

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 4 September 2002	RIG: OME Rig#2	AM GEOREPORT #: 41
SPUD: 8-June 2002	DAY FROM SPUD: 89	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 4	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1306m	PREVIOUS: 1275m	24HR PROGRESS: 31m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer MW: 8.4 VIS: 32 PV/YP: nc WL: nc pH: 8.0
Cl: nc Gel: nc Ca: nc PHPA: trace

CURRENT OPERATION: Cut Core from 1306mbc.

OPERATIONS LAST 24 HRS: Cut Core # 241 (1271.9 – 1277.m), Core# 242 (1277.8 – 1280.5m), Core# 243 (1280.5 – 1283.2m), Core# 244 (1283.2 – 1287.3m), Core# 245 (1287.3 – 1293.8m), Core# 246 (1293.8 – 1297.3 m), Core# 247 (1297.3 – 1300.7m), Core# 248 (1300.7 – in progress).

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs September 3 to 0.600 hrs September 4, 2002:

1275 – 1306m: Greenish Gray Schist

SCHIST: 100%, greenish gray to medium gray, hard, massive to sub-fissile, common wavy to chevron banding, abundant quartz veins, common mica and talc (?), trace pyrite and calcite, abundant contorted laminations grades to greenish gray, soapy textured, trace slickensides, green schist facies noted from 1275m.

GAS DATA: Hunterston #1

Background Gas: 0 to 1 units from 1275m to 1306m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: nil

Maximum Gas Peak While Drilling : 19 units @ 1302.5m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
1302	14	0.1	0	0	-	-	-
1302.5	13	0.1	0	0	-	-	-

1304.5	19	0.1	0	0	-	-	-
1305	14	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 4 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 1232m /-m
 BIT HRS: 43.4+ WOB: 0.5 -2 RPM: - TRQ: - GPM: 18 SPM: - PP: 300-400
 Lag Time while coring/drilling : 21 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1271.9 - 1277.8	40	30	33	0 - 1
1277.8 - 1280.5	42	35	39	0 - 1
1280.5 - 1283.2	41	35	40	0 - 1
1283.2 - 1287.3	48	31	38	0
1287.3 - 1293.8	46	28	35	0
1293.8 - 1297.3	36	26	32	0
1297.3 - 1300.7	35	32	33	0
1300.7 - 1306	36	27	31	0

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSIS DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Pre Cambrian Sediment/Oonah Fm	-	1037.5(?)	
Green Schist Facies	-	1275(?)	-

REMARKS/OTHERS

- Drilled through green schist facies from 1275m to 1306m. Background is very low (0 to 1 unit) and gas peak is rare while drilling through this metamorphic rock.

Prepared by: Eric Espiritu and David Geary
 Senior Wellsite Geologists, OME GROUP LTD

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GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 3 September 2002	RIG: OME Rig#2	AM GEOREPORT #: 40
SPUD: 8-June 2002	DAY FROM SPUD: 88	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 4	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1275m	PREVIOUS: 1247m	24HR PROGRESS: 28m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer **MW:** 8.4 **VIS:** 32 **PV/YP:** nc **WL:** nc **pH:** 8.0
Cl: nc **Gel:** nc **Ca:** nc **PHPA:** trace

CURRENT OPERATION: Cut Core from 1275mbc.

OPERATIONS LAST 24 HRS: Cut Core # 233 (1244.4 – 1250.9m), Core# 234 (1250.9 – 1254.8m), Core# 235 (1254.8 – 1256.6m), Core# 236 (1256.6 – 1260.3m), Core# 237 (1260.3 – 1264.5m), Core# 238 (1264.5 – 1265.6m), Core# (1265.6 – 1269.7m), Core# 240 (1269.7 – 1271.9m), Core# 241 (1271.9 – in progress)

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs September 2 to 0.600 hrs September 3, 2002:

1247 – 1275m: Greenish Gray to Dark Gray Mudstone Grading to Claystone With Abundant Wavy to Chevron Banding.

MUDSTONE: 100%, dark gray to greenish gray, hard, massive to sub-fissile, common quartz veins, trace pyrite and calcite, abundant contorted laminations and chevron/wavy bands, silty in parts, grades to greenish gray, soapy textured Claystone, trace slickensides and traces of metamorphic texture.

GAS DATA: Hunterston #1

Background Gas: 0 to 1 units from 1247m to 1275m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 16 units ABG @ 1260.5m, 14 units @ 1264.5m, 12 units @ 1267.9m, 15 units @ 1271.9m

Maximum Gas Peak While Drilling : 16 units @ 1270m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
1258	3	0	0	0	-	-	-
1260.5	9	0.1	0	0	-	-	-

1266.2	13	0.1	0	0	-	-	-
1267.5	15	0.1	0	0	-	-	-
1270	16	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 4 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 1232m /-m
 BIT HRS: 25.4 WOB: 0.5 - 2 RPM: - TRQ: - GPM: 18 SPM: - PP: 300-400
 Lag Time while coring/drilling : 21 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1244.4 - 1250.9	40	27	34	0 - 1
1250.9 - 1254.8	48	28	31	0 - 1
1254.8 - 1256.6	40	27	36	0 - 1
1256.6 - 1260.3	45	30	35	0 - 1
1260.3 - 1264.5	36	30	33	0 - 1
1264.5 - 1265.6	32	28	30	0 - 1
1265.6 - 1269.7	42	27	33	0 - 1
1269.7 - 1271.9	40	27	35	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Pre Cambrian Sediment/Oonah Fm	-	1037.5(?)	

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined Mudstone grading to Claystone with abundant parallel lamination, chevron to wavy banding and traces slickensides/sheared matrix (low-grade metamorphic?). Silica and calcite veins preferentially intruding into microlaminations and banding.

Prepared by: Eric Espiritu and David Geary
 Senior Wellsite Geologists, OME GROUP LTD

DRILLING DATA: Hunterston #1

BIT #: 4 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /1232m
 BIT HRS: 8.4 WOB: 0.5 - 2 RPM: - TRQ: - GPM: 18 SPM: - PP: 300-400
 Lag Time while coring/drilling : 21 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1232.4 - 1239.2	60	29	37	0 - 1
1239.2 - 1244.4	40	20	31	0 - 1
1244.4 - 1250.9	40	27	34	0 - 1
1250.9 - 1254.8	48	28	36	0 - 1
1254.8 - 1256.6	42	45	43	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Pre Cambrian Sediment/Oonah Fm	-	1037.5(?)	

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined Mudstone grading to Claystone with abundant parallel laminations/wavy banding. Silica and calcite veins preferentially intruding into microlaminations and banding. From 1232m, background gas is generally very low (0 to 1 unit) and gas peak is rare. Trip gas of 16 units noted while circulating bottoms up after bit trip @1232m.
- Ground becoming less fractured, with longer core runs attained, with core tube jammed less frequently.

Prepared by: Eric Espiritu and David Geary
 Senior Wellsite Geologists, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 1 September 2002	RIG: OME Rig#2	AM GEOREPORT #: 38
SPUD: 8-June 2002	DAY FROM SPUD: 86	LAST CSG: 3.78"@977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 4	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1232m	PREVIOUS: 1216m	24HR PROGRESS: 16m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer **MW:** 8.4 **VIS:** 33 **PV/YP:** nc **WL:** nc **pH:** 8.5
Cl: nc **Gel:** nc **Ca:** nc **PHPA:** trace

CURRENT OPERATION: Continue to RIH new bit #4 to bottom.

OPERATIONS LAST 24 HRS: Cut Core # 224 (1214.1 – 1220.4m), Core# 225 (1220.4 – 1222.6m), Core# 226 (1222.6 – 1227.3m), Core# 227 (1227.3 – 1228.2m), Core# 228 (1228.2 – 1232m). POOH to change bit @1232m. RIH with new bit #4.

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 31 to 06:00 hrs September 1, 2002:

1216 – 1232m: Massive Siltstone Grading to Mudstone With Minor Claystone and Streaks of Sandstone.

SILTSTONE: 80-100%, medium gray to dark gray, occasionally light gray, hard, massive to sub-fissile, common silicified matrix, traces parallel to wavy bands and micro-laminations, abundant silica and common calcite veins preferentially intruding vertical micro-laminations and fractures, non-calcareous matrix, locally grading to Mudstone, traces leach/dissolution vugs, trace pyrite and calcite in matrix.

MUDSTONE: trace-10%, medium to dark gray, hard, massive, sub-fissile in parts, banded/contorted laminations, common quartz vein and silicified matrix, trace pyrite and calcite in parts, generally as laminations to thin beds and bands.

SANDSTONE: trace-5%, light gray, very fine grained, sub-rounded, moderately sorted, strong siliceous and calcareous cement, hard, very poor porosity to tight, silicified matrix, occur as fine stringer, locally grading to Siltstone, rare clasts, no show.

CLAYSTONE: trace-rare, greenish gray, soft to firm, hydrophilic, slightly dispersive with soft, soapy texture when wet, generally as thin beds and laminations.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1216m to 1232m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 5 units ABG @ 1221m

Maximum Gas Peak While Drilling : 14 units @ 1205.1m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
1215	9	0.1	0	0	-	-	-
1221	5	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /1232m

BIT HRS: 122 WOB: 0.5 - 2 RPM: - TRQ: - GPM: 18 SPM: - PP: 300-400

Lag Time while coring/drilling : 19 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1214 - 1220.4	55	36	40	0 - 2
1220.4 - 1222.6	38	33	34	0 - 1
1222.6 - 1227.3	39	28	33	0 - 1
1227.3 - 1228.2	48	28	36	0 - 1
1228.2 - 1232	59	39	45	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Pre Cambrian Sediment/Oonah Fm	-	1037.5(?)	-

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined medium gray Siltstone grading to Mudstone and Claystone with abundant parallel laminations/wavy banding and rare streaks of Sandstone. Silica and calcite veins preferentially intruding into microlaminations and banding. From 1216m, background gas is generally very low (0 to 1 unit) and gas peak is rare.
- Ground becoming less fractured, with longer core runs attained, with core tube jammed less frequently.

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GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 31 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 37
SPUD: 8-June 2002	DAY FROM SPUD: 85	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1216m	PREVIOUS: 1189.1m	24HR PROGRESS: 26.9m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer **MW:** 8.4 **VIS:** 33 **PV/YP:** nc **WL:** nc **pH:** 8.5
Cl: nc **Gel:** nc **Ca:** nc **PHPA:** trace

CURRENT OPERATION: Continue to drill/cut core from 1216mbc.

OPERATIONS LAST 24 HRS: Cut Core # 216 (1189.1 – 1190.1m), Core# 217 (1190.1 – 1192.4m), Core# 218 (1192.4 – 1194.7m), Core# 219 (1194.7 – 1198.2m), Core# 220 (1198.2 – 1200m), Core# 221 (1200 – 1203.7m), Core# 222 (1203.7 – 1210.2m), Core# 223 (1210.2 – 1214.1m), Core# 224 (1214.1 – in progress).

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 30 to 06:00 hrs August 31, 2002:

1189 – 1216m: Massive Siltstone Grading to Mudstone With Minor Claystone and Streaks of Sandstone.

SILTSTONE: 80-100%, medium gray to dark gray, occasionally light gray, hard, massive to sub-fissile, common silicified matrix, traces parallel to wavy bands and micro-laminations, abundant silica and common calcite veins preferentially intruding vertical micro-laminations and fractures, non-calcareous matrix, locally grading to Mudstone, traces leach/dissolution vugs, trace pyrite and calcite in matrix.

MUDSTONE: trace-10%, medium to dark gray, hard, massive, sub-fissile in parts, common quartz vein and silicified matrix, trace pyrite and calcite in parts, generally as laminations to thin beds and bands.

SANDSTONE: trace-5%, light gray, very fine grained, sub-rounded, moderately sorted, strong siliceous and calcareous cement, hard, very poor porosity to tight, silicified matrix, occur as fine stringer, locally grading to Siltstone, rare clasts, no show.

CLAYSTONE: trace-rare, greenish gray, soft to firm, hydrophilic, slightly dispersive with soft, soapy texture when wet, generally as thin beds and laminations.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1189.1m to 1216m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 14 units ABG @ 1198.2m
 Maximum Gas Peak While Drilling : 14 units @ 1205.1m
GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
1194	6	0.1	0	0	-	-	-
1194.5	8	0.1	0	0	-	-	-
1198.5	12	0.1	0	0	-	-	-
1203.8	8	0.1	0	0	-	-	-
1205.1	14	0.1	0	0	-	-	-
1212	10	0.1	0	0	-	-	-
1212.8	8	0.1	0	0	-	-	-
1213	13	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 111.3 WOB: 0.5 -5 RPM: - TRQ: - GPM: 20 SPM: - PP: 300-400
 Lag Time while coring/drilling : 19 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1189.1 - 1192.4	40	28	33	0 - 2
1192.4 - 1194.7	35	28	32	0 - 1
1194.7 - 1198.2	50	32	35	0 - 2
1198.2 - 1200	38	20	33	0 - 2
1200 - 1203.7	20	42	33	0 - 2
1203.7 - 1210.2	19	45	30	0 - 2
1210.2 - 1214.1	20	37	29	0 - 2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Doterite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Gordon Limestone	-		

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined medium gray Siltstone grading to Claystone with abundant parallel laminations/wavy banding and streaks of Sandstone. Silica and calcite veins preferentially intruding into microlaminations and banding. From 1189.1m, background gas is generally very low (0 to 2 unit) and gas peak is rare
- Ground becoming less fractured, with longer core runs attained, with core tube jammed less frequently.

**Prepared by: Eric Espiritu and David Geary
Senior Wellsite Geologists, OME GROUP LTD**

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 30 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 36
SPUD: 8-June 2002	DAY FROM SPUD: 84	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1189.1m	PREVIOUS: 1168m	24HR PROGRESS: 21.1m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer MW: 8.4 VIS: 37 PV/YP: nc WL: nc pH: 8.5
 Cl: nc Gcl: nc Ca: nc PHPA: trace

CURRENT OPERATION: Continue to drill/cut core from 1189.1mbc.

OPERATIONS LAST 24 HRS: Cut Core # 207 (1165.7 – 1169.4m), Core# 208 (1169.4 – 1172.6m), Core# 209 (1172.6 – 1173.6m), Core# 210 (1173.6 – 1173.9m), Core# 211 (1173.9 – 1177.2m), Core# 212 (1177.2 – 1179.8m), Core# 213 (1179.8 – 1183.4m), Core# 214 (1183.4 – 1187m), Core# 215 (1187 – 1189.1).

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 29 to 06:00 hrs August 30, 2002:

1168 – 1189m: Massive Mudstone Grading to Shale With Minor Siltstone and Traces of Claystone.
 MUDSTONE: 80-100%, grayish black to very dark gray, occasionally medium gray, hard, massive to sub-fissile, common silicified matrix, traces parallel to wavy bands and micro-laminations, abundant silica and common calcite veins preferentially intruding vertical micro-laminations and fractures, non-calcareous matrix, locally grading to black Shale, traces leach/dissolution vugs, trace pyrite

SILTSTONE: trace-10%, medium to dark gray, hard, massive, sub-fissile in parts, gritty, common quartz vein and silicified matrix, trace pyrite and calcite in parts, generally as fine laminations to thin beds and bands, grades to Mudstone.

CLAYSTONE: trace-rare, greenish gray, soft to firm, hydrophilic, slightly dispersive with soft, soapy texture when wet, generally as thin beds and laminations.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1168m to 1189.1m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 10 units ABG @ 1173.9m

Maximum Gas Peak While Drilling: 24 units @ 1184m

GAS PEAKS:

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 30 AUG 2002

For action: RT

For information:

File: ome

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
1173.5	6	0.1	0	0	-	-	-
1178	10	0.1	0	0	-	-	-
1179.5	14	0.1	0	0	-	-	-
1181	9	0.1	0	0	-	-	-
1184	24	0.1	0	0	-	-	-
1188.3	12	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m / -m
 BIT HRS: 96.6 WOB: 0.5-5 RPM: - TRQ: - GPM: 20 SPM: - PP: 300-400
 Lag Time while coring/drilling: 19 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1169.4 - 1172.6	40	27	30	0-2
1172.6 - 1173.9	48	29	35	0-1
1173.9 - 1177.2	26	29	30	0-1
1177.2 - 1179.8	29	48	35	0-1
1179.8 - 1183.4	22	35	30	0-1
1183.4 - 1187	20	48	38	3-6
1187 - 1189.1	28	39	33	0-1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSIS DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-	-	-
Dolerite Sill	-	336	-
Risdon Sandstone/Cascade Group	-	784.5	-
Faulkner Group	-	848.6	-
Bundella Fm	-	870.1	-
Woody Island Siltstone/Quamby Fm	-	980 (?)	-
Stokers Tillite	-	-	-
Gordon Limestone	-	-	-

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined grayish black Mudstone grading to Shale with abundant parallel laminations/wavy banding and traces of Claystone. Silica and calcite veins preferentially intruding into microlaminations and banding. From 1168m, background gas is generally very low (0 to 2 unit) and gas peak is rare. Increase background gas (3-6 units) while drilling from 1183 to 1187m.

- Cores are naturally fractured and matrix is extensively silicified/quartz veined with common fractured rubbles jamming the core tube frequently.

**Prepared by: Eric Espiritu and David Geary
Senior Wellsite Geologists, OME GROUP LTD**

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 29 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 35
SPUD: 8-June 2002	DAY FROM SPUD: 83	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1168m	PREVIOUS: 1143m	24HR PROGRESS: 25m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer MW: 8.4 VIS: 34 PV/YP: nc WL: nc pH: 8.4
Cl: nc Gel: nc Ca: nc PHPA: trace

CURRENT OPERATION: Continue to drill/cut core from 1168mbc.

OPERATIONS LAST 24 HRS: Cut Core # 196 (1143 – 1144m), Core# 197 (1144 – 1146.4m), Core# 198 (1146.4 – 1147.5m), Core# 199 (1147.5 – 1148.8m), Core# 200 (1148.8 – 1153.5m), Core# 201 (1153.5 – 1156.5m), Core# 202 (1156.5 – 1157.5m), Core# 203 (1157.5 – 1160.6m), Core# 204 (1160.6 – 1163.3m), Core# 205 (1163.3 – 1164.5m), Core# 206 (1164.5 – 1165.7m), Core# 207 (1165.7 – in progress)

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 28 to 06:00 hrs August 29, 2002:

1122.1 – 1168m: Massive Mudstone Grading to Shale.

MUDSTONE: 100%, grayish black to very dark gray, hard, massive to sub-fissile, common silicified matrix, traces parallel to wavy/contorted bands and micro-laminations, abundant silica and common calcite veins preferentially intruding vertical micro-laminations and fractures, non-calcareous matrix, locally grading to black Shale, traces leach/dissolution vugs, trace pyrite.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1143m to 1168m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 9 units ABG @ 1146.4m; 8u ABG @ 1165m

Maximum Gas Peak While Drilling: 9 units @ 1148.5m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	Cl-ppm	C2-ppm	C3-ppm
1144.5	7	0.1	0	0	-	-	-
1148.5	9	0.1	0	0	-	-	-

1160.6	8	0.1	0	0	-	-	-
1165	8	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 79+ WOB: 0.5 -5 RPM: - TRQ: - GPM: 20 SPM: - PP: 300-400
 Lag Time while coring/drilling : 19 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1143 - 1146.4	29	40	30	0 - 2
1146.4 - 1153.5	20	36	28	0 - 1
1153.5 - 1156.5	20	36	30	0 - 1
1156.5 - 1160.6	37	28	32	0 - 1
1160.6 - 1163.3	48	32	38	0 - 2
1163.3 - 1165.7	39	31	34	0 - 2
1165.7 - 1168	39	32	35	0 - 2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-	-	-
Dolerite Sill	-	336	-
Risdon Sandstone/Cascade Group	-	784.5	-
Faulkner Group	-	848.6	-
Bundella Fm	-	870.1	-
Woody Island Siltstone/Quamby Fm	-	980 (?)	-
Stokers Tillite	-	-	-
Gordon Limestone	-	-	-

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined grayish black Mudstone grading to Shale with abundant parallel laminations/wavy banding. Silica and calcite veins preferentially intruding into microlaminations and banding. From 1150m, background gas is generally very low (0 to 1 unit) and gas peak is rare.
- Cores are naturally fractured and matrix is extensively silicified/quartz veined with common fractured rubbles jamming the core tube frequently.

Prepared by: Eric Espiritu and David Geary
 Senior Wellsite Geologists, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 28 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 34
SPUD: 8-June 2002	DAY FROM SPUD: 82	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1143m	PREVIOUS: 1122.1m	24HR PROGRESS: 20.9m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer MW: 8.4 VIS: 36 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: trace

CURRENT OPERATION: Continue to drill/cut core from 1143mbc.

OPERATIONS LAST 24 HRS: Cut Core # 183 (1122.1 – 1123m), Core# 184 (1123 – 1126.2m), Core# 185 (1126.2 – 1127.2m), Core# 186 (1127.2 – 1129.6m), Core# 187 (1129.6 – 1130.9m), Core# 188 (1130.9 – 1132.2m), Core# 189 (1132.2 – 1133.2m), Core# 190 (1133.2 – 1135.3m), Core# 191 (1135.3 – 1138m), Core# 192 (1138 – 1139.3m), Core# 193 (1139.3 – 1141.1m), Core# 194 (1141.1 – 1142.1m), Core# 195 (1142.1 – 1143m)

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 27 to 06:00 hrs August 28, 2002:

1122.1 – 1143m: Massive Mudstone Grading to Shale.

MUDSTONE: 100%, grayish black to very dark gray, hard, massive to sub-fissile, common silicified matrix, traces parallel to wavy/contorted bands, silica and calcite veins preferentially intruding laminations and fractures. non-calcareous matrix, locally grading to Shale, traces leach/dissolution vugs.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1122m to 1143m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 11 units ABG @ 1123m, 25 units ABG @ 1116.8m, 6 units ABG @ 1126.2m, 8 units ABG @ 1135.5

Maximum Gas Peak While Drilling: 10 units @ 1128m and 1132m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	Cl-ppm	C2-ppm	C3-ppm
1122	6	0.1	0	0	-	-	-
1127.5	8	0.1	0	0	-	-	-

1128	10	0.1	0	0	-	-	-
1132	10	0.1	0	0	-	-	-
1141.5	10	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT # 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 79 WOB: 0.5 -5 RPM: - TRQ: - GPM: 20 SPM: - PP: 100-200
 Lag Time while coring/drilling : 19 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1122.1 - 1123	28	35	31	0 - 2
1123 - 1126	26	31	28	1 - 2
1126 - 1129.6	24	32	30	1 - 2
1129.6 - 1132.2	26	32	29	0 - 2
1132.2 - 1138	20	40	29	0 - 1
1138 - 1143	20	40	32	0 - 2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-	-	-
Dolerite Sill	-	336	-
Risdon Sandstone/Cascade Group	-	784.5	-
Faulkner Group	-	848.6	-
Bundella Fm	-	870.1	-
Woody Island Siltstone/Quamby Fm	-	980 (?)	-
Stokers Tillite	-	-	-
Gordon Limestone	-	-	-

REMARKS/OTIERS

- Continue to drill into a massive, silicified/quartz veined grayish black Mudstone grading to Shale with common parallel laminations/banding and traces of calcite micro-veins. Traces of gas peaks to 10 units recorded while drilling fractured/silicified formation
- Cores are naturally fractured and matrix is extensively silicified/quartz veined with common fractured rubbles jamming the core tube frequently.

Prepared by: Eric Espiritu and David Geary
 Senior Wellsite Geologists, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 26 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 32
SPUD: 8-June 2002	DAY FROM SPUD: 80	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1100m	PREVIOUS: 1080m	24HR PROGRESS: 20m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer MW: 8.4 VIS: 60 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: trace

CURRENT OPERATION: Continue to drill/cut core from 1100m.

OPERATIONS LAST 24 HRS: Cut Core # 159 (1079 – 1082.4m), Core# 160 (1082.4 – 1084m), Core# 161 (1084 – 1089m), Core# 162 (1089 – 1089.8m), Core# 163 (1089.8 – 1092.9m), Core# 164 (1092.9 – 1094m), Core# 165 (1094 – 1094.2m), Core# 166 (1094.2 – 1094.5m), Core #167 (1094.5 – 1096m), Core #168 (1096 – 1097.6m), Core #169 (1097.6 – 1099.4m), Core #170 (1099.4 – in progress at 1100m)

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 25 to 06:00 hrs August 26, 2002:

1080 – 1011m: Massive Mudstone Grading to Siltstone and traces of Sandstone Laminations.

MUDSTONE: 80-100%, very dark gray to black, hard, massive to sub-fissile, silicified matrix in parts, trace to common quartz veins, trace pyrite, black carbonaceous (organic-rich?) matrix, common parallel microlaminations, locally grading to very dark gray Siltstone.

SANDSTONE: trace-rare, light to medium gray, very fine grained, strong siliceous cement, hard, poor intergranular porosity to tight, grades to Siltstone in parts, trace banded/micro-laminated, trace disseminated pyrite.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1080m to 1090m; 1-3 units from 1090m to 1100m

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 30 units ABG @ 1092.9m

Maximum Gas Peak While Drilling : 8 units @ 1093m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
1083	4	0	0	0	-	-	-
1090	5	0.1	0	0	-	-	-
1091	5	0.1	0	0	-	-	-
1093	8	0.1	0	0	-	-	-
1095	6	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 62.8 WOB: 0.5-5 RPM: - TRQ: - GPM: 20 SPM: - PP: 100-200
 Lag Time while coring/drilling : 19 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1077.9 - 1079	30	32	31	0 - 2
1079 - 1082.4	29	32	30	0 - 1
1082.4 - 1084	28	29	28.5	0 - 1
1084 - 1089	26	29	27	0 - 1
1089 - 1089.8	28	29	27	0 - 1
1089.8 - 1092.9	26	29	27	1 - 2
1092.9 - 1100	24	36	31	2 - 3

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Gordon Limestone	-		

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined grayish black mudstone/siltstone with thin interbeds of Claystone from 1080 to 10xxm. Background gas increased to 2 to 3 units from 1092.9m to 1100m.
- Cores are naturally fractured and matrix is extensively silicified/quartz veined with common fractured rubbles jamming the core tube frequently.

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 25 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 31
SPUD: 8-June 2002	DAY FROM SPUD: 79	LAST CSG: 3.78"@977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1080m	PREVIOUS: 1062.3m	24HR PROGRESS: 17.7m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer MW: 8.4 VIS: 45 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: trace

CURRENT OPERATION: Continue to cut core from 1080mbc.

OPERATIONS LAST 24 HRS: Cut Core # 146 (1062.3 – 1064m), Core# 147 (1064 – 1067.4m), Core# 148 (1067.4 – 1068.4m), Core# 149 (1068.4 – 1069.8m), Core# 150 (1069.8 – 1070.3m), Core# 151 (1070.3 – 1071.5m), Core# 152 (1071.5 – 1072.2m), Core# 153 (1072.2 – 1073.5m), Core# 154 (1073.5 – 1074.5m), Core# 155 (1074.5 – 1076.1m), Core 156 (1076.1 – 1076.8m), Core# 157 (1076.8 – 1077.9m), Core# 158 (1077.9 – 1079m), Core# 159 (1079 – in progress)

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 24 to 06:00 hrs August 25, 2002:

1063.3 – 1080m: Massive Mudstone With Minor Interbedded Siltstone, Sandstone and Rare Claystone.
MUDSTONE: 80-100%, very dark gray to black, hard, massive to sub-fissile, silicified matrix in parts, trace to common quartz veins, trace pyrite, black carbonaceous (organic-rich?) matrix locally grading to very dark gray Siltstone.

SANDSTONE: trace-rare, light to medium gray, very fine grained, strong siliceous cement, hard, poor intergranular porosity to tight, grades to Siltstone in parts, trace banded/laminated micro-laminations.

CLAYSTONE: trace to rare, greenish gray to yellowish gray, as above, hard, slightly dispersive, soapy feel when wet, rare quartz vein, trace disseminated pyrite.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1063 to 1080m

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 15 units ABG @ 1069.8m, 37 units ABG @ 1076.9m

Maximum Gas Peak While Drilling : 28 units @ 1069m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
1067	3	0	0	0	-	-	-
1069	28	0.1	0	0	-	-	-
1071	15	0.1	0	0	-	-	-
1072	20	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 52 WOB: 0.5 -5 RPM: - TRQ: - GPM: 20 SPM: - PP: 100-200
 Lag Time while coring/drilling : 18 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1062.3 – 1064	21	30	28	0 – 2
1064 – 1067.4	21	29	26	0 – 1
1067.4 – 1068.4	21	25	23	0 – 1
1068.4 – 1069.8	25	29	27	0 – 1
1069.8 – 1070.3	25	29	27	0 – 1
1070.3 – 1071.5	26	28	27	0 – 1
1071.5 – 1072.2	26	35	31	0 – 1
1072.2 – 1073.5	29	35	32	0 – 2
1073.5 – 1074.5	29	35	32	0 – 2
1074.5 – 1076.1	32	35	33	0 – 2
1076.1 – 1076.8	32	32	32	0 – 2
1076.8 – 1077.9	30	34	32	0 – 2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSIS DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined grayish black mudstone/siltstone with thin interbeds of Claystone from 1062.3 to 1080m. Cores are naturally fractured and matrix is extensively silicified/quartz veined with common fractured rubbles jamming the core tube.

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 24 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 30
SPUD: 8-June 2002	DAY FROM SPUD: 78	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1062.3m	PREVIOUS: 1038.1m	24HR PROGRESS: 24.2m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water-Polymer MW: 8.4 VIS: 40 PV/YP: nc WL: nc pH: 9.5
Cl: nc Gel: nc Ca: nc PHPA: trace

CURRENT OPERATION: Continue to cut core from 1062.3mbc

OPERATIONS LAST 24 HRS: Cut Core # 136 (1038.1 – 1039.6m), Core# 137 (1039.6 – 1043.5m), Core# 138 (1043.5 – 1044.5m), Core# 139 (1044.5 – 1046m), Core# 140 (1046 – 1047.1m), Core# 141 (1047.1 – 1048.5m), Core# 142 (1048.5 – 1052.1), Core# 143 (1052.1 – 1058), Core# 144 (1058 – 1059.2), Core# 145 (1059.2 – 1063.3)

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston #1

Geological progress from 06:00 hrs August 23 to 06:00 hrs August 24, 2002:

1038 – 1063.3m: Massive Mudstone With Minor Interbedded Siltstone, Sandstone and Rare Claystone.
MUDSTONE: 80-100%, very dark gray to black, hard, massive to sub-fissile, silicified matrix in parts, trace to common quartz veins, trace pyrite, black carbonaceous (organic-rich?) matrix locally grading to very dark gray Siltstone.

SANDSTONE: trace-10%, light to medium gray, very fine grained, strong siliceous cement, hard, poor intergranular porosity to tight, grades to Siltstone in parts, trace banded/laminated and contorted micro-laminations.

CLAYSTONE: trace to rare, greenish gray to yellowish gray, as above, hard, slightly dispersive, soapy feel when wet, rare quartz vein, trace disseminated pyrite.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 1038.1 to 1062.3m

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 10 units ABG @ 1046m

Maximum Gas Peak While Drilling: 25 units @ 1056m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
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1042	3	0	0	0	-	-	-
1042.5	13	0.1	0	0	-	-	-
1046	6	0	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 47.1 WOB: 0.5 -5 RPM: - TRQ: - GPM: 20 SPM: - PP: 100-200
 Lag Time while coring/drilling: 17 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
1038.1 – 1039.6	15	33	28	0 – 2
1039.6 – 1043.5	21	35	30	0 – 1
1043.5 – 1046	21	23	22	0 – 1
1046 – 1047.1	29	31	30	1 - 2
1047.1 – 1052.1	27	32	30	0 - 4
1052.1 – 1058	15	25	20	2 - 4
1058 – 1063.3	27	32	30	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-	980 (?)	
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		--

REMARKS/OTHERS

- Loss of circulation at 1037.5m Cavern of hole thickness approximately 0.6m encountered at 1037.5 – 1038.1m. At 06:00 hrs regained circulation and continue to core.
- Continue to drill into a massive, silicified/quartz veined grayish black mudstone/siltstone with thin interbeds of Claystone. Cores are naturally fractured and matrix is extensively silicified/quartz veined with common fractured rubbles jamming the core tube.

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OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 22 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 28
SPUD: 8-June 2002	DAY FROM SPUD: 76	LAST CSG: 3.78" @ 977.2m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.78"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 1016.4m	PREVIOUS: 986m	24HR PROGRESS: 30.4m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water MW: 8.35 VIS: 35 PV/YP: nc WL: nc pH: 12.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Continue to cut core from 1016.4 mbc

OPERATIONS LAST 24 HRS: Cut Core # 115 (984.7 – 985.3m), Core# 116 (985.3 – 991.7m), Core# 117 (991.7 – 998m). Service rig pump; continued to cut Core# 118 (998 – 1002m), Core# 119 (1002 – 1005.9m), Core# 120 (1005.9 – 1008m), Core # 121 (1008 – 1010m), Core# 122 (1010 – 1014.7m), Core# 123 (1014.7 – 1016.4m), pulled and pumped tube, commence Core # 124.

FORWARD OPERATIONS: Continue to drill/core ahead to TD.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 21 to 06:00 hrs August 22, 2002:

986 – 10166m: Massive Siltstone With Abundant Quartz Vein and thin interbeds of Sandstone and Shale. SILTSTONE: 80-100%, dark gray to medium gray, occasionally grayish black, hard, massive to sub-fissile, carbonaceous in parts, rare fossils, abundant Quartz vein, rare calcite veins, common micro-fractures, rare dissolution vugs, locally banded/laminated with Shale and very fine Sand, no show.

SANDSTONE: trace-10%, light gray, dominantly very fine to fine-grained, generally as thin beds and laminations, common contorted to parallel banding, siliceous-argillaceous cement, poor visible porosity-tight, no show.

SHALE/MUDSTONE: trace-rare, very dark gray to black, hard, sub-fissile, carbonaceous, silicified matrix, trace pyrite in parts especially on microfractures and dissolution vugs, common sub-conchoidal fractures, generally as thin bands/laminations.

GAS DATA: Hunterston #1

Background Gas: 0 to 3 units from 986 to 1016m.

Trip Gas: - units @ -m

Connection Gas: 0 units ABG

Swab Gas: 22 units ABG @ 998m

Maximum Gas Peak While Drilling : -35 units @ 1003.6m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
989	10	0	0	0	-	-	-
991	21	0.1	0	0	-	-	-
1003	35	0.1	0	0	-	-	-
1011	30	0.1	0	0	-	-	-
1013	25	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 33 WOB: 0.5 -5 RPM: - TRQ: - GPM: 25 SPM: - PP: 360-380
 Lag Time while coring/drilling : 16 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
977.2 - 986	30	70	42	0 - 1
986 - 1016	17	30	23	0 - 3

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-	-	-
Dolerite Sill	-	336	-
Risdon Sandstone/Cascade Group	-	784.5	-
Faulkner Group	-	848.6	-
Bundella Fm	-	870.1	-
Woody Island Siltstone/Quamby Fm	-	980 (?)	-
Stokers Tillite	-	-	-
Pre- Cambrian Metasediments	-	-	-

REMARKS/OTHERS

- Continue to drill into a massive, silicified/quartz veined siltstone of Woody Island Fm. Top Woody Island Siltstone picked at 980m.
- Background gas while coring is low (0 to 3 units) with occasional spiky peaks on fractured/vuggy zones. Traces CO detected while drilling NQ section (1-5 ppm) starting from 980m.

Prepared by: Eric Espiritu and David Geary
 Senior Wellsite Geologists, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 20 August 2002	RIG: OME Rig#2	AM GEOREPORT #: 27
SPUD: 8-June 2002	DAY FROM SPUD: 75	LAST CSG: 4.5" @ 977m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 2.75"	BIT #: 3	BIT TYPE: Longyear NQ
06:00 HR DEPTH: 986m	PREVIOUS: 977.2m	24HR PROGRESS: 8.8m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 9.3 ppg EMW @ 977.7m

MUD TYPE: Water MW: 8.35 VIS: 35 PV/YP: nc WL: nc pH: 12.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Continue to cut core from 986 mbc

OPERATIONS LAST 24 HRS: Picked up drill rods and RIH to bottom. Some tight spots encountered from 100m to 50m off bottom which needed reaming out. Drill out approx 7 meters influx cement. Drill through HQ bit and barrel assembly. Cut Core # 113 (977.2 - 977.7m) Perform Leak off Test @ 977.7 m, obtained EMW of 9.3 ppg. Cut Core# 114 (977.7 - 984.7m). Cut Core # 115 (984.7 - 990.7m), at 6AM total depth is at 986m.

FORWARD OPERATIONS: Continue to drill/core ahead.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs August 20 to 06:00 hrs August 21, 2002:

905 - 986m: Conglomeratic Siltstone with thin interbeds of Sandstone.

SILTSTONE: 90-100%, dark gray to medium gray, occasionally grayish black, hard, carbonaceous, trace fossils in parts, rare calcite veins, abundant conglomeratic matrix with clasts of Quartz, Sandstone, Mudstone and Granite, locally grading to very fine grained sandstone. Increasing frequency towards base of formation.

SANDSTONE: trace-10%, as above, fine-grained thin beds and laminations, locally conglomeratic, siliceous-argillaceous cement, poor visible porosity-tight, no show.

SHALE/MUDSTONE: trace-rare, very dark gray to black, hard, sub-fissile, carbonaceous, silicified/pyritite in parts especially on microfractures/dissolution vugs.

GAS DATA: Hunterston #1

Background Gas: 0 to 1 units from 700m to 986m.

Trip Gas: - units @ -m

Connection Gas: - units ABG

Swab Gas: - 0 units ABG @ 983m

Maximum Gas Peak While Drilling: - 33 units @ 987m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
987	33	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 3 Type: Longyear Size: 2.75" NQ Nozzles: - Depth In/Out: 977.2m /-m
 BIT HRS: 12 WOB: - RPM: - TRQ: - GPM: - SPM: - PP: -
 Lag Time while coring/drilling: 15 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
977.2 - 986	30	70	42	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSIS DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognose (meters)
Ferntree Fm	-	-	
Dolerite Sill	-	336	
Riadon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island	-		
Siltstone/Quamby Fm	-		
Stokers Tillite	-		
Pre-Cambrian Metasediments	-		

REMARKS/OTHERS

- Continue to drill out cement; landing joint, shoe and in new formation (still in conglomeratic siltstone).

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m
BIT HRS: 46+ WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 350 -400
 Lag Time while coring/drilling @ 932.5m: 23 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
964.7 – 971.2	35	18	30	0 - 1
971.2 – 977.2	35	15	31	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Continue to drill in conglomeratic siltstone and sandstone of Bundella Fm. Some sharp and spiky gas peaks recorded (up to 30 units) while drilling the conglomeratic beds.
- Polymictic clasts of Quarts, Shale, Siltstone, Granite were noted in the matrix.
- Bundella Formation has increasing interbeds of siltstone and minor carbonaceous siltstone towards base
- Water loss zones at 950.6 and 958.1 requiring LCM. Cavernous conglomeratic siltstone, with leached zones.
- Casing point reached at 977.2mbc

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 28 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 25
SPUD: 8-June 2002	DAY FROM SPUD: 51	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2 (Re-run)	BIT TYPE: Longyear
06:00 HR DEPTH: 971.2m	PREVIOUS: 950.5m	24HR PROGRESS: 21.2m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 11 ppq EMW @ 794.5m

MUD TYPE: PHPA-Pac R **MW:** 8.4 **VIS:** 40 **PV/YP:** nc **WL:** nc **pH:** 8.0
Cl: nc **Gel:** nc **Ca:** nc **PHPA:** nc

CURRENT OPERATION: Continue to drill/cut cores from 971.2m.

OPERATIONS LAST 24 HRS: Continued to drill core ahead from 950.5m. Core #107 (950.5 – 956.5m) lost water return at 952.1m. Pull tube and run LCM. Circulation regained. Cored ahead cutting Core #108 (952.15 – 956.5m), Core #109 (956.5 – 958.1m) Returns lost at 958.1m. Run LCM, condition hole and core ahead. Cut Core # 110 (958.1 – 964.7m), Core #111 (964.7 – 971.2m). Presently cutting Core # 112 (971.2 – 977.2m).

FORWARD OPERATIONS: Continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 27 to 06:00 hrs 28 July , 2002:

901.5 - 905m Conglomeratic Sandstone Interbedded With Carbonaceous Siltstone and Mudstone/Shale Laminations.

SANDSTONE: 50-60%, generally as above, commonly as laminations, silty in parts, trace mica, silica and calcite cement, hard, poor porosity to tight, no show.

SILTSTONE: 40-50%, dark gray to medium black, hard, massive to sub-fissile in parts, carbonaceous, locally silty, non-calcareous, trace pyritic laminations and as fine nodules and disseminations, common conglomeratic clasts, locally grading to Mudstone, common calcite veins, rare fractures/fault with gougy and slickensided clay materials.

MUDSTONE/SHALE: trace-5%, dark gray to black, generally as carbonaceous laminations, hard, sub-fissile, calcareous to fossiliferous in parts.

905 – 971.2m: Conglomeratic Siltstone with thin interbeds of Sandstone.

SILTSTONE: 90-100%, dark gray to medium gray, occasionally grayish black, hard, carbonaceous, trace fossils in parts, rare calcite veins, abundant conglomeratic matrix with clasts of Quartz, Sandstone, Mudstone and Granite, locally grading to very fine grained sandstone. Increasing frequency towards base of formation.

SANDSTONE: trace-10%, as above, fine-grained thin beds and laminations, locally conglomeratic, siliceous-argillaceous cement, poor visible porosity-tight, no show.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 unit from 914.5m to 971.2m.
 Trip Gas: - units @ -m Connection Gas: - units ABG
 Swab Gas: 30 units ABG @964.7m
 Maximum Gas Peak While Drilling : 30 units @ 958.1m (BG 0 – 1 units)

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
958.1	30	0.1	0	0	-	-	-
964	8	0.1	0	0	-	-	-
965	14	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m
 BIT HRS: 46+ WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 350 -400
 Lag Time while coring/drilling @ 932.5m: 23 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
950.5 – 952.15	30	26	28	0 - 1
952.15 – 956.5	27	10	21	0 - 1
956.5 – 958.1	21	17	19	0 - 1
958.1 – 964.7	32	20	28	0 - 1
964.7 – 971.2	35	18	30	0-1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Continue to drill in conglomeratic siltstone and sandstone of Bundella Fm. Some sharp and spiky gas peaks recorded (up to 30 units) while drilling the conglomeratic beds.
- Polymictic clasts of Quarts, Shale, Siltstone, Granite were noted in the matrix.
- Bundella Formation has increasing interbeds of siltstone and minor carbonaceous siltstone towards base
- Water loss zones at 950.6 and 958.1 requiring LCM. Cavernous conglomeratic siltstone, with leached zones.

Prepared by: Eric Espiritu
Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 27 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 25
SPUD: 8-June 2002	DAY FROM SPUD: 50	LAST CSG: 4.5"@336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2 (Re-run)	BIT TYPE: Longyear
06:00 HR DEPTH: 950.5m	PREVIOUS: 914.5m	24HR PROGRESS: 36m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 11 ppg EMW @ 794.5m

MUD TYPE: PHPA-Pac R **MW:** 8.4 **VIS:** 40 **PV/YP:** nc **WL:** nc **pH:** 8.0
Cl: nc **Gel:** nc **Ca:** nc **PHPA:** nc

CURRENT OPERATION: Continue to drill/cut cores from 950.5m.

OPERATIONS LAST 24 HRS: Continued to drill core ahead from 950.5m. Cut Core #101 ((914.5 – 920.5m), Core # 102 (920.5 – 926.5m), Core # 103 (926.5 – 932.5), Core # 104 (932.5 – 938.5m), Core # 105 (938.5 – 944.5m), Core #106 (944.5 – 950.5m) Presently cutting Core # 107 (950.5 – 956.5).

FORWARD OPERATIONS: Continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 26 to 06:00 hrs 27 July , 2002:

901.5 - 905m Conglomeratic Sandstone Interbedded With Carbonaceous Siltstone and Mudstone/Shale Laminations.

SANDSTONE: 50-60%, generally as above, commonly as laminations, silty in parts, trace mica, silica and calcite cement, hard, poor porosity to tight, no show.

SILTSTONE: 40-50%, dark gray to medium black, hard, massive to sub-fissile in parts, carbonaceous, locally silty, non-calcareous, trace pyritic laminations and as fine nodules and disseminations, common conglomeratic clasts, locally grading to Mudstone, common calcite veins, rare fractures/fault with gougy and slickensided clay materials.

MUDSTONE/SHALE: trace-5%, dark gray to black, generally as carbonaceous laminations, hard, sub-fissile, calcareous to fossiliferous in parts.

905 – 950.5m: Conglomeratic Siltstone with thin interbeds of Sandstone.

SILTSTONE: 90-100%, dark gray to medium gray, occasionally grayish black, hard, carbonaceous, trace fossils in parts, rare calcite veins, abundant conglomeratic matrix with clasts of Quartz, Sandstone, Mudstone and Granite, locally grading to very fine grained sandstone.

SANDSTONE: trace-10%, as above, fine-grained thin beds and laminations, locally conglomeratic, siliceous-argillaceous cement, poor visible porosity-tight, no show.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 unit from 914.5m to 950.5m.
 Trip Gas: - units @ -m Connection Gas: - units ABG
 Swab Gas: 16 units ABG @909.5m
 Maximum Gas Peak While Drilling : 30 units @ 946.2m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
922	28	0.1	0	0	-	-	-
923.5	27	0.1	0	0	-	-	-
924	7	0	0	0	-	-	-
930	5	0	0	0	-	-	-
945.7	15	0.1	0	0	-	-	-
946.2	30	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m +/-m
 BIT HRS: 46+ WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 350 -400
 Lag Time while coring/drilling @ 932.5m: 23 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
944.5 - 950.5	30	22	26	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Continue to drill in conglomeratic siltstone and sandstone of Bundella Fm. Some sharp and spiky gas peaks recorded (up to 30 units) while drilling the conglomeratic beds.
- Polymictic clasts of Quarts, Shale, Siltstone, Granite were noted in the matrix.
- Very broken and fractured ground from 950.6m with numerous loss of water returns. Some pressure being able to be built on pressure gauge, up to 100 psi. Hole treated with LCM, and drilling continues to casing point!

**Prepared by: Eric Espiritu
Senior Wellsite Geologist, OME GROUP LTD**

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 26 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 24
SPUD: 8-June 2002	DAY FROM SPUD: 49	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2 (Re-run)	BIT TYPE: Longyear
06:00 HR DEPTH: 901.5m	PREVIOUS: 878.5m	24HR PROGRESS: 23m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 11 ppg EMW @ 794.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 40 PV/YP: nc WL: nc pH: 8.0
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Continue to drill/cut cores from 914.5m.

OPERATIONS LAST 24 HRS: Lost circulation in fracture zone @ 901.5m. Rods stuck then retrieved. Mud program designed and implemented to regain circulation. Mix mud and spot LCM. Regain circulation, circulate hole clean and condition mud. Attempt to drill ahead but tube wont seat properly. Try to bump tube down with wireline-no go. Attempt to retrieve tube with wireline, no go-stuck inside at bottom probably with LCM. Pick up 9 stands of rods and try to retrieve tube with wireline-able to unstuck and retrieve tube. Circulate hole clean and condition mud. Drill core ahead on night shift from 901.5m Cut Core #99 (901.5 – 909.6m), Core # 100 (909.6 – 914.5m). Presently cutting Core # 101 from 914.5m.

FORWARD OPERATIONS: Regain lost circulation Continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 25 to 06:00 hrs 26 July, 2002:

901.5 – 905m Conglomeratic Sandstone Interbedded With Carbonaceous Siltstone and Mudstone/Shale Laminations.

SANDSTONE: 50-60%, generally as above, commonly as laminations, silty in parts, trace mica, silica and calcitecement, hard, poor porosity to tight, no show.

SILTSTONE: 40-50%, dark gray to medium black, hard, massive to sub-fissile in parts, carbonaceous, locally silty, non-calcareous, trace pyritic laminations and as fine nodules and disseminations, common conglomeratic clast, locally grading to Mudstone, common calcite veins, rare fractures/fault with gougy and slickensided clay materials.

MUDSTONE/SHALE: trace-5%, dark gray to black, carbonaceous, hard, sub-fissile, calcareous to fossiliferous in parts.

905 – 911m: Carbonaceous Siltstone With Minor Interbedded Sandstone and Mudstone Laminations.

SILTSTONE: 80-100%, dark gray to black, occasionally medium gray, hard, soft to firm in parts, carbonaceous, occasionally argillaceous, trace fossils, calcareous matrix, locally grading to Mudstone, traces of conglomeratic clasts of quartz, sandstone and shale throughout, common calcite-filled veins and fracture-filled gougy materials, rare slickensides.

SANDSTONE: trace-10%, as above, trace fossil, poor visible porosity to tight, no show.

911 – 914.5 Thin Bed of Fine-Grained and Conglomeratic Sandstone Interbedded With Siltstone

SANDSTONE: 50%, light to medium gray, occasionally dark gray, dominantly very fine to fine grained, rare medium grained, abundant clasts of Quartz, Siltstone and lithics in matrix, common carbonaceous detritals, mica, and dark gray lithics, strong silica and calcite cement, argillaceous matrix in parts, locally grading to siltstone, common calcite veins and gougy fractures, rare slickenside, very poor visual porosity to tight, no show.

SILTSTONE: 40-50%, as above, common conglomeratic/breccia clasts, abundant fractures and calcite-filled veins, traces of gougy clay and slickensided materials.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 unit from 901.5m to 914.5m.

Trip Gas: 15 units @ 901.5m

Connection Gas: - units ABG

Swab Gas: 16 units ABG @909.5m

Maximum Gas Peak While Drilling : 14 units @ 911m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
902	6	0	0	0	-	-	-
903	9	0	0	0	-	-	-
911	14	0.1	0	0	-	-	-
912	5	0	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m

BIT HRS: 46 WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 400

Lag Time while coring/drilling @ 909.5m: 22 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
901.5 – 905.5	30	26	27	0 - 2
905.5 – 909.5	35	24	25.5	0 - 2
909.5 – 914.5	34	22	24	0 - 2
914.5 -				

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Cure thief zone with LCM. Maximum allowable pump pressure is 450 psi. Exceeding this limit opens fractures can cause mud loss or total loss of circulation as what occurred on fractured zones at 901.5m.
- EMW of 11.2 ppg estimated based on 450 psi pump pressure
- Background gas increase and Gas peaks were recorded on fine grained and fractured sandstone from 911 to 914m. Reservoir quality of the sand is generally poor.
- Fracture zone with calcite-filled veins and some slickensides and fault gouge common from 901.5 to 914.5m.

**Prepared by: Eric Espiritu
Senior Wellsite Geologist, OME GROUP LTD**

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 25 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 23
SPUD: 8-June 2002	DAY FROM SPUD: 48	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2 (Re-run)	BIT TYPE: Longyear
06:00 HR DEPTH: 901.5m	PREVIOUS: 878.5m	24HR PROGRESS: 23m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 11 ppg EMW @ 794.5m

MUD TYPE: PHPA-Pac R **MW:** 8.4 **VIS:** 40 **PV/YP:** nc **WL:** nc **pH:** 8.5
Cl: nc **Gel:** nc **Ca:** nc **PHPA:** nc

CURRENT OPERATION: Continue to drill/cut cores from 901.5m.

OPERATIONS LAST 24 HRS: Continue with drilling/coring operation. Cut Core #94 (872.5 – 878.5m), Core #95 (878.5 – 884.5m), Core #96 (884.5 – 890.5m), Core #97 (890.5 – 896.5m). Continue to core on night shift and cut Core #98 (896.5 – 901.5m) Lost circulation in fracture zone @ 901.5m. Rods bogged then retrieved. Mud program designed and implemented to regain circulation.

FORWARD OPERATIONS: Regain lost circulation Continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 24 to 06:00 hrs 25 July , 2002:

872 – 890m Massive Carbonaceous Siltstone and Sandstone Laminations.

SILTSTONE: 95-100%, black, hard, massive to sub-fissile in parts, carbonaceous, locally silty, non-calcareous, trace pyritic laminations and as fine nodules and disseminations, rare conglomeratic clast, locally grading to Mudstone, common calcite veins, rare fractures/fault with gougy clay materials.

SANDSTONE: trace-5%, generally as above, commonly as laminations, silty in parts, trace mica, silica and calcitecement, hard, poor porosity to tight, no show.

890 – 901.5m: Fossiliferous Siltstone With Minor Interbedded Sandstone and Mudstone.

SILTSTONE: 80-100%, dark gray to medium gray, hard, soft to firm in parts, argillaceous, common fossils and brachiopod shell fragments, calcareous matrix, locally grading to Mudstone. Some quartz pebbles throughout, well rounded, erratically distributed.

SANDSTONE: trace-10%, as above, trace fossil, poor visible porosity to tight, no show.

GAS DATA: Hunterston #1

Background Gas: 0 to 1 unit from 878.5m to 901.5m.
 Trip Gas: -unit @ -m Connection Gas: - units ABG
 Swab Gas: 9 units ABG @890.5m
 Maximum Gas Peak While Drilling : 29 units @ 889.5m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
883	6	0	0	0	-	-	-
889.5	29	0.1	0	0	-	-	-
863.8	27	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m
 BIT HRS: 39.5 WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 500
 Lag Time while coring/drilling @ 890.5m: 21 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
872.5 – 878.5	47	25	30.5	0 - 1
878.5 – 884.5	33	27	26	0 - 1
884.5 – 890.5	27	15	24	0 - 1
890.5 – 896.5	26	21	22	0 - 1
896.5 – 901.5	35	20	21	0 - 2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-	870.1	
Woody Island Siltstone/Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Faulkner Group picked from 848.6m to 870.1m Formation changed from massive sandstone into carbonaceous Siltstone (top Bundella Fm?) at 870.1m. Basal conglomerate marks the bottom of contact between base Faulkner Sand and Bundella Siltstone.

- Siltstone becoming fossiliferous from 890 to 896m with abundant brachiopods fossils
- Gas peaks were recorded on gougy and calcite-filled fracture(maximum 29u @ 889.5m) in carbonaceous Siltstone
- Fracture zone with some slickensides and fault gouge @ 901.5,. Minor calcite infill and brecciation of existing quartz pebbles. Complete loss of water returns. Attempt to regain circulation.

Prepared by: Eric Espiritu
Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 24 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 22
SPUD: 8-June 2002	DAY FROM SPUD: 47	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2 (Re-run)	BIT TYPE: Longyear
06:00 HR DEPTH: 878.5m	PREVIOUS: 842.5m	24HR PROGRESS: 36m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 11 ppg EMW @ 794.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 36 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Continue to drill/cut cores from 878.5m.

OPERATIONS LAST 24 HRS: Continue with drilling/coring operation. Cut Core #89 (842.5 – 848.5m), Core #90 (848.5 – 854.5m), Core #91 (854.5 – 860.5m). Continue to core on night shift and cut Core #91 (860 – 866.5m), Core #92 (866.5 – 872.5m), Core #93 (872.5 – 878.5m).

FORWARD OPERATIONS: Continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 23 to 06:00 hrs 24 July , 2002:

842 – 848.6m: Massive Mudstone/Shale Thin Interbeds of Sandstone.

MUDSTONE/SHALE: 90-100%, grayish black to dark gray, hard, indurated, non to slightly calcareous matrix, sub-conchoidal to splintery fracture, traces of fossil fragments, trace clasts of conglomeratic and brecciated Siltstone and Quartz, trace laminations of fine grained Sands, locally grading to carbonaceous Siltstone, rare Coal streaks.

SANDSTONE: trace-10%, light to medium gray, occasionally very light gray, dominantly very fine to fine grained, rare medium grained, sub-rounded, well sorted, strong silica cement, hard, indurated, very poor visible porosity to tight, no show.

848.6 - 853.3m: Massive Fine Grained Sandstone With Carbonaceous Laminations (Top Faulkner Group?)

SANDSTONE: 90-100%, light gray to very light gray, occasionally clear to translucent, dominantly fine to very fine grained, rare medium grained in parts, strong silica cement, hard, trace to common muscovite and biotite, rare lithics, rare pyrite, trace carbonaceous microlaminations and specks, poor intergranular porosity, no show.

853.3 – 860.5m: Massive Carbonaceous Mudstone/Shale With Streaks of Coal, Siltstone and Sandstone Laminations.

Mudstone/Shale: 80-100%, black, hard, massive to sub-fissile in parts, carbonaceous, locally silty, non-calcareous, trace pyritic laminations and as fine nodules and disseminations.

COAL: trace-10%, black, vitreous lustre, conchoidal-hackly fractures, firm to brittle, generally as very thin streaks/laminae, grades to carbonaceous Shale/Mudstone in parts, rare pyrite,,rare and very weak gas bleeds noted in coal laminations/Mudstone interface.

860.5 – 869.9m: : Massive Fine Grained Sandstone With Carbonaceous Laminations Interbedded With Siltstone

SANDSTONE: 50-70%, light gray to very light gray, occasionally clear to translucent, dominantly fine to very fine grained, rare medium grained in parts, strong silica cement, hard, trace to common muscovite and biotite, rare lithics, rare pyrite, trace carbonaceous microlaminations and specks, poor intergranular porosity, trace bioturbation, no show.

SILTSTONE: 20-30%, as above, trace fossil fragments.

869.9 – 872 Massive Carbonaceous Siltstone and Sandstone Laminations.

SILTSTONE: 90-100%, black, hard, massive to sub-fissile in parts, carbonaceous, locally silty, non-calcareous, trace pyritic laminations and as fine nodules and disseminations, rare conglomeratic clast, locally grading to Mudstone.

SANDSTONE: trace-10%, generally as above, commonly as laminations, silty in parts, trace mica, silica cement, hard, poor porosity to tight, no show.

GAS DATA: Hunterston #1

Background Gas: 0 to 3 unit from 842m to 878.5m.

Trip Gas: -unit @ -m Connection Gas: - units ABG

Swab Gas: 7, 12 and 20 units ABG @848.5, 854.5 and 872.5m

Maximum Gas Peak While Drilling : 37 units @ 858m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
849	8	0	0	0	-	-	-
853	15	0.1	0	0	-	-	-
855	30	0.1	0	0	-	-	-
858	37	0.1	0	0	-	-	-
868.8	27	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m
 BIT HRS: 28 WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 500
 Lag Time while coring/drilling @ 860.5m: 19 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
842 – 848.7	36	29	30.5	0 - 1
848.7 – 853.3	32	24	28	0 - 3
853.3 – 860.5	30	23	26	0 – 2
860.5 – 866.5	31	18	27	0 - 3
866.5 – 872.5	32	18	27.5	0 – 2
872.5 – 878.5	47	23	29	0 – 2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone/Cascade Group	-	784.5	
Faulkner Group	-	848.6	
Bundella Fm	-		
Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Formation changed from interlaminated carbonaceous Mudstone/Shale from to fine grained sandstone (top of Faulkner Group?) at 848.6m). Reservoir quality in the sandstone is poor. There was no anomalous gas peak recorded while drilling the sandstone.
- Gas peaks were recorded on Coal/carbonaceous shale (maximum 37u @ 858m) and very weak gas bleeds was noted on some of the coaly microlaminations starting from 848m.

Prepared by: Eric Espiritu
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OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 23 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 21
SPUD: 8-June 2002	DAY FROM SPUD: 46	LAST CSG: 4.5"@336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2 (Re-run)	BIT TYPE: Longyear
06:00 HR DEPTH: 842.5m	PREVIOUS: 812.5m	24HR PROGRESS: 30m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 11 ppg EMW @ 794.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 60 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Continue to drill/cut cores from 812.5m.

OPERATIONS LAST 24 HRS: Rig up and continue with drilling/coring operation. Cut Core #84 (812.5 – 818.5m), Core #85 (818.5 – 824.5m), Core #86 (824.5 – 830.5m). Continue to core on night shift and cut Core #87 (830 – 836.5m), Core #88 (836.5 – 842.5m), Commence to cut Core #89. Drilling ahead at change of shift

FORWARD OPERATIONS: Continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 22 to 06:00 hrs 23 July , 2002:

812 - 818m: Siltstone Interbedded With Carbonaceous Shale and Streaks of Sandstone. —

SILTSTONE: 80-100%, grayish black to medium gray and dark gray, hard, indurated, sub-fissile to massive, sandy in parts with very fine laminations, rare fossil fragments, grades to Mudstone, calcareous in parts, sub-conchoidal fracture, rare breccia/conglomeratic clasts of Shale, Mudstone and occasionally Quartz.

SANDSTONE: 10-20%, as above, generally very fine to fine grained, strong silica cement, hard, poor porosity to tight, no show.

SHALE: trace-10%, black to dark gray, hard, fissile, carbonaceous matrix, grades to black Mudstone.

818 – 842m: Massive Siltstone with Minor Thin Interbeds of Sandstone.

SILTSTONE: 90-100%, grayish black to medium gray, hard, indurated, non to slightly calcareous matrix, sub-conchoidal to splintery fracture, traces of fossil fragments, rare clasts of conglomeratic and brecciated Shale and Quartz, trace laminations of fine grained Sands, locally grading to Mudstone.

SANDSTONE: trace-10%, light to medium gray, occasionally off white to very light gray, dominantly very fine to fine grained, rare medium grained, sub-rounded, well sorted, strong silica cement, hard, indurated, very poor visible porosity to tight, no show.

GAS DATA: Hunterston #1

Background Gas: 0 to 1 unit from 812.5m to 835m. 6 to 7 unit from 835m to 842m.
 Trip Gas: -unit @ -m Connection Gas: - units ABG
 Swab Gas: 21 units ABG @818.5m, 25 units ABG @ 342.5m
 Maximum Gas Peak While Drilling : 15 units @ 817.5m, 20 units @ 833.5m, 18 units @ 837m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
814.5	14	0.1	0	0	-	-	-
817.5	15	0.1	0	0	-	-	-
822.5	15	0.1	0	0	-	-	-
833.5	20	0.1	0	0	-	-	-
837	18	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m
 BIT HRS: 7.2+ WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 250
 Lag Time while coring/drilling @ 830.5m: 17 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
812.5 - 836	45	19	25.5	0 - 1
836 - 842.5	36	23	28.7	0-5

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone	-	784.5	
Malbina Fm	-		
Poatina Group	-		
Liffey Group	-		
Bundella Fm	-		
Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Formation changed from fine grained sandstone to massive siltstone with interbedded and interlaminated carbonaceous Mudstone/Shale from 818m.

Prepared by: Eric Espiritu
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OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 22 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 20
SPUD: 8-June 2002	DAY FROM SPUD: 45	LAST CSG: 4.5"@336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2	BIT TYPE: Longyear
06:00 HR DEPTH: 794.5m	PREVIOUS: 812.5m	12HR PROGRESS: 18.5m

LAST SURVEY: - degree @ -m LAST L.O.T.: 11 ppg EMW @ 794.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 75 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Rig up and continue to drill/cut cores from 812.5m.

OPERATIONS LAST 24 HRS: Rig up and conducted leak off test. Obtained EMW of 11 ppg. Made up kill mud. Cut Core #81 (794.5 -800.5m), Core #82 (800.5 – 806.5m) and Core #83 (806.5 – 812.5m) then shut down rig.

FORWARD OPERATIONS: Continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 21 to 06:00 hrs 22 July , 2002:

794.5 – 796: Massive Siltstone and Shale and Stringer of Sandstone.

SILTSTONE: 50-70%, dark gray to black, sub-fissile, weak to moderately calcareous matrix, calcareous veins, trace disseminated to nodular pyrite, locally grading to Shale and very fine grained Sandstone, abundant fossil fragments.

SANDSTONE: 10-30%, very light gray to white, occasionally light greenish gray to pinkish gray, very fine to fine grained, sub-angular to sub-rounded, moderately sorted, strong siliceous cement, calcareous cement in parts, hard, indurated, common fossil fragments, traces of burrows on silty and shaley laminations, traces of calcite veins, rare pyrite, rare angular to sub-rounded clasts of siltstone and shale, poor porosity to tight, no show.

SHALE: trace-10%, black to very dark gray, fissile, trace fossils, massive, sub-conchoidal fracture, grades to Siltstone.

796 - 812m: Siltstone Interbedded With Carbonaceous Shale and Streaks of Sandstone.

SILTSTONE: 60-80% medium gray to dark gray, hard, indurated, sub-fissile to massive, sandy in parts, common fossil fragments of brachiopods and bryozoans, grades to Mudstone, calcareous in parts, sub-conchoidal fracture.

SANDSTONE: 10-20%, as above, generally very fine to fine grained, poor porosity to tight, no show.

SHALE: trace-10%, black to dark gray, hard, fissile, carbonaceous matrix.

GAS DATA: Hunterston #1

Background Gas: 0 to 1 unit from 794.5m to 812.5m.

Trip Gas: -unit @ -m

Connection Gas: - units ABG

Swab Gas: - units ABG @-m

Maximum Gas Peak While Drilling : 21 units @ 795.5m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
795.5	21	0.2	0	0	-	-	-
801.5	18	0.1	0	0	-	-	-
805	6	0	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m

BIT HRS: 7.2 WOB: 0-2 RPM: - TRQ: - GPM: 28 SPM: 700 PP: 250

Lag Time while coring/drilling @ 800.5m: 16 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
794.5 - 812.5	31	14	22	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone	-	784.5	
Malbina Fm	-		
Poatina Group	-		
Liffey Group	-		
Bundella Fm	-		
Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Formation changed from fine grained sandstone with streaks of limestone into massive, fossiliferous siltstone and carbonaceous Shale from 796m.

Prepared by: Eric Espiritu

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 21 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 19
SPUD: 8-June 2002	DAY FROM SPUD: 44	LAST CSG: 4.5"@336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2	BIT TYPE: Longyear
06:00 HR DEPTH: 784.5m	PREVIOUS: 794.5m	12HR PROGRESS: 10m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 60 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Rig up and continue to drill/cut cores from 794.5m.

OPERATIONS LAST 24 HRS: Rig up and continue to RIH with re-run Core bit #2. Tag bottom, circulate bottoms up and continue to core from 784.5m. Cut Core #79 (784.4-788.5m), Core #80 (788.5 – 794.5m). Retrieve and lay down Core #80 then shut down rig.

FORWARD OPERATIONS: Conduct leak off test in sandstone then continue to drill/core ahead to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 20 to 06:00 hrs 21 July , 2002:

784.5 – 791: Massive Fine Grained and Fossiliferous Sandstone With Minor Laminations of Siltstone and Shale and Stringer of Limestone.

SANDSTONE: 70-100%, very light gray to white, occasionally light greenish gray to pinkish gray, very fine to fine grained, sub-angular to sub-rounded, moderately sorted, strong siliceous cement, calcareous cement in parts, hard, indurated, common fossil fragments, traces of burrows on silty and shaley laminations, traces of calcite veins, rare pyrite, rare angular to sub-rounded clasts of siltstone and shale, poor porosity to tight, no show.

SILTSTONE: 10%, dark gray to black, sub-fissile, weak to moderately calcareous, calcareous veins, trace disseminated to nodular pyrite, locally grading to Shale and very fine grained Sandstone laminations, abundant fossil fragments.

LIMESTONE: trace-10%, white to very light gray, occasionally pinkish gray, hard, abundant fossil of bryozoans and brachiopods, relic grainstone to packstone texture, cryptocrystalline

SHALE: trace-10%, black to very dark gray, fissile, trace fossils, massive, grades to Siltstone.

791 – 794.5: Siltstone Interbedded With Sandstone.

SILTSTONE: 60-100%, dark gray to black, occasionally olive gray, massive, trace carbonaceous specks, rare micro-mica, traces of calcite veins, fossiliferous in parts, rare pyrite, locally grading to Shale.
 SANDSTONE: 30-40%, light to medium gray, dominantly fine grained to medium grained, occasionally very fine grained particularly on wispy laminae, sub-rounded, well sorted, strong siliceous and calcareous cement, hard, traces fossil fragments and lithic clasts, poor visual porosity to tight, no show.

GAS DATA: Hunterston #1

Background Gas: 0 to 1 unit from 784.5m to 794.5m.
 Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: 20 and 9 units ABG
 @ 784.5m and 788.5m
 Maximum Gas Peak While Drilling : 15 units @ 790m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
789.5	10	0.8	0	0	-	-	-
790	15	0.9	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m
 BIT HRS: - WOB: - RPM: - TRQ: - GPM: - SPM: - PP: -
 Lag Time while coring/drilling @ 788.5m: 16 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
784.5 – 794.5	34	21	28	0 - 1

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)-
Ferntree Fm	-		
Dolerite Sill	-	336	
Risdon Sandstone	-	784.5	
Malbina Fm	-		
Poatina Group	-		
Liffey Group	-		
Bundella Fm	-		
Quamby Fm	-		
Stokers Tillite	-		
Pre- Cambrian Metasediments	-		

REMARKS/OTHERS

- Formation changed from aphanitic dolerite into a very light gray, very fine to fine-grained, and fossiliferous sandstone at 784.5m. The porosity in the sandstone is generally poor to tight, however at 790m, minor drilling break with gas peak of 15 units was recorded, indicating probable presence of fair porosity development in some parts of the sandstone.

Prepared by: Eric Espiritu
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OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 20 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 18
SPUD: 8-June 2002	DAY FROM SPUD: 43	LAST CSG: 4.5"@336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2	BIT TYPE: Longyear
06:00 HR DEPTH: 784.5m	PREVIOUS: 784.5m	12HR PROGRESS: 0m

LAST SURVEY: - degree @ -m LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 65 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Rig up and RIH re-run Core bit #2.

OPERATIONS LAST 24 HRS: RIH with modified spear type fishing tool. Attempted to latch on to fish. Latched on successfully and POOH and retrieve fish. Fish out of hole at 17:00 hours. Lay down fish and shut down rig.

FORWARD OPERATIONS: Drill/core ahead to casing point at approximately 820m.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 19 to 06:00 hrs 20 July , 2002:

No geological progress the last 24 hour.

GAS DATA: Hunterston #1

Background Gas: 0- units from -m

Trip Gas: -unit @ -m Connexion Gas: - units ABG Swab Gas: -u ABG @ -m

Maximum Gas Peak While Drilling : - units @ -m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m

BIT HRS: - WOB: - RPM: - TRQ: - GPM: - SPM: - PP: -
 Lag Time while coring/drilling @ 784.5m: 16 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Second attempt to fish was successful using a modified spear type fishing tool.

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 19 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 17
SPUD: 8-June 2002	DAY FROM SPUD: 42	LAST CSG: 4.5"@336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2	BIT TYPE: Longyear
06:00 HR DEPTH: 784.5m	PREVIOUS: 784.5m	12HR PROGRESS: 0m

LAST SURVEY: - degree @ -m LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 65 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Rig up and attempt to retrieve fish..

OPERATIONS LAST 24 HRS: RIH with re-run bit. While attempting to RIH 7th stand of drill rod, the slip did not hold and drill bit/rod assembly fell to bottom of hole. Made up fishing tool and attempt to retrieve fish. Unable to retrieve fish on first try.

FORWARD OPERATIONS: Attempt to retrieve fish with spear-type fishing tool.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 18 to 06:00 hrs 19 July , 2002:

No geological progress the last 24 hr.

GAS DATA: Hunterston #1

Background Gas: 0- units from -m

Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: -u ABG @ -m

Maximum Gas Peak While Drilling : - units @ -m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784.5m /-m
 BIT HRS: - WOB: - RPM: - TRQ: - GPM: - SPM: - PP: -
 Lag Time while coring/drilling @ 784.5m: 16 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Fish must have unlatched during trip out on first attempt. A spear type fishing assembly will be use in second attempt to retrieve fish.

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 18 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 16
SPUD: 8-June 2002	DAY FROM SPUD: 41	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2	BIT TYPE: Longyear
06:00 HR DEPTH: 784.5m	PREVIOUS: 784.5m	12HR PROGRESS: 0m

LAST SURVEY: - degree @ -m LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 65 PV/YP: nc WL: nc pH: 8.5
 Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Rig up and RIH rerun bit #2.

OPERATIONS LAST 24 HRS: Pulled out of hole bit #2. Service rig and equipment.

FORWARD OPERATIONS: RIH rerun bit and continue to drill/cut HQ size cores to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 17 to 06:00 hrs 18 July, 2002:

No geological progress the last 24 hr.

GAS DATA: Hunterston #1

Background Gas: 0- units from -m

Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: -u ABG @ -m

Maximum Gas Peak While Drilling : - units @ -m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm

DRILLING DATA: Hunterston #1

BIT #: 2RR Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 784m /-m

BIT HRS: - WOB: - RPM: - TRQ: - GPM: - SPM: - PP: -
 Lag Time while coring/drilling @ 784.5m: 16 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Bit #2 was pulled out to check bit condition. Experienced blocked off while cutting Cores #77 and #78.

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 17 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 15
SPUD: 8-June 2002	DAY FROM SPUD: 40	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2	BIT TYPE: Longyear
06:00 HR DEPTH: 784.5m	PREVIOUS: 770.5m	12HR PROGRESS: 14m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 65 PV/YP: nc WL: nc pH: 8.5
Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Rig up and continue to drill/core ahead from 784.5m.

OPERATIONS LAST 24 HRS: Cut Core #76 (770.5 – 776.5m), Core #77 (776.5 – 782.5m), Core #78 (782.5 - 784.5m), retrieve and lay down Core #78, then shut down rig.

FORWARD OPERATIONS: Continue to drill/cut HQ size cores to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 16 to 06:00 hrs 17 July, 2002:

770.5m – 783 m: Massive Aphanitic Dolerite With Rare Quartz Veins.

Diorite: 100%, predominantly dark to medium gray unaltered matrix, occasionally dark greenish gray to greenish black on rare quartz and chlorite veins, very hard, massive, dense groundmass with dominant aphanitic texture, rare quartz veins and microfractures in parts, nil visual porosity, background gas is – generally very low (1-2 units) while drilling this basal dolerite.

783m – 784.5m: Massive Aphanitic Dolerite/Chilled Margin (?).

Dolerite: 100%, dark brownish gray to to medium gray, dominant aphanitic matrix, rare phenocrysts of dark green ferromagnesian, textural and colour change noted to start from 783m possibly near basal intrusive contact.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 770.5m to 784.5m

Trip Gas: -unit @ -m

Connection Gas: - units ABG

Swab Gas: 13u and 11u ABG

@ 764.5m and 782.5m

Maximum Gas Peak While Drilling : 8 units @ 773m

spoke to D. Geary.

* current operation changing bit

office expected soon

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
773	8	0	0	0	-	-	-
780	6	0	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT #: 2 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: 89.5 WOB: 05-2.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210-230
 Lag Time while drilling @ 770m: 15 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
770.5 - 784.5	21	15	18.5	0-2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite from 770.5m to 783m. Groundmass is dominantly aphanitic and with rare quartz veins/microfractures. Notable change in color and in groundmass becoming finer starting from 783m, possibly penetrating the chilled basal zone of dolerite intrusive sill.
- Swab gas (11 and 13 units ABG) and background gas (0-2 units only) are generally low with rare and very short duration/spiky gas peaks detected while drilling this massive dolerite interval.

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 16 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 14
SPUD: 8-June 2002	DAY FROM SPUD: 39	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 2	BIT TYPE: Longyear
06:00 HR DEPTH: 770.5m	PREVIOUS: 746.5m	12HR PROGRESS: 24m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 65 PV/YP: nc WL: nc pH: 8.5

Cl: nc Gel: nc Ca: nc PHPA: nc

CURRENT OPERATION: Rig up and continue to drill/core ahead from 770.5m.

OPERATIONS LAST 24 HRS: Cut Core #72 (746.5 – 752.5m), Core #73 (752.5 – 758.5m), Core #74 (758.5 - 764.5m), Core #75 (764.5 – 770.5m), retrieve and lay down Core #75, then shut down rig.

FORWARD OPERATIONS: Continue to drill/cut HQ size cores to casing point.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 15 to 06:00 hrs 16 July , 2002:

746.5m – 770.5m: Massive Aphanitic Dolerite With Rare Quartz Veins.

Diorite: 100%, predominantly dark to medium gray unaltered matrix, occasionally dark greenish gray to greenish black on rare quartz and chlorite veins, very hard, massive, dense groundmass with dominant – aphanitic texture, rare quartz veins and microfractures in parts, nil visual porosity, background gas is generally very low (1-2 units) while drilling this basal dolerite.

GAS DATA: Hunterston #1

Background Gas: 0 to 2 units from 746.5m to 770.5m

Trip Gas: -unit @ -m

Connection Gas: - units ABG

Swab Gas: 9u ABG @ 764.5m

Maximum Gas Peak While Drilling : 13 units @ 755.5m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
754	7	0	0	0	-	-	-
755.5	13	0.1	0	0	-	-	-
757	9	0	0	0	-	-	-

768	9	0	0	0	-	-	-
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DRILLING DATA: Hunterston #1

BIT #: 2 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: 85.5 WOB: 05-2.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210-230
 Lag Time while drilling @ 770m: 14 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
746.5 - 770.5	23	13.5	19	0-2

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSIS DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite from 746.5m to 770.5m. Groundmass is dominantly aphanitic and with rare quartz veins/microfractures.
- Swab gas (9 units ABG) and background gas (0-2 units only) are generally low with rare and very short duration/spiky gas peaks detected while drilling this massive dolerite interval.

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

DRILLING DATA: Hunterston #1

BIT #: 2 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: 70.5 WOB: 05-1.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210-250
 Lag Time while drilling @ 722m: 12 minutes

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
704.5 - 722.5	21	15	19.5	0 - 3

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Postina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite from 704.5m to 722.5. Groundmass is dominantly aphanitic and with rare quartz veins.
- Background gas is generally low with rare and very short duration/spiky gas peaks detected while drilling this massive dolerite interval

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

DRILLING DATA: Hunterston #1

BIT #: 2 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: 61.5 WOB: 05-1.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210 -250
 Lag Time while drilling @ 596m: 34 minutes @ 0.001 bls/stroke pump output)

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
680 - 704.5	26	15	20	3 - 4

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite sill from 680m to 704.5m. Groundmass becoming generally aphanitic and with rare quartz veins.
- Rare and very short duration/spiky gas peaks detected while drilling this massive dolerite interval.

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 12 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 10
SPUD: 8-June 2002	DAY FROM SPUD: 35	LAST CSG: 4.5"@336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 1	BIT TYPE: DB1214
06:00 HR DEPTH: 680m	PREVIOUS: 620m	12HR PROGRESS: 60m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 50 PV/YP: 11/13 WL: 7.8 pH: 8.5
Cl: 210 Gel: 10/12 Ca: 50 PHPA: 0.56

CURRENT OPERATION: Continue to drill/core ahead from 680m.

OPERATIONS LAST 24 HRS: Cut Core #52 (626.5 – 631.9m), Core #53 (631.9 – 638.5m), Core #54 (638.5 - 644.5m), Core #55 (644.5 – 650.5m), Core #56 (650.5 – 656.5m), Core #57 (656.5 – 662.5m), Core #58 (662.5 – 668.5m), Core #59 (668.5 – 674.5m), Core #60 (674.5 – 680.5m, in progress)

FORWARD OPERATIONS: Continue to drill/cut cores to TD with surveys.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 11 to 06:00 hrs 12 July, 2002:

620m – 679m: Massive Aphanitic Dolerite With Traces of Quartz Veins.

Dolerite: 100%, dark greenish gray to greenish black, very hard, massive, dense, groundmass aphanitic texture, rare quartz veins in parts, 2 mm quartz + chlorite veins from 632-636m, nil visual porosity, rare microfractures (@ 653, 662m)

GAS DATA: Hunterston #1

Background Gas: 5 to 6 units Total Gas from 620m to 680m

Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: 23, 31, 21 units ABG from 615, 650.5 and 668m, respectively

Maximum Gas Peak While Drilling : 36 units @ 659.8m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	Cl-ppm	C2-ppm	C3-ppm
629	10	0.1	0	0	-	-	-
632	11	0.1	0	0	-	-	-
652.8	19	0.1	0	0	-	-	-

654.5	19	0.1	0	0	-	-	-
659.8	36	0.2	0	0	-	-	-
660.2	34	0.2	0	0	-	-	-
663.2	28	0.1	0	0	-	-	-
664.2	24	0.1	0	0	-	-	-
667	27	0.1	0	0	-	-	-
674.7	25	0.1	0	0	-	-	-
676.2	24	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT # 2 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: 54.25 WOB: 05-1.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210 -250
 Lag Time while drilling @ 596m: 31 minutes @ 0.001 bls/stroke pump output)

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
620 - 680	26	12	18.9	5 - 6

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Femtree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite sill from 620m to 679m. Groundmass becoming generally aphanitic and with rare quartz veins.
- Rare v. short duration gas peaks detected while drilling this massive dolerite interval.

Prepared by: Eric Espiritu
 Senior Wellsite Geologist, OME GROUP LTD

RECEIVED
11 JUL 2002

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For information:

File: O. M. e

OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 11 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 9
SPUD: 8-June 2002	DAY FROM SPUD: 34	LAST CSG: 4.5" @ 336m
RKB-GL: 4.7m	GL-MSL: 550.0m	RKB-MSL: 554.7m
BIT SIZE: 3.78"	BIT #: 1	BIT TYPE: DB1214
06:00 HR DEPTH: 620m	PREVIOUS: 570m	12HR PROGRESS: 50m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 47 PV/YP: 14/12 WL: 7.8 pH: 8.0 Cl: 350 Gel: 5/8 Ca: 30 PHPA: 0.68

CURRENT OPERATION: Continue to drill/core ahead from 620m.

OPERATIONS LAST 24 HRS: Cut Core #43 (572.5 – 578.5m), Core #44 (578.5 – 584.5m), Core #45 (584.5 – 590.5m), Core #46 (590.5 – 596.5m), Core #47 (596.5 – 602.5m), Core #48 (602.5 – 608.5m), Core #49 (608.5 – 614.5m), Core #50 (614.5 – 620.5m), Core #51 (620.5 – 626.5m). Repair leaks in compressor line and replace regulator (blocked with slag). Drill ahead.

FORWARD OPERATIONS: Continue to drill/cut cores to TD with surveys.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 10 to 06:00 hrs 11 July, 2002:

570m – 626m: Massive Aphanitic Dolerite With Traces of Quartz Veins.

Dolerite: 100%, dark gray to greenish black, very hard, massive, dense, groundmass becoming aphanitic, trace quartz and chlorite veins in parts, nil visual porosity, rare microfractures in parts. Minor fracture zones at 598.3 and 618.9m

GAS DATA: Hunterston #1

Background Gas: 6 to 10 units Total Gas from 570m to 620m

Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: 26, 25 and 25 units ABG from 601.5, 606.5 and 615.0m, respectively

Maximum Gas Peak While Drilling : 28 units @ 591 m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	Cl-ppm	C2-ppm	C3-ppm
579	16	0.1	0	0	-	-	-

584	22	0.1	0	0	-	-	-
586.5	24	0.1	0	0	-	-	-
591	28	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT # 2 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: 38 WOB: 05-1.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210-250
 Lag Time while drilling @ 596m: 31 minutes @ 0.001 bls/stroke pump output)

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
570 - 620	31	14	19	6-11

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	Nil	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre-Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite sill from 570m to 620m. Groundmass becoming generally aphanitic and with rare quartz veins.
- Gas peaks detected from drilling breaks (fractures?) at 591m (gas peaks of 28 units).

Prepared by: Eric Espiritu
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OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 10 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 8
SPUD: 8-June 2002	DAY FROM SPUD: 33	LAST CSG: 4.5" @ 336m
RKB-GL: 3.0m	GL-MSL: 550.0m	RKB-MSL: 553.0m
BIT SIZE: 3.78"	BIT #: 1	BIT TYPE: DB1214
06:00 HR DEPTH: 570	PREVIOUS: 510m	12HR PROGRESS: 60m

LAST SURVEY: - degree @ -m LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 44 PV/YP: 5/14 WL: 13.9 pH: 8.5
Cl: 350 Gel: 8/11 Ca: 60 PHPA: 0.82

CURRENT OPERATION: Continue to drill/core ahead from 570m.

OPERATIONS LAST 24 HRS: Cut Core #33 (512.5 – 518.5m), Core #34 (518.5 – 524.5m), Core #35 (524.5 - 530.5m), Core #36 (530.5 – 536.5m), Core #37 (536.5 – 542.5m), Core 38 (542.5 – 548.5m), Core #39 (548.5 – 554.5m). Repair problem with chuck, fixed OK-resume drilling/coring. Cut Core #40 (554.5 – 560.5m), Core #41 (560.5 – 566.5m), and Core #42 (566.5 – 572.5m).

FORWARD OPERATIONS: Continue to drill/cut cores to TD with surveys.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 9 to 06:00 hrs 10 July, 2002:

434.5m – 570m: Massive Dolerite Sill With Traces of Quartz, Chlorite/Calcite Veins.

Dolerite: 100%, grey to black, medium grained even texture, very hard, minor quartz and calcite veinlets, becoming more frequent sub horizontal fractures, some minor limonite staining of fractures, spacing to 10 centimetres becoming to 2 centimetres. chlorite infill of small vertical fractures.

GAS DATA: Hunterston #1

Background Gas: 4 to 14 units Total Gas from 510m to 570m

Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: 24, 30, 30, 28, and 38 units ABG
from 512.5m, 518.5m, 524.5, 536.5, 572; respectively

Maximum Gas Peak While Drilling : 31 units @ 551m and 552m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
514	24	0.1	0	0	-	-	-

539	30	0.1	0	0	-	-	-
541	28	0.1	0	0	-	-	-
544	26	0.13	0	0	-	-	-
551	31	0.16	0	0	-	-	-
552	31	0.16	0	0	-	-	-
565	21	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT # 2 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: 26.5 WOB: 0-0.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210-250
 Lag Time while drilling @ 467m: 21 minutes @ 0.001 bls/stroke pump output)

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
510 - 570	26	10	17	4 - 14

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	-	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Fernree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite sill from 510m to 570m;
- Maximum swab gas of 38u ABG detected from 572m. Gas peaks detected from drilling breaks (fractures?) at 551 to 552m (gas peaks of 31 units).

Prepared by: Eric Espiritu
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OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 9 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 7
SPUD: 8-June 2002	DAY FROM SPUD: 32	LAST CSG: 4.5" @ 336m
RKB-GL: 3.0m	GL-MSL: 550.0m	RKB-MSL: 553.0m
BIT SIZE: 3.78"	BIT #: 1	BIT TYPE: DB1214
06:00 HR DEPTH: 510m	PREVIOUS: 454.1m	12HR PROGRESS: 55.9m

LAST SURVEY: - degree @ -m LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 50 PV/YP: 8/9 WL: 15.4 pH: 8.5 Cl:
520 Gel: 8/11 Ca: 60 PHPA: 0.41

CURRENT OPERATION: drill/core ahead from 510m.

OPERATIONS LAST 24 HRS: Prepare rig to drill/core ahead. Cut Core #22 (454.1 – 458.2m); Core #23 (458.2 – 458.9m), pumped pressure increased to 500 psi, pulled tube; Core #24 (458.9–464.5m); Core #25 (464.5 – 470.5m); Core #26 (470.5 – 476.5m); Core 27 (476.5 – 482.5m); Core #28 (482.5 – 488.5m); Core #29 (488.5 – 494.5m); Core #30 (494.5 – 500.5m); Core #31 (500.5 – 506.5m); Core #32 (506.5 – 512.5m).

FORWARD OPERATIONS: Continue to drill/cut cores to TD with surveys.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 8 to 06:00 hrs 9 July , 2002:

404.5m – 434.5m: Massive Dolerite Sill With Traces of Quartz, Chlorite/Epidote Veins.
Dolerite: 100%, grayish black to greenish black on wet sample, dark to medium grey on dry sample, very hard, dense, massive, common phanero-aphanitic texture, common ferromagnesian and sodic plagioclase, rare phenocrysts of pyroxene, trace micro-veins filled with quartz, chlorite+epidote(?), weakly silicified groundmass in parts, rare microfractures, nil visual porosity in groundmass.

GAS DATA: Hunterston #1

Background Gas: 3 to 7 units Total Gas from 454m to 510m
Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: 19 units ABG @ 458.9m; 27 units ABG @ 512.5M
Maximum Formation Gas While Drilling : 35 units @ 488m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
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456	16	0.1	0	0	-	-	-
457	28	0.1	0	0	-	-	-
466	19	0.1	0	0	-	-	-
487	26	0.1	0	0	-	-	-
488	35	0.1	0	0	-	-	-
514	24	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT # 1 Type: Longyear Size: 3.78" Nozzles: - Depth In/Out: 454m /-m
 BIT HRS: xx WOB: 0-0.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210 -250
 Lag Time while drilling @ 467m: 11 minutes @ 0.001 bls/stroke pump output)

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
454.1 - 510	28	8	15.5	3 - 7

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	-	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre- Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite sill from 454.1m to 510m; formation gas peaks detected from drilling breaks (fractures?) at 487m, 488m. Swab gas of 27 units ABG detected after pulling tube/circulated bottoms up at 512.5m.
- Collected ditch gas sample for Dr. C. Burnett at 461m on a recorded gas peak of 16 units (3200 ppm equivalent methane). Field analysis of this sample is: 0-% CO2, 0-ppm H2S and 0.1%-CH4.

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OME Group Limited

GEOLOGICAL MORNING REPORT: Hunterston #1

DATE: 8 July 2002	RIG: OME Rig#2	AM GEOREPORT #: 6
SPUD: 8-June 2002	DAY FROM SPUD: 31	LAST CSG: 4.5" @ 336m
RKB-GL: 3.0m	GL-MSL: 550.0m	RKB-MSL: 553.0m
BIT SIZE: 3.78"	BIT #: 1	BIT TYPE: DB1214
06:00 HR DEPTH: 454.1m	PREVIOUS: 434.5m	12HR PROGRESS: 19.6m

LAST SURVEY: - degree @ -m

LAST L.O.T.: 22 ppg EMW @ 338.5m

MUD TYPE: PHPA-Pac R MW: 8.4 VIS: 44 PV/YP: 6/7 WL: 14.8 pH: 8 CI: 300
Gel: 5/8 Ca: 80 PHPA: 0.58

CURRENT OPERATION: Prepare to drill/core ahead from 454.1m.

OPERATIONS LAST 24 HRS: Prepare rig to drill/core ahead. Cut Core #18 (434.5 – 440.5m); Core #19 (440.5 – 446.5m); Core #20 (446.5–452.5m); Core #21 (452.5 – 454.1m). Pump pressure increasing, pull out of hole to check bit condition. R/H new bit #2. Shut down rig from 19:00 hrs to 06:00 hrs.

FORWARD OPERATIONS: Continue to drill/cut cores to TD with surveys.

LITHOLOGICAL SUMMARY: Hunterston#1

Geological progress from 06:00 hrs July 7 to 06:00 hrs July , 2002:

404.5m – 434.5m: Massive Dolerite Sill With Traces of Quartz, Chlorite/Epidote Veins.

Dolerite: 100%, grayish black to greenish black on wet sample, dark to medium grey on dry sample, very hard, dense, massive, common phaneretic texture, common ferromagnesians and sodic plagioclase, trace phenocrysts of pyroxene, rare micro-veins filled with quartz, chlorite+epidote(?), silicified groundmass in parts, intense silicified zone from 448.7 to 449.1m, nil visual porosity in groundmass.

GAS DATA: Hunterston #1

Background Gas: 3 to 4 units Total Gas from 434.5m to 454.1m

Trip Gas: -unit @ -m Connection Gas: - units ABG Swab Gas: 19,18 and 18 units ABG @ 440.5m, 446.5 and @452.5m respectively

Maximum Formation Gas While Drilling : 16 units @ 436m

GAS PEAKS:

Depth (m)	TG units	Methane %	CO2-ppm	H2S-ppm	C1-ppm	C2-ppm	C3-ppm
436	16	0.1	0	0	-	-	-

442	12	0.1	0	0	-	-	-
446	11	0.1	0	0	-	-	-

DRILLING DATA: Hunterston #1

BIT # 1 Type: DB1214 Size: 3.78" Nozzles: - Depth In/Out: 366m /-m
 BIT HRS: 43 WOB: 0-0.5 RPM: 2300 TRQ: - GPM: 28 SPM: 700 PP: 210-250
 Lag Time while drilling @ 452m: 30 minutes @ 0.001 bls/stroke pump output)

Depth Interval (meters)	Minimum ROP (min/m)	Maximum ROP (min/m)	Average ROP (min/m)	Background Gas (units)
434.5 - 454.1	15	9	13.3	3 - 4

HYDROCARBON SHOW SUMMARY: Hunterston #1

Depth (m)	Lithology	Show Description	Rating
-	-	-	-

FORMATION TOPS: ACTUAL vs. PROGNOSE DEPTH

Formation/Stratigraphic Name	Prognose Top (meters GL)	Actual Top Depth (meters GL)	H/L To Prognosis (meters)
Ferntree Fm			
Dolerite Sill		336	
Risdon Sandstone			
Malbina Fm			
Poatina Group			
Liffey Group			
Bundella Fm			
Quamby Fm			
Stokers Tillite			
Pre-Cambrian Metasediments			

REMARKS/OTHERS

- Continued to drilled down in massive/dense and hard dolerite sill from 444.5m to 454.1m; formation gas detected from drilling breaks (fractures?) with gas peaks recorded at 436m, 442m and at 446m. Swab gas of 18 to 19 units ABG detected after pulling tube/circulated bottoms up at 440.5m; 446.5m and at 452.5m; respectively. Pulled out at 454.1m to for check bit condition. RIH new bit #2.

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