

GEOPHYSICAL SERVICE INC.



MAHINE DAILY LOG

VESSEL: E. O. VEIER PROJECT TYPE: AIRGUN STR. LENGTH: 3600 m DATE: 14-07-88
 PARTY NO.: 2972 SIZE: 6353 NO. GROUPS: 240 JULIAN DAY: 196
 PARTY MANAGER: C. PARETTI LENGTH: 2200 f 19m SPDIST: 45 m WIND: 10-15 kts
 VESSEL CONTROLLER: _____ REC SYSTEM: TSR/DESV NAVIGATION: 12 PRI: 08 SEC: _____
 CLIENT REP: KRISTIN FORK SPECIAL: _____ SEA STATE: 2-3

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS			CHARGEABLE SHOTPOINTS			CHG. KMS	GRAV. KMS	MAG. KMS		
	FROM	TO									FROM	TO	TOTAL	FROM	TO	TOTAL					
Time change	00:00	05:00	02	5.00																	
Steamer failure	05:00	14:58	10	9.97				0098-05	4515			101	1732	1632	101	1732	1632	73.44			
Recording	14:58	24:00	01	9.03																	
SUMMARY OF DAILY CODES				DAILY TOTAL 24.00																	
CODE	HRS	KMS																			
00	73.44																				
01	9.03																				
02	5.00																				
10	9.97																				
P.M. SIGNATURE: <u>Bened Garfetti</u>				DAILY TOTALS																	
CLIENT REP. SIGNATURE: <u>Kristin Fork</u>				PROSPECT TOTAL TO DATE																	
				MONTHLY TOTAL TO DATE																	

NOTES: ① Heading for time 0098-05
 ② Down for cable failure with multiple problems
 ③ Shootings on time 0098-05 @ Midnight S.P. 1732 @ Weather still good

MARINE DAILY LOG

GEOPHYSICAL SERVICE INC.



VESSEL: E.O. OETTER CLIENT: P.G.C. PROJECT TYPE: ARGONN STR. LENGTH: 3600 m DATE: 11-07-88
 PARTY NO.: 2972 PROSPECT: QCS TURNKEY SIZE: 6358 C.M.M. NO. GROUPS: 240 JULIAN DAY: 193
 PARTY MANAGER: C. PARETTI AREA: QCI TERM LENGTH: 22m 19m SPDIST: 45 m WIND: LIGHT
 VESSEL CONTROLLER: _____ CLIENT REP: KRISTINA ROHR REC SYSTEM: TSE D.F.S.D NAVIGATION: AA PRI: 08 SEC: _____ SEA STATE: 1-2

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS		CHARGEABLE SHOTPOINTS		CHG. KMS	GRAY. KMS	MAG. KMS																																												
	FROM	TO									FROM	TO	FROM	TO				TOTAL	TOTAL																																										
<i>Time change</i>	00:00	03:52	02	3.87							101	128	28	0	0																																														
<i>Recording</i>	03:52	04:01	01	15				QC88-04340.1																																																					
<i>Source failure</i>	04:01	08:38	08	4.62				QC88-04340.1			10101	12726	2626	118.17																																															
<i>Recording</i>	08:38	24:00	01	15.36																																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="12" style="text-align: right;">DAILY TOTAL 24.00</td> <td>DAILY TOTALS</td> <td>2626</td> <td>118.17</td> </tr> <tr> <td colspan="12" style="text-align: right;">PROSPECT TOTAL TO DATE</td> <td>PROSPECT TOTAL TO DATE</td> <td>672.39</td> <td></td> </tr> <tr> <td colspan="12" style="text-align: right;">MONTHLY TOTAL TO DATE</td> <td>MONTHLY TOTAL TO DATE</td> <td>672.39</td> <td></td> </tr> </table>															DAILY TOTAL 24.00												DAILY TOTALS	2626	118.17	PROSPECT TOTAL TO DATE												PROSPECT TOTAL TO DATE	672.39		MONTHLY TOTAL TO DATE												MONTHLY TOTAL TO DATE	672.39		P.M. SIGNATURE <u>Becil Parfitt</u> CLIENT REP. SIGNATURE <u>Keith Parfitt</u>	
DAILY TOTAL 24.00												DAILY TOTALS	2626	118.17																																															
PROSPECT TOTAL TO DATE												PROSPECT TOTAL TO DATE	672.39																																																
MONTHLY TOTAL TO DATE												MONTHLY TOTAL TO DATE	672.39																																																

SUMMARY OF DAILY CODES
 CODE HRS KMS
 00 15.51 118.17
 01 3.87
 02 4.62
 08

NOTES: ① Heading for line QC88-04 then terminated for source failure
 ② Shooting on line QC88-04 and resumed shooting on line QC88-04A
 ③ Guns repaired and resumed shooting good at this time
 ④ All seems to be going good at this time
 Estimated completion July 14/88

MAHINE DAILY LOG "1000"

GEOPHYSICAL SERVICE INC.



VESSEL: SOUESTER CLIENT: PGC PROJECT TYPE: AIRGUN STR. LENGTH: 3600m DATE: 09-07-88
 PARTY NO.: 2972 PROSPECT: QCS SIZE: 6358 JULIAN DAY: 191
 PARTY MANAGER: C. PAREITI AREA: QCI LENGTH: 225M SP. DIST: 45m WIND: 10
 VESSEL CONTROLLER: _____ CLIENT REP: KRISTIN ROHR REC SYSTEM: TSE/DESY NAVIGATION: DR SEA STATE: 2
 TURNKEY TERM GROUP/SPEC SPECIAL

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS			CHARGEABLE SHOTPOINTS			CHG. KMS	GRAY. KMS	MAG. KMS				
	FROM	TO									FROM	TO	TOTAL	FROM	TO	TOTAL							
18R failure	00:00	03:36	22	3.60																			
Recording	03:36	05:01	01	1.42				QC88-01C	311.7		101	361	261	101	313	213	9.585						
18R failure	05:01	07:15	22	2.23																			
Recording	07:15	07:32	01	0.28				QC88-01D	311.7		10273	10293	21	0	0	0	0						
212 locked up	07:32	09:46	06	2.23																			
Recording	09:46	10:13	01	.45				QC88-01E	311.7		20273	20350	78	0	0	0	0						
18R failure	10:13	12:23	22	2.17																			
Recording	12:23	24:00	01	11.62				QC88-01F	311.7		30273	32277	2005	30314	32277	1964	88.38						
SUMMARY OF DAILY CODES				DAILY TOTAL 24.00																DAILY TOTALS	2177	97.965	
CODE	HRS	KMS																		PROSPECT TOTAL TO DATE	417.87		
00		97.965																		MONTHLY TOTAL TO DATE	417.87		
01	13.72																						
06	2.23																						
22	8.00																						

P.M. SIGNATURE: David Parfitt
 CLIENT REP. SIGNATURE: Kristin Rohr

NOTES: ① Finally started shooting steady on fourth attempt on 0C88-1 today
 ② 18R and 6M8 failure causing lots of headaches
 ③ Midway 18R on 0C88-01F is 32277. @ weather still looking good

MARINE DAILY LOG

GEOGRAPHICAL SERVICE INC.



VESSEL: E.O.V. ETTIER CLIENT: PGC PROJECT TYPE: AIRGUN STR. LENGTH: 3600 DATE: July 8-88
 PARTY NO.: 2972 PROSPECT: ACS TURNKEY SIZE: 6358 NO. GROUPS: 240 JULIAN DAY: 190
 PARTY MANAGER: C. PARFITT AREA: QCI TERM LENGTH: 22.19 m SP DIST: 45 m WIND: 10
 VESSEL CONTROLLER: _____ CLIENT REP: KRISTINA ROHR REC SYSTEM: TSR/DPSV NAVIGATION: 12 PRI: 08 SEC: 08 SEA STATE: 1

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS		CHARGEABLE SHOTPOINTS		CHG. KMS	GRAV. KMS	MAG. KMS		
	FROM	TO									FROM	TO	FROM	TO				TOTAL	TOTAL
Time change	00:00	15:18	02	15.30															
Recording	15:18	16:01	01	.72				0C88-1	311.7		101	240	140	0	0				
TSR Failure	16:01	18:27	22	2.43				0C88-1A	311.7		101	363	263	0	0				
Recording	18:27	19:49	01	1.37				0C88-1B	311.7		101	119	19	0	0				
TSR Failure	19:49	23:26	22	3.62															
Recording	23:26	23:32	01	.10															
TSR Failure	23:32	24:00	22	.46															
				DAILY TOTAL	24.00														
				PROSPECT TOTAL TO DATE															
				MONTHLY TOTAL TO DATE															

SUMMARY OF DAILY CODES
 CODE HRS KMS
 00 0.00
 01 2.19
 02 15.30
 22 6.51

P.M. SIGNATURE: Carol Parfitt
 CLIENT REP. SIGNATURE: Kristina Rohr

DAILY TOTALS: 0
 PROSPECT TOTAL TO DATE: 319.905
 MONTHLY TOTAL TO DATE: 319.905

NOTES: ① Time change from NE end of 0C88-3 to SE end of 0C88-1
 ② Three attempts to start 0C88-1 all terminated due to TSR failure



VESSEL: E.O. VETTER CLIENT: PGC PROJECT TYPE: AIR GUN STR. LENGTH: 3600m DATE: 06-07-88
 PARTY NO.: 2972 PROSPECT: GCS SIZE: 6358 GUN NO. GROUPS: 240 JULIAN DAY: 188
 PARTY MANAGER: C. PARETTI AREA: QCI LENGTH: 22419 SPODIST: 45 WIND: 10-15
 VESSEL CONTROLLER: _____ CLIENT REP: KRISTINA BOHR REC SYSTEM: TSR/OES NAVIGATION: 018 SEA STATE: 2-3
 TURNKEY TERM GROUP/SPEC SPECIAL

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS			CHARGEABLE SHOTPOINTS			CHG. KMS	GRAV. KMS	MAG. KMS
	FROM	TO									FROM	TO	TOTAL	FROM	TO	TOTAL			
Recording	00:00	00:13	01						QC88-2E	2268		43538	43570	33	43538	43570	33	1485	
line change	00:13	04:00	02																
Recording	04:00	19:15	01						QC88-9	3155		101	3055	2955	101	3005	2905	130.725	(NON-CHARGEABLE)
line change	19:15	23:02	02																
Recording	23:02	24:00	01						QC88-3	413		101	276	176	101	276	106	7.92	

SUMMARY OF DAILY CODES
 CODE HRS KMS
 00 1644 9.405
 01 7.56
 02

P.M. SIGNATURE: Jacil Goffett
 CLIENT REP. SIGNATURE: Kristina Bohr

DAILY TOTALS: 209 9.405
 PROSPECT TOTAL TO DATE: 165.87
 MONTHLY TOTAL TO DATE: 165.87

NOTES: ① Complete line QC88-2E
 ② line change to transit line QC88-9
 ③ Shooting line QC88-9 complete, non-chargeable transit line

VESSEL: E.O. VETTER CLIENT: PGC PROJECT TYPE: AIRGUN STR. LENGTH: 3600 DATE: 05-07-88
 PARTY NO.: 2972 PROSPECT: QCS TURNKEY SIZE: 6358 CLIN: 240 NO. GROUPS: 240 JULIAN DAY: 187
 PARTY MANAGER: C. PARETTI AREA: QCI LENGTH: 22.19 m SP DIST: 45 m WIND: 15-20 KTS
 VESSEL CONTROLLER: _____ CLIENT REP: KRISTIN ROHG REC SYSTEM: TSR/DF17 NAVIGATION: 08 SEA STATE: 3-4
 TERM GROUP/SPEC SPECIAL



ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS		CHARGEABLE SHOTPOINTS		CHG. KMS	GRAV. KMS	MAG. KMS	
	FROM	TO									FROM	TO	FROM	TO				TOTAL
Streamer caught	00:00	03:28	22	3.47														
no gun buoys																		
Nav. failure	03:28	08:02	11	4.57														
Recording	08:02	14:44	21	6.70				OC88-2C	2272		11993	13118	1126	12034	13118	1084	48.78	
288 failure	14:44	16:57	07	2.22														
Recording	16:57	17:23	21	.43				OC88-2D	2278		23077	23159	83	0	0	0	0	
Nav. failure	17:23	21:37	11	4.23														
Recording	21:37	24:00	21	2.38				OC88-2E	2278		43077	43537	461	43119	43537	419	12.855	
DAILY TOTALS 1503 67.635 PROSPECT TOTAL TO DATE 156.465 MONTHLY TOTAL TO DATE 156.465																		

P.M. SIGNATURE: Carol Parfitt
 CLIENT REP. SIGNATURE: [Signature]
 DAILY TOTAL 24.00
 PROSPECT TOTAL TO DATE
 MONTHLY TOTAL TO DATE

NOTES: ① Steamer removed from gun buoys
 ② down C wiped out by transmission on Harnes radio
 ③ 288 power supply overheated powering down steamer (Terminate OC88-2C)
 ④ OC88-2D terminated when boom to dropped signals, reason not known

SUMMARY OF DAILY CODES

CODE	HRS
01	9.51
07	2.22
11	8.80
22	3.47



VESSEL: E. U. E. I. E. R. PROJECT TYPE: AIR GUN STR. LENGTH: 3600 m DATE: 04-07-88
 PARTY NO.: 2972 PROSPECT: QUEEN CHARLOTTE IS. NO. GROUPS: 240 JULIAN DAY: 186
 PARTY MANAGER: C. PARETTI AREA: QUEEN CHARLOTTE IS. LENGTH: 22419 SP. DIST: 45 WIND: 10-15
 VESSEL CONTROLLER: _____ CLIENT REP: KEISSER ROHR REC SYSTEM: T.S.R./O.F.S.V NAVIGATION: 08 SEA STATE: 2-4
 TURNKEY TERM GROUP/SPEC SPECIAL

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS		CHARGEABLE SHOTPOINTS		CHG. KMS	GRAY. KMS	MAG. KMS	
	FROM	TO									FROM	TO	FROM	TO				TOTAL
C.M.S. failure	00:00	00:07	06	0.12														
Recording	00:07	04:29	01	4.37				QC88-2A	2279		101	901	101	369	269	12.105		
Now. failure	04:29	12:16	11	7.78														
Recording	12:16	22:44	01	10.46				QC88-2A	2278		10329	12089	10329	12033	1705	76.725		
Gun buoy caught on cable	22:44	24:00	22	1.28														
SUMMARY OF DAILY CODES CODE HRS KMS. 88.83 00 14.83 01 .12 06 7.78 11 1.28																		
DAILY TOTAL 24.00 PROSPECT TOTAL TO DATE 88.83 MONTHLY TOTAL TO DATE 88.83																		
P.M. SIGNATURE: <u>Bevil Parfitt</u> CLIENT REP. SIGNATURE: <u>KEISSER ROHR</u>																		

NOTES: ① 980 cms time out
 ② Shooting on line QC88-2A
 ③ QC88-2A terminated due nav failure (not update)
 ④ Shooting on QC88-2A terminated due to buoy caught on cable.



VESSEL: E.O. VETTER CLIENT: P.G.C. PROJECT TYPE: AIRGUN STR. LENGTH: 3600 m DATE: 07-02-88
 PARTY NO.: 2972 PROSPECT: G.C.I. TURNKEY SIZE: 6358 CALLW. NO. GROUPS: 240 JULIAN DAY: 184
 PARTY MANAGER: C. PARELLI AREA: G.C.S. TERM LENGTH: 22.19 SP DIST: 45 m WIND: LIGHT
 VESSEL CONTROLLER: _____ CLIENT REP: KRISTIN ROHR REC SYSTEM: TSR/DFS NAVIGATION: 212 PRI: 018 SEC: _____ SEA STATE: 1

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS		CHARGEABLE SHOTPOINTS		CHG. KMS	GRAV. KMS	MAG. KMS	
	FROM	TO									FROM	TO	FROM	TO				
Deploying guns for spread shots and retrieving guns after spread shots	00:00	12:10	22	12.17														
Deploying streamer	12:10	17:50	14	5.67														
Deploying guns for production	17:50	22:15	22	4.41														
Bubble failure around rem #16	22:15	24:00	10	1.75														
Starboard man for putting out boom broke off																		
Pulling all guns back onboard to repair cable.																		
Donor buoy deployed by vessel Free Spirit																		
Balancing and checking spreads and drags																		
as we work on cable and guns																		
SUMMARY OF DAILY CODES				DAILY TOTAL 24.00														
CODES	HRS	PROSPECT TOTAL TO DATE		MONTHLY TOTAL TO DATE		P.M. SIGNATURE		CLIENT REP. SIGNATURE		DAILY TOTALS		PROSPECT TOTAL TO DATE		MONTHLY TOTAL TO DATE				
10	1.75																	
14	5.67																	
22	16.58																	

NOTES: ① Guns deployed and spread shots taken - 80 m.

- ② bubble fully deployed and checks good.
- ③ 21st outis deployed and brought back onboard when float problem arose (sticks caught in middle)
- ④ Deployed port outis when airlines on outside of bundle caught on wire rope and broke 4 hrs

MARINE DAILY LOG

GEOPHYSICAL SERVICE INC.



VESSEL: E.O. VEITER PROJECT TYPE: AIR GUN DATE: 07-01-88
 PARTY NO.: 2972 STR. LENGTH: 3600 m JULIAN DAY: 183
 PARTY MANAGER: C. PARFITT SIZE: 6350 cu in NO. GROUPS: 240 WIND: 15 KTS
 AREA: QUEEN CHARLOTTE IS. LENGTH: 22.19 SP. DIST: 45 m SEA STATE: 3
 CLIENT: PGC TURNKEY: TERM: GROUP/SPEC: SPECIAL:
 CLIENT REP: KRISTIN ROHR REC SYSTEM: ISR DFLV NAVIGATION: ALA PRI: 08 SEC: 08

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS		CHARGEABLE SHOTPOINTS		CHG. KMS	GRAY. KMS	MAG. KMS	
	FROM	TO									FROM	TO	FROM	TO				TOTAL
Working on both guns and navigation calibrating depples as we transit to calmer water to drop floats in the water Having problems setting paravanes as when they get close to vessel they cross over Paravanes set and guns are being deployed to take spread shots Heat eraser not in good condition at this time. Parts on order.	00:00	14:00	22															
SUMMARY OF DAILY CODES CODE HRS AT 22 24																		
DAILY TOTAL 24.00 PROSPECT TOTAL TO DATE MONTHLY TOTAL TO DATE												DAILY TOTALS PROSPECT TOTAL TO DATE MONTHLY TOTAL TO DATE						

P.M. SIGNATURE: Basil Parfitt
 CLIENT REP. SIGNATURE: Kristin Rohr

NOTES: Dew rather picking up slightly



VESSEL: E.D. VEITIER CLIENT: PGC PROJECT TYPE: AIR GUN STR. LENGTH: 3600 m DATE: 06-30-88
 PARTY NO.: 2972 PROSPECT: QUEEN CHARLOTTE'S TURNKEY: TERM: GROUP/SPEC:
 PARTY MANAGER: C. PARETTI AREA: QUEEN CHARLOTTE IS. CLIENT REP: KRISTIN ROHR SPECIAL: REC SYSTEM: ISR / DES V NAVIGATION: PRI: 22 SEC: 09
 VESSEL CONTROLLER: _____ VESSEL: _____ AREA: _____ CLIENT REP: _____ SPECIAL: _____ REC SYSTEM: _____ NAVIGATION: _____ PRI: _____ SEC: _____
 WIND: 20-25 SEA STATE: 4

ACTIVITY DESCRIPTION	TIME		CODE	HOURS	CLIENT CHARGE HOURS	EQUIP CODE	HOURS	E.F.R. NUMBER	LINE NUMBER	DIR.	SHOTPOINTS		CHARGEABLE SHOTPOINTS		CHG. KMS	GRAV. KMS	MAG. KMS		
	FROM	TO									FROM	TO	FROM	TO				TOTAL	TOTAL
Sonar and CMS are now interfaced and talking to each other. Working on guns throughout the day. Onboard personnel not sure on how to rate clocks as no manual supplied for calibration on sonar impossible due to fact vessel had to stop and go. Will attempt to calibrate sonar to G.P.S. when next G.P.S. window comes around or we will use the Transit method.	00:00	24:00	15	22															
SUMMARY OF DAILY CODES CODE HRS 15 & 22 24 10																			
												DAILY TOTALS		PROSPECT TOTAL TO DATE		MONTHLY TOTAL TO DATE			

P.M. SIGNATURE: Bevil Carfitt
 CLIENT REP. SIGNATURE: Kristin Rohr

NOTES: ① bode 15 - nav. setup and calibration ② Hope to get spread width set early tomorrow
 ③ bode 22 - working on six element gun array. ④ Weather picked up today but supposed to settle down tomorrow
 ⑤ bode 10 - working on streamer

