

Drilling Mud Report(Off Shore)

Engineer

K.Mori
H. Ito

No. 82

Date 9, January, 2014

TOTAL Depth(MSL) 4,803.5m

Company MOJ

Well Name C0002P (NT3-01)

BRT Depth: 4,832.0 m, SSL Depth: 2,864.5 m

| Casing Program | | Mud Volume & Bit Data | | Pump Data | | String Data | | Circulation Data (min) | |
|----------------|---------------------|-----------------------|------|--------------------|-------|--------------------|-----|------------------------|------|
| Conductor | 36 in 2,121.5 m | Riser Vol. (m³) | 392 | Pump No.1 (l/st) | 19.45 | DP Size (in) | 5 | Surface to Bit | 13 |
| Intermediate | 20 in 2,827.8 m | CSG Vol. (m³) | 154 | Pump No.2 (l/st) | 19.45 | DC1 Size (in) | 8.5 | Bottom's Up | 137 |
| Intermediate | 13.375 in 3,976.5 m | B/Hole Vol. (m³) | 97 | Pump No.3 (l/st) | 19.45 | DC2 Size (in) | | Surf to Surf | 149 |
| Intermediate | in m | Disp Vol. (m³) | 23 | P/Speed No.1 (spm) | 90 | A/Vel DP (m/min) | 36 | System Total | 179 |
| Intermediate | in m | T/Circ Vol. (m³) | 720 | P/Speed No.2 (spm) | 90 | A/Vel DC1(m/min) | 47 | P/ Press(Mpa) | 34.5 |
| Intermediate | in m | Pit Vol. (m³) | 100 | P/Speed No.3 (spm) | 80 | A/Vel Rise(ft/min) | | | |
| Production | in m | Bit Size (inch) | 14.5 | Rate (gal/min) | 1,296 | | | | |

| Mud Type: | KNPP | Mud Properties | | | | Materials Name | | Daily Amount | Total Amount | Daily Cost |
|---|------|----------------|-------------|-------------|-------------------|----------------|--|--------------|--------------|------------|
| Time (Sampling : Suction) | | 5:00 | 17:30 | 15:00 | Tel-Bar | | | | | |
| Depth (m) | | Pit | 4652 | Hivis | Kunigel VO (Bulk) | | | | | |
| Mud Weight (SG/PPG) | | 1.32 11.0 | 1.32 11.0 | 1.32 11.0 | NaCl | | | | | |
| Funnel Viscosity(sec./qt.) | | 119 | 128 | 300 | KCL | | | | | |
| A.V(cps) at /49 cent. | | 78 | 84.5/48.5 | 108 | Tel-Polymer DX | | | | | |
| P.V(cps) | | 48 | 52 / 30 | 62 | Tel-Polymer L | | | | | |
| Y.V(lb/100ft²) | | 60 | 65 / 37 | 92 | Tel-Polymer H | | | | | |
| 10"Gel(lb/100ft²) | | 11 | 12 / 8 | 18 | XCD-Polymer | | | | | |
| 10'Gel(lb/100ft²) | | 16 | 16 / 20 | 26 | Soda Ash | | | | | |
| API Filtrate(cc/30min.) | | 2.4 | 2.5 | | Caustic potash | | | | | |
| Cake Thickness(mm) | | 0.5 | 0.5 | | Clean Lube | | | | | |
| pH(-) | | 10.9 | 10.8 | 11.0 | Tel Clean | | | | | |
| Pf(cc) | | 0.1 | 0.1 | | Bi-Carbonate | | | | | |
| Pm(cc) | | 2.6 | 2.5 | | Lime | | | | | |
| Mf(cc) | | 0.4 | 0.4 | | Defoamer 30C | | | | | |
| Cl (mg/l) | | 117,200 | 124,250 | | Telnite GXL | | | | | |
| Sand Content(%) | | 0.1 | 0.1 | | Tel-DD | | | | | |
| Oil Content(% Vol.) | | 0 | 0 | | Caustic soda | | | | | |
| Solid Content(% Vol.) | | 15 | 15 | | Lignite NC | | | | | |
| M.B.C.(cc/cc.mud) | | 2.00 | 2.00 | | Astex S | | | | | |
| Temperature(in/out cent.) | | 15 | 13 11 | 18 | Xanvis | | | | | |
| HT-HP Filtrate(cc) | | | | | Tel Stop G | | | | | |
| HT-HP Filtrate Cake(mm) | | | | | Tel Stop P | | | | | |
| K' (mg/l) | | 35,800 | 38,100 | | Tel Mica C | | | | | |
| Ca ⁺⁺ /Mg ⁺⁺ (mg/l) | | 80 24 | 80 24 | | Tel Mica M | | | | | |
| n Value(600rpm/300rpm) | | 0.53 | 0.53 | 0.49 | Tel Mica F | | | | | |
| k Value(600rpm/300rpm) | | 3.95 | 2.40 | 7.34 | Tel Plug C | | | | | |
| LGS/Drill Solids(% Vol.) | | 2.9 1.8 | 2.5 1.4 | | Tel Plug M | | | | | |
| | | | | | Tel Plug F | | | | | |
| | | | | | Tan Cal M | | | | | |
| | | | | | Tan Cal F | | | | | |
| | | | | | Tan Cal FF | | | | | |
| | | | | | EZ Spot (gal/drm) | | | | | |
| | | | | | Speeder P | | | | | |
| | | | | | Speeder X | | | | | |
| | | | | | Treat HS | | | | | |

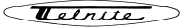
| VG METER READING | | | | | | | |
|------------------|---------|----------|----------|---------|---------|--------|--------|
| Time | Temp | 600rpm | 300rpm | 200rpm | 100rpm | 6rpm | 3rpm |
| 5:00 | | 156 | 108 | 87 | 61 | 15 | 11 |
| 17:30 | 13 49 | 169 97 | 117 67 | 95 54 | 66 39 | 17 9 | 12 7 |
| 15:00 | | 216 | 154 | 126 | 90 | 24 | 18 |

Well Summary
 Continue POOH to above BOP. Wait on weather. RIH. wash down to 4540m. Pull back to 3896m. RIH with 25stds of 5-1/2" DP for replaced DP. RIH to 4545m. Wash down from 4538m to 4646m. Sweep 7m3 of Hivis. Ream down from 4657m to 4660m. Due to tight spot worked pipe. Continue Ream down from 4660m to 4382m.

Made 25m3 of Hivis mud. Made 59m3 of dilution mud.
 Run Centrifuge No.1 (19:30 - 24:00)
 Added 200kg of Caustic potash into circulation mud.

On hand and Remarks
 1.28sg KNPP(Circ) mud: 173m3 @Re#3
 1.27sg dilution mud : 66m3 @Act#2
 1.32sg Hi-vis mud : 34m3 @Act#6
 1.13sg 20%LCM mud :24m3 @Act#3 Today's lost mud --m3. (Total 496m3).

| Shale Shaker | | | | | | De-Sander | | Mud Cleaner | | Centrifuge | | | |
|--------------|-----|-----|-----|-----|-----|-----------|-----|-------------|-----|------------|-----|-----|-----|
| No. | #.1 | #.2 | #.3 | #.4 | #.5 | #.6 | #.1 | #.2 | #.1 | #.2 | #.1 | #.2 | #.3 |
| Top | 10 | 10 | 10 | 10 | 10 | 10 | | | | | | | |
| Btm1 | 230 | 200 | 200 | 200 | 200 | 200 | | | | | ON | OFF | OFF |
| Btm2 | 230 | 200 | 200 | 200 | 200 | 200 | | | | | | | |
| Daily Cost | | | | | | | | | | | | | |
| Total Cost | | | | | | | | | | | | | |



MATERIALS REPORT

NO. 83

Well Name C0002P (NT3-01)

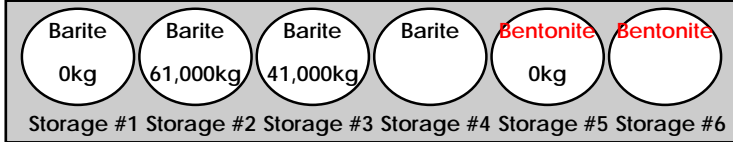
DATE 10. Jan. 14

TIME _____

Status of Bulk Tank

| Tank Name | Materials | RCV/Slide | Used | On Hand | Remarks |
|------------|-----------|-----------|------|----------|---------|
| Storage #1 | Barite | | | 0kg | |
| Storage #2 | Barite | | | 61,000kg | |
| Storage #3 | Barite | | | 41,000kg | |
| Storage #4 | Barite | | | | |
| Storage #5 | Bentonite | | | 0kg | |
| Storage #6 | Bentonite | | | | |

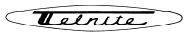
| Tank Name | Materials | RCV/Slide | Used | On Hand | Remarks |
|--------------|-----------|-----------|------|----------|---------|
| D/Tank #1 | Bentonite | | | 10,000kg | |
| D/Tank #2 | Barite | | | 12,000kg | |
| Bar/Surge #1 | Barite | | | 1,000kg | |
| Bar/Surge #2 | Barite | | | 2,000kg | |
| Gel Surge | Bentonite | | | 800kg | |



Total Bulk Tank W.T. 127,800kg

(Unit : kg)

| Materials Name | Unit Price | Receive | T/Receive | B/Load | TTL B/Load | Used | Total Used | Cost | On Hand | Remarks |
|-------------------|------------|---------|-----------|--------|------------|------|------------|------|---------|-------------|
| Tel-Bar | 41,000 | | 457,700 | | | | 340,700 | | 117,000 | |
| Kunigel VO (Bulk) | 47,500 | | 29,460 | | | | 18,660 | | 10,800 | |
| NaCL | 40,000 | | 200,000 | | | | 190,000 | | 10,000 | |
| KCL | 150,000 | | 185,000 | | | | 182,000 | | 3,000 | |
| Tel-Polymer DX | 1,150,000 | | 32,360 | | | | 28,380 | | 3,980 | |
| Tel-Polymer L | 1,550,000 | | 19,120 | | | | 18,020 | | 1,100 | |
| Tel-Polymer H | 1,550,000 | | 7,080 | | | | 5,740 | | 1,340 | |
| XCD-Polymer | 2,500,000 | | 6,400 | | | | 6,400 | | 0 | |
| Soda Ash | 90,000 | | 7,625 | | | | 6,350 | | 1,275 | |
| Caustic potash | 406,800 | | 7,275 | | | | 6,100 | | 1,175 | |
| Clean Lube | 550,000 | | 121,600 | | | | 118,400 | | 3,200 | |
| Tel Clean | 900,000 | | 10,400 | | | | 9,800 | | 600 | |
| Bi-Carbonate | 150,000 | | 3,000 | | | | 2,000 | | 1,000 | |
| Lime | 41,600 | | 1,400 | | | | 160 | | 1,240 | |
| Defoamer 30C | 3,250,000 | | 224 | | | | 32 | | 192 | |
| Telnite GXL | 3,900,000 | | 54 | | | | 18 | | 36 | |
| Tel-DD | 640,000 | | 3,200 | | | | | | 3,200 | |
| Caustic soda | 150,000 | | 1,000 | | | | 200 | | 800 | |
| Lignite NC | 377,000 | | 2,000 | | | | | | 2,000 | |
| Astex S | 1,250,000 | | 16,600 | | | | 16,600 | | 0 | |
| Xanvis | 2,500,000 | | 700 | | | | 75 | | 625 | |
| Tel Stop G | 240,000 | | 500 | | | | | | 500 | |
| Tel Stop P | 240,000 | | 1,000 | | | | | | 1,000 | |
| Tel Mica C | 450,000 | | 500 | | | | | | 500 | |
| Tel Mica M | 450,000 | | 2,000 | | | | 1,000 | | 1,000 | |
| Tel Mica F | 450,000 | | 2,500 | | | | 1,500 | | 1,000 | |
| Tel Plug C | 350,000 | | 500 | | | | | | 500 | |
| Tel Plug M | 350,000 | | 1,980 | | | | 780 | | 1,200 | |
| Tel Plug F | 350,000 | | 1,980 | | | | 1,000 | | 980 | |
| Tan Cal M | 40,000 | | 7,680 | | | | 3,450 | | 4,230 | |
| Tan Cal F | 40,000 | | 7,680 | | | | 3,180 | | 4,500 | |
| Tan Cal FF | 70,000 | | | | | | | | | |
| EZ Spot (gal/drm) | 85,800 | | 550 | | | | | | 550 | #85,800/drm |
| Speeder P | 820,000 | | 1,700 | | | | | | 1,700 | |
| Speeder X | 870,000 | | 1,700 | | | | | | 1,700 | |
| Treat HS | 800,000 | | 2,160 | | | | | | 2,160 | |



BALLAST REPORT(Off Shore)

NO. 82

Well Name C0002P (NT3-01)

DATE 9, Jan, 14

TIME 24:00

Active Tank

| Tank Name | Status | M/W | Vol. | Monitor | Lo Limit | Remarks |
|-----------|------------|--------|--------|---------|----------|--------------|
| Active #1 | Empty | | | | | |
| Active #2 | KNPP | 1.27sg | 66.0KL | | | Dilution mud |
| Active #3 | 20%LCM mud | 1.13sg | 24.0KL | | | |
| Active #4 | KNPP | 1.32sg | 48.0KL | | | Circ mud |
| Active #5 | KNPP | 1.32sg | 48.0KL | | | Circ mud |
| Active #6 | Hi-Vis mud | 1.32sg | 34.0KL | | | |
| Chemical | Seawater | 1.03sg | 13.0KL | | | |
| Slug | Slug mud | 1.60sg | 13.0KL | | | |

Chemical Tank

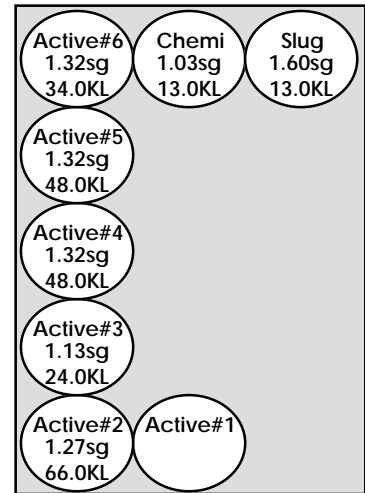
| Tank Name | Status | Weight | Monitor |
|---------------|-----------|----------|---------|
| Storage #1 | Barite | 0kg | |
| Storage #2 | Barite | 61,000kg | |
| Storage #3 | Barite | 41,000kg | |
| Storage #4 | Barite | | |
| Storage #5 | Bentonite | 0kg | |
| Storage #6 | Bentonite | | |
| Daily Tank#1 | Bentonite | 10,000kg | |
| Daily Tank #2 | Barite | 12,000kg | |
| Bar/Surge #1 | Barite | 1,000kg | |
| Bar/Surge #2 | Barite | 2,000kg | |
| Gel/Surge #2 | Bentonite | 800kg | |

Chemical Tank Total WT 127.8 ton

Reserve Tank & Solid Control Tank

| Tank Name | Status | M/W | Vol. | Monitor | Lo Limit | Remarks |
|---------------|-------------|--------|---------|---------|----------|---------|
| Reserve #1 | Empty | | | | | |
| Reserve #2 | Empty | | | | | |
| Reserve #3 | KNPP | 1.28sg | 173.0KL | | | |
| Reserve #4 | Empty | | | | | |
| Reserve #5 | Empty | | | | | |
| Reserve #6 | Empty | | | | | |
| Reserve #7 | Empty | | | | | |
| Reserve #8 | Empty | | | | | |
| Sand Trap | KNPP | 1.32sg | 10.0KL | | | |
| Degasser | KNPP | 1.32sg | 10.0KL | | | |
| Desander | KNPP | 1.32sg | 10.0KL | | | |
| Desilter | KNPP | 1.32sg | 10.0KL | | | |
| Soli/con CF | KNPP | 1.32sg | 10.0KL | | | |
| Mud Return | KNPP | 1.32sg | 10.0KL | | | |
| Barite Rec CF | Drill water | 1.00sg | | | | |

Mud Tank Total WT 617.4 ton



Bulk Material

Unit(kg)

| Materials Name | Receive | Total Receive | Use | Total Use | On Hand | Remarks |
|-------------------|---------|---------------|--------|-----------|---------|---------|
| Tel-Bar | | 457,700 | 11,000 | 340,700 | 117,000 | |
| Kunigel VO (Bulk) | | 29,460 | | 18,660 | 10,800 | |

Total SX ROOM Weight 50.7 ton

Total Weight 795.9 ton

Made by : H. Ho