

689439
v8

| | |
|------------------|--------------------|
| PROGRAMMED FTD : | 2020 |
| DAYS (MI & RU) : | 11.00 |
| DAYS (MI SPUD) : | AFE AMT. : |
| TOTAL : | 11.00 CO. WI (%) : |

DAILY DRILLING REPORT

KB ELEVATION: 161.20 GROUND ELEVATION: 155.00 CBF ELEVATION: 155.00

Date of First Report: 24-Jan-13

| | | | | | |
|--------------|----------------------------|-------------------------|------------|------------|-------------------|
| Well Name : | MGM-Shell East Mackay I-78 | Licence # : | 466 | Date: | 24-Jan-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | Fuel Today | Fuel Total | Depth @ 07:00 Hr. |

DRILLING FLUID

BIT DATA

DRILLING PARAMETERS

PUMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | | 95% | | 235 |
| #2 | 9P-100 | | 95% | | 235 |
| #3 | | | | | |

PREPARATION COURS - COURS DE MATHÉMATIQUES - 100% EN LIGNE - 100% EN FRANÇAIS - 100% EN LIGNE

1000000000

OPERATION NEXT 24 HRS : Ins

Torque Tube and Top Drive

TOTAL: 24.00 **AMOUNT PAID:** 24.00

Drilling Rig & Number

: Akita 37 HOLE CONDITION :

BOILER HRS: 24.00 TOTAL DAILY HRS: 24.00

Tool Pusher : Guy

Custair

III. Location is in

Drilling Consultant :

T

THE BOSTONIAN

East Mackay I-78 - 2013**Daily HSE Report****Location:** East Mackay Project Staging**Operator:** MGM. Energy Corp.**Supervisors:** Marty Larson - Larry Blundon**Weather:** High Temp -29 C**Personnel in Camp:** 61**Regulator Contact:** No Regulator Contact**Safety:** No Safety Issues To Report**Safety Tracking**

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 14 | 0 | 0 |
| Previous | 72 | 3 | 7 |
| Total | 86 | 3 | 7 |

Environment: Submitted effluent samples from Wellsite sewage treatment unit to ALS-Yellowknife for analysis.**Environmental Tracking**

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 11 | 0 | 0 |
| Previous | 200 | 18 | 28 |
| Total | 211 | 18 | 28 |

Hazard Identification of the Day:

Unsafe Act: Hand forgot to put "Man Overhead" sign on drillers panel before heading up in the man rider.

Corrective

Action: Sign was put in place and hand was reminded of the importance of protocol.

| | |
|--------------------|--------------------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 12.00 |
| DAYS (FROM SPUD) : | AFE AMT. : |
| TOTAL DAYS : | 12.00 CO. WI (%) : |

689439
V9

DAILY DRILLING REPORT

| | | | | | | | |
|-------------------|----------------------------|-------------------------|-----------|------------|-----|-------|-----------|
| Date Last Report: | 24-Jan-13 | | | | | | |
| Well Name: | MGM-Shell East Mackay I-78 | | | | | | |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 25-Jan-13 | License #: | 466 | Date: | 25-Jan-13 |

KB ELEVATION: 161.20 GROUND ELEVATION: 155.00 CBF ELEVATION:

| | | | | | | |
|--------------|--------------|--------------------------------|-----------|------------|------------|-------------------|
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 25-Jan-13 | Fuel Today | Fuel Total | Depth @ 07:00 Hr. |
| | | picking up topdrive fr catwalk | | 16000 | 18500 | |

DRILLING FLUID

| Type : | Mud Engineer: | Cell # : | Office # : | Mud Co.: | Matrix Drilling Fluids | | | | |
|---------------|---------------|----------|------------|----------|------------------------|---------|---------|--------|--------|
| MUD CHECK | #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | | | | |
| Time | | | | | Description | OD (mm) | ID (mm) | Length | Thread |
| Depth | | | | | | | | | |
| Density | | | | | | | | | |
| Viscosity | | | | | | | | | |
| Water Loss | | | | | | | | | |
| pH | | | | | | | | | |
| Filter Cake | | | | | | | | | |
| P.V. | | | | | | | | | |
| Y.P. | | | | | | | | | |
| Gels 10 sec. | | | | | | | | | |
| Gels 10 min. | | | | | | | | | |
| Low "N" | | | | | | | | | |
| Low "K" | | | | | | | | | |
| Brk YP | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | |
| Chloride | | | | | | | | | |
| Calcium | | | | | | | | | |
| Sand % | | | | | | | | | |
| Solids % | | | | | | | | | |
| Oil Content % | | | | | | | | | |
| MBT | | | | | | | | | |
| Mud Gradient | | | | | | | | | |
| Last Csg MD: | | | | | | | | | |
| Last Csg TVD: | | | | | | | | | |
| MACP: | | | | | | | | | |
| RSPP: | | | | | | | | | |
| RSP Strokes: | | | | | | | | | |
| | | | Daily | Cum. | | | | | |
| | | | Mud (\$) | | | | | | |
| | | | Water (\$) | | | | | | |
| | | | | | MUD-UP DEPTH: | | | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|------|------------|-----------|--|----|-----|--------|----------|-----|---------|----|----|---|-----|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | |
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DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |

| 24 HOUR SUMMARY | | | | | | | | | | | | TIME BREAKDOWN | | | | | | |
|-----------------|--|--|--|--|--|--|--|--|--|--|--|----------------|--------|----------|---------|-----------|-----------|--|
| | | | | | | | | | | | | No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. | |
| | | | | | | | | | | | | #1 | 9P-100 | | 95% | | 235 | |
| | | | | | | | | | | | | #2 | 9P-100 | | 95% | | 235 | |
| | | | | | | | | | | | | #3 | | | | | | |

| | | | | | | | | | | | |
|-------|-------|---|--------------------|-------|--|--|--|--|--|--|--|
| 00:00 | 00:15 | Safety meeting w/rig crews & MGM rep | MIRU / TO : | 24.00 | | | | | | | |
| 00:15 | 03:30 | Weld on diverter flange & threaded nipples | Drill : | | | | | | | | |
| 03:30 | 03:45 | Safety meeting nipple up diverter | Ream : | | | | | | | | |
| 03:45 | 07:00 | Nipple up diverter p/u 20"diverter & 2-20" diverter spools | Coring : | | | | | | | | |
| 07:00 | 07:15 | Safety meeting pretour with MGM rep & Akita crew | Circ : | | | | | | | | |
| 07:15 | 09:30 | Continue to N/U diverter,install HCR | Trips : | | | | | | | | |
| 09:30 | 09:45 | JSA review of hanging torque tube | Rig Service : | | | | | | | | |
| 09:45 | 14:00 | P/U & hang torque tube and install braces. (continue working on pumps & test fire pumps) | Rig Repair : | | | | | | | | |
| 14:00 | 14:15 | JSA review of working on flare lines | Cut Drg Ln : | | | | | | | | |
| 14:15 | 20:00 | Work on flare lines, welding adjustments to flow Tee | Dev Survey : | | | | | | | | |
| 20:00 | 20:15 | Safety meeting w/rig crews & MGM rep | Logging : | | | | | | | | |
| 20:15 | 22:00 | Finish welding flow Tee | Run Casing : | | | | | | | | |
| 22:00 | 23:45 | P/U up Top drive from catwalk | Cementing : | | | | | | | | |
| 23:45 | 24:00 | Rig service | WOC : | | | | | | | | |
| | | | NU BOP : | | | | | | | | |
| | | | PT BOP : | | | | | | | | |
| | | | Abandon : | | | | | | | | |
| | | | Fishing : | | | | | | | | |
| | | | Dir Work : | | | | | | | | |
| | | | LDDP : | | | | | | | | |
| | | | B.O.P / Safety Mt: | | | | | | | | |

OPERATION NEXT 24 HRS : Finish rigging in top drive, build volumes, CAODC pre spud rig inspection, P/U & M/U BHA, spud well w/311mm bit

TOTAL: 24.00

BOILER HRS: 24.00

TOTAL DAILY HRS: 24.00

Drilling Rig & Number: Akita 37 HOLE CONDITION :

Tool Pusher : Guy Custair Cellular #: Road / Lease Condition : Road is holding together very well. Location is in good shape

Drilling Consultant : Trevor Mitchell / Jason Duck Email: rig_supervisor@mgmenergy.com Shack Cell #: (403) 536-9970

Temp (C) : -31 Weather : 15kph winds & periods of snow Taken By : John Williams / Dick Heenan

Date Last BOP Drill : Daily Cost : \$99,932 Cum Cost : \$7,985,808 AFE Remaining : \$0

East Mackay I-78 - 2013**Daily HSE Report****Location:** East Mackay Project Staging**Operator:** MGM. Energy Corp.**Supervisors:** Marty Larson - Larry Blundon**Weather:** High Temp -31 C ,wind chill -42, 15 kph NW winds with periods of snow.**Personnel in Camp:** 60**Regulator Contact:** No Regulator Contact**Safety:** No Safety Issues To Report**Safety Tracking**

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 7 | 0 | 0 |
| Previous | 65 | 3 | 7 |
| Total | 72 | 3 | 7 |

Environment: No Environmental Issues to Report**Environmental Tracking**

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 5 | 0 | 1 |
| Previous | 195 | 18 | 27 |
| Total | 200 | 18 | 28 |

Hazard ID of the day:

689439

V11

DAILY DRILLING REPORT

| | |
|-------------------|---------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| AFE # : | 12D0006 |
| DAY (FROM SPUD) : | 0.41 |
| AFE AMT. : | |
| TOTAL DAYS : | 14.00 |
| CO. WI (%) : | |

| | | | | | |
|---------------|--------|-------------------|--------|----------------|--|
| KB ELEVATION: | 161.20 | GROUND ELEVATION: | 155.00 | CBF ELEVATION: | |
|---------------|--------|-------------------|--------|----------------|--|

Date of Report: 24-Jan-13

Well Name: MGM-Shell East Mackay I-78

Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 27-Jan-13
100m | 100m | Drill 311mm holeLicence #: 466 | Date: 27-Jan-13
Fuel Today | Fuel Total | 28-Jan-13 | Depth @ 06:00 Hr.
3100 | 25600

DRILLING FLUID

| Type : | H2O | Mud Engineer: | Dave Gibson | Cell #: | | Office #: | | Mud Co.: | Matrix Drilling Fluids | | | | | | | | | | | |
|-------------------------------|---------|---------------|-------------|-----------|------|-----------|----|----------|------------------------|----------|-----|---------|----|----|---|-----|---|---|---|---|
| MUD CHECK #1 #2 ADDITIVES SKS | | | | | | | | | | | | | | | | | | | | |
| Time | 23:20 | | | | | | | | | | | | | | | | | | | |
| Depth | 92 | | | | | | | | | | | | | | | | | | | |
| Density | 1045 | | | | | | | | | | | | | | | | | | | |
| Viscosity | 34 | | | | | | | | | | | | | | | | | | | |
| Water Loss | | | | | | | | | | | | | | | | | | | | |
| pH | 10.50 | | | | | | | | | | | | | | | | | | | |
| Filter Cake | | | | | | | | | | | | | | | | | | | | |
| P.V. | | | | | | | | | | | | | | | | | | | | |
| Y.P. | | | | | | | | | | | | | | | | | | | | |
| Gels 10 sec. | | | | | | | | | | | | | | | | | | | | |
| Gels 10 min. | | | | | | | | | | | | | | | | | | | | |
| Low "N" | | | | | | | | | | | | | | | | | | | | |
| Low "K" | | | | | | | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | | | | | | |
| Chloride | | | | | | | | | | | | | | | | | | | | |
| Calcium | | | | | | | | | | | | | | | | | | | | |
| Sand % | | | | | | | | | | | | | | | | | | | | |
| Solids % | | | | | | | | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | | | | | | | | |
| Mud Gradient | 10.25 | | | | | | | | | | | | | | | | | | | |
| Last Csg MD: | | | | | | | | | | | | | | | | | | | | |
| Last Csg TVD: | | | | | | | | | | | | | | | | | | | | |
| MACP: | | | | | | | | | | | | | | | | | | | | |
| RSPP: | | | | | | | | | | | | | | | | | | | | |
| RSP Strokes: | | | | | | | | | | | | | | | | | | | | |
| BIT DATA | | | | | | | | | | | | | | | | | | | | |
| No. | Size-mm | Type | Serial No. | Jets (mm) | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
| 1 | 311 | GX-C03 | 5204676 | open | open | open | | | 21 | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| 1 | 5 | 140 | 22 | 3400 | 95 | 95 | | 34 | 41 | | 2.33 |
| | | | | | | | | | | | |

FROM TO 24 HOUR SUMMARY

| | | |
|-------|-------|--|
| 00:00 | 03:45 | Install kicker hose, mouse hole, drill line stabilizer, dress shakers |
| 03:45 | 04:00 | Rig service |
| 04:00 | 07:45 | Trip in one single to pressure test & function diverter system to 700kpa for 10min |
| 07:45 | 08:00 | Pre-tour safety meeting w/rig crew & MGM rep |
| 08:00 | 11:00 | Blow out attached mud lines blow through pumps, test all lines to see if clear, strap and ready pipe |
| 11:00 | 11:15 | pre-job safety meeting prior to picking up tools |
| 11:15 | 13:30 | pick up BHA |
| 13:30 | 14:00 | Pre spud meeting with MGM & Akita crew |
| 14:00 | 15:30 | Drill 311mm hole from 21m to 50m (tagged cement @ 21m) |
| 15:30 | 15:45 | Rig service |
| 15:45 | 16:30 | Run survey at 45m blow back top drive |
| 16:30 | 18:00 | Circulate & condition mud clean hole |
| 18:00 | 20:00 | Drill 311mm hole from 50m to 60m |
| 20:00 | 20:15 | Safety meeting w/rig crews & MGM rep |
| 20:15 | 21:00 | Drill 311mm hole from 60m to 70m |
| 21:00 | 21:15 | Safety pause & plan forward w/rig crew & MGM reps |
| 21:15 | 23:30 | Drill 311mm hole from 70m to 100m |
| 23:30 | 23:45 | Wireline survey @ 80m 0.7 deg |
| 23:45 | 24:00 | Rig service, fuction annular c/o 56 sec |

PUMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

TIME BREAKDOWN S I P L1 L2 L3

| | | | | | | |
|--------------------|-------|--|--|--|--|--|
| MIRU / TO : | 14.00 | | | | | |
| Drill : | 6.50 | | | | | |
| Ream : | | | | | | |
| Coring : | | | | | | |
| Circ : | 1.50 | | | | | |
| Trips : | | | | | | |
| Rig Service : | 0.50 | | | | | |
| Rig Repair : | | | | | | |
| Cut Drig Ln : | | | | | | |
| Dev Survey : | 1.00 | | | | | |
| Logging : | | | | | | |
| Run Casing : | | | | | | |
| Cementing : | | | | | | |
| WOC : | | | | | | |
| NU BOP : | | | | | | |
| PT BOP : | | | | | | |
| Abandon : | | | | | | |
| Fishing : | | | | | | |
| Dir Work : | | | | | | |
| LDDP : | | | | | | |
| B.O.P / Safety Mt: | 0.50 | | | | | |

SPUD WELL @ 14:00hrs , January 27, 2013

| | | | | | |
|-------------------------|--|------------------|------------------------------|--------------------------|---|
| OPERATION NEXT 24 HRS : | Drill ahead to TD, strap out wiper trip. | TOTAL: | 24.00 | | |
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION : | good | BOILER HRS: | 24.00 |
| Tool Pusher : | Guy Cusifar | Cellular #: | 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape |
| Drilling Consultant : | Trevor Mitchell / Jason Duchi | Email: | rig_supervisor@mgmenergy.com | Shack Cell #: | (403) 536-9970 |
| Temp (C) : | -36 | Weather : | 20kph wind, clear | Taken By : | John Williams / Dick Heenan |
| Date Last BOP Drill : | Jan.27, 2013 | Daily Cost : | \$86,681 | Cum Cost : | \$8,292,073 |
| | | | | AFE Remaining : | \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging

Operator: MGM. Energy Corp.

Supervisors: Marty Larson - Larry Blundon

Weather: High Temp -32 C

Personnel in Camp: 62

Regulator Contact: No Regulator Contact

Safety: No Safety Issues To Report

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 12 | 0 | 0 |
| Previous | 72 | 3 | 7 |
| Total | 84 | 3 | 7 |

Environment: No Environmental Issues to Report

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 2 | 0 | 0 |
| Previous | 211 | 18 | 28 |
| Total | 213 | 18 | 28 |

Hazard Identification of the Day:

Unsafe Act: Short collars were in danger of falling off of the racks as they were being rolled.

Corrective

Action: Stopped job, pulled collars off and re-positioned racks closer together to eliminate the chance of falling tubulars.

DM689439

DAILY DRILLING REPORT

| | |
|-------------------|-------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAY (FROM SPUD) : | 1.41 |
| TOTAL DAYS : | 15.00 |

KB ELEVATION: 161.20 GROUND ELEVATION: 155.00 CBF ELEVATION:

Date Last Report: 24-Jan-13

Well Name: MGM-Shell East Mackay I-78

Licence #: 466 Date: 28-Jan-13

Dpth @ 24:00 Progress (m) Operation @ 24:00 Hours 28-Jan-13
395 295 POOH (strapping out Wiper trip)Fuel Today Fuel Total 29-Jan-13 Depth @ 06:00 Hr.
7100 32700 405 TD

DRILLING FLUID

| Type : | H2O | Mud Engineer: | Dave Gibson | Cell # : | Office # : | Mud Co.: | Matrix Drilling Fluids |
|--------|-----|---------------|-------------|----------|------------|----------|------------------------|
|--------|-----|---------------|-------------|----------|------------|----------|------------------------|

| MUD CHECK | | #1 | #2 | ADDITIVES | | SKS | BOTTOM HOLE ASSEMBLY | | | | |
|---------------|--|-------|-------|-----------|--|-----|----------------------|-----|------|-----------|--------------|
| Time | | 04:00 | 23:00 | Gel | | 45 | Bit | 311 | 0.30 | 6 5/8 reg | |
| Depth | | 151 | 395 | sawdust | | 73 | Bit sub | 228 | 0.71 | 6 5/8 reg | |
| Density | | 1050 | 1110 | Polyzan | | 1 | 6-6.25 DC's | 156 | 72 | 56.29 | 4 1/2 XH |
| Viscosity | | 33 | 61 | | | | Jar Hyd/mech | 156 | 70 | 10.02 | 4 1/2 XH |
| Water Loss | | | | | | | 7-6.25 DC's | 156 | 70 | 65.20 | 4 1/2 XH |
| pH | | | | | | | X/O | 102 | 65 | 1.10 | 4 1/2XH/4'FH |
| Filter Cake | | | | | | | 20-HWDP | 102 | 65 | 186.44 | 4' FH |
| P.V. | | | | | | | | | | | |
| Y.P. | | | | | | | | | | | |
| Gels 10 sec. | | | | | | | | | | | |
| Gels 10 min. | | | | | | | | | | | |
| Low "N" | | | | | | | | | | | |
| Low "K" | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | |
| Chloride | | | | | | | | | | | |
| Calcium | | | | | | | | | | | |
| Sand % | | | | | | | | | | | |
| Solids % | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | |
| MBT | | | | | | | | | | | |
| Mud Gradient | | 10.30 | 10.89 | | | | | | | | |
| Last Csg MD: | | | | | | | | | | | |
| Last Csg TVD: | | | | | | | | | | | |
| MACP: | | | | | | | | | | | |
| RSPP: | | 485 | | | | | | | | | |
| RSP Strokes: | | 65 | | | | | | | | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|--------|------------|-----------|------|------|----|-----|--------|----------|-----|---------|----|----|---|-----|---|---|---|---|
| 1 | 311 | GX-C03 | 5204676 | open | open | open | | | 21 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| 1 | 8 | 140 | 33 | 9780 | 95 | 95 | | 34 | 41 | 74.0 | 2.33 |
| | | | | | | | | | | | |

FROM TO 24 HOUR SUMMARY

| | | |
|-------|-------|--|
| 00:00 | 05:00 | Drill 311mm w/slick assembly from 100mKB to 210mKB |
| 05:00 | 06:15 | Accum work pipe & connections |
| 06:15 | 06:45 | Accum wireline surveys |
| 06:45 | 07:00 | Crew change safety meeting with MGM rep & Akita crew |
| 07:00 | 07:45 | Accum wireline surveys |
| 07:45 | 08:00 | Rig service, function annular c/o 54 sec |
| 08:00 | 08:15 | Diveter drill with Akita crew |
| 08:15 | 14:30 | Drill 311mm w/slick assembly from 210mKB to 360mKB |
| 14:30 | 15:45 | Accum wireline surveys |
| 15:45 | 18:45 | Accum work pipe & connections |
| 18:45 | 19:00 | Rig service, grease top drive/wash pipe, function annular c/o 54 sec |
| 19:00 | 19:15 | Safety meeting with MGM rep & Akita crew |
| 19:15 | 21:00 | Drill 311mm hole w/slick assembly from 360mKB to 395mKB |
| 21:00 | 21:30 | Accum work pipe & connections |
| 21:30 | 21:45 | Rig service, function annular c/o 54 sec |
| 21:45 | 22:15 | Circulate hole clean |
| 22:15 | 22:30 | wireline survey |
| 22:30 | 23:00 | Blow out top drive, remove kicker hose, circulate pumps through bleeder, line up trip tank to wiper trip out of hole |
| 23:00 | 24:00 | POOH with flow checks @ 394m, 376m, 132m before collars |

PUMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

TIME BREAKDOWN S I P L1 L2 L3

| | | | | | | |
|--------------------|-------|--|--|--|--|--|
| MIRU / TO : | | | | | | |
| Drill : | 17.75 | | | | | |
| Ream : | | | | | | |
| Coring : | | | | | | |
| Circ : | 0.50 | | | | | |
| Trips : | 1.50 | | | | | |
| Rig Service : | 0.75 | | | | | |
| Rig Repair : | | | | | | |
| Cut Drig Ln : | | | | | | |
| Dev Survey : | 2.75 | | | | | |
| Logging : | | | | | | |
| Run Casing : | | | | | | |
| Cementing : | | | | | | |
| WOC : | | | | | | |
| NU BOP : | | | | | | |
| PT BOP : | | | | | | |
| Abandon : | | | | | | |
| Fishing : | | | | | | |
| Dir Work : | | | | | | |
| LDDP : | | | | | | |
| B.O.P / Safety Mt: | 0.75 | | | | | |

OPERATION NEXT 24 HRS : Cont wiper trip, RIH drill ahead to 405mKB-TD, circ clean, POOH to Log, RIH to circ clean, POOH to RIH w/ 244.5mm casing

TOTAL: 24.00

BOILER HRS: 24.00 TOTAL DAILY HRS: 24.00

Drilling Rig & Number: Akita 37 HOLE CONDITION : Gun barrel

Tool Pusher : Guy Cusitar Cellular #: 403-648-0842 Road / Lease Condition : Road is holding together very well. Location is in good shape

Drilling Consultant : Trevor Mitchell / Jason Duck Email: rig_supervisor@mgmenergy.com Shack Cell #: (403) 536-9970

Temp (C) : -35 Weather : 17kph wind & clear Taken By : John Williams / Dick Heenan

Date Last BOP Drill : Jan.27, 2013 Daily Cost : \$126,082 Cum Cost : \$8,418,825 AFE Remaining : \$0

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Larry Blundon

Weather: High Temp -35 C

Personnel in Camp: 64

Regulator Contact: No Regulator Contact

Safety: No Safety Issues To Report

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|------------------|------------------|------------------|
| Daily | 6 | 0 | 0 |
| Previous | 84 | 3 | 8 |
| Total | 90 | 3 | 8 |

Environment: No Environmental Issues to Report

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|---------------------|---------------|-----------------|
| Daily | 5 | 0 | 0 |
| Previous | 213 | 18 | 28 |
| Total | 218 | 18 | 28 |

Hazard Identification of the Day:

Unsafe Act: Noticed excess Plastic on the ground with snow on it footing becoming very slippery.

Corrective Action: Cut off excess plastic where it wasn't needed and built side walks for areas that needed it.

DM 689439 v13

DAILY DRILLING REPORT

| | |
|-------------------|---------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| AFE # : | 12D0006 |
| DAY (FROM SPUD) : | 2.41 |
| AFE AMT. : | |
| TOTAL DAYS : | 16.00 |
| CO. WI (%) : | |

| | | | | | |
|---------------|--------|-------------------|--------|----------------|--|
| KB ELEVATION: | 161.20 | GROUND ELEVATION: | 155.00 | CBF ELEVATION: | |
|---------------|--------|-------------------|--------|----------------|--|

Date of Report: 24-Jan-13

Well Name: MGM-Shell East Mackay I-78

Dpth @ 24:00 Progress (m) Operation @ 24:00 Hours 29-Jan-13
405 10 Rig out wireliners

Licence #: 466 Date: 29-Jan-13
Fuel today 8180 30-Jan-13 Depth @ 06:00 Hr.
Fuel total 40880 405

DRILLING FLUID

| | | | | | |
|--------|-----|---------------------------|---------|-----------|---------------------------------|
| Type : | H2O | Mud Engineer: Dave Gibson | Cell #: | Office #: | Mud Co.: Matrix Drilling Fluids |
|--------|-----|---------------------------|---------|-----------|---------------------------------|

| MUD CHECK | | #1 | #2 | ADDITIVES | | SKS |
|---------------|-------|----|----|-----------|----|-----|
| Time | 10:00 | | | Gel | 60 | |
| Depth | 405 | | | sawdust | 25 | |
| Density | 1190 | | | | | |
| Viscosity | 75 | | | | | |
| Water Loss | | | | | | |
| pH | 8.5 | | | | | |
| Filter Cake | | | | | | |
| P.V. | | | | | | |
| Y.P. | | | | | | |
| Gels 10 sec. | | | | | | |
| Gels 10 min. | | | | | | |
| Low "N" | | | | | | |
| Low "K" | | | | | | |
| Brk YP | | | | | | |
| Brk 0.5 rpm | | | | | | |
| Chloride | | | | | | |
| Calcium | | | | | | |
| Sand % | | | | | | |
| Solids % | | | | | | |
| Oil Content % | | | | | | |
| MBT | | | | | | |
| Mud Gradient | 11.67 | | | | | |
| Last Csg MD: | | | | | | |
| Last Csg TVD: | | | | | | |
| MACP: | | | | | | |
| RSPP: | | | | | | |
| RSP Strokes: | | | | | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|--------|------------|-----------|------|------|----|-----|--------|----------|------|---------|----|----|----|-----|---|---|----|----|
| 1 | 311 | GX-C03 | 5204676 | 24.0 | 24.0 | 24.0 | | | 382.0 | 1.25 | 15.0 | 25.50 | 6 | 7 | WT | A | E | 1 | NO | TD |
| | | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| 1 | 5 | 140 | 33 | 11000 | 100 | 100 | | 36 | 43 | 30.1 | 2.45 |
| | | | | | | | | | | | |

FROM TO 24 HOUR SUMMARY

| | | | | |
|-------|-------|--|--|--|
| 00:00 | 01:30 | Cont to trip out of the hole, flowchecks @ 394m, 376m, 132m, every 20 min while out of the hole | | |
| 01:30 | 04:45 | Trip in the hole, flow checks @ 394m, 376m, 132m, every 20 Min while out of Hole | | |
| 04:45 | 06:00 | Drill 311mm Surface Hole from 395mKB to 405mKB | | |
| 06:00 | 07:00 | Circulate and Condition Mud for Logging | | |
| 07:00 | 07:15 | Crew Changeover Safety Meeting with MGM Rep and Akita Rig Crew | | |
| 07:15 | 10:30 | Circulate and Condition Mud for Logging | | |
| 10:30 | 10:45 | Rig Service, Function Test Annular / Close 55 Sec | | |
| 10:45 | 16:00 | Trip out of Hole to Log with Baker Wireline. Flow Checks at 400m, 200m, 130m, and Out of Hole. Monitor Well | | |
| 16:00 | 16:15 | Crew Change over Safety Meeting with MGM Rep and Akita Rig Crew | | |
| 16:15 | 16:30 | Safety Meeting with Baker Wireline Loggers | | |
| 16:30 | 23:00 | Rig to and Log with Baker Wireline. Time on Bottom - 19:40, Loggers TD - 405.84m, Logs Run - hdil/xmac/dual-zdi/cn/gr/ttrn | | |
| 23:00 | 23:15 | Rig service | | |
| 23:15 | 23:45 | Rig out wireliners | | |
| 23:45 | 24:00 | Crew change over meeting w/MGM rep & Akita rig crew | | |

OPERATION NEXT 24 HRS : RIH, circulate & POOH to run 244.5mm surface casing & cement casing. WOC

| | | | |
|--|------------------------------------|--------------------------|---|
| Drilling Rig & Number: Akila 37 | HOLE CONDITION : Gun barrel | | |
| Tool Pusher : Guy Cusitar | Cellular # : 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape |
| Drilling Consultant : Trevor Mitchell / Jason Duck | Email: ig_supervisor@mgmenergy.com | Shack Cell # : | (403) 536-9970 |
| Temp (C) : -40 | Weather : 5kph wind & cold | Taken By : | John Williams / Dick Heenan |
| Date Last BOP Drill : January 28, 2013 | Daily Cost : | \$127,399 | Cum Cost : \$9,378,210 |
| | | | AFE Remaining : \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging

Operator: MGM. Energy Corp.

Supervisors: Marty Larson - Dan Jutras

Weather: High Temp -32 C

Personnel in Camp: 64

Regulator Contact: No Regulator Contact

Safety: Cook was cutting meat and accidentally cut her finger. She went to the medic for assistance, where after consultation with the Advanced Care medic, it was decided that she should be referred to the Tulita clinic for stitches. The Tulita clinic sutured the laceration and the cook returned to the camp and will return to work.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 4 | 0 | 1 |
| Previous | 90 | 3 | 8 |
| Total | 94 | 3 | 9 |

Environment: No Environmental Issues to Report

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 6 | 0 | 0 |
| Previous | 218 | 18 | 28 |
| Total | 224 | 18 | 28 |

Hazard Identification of the Day:

Unsafe Act: Found anti-freeze dripping out of Eaton brake rad.

Action: Put drip tray under radiator.

Corrective

DM 689439 v14

DAILY DRILLING REPORT

| | |
|-------------------|---------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| AFE # : | 12D0006 |
| DAY (FROM SPUD) : | 3.41 |
| CO. WI (%) : | |

KB ELEVATION: 161.20 GROUND ELEVATION: 155.00 CBF ELEVATION:

Date of Report: 24-Jan-13

| | | | | | | | |
|--------------|----------------------------|--------------|-------------------------|-------------|------------|------------|-----------------------------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence # : | 466 | Date: | 30-Jan-13 |
| Dpth @ 24.00 | 405 | Progress (m) | Operation @ 24:00 Hours | 30-Jan-13 | Fuel today | Fuel total | 31-Jan-13 Depth @ 06:00 Hr. |

DRILLING FLUID

| Type : | H2O | Mud Engineer: | Dave Gibson | Cell # : | | Office # : | | Mud Co.: | Matrix Drilling Fluids |
|---------------|-----|---------------|-------------|----------|----------------------|------------|---------|----------|------------------------|
| MUD CHECK | #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | | | | |
| Time | | | | | Description | OD (mm) | ID (mm) | Length | Thread |
| Depth | | | | | Bit | 311 | | 0.30 | 6 5/8 reg |
| Density | | | | | Bit sub | 228 | | 0.71 | 6 5/8 reg |
| Viscosity | | | | | 6-6.25 DC's | 156 | 72 | 56.29 | 4 1/2 XH |
| Water Loss | | | | | Jar Hyd/mech | 156 | 70 | 10.02 | 4 1/2 XH |
| pH | | | | | 7-6.25 DC's | 156 | 70 | 65.20 | 4 1/2XH |
| Filter Cake | | | | | X/O | 102 | 65 | 1.10 | 4 1/2XH/4FH |
| P.V. | | | | | 20-HWDP | 102 | 65 | 186.44 | 4' FH |
| Y.P. | | | | | | | | | |
| Gels 10 sec. | | | | | | | | | |
| Gels 10 min. | | | | | | | | | |
| Low "N" | | | | | | | | | |
| Low "K" | | | | | | | | | |
| Brk YP | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | |
| Chloride | | | | | | | | | |
| Calcium | | | | | | | | | |
| Sand % | | | | | | | | | |
| Solids % | | | | | | | | | |
| Oil Content % | | | | | | | | | |
| MBT | | | | | | | | | |
| Mud Gradient | | | | | | | | | |
| Last Csg MD: | | | | | | | | | |
| Last Csg TVD: | | | | | | | | | |
| MACP: | | | | | | | | | |
| RSPP: | | | | | | | | | |
| RSP Strokes: | | | | | | | | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|------|------------|-----------|--|----|-----|--------|----------|-----|---------|----|----|---|-----|---|---|---|---|
| | | | | | | | | | | | 25.50 | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

24 HOUR SUMMARY

| 24 HOUR SUMMARY | | | | | | | | | | | | PUMP DATA | | | | | |
|------------------------|------------------------------|--|-----------------------------|--|----------------|--|--|--|--|--|--|--------------------|-------|------------------|----|-----------------------------|----|
| FROM | TO | TIME BREAKDOWN | | | | | | | | | | S | I | P | L1 | L2 | L3 |
| 00:00 | 02:45 | Continue Rigging out Baker Wireline | | | | | | | | | | MIRU / TO : | | | | | |
| 02:45 | 03:00 | Rig Service, Function Annular, 55 Sec to Open | | | | | | | | | | Drill : | | | | | |
| 03:00 | 06:00 | Run in Hole to 405mKB | | | | | | | | | | Ream : | | | | | |
| 06:00 | 07:00 | Condition Mud and Circulate prior to Trip out to Run 244.5mm Surface Casing | | | | | | | | | | Coring : | | | | | |
| 07:00 | 07:15 | Crew Changeover Meeting with MGM Rep and Crews | | | | | | | | | | Circ : | 2.75 | | | | |
| 07:15 | 08:45 | Continue Circulating and Conditioning Mud prior to Trip out to Run 244.5mm Surface Casing | | | | | | | | | | Trips : | 7.75 | | | | |
| 08:45 | 13:30 | Trip out of Hole from 405mKB to Surface. Flow Check at 400m, 200m, 130m, and Out of Hole. | | | | | | | | | | Rig Service : | 0.50 | | | | |
| 13:30 | 14:00 | Safety Meeting with Hallmark Power Tong Hands prior to Picking up Power Tongs | | | | | | | | | | Rig Repair : | | | | | |
| 14:00 | 16:00 | Rig up Hallmark Power Tongs and Computer Torque Monitoring Equipment | | | | | | | | | | Cut Drilg Ln : | | | | | |
| 16:00 | 16:15 | Safety Meeting with Hallmark Power Tong Hands prior to Running Casing | | | | | | | | | | Dev Survey : | | | | | |
| 16:15 | 19:45 | Run 244.5mm, 59.53kg/m, L-80, Tenaris Blue Casing with Hallmark Power Tongs. | | | | | | | | | | Logging : | 2.75 | | | | |
| 19:45 | 20:00 | Safety meeting (crew hand over) with MGM rep, Akita crew & hallmark tong hands | | | | | | | | | | Run Casing : | 9.00 | | | | |
| 20:00 | 23:30 | Continue to Run 29 Joints of 244.5mm, 59.53kg/m, L-80, Tenaris Blue Casing with Hallmark Power Tongs. | | | | | | | | | | Cementing : | | | | | |
| 23:30 | 23:45 | Rig service/ grease catwalk | | | | | | | | | | WOC : | | | | | |
| 23:45 | 24:00 | Head up & circulate casing & rig out tong hands | | | | | | | | | | NU BOP : | | | | | |
| | | Total Length of 402.89m. Landed MBS Casing Head in Diverter Flange with 1.10m Casing Stickup and Bottom of Casing String at 401.79mKB. | | | | | | | | | | PT BOP : | | | | | |
| | | | | | | | | | | | | Abandon : | | | | | |
| | | | | | | | | | | | | Fishing : | | | | | |
| | | | | | | | | | | | | Dir Work : | | | | | |
| | | | | | | | | | | | | LDDP : | | | | | |
| | | | | | | | | | | | | B.O.P / Safety Mt: | 1.25 | | | | |
| | | | | | | | | | | | | TOTAL: | 24.00 | | | | |
| | | | | | | | | | | | | BOILER HRS: | 24.00 | TOTAL DAILY HRS: | | | |
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION : Gun barrel | | | | | | | | | | | | | | | |
| Tool Pusher: | Guy Cusitar | Cellular #: | 403-648-0842 | Road / Lease Condition : Road is holding together very well. Location is in good shape | | | | | | | | | | | | | |
| Drilling Consultant: | Trevor Mitchell / Jason Duck | Email: | ig_supervisor@mgmenergy.com | Shack Cell #: | (403) 536-9970 | | | | | | | | | | | | |
| Temp (C): | -28 | Weather: | 7kph wind & clear | Taken By: | | | | | | | | | | | | John Williams / Dick Heenan | |
| Date Last BOP Drill: | January 28, 2013 | Daily Cost: | \$125,666 | Cum Cost: | \$9,500,896 | | | | | | | | | | | AFE Remaining : \$0 | |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging

Operator: MGM. Energy Corp.

Supervisors: Marty Larson - Dan Jutras

Weather: High Temp -30 C

Personnel in Camp: 64

Regulator Contact: National Energy Board (NEB) Inspectors Rick Turner & Lori Croal inspected the camp site and well site.

Safety: The NEB inspectors inspected the camp facilities and the staging area. They seemed pleased with the condition of the camp facilities and the staging area.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 5 | 0 | 0 |
| Previous | 94 | 3 | 9 |
| Total | 99 | 3 | 9 |

Environment: The NEB inspection included a review of the environmental practices in the project area. The NEB inspectors commented that they thought the inspection had went well and they would be issuing their report in the next day or two.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 4 | 0 | 1 |
| Previous | 224 | 18 | 28 |
| Total | 228 | 18 | 29 |

Hazard Identification of the Day:

Unsafe Act: Using the stabbing valve as a rack for clothing and stuff

Action: Talked to crew about keeping the stabbing valve clear for emergencies.

Corrective

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Dan Jutras

Date: Thursday, January 31, 2013

Weather: High Temp -25 C

Personnel in Camp: 68

Regulator Contact: No regulator contact

Safety: No safety issues to report

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|------------------|------------------|------------------|
| Daily | 7 | 0 | 0 |
| Previous | 99 | 3 | 9 |
| Total | 106 | 3 | 9 |

Environment: No environmental issues to report

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|---------------------|---------------|-----------------|
| Daily | 5 | 0 | 0 |
| Previous | 228 | 18 | 29 |
| Total | 233 | 18 | 29 |

Hazard Identification of the Day:

Unsafe Act: Extension cord with exposed wires.

Corrective Action: Cord was pulled from service. This has happened to a few cords due to the cold and we will have to watch for it continuously.

689439

v 16

DAILY DRILLING REPORT

| | | |
|---------------------|--------------|------------------|
| PROGRAMMED FTD : | 2020 | |
| DAYS (MI & RU) : | 13.59 | AFE #: 12D0006 |
| DAYS (FROM SPUD) : | 5.41 | AFE AMT.: |
| TOTAL DAYS : | 19.00 | CO. WI %: |
| Permit #: | 1 | Report #: |

KB ELEVATION: 161.20 GROUND ELEVATION: 155.00 CBF ELEVATION :

| | | | | | | | |
|--------------|----------------------------|--------------------------------|-----------|-------------|------------|-------------------|----------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence # : | 1202-002 | Date: | 1-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 01-Feb-13 | Fuel today | Fuel total | Depth @ 06:00 Hr. | |
| 405 | 405 | Lay dn 3- 6.25 DC's from stick | | 5276 | 61550 | 405 | |

DRILLING FLUID

BIT DATA

DRILLING PARAMETERS

BLIMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

50/50

2014 RELEASE UNDER E.O. 14176

| FROM | TO | 24 HOUR SUMMARY | TIME BREAKDOWN | S | I | P | L1 | L2 | L3 |
|-------|-------|---|--------------------|------|---|---|----|----|----|
| 00:00 | 06:30 | Nipple up, HCR, kill line valves, run lines to manifold, weld on flow T & install | MIRU / TO : | | | | | | |
| 06:30 | 06:45 | Rig service & grease top drive, function motor kills | Drill : | | | | | | |
| 06:45 | 07:00 | Safety meeting with Akita crew & MGM rep | Ream : | | | | | | |
| 07:00 | 10:00 | Continue to nipple up hydraulic hoses for stack, gut line, insulate steam lines to manifold | Coring : | | | | | | |
| 10:00 | 10:30 | Function test BOP's | Circ : | | | | | | |
| 10:30 | 10:45 | Safety meeting with Rainbow pressure tester | Trips : | | | | | | |
| 10:45 | 11:30 | Rig up to pressure test | Rig Service : | 0.50 | | | | | |
| 11:30 | 18:45 | Pressure test inside Bop, stabbing valve, Annular, Pipe rams, Kill line, Upper kelly cock, Blind/Shear rams, I/O HCR, stand pipe. | Rig Repair : | | | | | | |
| 18:45 | 18:45 | All manifold valves Low= 1400kpa, High= 21,000kpa, all tests for 15 min, all tests were good | Cut Drdg Ln : | | | | | | |
| 18:45 | 19:00 | Safety meeting with Akita crew & MGM rep | Dev Survey : | | | | | | |
| 19:00 | 20:00 | Pressure test accumulator, starting system pressure 19,800kpa, Annular= close/16 sec, HCR= close /2 sec, Pipe rams=close/5 sec | Logging : | | | | | | |
| 20:00 | 20:00 | Total pressure loss 8000 kpa, remaining pressure 11,800kpa | Run Casing : | | | | | | |
| 20:00 | 21:30 | Remove & modify flow-T so wear bushing will fit through & install | Cementing : | | | | | | |
| 21:30 | 22:30 | Install wear bushing | WOC : | | | | | | |
| 22:30 | 22:45 | Rig service, function test motor kills | NU BOP : | 9.50 | | | | | |
| 22:45 | 24:00 | Weld on top drive, repair proxy sensor | PT BOP : | 9.50 | | | | | |
| | | | DST : | | | | | | |
| | | | Fishing : | | | | | | |
| | | | Dir Work : | | | | | | |
| | | | LDDP : | | | | | | |
| | | | B.O.P / Safety Mt: | 0.75 | | | | | |
| | | | Welding | 2.75 | | | | | |
| | | | wear bushing | 1.00 | | | | | |

OPERATION NEXT 24 HRS : M/U Directional BHA RIH, BOP drill, Drill out float collar & shoe, Leak off test & Drill ahead w/222mm bit.

TOTAL: 24.00

| | | | |
|--|------------------|------------------------------|---|
| Drilling Rig & Number: Akitा 37 | HOLE CONDITION : | | |
| Tool Pusher: Guy Cusitar | Cellular #: | 403-648-0842 | Road / Lease Condition : Road is holding together very well. Location is in good shape |
| Drilling Consultant: Trevor Mitchell / Jason Dug | Email: | rig_supervisor@mgmenergy.com | Shack Cell # : (403) 536-9970 |
| Temp (C): -25 | Weather: | 2kph NW wind, clear | Taken By : John Williams / Dick Heenan |
| Date Last BOP Drill: January 28, 2013 | Daily Cost: | \$148,375 | Cum Cost: \$10,129,866 AFE Remaining: \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Dan Jutras

Date: Friday, February 01, 2013

Weather: High Temp -25 C

Personnel in Camp: 71

Regulator Contact: No regulator contact

Safety: An incident occurred when a worker from Peak Energy stepped backwards into a drip tray, slipped and fell. The worker bruised his left left wrist and posterior. The worker visited the medic and was cleared to return to work with no first aid being administered.

A near miss occurred, when a MYB worker was driving to the lease in a pickup and pulled over to far to the side of the road causing him to enter the soft edge of the road and become stuck. The driver stated he thought he had maybe momentarily "dozed off". The vehicle was pulled out with no damage to the vehicle or injuries to the driver.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 4 | 1 | 1 |
| Previous | 106 | 3 | 9 |
| Total | 110 | 4 | 9 |

Environment: There was one spill today from a leaking hydraulic pump on a water truck. Approximately 8 litres of hydraulic fluid was spilled on the access road near Km 13. The mechanic fixed the hydraulic pump on-site. The 8 litres of hydraulic fluid was recovered along with approximately 35 litres of snow and ice. The snow was hauled back to the staging area and placed into a lined C-can for disposal.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 3 | 1 | 0 |
| Previous | 233 | 18 | 29 |
| Total | 236 | 19 | 29 |

Hazard Identification of the Day:

Unsafe Act: A worker put his hands in a pinch point area.

Corrective Action: Work was immediately stopped and the worker was advised of the hazard before work continued.

DM 689459

V17

DAILY DRILLING REPORT

| | |
|-------------------|-------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAY (FROM SPUD) : | 6.41 |
| TOTAL DAYS : | 20.00 |

KB ELEVATION: 161.20 GROUND ELEVATION: 155.00 CBF ELEVATION:

Date of Report: 24-Jan-13

Well Name: MGM-Shell East Mackay I-78

Licence #: 1202-002

Date: 2-Feb-13

Dpth @ 24:00 Progress (m) Operation @ 24:00 Hours 02-Feb-13
545 140 Drill ahead w/ 222mm bit

Fuel today 8787 Fuel total 70337

Depth @ 06:00 Hr. 636

DRILLING FLUID

| Type : | Polymer | Mud Engineer: | Dave Gibson | Cell # : | Office # : | Mud Co.: | Matrix Drilling Fluids | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------|---|-------------|-------------------------------------|------------|----------------------|------------------------|----------------|--------|---------|----------|-----|--------|----------|---------|--------------------|-----------|------|----|----|------------------------|--|--|--|--|--|--|--|--|--|
| MUD CHECK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Time | 22:30 | #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | SURVEYS | | | | | | | | | | | | | | | | | | | | | | | |
| Time | 22:30 | Aqua star | 2 | Description | OD (mm) | ID (mm) | Length | Thread | | | | | | | | | | | | | | | | | | | | | | |
| Depth | 515 | Staflo | 1 | PDC bit | 222 | | 0.34 | 4 1/2 reg | | | | | | | | | | | | | | | | | | | | | | |
| Density | 1010 | Polyzan | 1 | Tru Trac | 193 | 88.9 | 13.04 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | | |
| Viscosity | 32 | Hyperdrill 247 | 1 | MWD | 176 | 72 | 0.77 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | | |
| Water Loss | 16 | Cal carb 325 | 5 | NM Drill collar | 163 | 72 | 9.09 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | | |
| pH | 9.5 | Sodium Bi carb | 1 | NM Drill collar | 161 | 72 | 8.46 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | | |
| Filter Cake | .5 | | | Sub | 171 | 72 | 1.66 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | | |
| P.V. | 2 | | | Sub- X/O | 160 | 57 | 0.58 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | | |
| Y.P. | 1.5 | | | 4- 6.25 DC's | 156 | 70 | 37.37 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | | |
| Gels 10 sec. | 1 | | | Jar | 156 | 70 | 10.02 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | | |
| Gels 10 min. | 2 | | | 3- 6.25 DC's | 156 | 70 | 28.32 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | | |
| Low "N" | .35 | | | Sub- X/O | 102 | 65 | 1.10 | 4-FH / 4 1/2XH | | | | | | | | | | | | | | | | | | | | | | |
| Low "K" | 2.89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | 360 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sand % | TR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solids % | .040 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mud Gradient | 9.91 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last Csg MD: | 405.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last Csg TVD: | 405.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MACP: | 6809 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RSPP: | 2500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RSP Strokes: | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BIT DATA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. | Size-mm | Type | Serial No. | Jets (mm) | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R | | | | | | | | | | | | |
| 2 | 222 | QD505X | 7131618 | 9.5 9.5 9.5 9.5 9.5 9.5 | 405 | | | | | 25.50 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRILLING PARAMETERS | | | | | | | | PUMP DATA | | | | | | | | | | | | | | | | | | | | | | |
| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min | No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. | | | | | | | | | | | | | |
| 2 | 5 | 74 | 27 | 5500 | 115 | | | 46 | 72 | 47.3 | 1.41 | #1 | 9P-100 | 0.0129 | 95% | 152 | 235 | | | | | | | | | | | | | |
| | | | | | | | | | | | | #2 | 9P-100 | 0.0129 | 95% | 152 | 235 | | | | | | | | | | | | | |
| | | | | | | | | | | | | #3 | | | | | | | | | | | | | | | | | | |
| FROM TO 24 HOUR SUMMARY | | | | | | | | TIME BREAKDOWN | | | | | | | | S | I | P | L1 | L2 | L3 | | | | | | | | | |
| 00:00 | 01:00 | Lay Dn 6.25 Drill collar | | | | | | | | | | | | | | MIRU / TO : | | | | | | | | | | | | | | |
| 01:00 | 01:15 | Rig service, function crown saver | | | | | | | | | | | | | | Drill : | | | | | 5.00 | | | | | | | | | |
| 01:15 | 01:30 | Safety meeting with Baker Hughes directional | | | | | | | | | | | | | | Ream : | | | | | | | | | | | | | | |
| 01:30 | 04:00 | Pick up directional BHA | | | | | | | | | | | | | | Coring : | | | | | | | | | | | | | | |
| 04:00 | 06:45 | Trip in the hole, lay out single 6.25 DC & P/U jar | | | | | | | | | | | | | | Circ : | 1.00 | | | | | | | | | | | | | |
| 06:45 | 07:00 | Safety meeting with MGM rep & Akita crew | | | | | | | | | | | | | | Trips : | 5.25 | | | | | | | | | | | | | |
| 07:00 | 09:30 | Continue to trip in & tag | | | | | | | | | | | | | | Rig Service : | 0.25 | 0.25 | | | | | | | | | | | | |
| 09:30 | 13:00 | Drill out Float & shoe | | | | | | | | | | | | | | Rig Repair : | | | | | | | | | | | | | | |
| 13:00 | 14:00 | Formation integrity test | | | | | | | | | | | | | | Cut Drlg Ln : | | | | | | | | | | | | | | |
| 14:00 | 14:30 | BOP Drill held with Akita rig crew | | | | | | | | | | | | | | Dev Survey : | | | | | 2.50 | | | | | | | | | |
| 14:30 | 15:30 | Displace hole from cement water to polymer | | | | | | | | | | | | | | Logging : | | | | | | | | | | | | | | |
| 15:30 | 18:00 | Drill 222mm hole from 405mkb to 470mkb | | | | | | | | | | | | | | Run Casing : | | | | | | | | | | | | | | |
| 18:00 | 18:45 | Accumulated connections & survey time | | | | | | | | | | | | | | Cementing : | | | | | | | | | | | | | | |
| 18:45 | 19:00 | Safety meeting with MGM rep & Akita crew | | | | | | | | | | | | | | WOC : | | | | | | | | | | | | | | |
| 19:00 | 21:30 | Drill 222mm hole from 470mkb to 545mkb | | | | | | | | | | | | | | NU BOP : | | | | | | | | | | | | | | |
| 21:30 | 22:00 | BOP Drill held with Akita rig crew, 65 sec well secure | | | | | | | | | | | | | | PT BOP : | | | | | | | | | | | | | | |
| 22:00 | 22:15 | Rig service, function test annular 45 sec to c/o | | | | | | | | | | | | | | Formation Int Test | 1.00 | | | | | | | | | | | | | |
| 22:15 | 24:00 | Accumulated connections & survey time | | | | | | | | | | | | | | Fishing : | | | | | | | | | | | | | | |
| | | Formation integrity test: 6500kpa surface applied pressure - no leak off = 26.72kpa/m calculated gradient | | | | | | | | | | | | | | Dir Work : | 2.50 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | LDDC : | 1.00 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | B.O.P / Safety Mt: | 1.00 | 0.75 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | Drill F/C & Shoe | 3.50 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | TOTAL: | 15.50 | 8.50 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | BOILER HRS: | 24.00 | | | | TOTAL DAILY HRS: 24.00 | | | | | | | | | |
| OPERATION NEXT 24 HRS : Drill ahead w/ 222mm bit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drilling Rig & Number: Akita 37 | | | | HOLE CONDITION : good | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tool Pusher : Guy Cusitar | | | | Cellular #: 403-648-0842 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drilling Consultant : Trevor Mitchell / Jason Duck | | | | Email: rig.supervisor@mgmenergy.com | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp (C) : -31 | | | | Weather : 5kph E wind & clear | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date Last BOP Drill : February 2, 2013 | | | | Taken By : (403) 536-9970 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | John Williams / Dick Heenan | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | AFE Remaining : \$0 | | | | | | | | | | | | | | | | | | | | | | | | | | |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Dan Jutras

Date: Saturday, February 02, 2013

Weather: High Temp -22 C

Personnel in Camp: 67

Regulator Contact: No regulator contact

Safety: No safety issues occurred.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 4 | 0 | 0 |
| Previous | 110 | 4 | 10 |
| Total | 114 | 4 | 10 |

Environment: There was one spill today from the 440bbl tank associated with the sewage treatment plant at the rig site. A line at the top of the 400 bbl came loose allowing 55 litres of raw sewage to escape down the tank and onto the ground. The problem was solved by re-attaching the line securely. A lined C-Can will be used to store the recovered raw sewage, snow & ice.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 3 | 1 | 2 |
| Previous | 233 | 18 | 29 |
| Total | 236 | 19 | 31 |

Hazard Identification of the Day:

Unsafe Act: Worker working with the hammer without safety glasses

Corrective Action: Stopped him told him if he wants to keep his eyes wear safety glasses at all times!!! He understood.

| | | | |
|--------------------|-------|--------------|---------|
| PROGRAMMED FTD : | 2020 | | |
| DAYS (MI & RU) : | 13.59 | AFE # : | 12D0006 |
| DAYS (FROM SPUD) : | 7.41 | AFE AMT. : | |
| TOTAL DAYS : | 21.00 | CO. WI (%) : | |

689439

v18

DAILY DRILLING REPORT

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION : 155.89

| | | | | | |
|--------------|----------------------------|-------------------------|-----------|------------|------------|
| Well Name : | MGM-Shell East Mackay I-78 | Licence # : | 1202-002 | Date: | 3-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 03-Feb-13 | Fuel today | Fuel total |
| 890 | 345 | Drill ahead w/ 22mm bit | | 6328 | 76665 |
| | | | | | 990 |

DRILLING FLUID

BIT DATA

DRILLING PARAMETERS

PUMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

FROM TO

24 HOUR SUMMARY

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Dan Jutras

Date: Sunday, February 03, 2013

Weather: High Temp -22 C

Personnel in Camp: 67

Regulator Contact: No regulator contact

Safety: No safety issues were noted.

A fire drill was run at the main camp with the evacuation of the camp proceeding in a orderly fashion. The response time was 4:33 minutes from the time the alarm was set off until the end of the roll call.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|-----------|-----------|-----------|
| Daily | 7 | 0 | 0 |
| Previous | 114 | 4 | 10 |
| Total | 121 | 4 | 10 |

Environment: A 70 litre treated effluent spill today associated with the sewage treatment plant at the rig site. A check valve froze causing effluent to leak out of the lift station. The check valve was thawed out and returned to service. A lined C-Can will be used to store the recovered raw sewage, snow & ice.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|--------------|--------|----------|
| Daily | 3 | 1 | 1 |
| Previous | 236 | 19 | 31 |
| Total | 239 | 20 | 32 |

Hazard Identification of the Day:

Unsafe Act: Wash gun hose left on stair way creating a tripping hazard.

Corrective Action: Hose was removed from stairs and crew talked about proper house keeping.

| | |
|--------------------|-------|
| PROGRAMMED FTD : | 2020 |
| DAYS (MI & RU) : | 13.59 |
| DAYS (FROM SPUD) : | 8.41 |
| TOTAL DAYS : | 22.00 |

689439 v19

DAILY DRILLING REPORT

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION : 155.89

Wall Name: MGM Shell East Mackay

| | | | | | | | |
|--------------|----------------------------|-------------------------|-----------|-------------|------------|-------------------|----------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence # : | 1202-002 | Date: | 4-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 04-Feb-13 | Fuel today | Fuel total | Depth @ 06:00 Hr. | |
| 1260 | 370 | Drill 22mm hole | | 8457 | 85122 | 1337 | |

DRILLING FLUID

Type : Polymer Mud Engineer: Dave Gibson Cell # : Office # : Mud Co.: Matrix Drilling Fluids

BIT DATA

DRILLING PARAMETERS

100

1100 of 1100

FROM TO 24 HOUR SUMMARY TIME BREAKDOWN S I P L1 L2 L3

OPERATION NEXT 24 HRS : Drill 222mm hole

| | | | | | | | |
|------------------------|------------------------------|------------------|------------------------------|--------------------------|--|------------------|-------|
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION : | good | BOILER HRS: | 24.00 | TOTAL DAILY HRS: | 24.00 |
| Tool Pusher: | Guy Cusifar | Cellular #: | 403-648-0842 | Road / Lease Condition : | Road is holding together vey well. Location is in good shape | | |
| Drilling Consultant: | Trevor Mitchell / Jason Duck | Email: | rig_supervisor@mgmenergy.com | Shack Cell #: | (403) 536-9970 | | |
| Temp (C): | -24 | Weather: | calm & clear | Taken By: | John Williams / Dick Heenan | | |
| Date Last BOP Drill: | February 2, 2013 | Daily Cost: | \$146,228 | Cum Cost: | \$11,307,998 | AFE Remaining: | \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Dan Jutras

Date: Monday, February 04, 2013

Weather: High Temp -21 C

Personnel in Camp: 64

Regulator Contact: No regulator contact

Safety: No safety issues were noted.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|-----------|-----------|-----------|
| Daily | 5 | 0 | 0 |
| Previous | 121 | 4 | 10 |
| Total | 126 | 4 | 10 |

Environment: No environmental issues were noted

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|--------------|--------|----------|
| Daily | 7 | 0 | 1 |
| Previous | 239 | 20 | 32 |
| Total | 246 | 20 | 33 |

Hazard Identification of the Day:

Unsafe Act: Eyewash station in boiler was getting hot. Eyewash station hung on wall with no protection

Corrective Action: Replaced eyewash station with box style station and moved eyewash station to cooler location near the door.

| | |
|-------------------|-------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAY (FROM SPUD) : | 9.41 |
| TOTAL DAYS : | 23.00 |



689439 V20

DAILY DRILLING REPORT

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION: 155.89

Date Last Report: 24-Jan-13

| | | |
|---|----------------------------------|------------------------|
| Well Name : MGM-Shell East Mackay I-78 | Licence # : 1202-002 | Date: 5-Feb-13 |
| Dpth @ 24:00 Progress (m) Operation @ 24:00 Hours 05-Feb-13 | Fuel today 9905 Fuel total 95027 | Depth @ 06:00 Hr. 1693 |

DRILLING FLUID

| Type : | Polymer | Mud Engineer: Dave Gibson | Cell # : | Office # : | Mud Co.: Matrix Drilling Fluids |
|--------|---------|---------------------------|----------|------------|---------------------------------|
|--------|---------|---------------------------|----------|------------|---------------------------------|

MUD CHECK

| | #1 | #2 |
|---------------|--------|--------|
| Time | 06:00 | 18:00 |
| Depth | 1336 | 1480 |
| Density | 1050 | 1045 |
| Viscosity | 42 | 46 |
| Water Loss | 9.8 | 8.6 |
| pH | 9.5 | 9.5 |
| Filter Cake | 1 | 1 |
| P.V. | 10 | 12 |
| Y.P. | 8 | 10 |
| Gels 10 sec. | 3 | 4 |
| Gels 10 min. | 4 | 4 |
| Low "N" | .36 | .45 |
| Low "K" | 14.25 | 9.79 |
| Brk YP | | |
| Brk 0.5 rpm | | |
| Chloride | 360 | 320 |
| Calcium | 80 | TR |
| Sand % | .025 | .006 |
| Solids % | | |
| Oil Content % | | |
| MBT | | |
| Mud Gradient | 10.30 | 10.25 |
| Last Csg MD: | 401.79 | 401.79 |
| Last Csg TVD: | 401.79 | 401.79 |
| MACP: | 6597 | 6617 |
| RSPP: | 58 | 64 |
| RSPP Strokes: | 2400 | 3095 |

| ADDITIVES | | SKS |
|----------------|--|-----|
| Aqua star | | 5 |
| Stafo | | 5 |
| Polyzan | | 1 |
| Hyperdrill 247 | | 1 |
| Cal carb 325 | | 5 |
| Matrix shield | | 5 |
| sulfamic acid | | 1 |

BOTTOM HOLE ASSEMBLY

| Description | OD (mm) | ID (mm) | Length | Thread |
|-----------------|---------|---------|--------|-----------------|
| PDC bit | 222 | | 0.34 | 4 1/2 reg |
| Tru Trac | 193 | 88.9 | 13.04 | 4 1/2 IF |
| MWD | 176 | 72 | 0.77 | 4 1/2 IF |
| NM Drill collar | 163 | 72 | 9.09 | 4 1/2 IF |
| NM Drill collar | 161 | 72 | 8.46 | 4 1/2 IF |
| Sub | 171 | 72 | 1.66 | 4 1/2 IF |
| Sub- X/O | 160 | 57 | 0.58 | 4 1/2 XH |
| 4- 6.25 DC's | 156 | 70 | 37.37 | 4 1/2 XH |
| Jar | 156 | 70 | 10.02 | 4 1/2 XH |
| 3- 6.25 DC's | 156 | 70 | 28.32 | 4 1/2 XH |
| Sub- X/O | 102 | 65 | 1.10 | 4-FH / 4 1/2 XH |

SURVEYS

| Depth | Degrees | Azi. |
|---------|---------|-------|
| 1277.90 | .20 | 103.1 |
| 1326.10 | .10 | 355.9 |
| 1374.20 | .20 | 34.9 |
| 1422.40 | .40 | 49.1 |
| 1470.50 | .40 | 55.2 |
| 1518.60 | .30 | 68 |
| 1566.90 | .60 | 60.4 |

HYDRAULICS

| Hole Size | 222 | OD (mm) | ID (mm) |
|--------------|-----|---------|---------|
| Drill Pipe | | 102 | 84.5 |
| Drill Collar | | 156 | 70 |

SOLIDS CONTROL

| Item | UF | OF |
|---------------|-----|----------|
| Desander | | |
| Desilter | | |
| Centrifuge #1 | | off line |
| Centrifuge #2 | | off line |
| Centrifuge #3 | | |
| Screen Sz. | #1 | #2 |
| Shaker #1 | 200 | 200 |
| Shaker #2 | 165 | 165 |
| Shaker #3 | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | | | | | | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|--------|------------|-----------|-----|-----|-----|-----|-----|-----|-----|--|----|-----|--------|----------|-------|---------|----|----|---|-----|---|---|---|---|
| 2 | 222 | QD505X | 7131618 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 405 | | | | | | 25.50 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| 2 | 13 | 75 | 48 | 11996 | 115 | | | 46 | 72 | 47.3 | 1.41 |
| | | | | | | | | | | | |

24 HOUR SUMMARY

| | | | | | | | |
|-------|-------|---|--------------------|-------|--|--|------------------------|
| 00:00 | 04:00 | Drill 222mm hole from 1260mkb -1340mkb | MIRU / TO : | | | | |
| 04:00 | 06:30 | Accumulated survey,connection & work pipe | Drill : | | | | 15.50 |
| 06:30 | 06:45 | Rig service, function pipe rams 5 sec to c/o | Ream : | | | | |
| 06:45 | 07:00 | Safety meeting with Akita crew & MGM rep | Coring : | | | | |
| 07:00 | 12:00 | Drill 222mm hole from 1340mkb to 1415mkb | Circ : | | | | |
| 12:00 | 13:30 | Circulating & changing out Baker stand pipe pressure sensor | Trips : | | | | |
| 13:30 | 17:30 | Drill 222mm hole from 1415mkb to 1515mkb | Rig Service : | | | | 0.75 |
| 17:30 | 18:45 | Accumulated survey,connection & work pipe | Rig Repair : | | | | |
| 18:45 | 19:00 | Safety meeting with Akita crew & MGM rep | Cut Drig Ln : | | | | |
| 19:00 | 19:45 | Accumulated survey,connection & work pipe | Dev Survey : | | | | 5.75 |
| 19:45 | 20:00 | Rig service, function upper pipe rams 7 sec to c/o | Logging : | | | | |
| 20:00 | 22:30 | Drill 222mm hole from 1515mkb to 1600mkb | Run Casing : | | | | |
| 22:30 | 23:45 | Accumulated survey,connection & work pipe | Cementing : | | | | |
| 23:45 | 24:00 | Rig service, function upper pipe rams 7 sec to c/o | WOC : | | | | |
| | | | NU BOP : | | | | |
| | | | PT BOP : | | | | |
| | | | DST : | | | | |
| | | | Fishing : | | | | |
| | | | Dir Work : | | | | 1.50 |
| | | | LDDP : | | | | |
| | | | B.O.P / Safety Mt: | | | | 0.50 |
| | | | TOTAL: | | | | 24.00 |
| | | | BOILER HRS: | 24.00 | | | TOTAL DAILY HRS: 24.00 |

OPERATION NEXT 24 HRS : Drill 222mm hole to core point TD

| | | | | |
|--|-------------------------------------|--------------------------|---|-----|
| Drilling Rig & Number: Akita 37 | HOLE CONDITION : good | | | |
| Tool Pusher : Guy Cusitar | Cellular # : 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape | |
| Drilling Consultant : Trevor Mitchell / Jason Duct | Email: rig_supervisor@mgmenergy.com | Shack Cell # : | (403) 536-9970 | |
| Temp (C): -25 | Weather : 7kph sw wind & clear | Taken By : | John Williams / Dick Heenan | |
| Date Last BOP Drill : February 2, 2013 | Daily Cost : \$296,938 | Cum Cost : \$11,605,236 | AFE Remaining : | \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Larry Blundon - Dan Jutras

Date: Tuesday, February 05, 2013

Weather: High Temp -23 C

Personnel in Camp: 68

Regulator Contact: No regulator contact

Safety: No safety issues were noted.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 6 | 0 | 0 |
| Previous | 121 | 4 | 10 |
| Total | 127 | 4 | 10 |

Environment: No environmental issues were noted

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 19 | 0 | 0 |
| Previous | 239 | 20 | 32 |
| Total | 258 | 20 | 32 |

Hazard Identification of the Day:

Unsafe Act: Rig hand seen that one of the steam lines had a leak.

Corrective Action: Steam line was removed and a new line was installed.

| | |
|--------------------|--------------------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAYS (FROM SPUD) : | 10.41 |
| TOTAL DAYS : | 24.00 CO. WI (%) : |



DM 689439

v21

WID 2078

DAILY DRILLING REPORT

| | | | | | |
|---------------|--------|-------------------|--------|----------------|--------|
| KB ELEVATION: | 161.24 | GROUND ELEVATION: | 155.39 | CBF ELEVATION: | 155.89 |
|---------------|--------|-------------------|--------|----------------|--------|

Date of Report: 24-Jan-13

| | | | | | | | |
|--------------|----------------------------|-------------------------|-----------|--------------------------------------|----------|-------|-----------|
| Well Name: | MGM-Shell East Mackay I-78 | | | Licence #: | 1202-002 | Date: | 6-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 06-Feb-13 | Operation @ 06:00 Hours | | | 07-Feb-13 |
| 1820 | 220 | POOH | | Laying down Jars & 1-6.25 DC @ 82mkb | | | 1820 |

DRILLING FLUID

| Type : | Polymer | Mud Engineer: | Dave Gibson | Cell #: | Office #: | Mud Co.: | Matrix Drilling Fluids | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------------|--|------------------------------|--------------------------|---|----------|------------------------|--------|----------------|---------|----------|-------|------|-------|-----------------|-----|---|---|---|--|--|--|--|--|--|--|--|--|--|--|
| MUD CHECK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Time | #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | SURVEYS | | | | | | | | | | | | | | | | | | | | | | | | |
| Time | 06:00 | | Aqua star | 16 | Description | OD (mm) | ID (mm) | Length | Thread | | | | | | | | | | | | | | | | | | | | | |
| Depth | 1685 | | Staflo | 7 | PDC bit | 222 | | 0.34 | 4 1/2 reg | | | | | | | | | | | | | | | | | | | | | |
| Density | 1045 | | Polyzan | 1 | Tru Trac | 193 | 88.9 | 13.04 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | |
| Viscosity | 44 | | Hyperdrill 247 | 1 | MWD | 176 | 72 | 0.77 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | |
| Water Loss | 8.2 | | Cal carb 325 | 5 | NM Drill collar | 163 | 72 | 9.09 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | |
| pH | 9.5 | | Matrix shield | 8 | NM Drill collar | 161 | 72 | 8.46 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | |
| Filter Cake | 1 | | Corinox | 2 | Sub | 171 | 72 | 1.66 | 4 1/2 IF | | | | | | | | | | | | | | | | | | | | | |
| P.V. | 20 | | Barite | 96 | Sub- X/O | 160 | 57 | 0.58 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | |
| Y.P. | 10.5 | | | | 4- 6.25 DC's | 156 | 70 | 37.37 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | |
| Gels 10 sec. | 5 | | | | Jar | 156 | 70 | 10.02 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | |
| Gels 10 min. | 5 | | | | 3- 6.25 DC's | 156 | 70 | 28.32 | 4 1/2 XH | | | | | | | | | | | | | | | | | | | | | |
| Low "N" | .42 | | | | Sub- X/O | 102 | 65 | 1.10 | 4-FH / 4 1/2XH | | | | | | | | | | | | | | | | | | | | | |
| Low "K" | 15.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | 320 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sand % | .006 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solids % | .025 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mud Gradient | 10.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last Csg MD: | 401.79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last Csg TVD: | 401.79 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MACP: | 6617 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RSPP: | 3946 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RSP Strokes: | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BIT DATA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. | Size-mm | Type | Serial No. | Jets (mm) | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R | | | | | | | | | | | |
| 2 | 222 | QD505X | 7131618 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 405 | 1820 | 1415.0 | 50.50 | 28.0 | 50.50 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRILLING PARAMETERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min | | | | | | | | | | | | | | | | | | | |
| 2 | 11 | 75 | 58 | 10054 | 115 | | | 46 | 72 | 47.3 | 1.41 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 HOUR SUMMARY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 00:00 | 03:15 | Drill 222mm hole from 1600mkb to 1722mkb | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 03:15 | 06:15 | Accumulated surveys, connections & work pipe | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06:15 | 06:45 | Rig service function upper pipe rams 7 sec to c/o | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 06:45 | 07:00 | Safety meeting with Akita crew & MGM rep | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07:00 | 14:00 | Drill 222mm hole from 1722mkb to 1820mkb TD | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14:00 | 16:00 | Accumulated surveys, connections & work pipe (re-gama log 1750mkb to 1760mkb) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16:00 | 16:15 | Rig service function upper pipe rams 7 sec to c/o | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16:15 | 18:30 | Circulate & clean hole | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18:30 | 19:00 | Blow down top drive, circulate through bleeder | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19:00 | 19:15 | Safety meeting with Akita crew & MGM rep | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19:15 | 23:00 | Trip out of the hole from 1820mkb to 1024mkb, flow check @ 1810m, 1730m, (Strapping out of the hole) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23:00 | 23:30 | Rig service function upper pipe rams 7 sec to c/o | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23:30 | 24:00 | Continue to Trip out of the hole | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Received 5 loads of sawdust, hauled 5 loads of cuttings (approx 120 ton) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Daily Fuel: 9509 liters Total Fuel: 104536 liters Received: 54000 liters of diesel | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OPERATION NEXT 24 HRS : Cont to POOH, Lay Dn Directional tools, P/U coring tools & RIH to cut core #1 & retrieve. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drilling Rig & Number: Akita 37 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tool Pusher : | Guy Cusitar | Cellular #: | 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drilling Consultant : | Trevor Mitchell / Jason Duchi | Email: | rig_supervisor@mgmenergy.com | Shack Cell #: | (403) 536-9970 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp (C) : | -29 | Weather : | 3kph SW wind & clear | Taken By : | John Williams / Dick Heenan | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date Last BOP Drill : | February 2, 2013 | Daily Cost : | \$255,795 | Cum Cost : | \$11,888,149 | | | | | | | | | | AFE Remaining : | \$0 | | | | | | | | | | | | | | |



DM 689439

v21

WID 2078

DAILY DRILLING REPORT

| | | | | | |
|---------------|--------|-------------------|--------|----------------|--------|
| KB ELEVATION: | 161.24 | GROUND ELEVATION: | 155.39 | CBF ELEVATION: | 155.89 |
|---------------|--------|-------------------|--------|----------------|--------|

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---------|----------------|------------|----------------------|---------|--------------|--------|--------|----------|---------|----------|-------|------|-------|-----|------------|--------|----------|---------|-----------|-----------|
| Time | 06:00 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | SURVEYS | | | | | | | | | | | | | | | | |
| Depth | 1685 | Aqua star | 16 | Description | Depth | | | | | | | | | | | | | | | | |
| Density | 1045 | Staflo | 7 | OD (mm) | Degrees | | | | | | | | | | | | | | | | |
| Viscosity | 44 | Polyzan | 1 | ID (mm) | Azi. | | | | | | | | | | | | | | | | |
| Water Loss | 8.2 | Hyperdrill 247 | 1 | Length | | | | | | | | | | | | | | | | | |
| pH | 9.5 | Cal carb 325 | 5 | Thread | | | | | | | | | | | | | | | | | |
| Filter Cake | 1 | Matrix shield | 8 | | | | | | | | | | | | | | | | | | |
| P.V. | 20 | Corinox | 2 | | | | | | | | | | | | | | | | | | |
| Y.P. | 10.5 | Barite | 96 | | | | | | | | | | | | | | | | | | |
| Gels 10 sec. | 5 | | | | | | | | | | | | | | | | | | | | |
| Gels 10 min. | 5 | | | | | | | | | | | | | | | | | | | | |
| Low "N" | .42 | | | | | | | | | | | | | | | | | | | | |
| Low "K" | 15.52 | | | | | | | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | | | | | | | |
| Chloride | 320 | | | | | | | | | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | | | | | | | | | |
| Sand % | .006 | | | | | | | | | | | | | | | | | | | | |
| Solids % | .025 | | | | | | | | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | | | | | | | | | |
| Mud Gradient | 10.25 | | | | | | | | | | | | | | | | | | | | |
| Last Csg MD: | 401.79 | | | | | | | | | | | | | | | | | | | | |
| Last Csg TVD: | 401.79 | | | | | | | | | | | | | | | | | | | | |
| MACP: | 6617 | | | | | | | | | | | | | | | | | | | | |
| RSPP: | 3946 | | | | | | | | | | | | | | | | | | | | |
| RSP Strokes: | 64 | | | | | | | | | | | | | | | | | | | | |
| BIT DATA | | | | | | | | | | | | | | | | | | | | | |
| No. | Size-mm | Type | Serial No. | Jets (mm) | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R | | |
| 2 | 222 | QD505X | 7131618 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 405 | 1820 | 1415.0 | 50.50 | 28.0 | 50.50 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| DRILLING PARAMETERS | | | | | | PRE-MIX TANK | | | | | | | | | | HYDRAULICS | | | | | |
| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min | | | | | No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
| 2 | 11 | 75 | 58 | 10054 | 115 | | | 46 | 72 | 47.3 | 1.41 | | | | | #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| | | | | | | | | | | | | | | | | #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| | | | | | | | | | | | | | | | | #3 | | | | | |
| 24 HOUR SUMMARY</td | | | | | | | | | | | | | | | | | | | | | |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Larry Blundon - Dan Jutras

Date: Wednesday, February 06, 2013

Weather: High Temp -22 C

Personnel in Camp: 66

Regulator Contact: No regulator contact

Safety: No safety issues were noted.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 6 | 0 | 0 |
| Previous | 121 | 4 | 10 |
| Total | 127 | 4 | 10 |

Environment: No environmental issues were noted we did get a visit from Ron Doctor ENR who ask to inspect the access road and to drive up and speak to John Williams, Ron commented that our roads were in great shape he did notice that there was something purple on the side of the road near the camp access Dan went out and found it was grape juice it was cleaned up.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 2 | 0 | 2 |
| Previous | 239 | 20 | 32 |
| Total | 241 | 20 | 34 |

Hazard Identification of the Day:

Unsafe Act: Worker not wearing proper PPE while working in pumpshack did not have ear plugs.

Corrective Action: Told the worker to go to the change shack and put ear plugs on.

689459 _{v22}

| | | | |
|----------------------|----------------------------|-----------------------------------|------|
| PROGRAMMED FTD : | 2020 | | |
| DAYS (MI & RU) : | 13.59 | | |
| DAYS (FROM SPUD) : | 11.41 | | |
| TOTAL DAYS : | 25.00 | | |
| Date of Last Report: | 24-Jan-13 | | |
| Well Name : | MGM-Shell East Mackay I-78 | | |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 07-F |
| 1820 | | Trin in the Hole with core run #1 | |



DAILY DRILLING REPORT

KB ELEVATION: 161.24 **GROUND ELEVATION:** 155.39 **CBF ELEVATION :** 155.89

DRILLING FLUID

| Type : Polymer | | | Mud Engineer: Dave Gibson | | | Cell # : | | | Office # : | | | Mud Co.: Matrix Drilling Fluids | | | | | | | | | |
|--|---------|---|---------------------------|-------------------------------------|-----------|----------|-------------------------------|--------|------------|---|----------------------|---------------------------------|--------|----------|----------------|-----------|------------------------|----|----|----|-------|
| MUD CHECK | | | #1 | #2 | ADDITIVES | | | SKS | | | BOTTOM HOLE ASSEMBLY | | | SURVEYS | | | | | | | |
| Time | 17:00 | | | | | | | | | | | | | | | | | | | | |
| Depth | 1820 | | | | | | | | | | | | | | | | | | | | |
| Density | 1070 | | | | | | | | | | | | | | | | | | | | |
| Viscosity | 48 | | | | | | | | | | | | | | | | | | | | |
| Water Loss | 7.6 | | | | | | | | | | | | | | | | | | | | |
| pH | 9.5 | | | | | | | | | | | | | | | | | | | | |
| Filter Cake | 1 | | | | | | | | | | | | | | | | | | | | |
| P.V. | 20 | | | | | | | | | | | | | | | | | | | | |
| Y.P. | 14 | | | | | | | | | | | | | | | | | | | | |
| Gels 10 sec. | 4.5 | | | | | | | | | | | | | | | | | | | | |
| Gels 10 min. | 5 | | | | | | | | | | | | | | | | | | | | |
| Low "N" | .45 | | | | | | | | | | | | | | | | | | | | |
| Low "K" | 14.68 | | | | | | | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | | | | | | | |
| Chloride | 400 | | | | | | | | | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | | | | | | | | | |
| Sand % | .006 | | | | | | | | | | | | | | | | | | | | |
| Solids % | | | | | | | | | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | | | | | | | | | |
| Mud Gradient | 10.50 | | | | | | | | | | | | | | | | | | | | |
| Last Csg MD: | 401.79 | | | | | | | | | | | | | | | | | | | | |
| Last Csg TVD: | 401.79 | | | | | | | | | | | | | | | | | | | | |
| MACP: | 6518 | | | | | | | | | | | | | | | | | | | | |
| RSPP: | 3946 | | | | | | | | | | | | | | | | | | | | |
| RSP Strokes: | 64 | | | | | | | | | | | | | | | | | | | | |
| BIT DATA | | | | | | | | | | | | | | | | | | | | | |
| No. | Size-mm | Type | Serial No. | Jets (mm) | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R | |
| 3 | 216 | BHC606C | 7103687 | | | | 1820 | | | | | | | | | | | | | | |
| DRILLING PARAMETERS | | | | | | | | | | | | | | | | | | | | | |
| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min | PUMP DATA | | | | | | | | | |
| 3 | | | | | | | | | | | | No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. | | | | |
| | | | | | | | | | | | | #1 | 9P-100 | 0.0129 | 95% | 152 | 235 | | | | |
| | | | | | | | | | | | | #2 | 9P-100 | 0.0129 | 95% | 152 | 235 | | | | |
| | | | | | | | | | | | | #3 | | | | | | | | | |
| 24 HOUR SUMMARY | | | | | | | | | | | | | | | | | | | | | |
| FROM | TO | TIME BREAKDOWN | | | | | | | | | | | | | S | I | P | L1 | L2 | L3 | |
| 00:00 | 05:00 | Trip out of the hole from 1820m to 82m (flow checks @ 913m, 613m, 82m) | | | | | | | | | | | | | MIRU / TO : | | | | | | |
| 05:00 | 05:15 | Safety meeting with baker directional & mwd | | | | | | | | | | | | | Drill : | | | | | | |
| 05:15 | 06:15 | Lay down one 6.25 DC, jars & rack DC's | | | | | | | | | | | | | Ream : | | | | | | |
| 06:15 | 06:45 | Rig service- grease top drive,drawworks & blocks, function annular | | | | | | | | | | | | | Coring : | | | | | | |
| 06:45 | 07:00 | Pre-tour meeting held with both rigs crews & MGM rep | | | | | | | | | | | | | Circ : | | | | | | 0.75 |
| 07:00 | 08:00 | Lay down directional tools | | | | | | | | | | | | | Trips : | | | | | | 17.75 |
| 08:00 | 08:15 | pre-job safety meeting w/baker hughes before laying out tru trak assembly | | | | | | | | | | | | | Rig Service : | | | | | | 0.50 |
| 08:15 | 09:45 | Lay down baker hughes tru trak assembly | | | | | | | | | | | | | Rig Repair : | | | | | | |
| 09:45 | 10:00 | pre-job safety meeting w/baker hughes core hands before picking up coring BHA | | | | | | | | | | | | | Cut Drilg Ln : | | | | | | 1.00 |
| 10:00 | 15:00 | pick up baker hughes coring assembly | | | | | | | | | | | | | Dev Survey : | | | | | | |
| 15:00 | 17:00 | Trip in the hole for core run #1 | | | | | | | | | | | | | Logging : | | | | | | |
| 17:00 | 17:15 | Pre-job safety meeting w/ rig crew before slip & cut drill line | | | | | | | | | | | | | Run Casing : | | | | | | |
| 17:15 | 18:15 | Slip & cut drill line, SLC-13266mj Accum- 75392mj- 34m cut | | | | | | | | | | | | | Cementing : | | | | | | |
| 18:15 | 19:00 | Cont to trip in the hole for core run #1 | | | | | | | | | | | | | WOC : | | | | | | |
| 19:00 | 19:15 | Safety meeting w/rig crews & MGM rep | | | | | | | | | | | | | NU BOP : | | | | | | |
| 19:15 | 20:00 | Fill pipe & break circulation @ 950m | | | | | | | | | | | | | PT BOP : | | | | | | |
| 20:00 | 24:00 | Cont to trip in the hole for core run #1 | | | | | | | | | | | | | DST : | | | | | | |
| | | Core Bit TFA=1.5 | | | | | | | | | | | | | Fishing : | | | | | | |
| | | Daily Fuel : 7896 litres Total Fuel : 112432 litres | | | | | | | | | | | | | Dir Work : | | | | | | 2.50 |
| OPERATION NEXT 24 HRS : Cut core #1 & recover RIH w/ core run #2 | | | | | | | | | | | | | | | DDDP : | | | | | | |
| Drilling Rig & Number: Akita 37 | | | | HOLE CONDITION : good | | | | | | | | | | | BOILER HRS: | 24.00 | TOTAL DAILY HRS: 24.00 | | | | |
| Tool Pusher: Guy Cusitar | | | | Cellular # : 403-648-0842 | | | Road / Lease Condition : | | | Road is holding together very well. Location is in good shape | | | | | | | | | | | |
| Drilling Consultant : Trevor Mitchell / Jason Duct | | | | Email: rig_supervisor@mgmenergy.com | | | Shack Cell # : (403) 536-9970 | | | | | | | | | | | | | | |
| Temp (C) : -30 | | | | Weather : 6kph SE wind & clear | | | Taken By : | | | John Williams / Dick Heenan | | | | | | | | | | | |
| Date Last BOP Drill : February 2, 2013 | | | | Daily Cost : \$243,343 | | | Cum Cost : \$12,152,842 | | | AFE Remaining : \$0 | | | | | | | | | | | |

East Mackay I-78 - 2013

Daily HSE Report

| Location: East Mackay Project Staging Operator: MGM. Energy Corp. Supervisors: Larry Blundon - Dan Jutras | Date: Thursday, February 07, 2013 | | | | | | | | | | | | | | | | |
|---|--|-----------|--------------|-----------|-----------|--|---|---|---|--|-----|----|----|--|-----|----|----|
| Weather: High Temp -26 C | | | | | | | | | | | | | | | | | |
| Personnel in Camp: 60 | | | | | | | | | | | | | | | | | |
| Regulator Contact: Steve Duchane came to the site, John took him up to the Well Site. | | | | | | | | | | | | | | | | | |
| Safety: No safety issues were noted. | | | | | | | | | | | | | | | | | |
| Safety Tracking | | | | | | | | | | | | | | | | | |
| Daily Previous Total | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33.33%;"></th> <th style="width: 33.33%; text-align: center;">Hazard ID</th> <th style="width: 33.33%; text-align: center;">Near Miss</th> <th style="width: 33.33%; text-align: center;">Incidents</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">8</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> <tr> <td></td> <td style="text-align: center;">127</td> <td style="text-align: center;">4</td> <td style="text-align: center;">10</td> </tr> <tr> <td></td> <td style="text-align: center;">135</td> <td style="text-align: center;">4</td> <td style="text-align: center;">10</td> </tr> </tbody> </table> | | Hazard ID | Near Miss | Incidents | | 8 | 0 | 0 | | 127 | 4 | 10 | | 135 | 4 | 10 |
| | Hazard ID | Near Miss | Incidents | | | | | | | | | | | | | | |
| | 8 | 0 | 0 | | | | | | | | | | | | | | |
| | 127 | 4 | 10 | | | | | | | | | | | | | | |
| | 135 | 4 | 10 | | | | | | | | | | | | | | |
| Environment: Went out to river and found all 3 water trucks were in various stages of loading water onto the trucks and all 3 had their DFO approved fish screens on their hoses I then picked one for a spot check. | | | | | | | | | | | | | | | | | |
| Environmental Tracking | | | | | | | | | | | | | | | | | |
| Daily Previous Total | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33.33%;"></th> <th style="width: 33.33%; text-align: center;">Orientations</th> <th style="width: 33.33%; text-align: center;">Spills</th> <th style="width: 33.33%; text-align: center;">Wildlife</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">2</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> <tr> <td></td> <td style="text-align: center;">241</td> <td style="text-align: center;">20</td> <td style="text-align: center;">32</td> </tr> <tr> <td></td> <td style="text-align: center;">243</td> <td style="text-align: center;">20</td> <td style="text-align: center;">32</td> </tr> </tbody> </table> | | Orientations | Spills | Wildlife | | 2 | 0 | 0 | | 241 | 20 | 32 | | 243 | 20 | 32 |
| | Orientations | Spills | Wildlife | | | | | | | | | | | | | | |
| | 2 | 0 | 0 | | | | | | | | | | | | | | |
| | 241 | 20 | 32 | | | | | | | | | | | | | | |
| | 243 | 20 | 32 | | | | | | | | | | | | | | |
| Hazard Identification of the Day: Unsafe Act: Hand inspected tools and equipment before starting to trip found cotter pin missing from dog collars Corrective Action: Put a new cotter pin in the dog collars | | | | | | | | | | | | | | | | | |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Larry Blundon - Dan Jutras

Date: Friday, February 08, 2013

Weather: High Temp -22 C with 7 km winds

Personnel in Camp: 60

Regulator Contact: No contact were noted

Safety: No safety issues were noted.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 5 | 0 | 0 |
| Previous | 146 | 4 | 10 |
| Total | 151 | 4 | 10 |

Environment: The Wildlife Monitor found a spot where oil had fallen to the ground up at the wellsite the area was cleaned up there was 0 .5 of a liter of oil and 4 liters of snow removed and put into a lined C-can.

We had 2 Moose walk up to the 2 Cancor workers that were fixing their truck, they notified me and I call the Wildlife monitor too come over and investigate.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 6 | 1 | 3 |
| Previous | 269 | 20 | 35 |
| Total | 275 | 21 | 38 |

Hazard Identification of the Day:

Unsafe Act: Worker had his back turned while hoisting pipe

Corrective

Action: Stopped work and told him to never turn away while lifting pipe

| | | | |
|--------------------|-------|--------------|---------|
| PROGRAMMED FTD : | 2020 | | |
| DAYS (MI & RU) : | 13.59 | AFE # : | 12D0006 |
| DAYS (FROM SPUD) : | 13.41 | AFE AMT. : | |
| TOTAL DAYS : | 27.00 | CO. WI (%) : | |



DM 689439
v24
H.Y. DRILLING REPORT

DAILY DRILLING REPORT

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION : 155.89

| | | | | | | |
|--------------|----------------------------|-------------------------|-------------|-------------------------|-----------|-------------------|
| Well Name : | MGM-Shell East Mackay I-78 | | Licence # : | 1202-002 | Date: | 9-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 09-Feb-13 | Operation @ 06:00 Hours | 10-Feb-13 | Depth @ 06:00 Hr. |

DRILLING FLUID

BIT DATA

DRILLING PARAMETERS

PLUMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

FROM TO

24 HOUR SUMMARY

| FROM | TO | 24 HOUR SUMMARY | TIME BREAKDOWN | S | T | F | LT | L2 | L3 |
|--|-------------------------------------|--|---|--------|---|---|-------|------------------|-------|
| 00:00 | 02:00 | Lay down top sub & LD extension sub, rack core barrels in derrick, break down top sub, LD extension. | MIR / TO : | | | | | | |
| 02:00 | 02:30 | Rig service, grease top drive, drawworks & blocks, function annular c/o = 18 secs | Drill : | | | | | | |
| 02:30 | 06:45 | Make up new 216mm bit, bit sub & trip in the hole | Ream : | | | | | | |
| 06:45 | 07:00 | Safety meeting with both crews & MGM rep | Coring : | | | | 10.25 | | |
| 07:00 | 08:00 | Continue to trip in the hole to 450m, pull back to the shoe & break circulation (waiting on baker replacement tool) | Circ : | | | | 2.00 | | |
| 08:00 | 10:00 | Circulating @ shoe waiting on baker hughes coring tool | Trips : | | | | 10.75 | | |
| 10:00 | 11:30 | Trip out of the hole | Rig Service : | | | | 0.50 | | |
| 11:30 | 13:30 | Make up baker hughes coring assembly | Rig Repair : | | | | | | |
| 13:30 | 14:45 | Waiting on baker hughes top sub & LD adjuster | Cut Drdg Ln : | | | | | | |
| 14:45 | 19:00 | Make up inner barrels, lay out NFG adjuster sub, pick up outer barrel stabilizer to replace adjuster sub & cont to M/U core assembly | Dev Survey : | | | | | | |
| 19:00 | 19:15 | Safety meeting with both crews & MGM rep | Logging : | | | | | | |
| 19:15 | 20:00 | Cont to M/U baker hughes coring BHA | Run Casing : | | | | | | |
| 20:00 | 24:00 | Run in the hole with core assembly #2 fill pipe @ 607m, 1200m & blow back top drive | Cementing : | | | | | | |
| | | | WOC : | | | | | | |
| | | | NU BOP : | | | | | | |
| | | | PT BOP : | | | | | | |
| | | | DST : | | | | | | |
| | | | Fishing : | | | | | | |
| | | | Dir Work : | | | | | | |
| | | | LDPP : | | | | | | |
| | | | B.O.P / Safety Mt: | | | | 0.50 | | |
| | | Received 62,164 litres of Diesel from Bassett petroleum | | | | | | | |
| | | Daily fuel : 8047 litres Total fuel: 128,586 litres | | | | | | | |
| OPERATION NEXT 24 HRS : Cut core run # 2 & recover | | | | TOTAL: | | | 24.00 | | |
| Drilling Rig & Number: Akita 37 | HOLE CONDITION : good | | BOILER HRS: | 24.00 | | | | TOTAL DAILY HRS: | 24.00 |
| Tool Pusher : Guy Cusitar | Cellular # : 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape | | | | | | |
| Drilling Consultant : Trevor Mitchell / Jason Duct | Email: rig_supervisor@mgmenergy.com | Shack Cell # : | (403) 536-9970 | | | | | | |
| Temp (C) : -26 | Weather : 14kph E wind & clear | Taken By : | John Williams / Dick Heenan | | | | | | |
| Date Last BOP Drill : February 2, 2013 | Daily Cost : \$217,714 | Cum Cost : \$12,516,865 | AFE Remaining : | | | | | \$0 | |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Larry Blundon - Dan Jutras

Date: Saturday, February 09, 2013

Weather: High Temp -19 C with 7 km winds

Personnel in Camp: 67

Regulator Contact: No contact was noted

Safety: As a safety precaution John shut down access to the Well site and stopped vehicles and people movement when he heard the Helicopter was 15 minutes out and we set up a place for the cross over sub to be dropped off.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 7 | 0 | 0 |
| Previous | 151 | 4 | 10 |
| Total | 158 | 4 | 10 |

Environment: All the contractors are using drip trays on parked vehicles. Was up to the Well site lease and took some pictures of the new setup of the Incinerator Took a look around things are looking in good shape.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 0 | 0 | 1 |
| Previous | 275 | 20 | 35 |
| Total | 275 | 20 | 36 |

Hazard Identification of the Day:

Unsafe Act: Worker put feet under dog collar

Corrective Action: Work was stopped and worker was informed about pinch points and to never have his feet under the dog collar

689439

V25

DAILY DRILLING REPORT

| | |
|-------------------|---------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| AFE # : | 12D0006 |
| DAY (FROM SPUD) : | 14.41 |
| AFE AMT. : | |
| TOTAL DAYS : | 28.00 |
| CO. WI (%) : | |



KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION: 155.89

Date of Report: 24-Jan-13

| | | | | | | | |
|--------------|----------------------------|--------------|------|-------------------------|-----------|-------------------------------------|-------------------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence # : | 1202-002 | Date: | 10-Feb-13 |
| Dpth @ 24:00 | 1851.6 | Progress (m) | 17.6 | Operation @ 24:00 Hours | 10-Feb-13 | Operation @ 06:00 Hours | 11-Feb-13 |
| | | | | | | reaming to bottom with core run # 3 | Depth @ 06:00 Hr. |

DRILLING FLUID

| Type : | Polymer | | Mud Engineer: | Dave Gibson | Cell # : | Office # : | Mud Co.: | Matrix Drilling Fluids | |
|---------------|---------|--------|---------------|-------------|----------------------|------------|--------------|------------------------|------------------|
| MUD CHECK | #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | | SURVEYS | | |
| Time | 02:30 | | | | Description | OD (mm) | ID (mm) | Length | Thread |
| Depth | 1834 | | | | PDC core bit | 216 | | 0.44 | HT-30 |
| Density | 1065 | | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| Viscosity | 55 | | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| Water Loss | 6.8 | | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| pH | 9.5 | | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| Filter Cake | 1 | | | | Stabilizer | 214 | 137 | 1.22 | HT-30 |
| P.V. | 20 | | | | Stabilizer | 214 | 137 | 1.22 | HT-30 |
| Y.P. | 14 | | | | Top sub | 171 | 137 | 0.71 | HT-30/4 1/2IF |
| Gels 10 sec. | 4 | | | | Jars & float sub X/O | 171 | 57 | 2.72 | 4 1/2 IF/4 1/2XH |
| Gels 10 min. | 5 | | | | 6-6.25 DC's | 156 | 70 | 56.38 | 4 1/2 XH |
| Low "N" | .45 | | | | X/O | 102 | 65 | 1.10 | 4 1/2XH /4-FH |
| Low "K" | 14.68 | | | | Drill Pipe | | | | |
| Brk YP | | | | | HWDP | 102 | 65 | 186.25 | 4-FH |
| Brk 0.5 rpm | | | | | Drill Pipe | 102 | 84.5 | 1546.72 | 4-FH |
| Chloride | 400 | | | | Kelly Down | | | | |
| Calcium | TR | | | | BHA Length (m) : | 118.63 | Total Length | 1851.60 | |
| Sand % | .006 | | | | FLUID VOLUMES | | PRE-MIX TANK | | |
| Solids % | | | | | Bottoms Up (min) | 45 | Volume (m3) | | |
| Oil Content % | | | | | Mud Cycle (min) | 70 | Low "N" | | |
| MBT | | | | | Main Hole (m3) | 50.0 | Low "K" | | |
| Mud Gradient | 10.45 | | | | Mud Tanks (m3) | 77.0 | Brk YP | | |
| Last Csg MD: | 401.79 | 401.79 | | | Sump Vol. (m3) | | Brk 0.5 rpm | | |
| Last Csg TVD: | 401.79 | 401.79 | | | Total (m3) | 127.0 | Viscosity | | |
| MACP: | 3075 | 7272 | | | MUD-UP DEPTH: | 440 | Density | | |
| RSPP: | 4200 | | | | | | | | |
| RSP Strokes: | 67 | | | | | | | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | | | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|---------|------------|-----------|------|------|------|------|------|------|--------|--------|----------|-----|---------|----|----|----|-----|---|---|----|----|
| 2 | 216 | BHC606C | 7103687 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 1820 | 1851.6 | 31.6 | 6.25 | 2.5 | 12.50 | 1 | 2 | CC | G | X | 1 | NO | PR |
| | | | | | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| 2 | 5 | 70 | 64 | 6885 | 94 | | | 40 | 66 | 40.7 | 1.15 |
| | | | | | | | | | | | |

FROM TO 24 HOUR SUMMARY

| | | | | | | |
|-------|-------|---|--------------------|--|--|-------|
| 00:00 | 02:00 | Continue to trip in to 1807m, washed last stand down, reamed through rat hole to btm | MIRU / TO : | | | |
| 02:00 | 02:15 | Rig service, greased top drive, drawworks & blocks, functioned annular c/o 18 sec | Drill : | | | |
| 02:15 | 06:45 | Cut 89mm core fr 1834mkb to 1838mkb | Ream : | | | |
| 06:45 | 07:00 | Safety meeting w/ rig crews & MGM rep | Coring : | | | 11.75 |
| 07:00 | 08:45 | Cut 89mm core fr 1838mkb to 1851.60mkb | Circ : | | | 1.00 |
| 08:45 | 09:45 | clean hole & mix pill | Trips : | | | 10.00 |
| 09:45 | 17:00 | Control trip out of hole, pulled tight, back reamed out of rat hole, pump pill, Cont trip out. Flow checks @ 1815m, 1739m, 970m, 200m | Rig Service : | | | 0.50 |
| 17:00 | 17:15 | Pre-job safety meeting w/ rig crew, baker coring hand before handling core barrel BHA | Rig Repair : | | | |
| 17:15 | 18:45 | Break down Baker Hughes coring BHA & recover cut core # 2 | Cut Drilg Ln : | | | |
| 18:45 | 19:00 | Rig service, functioned upper pipe rams c/o 7 sec | Dev Survey : | | | |
| 19:00 | 19:15 | Safety meeting w/ rig crews & MGM rep | Logging : | | | |
| 19:15 | 23:15 | Continue to break down Baker Hughes coring BHA & recover cut core # 2 | Run Casing : | | | |
| 23:15 | 24:00 | Run in the hole with core run# 3 | Cementing : | | | |
| | | | WOC : | | | |
| | | | NU BOP : | | | |
| | | | PT BOP : | | | |
| | | | DST : | | | |
| | | | Fishing : | | | |
| | | | Dir Work : | | | |
| | | | LDDP : | | | |
| | | | B.O.P / Safety Mt: | | | 0.75 |
| | | Core # 2 was cut from 1834mkb to 1851.60 mkb, Recovered from 1834mkb to 1851.30 mkb (17.3m of 17.6m cut= 98% recovered) | | | | |
| | | 1 load of cutting hauled off location (approx 20 ton) | | | | |
| | | Daily Fuel : 8531 litres. Total fuel : 137117 litres | | | | |

OPERATION NEXT 24 HRS : RIH w/ core BHA # 3, cut core # 3, POOH to recover core # 3

| | | | | | |
|------------------------|------------------------------|------------------|------------------------------|--------------------------|---|
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION : | good | TOTAL: | 24.00 |
| Tool Pusher : | Guy Cusitar | Cellular #: | 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape |
| Drilling Consultant : | Trevor Mitchell / Jason Duck | Email: | rig_supervisor@mgmenergy.com | Shack Cell #: | (403) 536-9970 |
| Temp (C) : | -14 | Weather : | 7kph N-wind & clear | Taken By : | John Williams / Dick Heenan |
| Date Last BOP Drill : | February 2, 2013 | Daily Cost : | \$153,348 | Cum Cost : | \$12,711,326 |
| | | | | AFE Remaining : | \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging

Date: Sunday, February 10, 2013

Operator: MGM. Energy Corp.

Supervisors: Larry Blundon - Dan Jutras

Weather: High Temp -11 C

Personnel in Camp: 63 + 2 driver staying in their sleepers

Regulator Contact: No contact was noted

Safety: No safety issues noted

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 7 | 0 | 0 |
| Previous | 158 | 4 | 10 |
| Total | 165 | 4 | 10 |

Environment: The President of the TRRC David Menache Dropped by and asked to go up and talk with John Williams to plan a future visit.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 1 | 0 | 1 |
| Previous | 275 | 20 | 36 |
| Total | 276 | 20 | 37 |

Hazard Identification of the Day:

Unsafe Act: Safety cotter pin was missing from the tongs hold back line

Corrective Action: Pin was found on floor after inspection and replaced

689439

V26

DAILY DRILLING REPORT

| | |
|-------------------|-----------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAY (FROM SPUD) : | 15.41 |
| TOTAL DAYS : | 29.00 |
| Date of Report: | 24-Jan-13 |



KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION: 155.89

| | |
|-------------------------|----------------------------|
| Well Name : | MGM-Shell East Mackay I-78 |
| Dpth @ 24:00 | 1874.24 |
| Progress (m) | 22.64 |
| Operation @ 24:00 Hours | 11-Feb-13 |
| Recovering Core #3 | |

| | | | |
|-------------------------|-----------|-------------------|-----------|
| Licence # : | 1202-002 | Date: | 11-Feb-13 |
| Operation @ 07:00 Hours | 12-Feb-13 | Depth @ 07:00 Hr. | 1874.24 |

DRILLING FLUID

| Type : | Polymer | Mud Engineer: | Dave Gibson | Cell # : | | Office # : | | Mud Co.: | Matrix Drilling Fluids |
|---------------|---------|---------------|-------------|----------------------|----------------------|------------|--------------|----------|------------------------|
| MUD CHECK | | | | | | | | | |
| #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | | | | SURVEYS | |
| Time | 09:00 | 13:30 | CalCarb 325 | 260 | Description | OD (mm) | ID (mm) | Length | Thread |
| Depth | 1856 | 1874 | | | PDC core bit | 216 | | 0.44 | HT-30 |
| Density | 1075 | 1080 | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| Viscosity | 54 | 56 | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| Water Loss | 7 | 6.4 | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| pH | 9.5 | 9.5 | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| Filter Cake | 1.0 | 1.0 | | | Stab & outer tube | 214 | 137 | 9.14 | HT-30 |
| P.V. | | 21 | | | Stabilizer | 214 | 137 | 1.22 | HT-30 |
| Y.P. | | 13.5 | | | Stabilizer | 214 | 137 | 1.22 | HT-30 |
| Gels 10 sec. | | 4 | | | Top sub | 171 | 137 | 0.71 | HT-30/4 1/2IF |
| Gels 10 min. | | 4.5 | | | Jars & float sub X/O | 171 | 57 | 2.72 | 4 1/2 IF/4 1/2XH |
| Low "N" | | .49 | | | 6-6.25 DC's | 156 | 70 | 56.38 | 4 1/2 XH |
| Low "K" | | 11.47 | | | X/O | 102 | 65 | 1.10 | 4 1/2XH/4-FH |
| Brk YP | | | | | Drill Pipe | | | | |
| Brk 0.5 rpm | | | | | HWDP | 102 | 65 | 186.25 | 4-FH |
| Chloride | | 340 | | | Drill Pipe | 102 | 84.5 | 1569.36 | 4-FH |
| Calcium | | Trace | | | Kelly Down | | | | |
| Sand % | | .006 | | | BHA Length (m) : | 118.63 | Total Length | 1874.24 | |
| Solids % | | | | | FLUID VOLUMES | | | | |
| Oil Content % | | 0 | | | PRE-MIX TANK | | | | |
| MBT | | | | | Bottoms Up (min) | 45 | Volume (m3) | | |
| Mud Gradient | 10.55 | 10.59 | | | Mud Cycle (min) | 70 | Low "N" | | |
| Last Csg MD: | 401.79 | 401.79 | | | Main Hole (m3) | 50.6 | Low "K" | | |
| Last Csg TVD: | 401.79 | 401.79 | | | Mud Tanks (m3) | 45.0 | Brk YP | | |
| MACP: | 6515 | 6495 | | | Sump Vol. (m3) | | Brk 0.5 rpm | | |
| RSPP: | 3800 | 3800 | | | Total (m3) | 95.6 | Viscosity | | |
| RSR Strokes: | 65 | 65 | | | MUD-UP DEPTH: | 440 | Density | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|---------|------------|-----------|------|------|------|------|--------|----------|---------|---------|------|-----|------|-----|---|---|---|---|
| 4 | 216 | BHC409C | 7137198 | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 | 1851.6 | 1874.24 | 22.6 | 5.50 | 4.1 | 5.50 | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| 4 | 4.5 | 45 | 65 | 6900 | 95 | | | 41 | 66 | 28.6 | 1.16 |
| | | | | | | | | | | | |

FROM TO 24 HOUR SUMMARY

| | | | | | | |
|-------|-------|--|--------------------|--|--|------|
| 00:00 | 04:30 | Continue Running in Hole with Core Assembly #3. | MIRU / TO : | | | |
| 04:30 | 04:45 | Rig Service. Greased Top Drive, Drawworks and Blocks, Functioned Annular O/C 18 secs. | Drill : | | | |
| 04:45 | 6:30 | Continue Running in Hole with Core Assembly #3 and Wash through Rathole from 1820.0mKB to 1851.6mKB. | Ream : | | | |
| 6:30 | 06:45 | Circulate Bottoms up. | Coring : | | | |
| 06:45 | 07:00 | Safety Meeting with Rig Crews and MGM Rep. | Circ : | | | |
| 07:00 | 08:00 | Continue Circulating Bottoms up. | Trips : | | | |
| 08:00 | 13:30 | Cut Core #3 from 1851.60 mKB to 1874.24 mKB. | Rig Service : | | | |
| 13:30 | 14:30 | Backream out of Rathole from 1874mKB to 1785mKB and Circulate | Rig Repair : | | | |
| 14:30 | 15:30 | Flow Check @ 1785mKB, Pump Pill and when pulling the second stand the hole was tight. Screwed back in and Circulated while | Cut Drig Ln : | | | |
| 15:30 | 15:30 | mixing a second Pill. Pumped out 2 Stands and pulled 5 more with no Pump. Pumped pill and prepared to Trip out. | Dev Survey : | | | |
| 15:30 | 18:30 | Trip out of Hole with Core Assembly #3 to Recover Core. Flow Check at 676mKB | Logging : | | | |
| 18:30 | 18:45 | Rig Service. Functioned Pipe Ram C/O 7 sec. | Run Casing : | | | |
| 18:45 | 19:00 | Safety Meeting with Rig Crews and MGM Rep. | Cementing : | | | |
| 19:00 | 22:45 | Continue Trip out of Hole with Core Assembly #3 to Recover Core | WOC : | | | |
| 22:45 | 23:00 | Safety Meeting with Baker Core Hands | NU BOP : | | | |
| 23:00 | 24:00 | Lay out Core Tubes and begin Recovery of Core #3 | PT BOP : | | | |
| | | | DST : | | | |
| | | | Fishing : | | | |
| | | | Dir Work : | | | |
| | | | LDDP : | | | |
| | | | B.O.P / Safety Mt: | | | 0.75 |
| | | | | | | |
| | | 2 Loads of Sawdust Delivered and 2 Loads of Cuttings sent out today. | | | | |
| | | | | | | |
| | | Daily Fuel :7733 litres Total fuel :144850 litres | | | | |

OPERATION NEXT 24 HRS : Finish Recovering Core #3, Make up 216mm Bit and Run in Hole, Drill 216mm Hole to 1935mKB, Trip out for Core Assembly

| | | | | | | | |
|------------------------|------------------------------|------------------|------------------------------|--------------------------|---|-----------------------------|-------|
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION : | good | BOILER HRS: | 24.00 | TOTAL DAILY HRS: | 24.00 |
| Tool Pusher : | Guy Cusitar | Cellular # : | 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape | | |
| Drilling Consultant : | Trevor Mitchell / Jason Duck | Email: | rig_supervisor@mgmenergy.com | Shack Cell # : | (403) 536-9970 | | |
| Temp (C) : | -16 | Weather : | Snow w/ West wind @ 12 kph | Taken By : | | John Williams / Dick Heenan | |
| Date Last BOP Drill : | February 2, 2013 | Daily Cost : | \$155,053 | Cum Cost : | \$12,866,379 | AFE Remaining : | \$0 |

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Larry Blundon - Dan Jutras

Date: Monday, February 11, 2013

Weather: High Temp -14 C Snowing

Personnel in Camp: 65

Regulator Contact: No contact was noted

Safety: No safety issues noted

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 7 | 0 | 0 |
| Previous | 165 | 4 | 10 |
| Total | 172 | 4 | 10 |

Environment: Weather was the talk of the day nice day for working the snow never stop all day. Walked around the staging area and down to the river did a spot check on the fish screen today.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 1 | 0 | 2 |
| Previous | 276 | 20 | 37 |
| Total | 277 | 20 | 39 |

Hazard Identification of the Day:

Unsafe Act: Worker cleaning up mixing shack and was not wearing proper PPE (respirator) for packing up empty chemical bags.

Corrective Action: Stopped worker and told him to use all the proper PPE for working with chemicals.

| | |
|-------------------|--------------------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAY (FROM SPUD) : | 16.41 |
| TOTAL DAYS : | 30.00 CO. WI (%) : |



689439 v27 DAILY DRILLING REPORT

| | | | | | | |
|--------------|--------------|----------------------------|-----------|-------------------------|--------------------------|-----------------------|
| Date : | Report: | 24-Jan-13 | | | | |
| Well Name : | | MGM-Shell East Mackay I-78 | | | | |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 12-Feb-13 | KB ELEVATION: 161.24 | GROUND ELEVATION: 155.39 | CBF ELEVATION: 155.89 |
| 1938 | 63.76 | Circulating at Core Point | | Operation @ 07:00 Hours | 13-Feb-13 | Depth @ 07:00 Hr. |

DRILLING FLUID

| Type : | Polymer | | Mud Engineer: | Dave Gibson | Cell #: | Office #: | Mud Co.: | Matrix Drilling Fluids | | | | | |
|---|---------|---|---------------|-------------|---------|----------------------|----------|------------------------|-------------------------------------|--|--------------------|--|--|
| MUD CHECK | #1 | #2 | ADDITIVES | | SKS | BOTTOM HOLE ASSEMBLY | | | | | | | |
| Time | 09:30 | 20:00 | | | | Description | OD (mm) | ID (mm) | | | | | |
| Depth | 1874 | 1914 | | | | Bit | 216 | 0.42 | | | | | |
| Density | 1080 | 1075 | | | | Bit Sub | 156 | 0.94 | | | | | |
| Viscosity | 56 | 55 | | | | DC's | 156 | 56.38 | | | | | |
| Water Loss | 7 | 6.8 | | | | Jar | 156 | 10.00 | | | | | |
| pH | 9.5 | 9.5 | | | | X/O | 156 | 1.10 | | | | | |
| Filter Cake | 1 | 1 | | | | | | | | | | | |
| P.V. | | 20 | | | | | | | | | | | |
| Y.P. | | 14 | | | | | | | | | | | |
| Gels 10 sec. | | 4 | | | | | | | | | | | |
| Gels 10 min. | | 4.5 | | | | | | | | | | | |
| Low "N" | | 49 | | | | | | | | | | | |
| Low "K" | | 11.47 | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | |
| Chloride | | 340 | | | | | | | | | | | |
| Calcium | | Trace | | | | | | | | | | | |
| Sand % | | .006 | | | | | | | | | | | |
| Solids % | | | | | | | | | | | | | |
| Oil Content % | | 0 | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | |
| Mud Gradient | 10.59 | 10.55 | | | | | | | | | | | |
| Last Csg MD: | 401.79 | 401.79 | | | | | | | | | | | |
| Last Csg TVD: | 401.79 | 401.79 | | | | | | | | | | | |
| MACP: | 6479 | 6499 | | | | | | | | | | | |
| RSPP: | 3246 | 3383 | | | | | | | | | | | |
| RSP Strokes: | 65 | 65 | | | | | | | | | | | |
| BIT DATA | | | | | | | | | | | | | |
| No. | Size-mm | Type | Serial No. | Jets (mm) | | In | Out | Metres | | | | | |
| 7RR | 216 | GX-20MDX | 5202128 | 15.9 | 15.9 | 15.9 | | 1874.24 | | | | | |
| | | | | | | | | 1938 | | | | | |
| | | | | | | | | 63.8 | | | | | |
| | | | | | | | | 7.25 | | | | | |
| | | | | | | | | 8.8 | | | | | |
| | | | | | | | | 7.25 | | | | | |
| DRILLING PARAMETERS | | | | | | | | | | | | | |
| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min | | |
| 7RR | 14 | 125 | 65 | 7900 | 120 | | | 52 | 84 | 41.1 | 1.47 | | |
| | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |
| 24 HOUR SUMMARY | | | | | | | | | PUMP DATA | | | | |
| 00:00 | 01:45 | Continue Recovery of Core #3. (Cut 22.30m from 1851.6mKB to 1873.9mKB and Recovered 21.20m or 95%) | | | | | | | | | MIRU / TO : | | |
| 01:45 | 03:00 | Trip out and Stand Core Barrels in Derrick | | | | | | | | | Drill : | | |
| 03:00 | 06:30 | Make up BHA and Run in Hole with 216mm Insert Bit. Flow Checks at 600mKB and 1200mKB | | | | | | | | | Ream : | | |
| 06:30 | 06:45 | Rig Service, Greased Blocks, Top Drive and Washpipe. Function Pipe Rams O/C 7 secs | | | | | | | | | Coring : | | |
| 06:45 | 07:00 | Safety Meeting with both Crews and MGM Rep. | | | | | | | | | Circ : | | |
| 07:00 | 08:00 | Continue Tripping in Hole with 216mm Insert Bit. | | | | | | | | | Trips : | | |
| 08:00 | 10:45 | Ream and Clean from 1816mKB to 1870 mKB | | | | | | | | | Rig Service : | | |
| 10:45 | 11:15 | Backream out of Rathole from 1870mKB to 1813mKB | | | | | | | | | Rig Repair : | | |
| 11:15 | 11:45 | Hang Blocks and Slip and Cut Damaged Line off Drawworks Drum. 30 Wraps totalling 42m of Drilling Line. | | | | | | | | | Cut Drdg Ln : | | |
| 11:45 | 14:15 | Wash back into Rathole and Continue Reaming from 1866 mKB to 1874mKB. Lost 4m of previously Reamed hole after Slip and Cut. | | | | | | | | | Dev Survey : | | |
| 14:15 | 14:30 | Drill 216mm Hole from 1874.24mKB to 1880mKB | | | | | | | | | Logging : | | |
| 14:30 | 14:45 | Rig Service, Functioned Pipe Ram C/O 7 Sec | | | | | | | | | Run Casing : | | |
| 14:45 | 15:00 | Safety Meeting with both Crews and MGM Rep. | | | | | | | | | Cementing : | | |
| 15:00 | 20:00 | Drill 216mm Hole from 1880mKB to 1915mKB | | | | | | | | | WOC : | | |
| 20:00 | 20:15 | BOP Drill with Crew | | | | | | | | | NU BOP : | | |
| 20:15 | 22:15 | Drill 216mm Hole from 1915mKB to 1938mKB | | | | | | | | | PT BOP : | | |
| 22:15 | 23:00 | Accumulated Work Pipe, Connection and Circulation Time | | | | | | | | | DST : | | |
| 23:00 | 23:15 | Rig Service, Function Test Swaco Choke | | | | | | | | | Fishing : | | |
| 23:15 | 24:00 | Circulate and Work Pipe prior to Trip out for Core Assembly #4 | | | | | | | | | Dir Work : | | |
| | | 2 Loads of Cuttings were Hauled out today. | | | | | | | | | LDDP : | | |
| | | Daily Fuel : 7630 litres. Total fuel : 152480 litres | | | | | | | | | B.O.P / Safety Mt: | | |
| | | | | | | | | | | | 0.75 | | |
| OPERATION NEXT 24 HRS : Trip out and Make up Core Assembly #4, Run in Hole with Same, Cut Core #4, Trip out to Recover Core | | | | | | | | | TOTAL: | 24.00 | | | |
| Drilling Rig & Number: Akita 37 | | | | | | | | | BOILER HRS: | 24.00 | | | |
| HOLE CONDITION : good | | | | | | | | | TOTAL DAILY HRS: 24.00 | | | | |
| Tool Pusher : Guy Cusitar | | | | | | | | | | | | | |
| Cellular # : 403-648-0842 | | | | | | | | | | | | | |
| Road / Lease Condition : Road is holding together very well. Location is in good shape | | | | | | | | | | | | | |
| Drilling Consultant : Trevor Mitchell / Jason Duckw | | | | | | | | | Email: rig_supervisor@mgmenergy.com | Shack Cell # : (403) 536-9970 | | | |
| Temp (C) : -20 | | | | | | | | | Weather : Overcast, Wind @ 7kph | Taken By : John Williams / Dick Heenan | | | |
| Date Last BOP Drill : February 12, 2013 | | | | | | | | | Daily Cost : \$153,357 | Cum Cost : \$13,019,736 | | | |
| | | | | | | | | | AFE Remaining : | \$0 | | | |

689439 v27

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Larry Blundon

Date: Tuesday, February 12, 2013

Weather: High Temp -18 C

Personnel in Camp: 61

Regulator Contact: No contact was noted

Safety: Drilling crew observed the drilling line was pinched on the draw works drum the driller and the Push were informed which in turn led to a slip and cut.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|------------------|------------------|------------------|
| Daily | 5 | 0 | 0 |
| Previous | 172 | 4 | 10 |
| Total | 177 | 4 | 10 |

Environment: No environmental issues were observed today.

Two end dumps were loaded with waste material to be shipped to Tervita Rainbow Lake Landfill

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|---------------------|---------------|-----------------|
| Daily | 14 | 0 | 0 |
| Previous | 277 | 20 | 39 |
| Total | 291 | 20 | 39 |

Hazard Identification of the Day:

Unsafe Act: Improper use of lifting slips using his back and not his legs

Corrective Action: Stopped worker and was show how to lift slips using the proper body position.

689439 138

DAILY DRILLING REPORT

| | | |
|--------------------|-------|-----------------|
| PROGRAMMED FTD : | 2020 | |
| DAYS (MI & RU) : | 13.59 | AFE # : 12D0006 |
| DAYS (FROM SPUD) : | 17.41 | AFE AMT. : |
| TOTAL DAYS : | 31.00 | CO. WI (%) : |



KB ELEVATION: 161.24 **GROUND ELEVATION:** 155.39 **CBF ELEVATION:** 155.89

Date: 24-Jan-13

| | | | | | | | |
|--------------|----------------------------|-------------------------|-----------|-----------------------------|-----------|-------------------|-----------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence #: | 1202-002 | Date: | 13-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 13-Feb-13 | Operation @ 07:00 Hours | 14-Feb-13 | Depth @ 07:00 Hr. | |
| 1960 | 22 | Cut core # 4 | | POOH to recover core run #4 | | 1960.5 | |

DRILLING FLUID

| Type : | Polymer | | Mud Engineer: Dave Gibson | | Cell # : | | Office # : | | Mud Co.: Matrix Drilling Fluids | | | | | | | |
|---------------|---------|----|---------------------------|-----------|----------|-----|----------------------|--|---------------------------------|--|--|---------|---------|--|--|--|
| MUD CHECK | | #1 | #2 | ADDITIVES | | SKS | BOTTOM HOLE ASSEMBLY | | | | | SURVEYS | | | | |
| Time | 18:00 | | 21:00 | | Caustic | | 1 | | | | | | Depth | | | |
| Depth | 1941 | | 1951 | | | | | | | | | | Degrees | | | |
| Density | 1075 | | 1065 | | | | | | | | | | Azi. | | | |
| Viscosity | 58 | | 56 | | | | | | | | | | | | | |
| Water Loss | 7 | | 6.4 | | | | | | | | | | | | | |
| pH | 9 | | 9.5 | | | | | | | | | | | | | |
| Filter Cake | 1 | | | | | | | | | | | | | | | |
| P.V. | 20 | | | | | | | | | | | | | | | |
| Y.P. | 14.5 | | | | | | | | | | | | | | | |
| Gels 10 sec. | 4 | | | | | | | | | | | | | | | |
| Gels 10 min. | 4.5 | | | | | | | | | | | | | | | |
| Low "N" | .50 | | | | | | | | | | | | | | | |
| Low "K" | 11.38 | | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | | |
| Chloride | 340 | | | | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | | | | |
| Sand % | .006 | | | | | | | | | | | | | | | |
| Solids % | | | | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | | | | |
| Mud Gradient | 10.55 | | 10.45 | | | | | | | | | | | | | |
| Last Csg MD: | 401.79 | | 401.79 | | | | | | | | | | | | | |
| Last Csg TVD: | 401.79 | | 401.79 | | | | | | | | | | | | | |
| MACP: | 3035 | | 3075 | | | | | | | | | | | | | |
| RSPP: | 4750 | | | | | | | | | | | | | | | |
| RSP Strokes: | 64 | | | | | | | | | | | | | | | |
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BIT DATA

DRILLING PARAMETERS

PLUMP DATA

| PUMP DATA | | | | | |
|-----------|--------|----------|---------|-----------|-----------|
| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

FROM 75

Daily fuel: 7986 litres Total fuel: 160466 litres

OPERATION NEXT 24 HRS : Continue to Cut core # 4 & recover, RIH w/ 216mm bit to drill to TD, POOH to run baker hughes wireline Log's

| | | | | | | | |
|------------------------|------------------------------|------------------|------------------------------|--------------------------|---|------------------|-------|
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION : | good | BOILER HRS: | 24.00 | TOTAL DAILY HRS: | 24.00 |
| Tool Pusher: | Guy Cusitar | Cellular #: | 403-648-0842 | Road / Lease Condition : | Road is holding together very well. Location is in good shape | | |
| Drilling Consultant : | Trevor Mitchell / Jason Duck | Email: | rig_supervisor@mgmenergy.com | Shack Cell #: | (403) 536-9970 | | |
| Temp (C): | -25 | Weather : | Sunny w/ 6kph SW wind | Taken By : | John Williams / Dick Heenan | | |
| Date Last BOP Drill : | February 14, 2013 | Daily Cost : | \$196,720 | Cum Cost : | \$13,209,617 | AFE Remaining : | \$0 |

East Mackay I-78 - 2013

Daily HSE Report

| Location: East Mackay Project Staging | Date: Wednesday, February 13, 2013 | | | | | | | | | | | | | | | | |
|---|--|-----------|--------------|-----------|-----------|--------------|---|---|---|-----------------|-----|----|----|--------------|-----|-----------|-----------|
| Operator: MGM. Energy Corp. | | | | | | | | | | | | | | | | | |
| Supervisors: Marty Larson - Larry Blundon | | | | | | | | | | | | | | | | | |
| Weather: High Temp -14 C | | | | | | | | | | | | | | | | | |
| Personnel in Camp: 62 | | | | | | | | | | | | | | | | | |
| Regulator Contact: No contact was noted | | | | | | | | | | | | | | | | | |
| Safety: Worker was doing his tour of inspections .At the draw works drum he discovered that the bottom wrap of drilling line had protruded through the second wrap and was bird caged. The line, a 12 inch long section was crushed and distorted with various broken strands. The operation at the time was reaming to bottom. Driller was informed and operation halted. Driller informed rig manager, who informed company rep. Decision was made to pull out of the rat hole and slip and cut out the damaged line. Cause is determined to be too much line on the drum; we have been running with a full layer of line on the drum for top drive pickup and lay down. We | <p style="text-align: center;">Safety Tracking</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th><th>Hazard ID</th><th>Near Miss</th><th>Incidents</th></tr> </thead> <tbody> <tr> <td>Daily</td><td>6</td><td>1</td><td>0</td></tr> <tr> <td>Previous</td><td>177</td><td>4</td><td>10</td></tr> <tr> <td>Total</td><td>183</td><td>5</td><td>10</td></tr> </tbody> </table> | | Hazard ID | Near Miss | Incidents | Daily | 6 | 1 | 0 | Previous | 177 | 4 | 10 | Total | 183 | 5 | 10 |
| | Hazard ID | Near Miss | Incidents | | | | | | | | | | | | | | |
| Daily | 6 | 1 | 0 | | | | | | | | | | | | | | |
| Previous | 177 | 4 | 10 | | | | | | | | | | | | | | |
| Total | 183 | 5 | 10 | | | | | | | | | | | | | | |
| Environment: No environmental issues were observed today. | <p style="text-align: center;">Environmental Tracking</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th><th>Orientations</th><th>Spills</th><th>Wildlife</th></tr> </thead> <tbody> <tr> <td>Daily</td><td>1</td><td>0</td><td>0</td></tr> <tr> <td>Previous</td><td>291</td><td>20</td><td>39</td></tr> <tr> <td>Total</td><td>292</td><td>20</td><td>39</td></tr> </tbody> </table> | | Orientations | Spills | Wildlife | Daily | 1 | 0 | 0 | Previous | 291 | 20 | 39 | Total | 292 | 20 | 39 |
| | Orientations | Spills | Wildlife | | | | | | | | | | | | | | |
| Daily | 1 | 0 | 0 | | | | | | | | | | | | | | |
| Previous | 291 | 20 | 39 | | | | | | | | | | | | | | |
| Total | 292 | 20 | 39 | | | | | | | | | | | | | | |
| Hazard Identification of the Day: Unsafe Act: Hand made sure to kill pump and bleed off pressure and lock out switch before tightening fittings on hydraulic lines. Corrective Action: Good job eliminating risk. | | | | | | | | | | | | | | | | | |

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|--------------------|-------|-----------------|
| PROGRAMMED FTD : | 2020 | |
| DAYS (MI & RU) : | 13.59 | AFE # : 12D0006 |
| DAYS (FROM SPUD) : | 18.41 | AFE AMT. : |
| TOTAL DAYS : | 32.00 | CO. WI (%) : |

689439 V29

DAILY DRILLING REPORT

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION : 155.89

Well Name : MGM-Shell East Mackay I-78

| | | | | | | |
|--------------|--------------|--------------------------------------|-----------|--------------------------------------|-----------|-------------------|
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 14-Feb-13 | Operation @ 07:00 Hours | 15-Feb-13 | Depth @ 07:00 Hr. |
| 1960.5 | 0.5 | Drilling ahead w/ 216mm tri-cone bit | | Drilling ahead w/ 216mm tri-cone bit | | 1988 |

DBILLING FLUID

| Type : | Polymer | | Mud Engineer: | Dave Gibson | | Cell # : | Office # : | | Mud Co.: | Matrix Drilling Fluids | | | | | |
|---------------|---------|----|---------------|-------------|-----|----------------------|------------|--|----------|------------------------|---------|---------|--|--|--|
| MUD CHECK | #1 | #2 | ADDITIVES | | SKS | BOTTOM HOLE ASSEMBLY | | | | | SURVEYS | | | | |
| Time | 15:00 | | 2K7 Biocide | | 4 | Description | | | | | Depth | Degrees | | | |
| Depth | 1960 | | Cal Carb 325 | | 80 | OD (mm) | | | | | Thread | Azi. | | | |
| Density | 1070 | | | | | Tri-cone bit | | | | | 216 | 0.42 | | | |
| Viscosity | 58 | | 51 | | | Bit sub | | | | | 102 | 0.94 | | | |
| Water Loss | 7 | | 6.8 | | | Stab & outer tube | | | | | 156 | 56.38 | | | |
| pH | 9.5 | | 9.5 | | | Jars-Hyd | | | | | 102 | 10.00 | | | |
| Filter Cake | 1 | | | | | X/O | | | | | 102 | 1.10 | | | |
| P.V. | 20 | | | | | 20 HWDP | | | | | 102 | 186.25 | | | |
| Y.P. | 13 | | | | | 4 FH | | | | | | | | | |
| Gels 10 sec. | 4 | | | | | | | | | | | | | | |
| Gels 10 min. | 4 | | | | | | | | | | | | | | |
| Low "N" | .48 | | | | | | | | | | | | | | |
| Low "K" | 11.64 | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | |
| Chloride | 380 | | | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | | | |
| Sand % | | | | | | | | | | | | | | | |
| Solids % | | | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | | | |
| Mud Gradient | 10.50 | | 10.55 | | | | | | | | | | | | |
| Last Csg MD: | 401.79 | | 401.79 | | | | | | | | | | | | |
| Last Csg TVD: | 401.79 | | 401.79 | | | | | | | | | | | | |
| MACP: | 6518 | | 6499 | | | | | | | | | | | | |
| RSPP: | 3111 | | | | | | | | | | | | | | |
| RSPP Strokes: | 64 | | | | | | | | | | | | | | |
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BIT DATA

DBILLING PARAMETERS

PIMP DATA

| PUMP DATA | | | | | |
|-----------|--------|----------|---------|-----------|-----------|
| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

FROM TO

24 HOUR SUMMARY

| FROM | TO | 24 HOUR SUMMARY | TIME BREAKDOWN | S | I | P | L1 | L2 | L3 |
|-------|-------|---|--------------------|---|---|-------|----|----|----|
| 00:00 | 01:00 | Cut 216mm core #4 from 1960mkb to 1960.5mkb | MIRU / TO : | | | | | | |
| 01:00 | 02:00 | Pump out of the hole from 1960.5m to 1774m | Drill : | | | | | | |
| 02:00 | 06:30 | Trip out of the hole flow check @ 1760m & pump pill, blow down top drive. Flow checks @ 954m,350m | Ream : | | | 3.25 | | | |
| 06:30 | 06:45 | Rig service, grease blocks, crown & wash pipe | Coring : | | | 1.00 | | | |
| 06:45 | 07:00 | Safety meeting w/ crews & MGM rep | Circ : | | | | | | |
| 07:00 | 08:45 | Continue to trip out of the hole with core # 4 assembly | Trips : | | | 18.25 | | | |
| 08:45 | 09:00 | Safety meeting w/ crew & baker hughes prior to handling core | Rig Service : | | | 0.75 | | | |
| 09:00 | 12:30 | Break down core assembly & recover core # 4 | Rig Repair : | | | | | | |
| 12:30 | 15:00 | Lay down baker hughes BHA | Cut Drdg Ln : | | | | | | |
| 15:00 | 15:15 | Rig service, function pipe rams 5 sec to c/o | Dev Survey : | | | | | | |
| 15:15 | 18:45 | Trip in the hole, fill pipe/ blow top drive @ 650m | Logging : | | | | | | |
| 18:45 | 19:00 | Safety meeting w/ crews & MGM rep | Run Casing : | | | | | | |
| 19:00 | 20:30 | Continue to trip in the hole to 1820mkb | Cementing : | | | | | | |
| 20:30 | 23:45 | Ream rat hole w/ slick assembly from 1820mkb to 1960mkb | WOC : | | | | | | |
| 23:45 | 24:00 | Rig service, function upper pipe rams c/o 7 sec | NU BOP : | | | | | | |
| | | | PT BOP : | | | | | | |
| | | | DST : | | | | | | |
| | | | Fishing : | | | | | | |
| | | | Dir Work : | | | | | | |
| | | | LDDP : | | | | | | |
| | | | B.O.P / Safety Mt: | | | 0.75 | | | |
| | | Core # 4 was cut from 1938mkb to 1960.50mkb, Recovered from 1938mkb to 1960.10mkb (21.5m cut= 97% recovered) | | | | | | | |
| | | Daily fluid 18191 liters Total fluid 178052 liters | | | | | | | |

Core # 4 was cut from 1938mkb to 1960.50mkb, Recovered from 1938mkb to 1960.10mkb (21.5m cut= 97% recovered)

Daily fuel : 10191 litres Total fuel: 170657 litres

| | | | | | | |
|---|--|--|--|---|--|------------------------|
| OPERATION NEXT 24 HRS : Drill 216mm hole to 2000mkb TD, wiper rat hole, POOH to run wireline logs | | | | TOTAL: | 24.00 | |
| Drilling Rig & Number: Akita 37 | | | | BOILER HRS: | 24.00 | TOTAL DAILY HRS: 24.00 |
| Tool Pusher : Guy Cusitar | | | | Cellular #: 403-648-0842 Road / Lease Condition : Road is holding together very well. Location is in good shape | | |
| Drilling Consultant : Trevor Mitchell / Jason Duc | | | | Email: rig_supervisor@mgmenergy.com | Shack Cell #: (403) 536-9970 | |
| Temp (C) : -27 | | | | Weather : 14kph E wind & clear | Taken By : John Williams / Dick Heenan | |
| Date Last BOP Drill : February 14, 2013 | | | | Daily Cost : \$162,146 | Cum Cost : \$13,371,802 | AFE Remaining : \$0 |

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Larry Blundon

Date: Thursday, February 14, 2013

Weather: High Temp -15 C

Personnel in Camp: 70

Regulator Contact: No contact was noted

Safety: No safety issues were observed today.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|------------------|------------------|------------------|
| Daily | 8 | 0 | 0 |
| Previous | 183 | 4 | 10 |
| Total | 191 | 4 | 10 |

Environment: No environmental issues were observed today.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|---------------------|---------------|-----------------|
| Daily | 5 | 0 | 0 |
| Previous | 292 | 20 | 39 |
| Total | 297 | 20 | 39 |

Hazard Identification of the Day:

Unsafe Act: Floor hand was noticed placing his fingers between the elevators and the stump to clean out debris.

Corrective Action: He was advised not to place any fingers in that location even when operations have stopped .Bad habit to be had.

689439
V 29
DRILLING REPORT
ELEVATION : 155.89
30

DAILY DRILLING REPORT

| | |
|--------------------|-------|
| PROGRAMMED FTD : | 2020 |
| DAYS (MI & RU) : | 13.59 |
| DAYS (FROM SPUD) : | 18.41 |
| TOTAL DAYS : | 32.00 |

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION : 155.89

Date: 24-Jan-13

| | | | | | | | |
|--------------|----------------------------|--------------------------------------|-----------|--------------------------------------|-----------|-------------------|-----------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence # : | 1202-002 | Date: | 14-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 14-Feb-13 | Operation @ 07:00 Hours | 15-Feb-13 | Depth @ 07:00 Hr. | |
| 1960.5 | 0.5 | Drilling ahead w/ 216mm tri-cone bit | | Drilling ahead w/ 216mm tri-cone bit | | 1988 | |

DRILLING FLUID

| Type : | Polymer | | Mud Engineer: Dave Gibson | | Cell # : | | Office # : | | Mud Co.: Matrix Drilling Fluids | | | | |
|---------------|---------|----|---------------------------|--|----------|--|------------|--|---------------------------------|--|--|--|--|
| MUD CHECK | #1 | #2 | ADDITIVES | | SKS | | SURVEYS | | | | | | |
| Time | 15:00 | | 2K7 Biocide | | 4 | | Depth | | | | | | |
| Depth | 1960 | | Cal Carb 325 | | 80 | | Degrees | | | | | | |
| Density | 1070 | | | | | | Azi. | | | | | | |
| Viscosity | 58 | | 51 | | | | | | | | | | |
| Water Loss | 7 | | 6.8 | | | | | | | | | | |
| pH | 9.5 | | 9.5 | | | | | | | | | | |
| Filter Cake | 1 | | | | | | | | | | | | |
| P.V. | 20 | | | | | | | | | | | | |
| Y.P. | 13 | | | | | | | | | | | | |
| Gels 10 sec. | 4 | | | | | | | | | | | | |
| Gels 10 min. | 4 | | | | | | | | | | | | |
| Low "N" | .48 | | | | | | | | | | | | |
| Low "K" | 11.64 | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | |
| Chloride | 380 | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | |
| Sand % | | | | | | | | | | | | | |
| Solids % | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | |
| Mud Gradient | 10.50 | | 10.55 | | | | | | | | | | |
| Last Csg MD: | 401.79 | | 401.79 | | | | | | | | | | |
| Last Csg TVD: | 401.79 | | 401.79 | | | | | | | | | | |
| MACP: | 6518 | | 6499 | | | | | | | | | | |
| RSPP: | 3111 | | | | | | | | | | | | |
| RSPP Strokes: | 64 | | | | | | | | | | | | |
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BIT DATA

DRILLING PARAMETERS

PUMP DATA

| Form DATA | | | | | |
|-----------|--------|----------|---------|-----------|-----------|
| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

FROM TO

| FROM | TO | 24 HOUR SUMMARY | TIME BREAKDOWN | S | I | P | L1 | L2 | L3 |
|-------|-------|--|--------------------|---|---|-------|----|----|----|
| 00:00 | 01:00 | Cut 216mm core #4 from 1960mkb to 1960.5mkb | MIRU / TO : | | | | | | |
| 01:00 | 02:00 | Pump out of the hole from 1960.5m to 1774m | Drill : | | | | | | |
| 02:00 | 06:30 | Trip out of the hole flow check @ 1760m & pump pill, blow down top drive. Flow checks @ 954m,350m | Ream : | | | 3.25 | | | |
| 06:30 | 06:45 | Rig service, grease blocks, crown & wash pipe | Coring : | | | 1.00 | | | |
| 06:45 | 07:00 | Safety meeting w/ crews & MGM rep | Circ : | | | | | | |
| 07:00 | 08:45 | Continue to trip out of the hole with core # 4 assembly | Trips : | | | 18.25 | | | |
| 08:45 | 09:00 | Safety meeting w/ crew & baker hughes prior to handling core | Rig Service : | | | 0.75 | | | |
| 09:00 | 12:30 | Break down core assembly & recover core # 4 | Rig Repair : | | | | | | |
| 12:30 | 15:00 | Lay down baker hughes BHA | Cut Drdg Ln : | | | | | | |
| 15:00 | 15:15 | Rig service, function pipe rams 5 sec to c/o | Dev Survey : | | | | | | |
| 15:15 | 18:45 | Trip in the hole, fill pipe/ blow top drive @ 650m | Logging : | | | | | | |
| 18:45 | 19:00 | Safety meeting w/ crews & MGM rep | Run Casing : | | | | | | |
| 19:00 | 20:30 | Continue to trip in the hole to 1820mkb | Cementing : | | | | | | |
| 20:30 | 23:45 | Wash through rat hole w/ slick assembly from 1820mkb to 1939mkb and ream through previously cored interval from 1939mkb to | WOC : | | | | | | |
| 23:45 | 23:45 | 1960mkb. | NU BOP : | | | | | | |
| 23:45 | 24:00 | Rig service, function upper pipe rams c/o 7 sec | PT BOP : | | | | | | |
| | | | DST : | | | | | | |
| | | | Fishing : | | | | | | |
| | | | Dir Work : | | | | | | |
| | | | LDDP : | | | | | | |
| | | | B.O.P / Safety Mt: | | | 0.75 | | | |
| | | Core # 4 was cut from 1938mkb to 1960.50mkb, Recovered from 1938mkb to 1960.10mkb (21.5m cut= 97% recovered) | | | | | | | |
| | | Daily fuel : 10191 litres Total fuel: 170657 litres | | | | | | | |

OPERATION NEXT 24 HRS : Drill 216mm hole to 2001mkb TD, wiper rat hole, POOH to run wireline logs

TOTAL: **24.00**

Drilling Rig & Number: Akita 37

HOLE CONDITION : Beam tight rat hole from 1820mkb to 1960mkb

24.00 TOTAL DAILY HRS: 24.00

Tool Box: Gun Case

Cellular #: 403-648-0843 Road / Lane:

Condition is in good shape.

Tool P

Cellular #: 403-648-0841

on is in good s

Drilling Consultant : Trevor Mitchell / Ja

such Email:

Nick Heenan

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Larry Blundon

Date: Thursday, February 14, 2013

Weather: High Temp -15 C

Personnel in Camp: 70

Regulator Contact: No contact was noted

Safety: No safety issues were observed today.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|------------------|------------------|------------------|
| Daily | 8 | 0 | 0 |
| Previous | 183 | 4 | 10 |
| Total | 191 | 4 | 10 |

Environment: No environmental issues were observed today.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|---------------------|---------------|-----------------|
| Daily | 5 | 0 | 0 |
| Previous | 292 | 20 | 39 |
| Total | 297 | 20 | 39 |

Hazard Identification of the Day:

Unsafe Act: Floor hand was noticed placing his fingers between the elevators and the stump to clean out debris.

Corrective Action: He was advised not to place any fingers in that location even when operations have stopped .Bad habit to be had.

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM Energy Corp.
Supervisors: Marty Larson - Larry Blundon

Date: Friday, February 15, 2013

Weather: High Temp -15 C

Personnel in Camp: 70

Regulator Contact: No contact was noted

Safety: No safety issues were observed today.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|-----------|-----------|-----------|
| Daily | 14 | 0 | 0 |
| Previous | 191 | 4 | 10 |
| Total | 205 | 4 | 10 |

Environment: No environmental issues were observed today.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|--------------|--------|----------|
| Daily | 7 | 0 | 0 |
| Previous | 297 | 20 | 39 |
| Total | 304 | 20 | 39 |

Hazard Identification of the Day:

Unsafe Act: Worker noticed a clevis for the safety cable on the Kelly hose was worn out from vibration.

Corrective Action: Immediately the operation was stopped and the defective equipment was changed out.

| | | |
|----------------------|-------|-----------------|
| PROGRAMMED FTD : | 2020 | |
| DAY(S) (MI & RU) : | 13.59 | AFE # : 12D0006 |
| DAY(S) (FROM SPUD) : | 20.41 | AFE AMT. : |
| TOTAL DAY(S) : | 34.00 | CO. WI (%) : |

689439

v32

DAILY DRILLING REPORT

Date: Report: 24-Jan-13

KB ELEVATION: 161.24 **GROUND ELEVATION:** 155.39 **CBF ELEVATION :** 155.89

| | | | | | | | |
|----------------------|----------------------------|---|-----------|--|-----------|-------------------|-----------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence #: | 1202-002 | Date: | 16-Feb-13 |
| Dpth @ 24:00 2001 | Progress (m) | Operation @ 24:00 Hours Ream in the hole | 16-Feb-13 | Operation @ 07:00 Hours Circulating on bottom | 17-Feb-13 | Depth @ 07:00 Hr. | 2001 |

DRILLING FLUID

| Type : Polymer | | Mud Engineer: Dave Gibson | | Cell #: | | Office #: | | Mud Co.: Matrix Drilling Fluids | | | | | |
|----------------|--------|---------------------------|----|------------|--------|-----------|----------------------|---------------------------------|-------------|--|--------------|--|--|
| MUD CHECK | | #1 | #2 | ADDITIVES | | SKS | BOTTOM HOLE ASSEMBLY | | | | SURVEYS | | |
| Time | 16:00 | 24:00 | | | | | | | | | Depth | | |
| Depth | 2001 | 2001 | | | | | | | | | | | |
| Density | 1075 | 1120 | | | | | | | | | | | |
| Viscosity | 80 | 90 | | | | | | | | | | | |
| Water Loss | 6.2 | 7 | | | | | | | | | | | |
| pH | 9 | 9 | | | | | | | | | | | |
| Filter Cake | 1 | | | | | | | | | | | | |
| P.V. | 22 | | | | | | | | | | | | |
| Y.P. | 24 | | | | | | | | | | | | |
| Gels 10 sec. | 6 | | | | | | | | | | | | |
| Gels 10 min. | 10 | | | | | | | | | | | | |
| Low "N" | .35 | | | | | | | | | | | | |
| Low "K" | 40.45 | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | |
| Chloride | 380 | | | | | | | | | | | | |
| Calcium | TR | | | | | | | | | | | | |
| Sand % | .006 | | | | | | | | | | | | |
| Solids % | | | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | | | |
| MBT | | | | | | | | | | | | | |
| Mud Gradient | 10.55 | 10.99 | | | | | | | | | | | |
| Last Csg MD: | 401.79 | 401.79 | | | | | | | | | | | |
| Last Csg TVD: | 401.79 | 401.79 | | | | | | | | | | | |
| MACP: | 6499 | 6321 | | | | | | | | | | | |
| RSPP: | 4414 | | | | | | | | | | | | |
| RSP Strokes: | 64 | | | | | | | | | | | | |
| | | | | Daily | Cum. | | | | | | PRE-MIX TANK | | |
| | | | | Mud (\$) | 37,785 | | Bottoms Up (min) | 38 | Volume (m3) | | | | |
| | | | | Water (\$) | | | Mud Cycle (min) | 60 | Low "N" | | | | |
| | | | | | | | Main Hole (m3) | 52.7 | Low "K" | | | | |
| | | | | | | | Mud Tanks (m3) | 28.8 | Brk YP | | | | |
| | | | | | | | Sump Vol. (m3) | | Brk 0.5 rpm | | | | |
| | | | | | | | Total (m3) | 81.5 | Viscosity | | | | |
| | | | | | | | MUD-UP DEPTH: | 440 | Density | | | | |

BIT DATA

DRILLING PARAMETERS

BLIMP DATA

| PUMP DATA | | | | | |
|-----------|--------|----------|---------|-----------|-----------|
| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

2021-2

2014 RELEASE UNDER E.O. 14176

| FROM | TO | 24 HOUR SUMMARY | TIME BREAKDOWN | S | I | P | L1 | L2 | L3 |
|-------|-------|--|--------------------|---|---|-------|----|----|----|
| 00:00 | 06:30 | Wireline Logs with Baker Hughes Wireline. Tagged at 1997mKB and started Logging up until hole got tight at 1976mKB. Attempted to pull free by pulling up to 70% of maximum tension and slackening off with no success. | MIRU / TO : | | | | | | |
| 06:30 | 06:30 | | Drill : | | | | | | |
| 06:30 | 06:45 | Rig Service | Ream : | | | 1.50 | | | |
| 06:45 | 07:00 | Safety Meeting with Crews and MGM Rep | Coring : | | | | | | |
| 07:00 | 07:30 | Continue attempting to free stuck wireline tools. Tools came free at 07:30hrs. | Circ : | | | | | | |
| 07:30 | 14:00 | Wireline Logs with Baker Wireline from 1976mKB to Surface. | Trips : | | | 4.50 | | | |
| 14:00 | 16:15 | Rig out baker hunes wireline equipment | Rig Service : | | | 0.75 | | | |
| 16:15 | 16:30 | Rig service, function pipe rams, 7 sec to c/o | Rig Repair : | | | | | | |
| 16:30 | 18:45 | Trip in the hole, make up collars, pick up jars | Cut Dril Ln : | | | 1.00 | | | |
| 18:45 | 19:00 | Safety Meeting with Crews and MGM Rep | Dev Survey : | | | | | | |
| 19:00 | 20:00 | Slip & cut drill line , SLC-8758mj Accum-91410mj, cut 17m | Logging : | | | 15.75 | | | |
| 20:00 | 22:15 | Trip in the hole with slick assembly & 216mm tooth bit | Run Casing : | | | | | | |
| 22:15 | 23:45 | Ream in the hole w/ slick assembly & 216mm tooth bit from 1825mkb to 1830mkb | Cementing : | | | | | | |
| 23:45 | 23:45 | Increasing mud density to 1125kg/m for hole stability while reaming in the hole | WOC : | | | | | | |
| 23:45 | 24:00 | Rig service, function pipe rams, 7 sec to c/o | NU BOP : | | | | | | |
| | | | PT BOP : | | | | | | |
| | | | DST : | | | | | | |
| | | | Fishing : | | | | | | |
| | | | Dir Work : | | | | | | |
| | | | LDDP : | | | | | | |
| | | | B.O.P / Safety Mt: | | | 0.50 | | | |
| | | Logs ran XMAC / ORIT / HDIL / DZDL / CN / DSL | | | | | | | |
| | | BOP drill held while tripping on the morning of the Feb 14, 2013, Annular functioned on the Feb 15,2013 @ 13:45hrs | | | | | | | |
| | | Daily fuel=5965 liters, Total fuel=134505 liters | | | | | | | |

OPERATION NEXT 24 HRS : Continue to rearm in the base. ROLLING log well.

TOTAL: **24.00**

| | | | | |
|--|-----------------------|------------------------------|--|--|
| OPERATION NEXT 24 HRS : Continue to ream in the hole, POOH to log well | | | TOTAL: | 24.00 |
| Drilling Rig & Number: Akita 37 | HOLE CONDITION : good | | | BOILER HRS: 24.00 TOTAL DAILY HRS: 24.00 |
| Tool Pusher : Guy Cusitar | Cellular #: | 403-648-0842 | Road / Lease Condition : Road is holding together very well. Location is in good shape | |
| Drilling Consultant : Trevor Mitchell / Jason Duck | Email: | rig_supervisor@mgmenergy.com | Shack Cell #: | (403) 536-9970 |
| Temp (C) : -24 | Weather : | 8kph E wind & clear | Taken By : | John Williams / Dick Heenan |
| Date Last BOP Drill : February 14, 2013 | Daily Cost : | \$222.058 | Cum Cost : | \$13,731.728 |
| | | | AFE Remaining : | \$0 |

689439

V33

DAILY DRILLING REPORT

| | |
|--------------------|-------|
| PROGRAMMED FTD : | 2020 |
| DAYS (MI & RU) : | 13.59 |
| DAYS (FROM SPUD) : | 21.41 |
| TOTAL DAYS : | 35.00 |

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION : 155.89

Date First Report: 24-Jan-13

| | | | | | | | |
|----------------------|----------------------------|--|-----------|---|-----------|-------------------|-----------|
| Well Name : | MGM-Shell East Mackay I-78 | | | Licence # : | 1202-002 | Date: | 17-Feb-13 |
| Dpth @ 24:00 2001 | Progress (m) | Operation @ 24:00 Hours Run wireline logs | 17-Feb-13 | Operation @ 07:00 Hours RIH w/ 216mm tooth bit | 18-Feb-13 | Depth @ 07:00 Hr. | 2001 |

DRILLING FLUID

| DRILLING FLUID | | Type : Polymer | | Mud Engineer: Dave Gibson | | Cell # : | | Office # : | | Mud Co.: Matrix Drilling Fluids | | | | | | |
|----------------|--------|----------------|------|---------------------------|--|----------|----------------------|------------|--------------|---------------------------------|------------------|----------------|---------|---------|-----|-----|
| MUD CHECK | | #1 | #2 | ADDITIVES | | SKS | BOTTOM HOLE ASSEMBLY | | | | | SURVEYS | | | | |
| Time | 07:00 | | | Barite | | 66 | Description | OD (mm) | ID (mm) | Length | Thread | Depth | Degrees | Azi. | | |
| Depth | 2001 | | | | | | Tri-cone bit | 216 | | 0.42 | 4 1/2 Reg | 1870.96 | 1.3 | 74.5 | | |
| Density | 1125 | | | | | | Bit sub | 102 | 65 | 0.94 | 4 1/2Reg/4 1/2XH | 1940.96 | 2 | 79.9 | | |
| Viscosity | 94 | | | | | | 6-6.25 DC's | 156 | 70 | 56.38 | 4 1/2 XH | 2000.96 | 2 | 80 | | |
| Water Loss | 6.2 | | | | | | Jars-Hyd | 102 | 65 | 10.00 | 4 1/2 XH | | | | | |
| pH | 9 | | | | | | X/O | 102 | 65 | 1.10 | 4 1/2XH /4-FH | | | | | |
| Filter Cake | 1 | | | | | | 20 HWDP | 102 | 65.1 | 186.25 | 4 FH | | | | | |
| P.V. | 22 | | | | | | | | | | | | | | | |
| Y.P. | 26 | | | | | | | | | | | | | | | |
| Gels 10 sec. | 7 | | | | | | | | | | | | | | | |
| Gels 10 min. | 14 | | | | | | | | | | | | | | | |
| Low "N" | .36 | | | | | | | | | | | | | | | |
| Low "K" | 39.67 | | | | | | | | | | | | | | | |
| Brk YP | | | | | | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | | | | | | |
| Chloride | 400 | | | | | | Drill Pipe | | | | | HYDRAULICS | | | | |
| Calcium | TR | | | | | | HWDP | | | | | Hole Size | 216 | OD (mm) | | |
| Sand % | .0025 | | | | | | Drill Pipe | | | | | Drill Pipe | 102 | 84.5 | | |
| Solids % | | | | | | | Kelly Down | | | | | Drill Collar | 156 | 70 | | |
| Oil Content % | | | | | | | BHA Length (m) : | 255.09 | Total Length | | 2001.00 | SOLIDs CONTROL | | | | |
| MBT | | | | | | | FLUID VOLUMES | | | | | Item | UF | OF | | |
| Mud Gradient | 11.04 | | | | | | Bottoms Up (min) | 38 | PRE-MIX TANK | | | Desander | | | | |
| Last Csg MD: | 401.79 | 401.79 | | | | | Mud Cycle (min) | 60 | Volume (m3) | | | Desilter | | | | |
| Last Csg TVD: | 401.79 | 401.79 | | | | | Main Hole (m3) | 52.7 | Low "N" | | | Centrifuge #1 | | | | |
| MACP: | 6302 | | 7272 | | | | Mud Tanks (m3) | 43.0 | Low "K" | | | Centrifuge #2 | | | | |
| RSPP: | 4940 | | | | | | Stump Vol. (m3) | | Brk YP | | | Centrifuge #3 | | | | |
| RSP Strokes: | 63 | | | | | | Mud (m3) | | Brk 0.5 rpm | | | Screen Sz. | #1 | #2 | #3 | #4 |
| | | | | | | | Water (\$) | | Viscosity | | | Shaker #1 | 200 | 200 | 165 | 165 |
| | | | | | | | Mud (\$) | 1,716 | Density | | | Shaker #2 | 200 | 200 | 165 | 165 |
| | | | | | | | Total (m3) | 39,501 | Shaker #3 | | | | | | | |

BIT DATA

DRILLING PARAMETERS

PLUMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

FROM TO

24 HOUR SUMMARY

| FROM | TO | 24 HOUR SUMMARY | TIME BREAKDOWN | S | T | P | L1 | L2 | L3 |
|-------|-------|---|--------------------|---|---|------|----|----|----|
| 00:00 | 03:30 | Ream & wash 216mm rat hole from 1825mkb to 2001mkb, ream tight hole @ 1825m to 1830m & 1992m to 2001m | MIRU / TO : | | | | | | |
| 03:30 | 04:15 | Circulate & clean hole prior to trip out | Drill : | | | | | | |
| 04:15 | 04:30 | Rig service, service loop sock | Ream : | | | 4.00 | | | |
| 04:30 | 05:45 | Wiper trip out/in of 216mm rat hole, flow check @ 2000m | Coring : | | | | | | |
| 05:45 | 06:00 | Derrick inspection | Circ : | | | 1.75 | | | |
| 06:00 | 06:15 | Continue Wiper trip out/in of 216mm rat hole | Trips : | | | 9.00 | | | |
| 06:15 | 06:45 | Ream & wash in 216mm rat hole from 1994m to 2001m | Rig Service : | | | 1.00 | | | |
| 06:45 | 07:00 | Safety meeting w/ rig crews & MGM rep | Rig Repair : | | | | | | |
| 07:00 | 08:00 | Circulate & clean hole | Cut Drig Ln : | | | | | | |
| 08:00 | 12:00 | Trip out of hole from 2001m 1800m, pump pill, blow back top drive | Dev Survey : | | | | | | |
| 12:00 | 12:15 | BOP Drill while tripping, 1 minute 50 sec to shut in well | Logging : | | | 7.25 | | | |
| 12:15 | 15:45 | Cont trip out of the hole, lay dn jars, flow check @ 2000m, 1812m, 989m, 262m @ out of the hole | Run Casing : | | | | | | |
| 15:45 | 16:00 | Rig service, function blind rams 4 sec to close | Cementing : | | | | | | |
| 16:00 | 16:15 | Safety meeting w/ baker hughes & akita crew | WOC : | | | | | | |
| 16:15 | 17:30 | Rig up baker hughes wireline loggers | NU BOP : | | | | | | |
| 17:30 | 18:45 | Logging run #2 on bttm @ 18:10 | PT BOP : | | | | | | |
| 18:45 | 19:00 | Safety meeting w/ rig crews & MGM rep | DST : | | | | | | |
| 19:00 | 21:45 | Continue logging run #2 tagged @ 1999m | Fishing : | | | | | | |
| 21:45 | 23:45 | Rig up log run # 3 | Dir Work : | | | | | | |
| 23:45 | 24:00 | Rig service, function pipe rams c/o 6 sec while loggers were out of the hole | LDDP : | | | | | | |
| | | - | B.O.P / Safety Mt: | | | 1.00 | | | |
| | | Logging run #2 XMAC/HDIL | | | | | | | |
| | | Daily fuel : 6614 litres Total fuel : 191119 litres | | | | | | | |

OPERATION NEXT 24 HRS : Log well

| | | | | | |
|--|--------------------------------------|--------------------------|--|-------------------|------------------------|
| Drilling Rig & Number: Akitia 37 | HOLE CONDITION : good | | | BOILER HRS: 24.00 | TOTAL DAILY HRS: 24.00 |
| Tool Pusher : Guy Cusitar | Cellular # : 403-648-0842 | Road / Lease Condition : | Road is holding together vey well. Location is in good shape | | |
| Drilling Consultant : Trevor Mitchell / Jason Duct | Email: rig_supervisor@mrgenergy.com | Shack Cell # : | (403) 536-9970 | | |
| Temp (C) : -26 | Weather : 16kph NW wind & light snow | Taken By : | John Williams / Dick Heenan | | |
| Date Last BOP Drill : February 17, 2013 | Daily Cost : \$135,762 | Cum Cost : \$13,874,730 | AFE Remaining : \$0 | | |

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Larry Blundon

Date: Sunday, February 17, 2013

Weather: High Temp -19 C

Personnel in Camp: 70

Regulator Contact: No contact was noted

Safety:

Hand's were shown the proper way to inspect dog collar,slips,tongs,etc before a trip and reminded to do it often.
 For maintaining equipment and preventing mis-haps on the floor

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-----------------|------------------|------------------|------------------|
| Daily | 9 | 0 | 0 |
| Previous | 220 | 4 | 10 |
| Total | 229 | 4 | 10 |

Environment: No environmental issues were observed today.

One Great Grey Owl was observed along the access road.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-----------------|---------------------|---------------|-----------------|
| Daily | 9 | 0 | 1 |
| Previous | 304 | 20 | 39 |
| Total | 313 | 20 | 40 |

Hazard Identification of the Day:

Unsafe Act: Derrick hand teaching motor hand to work up the stick.

Corrective Action: Check harnesses and retractable's and show hand proper way to work safe.

| | | | |
|--|--------------|-------------------------|---------|
| PROGRAMMED FTD : | 2020 | | |
| DAYS (MI & RU) : | 13.59 | AFE # : | 12D0006 |
| DAYS (FROM SPUD) : | 22.41 | AFE AMT. : | |
| TOTAL DAYS : | 36.00 | CO. WI (%) : | |
| Date Last Report: | 24-Jan-13 | | |
| Well Name : MGM-Shell East Mackay I-78 | | | |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 18-F |
| 2001 | | Rig up to & run log # 4 | |

689439 v 34

DAILY DRILLING REPORT

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION : 155.89

DRILLING FLUID

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Larry Blundon/Mike Costello

Date: Monday, February 18, 2013

Weather: High Temp -19 C

Personnel in Camp: 70

Regulator Contact: No contact was noted

Safety:

Hand found steam return line on boiler pinched back and choking the returns. Opened valve and told hands the importance of leaving the return line wide open

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|--------------|------------------|------------------|------------------|
| Daily | 13 | 0 | 0 |
| | 229 | 4 | 10 |
| | 242 | 4 | 10 |

Environment: No issues were noted.

1 - Moose, 2 Otters & 1 Lynx

Environmental Tracking

| | Orrientations | Spills | Wildlife |
|--------------|----------------------|---------------|-----------------|
| Daily | 7 | 0 | 3 |
| | 313 | 20 | 39 |
| | 320 | 20 | 42 |

Hazard Identification of the Day:

Unsafe Act: Observed flagging for no go zone was not in place while logging.

Corrective Action: Put new flagging in place and reminded workers about no go zone.

689439
V35
DAILY DRILLING REPORT

| | |
|--------------------|--------------------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAYS (FROM SPUD) : | 23.41 |
| TOTAL DAYs : | 37.00 CO. WI (%) : |

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION: 155.89

Date Report: 24-Jan-13

| | | | | | |
|----------------------|----------------------------------|--------------------------------------|---|-----------|---------------------------|
| Well Name : | MGM-Shell East Mackay I-78 | Licence # : | 1202-002 | Date: | 19-Feb-13 |
| Dpth @ 24:00 2001 | Progress (m) POOH & lay dn DP | Operation @ 24:00 Hours 19-Feb-13 | Operation @ 07:00 Hours POOH & lay dn DP | 20-Feb-13 | Depth @ 07:00 Hr. 2001 |

DRILLING FLUID

| Type : | Polymer | Mud Engineer: | Dave Gibson | Cell # : | | Office # : | | Mud Co.: | Matrix Drilling Fluids | |
|------------------|---------|---------------|-------------|--------------|-----|----------------------|---------|----------------|------------------------|------------------|
| MUD CHECK | | | | | | | | | | |
| Time | 22:30 | #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | | SURVEYS | | |
| Depth | 2001 | | | Barite | 25 | Description | OD (mm) | ID (mm) | Length | Thread |
| Density | 1125 | | | caustic soda | 1 | Tri-cone bit | 216 | | 0.42 | 4 1/2 Reg |
| Viscosity | 90 | | | | | Bit sub | 102 | 65 | 0.94 | 4 1/2Reg/4 1/2XH |
| Water Loss | 6 | | | | | 6-6.25 DC's | 156 | 70 | 56.38 | 4 1/2 XH |
| pH | 9 | | | | | Jars-Hyd | 102 | 65 | 10.00 | 4 1/2 XH |
| Filter Cake | 1.5 | | | | | X/O | 102 | 65 | 1.10 | 4 1/2XH /4-FH |
| P.V. | 21 | | | | | 20 HWDP | 102 | 65.1 | 186.25 | 4 FH |
| Y.P. | 27 | | | | | | | | | |
| Gels 10 sec. | 7 | | | | | | | | | |
| Gels 10 min. | 14 | | | | | | | | | |
| Low "N" | .34 | | | | | | | | | |
| Low "K" | 47.30 | | | | | | | | | |
| Brk YP | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | |
| Chloride | 400 | | | | | | | | | |
| Calcium | TR | | | | | | | | | |
| Sand % | .0025 | | | | | | | | | |
| Solids % | | | | | | | | | | |
| Oil Content % | | | | | | | | | | |
| MBT | | | | | | | | | | |
| Mud Gradient | 11.04 | | | | | | | | | |
| Last Csg MD: | 401.79 | 401.79 | | | | | | | | |
| Last Csg TVD: | 401.79 | 401.79 | | | | | | | | |
| MACP: | 6302 | 7272 | | | | | | | | |
| RSPP: | 4200 | | | | | | | | | |
| RSPP Strokes: | 67 | | | | | | | | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|------|---------|------|------------|-----------|------|------|----|-----|--------|----------|-----|---------|----|----|---|-----|---|---|---|---|
| 13RR | 216 | GT-1 | 5196907 | 15.9 | 15.9 | 15.9 | | | 2001 | 2001 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min | No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|------|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|-----|------|----------|---------|-----------|-----------|
| 13RR | 3 | 110 | 66 | 8650 | | 115 | | 49 | 80 | 39.4 | 1.41 | | | | | | |
| | | | | | | | | | | | | | | | | | |

| 24 HOUR SUMMARY | | | | | | | | | | | | | TIME BREAKDOWN | | | | | | |
|-----------------|-------|---|----------------------------|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|-------|
| 00:00 | 06:00 | Run wireline Logs with Baker Hughes. Run #4 - FLEX / MREX / DSL | | | | | | | | | | | MIRU / TO : | | | | | | |
| 06:00 | 06:15 | Rig Service | | | | | | | | | | | Drill : | | | | | | |
| 06:15 | 06:45 | Make up Bit and Run in Hole with Slick Assembly | | | | | | | | | | | Ream : | | | | | | |
| 06:45 | 07:00 | Safety Meeting with Akita Crews and MGM Rep | | | | | | | | | | | Coring : | | | | | | |
| 07:00 | 09:30 | Continue Trip in Hole with Slick Assembly to 641m | | | | | | | | | | | Circ : | | | | | | 2.00 |
| 09:30 | 11:15 | Trip out of hole to install jars | | | | | | | | | | | Trips : | | | | | | 14.75 |
| 11:15 | 11:30 | Rig service function test annular 55 sec to c/o | | | | | | | | | | | Rig Service : | | | | | | 0.50 |
| 11:30 | 16:00 | Trip in hole, fill pipe & blow out top drive @ 650m & 1300m | | | | | | | | | | | Rig Repair : | | | | | | |
| 16:00 | 16:15 | Safety Meeting with Akita Crews and MGM Rep | | | | | | | | | | | Cut Drilg Ln : | | | | | | |
| 16:15 | 18:15 | Cont tripping in the hole, wash last 5 stands down | | | | | | | | | | | Dev Survey : | | | | | | |
| 18:15 | 19:15 | Circulate hole clean | | | | | | | | | | | Logging : | | | | | | 6.00 |
| 19:15 | 20:45 | Trip out of rat hole | | | | | | | | | | | Run Casing : | | | | | | |
| 20:45 | 21:45 | Trip in hole & wash down last 3 stands | | | | | | | | | | | Cementing : | | | | | | |
| 21:45 | 22:45 | Circulate bttm's up | | | | | | | | | | | WOC : | | | | | | |
| 22:45 | 23:00 | Safety Meeting with Akita Crews and MGM Rep | | | | | | | | | | | NU BOP : | | | | | | |
| 23:00 | 24:00 | Trip out of hole (rack 10 stands & lay dn drill pipe) | | | | | | | | | | | PT BOP : | | | | | | |
| | | 2 loads of cuttings hauled off location (approx 42 ton) | | | | | | | | | | | DST : | | | | | | |
| | | Daily fuel : 7164 litres | Total fuel : 204010 litres | | | | | | | | | | Fishing : | | | | | | |

| | | | |
|-------------------------|---|------------------|-----------------------------|
| OPERATION NEXT 24 HRS : | POOH & lay dn drill string & BHA, RIH w/ 7" production casing | TOTAL: | 24.00 |
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION : | good |
| Tool Pusher : | Guy Cusitar | Cellular # : | 403-648-0842 |
| Drilling Consultant : | Trevor Mitchell / Jason Duck | Email: | tg_supervisor@mgmenergy.com |
| Temp (C) : | -30 | Weather : | 9kph W wind & light snow |
| Date Last BOP Drill : | February 17, 2013 | Daily Cost : | \$1,070,994 |
| | | Cum Cost : | \$15,085,635 |
| | | AFE Remaining : | \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Mike Costello

Date: Tuesday, February 19, 2013

Weather: High Temp -24 C

Personnel in Camp: 64

Regulator Contact: Site inspection was conducted by ENR officers Laurel McDonald & Todd Paget

Safety:

At 10:00 pm the night crew was tripping out of hole and were getting near the jars. The motorman was called to the drill floor to operate the catwalk, he then opened the steel prefab doors and began to raise the trough to the floor. As the trough got closer he realized one of the doors was not open far enough and the trough was gonna hit. So he then realeased the remote switch to stop it but it continued to move forward and hit the door puncturing a small hole and broke off the steel caster wheels. Bolts were replaced on the casters and door was hung back in place and is working normally. The hydraulic catwalk was function tested and everything operates normally.

Environmental: No environmental issues were noted.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|-------|-----------|-----------|-----------|
| Daily | 8 | 0 | 1 |
| | 239 | 4 | 10 |
| | | | |
| Total | 247 | 4 | 11 |

Hazard Identification of the Day:

Unsafe Act: Observed loader removing pallets from ice that were frozen in. The bottoms were breaking off leaving boards with nails sticking up.

Corrective Action: Stopped operations,steamed out pallets,flagged off area till boards could be removed from ice.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|-------|--------------|--------|----------|
| Daily | 3 | 0 | 1 |
| | 320 | 20 | 42 |
| | | | |
| Total | 323 | 20 | 43 |

689439

v36

DAILY DRILLING REPORT

| | |
|-------------------|-------|
| PROGRAMMED FTD : | 2020 |
| DAY (MI & RU) : | 13.59 |
| DAY (FROM SPUD) : | 23.41 |
| TOTAL DAYS : | 37.00 |

KB ELEVATION: 161.24 GROUND ELEVATION: 155.39 CBF ELEVATION: 155.89

Date : Report: 24-Jan-13

| | | | | | | |
|--------------|----------------------------|-------------------------|-------------|-------------------------|-----------|-------------------|
| Well Name : | MGM-Shell East Mackay I-78 | | Licence # : | 1202-002 | Date: | 20-Feb-13 |
| Dpth @ 24:00 | Progress (m) | Operation @ 24:00 Hours | 20-Feb-13 | Operation @ 07:00 Hours | 21-Feb-13 | Depth @ 07:00 Hr. |

DRILLING FLUID

| Type : | Polymer | Mud Engineer: | Dave Gibson | Cell # : | | Office # : | | Mud Co.: | Matrix Drilling Fluids |
|---------------|---------|---------------|-------------|----------|----------------------|------------|---------|----------|------------------------|
| MUD CHECK | #1 | #2 | ADDITIVES | SKS | BOTTOM HOLE ASSEMBLY | | | SURVEYS | |
| Time | 19:00 | | | | Description | OD (mm) | ID (mm) | Length | Thread |
| Depth | 2001 | | | | | | | | |
| Density | 1125 | | | | | | | | |
| Viscosity | 90 | | | | | | | | |
| Water Loss | 6 | | | | | | | | |
| pH | 9 | | | | | | | | |
| Filter Cake | 1.5 | | | | | | | | |
| P.V. | 21 | | | | | | | | |
| Y.P. | 27 | | | | | | | | |
| Gels 10 sec. | 7 | | | | | | | | |
| Gels 10 min. | 14 | | | | | | | | |
| Low "N" | .34 | | | | | | | | |
| Low "K" | 47.30 | | | | | | | | |
| Brk YP | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | |
| Chloride | 400 | | | | | | | | |
| Calcium | TR | | | | | | | | |
| Sand % | .0025 | | | | | | | | |
| Solids % | | | | | | | | | |
| Oil Content % | | | | | | | | | |
| MBT | | | | | | | | | |
| Mud Gradient | 11.04 | | | | | | | | |
| Last Csg MD: | 401.79 | 401.79 | | | | | | | |
| Last Csg TVD: | 401.79 | 401.79 | | | | | | | |
| MACP: | 6302 | 7272 | | | | | | | |
| RSPP: | 4200 | | | | | | | | |
| RSP Strokes: | 67 | | | | | | | | |
| | | | Daily | Cum. | | | | | |
| | | | Mud (\$) | 40,840 | | | | | |
| | | | Water (\$) | | | | | | |
| | | | | | MUD-UP DEPTH: | 440 | | | |

BIT DATA

| No. | Size-mm | Type | Serial No. | Jets (mm) | | In | Out | Metres | Bit Hrs. | ROP | Cum Hrs | Ti | To | D | Loc | B | G | O | R |
|-----|---------|------|------------|-----------|--|----|-----|--------|----------|-----|---------|----|----|---|-----|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

DRILLING PARAMETERS

| No. | WOB | RPM | Str. Wt. | Pressure | SPM #1 | SPM #2 | SPM #3 | DP Vel | DC Vel | Noz Vel | m3 / Min |
|-----|-----|-----|----------|----------|--------|--------|--------|--------|--------|---------|----------|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

FROM TO 24 HOUR SUMMARY

| | | | | | | | |
|-------|-------|--|--------------------|--|-------|--|--|
| 00:00 | 01:15 | Trip out of hole from 2001m to 1800m, pump pill, blow down top drive | MIRU / TO : | | | | |
| 01:15 | 01:30 | JSA review-laying down drill pipe | Drill : | | | | |
| 01:30 | 06:30 | Lay dn drill pipe singles from 1800m to 650m | Ream : | | | | |
| 06:30 | 06:45 | Rig service, function annular 55 sec to c/o. | Coring : | | | | |
| 06:45 | 07:00 | Safety meeting with MGM rep & akita crew | Circ : | | | | |
| 07:00 | 08:00 | Continue to lay dn drill pipe | Trips : | | 1.25 | | |
| 08:00 | 08:15 | safety meeting with rig crew-slip & cut | Rig Service : | | 0.75 | | |
| 08:15 | 09:00 | Slip & cut drill line 15m | Rig Repair : | | | | |
| 09:00 | 09:15 | Rig service, function annular 55 sec to c/o, greased top drive | Cut Drg Ln : | | 0.75 | | |
| 09:15 | 14:30 | Continue to lay dn drill pipe & BHA | Dev Survey : | | | | |
| 14:30 | 15:30 | Remove wear bushing | Logging : | | | | |
| 15:30 | 16:30 | Prep floor & rig up to run casing | Run Casing : | | 5.75 | | |
| 16:30 | 16:45 | Safety meeting w/ long hands,akita crew & MGM rep | Cementing : | | | | |
| 16:45 | 18:45 | Test run cameron landing joint, run single joint of casing & calibrate tongs & torque monitor | WOC : | | | | |
| 18:45 | 19:00 | Safety meeting with MGM rep & akita crew | NU BOP : | | | | |
| 19:00 | 23:45 | Run 48 jnts of 177.8mm 53.59kg/m L-80 tenaris blue casing | PT BOP : | | | | |
| 23:45 | 24:00 | Rig service, function test crown saver | DST : | | | | |
| | | | Fishing : | | | | |
| | | | Dir Work : | | | | |
| | | Elevator certs 7" SLX-150ton ser#44922, load test # EDM-0505-8596-69459LT, load tested to 225ton, inspection # H-16335 | LDDP : | | 11.25 | | |
| | | 3 loads of cuttings hauled off location (approx 63 ton) | B.O.P / Safety Mt: | | 1.25 | | |
| | | Daily fuel : 6845 litres Total fuel : 210855 litres | Cameron work | | 3.00 | | |
| | | | TOTAL: | | 24.00 | | |

OPERATION NEXT 24 HRS : Continue to RIH w/ 177.8mm casing, circulate casing, cement casing

| | | | | |
|------------------------|------------------------------|-----------------|------------------------------|---|
| Drilling Rig & Number: | Akita 37 | HOLE CONDITION: | good | Road is holding together very well. Location is in good shape |
| Tool Pusher : | Guy Cusitar | Cellular #: | 403-648-0842 | Road / Lease Condition : |
| Drilling Consultant : | Trevor Mitchell / Jason Duct | Email: | rig_supervisor@mgmenergy.com | Shack Cell # : |
| Temp (C) : | -31 | Weather : | 8kph W wind & clear | Taken By : |
| Date Last BOP Drill : | February 17, 2013 | Daily Cost : | \$141,484 | Cum Cost : |
| | | | | John Williams / Dick Heenan |
| | | | | AFE Remaining : |
| | | | | \$0 |

East Mackay I-78 - 2013**Daily HSE Report**

Location: East Mackay Project Staging
Operator: MGM. Energy Corp.
Supervisors: Marty Larson - Mike Costello

Date: Wednesday, February 20, 2013

Weather: High Temp -27 C

Personnel in Camp: 64

Regulator Contact: No contact was noted

Safety: No safety issues occurred.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 11 | 0 | 0 |
| Previous | 247 | 4 | 11 |
| Total | 258 | 4 | 11 |

Environmental: No environmental issues were noted.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 4 | 0 | 1 |
| Previous | 313 | 20 | 42 |
| Total | 317 | 20 | 43 |

Hazard Identification of the Day:

Unsafe Act: While performing pre-trip inspection on floor equipment,a broken pin was found that holds slip segments in place.

Corrective Action: Reported it to the driller and slips were repaired prior to tripping, this is why we always do a Pre-Trip inspection.

| | | | |
|--------------------|-------|--------------|---------|
| PROGRAMMED FTD : | 2020 | | |
| DAYS (MI & RU) : | 13.59 | AFE # : | 12D0006 |
| DAYS (FROM SPUD) : | 25.41 | AFE AMT. : | |
| TOTAL DAYS : | 39.00 | CO. WI (%) : | |

689439

v37

DAILY DRILLING REPORT

KB ELEVATION: 161.24 **GROUND ELEVATION:** 155.39 **CBF ELEVATION :** 155.89

| | | | | |
|--|--------------|---|---|---------------------------|
| Well Name : MGM-Shell East Mackay I-78 | License # : | 1202-002 | Date: | 21-Feb-13 |
| Dpth @ 24:00 2001 | Progress (m) | Operation @ 24:00 Hours 21-Feb-13 Install 4 1/2" pipe rams & begin pressure testing BOP's & related equipment | Operation @ 07:00 Hours 22-Feb-13 continue pressure testing | Depth @ 07:00 Hr. 2001 |

DRILLING FLUID

| Type : | Polymer | | Mud Engineer: Dave Gibson | | Cell # : | | Office # : | | Mud Co.: Matrix Drilling Fluids | | |
|---------------|---------|-------|---------------------------|------|----------|---------------|------------|---------|---------------------------------|--|--|
| MUD CHECK | #1 | #2 | ADDITIVES | | SKS | | SURVEYS | | | | |
| Time | | 16:00 | Humite | 8 | | | Depth | Degrees | Azi. | | |
| Depth | | 2001 | | | | | | | | | |
| Density | | 1130 | | | | | | | | | |
| Viscosity | | 52 | | | | | | | | | |
| Water Loss | | 7 | | | | | | | | | |
| pH | | 8.5 | | | | | | | | | |
| Filter Cake | | 1 | | | | | | | | | |
| P.V. | | 22 | | | | | | | | | |
| Y.P. | | 11 | | | | | | | | | |
| Gels 10 sec. | | 4 | | | | | | | | | |
| Gels 10 min. | | 6 | | | | | | | | | |
| Low "N" | | .52 | | | | | | | | | |
| Low "K" | | 8.74 | | | | | | | | | |
| Brk YP | | | | | | | | | | | |
| Brk 0.5 rpm | | | | | | | | | | | |
| Chloride | | 320 | | | | | | | | | |
| Calcium | | Tr | | | | | | | | | |
| Sand % | | .0025 | | | | | | | | | |
| Solids % | | | | | | | | | | | |
| Oil Content % | | | | | | | | | | | |
| MBT | | | | | | | | | | | |
| Mud Gradient | | 11.09 | | | | | | | | | |
| Last Csg MD: | | | | | | | | | | | |
| Last Csg TVD: | | | | | | | | | | | |
| MACP: | | | | | | | | | | | |
| RSPP: | | | | | | | | | | | |
| RSP Strokes: | | | | | | | | | | | |
| | | | Daily | Cum. | | | | | | | |
| | | | Mud (\$) | 96 | 40,840 | | | | | | |
| | | | Water (\$) | | | | | | | | |
| | | | | | | MUD-UP DEPTH: | | | | | |

BIT DATA

DRILLING PARAMETERS

PUMP DATA

| No. | Type | m3 / Stk | Eff (%) | Liner Sz. | Stk.Lgth. |
|-----|--------|----------|---------|-----------|-----------|
| #1 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #2 | 9P-100 | 0.0129 | 95% | 152 | 235 |
| #3 | | | | | |

FROM TO

20-200 20-200 Run 177.8 mm ageing, heated circulation. © 1993 E

| | | | | | |
|-------|-------|--|--------------------|-------|--|
| 00:00 | 06:30 | Run 177.8mm casing, break circulation @ 1350m | MIRU / TO : | | |
| 06:30 | 06:45 | Rig service, function choke | Drill : | | |
| 06:45 | 07:00 | Safety meeting w/ akita rig crews & MGM rep | Ream : | | |
| 07:00 | 12:00 | Run 147 jnts of 177.8mm 38.69kg/m - L-80 tenaris blue casing (fill pipe & break circulation @ 1750m) | Coring : | | |
| 12:00 | 17:00 | Circulate casing & reduce yield point for cement job | Circ : | 5.00 | |
| 17:00 | 17:15 | Safety meeting w/ cementers, akita crew & MGM rep | Trips : | | |
| 17:15 | 17:30 | Install 7" mbs landing joint | Rig Service : | 0.50 | |
| 17:30 | 18:45 | Rig up cementers | Rig Repair : | | |
| 18:45 | 19:00 | Safety meeting w/ rig crews & MGM rep | Cut Drig Ln : | | |
| 19:00 | 22:00 | Cement 177.8mm Production Casing w/ 22.5 tonne HL-1400 cement +0.90% LT-FL + 0.20%Ati foam & 19.5 tonne class-G cement + | Dev Survey : | | |
| 22:00 | 22:00 | 0.30% FL + 0.50% Dispersant +0.20% Ati foam +0.30%Retarder.Drop plug & displace w/ 39.5m3 KCL & inhibitor brine, bumped plug | Logging : | | |
| 22:00 | 22:00 | to 17500kpa for 15min, floats held, annulus static, 8m3 good cement returns, plug Dn @ 19:50 hrs | Run Casing : | 11.75 | |
| 22:00 | 22:30 | Lay dn cement head & power tongs | Cementing : | 4.50 | |
| 22:30 | 23:45 | Back off cameron mbs 7" landing joint & retrieve, set pack off & pressure test, install test plug | WOC : | | |
| 23:45 | 24:00 | Rig service, grease top drive, function crown saver | NU BOP : | | |
| | | | PT BOP : | | |
| | | | DST : | | |
| | | | Fishing : | | |
| | | | Dir Work : | | |
| | | | LDDP : | | |
| | | | B.O.P / Safety Mt: | 0.75 | |
| | | | Cameron work | 1.50 | |
| | | 177.8mm casing landed @ 1988.25mkb, float collar landed @ 1974.25mkb | | | |
| | | Daily fuel : 6921 litres Total fuel : 217776 litres | | | |

OPERATION NEXT 24 HRS : Install 4 1/2" pipe rams, pressure test BOP's & all related equipment, start completions program

TOTAL: **24.00**

| | | | | | | |
|--|-----------------------------------|------------------------------|--------------------------|--|------------------|-------|
| Drilling Rig Number : Akit 37 | HOLE CONDITION : Cased & cemented | | BOILER HRS: | 24.00 | TOTAL DAILY HRS: | 24.00 |
| Tool Pusher : Guy Cusitar | Cellular # : | 403-648-0842 | Road / Lease Condition : | Road is holding together vey well. Location is in good shape | | |
| Drilling Consultant : Trevor Mitchell / Jason Duct | Email: | rig_supervisor@mgmenergy.com | Shack Cell # : | (403) 536-9970 | | |
| Temp (C) : -30 | Weather : | 8kph W wind & clear | Taken By : | John Williams / Dick Heenan | | |
| Date Last BOP Drill : February 17, 2013 | Daily Cost : | \$309,094 | Cum Cost : | \$15,535,063 | AFE Remaining : | \$0 |

East Mackay I-78 - 2013

Daily HSE Report

Location: East Mackay Project Staging

Date: February-21-13

Operator: MGM. Energy Corp.

Supervisors: Marty Larson - Mike Costello

Weather: High Temp -27 C

Personnel in Camp: 61

Regulator Contact: No regulator contact was noted

Safety: No safety issues were noted.

Safety Tracking

| | Hazard ID | Near Miss | Incidents |
|----------|-----------|-----------|-----------|
| Daily | 6 | 0 | 0 |
| Previous | 258 | 4 | 11 |
| Total | 264 | 4 | 11 |

Environment: No Environmental issues were observed.

Environmental Tracking

| | Orientations | Spills | Wildlife |
|----------|--------------|--------|----------|
| Daily | 4 | 0 | 0 |
| Previous | 313 | 20 | 39 |
| Total | 317 | 20 | 39 |

Hazard Identification of the Day:

Unsafe Act: Observed new floor hand standing in hazard area while running casing in hole.

Corrective Action: I went and mentored new hand on proper hand signals, body positioning and not to turn his back to casing when it is coming up the V Door.

