	"	
	6578	7261	1450	"	2608	"	"	"	
	6579	7354	1522	"		"	"	"	
	6580	7447	1554	"	2617	"	"	"	
		7521	1620	-	-	-	-	-	<del>gun #2</del> gun #2 input delay input
	6581	7540	1625	"	2618	"	"	"	removed from Black box to
	6582	7633	1657	"	2621	"	"	"	allow system to key off of gun #3
	6583	7726	1729	"	2622	"	"	"	which reads later but is correct
	6584	7819	1800	"	2624	"	"	"	
			1802						monitor down
			1821						monitor UP
	6585	7912	1832	6000	2626	20.5	4	12000	

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DFS IV

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BPI: 800

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Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
6/26/78	6588	8191	2007	6000	2627	20.5	4	12000	TPX-2
	6589	8285	2039						
	6590	8379	2111	"	2626	"	"	"	
	6591	8473	2144	"		"	"	"	
	<del>8584</del>		2200						S/B 211 ON AUX 3
	6592	8566	2215	6000	2632	20.5	4	12000	
	6593	8659	2247	"		"	"	"	
	6594	8752	2319	"	2635	"	"	"	
	6595	8846	2351	"	2643	"	"	"	
6/27/78	6596	8939	0023	"	2646	"	"	"	
	6597	9032	0054	6000	2648	20.5	4	12000	average speed over ground = 4.0 kts
			0106	"		3821	off	"	AC → 070°, increase speed to 90 RPM's
	6598	9124	0126	"	2650	"	"	"	
	6599	9217	0158	"	2652	20.5	4	12000	
	6600	9310	0230	"	2653	"	"	"	FIRST #Shot header may have INCORRECT TAPE ID (shotpoint # 9310) tape 6600
	6601	9404	0302	"	2652	"	"	"	
	6602	9497	0333	"	2656	"	"	"	
	"	9546	0350	"		"	"	"	LAST SHOT <del>TAPE 6602</del> WHILE switching compressors

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Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
6/27/78	6604	9742	0457	6000	2650	20.5	4	12000	TPX-2
	6605	9837	0529	6000	2650	20.5	4	12000	
	6606	9929	0600	"	2662	"	"	"	
			0630	"		"	"	"	A/C → 078°
	6607	10023	0632	"	2663	"	"	"	
	6608	10116	0704	"	2663	"	"	"	
	6609	10210	0736	"	2663	"	"	"	
	6610	10303	0808	"	11	"	"	"	at 0805 A/C 090
	6611	10397	0840	"		"	"	"	
	6612	10491	0912	"	2663	"	"	"	
	6613	10585	0944	"		"	"	"	
	6614	10679	1016	6000	2663	20.5	4	12000	
	6615	10773	1048	"	2663	"	"	"	
	6616	10867	1120	"		"	"	"	
	6617	10961	1152	"	2664	"	"	"	
	6618	11054	1224	"	2664	"	"	"	
	6619	11148	1256	"	2665	"	"	"	
	6620	11241	1328	"	2666	"	"	"	guns 1 & 2 now firing, delay

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DFS IV

Format:

BPI:

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Seg B

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Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
6/27	6623	11520	1503	6000	2666	20.5	4	12000	15:18 compressors down
1978	6624	11585	15:26		2666				15:20 guns 2 & 4 turned on
									same shot 11551 was last
									shot on tape 6623
		11650							trip was from gun #2 - incorrect
	6625	11678	1556	6000	2669	20.5	4	12000	TRIP now from gun #4, gun #2
		11705	1606	gun #2, 4 delays inputs to R/Box					input delay removed from black box
	6626	11771	1629	6000	2670	20.5	4	12000	
		11860	1659						GUN 1 ON GUN 2 OFF
	6627	11864	1700	6000	2670	20.5	4	12000	A/C → 105°
	6628	11957	1732	6000	2670	20.5	4	12000	
	6629	12050	1804	"	2675	"	"	"	
	6630	12143	1836	"	2676	"	"	"	
			1809						Sono buoy #212 @1809
	6631	12237	1908	"	2677	"	"	"	
	6632	12330	1939	"	2677	"	"	"	
		<del>12400</del>	1941						GUN 4 OFF GUN 3 ON
	6633	12424	2012	6000	2677	20.5	4	12000	



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Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
06/27/78	at	12577	2104						COMPRESSORS BACK ON. AIR GUN #3 ON
	at	12599	2112						AIR GUN #1 BACK ON
	6635	12637	2124	6000		20.5	4	12000	
	6636	12730	2156	11		11	11	11	
	6637	12824	2228	11	2678	11	11	11	
	6638	12917	2300	11		11	11	11	
	6639	13035	2341	6000	2678	20.5	4	12000	* MISSING FAN SHOTS.
06/28/78	6640	13128	0013	11	2678	11	11	11	
	6641	13221	0046	11	2678	11	11	11	shot 13313 missed
	6642	13314	0116	11	2688	11	11	11	
	6643	13407	0148	11	2688	11	11	11	
	6644	13500	0220	11	2692	11	11	11	
	6645	13593	0251	11	2689	11	11	11	
	6646	13686	0323	11	2689	11	11	11	POP RATE
	6647	13778	0355	6000	2689	21.5	4	12000	Change POP RATE to 21.5 sec over
	6648	13879	0430	11	2688	11	11	11	SHOTS 13872 to 13878 missed
	6649	13972	0504	11	2689	11	11	11	TAPE misplayed Bot marker
	6650	14072	0540	11	2689	11	11	11	TPX-2 AGAIN HAD to be restarted did not start

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Format: Seg

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N. A. BASIN

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
6/28/78	6653	14353	0720	6000	2688	21.5	4	12000	Missed shot 14352
	6654	14446	0753	"	2688	"	"	"	
	6655	14540	0827	"	2688	"	"	"	
	6656	14633	0901						S/B 213 ON AUX 3 10903
	6657	14727	0934	"	2688	"	"	"	
	6658	14820	1007	"	2688	"	"	"	
	6659	14914	1041	"	2688	"	"	"	
	6660	15007	1114		2688				
	6661	15101	1148	6000		21.5	4	12000	
	at	15112	1152						Compressors down. stop record
		15156	1208						Recording again continue to
		15171	1214						6661
		15192	1223						compressors down stop rec
									Recording again continue
									6661
		15202	1224						gun 1 pulled [tape 6661 rec
		15217	1230						gun 2 Firing [trips from guns

R/V ROBERT D. CONRAD

## RECORDING LOG

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DFS IV

Cruise: 21-11

Format: Seg B

Line: 147

N.A. Basin

BPI: 800

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Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
6/28/77	6665	15536	14:20	6000	2688	20.5	4	12000	<del>trip</del> pop rate dialed in is 20.0
	6666	15629	14:52	"	2696	"	"	"	thus average Pop Rate is 20.5
	6667	15722	15:24	"	2696	"	"	"	(Randomizer is in USE)
	6668	15815	15:56	"	2696	"	"	"	
	6669	15909	16:28	"	2697	"	"	"	
	6670	16002	17:00	"	2698	"	"	"	
	6671	16096	17:32	"	2699	"	"	"	
	6672	16190	18:04	"	2700	"	"	"	OFF GUN#2 ON GUN#1
	6673	16285	18:36	"	2701	"	"	"	
	6674	16386	19:11	"	2700	"	"	"	SHOTS 16379 to 16385 lost due to TPX-2 missing start
	6675	16479	19:42	"		"	"	"	
	6676	16572	20:14	"	2700	"	"	"	
	6677	16666	20:46	"		"	"	"	
	6678	16759	21:18	"	2696	"	"	"	
	6679	16853	21:50	"	2705	"	"	"	
	6680	16946	22:22	"		"	"	"	
	6681	17041	22:54	6000	2720	20.5	4	12000	
	6682	17134	23:26	"	2720	"	"	"	
	6683	17228	23:58	"		"	"	"	

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## N.A. BASIN

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
29 JUNE 1978	6685	17415	0102	6000	2720	20.5	4	12000	Prop rate dialed in is
	6686	17508	0133	"	2720				20.0 thus average Prop Rate
	6687	17602	0206	"	2725				is 20.5 (randomizer in use)
	6688	17695	0237	"	2730				
	"	17758	0259	5500		20.5	4	12000	change delay to 5500 msecs.
06/29/78	"	17780	0307	5000	2725	20.5	4	1200	change delay to 5000 msecs
	6689	17789	0309	5000	2000				
		17807	0315	4000					change delay to 4000 msecs
	6690	17882	0341	5000	2080	"	"	"	change delay to 5000 msecs
		17924	0355	5500		"	"	"	change delay to 5500 msecs
		17963	0409	6000		"	"	"	change delay to 6000 msecs
	6691	17976	0413	6000	2693	"	"	"	SP # 17924 may have error in TB
	6692	18086	0451	6000	2720	"	"	"	CHANGE <del>TRIP DELAY</del> to 6000 msec
	6693	18180	0523	6000	2721	"	"	"	SHOTS #18068 → 18085 lost. TPX-2 didn't connect
	6694	18279	0556	6000	2728	"	"	"	SHOTS # 18274 to 18278 lost. TPX-2 didn't connect
		18283	0558	5500		"	"	"	CHANGE delay to 5500 msec
	6695	18357	0623	5500	2724	"	"	"	FROM SHOT 18309 to 18356 are missing
	6696	18450	0655	5500	2727	"	"	"	UNKNOWN if 18279 to 18309 completed
	6697	18544	0727	"	2734	"	"	"	
		18590	0742	6000					CHANGE delay to 6000 msec

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Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
6/29/78	6698	18637	0759	6000		20.5	4	12000	
	6699	18731	0831						
	6700	18824	0903		2728				
	6701	18917	0934	6000	2728	20.5	4	12000	
	6702	19010	1006	"		"	"	"	
	6703	19104	1038	"	2728	"	"	"	
	6704	19197	1110	"	2728	"	"	"	
6/29/78	6705	19291	1142	"	2729	"	"	"	
	6706	19384	1214	"	2730	"	"	"	
	6707	19477	1245	"	2728	"	"	"	
	6708	19570	1310	"	2729	"	"	"	Tape 6708, few parity errors towards END OF TAPE
	6709	19663	1349	"	2728	"	"	"	
	6710	19756	1420	"	2728	"	"	"	
	6711	19850	1450	"	2728	"	"	"	
	6712	19943	1525	"	2727	"	"	"	
	6713	20037	1556	"	2727	"	"	"	
	6714	20130	1628	"	2728	"	"	"	
	6715	20230	1702	"	2728	"	"	"	SHOTS 20225 → 20229 missed TRK-1 showed parity error
	6716	20323	1734	"	2728	"	"	"	
	6717	20416	1806	"	2728	"	"	"	

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BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
6/29/78	6718	20509	1837	6000	2728	20.5	4	12000	
	6719	20607	1911	6000	2728	"	"	"	SHOTS 20603 to 20606 missed-noticed
	6720	20699	1942	"	2736	"	"	"	Parity error, sync error and fault in format
	6721	20792	2014	"	2738	"	"	"	light flash near end of tape 6719
	6722	20885	2046	"	2745	"	"	"	
	6723	20978	2118	"	2256	"	"	"	
	6724	21071	2149	"	2736	"	"	"	
	6725	21165	2221	"	2736	"	"	"	
	6726	21258	2253	"	2736	"	"	"	S/B 2140N 90x3
	6727	21351	2325	"	2736	"	"	"	
	6728	21444	2357	"	2736	"	"	"	
6/30/78	6729	21537	0028	"	2731	"	"	"	
	6730	21630	0100	"	2730	"	"	"	
	6731	21724	0131	"	2730	"	"	"	
		21780	0152						compressors down stopped recording
		21826	0207						compressors up continue recording
	6732	21863	0220	"		"	"	"	
	6733	21949	0249	"	2733	"	"	"	TPX-2, switch early due to parity errors
	6734	22042	0321	"	2734	"	"	"	

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Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth fms	Pop Rate sec	Samp. Rate msec	Rec. L msec	Comments
<i>6/30</i>	<i>6735</i>	<i>22135</i>	<i>0352</i>	<i>6000</i>	<i>2734</i>	<i>20.5</i>	<i>4</i>	<i>12000</i>	
<i>1978</i>	<i>6736</i>	<i>22228</i>	<i>0424</i>	<i>"</i>	<i>2736</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6737</i>	<i>22321</i>	<i>0456</i>	<i>"</i>	<i>2737</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6738</i>	<i>22414</i>	<i>0528</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6739</i>	<i>22507</i>	<i>0559</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6740</i>	<i>22600</i>	<i>0631</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6741</i>	<i>22688</i>	<i>0701</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6742</i>	<i>22775</i>	<i>0730</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6743</i>	<i>22868</i>	<i>0802</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	
		<i>22</i>	<i>0825</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>A/C 000°</i>
			<i>0828</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>A/C 020°</i>
	<i>6744</i>	<i>22961</i>	<i>0834</i>	<i>"</i>	<i>2738</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6745</i>	<i>23054</i>	<i>0906</i>	<i>"</i>	<i>2739</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>*6746</i>	<i>23147</i>	<i>0938</i>	<i>"</i>	<i>2739</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>TPX-2 Missing shot 23146</i>
	<i>6747</i>	<i>23241</i>	<i>1010</i>	<i>"</i>	<i>2740</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>*The tape ID for 6746 is wrong</i>
	<i>6748</i>	<i>23336</i>	<i>1042</i>	<i>"</i>	<i>2740</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>TPX-2 Missing shot 23335</i>
	<i>"</i>	<i>23386</i>	<i>1053</i>	<i>"</i>	<i>2740</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>S/B 2K5 on AUX 3 @ 1047</i>
	<i>6749</i>	<i>23429</i>	<i>1114</i>	<i>"</i>	<i>2740</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6750</i>	<i>23523</i>	<i>1146</i>	<i>"</i>	<i>2740</i>	<i>"</i>	<i>"</i>	<i>"</i>	
	<i>6751</i>	<i>23616</i>	<i>1218</i>	<i>"</i>	<i>2740</i>	<i>"</i>	<i>"</i>	<i>"</i>	

R/V ROBERT D. CONRAD

M C S

DFS IV

Cruise: 21-11

Format: Seg B

Line: 147

NA Basin

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
30 JUNE	<del>6752</del>	<del>2361</del>	—	6000					
1978	6752	23709	1249	2742	2742	20.5	4	12000	
	6753	23802	1321	6000	2740	20.5	4	"	S.B. # 216 @ 1327
	6754	23895	1353	"	2740	"	"	"	
	6755	23988	1424	"	2740	"	"	"	
	6756	24081	1456	"	2743	"	"	"	
	6757	24174	1528	"	2740	"	"	"	
	6758	24268	1600	"	2740	"	"	"	About 271 radio noise was picked up from
	6759	24362	1632	"	2740	"	"	"	ship's radio, continues for an
	6760	24455	1704	"	2739	"	"	4	indefinite time approximately 40 min.
	6761	24548	1736	"	2739	"	"	"	on during both 6758 and
	6762	24640	1807	"	2738	"	"	"	6759 tapes
	6763	24732	1838	"	2738	"	"	"	1
	6764	24825	1910	"	2738	"	"	"	2
	6765	24917	1942	"	2737	"	"	"	1
	6766	25010	2014	"	2737	"	"	"	2
	6767	25103	2046	"	2734	"	"	"	Missing 4 shots from 25103 to 25106
	6768	25200	2118	"	2733	"	"	"	
			2119	"	2733	"	"	"	S/B 2175 fasted @ 2119
	6769	25244	2150	"	2733	"	"	"	#1-1



R/V ROBERT D. CONRAD

M C S

DFS IV

Cruise: 21 - 11

Format: sec B

Line: 147

N. A. Basin

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay m sec.	Depth FMS	Pop Rate SCC	Samp. Rate 71 sec	Rec. L. m sec	Comments
30 June 1978	6770	25387	2222	6000	2745	20.5	4	12000	
	6771	25488	2254	"	2741	"	"	"	
	6772	25577	2327	"	2740	"	"	"	Missed one shot 25576 - 25577
	6773	25671	2359	"	2739	"	"	"	
1 July 1978	6774	25763	0030	6000	2738	20.5	4	12000	
	"	25780	0036	"		18.5	"	"	firing rate → 18.5 average
	6775	25856	0059	"	2737	"	"	"	
	6776	25949	0128	"	2736	"	"	"	
	6777	26042	0156	"	2737	"	"	"	
	6778	26135	0225	"	2738	"	"	"	
	6779	26228	0254	"	2738	"	"	"	
	6780	26321	0322	"	2736	"	"	"	
	6780	26393	0344	"	2736	19.5	"	"	firing rate → 19.5 average
	6781	26414	0351	"	2739	"	"	"	
	6782	26507	0421	"	2737	"	"	"	
	6783	26600	0452	"	2731	"	"	"	
	6784	26693	0522	"	2729	"	"	"	
	6785	26792	0554	"	2724	"	"	"	missed shots 26780 to 26791, incorrect start
	6786	26885	0624	"	2721	"	"	"	
	6787	26979	0655	"	2719	"	"	"	

R/V ROBERT D. CONRAD

M C S

DFS IV

Format: SEG B

BPI: 800

Cruise: 21-11

Line: 147

N. A. BASIN

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth fms	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
July 1978	6788	27072	0725	6000	2718	19.5	4	12000	would not record after 27077
	6789	27100	0734	6000	2718	"	"	"	would not record after shot 27141
	6790	27147	0750	"	"	"	"	"	
		27197	0805	"	"	"	"	"	Compressor down. Recording stopped.
		27249	0823	"	"	"	"	"	Compressor started.
		27255	0825	"	"	"	"	"	Compressor down.
		27267	0828	"	"	"	"	"	compressor started
*	6791	27304	0840	"	2719	"	"	"	* Tape has 6790 & it should be 6791
	6792	27397	0911	"	"	"	"	"	
	6793	27491	0941	"	"	"	"	"	
	6794	27584	1011	"	2722	"	"	"	
	6795	27679	1042	"	"	"	"	"	
	6796	27773	1112	"	"	"	"	"	
	6797	27865	1142	"	2725	"	"	"	
	6798	27957	1212	"	2725	"	"	"	
	6799	28050	1242	"	2718	"	"	"	S/B 218 ON AUX 3 TIMON 130
	6800	28143	1313	"	2712	"	"	"	
*	6801	28237	1343	"	2712	"	"	"	* 6911 or 6811 - tape ID # is wrong
	6802	28330	1413	"	2709	"	"	"	
	6803	28424	1444	"	2712	"	"	"	

R/V ROBERT D. CONRAD

M C S

DFS IV

Cruise: 21-11

Format: 5eg B

Line: 147

N. A. BASIN

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay MSEC	Depth FMS	Pop Rate SEC	Samp. Rate MSEC	Rec. L. MSEC	Comments
1 JULY 1978	6804	28516	1514	6000	2712	19.5	4	12000	TPX-2
	6805	28610	1544	"	2710	"	"	"	
	6806	28703	1614	6000	2709	"	"	"	
	6807	28797	1632	6000	2708	"	"	"	
	6808	28890	1716	"	2706	"	"	"	
	6809	28983	1745	"	2687	"	"	"	
* 6810	29077	1816	"	2680	"	"	"	"	TPX-2 - LOSS OF POWER SWITCH TO
* 6811	29092	1831	"	2656	"	"	"	"	* TAPE ID WRONG TPX-1 ←
	6812	29220	1902	"	2672	"	"	"	* 6800 6801 SHOULD BE 6810
	<del>6813</del>	<del>29312</del>	<del>1932</del>	<del>"</del>	<del>2667</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>X</del>
	<del>6813</del>	<del>29312</del>	<del>1933</del>						TPX-2 POWER FAILURE
* <del>6814</del>	29543	2047	"	2650	"	"	"	"	* tape ID wrong
	6814	29635	2117	"	2642	"	"	"	
	6815	29727	2147	"	2635	"	"	"	
	6816	29820	2217	"	2630	"	"	"	
	6817	29911	2246	"	2617	"	"	"	
	6818	30003	2316	"	2605	"	"	"	
	6819	30096	2347	5500	2601	"	"	"	First shot has error in TB
2 July 1978	6820	30186	0016	"	2581	"	"	"	
	6821	30279	0046	"	2525	"	"	"	

Line: 147

N. A. Bassin

Format: Veg B

BFI: 800

[illegible]

# RECORDING LOG

R/V ROBERT D. CONRAD

M C S

DFS IV

Cruise: RC211

Format: Seg B

Line: 148

N.A. Basin

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth m/s	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
2 July 1978	6822	001	0203	5500	2565	19.5	4	12K	Pop rate is 19.5 average
	6823	092	0232	"	2565	"	"	"	
	6824	184	0302	"	2560	"	"	"	
	6825	276	0332	"	2572	"	"	"	
	6826	369	0402	"	2572	"	"	"	
	6827	461	0432	"	2578	"	"	"	
	6828	553	0502	"	2582	"	"	"	
	6829	645	0532	"	2589	"	"	"	
	6830	738	0602	"	2595	"	"	"	
	6831	830	0632	"	2600	"	"	"	
	6832	922	0702	"	2603	"	"	"	
	6833	1014	0732	"	2614	"	"	"	
	6834	1106	0802	"	2615				
	6835	1199	0832	"	2615	"	"	"	
	6836	1294	0903	"	2616	"	"	"	
	6837	1387	0933	"	2627	"	"	"	
	6838	1481	1003	"	2637	"	"	"	
	6839	1573	1033	"	2640	"	"	"	
	6840	1670	1105	5000	2653	"	"	"	Tape should be 6840 instead of 6830 missing 5 shots from 1665 - 1670

R/V ROBERT D. CONRAD

M C S

DFS IV

Cruise: 21-11

Format: seq B

Line: 148

N.A. Basin

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay m sec	Depth FMS.	Pop Rate SEC	Samp. Rate m sec	Rec. L. m sec	Comments
7/2/1978	6841	1762	1134	5000	2659	19.5	4	12000	TPX-1
	6842	1855	1205	11	2663	11	11	11	
	6843	1947	1235	"	2672	"	"	"	S.B. # 219 @ 1218
	6844	2040	1305	"	2675	"	"	"	<del>113</del> <del>26740</del>
	6845	2131	1334	"	2675	"	"	"	
	6846	2224	1404	"	2680	"	"	"	
	6847	2317	1435	"	2684	"	"	"	
	6848	2410	1505	"	2687	"	"	"	
		2416	1507	"	2687	"	"	"	GUNS OFF / COMPRESSOR DOWN
		2438	1514	"	2688	"	"	"	GUNS ON / Compressor Going
	6849	2523	1541	"	2690	"	"	"	
	6850	2595	1605	"	2694	"	"	"	
	6851	2686	1635	"	2696	"	"	"	
	6852	2779	1705	"	2699	"	"	"	
	6853	2872	1735	"	2700	"	"	"	
	6854	2965	1805	"	2712	"	"	"	
	6855	3058	1835	"	2711	"	"	"	2 SHOTS LOST POWER FAILING
	6856	3137	1901	"	2714	"	"	"	
	6857	3232	1932	"	2715	"	"	"	MISSED 1 SHOT
	6858	3326	2002	"	2716	"	"	"	ERROR IN UCR NUMBERS Problem

Corrected with ~~822~~ tape 6858

R/V ROBERT D. CONRAD

M C S

DFS IV

Cruise: 21-11

Format: Seg 8

Line: 148

BPI: 800

NA Basin

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
7/2/78	<del>6554</del> 6859	3419	2023	5000	2723	19.5	4	12000	
2	6860	3512	2103	"	2730	"	"	"	First shot has wrong
July	6861	3604	2132	"	2721	"	"	"	type ID.
1978	6862	3697	2203	"	2731	"	"	"	
	6863	3789	2232	"	2731	"	"	"	
	6864	3882	2302	"	2739	"	"	"	
	6865	3974	2332		2739				tape 6865 last shot is sp # 4065
3 July	<del>6866</del>	<del>4066</del>	<del>0002</del>						missed shots 4066-4076
1978	6866	4077	0006	5000	2740	19.5	4	12000	tape drive TPK-2 stopped after 3
	"	4122	0020	6000	"	19.5	4	12000	shots for no good reason
	6867	4169	0036	"	2744	"	"	"	
	6868	4261	0105	"	2748	"	"	"	
	6869	4353	0135	"	2743	"	"	"	
	6870	4445	0205	"	2746	"	"	"	
	68701	4537	0235	"	2750	"	"	"	
	6872	4630	0305	"	2753	"	"	"	
	6873	4722	0335	"	2753	"	"	"	
	6874	4815	0405	"	2754	"	"	"	
	6875	4907	0435	"	2754	"	"	"	
	6876	5000	0505	"	2754	"	"	"	First shot has wrong type ID (possibly)

R/V ROBERT D. CONRAD

M C S

DFS I

Cruise: 21-11

Format: Seg. B

Line: 148

N. A. BASIN

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate Sec	Samp. Rate msec	Rec. L. msec	Comments
7/3/78	6877	5092	0535	6000	2754	19.5	4	12000	TPX-1
	6878	5186	0605	"	2758	"	"	"	
	6879	5278	0635	"	2761	"	"	"	
	6880	5372	0706	"	2761	"	"	"	
	6881	5465	0736	"	2760	"	"	"	
	6882	5558	0807	"	2760	"	"	"	
	6883	5650	0836	"	2760	"	"	"	
	6884	5743	0906	"	2766	"	"	"	0903 altered course to 150°
	"	5759	0912	"	"	"	"	"	4 guns firing firing
	6885	5835	0936	"	2782	"	"	"	S/B <sup>*220</sup> started @ 0937
	6886	5928	1007	"	2784	"	"	"	6
		5997	1029	"	"	"	"	"	6 guns 2 & 4 OFF.
	6887	6020	1036	"	2769	"	"	"	
	6888	6113	1107	"	2770	"	"	"	
	6889	6206	1137	"	2770	"	"	"	
	6890	6299	1207	"	2778	"	"	"	
	"	6340	1200	"	"	"	"	"	Guns 2 & 4 ON
	6891	6391	1237	"	2780	"	"	"	
	6892	6483	1307	"	2780	"	"	"	
	6893	6576	1337	"	2729	"	"	"	



R/V ROBERT D. CONRAD

M C S

DFS IV

25

Cruise: 21-11

Format: Seg B

Line: 148

BPI: 800

N. A. BASIN

[illegible]

R/V ROBERT D. CONRAD

M C S

DFS IV

Cruise: 21-11

Format: SEG-B

Line: 149

N.A. BASIN

BPI: 800

LOCAL TIME

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
8 July 1978	6904	1	1608	6000	2781	20.5	4	12000	First record line 149
	6905	93	1640	"	"	"	"	"	
	6906	184	1711	"	2780	"	"	"	255°
	6907	276	1742	"	"	"	"	"	4 GUNS SP227 - 1726 S.B. # 226 on 6/1756
	6908	369	1814	"	2781.2	"	"	"	FIRST HALF OF TAPE WITH 186907
	6909	461	1845	"	"	"	"	"	
	6910	553	1917	"	2782	"	"	"	
	6911	645	1948	"	2782	"	"	"	
	6912	737	2020	"	2786	"	"	"	S.B. # 221 on 6/2049
	6913	829	2051	"	2780	"	"	"	First shot has wrong tape II
	6914	921	2122	"	2785	"	"	"	
	6915	1015	2154	"	2785	"	"	"	
	6916	1106	2225	"	2785	"	"	"	
	6917	1199	2257	"	2785	"	"	"	
	6918	1291	2329	"	2794	"	"	"	
9 July 1978	6919	1383	0000	"	2796	"	"	"	S.B. # 228 on 6/0000
	6920	1475	0031	6000	2792	20.5	4	12K	pop rate is 20.5 average
	6921	1568	0103	"	2792	"	"	"	
	6922	1660	0134	"	2795	"	"	"	
	6923	1754	0207	"	2795	"	"	"	

800

local time

[illegible]

Cruise: P-21-11  
Line: 150

N. A. Brown

Format: Seg B  
BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay min	Depth fms	Pop Rate sec	Samp. Rate ml/sec	Rec. L. m/sec	Comments
9 July 1978	6924	001	0325	6000	2795	20.5	4	12000	Pop Rate is 20.5 average
	6925	93	0357	6000	2796	20.5	4	12000	
	6926	186	0428	"	2796	"	"	"	
	6927	278	0500	"	2795	"	"	"	AT the end of TAPE 6927 and beginning of P.
	6928	371	0531	"	2794	"	"	"	6928 a ship passed close by
	6929	463	0603	"	2795	"	"	"	Ref. clock stopped at 0621:15
	6930	556	06?	"	2792	"	"	"	was able to reset at 6:41:00
	6931	648	0706	"	2790	"	"	"	
	6932	743	0738	"	2793	"	"	"	missed shot 742 possibly 741 also
	6933	835	0810	"	2794	"	"	"	
	6934	928	0841	"	2797	"	"	"	
	6935	1020	0913	"	2794	"	"	10000	change Rec. L. to 10000 m/sec.
	6936	1131	0951	"	"	"	"	"	A/E 098° at 10:00
	6937	1241	1028	"	"	"	"	"	• GUN # 9 OFF, GUN # 2 OFF
	6938	1352	1106	"	"	"	"	"	
	<del>1461</del>	1116							x A/C 105°
	6939	1461	1143	"	"	"	"	"	
	6940	1571	1221	"	"	"	"	"	
	6941	1680	1258	"	2797	"	"	"	
	6942	1791	1336	"	"	"	"	"	

Line: 150 ~~151~~ ~~152~~

~~RECORDING LOG~~  
MCS

N. A. BASIN

DFS I

Format: *Seg B*  
BPI: *800*

(29)

[illegible]

R/V ROBEI D. CONRAD

## RECORDING LOG

MCS

DFS I

30

Cruise: 21-11

Format: Seg B

Line: 151

NA BASIN

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay m sec	Depth fms	Pop Rate sec	Samp. Rate m sec	Rec. L. m sec	Comments
09	6944	0001	15:33	6000	2801	20.5	4	10.00	A/C 14:36 → 020° = Start line 151
JULY	6945	0109	16:10	"	"	"	"	"	SB # 229 @ 16:00
1978	6946	0220	16:47	"	"	"	"	"	2-SHOTS MISSED DURING TAPE
	6947	0331	17:26	"	"	"	"	"	EXCHANGE 0218 & 0214
	6948	442	18:03	"	"	"	"	"	17:03 #4 AIR GUN OFF
	6949	552	18:41	"	"	"	"	"	
	6950	662	19:19	"	"	"	"	"	SB # 230 @ 19:03
	6951	771	19:56	"	"	"	"	"	
	6952	882	20:34	"	2808	"	"	"	
	6953	992	21:11	"	2808	"	"	"	SB # 231 @ 21:08
	6954	1102	21:49	"	2808	"	"	"	
		1126							Last shot Due to Power Failure
*	6955	1132	21:59	"		"	"	"	Missed shots 1127-1131
									* TAPE ID is Wrong for
									TAPE 6955
		1153	22:07						Down For Repair
	6956	1234	22:34	"	2808	"	"	"	Missed shots 1154-1233
	6957	1344	23:12	"	2808	"	"	"	
	6958	1455	23:49		2813				
10 July	6959	1564	0026	6000	2814	20.5	4	10 K	

## M C S

BPI: 808

Line: 15/

N. A. Basin

[illegible]

Cruise: R2H11

Forma: Seg B

Line: 152

N.A. Basin

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay H:PC	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
10 July 1978	6960	001	0148	6000	2815	20.5	4	10,000	SB #
			0207	"		"	"	"	SB #232 on aux #3
	6961	110	0225	"	2815	"	"	"	SB #232 off at 0420
	6962	0220	0302	"	2814	"	"	"	
	6963	0329	0340	"	2812	"	"	"	
	6964	0439	0417	"	2812	"	"	"	SB #233 on at 0422
	6965	0549	0455	"	2813	"	"	"	
	6966	0659	0532	"	2811	"	"	"	SB #233 on at 0422 on Aux. #3
			0605	"		"	"	"	SB #233 on Aux #3 off
	6967	0768	0609	"	2810	"	"	"	SB #234 on Aux #3
		0774	0612	"		"	"	"	Guns off low pressure indication
		0792	0617	"		"	"	"	Guns 1,2,4 on SHOTS # 775 to 791 LOST
	6968	0896	0653	"	2802	"	"	"	
		0901	0655	"		"	"	"	Gun #3 on All four guns on
	6969	1005	06?	"	2801	"	"	"	0656:20 Aft Clock stopped
	6970	1116	08?	"	2801	"	"	"	
	6971	1225	0846		2801				
	6972	1336	0923						
	6973	1445	1001	"	2801	"	"	"	
	6974	1556	1038	"		"	"	"	



R/V ROBERT D. CONRAD

Cruise: RC21-11

Line: 152

## RECORDING LOG

MCS

DFS IV

Format: SCG. B

BPI: 800

M. A. BASIN

53

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate sec	Samp. Rate msec	Rec. L msec	Comments
10 July	6975	1665	1116	6000	2800	20.5	4	10000	TPX-1
	6976	1775	1153	"	2790	"	"	"	
1178	6977	1885	1231	"	2788	"	"	"	
	6978	1995	1308	"	2788	"	"	"	
	6979	2104	1345	"	2788	"	"	"	
	6980	2214	1423	"	2786	"	"	"	<del>SB 235 over</del> at 2133
	6981	2324	1500	"	2786	"	"	"	
	6982	2435	1538	"	2784	"	"	"	two hard turns <sup>1500</sup> to avoid ship
	6983	2543	16:15	"	2781	"	"	"	
	6984	2664	1657	"	2780	"	"	"	RADIO
	6985	2778	17:35	"	"	"	"	"	RADIO
	6986	2888	18:13	"	2780	"	"	"	
	6987	2997	18:15		2777	"	"	"	
	6988	3107	19:28	"	2780	"	"	"	
	6989	3215		"	2774	"	"	"	
	6990	3325	2042	"	2770	"	"	"	
		3352							
		3357							Guns 2 + 4 off
	6991	3435	2120	"	2770	"	"	"	Guns 2 + 4 on
	6992	3546	2158	"	2770	"	"	"	SB # 235 @ 2133

## RECORDING LOG

DFS IV

34

Format: SEGB

BPI: 800

R/V ROBERT D. CONRAD

MCS

Cruise: RC 21-11

Line: 152

NA BASIN

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
10 July	6993	3655	2235	6000	2752	20.5	4	10000	
	6994	3766	2312	"	2752	"	"	"	
	6995	3875	2350		2752				
11 July 1978	6996	3985	0027	6000	2750	20.5	4	10000	
	6997	4094	0104	"	2766	"	"	"	
	6998	4204	0142	"	2766	"	"	"	
	6999	4313	0219	"	2766	"	"	"	
	7000	4423	0257	"	2766	"	"	"	
	7001	4532	0334	"	2766	"	"	"	
	7002	4642	0411	"	2766	"	"	"	
	7003	4751	0448	"	2763	"	"	"	During TAPE 7003 a ship passed
	7004	4861	0526	"	2761	"	"	"	close by
	7005	4970	0603	"	2761	"	"	"	
	7006	5081	0641	"	2760	"	"	"	
	7007	5191	0719	"	2760	"	"	"	
		<del>5302</del>	0737						A/c → 300°
	7008	5302	0756	"	2760	"	"	"	
	7009	5412	0834	"	"	"	"	"	
	7010	5523	0912	"	"	"	"	"	
	7011	5633	0950	"	2758	"	"	"	

## RECORDING LOG

MCS

DFS IV

Format: Seq B

BPI: 800

R/V ROBERT D. CONRAD

Cruise: RC 21-11

Line: 152

N.A. Basin

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth	Pop Rate msec	Samp. Rate msec	Rec. L.	Comments
11 July 1978	7012	5744	1027	6000	2755	20.5	4	10000	
		<del>5855</del>	1043						GUNS 384 OFF
	7013	5855	1105	"	"	"	"	"	
	7014	5965	1143	"	2749	"	"	"	
		6020	1202						GUNS 384 ON
	7015	6075	1220	"	2748	"	"	"	
	7016	6186	1258	"	2742	"	"	"	SB # 236 on @ 1333
	7017	6296	1336		2738				
	7018	6409	1414	"	2737	"	"	"	NO SIE REC
	7019	6518	1452	"	2734	"	"	"	NO SIE REC
	7020	6628	1529	"	2730	"	"	"	
	7021	6735	16:06	"	2730	"	"	"	
	7022	6848	16:44	"	<del>2730</del>	"	"	"	
	7023	6957	17:21	"	2730	"	"	"	
	7024	7074	1807	"	2730	"	"	"	MISSED 3 SHOTS?
	7025	7184	1839	"	2731	"	"	"	
	7026	7292	1916						SP 7241 GUNS 1 & 2 OFF.
	7026	7360	19:39		2730				SP 7360 " " ON
	7027	7402	19:53	"	2712	"	"	"	
	7028	7511	20:30	"	2712	"	"	"	

/V ROBERT D. CONRAD

Cruise: 21-11

Line: 152

## RECORDING LOG

MCS

DFS IV

Format: Seq B

BPI: 800

## NA BASIN

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
1 July	7029	7622	2108	6000	2100	20.5	4	10000	First shot has wrong line No.
1 July	<del>7030</del>	<del>7731</del>	<del>2145</del>	<del>6000</del>		<del>20.5</del>	<del>4</del>	<del>10000</del>	shots 7731-7738 missed
1 July		<del>7731</del>							last shot tape stopped
	7030	7739	2148	6000	2690	20.5	4	10000	shots 7739-7760 have wrong
	7031	7747	2226		2683				tape I.D
	7032	7458	2304		2680				
	7033	8070	2341		2660				8069 missed
2 July	7034	8180	0019	6000	2674	20.5	4	10,000	
1 July	7035	8289	0056	"	2669	"	"	"	
	7036	8399	0133	"	2666	"	"	"	
	7037	8508	0211	"	2664	"	"	"	
	7038	8619	0248	"	2665	"	"	"	
	7039	8728	0326	"	2665	"	"	"	
	7040	8839	0403	"	2665	"	"	"	
	7041	8949	0441	5.500	2660	"	"	"	MISSED SHOT 8948 changed timecode to 5.500sec also
	7042	9060	0519	"	2648	"	"	"	
	7043	9170	0556	"	2640	"	"	"	
	7044	9281	0634	"	2645	"	"	"	
	7045	9391	0712	"	2645	"	"	"	CHANGED Julian Date to 193 after file #
	7046	9501	0749	"	2645	"	"	"	Discovered it being 194. 946

RECORDING LOG LOCAL TIME  
MCS

DFS IV

Format: SEG 8

BPI: 800

37

R/V ROBERT D. CONRAD

Cruise: 21-11

Line: 152

N. A. BASIN

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
12 July 1978	7047	9611	0827	<del>5500</del>	2645	20.5	4	10000	
		9616	0829	5500					GUN # 3 OFF SB # 237 on (0901)
	7048	9722	0905	11	2630	11	11	11	
	7049	9831	0942	11	11	11	11	11	
*	7050	9944	1021	11	11	11	11	11	Tape has wrong ID. <sup>is end of 9059</sup> it should be 7050
	7051	10052	1057	11	2619	11	11	11	
	7052	10162	1135	11	2615	11	11	11	
	7053	10271	1212	"	2613	"	"	"	1221 SB # 238
	7054	10381	1250	"	2610	"	"	"	
	7055	10489	1326	"	2604	"	"	"	
	7056	10599	1404	"	2602	"	"	"	
	7057	10708	1441	"	2596	"	"	"	
	7058	10818	1519	"	2595	"	"	"	1506 SB # 239
	7059	10926	1556	11	2595	11	11	11	
	7060	11036	16:33	"	2594	"	"	"	
	7061	11145	1710	"	2586	"	"	"	
	7062	11255	17:48	"	2570	"	"	"	AC — SB (Simoboc) #240 1903 SB
	7063	11364	18:25	"	2564	"	"	"	
	7064	11465	19:00		2559				GUNS 2 & 4 OFF
	7064	11474	19:03	"		"	"	"	

R/V ROBERT D. CONRAD

## RECORDING LOG

DFS I.

Cruise: RC 21-11

MCS

LOCAL TIME

Format: SEG.B

Line: 152 + 152A

NA BASIN

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
7/12/78	7065	11583	19:40	5500	2559	20.5	4	10000	
		11692	20:17						
	7066	11694	20:18	5500	2528	20.5	4	10000	GUNS 244 turned ON
	7067	11740	20:34	5500	2515	20.5	4	10000	TAPE changed due to Parity Errors.
	7068	11851	21:12	5500	2514	20.5	4	10000	Format <del>TPX-1</del> Faults
			21:33						<del>TPX-1</del> <del>TPX-2</del> <del>TPX-3</del>
	7069	11978	21:55	5500	2512	20.5	4	10000	SB 241 over side @ 21:33
	7070	12087	22:32	"	2478	"	"	"	shots 11962 - 11977 missed
	7071	12197	23:07	"	2450	"	"	"	
	7072	12310	23:48	"	2453	"	"	"	
13 July	7073	12420	00:25	"	2431	"	"	"	shots 12306 - 12309 missed
1978	7074	12529	01:03	"	2412	"	"	"	
	X	12539?	01:06					TPX-1	* Crash: power supply out
(LINE#)	152A)	0001	01:09						begin tape reset shot count
	7075	009	01:12						TPX-2 stop
	7075	015	01:14	5500	2396	20.5	4	10,000	restart 7075
			01:27						SB 241 over off
			01:32						SB 242 ON
	7076	124	01:51	5500	2392	20.5	4	10,000	
	7077	233	02:28	"	2368	"	"	"	

## RECORDING LOG

R/V ROBERT D. CONRAD

Cruise: RC21-11

Line: 152 + 152A

MCS

LOCAL TIME

NA BASIN

DFS I.

Format: SEG.B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
7/12/78	7065	11583	19:40	5500	2559	20.5	4	10000	
		11692	2017						Guns 2 & 4 turned ON
	7066	11694	2018	5500	2528	20.5	4	10000	TAPE changed due to Parity Errors
	7067	11740	2034	5500	2515	20.5	4	10000	Format <del>TPX-2</del> Faults
	7068	11851	2113	5500	2514	20.5	4	10000	<del>SB 241</del> <del>SB 241</del>
			2133						SB 241 over side @ 2133
	7069	11978	2155	5500	2512	20.5	4	10000	shots 11962 - 11977 missed
	7070	12087	2232	"	2478	"	"	"	
	7071	12197	2309	"	2450	"	"	"	
	7072	12310	2348	"	2453	"	"	"	shots 12306 - 12309 missed
13 July	7073	12420	0025	"	2431	"	"	"	
1978	7074	12529	0103	"	2412	"	"	"	
	X	12539?	0106					TPX-1	* Crash: power supply out
LINE# 152A	0001	0109							begin tape reset shot count
	4075	009	0112						TPX-2 stop
	7075	015	0114	5500	2396	20.5	4	10,000	restart 7075
			0127						SB 241 over off
			0132						SB 242 ON
	7076	124	0151	5500	2392	20.5	4	10,000	
	7077	223	0228	"	2368	"	"	"	

R/V ROBERT D. CONRAD

M C S

DFS IV

Forma

BPI:

Seg B  
800

Cruise: RC21-11

Line: 152 A

N.A. Basin

Date	Tape #	Shot Point #	Time	Trip Delay msec.	Depth	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
13 July 1978	7078	342	0306	5000	2316	20.5	4	10000	trip delay → 5000 msec.
	7079	452	0343	"	2300	"	"	"	
	7080	562	0420	4000	2269	"	"	"	Trip delay → 4000 msec
	7081	673	0458	"	2215	"	"	"	0508 SB # 242 off
	7082	781	0535	"	2185	"	"	"	← 0531 SB # 243 ON
	7083	892	0613	"	2149	"	"	"	
	7084	1001	0650	"	2066	"	"	"	
	7085	1111	0728	"	1926	"	"	"	8113 1/2 244 - on
	7086	1220	0805	"	"	"	"	"	
	7087	1331	0843	3000	1728	"	"	"	TB changed. A/C 315° AT 0915
	7088	1440	0920	"	1720	"	"	"	S/B out - at 0928 = S.B. # 244
	7089	1551	0958	"	1626	"	"	"	
	7090	1660	1035	"	1536	"	"	"	
	7091	1772	1114	2000	1505	"	"	"	TB changed. to 2000ms.
	7092	1880	1150	"	1596	"	"	"	
	7093	1988	1227	"	1515	"	"	"	
	7094	2095	1309	"	1250	"	"	"	
	7095	2203	1340	"	1050	"	"	"	
		2289	1410						Last shot - changing course
		END	Line # 152A						



## RECORDING LOG

MCS

DFS IV

Format: Seg B

BPI: 800

R/V ROBERT D. CONRAD

Cruise: 21-11

Line: 153

N.A. BASIN

(40)

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate	Samp. Rate	Rec. L.	Comments
13	7096	0001	1504	2000	1100	20.5	4	10000	
JULY	7097	108	1541	"	1290	"	"	"	
1978	7098	0215	16:18	"	1131	"	"	"	MISSED ONE SHOT
	7099	0324	16:55	"	1456	"	"	"	
	7100	0431	17:31	"	1182	"	"	"	
	7101	0539	18:08	"	1190	"	"	"	
	7102	0646	1845	"	1190	"	"	"	19:00 GUNS 2 & 4 OFF
	7103	0754	1921	"	964	"	"	"	1950 ALL GUNS ON SP836
	7104	0861	1958	"	964	"	"	"	
	7105	0970	2035	"	1040	"	"	"	
	7106	1077	2112	"	964	"	"	"	
	7107	1180	2149	"	1083	"	"	"	
	7108	1293	2226	"	1336	"	"	"	
	7109	1402	2304	"	1284	"	"	"	Missed shots 1510 & 1511
	7110	1512	2341	"	1257	"	"	"	0000 A/C → 070°
14 July	7111	1620	0017	2500	1300	20.5	4	10000	trip delay → 2500 msec.
1978	"	1703	0045	2000	"	"	"	"	trip delay → 2000 msec.
	7112	1728	0054	"	1027	"	"	"	
	7113	1836	0131	"	997	"	"	"	at 0130 A/C 075°
	7114	1943	0207	"	1086	"	"	"	

## RECORDING LOG

MCS

R/V ROBERT D. CONRAD

Cruise: 21-11

Line: 153

N.A. Basin

DFS IV

Format: Seg B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth fms	Pop Rate perc	Samp. Rate msec	Rec. L. msec	Comments
14 July 1978	7115	2051	0244	2000	1182	20.5	4	10 K	
	7116	2158	0321	2000	1057	"	"	"	
	7117	2266	0357	"	974	"	"	"	
	7118	2375	0434	2000	1123	"	"	"	
	7119	2484	0511	"	1030	"	"	"	at 0500 A/C 070°
	7120	2592	0549	"	1056	"	"	"	Beautiful morning
	7121	2701	0626	"	1350	"	"	"	
	7122	2808	0702	"	1460	"	"	"	
	7123	2917	0739	"	1313	"	"	"	
	7124	3024	0816	"	1646	"	"	"	
	7125	3133	0853	"	1327	"	"	"	
	7126	3240	0930	"	1504	"	"	"	
	7127	3349	1007	"	1487	"	"	"	at 1021 S/B 245 ON AX 3
	7128	3457	1044	"	1226	"	"	"	
	7129	3566	1121	"	1145	"	"	"	
	7130	3673	1158	"	1190	"	"	"	
	7131	3781	1234	"	1510	"	"	"	TPX-2
	7132	3888	1311	"	1600	"	"	"	only 1/2 reel done
	7133	3996	1348	"	1245	"	"	"	Turned off (?) 7 shots missed
	7134	4043	1409		1360				tape F.V. - # may be wrong

R/V ROBERT D. CONRAD

M C S

DFS IV (74)

Cruise: 21-11

Formal Seg B

Line: 153

N. A. BASIN

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay msec	Depth fms	Pop Rate sec	Samp. Rate msec	Rec. L. msec	Comments
14	7135	4083	14:17	2000	1390	20.5	4	10000	from 4075-4082 missed
JULY	7136	4190	1454	"	1478	"	"	"	
1978	7137	4298	1531	"	1335	"	"	"	
	7138	4405	1607	"	990	"	"	"	
7139	<del>7139</del>	<del>4513</del>	1634	"	1268	"	"	"	
	7140	4620	1721	"	1260	"	"	"	
	7141	4728	1758	"	1190	"	"	"	
	7142	4835	1834	"	1340	"	"	"	GUNS 224 OFF
	7143	4943	1911	"	1342	"	"	"	
	7144	5049	1949	"	1300	"	"	"	
		5084	1954	"		"	"	"	GUNS 224 ON
	7145	5157	2024	"	1280	"	"	"	
	7146	5265	2101	"	1300	"	"	"	
	7147	5374	2138	"	1027	"	"	"	
	7148	5482	2215	"	980	"	"	"	
	7149	5591	2252	"	1300	"	"	"	
	7150	5698	2329	"	1173	"	"	"	
15	7151	5806	0005	"	1110	"	"	"	
July	7152	5914	0042	"	1010	"	"	"	towards end of tape chain 13-24 out temporarily
1978	7153	6022	0119	"	1183	"	"	"	towards end

R/V ROBERT D. CONRAD

Cruise: 21-11

Line: 153

## RECORDING LOG

MCS

N.A. Basin

DFS IV

Format: Log B

BPI: 800

Date	Tape #	Shot Point #	Time	Trip Delay	Depth	Pop Rate sec	Samp. Rate ms	Rec. Time msec	Comments
15 July 1978	7154	6129	0156	2000	1112	20.5	4	10 K	
	7155	6236	0232	"	1146	"	"	"	
	7156	6344	0309	"	1114	"	"	"	
	7157	6453	0346	"	1252	"	"	"	
	7158	6561	0423	"	1225	"	"	"	
	7159	6670	0500	"	1013	"	"	"	
	7160	6777	0536	"	1071	"	"	"	
	7161	6886	0614	1000	996	"	"	"	Trip Delay to 1000 msec
	7162	6993	0650	"	1038	"	"	"	Consistent parity error of 1 per shot
2	7163	7102	0727	"	1208	"	"	"	
1	7164	7209	0804	"	1210	"	"	"	
2	7165	7318	0841	"	1153	"	"	"	#=246 @ 0533 0833 S/B ON (#606)?
1	7166	7425	0918	"	1130	"	"	"	
2	7167	7535	0955	"	1110	"	"	12000	miss one shot # 7534. changed record length.
1	7168	7626	1020	"	1064	"	"	"	
1	7169	7730	1102	"	974	"	"	"	Missing 19 shots
	7170	7821	1133	"	889	"	"	"	
	7171	7912	1204	"	886	"	"	"	
	7172	8002	1235	"	856	"	"	"	
		8093	1306						End line 153.

## M C S

Line: 154

BPI: 800

N.A. BASIN

(44)

[illegible]

R/V ROBERT D. CONRAD

Cruise: 21-11

Line: 155

## RECORDING LOG

MCS

LOCAL TIME

DFS IV

Format: SEC. B.

BPI: 800

(45)

Date	Tape #	Shot Point #	Time	Trip Delay ms	Depth FMS	Pop Rate SEC	Samp. Rate MS	Rec. L. MS	Comments
15	7179	000 <sup>9</sup> 18	1915	2000	1472	20.5	4	12K	
JULY		0077	1941	"		"	"	"	GUNS 224 ON
1478	7180	0092	1946	"	1490	"	"	"	
	7181	0184	2017	"	1490	"	"	"	
	7182	0225	2049	"	1632	"	"	"	
	7183	0357	2120	"	1600	"	"	"	
	7184	0458	2151	"	1638	"	"	"	
	7185	0550	2227	"	1630	"	"	"	LAIC → 250° at 2206
	7186	0641	2253	"	1660	"	"	"	
	7187	0733	2326	"	1700	"	"	"	missed one shot (0732)
	7188	0824	2356	"	1660	"	"	"	
16 July	7189	0917	0027	2000	1661	20.5	4	12K	
1978	"	0974	0047	3000		"	"	"	trip delay → 3000 msec
	7190	1008	0059	"	1666	"	"	"	
	7191	1102	0131	"	1610	"	"	"	
	7192	1198	0203	"	1656	"	"	"	
	7193	1289	0234	"	1494	"	"	"	
	7194	1381	0306	"	1420	"	"	"	
	7195	1474	0338	"	1405	"	"	"	
	7196	1567	0409	"	1452	"	"	"	

Line: 155

N. A. BASIN

BPI: 800

46

[illegible]

N. A. BASIN

BPI: 800

Line: 156

(47)

Course 330<sup>0</sup> Comments



R/V ROBERT D. CONRAD

Cruise: RC 21-11

Line: 157

RECORDING LOG  
MCS

48

DFS IV

48

Format: SEG. B

BPI: 800

LOCAL TIME

Date	Tape #	Shot Point #	Time	Trip Delay msec.	Depth FATHOMS	Pop Rate msec.	Samp. Rate msec.	Rec. L. msec.	Comments
16	7219	0001	18:11	2000	1588	20.5	4	12000	
JULY	7220	0093	1843	"	1490	"	"	"	
1978		0144	1900						
	7221	0184	19:14	"	1470	"	"	"	GUNS 2 & 4 DEF
	7222	0276	1945	"	1560	"	"	"	
	7223	0367	20:17	"	1560	"	"	"	GUNS 2 & 4 on at 2000
	7224	0459	20:48	"	1600	"	"	"	
	7225	0550	21:19	"	1354	"	"	"	
	7226	0642	21:50	"	1350	"	"	"	21:30 A/C → 074°
	7227	0733	22:22	"	1250	"	"	"	SB 248 over at 2202
	7228	0825	2253	"	1250	"	"	"	
	7229	0879	2311	"	1450	"	"	"	{ TAPE changed due to Parity errors & Format faults
	7230	0971	2343	"	1481	"	"	"	
17 July	"	1037	0005	3000	"	20.5	4	12000	trip delay → 3000 msec.
1978	7231	1062	0014	"	1420	"	"	"	
	7232	1154	0045	"	1500	"	"	"	
	7233	1246	0116	"	1415	"	"	"	
	7234	1339	0148	2500	1240	"	"	"	trip delay → 2500 msec.
	7235	1431	0220	"	1390	"	"	"	
	7236	1525	0252	"	1300	"	"	"	

## M C S

Line: 157

BPI: 800

N.A Basin Local time

[illegible]

## M C S

Line: 158

BPI: 000

N. A. BASIN

Local time

(50)

[illegible]