Seq # 001

Line Name: MGL1110_OBS03 **NAVIGATION** **DATE:** 2011-07-03

Line Brg : 150.2 ° **LINE LOGS** **JULIAN DAY:** 184

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/ShilliNgton **SURVEY: Gulf of Alaska/Northeast Pacific** **MGL1110**

DC SOL : 134.2m	DEPTH SOL : 59.3m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -2.0m	DEPTH EOL : 4461.0m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 5.0 knots	FEATHER SOL: na °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.9 knots	FEATHER EOL: na °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: na °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 15.6 W knots		MAG DEC USED : 13.81°
WIND EOL: 5 N knots knots	00:00 – 06:00 z => Martello, Becel, Deleschluse °	06:00 – 12:00 z => Martello, Li, Shillington
SEAS SOL: <1m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic	18:00 – 24:00 z=> Eaton, Farkas, Webb
SEAS EOL: <1m		

SP	TIME(UTC)	EVENT	COMMENTS
1004	11:17	FGSP	Start of line after reboot of Spectra
1062	13:14	OBS	Crossing OBS321
1113	14:58	OBS	Crossing OBS320
1121	15:14	volume	power down for mammal
1128	15:28	speed	reduce vessel speed d/t mammal in area
1150	16:39	speed	resume shooting speed
1164	17:08	OBS	Crossing OBS319
1168	17:15	PAM	Recover Pam
1168	17:16	Maggie	Recover Maggie
1190	18:00	Pam/Maggie	Both Pam and Maggie are deployed again
1196	18:14	Multibeam	Shutdown for "Bist" test
1202	18:26	Multibeam	operational again
1215	18:54	OBS	Crossing OBS318
1266	20:48	OBS	Crossing OBS317
1318	22:44	OBS	Crossing OBS316
1348	00:00	MSP	Midnight Shot Point
1369	00:50	OBS	Crossing OBS315
1422	02:39	OBS	Crossing OBS314
1471	04:29	OBS	Crossing OBS313
1522	06:02	OBS	Crossing OBS312
1573	07:41	OBS	Crossing OBS311
1582	07:58	Multibeam	reboot
1585	08:03	Multibeam	operational again
1625	09:25	OBS	Crossing OBS310
1637	09:48	Multibeam	No display - message 'no license'
1637	09:49	Multibeam	Display returned
1676	11:07	OBS	Crossing OBS309
1694	11:47	Maggie	Stop receiving data
1709	12:09	Maggie	start retrieval
1712	12:18	Maggie	on board - cable suffered skin damage, cover with tape/scotchkote
1718	12:32	Maggie	Test okay - redeploy
1722	12:39	Maggie	operational in place
1727	12:48	OBS	Crossing OBS308
1780	14:35	OBS	Crossing OBS307
1852	17:04	OBS	Crossing OBS306
1892	18:24	OBS	Crossing OBS305
1943	20:07	OBS	Crossing OBS304
1994	21:51	OBS	Crossing OBS303
2045	23:33	OBS	Crossing OBS302
2096	01:22	OBS	Crossing OBS301
2166	03:46	EOL	End of Line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1004	56° 20' 31.745"	158° 03' 15.871"
LGSP	2166	53 30' 12.588"	155 21' 19.650"

NAVIGATION OFFSET APPLIED

NRP - Stern	29.5
NRP - COS	282
NRP – CNG (na)	465
COS – CNG (na)	183
NRP – CMP (na)	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_OBS03.p190	MGL1110_OBS03.p294

Posnet locations & remarks: good - none - intermittent

				Acoustic	remarks:
Tailbuoy #1	na	Gun string #1	good	good	
		Gun string #2	good	good	
		Gun string #3	good	good	
		Gun string #4	good	none	

MGL1110_OBS03 Langseth.RTCN

SP spacing: 310m

line status: complete

Seq # 002

Line Name: MGL1110_OBS05T **Line Brg :** 39 °

NAVIGATION LINE LOGS

DATE: 2011-07-08 **JULIAN DAY:** 189

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shilligton **SURVEY: Gulf of Alaska/Northeast Pacific** **MGL1110**

DC SOL : -149.0m
DC EOL : 1199.4m
SMG SOL: 5.2 knots
SMG EOL: 5.0 knots
WEATHER
WIND SOL: S @ 21 knots
WIND EOL: 20.0 knots
SEAS SOL: 1m
SEAS EOL: 1m

DEPTH SOL : 67.5m
DEPTH EOL : 57.2m
FEATHER SOL: na °
FEATHER EOL: na °
MAX FEATHER: na °

NAVIGATION SYSTEM USED: C-Nav3050 - Primary
NAVIGATION SYSTEM USED: SeaPath 200
NAVIGATION SYSTEM USED: Pos MV v3
GRAVITY METER: BMG-II: used, SN210
MAGNETOMETER: GeoMetrics: used
MAG DEC USED : 13.81°

00:00 – 06:00 z => Martello, Becel, Deleschluse °
06:00 – 12:00 z => Martello, Li, Shillington
12:00 – 18:00 z => Eaton, Kuehn, Nedimovic
18:00 – 24:00 z=> Eaton, Farkas, Webb

SP	TIME(UTC)	EVENT	COMMENTS
1010	2056	SOL	Start of Line, 4950 cu in
1015	2107	source	String3 deployed
1016	2108	Pam	Pam deployed
1016	2108	source	Full volume 6600 cu in
1039	2158	EOL	stop line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1010	55° 03' 11.860"	160° 52' 49.283"
LGSP	1039	55° 06' 34.816"	160° 46' 35.293"

NAVIGATION OFFSET APPLIED

NRP - Stern	29.5
NRP - COS	282
NRP – CNG (na)	465
COS – CNG (na)	183
NRP – CMP (na)	368

Note: LMN line parameter set to great circle line

P1 MGL1110_OBS05T.p190
P2 MGL1110_OBS05T.p294

Posnet locations & remarks: good - none - intermittent

				Acoustic	remarks:
Tailbuoy #1	na	Gun string #1	good	good	
		Gun string #2	good	good	
		Gun string #3	good	good	
		Gun string #4	good	???	

MGL1110_OBS05T Langseth.RTCN

SP spacing: 310m

line status: transit line

Seq # 003 (recorded as Seq # 002)

Line Name: MGL1110_OBS05 **Line Brg :** 157 °

NAVIGATION LINE LOGS

DATE: 2011-07-08 **JULIAN DAY:** 189

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shilligton **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 758.9m
DC EOL : -6.4m
SMG SOL: 5.03 knots
SMG EOL: 5.0 knots
WEATHER
WIND SOL: S @ 21 knots
WIND EOL: SW 13.9 knots
SEAS SOL: 1m
SEAS EOL: 1m

DEPTH SOL : 74.0m
DEPTH EOL : 4669.0m
FEATHER SOL: na °
FEATHER EOL: na °
MAX FEATHER: na °

NAVIGATION SYSTEM USED: C-Nav3050 - Primary
NAVIGATION SYSTEM USED: SeaPath 200
NAVIGATION SYSTEM USED: Pos MV v3
GRAVITY METER: BMG-II: used, SN210
MAGNETOMETER: GeoMetrics: used
MAG DEC USED : 13.81°

00:00 – 06:00 z => Martello, Becel, Deleschluse °
06:00 – 12:00 z => Martello, Li, Shillington
12:00 – 18:00 z => Eaton, Kuehn, Nedimovic
18:00 – 24:00 z=> Eaton, Farkas, Webb

SP	TIME(UTC)	EVENT	COMMENTS
992	2159	SOL	Start of Line, 6600 cu in
998	2213	powerdown	Power down for Humpback Whale
1009	2247	Ramp up	Begin Ramp up
1011	2254	OBS	Passed OBS 521 During ramp up
1017	2314	Ramp up	Ramp up complete
1018	2317	Resume	Shooting as normal on Ext trigger
1038	2359	MSP	Midnight Shot point
1052	0027	OBS	Crossing OBS 520
1093	0150	OBS	Crossing OBS 519
1134	0313	OBS	Crossing OBS 518
1175	0442	OBS	Crossing OBS 517
1217	0609	OBS	Crossing OBS 516
1280	0815	source	guns fired twice - possible nav jump
1258	0731	OBS	Crossing OBS 515
1299	0854	OBS	Crossing OBS 514
1340	1020	OBS	Crossing OBS 513
1381	1148	OBS	Crossing OBS 512
1423	1316	OBS	Crossing OBS 511
1463	1443	OBS	Crossing OBS 510
1508	1616	OBS	Crossing OBS 509
1629	2030	OBS	Crossing OBS 508
1670	2150	OBS	Crossing OBS 507
1711	2312	OBS	Crossing OBS 506
1734	0000	MSP	Midnight Shot point
1752	0035	OBS	Crossing OBS 505
1793	0157	OBS	Crossing OBS 504
1834	0327	OBS	Crossing OBS 503
1876	0456	OBS	Crossing OBS 502
1917	0619	OBS	Crossing OBS 501
1985	0837	EOL	End of Line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	992	55° 06' 33.900"	160° 45' 50.580"
LGSP	1985	52° 27' 02.864"	159° 28' 38.167"

NAVIGATION OFFSET APPLIED

NRP - Stern	29.5
NRP - COS	282
NRP – CNG (na)	465
COS – CNG (na)	183
NRP – CMP (na)	368

Note: LMN line parameter set to great circle line

Note: Sequence recorded as 002, should have been sequence 003

P1	P2
MGL1110_OBS05.p190	MGL1110_OBS05.p294

Posnet locations & remarks: good - none - intermittent				Acoustic	remarks:
Tailbuoy #1	na	Gun string #1	good	good	
Tailbuoy #2	na	Gun string #2	good	good	
		Gun string #3	good	good	
		Gun string #4	good	none	

MGL1110_OBS05 Langseth.RTCN

SP spacing: 310m

line status: Complete

Seq # 004

Line Name: MGL1110_MCS05 **Line Brg :** 163.6 °

NAVIGATION LINE LOGS

DATE: 2011-07-15 **JULIAN DAY:** 196

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/ Schillington **SURVEY:** **MGL1110**

DC SOL :	DEPTH SOL :	NAVIGATION SYSTEM USED:	C-Nav3050 - Primary
DC EOL :	DEPTH EOL :	NAVIGATION SYSTEM USED:	SeaPath 200
SMG SOL:	FEATHER SOL:	NAVIGATION SYSTEM USED:	Pos MV v3
SMG EOL:	FEATHER EOL:	GRAVITY METER:	BMG-II: used, SN210
WEATHER	MAX FEATHER:	MAGNETOMETER:	GeoMetrics: used
WIND SOL:		MAG DEC USED :	13.81°

WIND EOL:	00:00 – 06:00 z =>	Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z =>	Martello, Li, Shillington, Perls, Wessbecker
SEAS SOL:	12:00 – 18:00 z =>	Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=>	Eaton, Farkas, Webb, Eddy
SEAS EOL:				

SP	TIME(UTC)	EVENT	COMMENTS
1004	1854	SOL	
1011	1858	EOL	
			NOT TO BE PROCESSED

VESSEL POSITION

	Latitude (N)	Longitude (W)
FGSP		
LGSP		

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS05B.p19	MGL1110_MCS05B.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: DO NOT PROCESS

Seq # 005

Line Name:	**MGL1110_MCS05A**	**NAVIGATION**	**DATE:** 2011-07-15
Line Brg :	**163.6 °**	**LINE LOGS**	**JULIAN DAY:** 196

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/ Schillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL :	**DEPTH SOL :**	**NAVIGATION SYSTEM USED:** C-Nav3050 - Primary
DC EOL :	**DEPTH EOL :**	**NAVIGATION SYSTEM USED:** SeaPath 200
SMG SOL:	**FEATHER SOL:**	**NAVIGATION SYSTEM USED:** Pos MV v3
SMG EOL:	**FEATHER EOL:**	**GRAVITY METER: BMG-II: used, SN210**
WEATHER	**MAX FEATHER:**	**MAGNETOMETER: GeoMetrics: used**
WIND SOL:		**MAG DEC USED : 13.81°**
WIND EOL:	**00:00 – 06:00 z =>** Martello, Becel, Deleschluse, Zietman °	**06:00 – 12:00 z =>** Martello, Li, Shillington, Perls, Wessbecker
SEAS SOL:	**12:00 – 18:00 z =>** Eaton, Kuehn, Nedimovic, Hostetler	**18:00 – 24:00 z=>** Eaton, Farkas, Webb, Eddy
SEAS EOL:		

SP	TIME(UTC)	EVENT	*COMMENTS*
1015	1859	SOL	
1023	1903	EOL	
			NOT TO BE PROCESSED

VESSEL POSITION

	Latitude (N)	Longitude (W)
FGSP		
LGSP		

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS05B.p19	MGL1110_MCS05B.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	**Gun string #1**	good
Tailbuoy #2	intermittent	**Gun string #2**	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: DO NOT PROCESS

Seq # 006

Line Name: MGL1110_MCSHOPE **Line Brg :** 163.6 °

NAVIGATION LINE LOGS

DATE: 2011-07-15 **JULIAN DAY:** 196

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/ Schillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL :	DEPTH SOL :	NAVIGATION SYSTEM USED:	C-Nav3050 - Primary
DC EOL :	DEPTH EOL :	NAVIGATION SYSTEM USED:	SeaPath 200
SMG SOL:	FEATHER SOL:	NAVIGATION SYSTEM USED:	Pos MV v3
SMG EOL:	FEATHER EOL:	GRAVITY METER:	BMG-II: used, SN210
WEATHER	MAX FEATHER:	MAGNETOMETER:	GeoMetrics: used
WIND SOL:		MAG DEC USED :	13.81°
WIND EOL:	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z =>	Martello, Li, Shillington, Perls, Wessbecker
SEAS SOL:	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=>	Eaton, Farkas, Webb, Eddy
SEAS EOL:			

SP	TIME(UTC)	EVENT	COMMENTS
			NOT TO BE PROCESSED - trubleshooting timing problem Spectra to Syntrak

VESSEL POSITION

	Latitude (N)	Longitude (W)
FGSP		
LGSP		

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS05B.p19	MGL1110_MCS05B.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: DO NOT PROCESS

	Line Name:	MGL1110_MCS05R	**NAVIGATION**	DATE: 2011-07-15	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY	EARTH INSTITUTE
Seq # 007	Line Brg :	163.6 °	**LINE LOGS**	JULIAN DAY: 196	

CLIENT: NSF/ Schillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL :	DEPTH SOL :	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL :	DEPTH EOL :	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL:	FEATHER SOL:	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL:	FEATHER EOL:	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER:	MAGNETOMETER: GeoMetrics: used
WIND SOL:		MAG DEC USED : 13.81°
WIND EOL:	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecker
SEAS SOL:	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL:		

SP	TIME(UTC)	EVENT	COMMENTS
		SOL	
			NOT TO BE PROCESSED - trubleshooting timing problem Spectra to Syntrak

VESSEL POSITION	Latitude (N)	Longitude (W)
FGSP		
LGSP		

NAVIGATION OFFSET APPLIED (m)	
NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS05B.p19	MGL1110_MCS05B.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	good	Gun string #1	good	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	good	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: DO NOT PROCESS

Seq # 008

Line Name: MGL1110_MCS05B **Line Brg :** 163.6 °

NAVIGATION LINE LOGS

DATE: 2011-07-16 **JULIAN DAY:** 197

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Bangs **SURVEY: CRISP 3D** **MGL1106**

DC SOL : 530.0m	DEPTH SOL : 67.8m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -1253.0m	DEPTH EOL : 4678.0m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.5 knots	FEATHER SOL: 136.9 °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.5 knots	FEATHER EOL: 0.7 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 13.7 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 11 W knots		MAG DEC USED : 13.81°
WIND EOL: 14 sw knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecker
SEAS SOL: 1	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 3m		

SP	TIME(UTC)	EVENT	COMMENTS
983	0722	SOL	SOL - Birds AB23 - 27 below target depth 9m due to turn
1049	0753	OBS	Cross obs521
1060	0758	depth	Both streamers at depth
1100	0817	streamers	Out of turn
1116	0825	tailbuoy2	Knocked out of configuration - intermittent
1253	0936	OBS	Cross obs520
1458	1108	OBS	Cross obs519
1661	1242	OBS	Cross obs518
1866	1411	OBS	cross obs517
2070	1540	OBS	cross OBS516
2274	1706	OBS	cross OBS515
2419	1812	Spectra	Main NCN lock-up
2453	1828	Spectra	Main NCN working again
2478	1840	OBS	cross obs514
2682	2021	OBS	Cross OBS513
2886	2242	OBS	Cross OBS512
3061	2359	midnight	last shot point of day
3091	0017	OBS	Cross OBS511
3295	0219	OBS	Cross OBS510
3515	0412	OBS	Cross OBS509
4115	0834	OBS	Cross OBS508
4318	1013	OBS	Cross OBS507
4522	1155	OBS	Cross OBS506
4726	1337	OBS	Cross OBS505
4931	1515	OBS	Cross OBS504
5135	1654	OBS	Cross OBS503
5294	1810	MMO	Last good shot d/t whale sighting
5339	1833	OBS	Cross OBS502
5358	1843	source	start ramp up
5394	1903	source	First sp with full volume, resuming normal speed
5542	2016	OBS	Cross OBS501
5613	2057	EOL	End of Line - birds at 9m for turn

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	983	55° 05' 43.996"	160° 45' 17.803"
LGSP	5613	52° 35' 56.869"	159° 31' 33.802"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS05B.p19	MGL1110_MCS05B.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status:

Seq # 009

Line Name: MGL1110_MCS45 **Line Brg :** 69.6 °

NAVIGATION LINE LOGS

DATE: 2011-07-17 **JULIAN DAY:** 198

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : -300.0m	DEPTH SOL : 4676.4m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -67.9m	DEPTH EOL : 4645 m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.1 knots	FEATHER SOL: -1.7 °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.4 knots knots	FEATHER EOL: -2.6 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 6.8 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: W 10.7 knots		MAG DEC USED : 13.81°
WIND EOL: 8.6 knots knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 2 m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 2 m		

SP	TIME(UTC)	EVENT	COMMENTS
1031	2101	SOL	Streamer 2 at 9m, still turning to port
1089	2129	Birds	Streamer 2 depth set to target 12m, AB 16, 23, 24, 25 out of spec at 11m
1181	2214	Birds	AB 16,23,24,25 in spec at 10m. AB19 at 6m
1306	2315	birds	AB 19 in spec, 8m
1402	2359	MSP	Midnight Shot
1651	0152	MMO	Powered down for whale, speed slowed to ~2700lbs tension
1723	0230	Ramp	Begin Ramp up
1729	0235	EVENT	Earthquake recorded Shot 1729
1759	0250	Ramp	Ramp up complete
2792	1118	Source	New Source Volume 6560 in^3
3180	1427	EOL	End of Line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1031	53° 35' 53.975"	159° 30' 58.602"
LGSP	3180	53° 00' 05.059"	157° 38' 16.018"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS45.p190	MGL1110_MCS45.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: LINE COMPLETE

Seq # 010

Line Name: MGL1110_MCS04 **Line Brg :** 341.9 °

NAVIGATION LINE LOGS

DATE: 2011-07-18 **JULIAN DAY:** 199

Lamont-Doherty Earth Observatory
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CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 700.0m
DC EOL : 139.4m
SMG SOL: 3.8 knots
SMG EOL: 4.7 knots

WEATHER
WIND SOL: W 13.5 knots
WIND EOL: NE 11.0 knots
SEAS SOL: 2
SEAS EOL: 1m

DEPTH SOL : 4655.0m
DEPTH EOL : 100.2m
FEATHER SOL: 56 °
FEATHER EOL: -2.4 °
MAX FEATHER: -22.4 °

NAVIGATION SYSTEM USED: C-Nav3050 - Primary
NAVIGATION SYSTEM USED: SeaPath 200
NAVIGATION SYSTEM USED: Pos MV v3
GRAVITY METER: BMG-II: used, SN210
MAGNETOMETER: GeoMetrics: used
MAG DEC USED : 13.81°

00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °
06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler
18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy

SP	TIME(UTC)	EVENT	COMMENTS
857	1733	SOL	Start line early - no shotlog for this entry available
867-868	1743	noise	no guns fired for noise record
993-1007	1842	Main	Locked up - missing these shots on shotlog and Spectra 1 DLN has not recording error.
1073-1108	1919-1935	DLN	Flagged not logging - Spectra 3 is logging
1677	2359	Midnight	Last sp of day
2798-2801	0843-0845	spectra	missed sp's on 'main' display
3110	1127	feather	big push to port d/t current
3398-3399	1406	Main	missed sp's on 'main' display
	1425	maggie	Power off to retrieve
3444	1430	source	shut down strings 3 & 4 to retrieve Pam new volume now 3300cu in.
3444	1430	Pam	Start untangling pam from gun string
	1530	Pam	On board
3589	1545	source	New volume not 6600 cu ins.
	1558	maggie	Start maggie in
	1605	maggie	maggie secured.
3896	1829	spectra	stopped issuing closures
	1831	Lead-in 4	let out 15m
3915	1836	spectra	issuing closures after restarting of 'ncn' '-E ncc'
4568	2359	Midnight	Last sp of day
4854	0209	maggie	Maggie deployed
4875	0219	pam	deployed
5688	0837	Strm1	stopped acquisittion
5751-5754	0904-0906	spectra	missed sp's on 'main' display
5983	1043	turn	start stbd turn
5989	1045	maggie	Power off and start retrieval
5989	1045	noise	guns off for noise record
5990	1046	noise	guns off for noise record
5996	1048	EOL	end of line - last full volume shot point
	1050	source	S4G03 firing mitigation gun - 40cu in.
	1051	maggie	on board
	1059	Pam	On board

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	857	52° 55' 00.233"	157° 37' 56.694"
LGSP	5996	55° 38' 54.970"	159° 13' 16.646"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS04.p190	MGL1110_MCS04.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line Complete

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Seq # 011

Line Name: MGL1110_MCS34 **NAVIGATION** **DATE:** 2011-07-20

Line Brg : 052.5 ° **LINE LOGS** **JULIAN DAY:** 201

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : -12.9m	DEPTH SOL : 99.9m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -355.0m	DEPTH EOL : 162.6m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.5 knots	FEATHER SOL: -5.3 °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 5.7 knots	FEATHER EOL: 3.1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: -6.0 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 13.1 knots		MAG DEC USED : 13.81°
WIND EOL: 5.7 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1 m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 1m		

SP	TIME(UTC)	EVENT	COMMENTS
1846	2343	SOL	Source volume = 4950 This line shot with 3 strings only
1884	2359	MSP	Midnight Shot Point
2302	0309	EOL	Source volume = 4950

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1846	55° 66' 31.231"	158° 16' 46.386"
LGSP	2302	56° 05' 52.002"	157° 55' 00.571"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS34.p190	MGL1110_MCS34.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq # 012

Line Name: MGL1110_MCS03T **Line Brg :** 338.5 °

NAVIGATION LINE LOGS

DATE: 2011-07-21 **JULIAN DAY:** 202

Lamont-Doherty Earth Observatory
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CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 1974.1m	DEPTH SOL : 116.5m	NAVIGATION SYSTEM USED:	C-Nav3050 - Primary
DC EOL : -311.1m	DEPTH EOL : 156.0m	NAVIGATION SYSTEM USED:	SeaPath 200
SMG SOL: 4.3 knots	FEATHER SOL: -31.7 °	NAVIGATION SYSTEM USED:	Pos MV v3
SMG EOL: 3.9 knots	FEATHER EOL: 11.7 °	GRAVITY METER:	BMG-II: used, SN210
WEATHER	MAX FEATHER: 11.7 °	MAGNETOMETER:	GeoMetrics: used
WIND SOL: 17. knots		MAG DEC USED :	13.81°
WIND EOL: 8.9 knots			
SEAS SOL: 1m			
SEAS EOL: 1m			

00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °
06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler
18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy

SP	TIME(UTC)	EVENT	COMMENTS
1089	0340	SOL	SOL
1095	0343	speed	Slowing down to let vessel cross the bow
1106	0350	speed	Resume normal operations speed
1379	0614	birds	Started turn to next line MGL1110_MCS03, streamer 2birds brought to 9m
1395	0623	EOL	EOL line ended due to turn noise

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1089	56° 07' 55.701"	157° 56' 18.839"
LGSP	1395	56° 17' 22.053"	158° 05' 12.226"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 MGL1110_MCS03T.p19 **P2** MGL1110_MCS03T.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq # 013

Line Name:	**MGL1110_MCS03**	**NAVIGATION**	**DATE: 2011-07-21**
Line Brg :	**155 °**	**LINE LOGS**	**JULIAN DAY: 202**

Lamont-Doherty Earth Observatory
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CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 53.0m	**DEPTH SOL : 229.2m**	**NAVIGATION SYSTEM USED: C-Nav3050 - Primary**
DC EOL : -15.6m	**DEPTH EOL : 4495.6m**	**NAVIGATION SYSTEM USED: SeaPath 200**
SMG SOL: 4.9 knots	**FEATHER SOL: 106.1 °**	**NAVIGATION SYSTEM USED: Pos MV v3**
SMG EOL: 4.1 knots	**FEATHER EOL: 2.1 °**	**GRAVITY METER: BMG-II: used, SN210**
WEATHER	**MAX FEATHER: 6.6 °**	**MAGNETOMETER: GeoMetrics: used**
WIND SOL: 10.5 knots		**MAG DEC USED : 13.81°**
WIND EOL: 12 knots	**00:00 – 06:00 z =>** Martello, Becel, Deleschluse, Zietman °	**06:00 – 12:00 z =>** Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1m	**12:00 – 18:00 z =>** Eaton, Kuehn, Nedimovic, Hostetler	**18:00 – 24:00 z=>** Eaton, Farkas, Webb, Eddy
SEAS EOL: 4m		

SP	TIME(UTC)	EVENT	*COMMENTS*
1110	0712	SOL	SOL - Streamer 2 birds set to 9m while cable is still turning
1114	0726	Birds	Streamer 2 birds set to depth 12m
1220	0801	streamers	Turn out of both streamers <13degrees feather
1303	0839	OBS	Cross OBS321
	1026	pam	retrieve Pam d/t bump
	1040	pam	pam deployed
	1055	pam	pam on board - bumping on gun string umbilical
1557	1037	OBS	Cross obs320
1810	1236	OBS	Cross OBS319
2064	1442	OBS	Cross OBS318
2318	1641	OBS	Cross OBS317
	1710	PAM	Pam fully deployed
2572	1834	OBS	Cross OBS316
2825	2028	OBS	Cross OBS315
3079	2222	OBS	Cross OBS314
3279	2359	MSP	Midnight Shot point JD202
3333	0028	OBS	Cross OBS313
3533	0206	Spectra	NCC lockup - no nav data recorde, but shot data recorded
3553	0216	Spectra	NCC restarted - operations as normal
3587	0232	OBS	Cross OBS312
3840	0446	OBS	Cross OBS311
4032	0632	Syntrak	recording system crash
4046	0641	Syntrak	recording system operational
4094	0706	OBS	Cross OBS310
	0741	Knudson	lost bottom track
	0751	Knudson	tracking again
	0824	maggie	Retrieve to prevent damage in high swell/seas.
4348	0908	OBS	Cross OBS309
	1032	XBT	Raising flumes d/t weather to prevent damage. No more drops for now
4601	1108	OBS	Cross OBS308
1247	1311	Streamer1	stopped acquiring data
4866	1311	OBS	Cross OBS307
5223	1620	OBS	Cross OBS306
5430	1809	streamer1	Set to 12m
5420	1825	OBS	Cross OBS305
5607	1938	ncc lockup	sp 5608, restoreed 5624
5673	2030	OBS	Cross OBS304
5702	2045	SYNTRAK	Syntrak crash, restarted, broughtonline 5741
5927	2213	OBS	Cross OBS303
6150	2359	MSP	Midnight Shot Point JD203
6182	0014	OBS	Cross OBS02
6434	0210	OBS	Cross OBS01
6478	0232	EOL	EOL

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1110	56° 17' 48.019"	158° 00' 21.865"
LGSP	6478	53° 39' 12.531"	155° 29' 13.911"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS03.p190	MGL1110_MCS03.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	**Gun string #1**	good
Tailbuoy #2	intermittent	**Gun string #2**	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq # 014

Line Name: MGL1110_MCS23A **NAVIGATION** **DATE:** 2011-07-23

Line Brg : 236 ° **LINE LOGS** **JULIAN DAY:** 204

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 39.6m	DEPTH SOL : 4251.0m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 277.1m	DEPTH EOL : 4532.9m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.2 knots	FEATHER SOL: 25 °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 3.5 knots	FEATHER EOL: -8.9 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: -5.2 (on line) °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 17.7 knots		MAG DEC USED : 13.81°
WIND EOL: SW 22.1 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 3m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 2m		

SP	TIME(UTC)	EVENT	COMMENTS
1121	0339	Noise Rec.	SOL - 2 shots recorded with no gunfire for noise
1124	0340	source	Begin ramp up online
1164	0359	source	Ramp up complete, 6600 cu in
1359	0534	source	Power down for whale
1415	0605	source	Begin ramp up online
1450	0626	source	Ramp up complete, 6600 cu in
2249	1305	turn	Start turn
2252	1306	Noise Rec.	Noise record
2253	1307	Noise Rec.	Noise record
2265	1314	EOL	end of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1121	53° 35' 51.922"	153° 33' 55.744"
LGSP	2265	53° 14' 16.706"	156° 27' 24.006"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 **P2**
MGL1110_MCS23A.p19 MGL1110_MCS23A.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line Complete

Seq # 015

Line Name: MGL1110_MCS23B **Line Brg :** 0 °

NAVIGATION LINE LOGS

DATE: 2011-07-23 **JULIAN DAY:** 204

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 138.5m	DEPTH SOL : 4526.9m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 678.0m	DEPTH EOL : 4814.0m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.2 knots	FEATHER SOL: 92.2 (in turn) °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.1 knots	FEATHER EOL: 4.1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 4.5 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: SW 22.1 knots		MAG DEC USED : 13.81°
WIND EOL: W 14 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 2m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 3m		

SP	TIME(UTC)	EVENT	COMMENTS
1066	1345	SOL	Start of line with streamers in turn.
	1510	PAM	Retreive PAM for inpection
	1527	PAM	PAM deployed, online
1316	1547	MMO	Powered down for whale
	1724	Ramp Up	Ramp up started
	1725	Ramp Up	Ramp up aborted - mammel reentered exclusion zone
1541	1806	MMO	SHUT DOWN - rare mammel sighting
	1844	Source	Mitigation gun firing
1658	1912	Ramp Up	Ramp up started
1719	1942	Ramp Up	Ramp up complete
2029	2214	EOL	EOL - Telemetry errors intermittent, however data cable still online

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1066	53° 15' 12.647"	156° 29' 52.529"
LGSP	2029	53° 47' 39.471"	156° 29' 22.959"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS23B.p19	MGL1110_MCS23B.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	good
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq # 016

Line Name:	**MGL1110_MCS23C**	**NAVIGATION**	**DATE: 2011-07-23**
Line Brg :	**88.7 °**	**LINE LOGS**	**JULIAN DAY: 204**

Lamont-Doherty Earth Observatory
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CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 444.6m	**DEPTH SOL : 4810.1m**	**NAVIGATION SYSTEM USED: C-Nav3050 - Primary**
DC EOL : -230.0m	**DEPTH EOL : 4634.0m**	**NAVIGATION SYSTEM USED: SeaPath 200**
SMG SOL: 4.0 knots	**FEATHER SOL: 83.5 °**	**NAVIGATION SYSTEM USED: Pos MV v3**
SMG EOL: 4.1 knots	**FEATHER EOL: .3 °**	**GRAVITY METER: BMG-II: used, SN210**
WEATHER	**MAX FEATHER: 83.5 °**	**MAGNETOMETER: GeoMetrics: used**
WIND SOL: 14 w knots		**MAG DEC USED : 13.81°**
WIND EOL: 20 sw knots	**00:00 – 06:00 z =>** Martello, Becel, Deleschluse, Zietman °	**06:00 – 12:00 z =>** Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 3m	**12:00 – 18:00 z =>** Eaton, Kuehn, Nedimovic, Hostetler	**18:00 – 24:00 z=>** Eaton, Farkas, Webb, Eddy
SEAS EOL: 4m		

SP	TIME(UTC)	EVENT	*COMMENTS*
1015	2221	SOL	Start of line with streamers in turn.
1161	2329	STMR	Streamer 1 set to 13m, swell lifting cable to surface
1181	2339	STMR	Streamer 2 set to 14m, swell lifting tail to surface
1226	2359	MSP	Midnight Shot Point
1256	0013	STMR	Both streamers set to 12m, swell still very strong
1427	0132	Whale	shutdown for dead whale
1432	0135	source	return to full volum
1542	0221	STMR	Streamer 2 tail set to 14 meters, tail rising in swell
1710	0331	STMR	Streamer 1 back online at 12m
1762	0354	PAM	Pam on board due to rough weather
1984	0530	STMR	Streamer 2 tail set to 12m
2305	0755	G1R2	gps not working
3550	1838	G1R1	GPS intermittent
3830	2104	STMR	Pulling in streamer 1, gunstring 3 towline wrapped around streamer 1
3885	2133	STMR	Streamer Telemetry Useable
4184	2359	MSP	Midnight Shot Point
4280	0045	EOL	End of line, turning onto MGL1110MCS023D

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1015	53° 47' 46.246"	156° 29' 11.708"
LGSP	4280	56° 48' 08.058"	153° 23' 21.636"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 MGL1110_MCS23C.p19 **P2** MGL1110_MCS23C.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	**Gun string #1**	good/died
Tailbuoy #2	intermittent	**Gun string #2**	good/died
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN
SP spacing: 62.5m

line status: Line complete

Seq # 017

Line Name: MGL1110_MCS23D **Line Brg :** 0 °

NAVIGATION LINE LOGS

DATE: 2011-07-25 **JULIAN DAY:** 205

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 29.5m	DEPTH SOL : 4558.8m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -100.9m	DEPTH EOL : 0.0m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.0 knots	FEATHER SOL: in turn °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.6 knots	FEATHER EOL: -4.8 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: -4.8 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: W 17.3 knots		MAG DEC USED : 13.81°
WIND EOL: W 26.8 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 4m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 4m		

SP	TIME(UTC)	EVENT	COMMENTS
1534	0523	SOL	Start of Line - STMR @ 13m, STMR 2 @12m
	1110	turn	start of turn to next sequence
2249-2250	1111	noise files	stop guns for 2 shotpoints
2258	1115	EOL	End of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1534	54° 05' 57.385"	153° 21' 31.530"
LGSP	2258	54° 30' 20.954"	153° 21' 38.108"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 **P2**
MGL1110_MCS23D.p19 MGL1110_MCS23D.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	intermittent
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line Complete

	Line Name:	MGL1110_MCS02	**NAVIGATION**	DATE: 2011-07-26	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY	EARTH INSTITUTE
Seq # 018	Line Brg :	325.6 °	**LINE LOGS**	JULIAN DAY: 205	

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 42.8m	DEPTH SOL : 4254.5m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 17.6m	DEPTH EOL : 69.0m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.4 knots	FEATHER SOL: -36.0 °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.4 knots	FEATHER EOL: -3.3 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: -13.4 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: W 26.8 knots		MAG DEC USED : 13.81°
WIND EOL: calm knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 4.0m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 1m		

SP	TIME(UTC)	EVENT	*COMMENTS*
1018	1123	SOL	Start of line with streamers in turn
1018	1123	turn	end of turn
1145	1222	streamer1	now set to 9m depth
1474	1504	maggie	deployed and operational
1497	1516	pam	deployed and operational
2611	2359	MSP	Midnight Shot point
2275	0500	MMO	Power down for seal
2309	0516	SOURCE	Ramp up started
3371	0542	SOURCE	Ramp up complete
4606	1509	Dogleg	Change of course made good to 329.1 degrees
4926	1723	MMO	Power down for whale to 40cu in.
	1725	speed	reduce tension to 2700lbs
	1800	turn	Start turn to stbd to pick up missed data
5005	1800	EOL	End of line
			Last good sp 4925

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1018	54° 30' 56.449"	153° 22' 03.786"
LGSP	4925	56° 18' 48.899"	155° 34' 29.124"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS02.p190	MGL1110_MCS02.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	good	Gun string #1	none	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	good	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Incomplete

Seq # 019

Line Name: MGL1110_MCS02R **Line Brg :** 329.1 °

NAVIGATION LINE LOGS

DATE: 2011-07-26 **JULIAN DAY:** 207

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 639.8m	DEPTH SOL : 49.7m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -18.7m	DEPTH EOL : 101.1m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.1 knots	FEATHER SOL: 123.5 In turn °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 3.9 knots	FEATHER EOL: -3.7 in turn °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: -8.1 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 15 knots		MAG DEC USED : 13.81°
WIND EOL: NW 5.5 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 5	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: <1m		

SP	TIME(UTC)	EVENT	COMMENTS
4765	2205	SOL	Start of Line
5000	2359	MSP	Midnight shot point
5427	0312	Source	Power down for whale
5492	0347	DGPS	Seapath offline..... Reboot
5511	0357	DGPS	Seapath online
5526	0404	DGPS	Cnav 3050 offline, no satellites in view
5553	0418	Source	Ramp up complete..... Full volume
5601	0442	DGPS	Cnav 3050 online
5791	0613	Source	Power down for whale
5810	0622	Source	Back to full power
6364-6366	1044	Streamers	noise records
	1047	Turn	Start of Turn
6385	1055	EOL	End of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	4756	56° 14' 06.280"	155° 28' 42.712"
LGSP	6385	57° 00' 52.343"	156° 20' 44.330"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 P2
MGL1110_MCS02R.p19 MGL1110_MCS02R.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	good	Gun string #1	none	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	good	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq # 020

Line Name: MGL1110_MCS12M **Line Brg :** 43.8 °

NAVIGATION LINE LOGS

DATE: 2011-07-27 **JULIAN DAY:** 208

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : -18.7m	DEPTH SOL : 67.1m	NAVIGATION SYSTEM USED:	C-Nav3050 - Primary
DC EOL : 165.2m	DEPTH EOL : 280.3m	NAVIGATION SYSTEM USED:	SeaPath 200
SMG SOL: 4.1 knots	FEATHER SOL: 56.8 in turn °	NAVIGATION SYSTEM USED:	Pos MV v3
SMG EOL: 4.3 knots	FEATHER EOL: 0.1 °	GRAVITY METER:	BMG-II: used, SN210
WEATHER	MAX FEATHER: 7.8 °	MAGNETOMETER:	GeoMetrics: used
WIND SOL: N 2.1 knots		MAG DEC USED :	13.81°
WIND EOL: N13.7 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z =>	Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: <1m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=>	Eaton, Farkas, Webb, Eddy
SEAS EOL: 1m			

SP	Time(UTC)	EVENT	COMMENTS
1036	1116	SOL	Sol line with streamers in turn
1122-1123	1200	streamers	noise records
1423	1420	MMO	power down LGSP at full volume
	1444	ramp-up	Start ramp up
1508	1501	volume	first full volume sp after ramp up
1607	1550	MMO	power down LGSP at full volume
	1602	ramp-up	Start ramp up
	1620	Knutson	Recording enalbled, First time since July 20, 2011
1663	1622	volume	first full volume sp after ramp up
1961-1962	1844	streamers	noise records
1972	1849	EOL	end of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1036	57° 02' 06.427"	156° 19' 54.911"
LGSP	1972	57° 24' 36.224"	155° 39' 30.470"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS12M.p19	MGL1110_MCS12M.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq # 021

Line Name:	MGL1110_MCS01A	**NAVIGATION**	DATE: 2011-07-27
Line Brg :	144.0 °	**LINE LOGS**	JULIAN DAY: 208

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 151.9m	DEPTH SOL : 294.0m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 0.1m	DEPTH EOL : 1.4m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.1 knots	FEATHER SOL: turning on line °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.3 knots	FEATHER EOL: 3.1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 3.1 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: W 5.5 knots		MAG DEC USED : 13.81°
WIND EOL: NW 6 knots knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 1m		

SP	Time(UTC)	EVENT	COMMENTS
1034	1909	SOL	Sol line with streamers in turn
1581	2331	MMO	Power down for whale
1613	2348	EOL	Decision made to end line for turn, then aborted too late - LGSP 1581

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1034	57° 24' 33.121"	155° 36' 54.808"
LGSP	1581	57° 09' 39.588"	155° 16' 53.769"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS01A.p19	MGL1110_MCS01A.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line incomplete

Seq # 022	Line Name:	MGL1110_MCS01B	NAVIGATION	DATE: 2011-07-27	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY	EARTH INSTITUTE
	Line Brg :	144.0 °	LINE LOGS	JULIAN DAY: 208	

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 0.1m	DEPTH SOL : 245.0m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 608.6m	DEPTH EOL : 33.9m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 3.23 knots	FEATHER SOL: turning on line °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.0 knots	FEATHER EOL: truning off line °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 5.1 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 6 NW knots		MAG DEC USED : 13.81°
WIND EOL: 11.2NW knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 1m		

SP	Time(UTC)	EVENT	COMMENTS
1617	2349	SOL	Start of line - ramping up
1659	0013	SOURCE	Ramp up complete, FGSP 1659
2388	0538	EOL	End of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1659	57° 07' 31.376"	155° 14' 05.180"
LGSP	2388	56° 47' 20.071"	154° 48' 31.114"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS01B.p19	MGL1110_MCS01B.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks: G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Complete

	Line Name:	MGL1110_MCS12B	**NAVIGATION**	DATE: 2011-07-28	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY	EARTH INSTITUTE
Seq # 023	Line Brg :	213 °	**LINE LOGS**	JULIAN DAY: 209	

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : -6.9m	DEPTH SOL : 33.5m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -9.0m	DEPTH EOL : 33.4m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 3.8 knots	FEATHER SOL: turning on line °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.9 knots	FEATHER EOL: -10.3 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: -10.3 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 12.4N knots		MAG DEC USED : 13.81°
WIND EOL: 13.3W knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 1m		

SP	Time(UTC)	EVENT	COMMENTS
1047	0557	SOL	Start of Line
	0734	maggie/pam	Power down to retrieve d/t shallow depths
	0744	maggie	on board
	0752	pam	on board
1790	1148	EOL	Early end of line d/t currents - cannot maintain streamer depth and shoot 22sec records.

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1047	56° 46' 12.621"	154° 49' 33.137"
LGSP	1790	56° 25' 19.068"	155° 14' 31.463"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS12B.p19	MGL1110_MCS12B.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	good	Gun string #1	none	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	good	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line incomplete

	Line Name:	MGL1110_MCS12C	**NAVIGATION**	DATE: 2011-07-28	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY	EARTH INSTITUTE
Seq # 024	Line Brg :	145.7 °	**LINE LOGS**	JULIAN DAY: 209	

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : -146.2m	DEPTH SOL : 44.8m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -1985.1m	DEPTH EOL : 101.0m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 5.4 knots	FEATHER SOL: -53.8 streamer in turn °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 3.8 knots	FEATHER EOL: .1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER:	MAGNETOMETER: GeoMetrics: used
WIND SOL: 6.5W knots		MAG DEC USED : 13.81°
WIND EOL: 2 SW kt knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 1m		

SP	Time(UTC)	EVENT	*COMMENTS*
1051	1431	SOL	Start line with streamers in a turn and now recording 18sec records for this line
	1432	Turn	vessel on line
	1443	offset	move port to 250m
	1544	offset	move port to 500m
	1636	offset	move port to 750m
	1723	offset	move port to 900m
	1731	pam/maggie	will deploy equipment in water
	1741	pam/maggie	Pam deployed
1407	1748	maggie	maggie deployed and recording
	1816	offset	move port to 1100m
1659	2025	EOL	EOL

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1051	56° 11' 45.107"	155° 27' 17.952"
LGSP	1659	55° 55' 14.955"	155° 05' 12.092"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 MGL1110_MCS12C.p19 **P2** MGL1110_MCS12C.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	good	Gun string #1	none	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	good	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status:

Seq # 025

Line Name: MGL1110_MCS12D **Line Brg :**

NAVIGATION LINE LOGS

DATE: 2011-07-28 **JULIAN DAY:** 209

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : -171.1m	DEPTH SOL : 114.2m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 2.2m	DEPTH EOL : 90.7m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.3 knots	FEATHER SOL: -84.0 °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 3.6 knots	FEATHER EOL: -1.8 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 4.2 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 8 knots		MAG DEC USED : 13.81°
WIND EOL: 10.1 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 1		

SP	Time(UTC)	EVENT	COMMENTS
1065	2043	SOL	SOL
1436	2243	MMO	Power down for whale
1464	2359	MSP	Midnight Shot point
1492	0015	SOURCE	Ramp up started
1527	0038	SOURCE	Ramp up complete, 6600 cu vol
1651	0144	SOURCE	Power down for whales
	0305	SOURCE	Bringing in strings 1 and 2 for maintenance while powered down
1926	0415	SOURCE	Being ramp up, only strings 3 and 4, also start deploying strings 1 and 2
1944	0423	SOURCE	Ramp up complete, 3300 CU vol
1969	0435	SOURCE	String 1 ENABLED, 4950 cu vol
2004	0452	SOURCE	String 2 ENABLED, 6600 cu vol
2032	0506	SOURCE	Power down for whale
2091	0536	SOURCE	Begin ramp up
2118	0554	EOL	EOL - Still ramping up

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1065	55° 55' 30.935"	155° 03' 15.889"
LGSP	2031	56° 17' 08.977"	154° 19' 46.500"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 P2
MGL1110_MCS12D.p19 MGL1110_MCS12D.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: LINE COMPLETE

	Line Name:	MGL1110_MCS01C	**NAVIGATION**	DATE: 2011-07-29	Lamont-Doherty Earth Observatory COLUMBIA UNIVERSITY	EARTH INSTITUTE
Seq # 026	Line Brg :	147 °	**LINE LOGS**	JULIAN DAY: 210	

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 782.2m	DEPTH SOL : 90.7m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 1050.0m	DEPTH EOL : 5385.0m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 3.6 knots	FEATHER SOL: 93.3 °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.5 knots	FEATHER EOL: -1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 10.0 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 10.1 NW knots		MAG DEC USED : 13.81°
WIND EOL: 18 N knots knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 2		

SP	Time(UTC)	EVENT	COMMENTS
1018	0557	SOL	SOL - Continuing previous line ramp up at SOL, 4080 CU in
1025	0602	SOURCE	Ramp up complete - 6600 CU in
2907	2041	STREAMER	Only recording on STREAMER 2 due to syntrak issues
2951	2104	EOL	EOL

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1018	56° 18' 47.467"	154° 15' 04.611"
LGSP	2951	55° 23' 50.328"	153° 12' 59.818"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS01C.p19	MGL1110_MCS01C.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: LINE COMPLETE

Seq # 027

Line Name: MGL1110_MCS12E **Line Brg :** 235 °

NAVIGATION LINE LOGS

DATE: 2011-07-29 **JULIAN DAY:** 210

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : -20.2m	DEPTH SOL : 5398.0m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 60.4m	DEPTH EOL : 5504.3m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.8 knots	FEATHER SOL: turn stating line °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.5 knots	FEATHER EOL: 2.1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 4.2 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 17 NW knots		MAG DEC USED : 13.81°
WIND EOL: 15.8SW knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 2m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 2m		

SP	Time(UTC)	EVENT	COMMENTS
1062	2123	SOL	SOL - Syntrak troubleshooting, only 2 strings shooting, 3300 cu vol
1225	2235	SYNTRAK	Syntrak resolved, recording normally
1254	2247	SYNTRAK	Syntrak not recording - troubleshooting
1291	2305	SYNTRAK	Syntrak resolved, recording normally
1292	2305	SOURCE	String 3 in position, new vol 4950 cu in
1321		SYNTRAK	Syntrak not recording - troubleshooting
1338	2325	SOURCE	String 4 in position, new vol 6600 cu in
1360	2335	STREAMER	Syntrak restored, ONLY RECORDING STREAMER 2
1413	2359	MSP	Midnight shot point
1674	0150	MMO	Power down for Dols Porpoise
1692	0206	SOURCE	Begin ramp up
1727	0221	SOURCE	Ramp up complete volume 6420
2177	0548	SOURCE	Power down for whale lgsp 2176
2217	0606	SOURCE	Start ramp-up
2253	0623	SOURCE	Ramp up complete volume 6420
2838-2843	1048-1051	Spectra	NCC lock up, bad shots
3093-3094	1243	Noise	record two noise records
	1244	turn	start turn for next line
3095	1244	EOL	End of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1061	55° 22' 48.799"	153° 14' 56.848"
LGSP	3095	54° 42' 55.764"	154° 51' 54.717"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS12E.p19	MGL1110_MCS12E.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks: G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq # 028	Line Name:	MGL1110_MCS12F	NAVIGATION	DATE: 2011-07-30	Lamont-Doherty Earth Observatory, Columbia University Earth Institute
	Line Brg :	327.9 °	LINE LOGS	JULIAN DAY: 211	

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 14.9m	DEPTH SOL : 5519.0m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -164.9m	DEPTH EOL : 193.9m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.8 knots	FEATHER SOL: turning on line °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.1 knots	FEATHER EOL: -7.9 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: -9.2 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 14.5W knots		MAG DEC USED : 13.81°
WIND EOL: 14.5 knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 2m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 2m		

SP	Time(UTC)	EVENT	COMMENTS
1040	1305	Sol	Streamer in turn - spectra not issuing sp's Using strm2 only
1050	1310	FGSP	First good shot point
1127	1348	bad shot	displayed red - bad shot
1181-1182	1410	streamer	Noise record
1366	1529	MMO	power down for whale
1369	1530	source	monitor gun on line
1451	1606	source	start ramp up
1487	1621	source	ramp up complete
2359	0000	J-day 212	Midnight shotpoint
2883	0249	EOL	end of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1050	54° 43' 23.654"	154° 55' 31.488"
LGSP	2883	55° 35' 26.413"	155° 53' 32.859"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1	P2
MGL1110_MCS12F.p19	MGL1110_MCS12F.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	good	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	good
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status:

Seq # 029

Line Name: MGL1110_MCS07 **Line Brg :** 244.1 °

NAVIGATION LINE LOGS

DATE: 2011-07-31 **JULIAN DAY:** 212

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : -12.9m	DEPTH SOL : 188.9m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : na	DEPTH EOL : 120.74m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 5.5 knots	FEATHER SOL: turning on line °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.5 knots knots	FEATHER EOL: na °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 14.5W knots		MAG DEC USED : 13.81°
WIND EOL: 21.3W knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 2m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 2m		

SP	Time(UTC)	EVENT	COMMENTS
1136	0342	Sol	Streamer still in turn, Syntrak at 18 second record d/t speed over ground
1685	0714	MMO	Power down for whale
1783	0753	source	Start ramp up
1802	0802	Recording	Stop recording 18sec record length
1805	0803	Recording	Start 22sec record length
1853	0824	source	Ramp up complete - volume 6420
2017	0939	source	remove S2G3 from solution and S3G5 put in - new volume 6560 cu in.
2250	1136	OBS	Crossing obs314, cpa 4535.3m at 334.5deg to position from vessel
	1234	PCO2	Stopped working
2599	1424	Maggie	Acquiring data now
2962-2999	1658-1714	Spectra	NLN did not log these shots - at sp2990 an estimate position was needed, vessel drifting off line shot/time erratic.
3168	1824	Recording	Stop recording 22sec record length
3173	1826	Recording	Start 18sec record length
3384	1949	MMO	Power down for whale
3495	2033	Source	Ramp up started
3567	2010	Source	Ramp up complete - volume 6420
4197	0205	Recording	Stop recording 18sec record length
4201	0207	Recording	Start recording 22sec record length
4882	0709	Dogleg	course change from 244.8 to 258.0 degrees creating 'turn' noise at streamer head.
5244-5289	0908-0929	Spectra	Poor Satellite geometry - various estimate positions
6089	1556	OBS	Passing OBS516 location - range 3715m at 347.4degrees to location
	1635-1650	pam	retrieved and deployed after inspection
6268-6269	1710-1711	Noise Record	recording noise records
6291	1723	EOL	

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1136	55° 34' 03.331"	156° 01' 15.447"
LGSP	6291	54° 27' 16.237"	160° 37' 42.597"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 MGL1110_MCS07.p190 P2 MGL1110_MCS07.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	good	Gun string #1	none	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	intermittent	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line Complete

Seq# 030

Line Name: MGL1110_MCS56 **NAVIGATION**

Line Brg : 244.1 ° **LINE LOGS**

DATE: 2011-08-01 Lamont-Doherty Earth Observatory Columbia University | Earth Institute

JULIAN DAY: 213

CLIENT: NSF/Shillington **SURVEY: Gulf of Alaska, Northeast Pacific** **MGL1110**

DC SOL : 75.6m
DC EOL : na
SMG SOL: 4.3 knots
SMG EOL: 4.0 knots
WEATHER
WIND SOL: 16.6W knots
WIND EOL: 3.2W knots knots
SEAS SOL: 2m
SEAS EOL: 1m

DEPTH SOL : 128.3m
DEPTH EOL :
FEATHER SOL: 0 °
FEATHER EOL: -24.8 °
MAX FEATHER: -24.8 °

NAVIGATION SYSTEM USED: C-Nav3050 - Primary
NAVIGATION SYSTEM USED: SeaPath 200
NAVIGATION SYSTEM USED: Pos MV v3
GRAVITY METER: BMG-II: used, SN210
MAGNETOMETER: GeoMetrics: used
MAG DEC USED : 13.81°

00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °
06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler
18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy

SP	Time(UTC)	EVENT	COMMENTS
1029	1737	SOL	Start of line
1357	2001	Spectra	Spectra issue - No shots being recorded
1362	2005	Spectra	Recording restored
1376	2007	Spectra	Spectra restarted - Correcting data logging issue
1377	2008	Spectra	Switch to internal cycle - no data being recorded still
NA	2018	Spectra	Switch to external cycle - no data being recorded still
1405	2019	Spectra	Spectra online - Shooting/Recording as normal
1929	2359	MSP	Midnight Shot point
1945	0006	TURN	Slight course adjustment to 000 to extend line
2100	0113	MMO	Powered down for whale
2132	0131	EOL	End of line - ended line while powered down

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1029	54° 27' 49.256"	160° 39' 15.648"
LGSP	2132	55° 04' 19.945"	160° 54' 36.112"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 MGL1110_MCS56.p190 P2 MGL1110_MCS56.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	none	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	none
		Gun string #3	good
		Gun string #4	good

Acoustic remarks: G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status:

Seq# 031

Line Name: MGL1110_MCS06
Line Brg : 180 °

NAVIGATION LINE LOGS

DATE: 2011-08-02
JULIAN DAY: 214

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : 1.3m	DEPTH SOL : 71.8m	NAVIGATION SYSTEM USED:	C-Nav3050 - Primary
DC EOL : -130.5m	DEPTH EOL : 4620.0m	NAVIGATION SYSTEM USED:	SeaPath 200
SMG SOL: 4.7 knots	FEATHER SOL: 1.2 °	NAVIGATION SYSTEM USED:	Pos MV v3
SMG EOL: 4.6 knots	FEATHER EOL: -2.8 °	GRAVITY METER:	BMG-II: used, SN210
WEATHER	MAX FEATHER: 8.9 °	MAGNETOMETER:	GeoMetrics: used
WIND SOL: 15 knots		MAG DEC USED :	13.81°
WIND EOL: 16.9NW knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z =>	Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 1m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=>	Eaton, Farkas, Webb, Eddy
SEAS EOL: 3m			

SP	Time(UTC)	EVENT	COMMENTS
1386	0502	SOL	Start of line
2500	1305	XBT	Start launching xbt's
2583	1340	XBT	Finish with xbt's
5467-5468	1058	Spectra	Missed shots d/t ncc lock up
	2359	midnight	date change
	1141	maggie/pam	Picking up both prior to turn d/t 3-4m following sea
5616-5617	1206-1207	Noise records	streamer noise recoreded
5629	1211	EOL	end of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1386	54° 54' 02.991"	161° 00' 00.074"
LGSP	5629	52° 31' 05.517"	160° 59' 53.078"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1: MGL1110_MCS06.p190
P2: MGL1110_MCS06.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	none	Gun string #1	none	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	none	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq# 032

Line Name: MGL1110_MCS67A
Line Brg : 089 °

NAVIGATION LINE LOGS

DATE: 2011-08-03
JULIAN DAY: 215

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : -11.6m	DEPTH SOL : 4589.3m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : -201.2m	DEPTH EOL : 4589.1m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 5.0 knots	FEATHER SOL: -70.4 turn °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.2 knots	FEATHER EOL: 4.1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 4.5 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 10.1NW knots		MAG DEC USED : 13.81°
WIND EOL: 13.5NW knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 3m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 3m		

SP	Time(UTC)	EVENT	COMMENTS
1055	1239	SOL	Start line in turn
1501	1366-1367	noise	noise records recorded
1395	1515	EOL	end of line

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1055	52° 30' 00.628"	160° 57' 01.086"
LGSP	1395	52° 30' 04.051"	160° 38' 26.499"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 MGL1110_MCS57A.p19 **P2** MGL1110_MCS67A.p294

Posnet locations & remarks: good - none - intermittent

Tailbuoy #1	none	Gun string #1	none
Tailbuoy #2	intermittent	Gun string #2	none
		Gun string #3	good
		Gun string #4	good

Acoustic remarks:
G1T4 - not operational

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete

Seq# 033

Line Name: MGL1110_MCS67B
Line Brg : 089 °

NAVIGATION LINE LOGS

DATE: 2011-08-03
JULIAN DAY: 215

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

CLIENT: NSF/Shillington | **SURVEY: Gulf of Alaska, Northeast Pacific** | **MGL1110**

DC SOL : -141.1m	DEPTH SOL : 4578.0m	NAVIGATION SYSTEM USED: C-Nav3050 - Primary
DC EOL : 7.1m	DEPTH EOL : 4811.3m	NAVIGATION SYSTEM USED: SeaPath 200
SMG SOL: 4.3 knots	FEATHER SOL: -77.1 turn °	NAVIGATION SYSTEM USED: Pos MV v3
SMG EOL: 4.7 knots	FEATHER EOL: -6.1 °	GRAVITY METER: BMG-II: used, SN210
WEATHER	MAX FEATHER: 7.0 °	MAGNETOMETER: GeoMetrics: used
WIND SOL: 17.3NW knots		MAG DEC USED : 13.81°
WIND EOL: 16.9NW knots	00:00 – 06:00 z => Martello, Becel, Deleschluse, Zietman °	06:00 – 12:00 z => Martello, Li, Shillington, Perls, Wessbecher
SEAS SOL: 3m	12:00 – 18:00 z => Eaton, Kuehn, Nedimovic, Hostetler	18:00 – 24:00 z=> Eaton, Farkas, Webb, Eddy
SEAS EOL: 3m		

SP	Time(UTC)	EVENT	COMMENTS
1028	1530	SOL	
1984	22:56	EOL	

VESSEL POSITION

		Latitude (N)	Longitude (W)
FGSP	1028	52° 37' 07.482"	160° 37' 12.207"
LGSP	1984	53° 03' 07.518"	160° 36' 59.701"

NAVIGATION OFFSET APPLIED (m)

NRP - Stern	29.5
NRP - COS	282
NRP – CNG	465
COS – CNG	183
NRP – CMP	368

Note: LMN line parameter set to great circle line

P1 MGL1110_MCS57B.p19
P2 MGL1110_MCS67B.p294

Posnet locations & remarks: good - none - intermittent				Acoustic remarks:
Tailbuoy #1	none	Gun string #1	none	G1T4 - not operational
Tailbuoy #2	intermittent	Gun string #2	none	
		Gun string #3	good	
		Gun string #4	good	

MGL1110.LMN 2D_2x8.SCN(001) mgl2010.RTCN

SP spacing: 62.5m

line status: Line complete