

SOLIDS CONTROL — SHIFT HANDOVER REPORT

Job: TK021

Date: 2018-01-08

Shift: Day (06:00–14:00)

Engineer: Andrei Dima/Eleodor Brujan Depth: 3439.0m MD

Activity: Drilling

EQUIPMENT SUMMARY

Equipment	Hours	Feed/Size	Mesh	Status
KingCobra	24h	—	170/200/200/200	[OK]
KingCobra	24h	—	120/170/140/200	[OK]
HS (3400)	24h	—	—	[OK]
HS (3400)	24h	—	—	[OK]
Desander	—	—	—	[OFF]
Desilter	—	—	—	[OFF]
Mud Cleaner	—	270"	—	[OFF]

MUD PROPERTIES (Day (06:00–14:00))

Property	Value	Prev Day	Delta	Target Range
Mud Weight	14.0 ppg	13.2 ppg	▲ +0.81	8.5 - 9.0
PV	44.0 cP	38.0 cP	▲ +6.0	8 - 15
YP	37.0 lb	31.8 lb	▲ +5.25	30 - 50
Gel 10s	19.0 lb	13.0 lb	▲ +6.0	15 - 35
Total Solids	32.0 %	22.9 %	▲ +9.12	< 5
Sand	0.5 %	0.4 %	▲ +0.1	< 0.5
LGS	17.9 %	7.1 %	▲ +10.83	< 4
HGS	13.8 %	15.4 %	▼ -1.6	—
Drill Solids	16.4 %	5.2 %	▲ +11.17	< 3
pH	10.2	10.3	▼ -0.12	9.0 - 10.5
Filtrate API	3.2 ml	3.3 ml	▼ -0.08	< 15

KEY INSIGHTS

[!] Solids Content Spike: Total solids increased 21.3% in one day (from 22.88% to 27.75%).

[!] Screen Mesh Change: KingCobra mesh changed from [200.0, 200.0, 200.0, 200.0] to [170.0, 200.0, 200.0, 200.0].

[!] Screen Mesh Change: KingCobra mesh changed from [120.0, 170.0, 120.0, 200.0] to [120.0, 170.0, 140.0, 200.0].

[!] Low-Gravity Solids Creep: LGS increased by 5.0% over the last 3 days (from 4.4% to 9.4%).

[!] Drill Solids Rise: Drill solids rose from 5.23% to 7.57% in one day (+2.34%).

[!] Rheology Shift: Rheology shifted UP: PV 44.0 cP (avg 36.0), YP 39.5 (avg 28.0).

Likely cause: Increasing PV/YP consistent with LGS buildup (+1.02% over 3 days).

CHEMICAL INVENTORY CHANGES

Additions

Item	Qty	Units	Category
Polytraxx	—	m³	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown

Losses

Item	Qty	Units	Category
Polytraxx	—	m³	Generic/Unknown
Cuttings	—	bbl	Generic/Unknown
Down Hole	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Pits	—	bbl	Generic/Unknown
Behind Casing	—	bbl	Generic/Unknown
Tripping	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Down Hole	—	bbl	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Pits	—	bbl	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown
Evaporation	—	bbl	Generic/Unknown
Transfer	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Down Hole	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Pits	—	bbl	Generic/Unknown
Behind Casing	—	bbl	Generic/Unknown
Tripping	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Down Hole	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Pits	—	bbl	Generic/Unknown
Behind Casing	—	bbl	Generic/Unknown

Item	Qty	Units	Category
Polytraxx	—	m³	Generic/Unknown
Evaporation	—	bbl	Generic/Unknown
Tripping	—	bbl	Generic/Unknown
Transfer	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Cuttings	—	bbl	Generic/Unknown
Shakers	6.0	bbl	Generic/Unknown
Solids Equipment	12.0	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown
Pits	—	bbl	Generic/Unknown
Behind Casing	—	bbl	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown
Tripping	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Down Hole	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Pits	—	bbl	Generic/Unknown
Behind Casing	—	bbl	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown
Evaporation	6.0	bbl	Generic/Unknown
Tripping	—	bbl	Generic/Unknown
Transfer	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Down Hole	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Pits	—	bbl	Generic/Unknown
Behind Casing	—	bbl	Generic/Unknown
Tripping	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Down Hole	—	bbl	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown

Item	Qty	Units	Category
Solids Equipment	—	bbl	SC Removal
Mud Cleaner	—	bbl	Generic/Unknown
Pits	—	bbl	Generic/Unknown
Behind Casing	—	bbl	Generic/Unknown
Evaporation	—	bbl	Generic/Unknown
Tripping	—	bbl	Generic/Unknown
Polytraxx	—	m³	Generic/Unknown
Transfer	—	bbl	Generic/Unknown
Solids Equipment	—	bbl	SC Removal
Hi Vis	—	m³	Generic/Unknown
Hi Vis	—	m³	Generic/Unknown

VOLUME ACCOUNTING

Total Circ	233 bbl	In Storage	— bbl
Pits	118 bbl	Mud Type	POLYTRAXX

RECOMMENDATIONS FOR INCOMING SHIFT

1. Increase solids-control equipment run time. If drilling rate is high, consider additional centrifuge capacity.
2. Monitor shaker performance for improved solids removal with the new mesh configuration.
3. Increase centrifuge feed rate or runtime to manage LGS build-up. Consider adding a second centrifuge if available.
4. Evaluate ROP vs. solids-control capacity. Optimize centrifuge and shaker settings to manage drill solids.
5. Monitor rheology trend. If PV continues increasing, evaluate dilution or chemical treatment.

OPERATIONAL REMARKS

Drill 8 ½" hole section from 3336 mMD to 3439 mMD/RT, Avg ROP = 5.2 m/hr.42%, BGG: 16%. Raise MW to 1.76 sg to limit connection gas at 10% above background gas.