Investcan Energy Corp

Final Well Report

For

Hurricane#2 (Whip#1) Re-entry

At

Permit 03-107

Western Newfoundland

Record of Revision					
Rev. No.	**Date**	**Revision**	**Prepared**	**Reviewed**	**Approved**
1	Sep 09th, 2013	01	M. Kouzehgar Drilling Engineer	S. Emberley Senior Geologist	
2	Oct 10th, 2013	Sub (1)	A. Forcinal Technical Mngr	R. Webb CEO	R. Webb CEO

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1 INTRODUCTION

Investcan Energy Corporation (IEC, 'The Company') drilled and deepened the Hurricane#2 Whip#1 well from 935m to 1970m MD (1965.30m TVD) in the Bay of St. George Basin, Newfoundland, as a Re-Entry well with the licence number 03-107.

1.1 ORIGINAL WELL "HURRICANE#2 (WHIP #1)"

The original well "Hurricane #2 (Whip #1)" was drilled in 2005 by Vulcan Minerals Inc. The purpose of the well was to gather geological and geophysical data as a means to evaluate the economical potential of future field exploration and development for crude oil and/or natural gas production.

The drilling rig used was the Ingersoll Rand RD10, a single-type rig with 210-hp (156-kW) rating and a 70000-lb (31750-kg) hookload. The 935 m from rig floor (RF) vertical well was drilled in accordance with the Drilling Program Approval #DPA2005-116-01 and Authority to Drill Well #ADW2005-116-01-04 under Permit #03-107.

The Hurricane #2 (Whip #1) 340 mm cellar casing was set at 9.1mRF with 4.0 m^3 of cement for a good shoe to hold back the overburden. The 311 mm hole was drilled to 19.36 m then the 244.5 mm casing was set to 19.36 m and cemented into place with cement to surface.

The hole was air drilled with a 219.1 mm BHA to 89 mRF where water zone influx prevented the continuance of air drilling. The drilling fluid was switched to a water base mud and the section was continued with a 215.9 mm BHA to 323 m. The 177.8 mm casing was run to 323 mRF and cemented into place with cement returns to surface. Due to partial lost circulation, cement level in the annulus dropped and a 0.75 m^3 cement top job was executed. Blow out preventers were nippled up and hi-low pressured tested against surface casing.

Formation integrity test was executed at 326 m resulting in a calculated pressure gradient of 25.4 kPa/m. The hole was continued by drilling with air and a 158.75 mm BHA to a total depth of depth of 935 mRF. Open hole logs (High Density Induction, Digital Acoustic Log, Compensated Z-Densilog, Compensated Neutron, Gamma Ray, and Caliper) were run to 935 m. The well was then plugged back with three cement plugs and suspended.

The Spout Falls and Friars Cove Formations were penetrated in Hurricane #2 (Whip #1) and exhibited poor reservoir quality. Only minor hydrocarbon shows were encountered.

1.2 RE-ENTRY WELL "HURRICANE#2 (WHIP#1) RE-ENTRY"

The objective of the re-entry of Hurricane #2 was to deepen the well from the current depth of 935 m to approximately 1970 m to evaluate the hydrocarbon potential of the Snakes Bight Formation as suggested by geophysical data. RedBrook #2, situated at 5.5 km from Hurricane #2, intersected reservoir quality sands in the Snakes Bight Formation at ~ 1300 and ~1550 m meters TVD. Tests from

both intervals flowed hydrocarbons to surface. Seismic interpretation and magnetic data suggest granitic basement is at depth of ~ 1950 m TVD beneath the Hurricane #2 well and hence there is a thick sedimentary package that may encompass the Snakes Bight Formation. Deeping the Hurricane #2 well assisted in evaluating the hydrocarbon potential of the southern extent of the Flat Bay anticline.

Hurricane#2 (Whip#1) Re-entry well was drilled by IEC, using its Foragaz#3 Rig. Management of the Operation was undertaken by IEC Staff with support of contracted drilling supervision.

Two cement plugs in the original wellbore were drilled at the 178mm surface casing shoe and the bottom of 159mm open hole. A cement bond log was acquired by Baker Hughes:

1. Cement top at 39 m RKB
2. Minimal cement bond to formation from 39m RKB to 218m RKB
3. Good cement from 218m to casing shoe (323m RKB)

The well was then drilled and deepened from 935m to 1970 MD (1965.30m TVD) in 159mm (6-1/4'') hole section by a directional bottom hole assembly to achieve a better performance while drilling and also to keep the hole as close to verticality as possible.

Two coring sections were planned, however no core was taken from the 6-1/4" hole due to the lack of hydrocarbon bearing reservoir quality intervals encountered.

The Company ran a full suite of wire line evaluation logs run over the potential pay zones, including HDIL, ML ZDL, XMAC, ORIT, DSL, TTRM, STAR, MREX and FMT logging tools.

Four openhole DST tests (dual straddle conventional) were conducted by Holland Testers, amongst which the first one was failed due to missing the production sleeve in the DST assembly.

The 127mm (5 inch) production casing was set and cemented at 1967.35m RKB. Cementing operations went smoothly with good returns.

A 179.4mm-20.7MPa x 228.6mm-20.7MPa tubing head was installed on 228.6mm-20.7MPa casing bowl and then a 179.4mm- 13.8MPa blind flange was installed on tubing head.

The rig was subsequently released on July 23rd, 2013 from the well and stacked on location.

Investcan is reviewing the results before issuing a completion design and evaluation program for the Hurricane#2 (Whip#1) Re-entry.

No major problems were experienced during the operations and more particularly:

- No significant mud losses encountered
- No water influx encountered
- No pipe stuck encountered
- No H_2S / CO_2 gas encountered

The Foragaz Rig#3 performed generally well, other than a contractor limitation for the pump pressure (fixed to 10,000 kPa) to preserve equipment, resulting in:

- Using higher size of jet nozzles for the bits and consequently reducing hydraulic performance at the bit.

- Lower ROPs.
- Higher torque and drag.
- Significant damage to the bits (potentially increasing the number of bits used to reach TD).

Investcan had to use 9 drilling bits (5 Tri-Cone and 4 PDC) to drill 1035m of 159mm hole section (1 bit every 115m in average, refer to Appendix G for detailed bit report). Geology encountered an unexpected 460m conglomerate section which played a significant role in the number of bits used.

Well site drilling supervision was done by Victor Leroux (Day Company Man) and Travis Young (Night Company Man). Well site geology was performed by Pierce Bradley and Jonathan Taylor, with support from Marine Di Matteo (junior geologist). Operations management was supervised by Antoine Forcinal, P.Eng., Technical Manager at IEC.

2 GENERAL INFORMATION

2.1 ADMINISTRATIVE DATA

Well Name:	*Hurricane#2 (Whip#1) Re-entry*	
Operator	*Investcan Energy Corp.*	
Permit	*Exploration Permit n° 03-107*	
DPA	*DPA 2012-131-01*	
ADW	*ARW 2013-131-01-01*	
Operator	*Investcan Energy Corporation*	
Contractor	*Foragaz Inc (a division of Junex Inc)*	
Drilling Rig:	*Rig#3*	
Rig Type:	*Double Drilling Rig*	
Geographic Coordinates:	UTM "X" East NAD 27	*E 375854.54*
	UTM "Y" North NAD 27	*N 5347195.57*
Survey Summary	*While drilling MWD surveys were used to track wellbore deviation. The final definitive survey list is in Appendix N*	

Table 2-1 - General Information on Hurricane#2 drilling

The Hurricane #2 (Whip #1) Well was drilled under ADW # 2005-116-01-04, under Crown Land Permit to Occupy #127434. The Permit is in good standing and will expire on November 22nd, 2014. The legal survey conducted by R. Davis Survey's Ltd, dated January 9th 2006, remain valid for the purposes of this undertaking. Please refer to Appendix A for details regarding Crown Land License to Occupy #127434 and the legal survey of same. In February 2013, IEC has performed a visual site inspection to evaluate the work required prior to commencing re-entry operation.

A map showing the location of the well and the 2006 legal survey are included in the Appendix A. Included in Appendix B are copies of the various government approvals granted during operations.

2.2 DRILLING UNIT

Table 2-2 summarizes the main characteristics of the drilling rig used.

CoMPany & Rig	Foragaz Inc Division of Junex, inc.	#3
Construction Completed:	2010	(DOUBLE U-34) with Top Drive
Specifications:	Substructure Type:	Box-on-Box (8 pieces)
	Rig Floor level and KB	13,5m (13ft)
	Mast Type and Height	29.26m (96ft) Guyed Telescopic Double
	Maximum Drill Depth	2000m
	Maximum Hook Load	80,000 daN (180,000 lbf)
	Drawworks (power, engine)	Simple Drum, 450HP Detroit Diesel 560 12.7L
	Top Drive Torque	597 daN m (4,400 lbf-ft @100RPM)
	Drilling Line	1 inch – 6 lines
	Carrier	Lee-C Moore, 3 rear axles
	Drill Pipe	101mm (4inch) 20,46 daN/m (14lb/ft), S-135 connection 3 ½ IF (NC 38), 2,000M (6,562 ft)

Table 2-2 - General Information on Foragaz Rig#3

2.3 ELEVATIONS

Ground Level Elevation: 145.70 m (ref. MSL)
KB Elevation: 149.66 m (ref. MSL) / 3.96 m (ref. MSL)

2.4 DEPTHS

Total Depth: 1970.0 meters MD KB/ 1965.30 meters TVD KB
Total Depth logged: 1669 meters MD KB

2.5 DATES

Spud Date: 24:00 hours, June. 17th, 2013
TD Date: 05:15 hours, July. 13th, 2013
Rig Release: 19:00 hours, July. 23rd, 2013

2.6 WELL STATUS

The 127mm production casing is set and cemented at 1967.35m RKB. A 179.4mm-20.7MPa x 228.6mm-20.7MPa tubing head was installed and a 179.4mm- 13.8MPa blind flange was installed on the tubing head.

2.7 TIME & COST ANALYSIS

Original AFE			**Actual**	
Activity	Days	Cost (CAD $)	Days	Cost (CAD $)
Drilling	25	$2.41M	36	$2.78M

Table 2-3 - Time and Costs summary table

A daily detailed time breakdown is available from the Investcan morning reports included in Appendix C. The drilling curve and time breakdown are located in Appendix D. A summary of the drilling costs for the well is included in Appendix E. The principal reason for discrepancy is related to drilling time (estimated to 8-9 mph as opposed to 3.66 mph actual) and related operations such as tripping.

2.8 BENEFITS TRACKING

The complete benefits tracking for the well is included in Appendix F.

2.9 DIFFICULTIES & DELAYS

The following provides a summary of the difficulties and delays that occurred during the drilling of Hurricane#2 (Whip#1):

- Overall logistical challenges in Western NL created delays
- 23.25 hours NPT: Mistakenly running a 178mm scraper in the 159mm open hole section caused the scraper to become stuck in the openhole at 597m RKB. Worked and released scraper and pulled same out of hole.

- 5.5 hours NPT: Instead of using a test cup and due to wrong setting of tools, the first pressure test of the BOP's failed.
- 64.75 hours NPT: A TAM packer which was run and set inside 178mm casing to pressure test blind rams dropped to the bottom of hole at 1786m when depressurizing the wellhead after pressure test. A fishing job carried out to retrieve the fish lasted 64.75 hours.
- 8.75 hours NPT: There where several issues on logging runs. Run #1: the density tool ZDL, Run#2: a failure with the tension sensor, Run#3: CPU crash problem.
- 6 hours NPT: drill string pressured up while drilling at 1854m due to mud motor failure, leading to the reset of the blow off valve.
- 21 hours NPT: DST run#1 failed due to missing a production sleeve in the DST assembly.
- 11 hours NPT: the cement head was delayed to be sent to the rig and delayed the 127mm casing cement job.

For detailed analysis of difficulties and delays, the drilling curve and time breakdown are included in Appendix D.

3 DRILLING OPERATIONS

3.1 HOLE SIZE AND DEPTHS

Conductor / Casing	Hole Size [mm]	Casing Size [mm]	Setting Depth [mRF]
Conductor (Was Already Run & Cemented in Original Well Whip#1)	311	244.5	19.3
Surface Casing (Was Already Run & Cemented in Original Well Whip#1)	216-219	177.8	323
Production Casing	159	127	1967.35

Table 3-1 - Hole sizes and depth table

3.2 BIT RECORDS

There were a total of 9 bits were used during the well. See Appendix G for details.

3.3 CASING AND CEMENTING RECORDS

- Conductor

  44.5mm OD, 53.60 kg/m, J-55 Casing, 0 to 19.3m KB
  The conductor was already run and cemented in the original Hurricane#2 Whip#1 well.

- Surface

  177.8mm OD, 25.3 kg/m, H-40 casing, 0 - 323m KB.
  The surface casing was already run and cemented in the original Hurricane#2 Whip#1 well.

- Production

  127mm OD, 26.79 kg/m, L-80 casing, 0 - 1967.35mMD KB
  Ran and cemented to surface in Hurricane#2 Whip#1 Re-Entry.

Slurry	Tonne	Cement Blend	Density [kg/m3]	Water [m3/t]	Yield [m3/t]	Volume [m3]
LEAD	8.5	Class G + 0.5% Halad 344	1600	0.88	1.17	9.9
TAIL	10.5	Class G + 0.5% Halad 344	1895	0.44	0.76	8

Table 3-2 - Cementing Summary Production Casing

Top Up Cement Job:
Cement volume to surface was 2.0 m^3. A Top up cement job was performed while waiting on cement: Place 1inch pipe down to 39m outside 7" casing, Mixed and pumped 1 tonne, 0.76m^3 slurry @ 1895 kg/m^3 from 39m to surface.

Cement returns at surface: 2m^3. The cement reports are available in Appendix H.

3.4 SIDETRACKED HOLE

There were no sidetracks during the Hurricane#2 (Whip#1) Re-entry drilling operation.

3.5 DRILLING FLUID

The 159mm hole in the Re-Entry well was drilled with a Clay Free Polymer Water-Based Mud.

A summary table is shown below:

Hole Section	Depth [m]	Diameter [mm]	Fluid Type	Viscosity [sec/L]	Weight [kg/m^3]
Original Drilled Hole	0-935	159	Fresh Water	29-32	1010
New Production Hole	935-1970	159	Clay Free Polymer	45-55	1090-1150

Table 3-3 - Drilling Fluids Summary

The mud reports can be found in Appendix I.

3.6 FLUID/WASTE DISPOSAL

The Company managed fluids as originally planned. The drilling fluids were recycled during the entire campaign. The fluids are currently stored on site, pending either transportation by a qualified third party to the next well for re-use, once analysis can confirm that the fluids remain within the normal specification and have not been contaminated. The fluids are water based, and the additives were as environmentally benign as possible, with the exception of salt.

When the decision is made to dispose formally any of the drilling fluids, they will be analyzed and disposed as per environment regulations by a qualified third-party.

No permanent sewer system was built. All sanitary waste was collected regularly by third-party contractor and was disposed of as per the regulations.

3.7 FISHING OPERATIONS

As no test plug for the 9"-3K Casing Bowl was available, a 87.4mm (3-7/16") x 95.25 mm (3-3/4") TE single set TAM packer was run and set inside 178mm casing in order to pressure test the blind rams. After pressure test was completed, TAM packer retrieving tool was run in hole on 60.325 mm (2-3/8") EUE tubing to unset the packer and pull it back at surface. While running in hole with the retrieving assembly found that the packer was released and dropped to the bottom of hole at 1786m. Three unsuccessful fishing attempts were made to retrieve the packer by running TAM overshot on 60.325 mm (2-3/8") tubing. A modified cut lip guide was made for the overshot and RIH on drill pipe. The top of fish was washed down at 1782 mRF before being latched on. Fishing attempt was made to deflate packer, which was set at the bottom of the well due to previous fishing runs. After some circulation over the fish, the latter was re-latched and pull out of hole.

The fishing operations total 64.75 hrs, spent to retrieve the TAM Packer from 1782m in 159mm hole section.

3.8 WELL INFLUX

No water or hydrocarbon influx has been observed in Hurricane#2 (Whip#1) Re-entry well.

3.9 FORMATION LEAK-OFF TESTS

- **FIT at Hurricane#2 Whip#1: Dec 9th, 2005 – 159mm Hole Section**

The test was carried out with a 177.8mm casing at 323mRT TVD and a mud density of 1015kgs/m^3. Surface Applied Pressure was 5000 kPa giving a 25.4 kPa/m Formation Integrity Strength Gradient.

- **LOT at Hurricane#2 (Whip#1) Re-entry: Jun 18, 2013 – 159mm Hole Section**

A Leak-off Test has been done on Hurricane#2 (Whip#1) Re-entry once the cement plug at shoe was drilled out, in order to cross check the FIT done on Hurricane#2 in 2005. The bottom of second cement plug was located at 836m. The 178mm shoe was set at 323m. The test was carried out with a 177.8mm Casing at 323mRT TVD and a mud density of 1010kgs/m^3, Surface Applied Pressure was 6064 kPa at leak off, giving a 28.6 kPa/m Formation Leak-off Gradient.

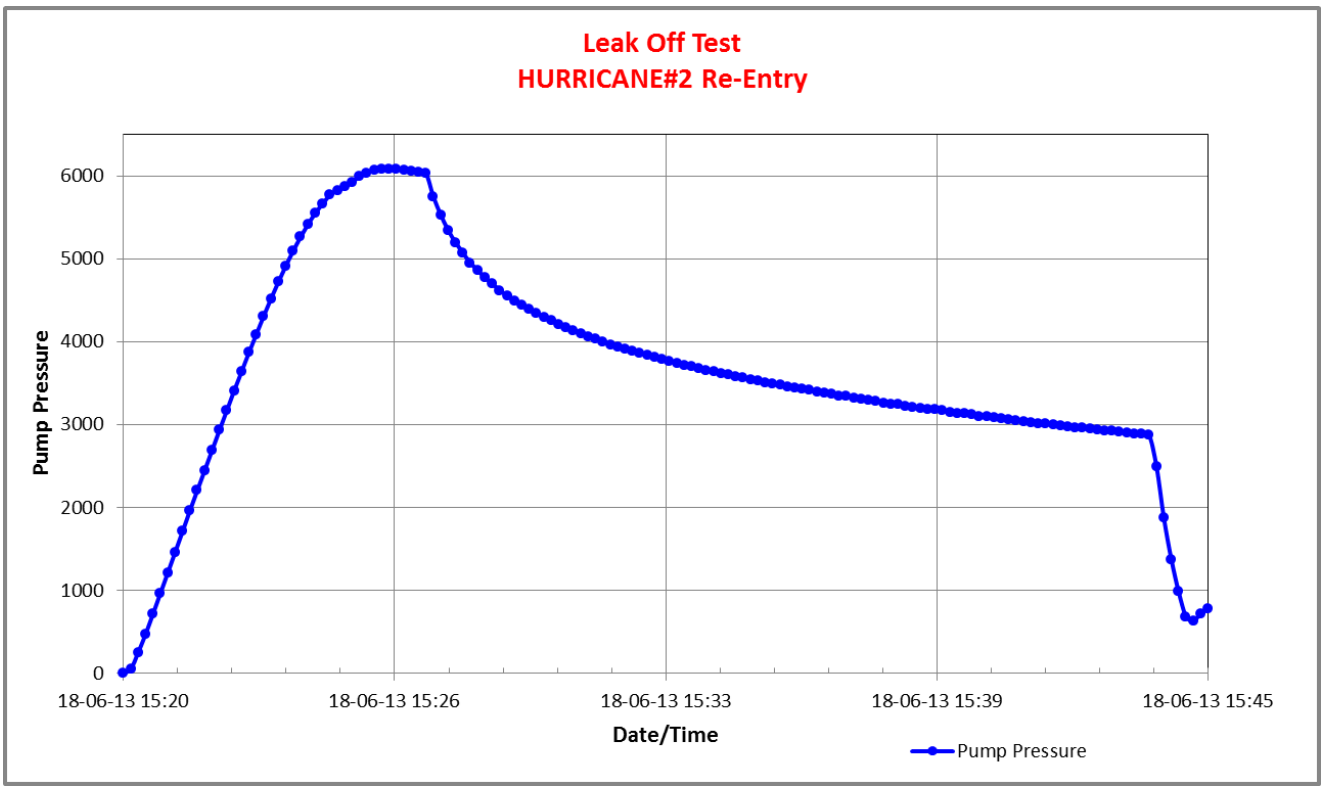


Figure 3-1 - LOT Graph Hurricane#2 (Whip#1) Re-entry

Well Survey and Trajectory

The well Hurricane#2 Whip#1 was already drilled vertically to 935m into Fishell's Brook Conglomerate Formation. The original well deviation was 3.75° at 932.2m measured by a Totco Survey tool. The Hurricane#2 (Whip#1) Re-entry well was deepened and drilled vertically to 1970m by a directional BHA including mud motor, MWD and Gamma Ray tools. The well trajectory is contained within permit boundaries.

The last survey was taken at 1956m showing 1.40° well inclination and 333.80° Azimuth. Extrapolation survey to TD at 1970m with the same inclination and azimuth resulted in 1965.30 m as TVD RKB.

Survey MD (m)	Inc (°)	Azi (°)	TVD Vertical	SSTVD (m)	+N/-S (m)	+E/-W (m)	Vertical Section	D'Leg (°/30m)	Build (°/30m)	Turn (°/30m)
LAST MWD SURVEY										
1,956.00	1.40	333.80	1,951.30	-1,801.47	5.78	4.39	5.78	0.319	0.25	-8.47
EXTRPOLATION TO TD										
1,970.00	1.40	333.80	1,965.30	-1,815.47	6.09	4.24	6.09	0.000	0.00	0.00

Table 3-4 - Well Survey Projection at TD Hurricane#2 (Whip#1) Re-entry

Please Refer to Appendix N for the directional plan and final well survey program.

3.10 Suspension / Abandonment Plugs

There are no plugs in the main hole as the latter was cased with 127mm OD casing and cemented to surface and the mud in hole was displaced to fresh water. A top up cement job was also done around the 177.8mm casing from 39m to surface. A 179mm - 13,800 kPa blind flange was installed on the tubing head.

3.11 Well Schematic

A schematic showing hole sizes and depths, casing sizes and depths, and cementing tops is included in Appendix J. Wellhead configuration is also included.

3.12 Fluid Samples

Several attempts were made to obtain fluid samples using a Formation Multi Tester (FMT) tool. However, no formation fluid sample was recovered. Two gas samples were recovered from bottom hole sampler in DST assemblies (DST#3 and DST#4). Both samples have been analyzed by Maxxam laboratories. A compositional gas analysis was done on gas from both of these intervals (see Appendix O) as well as a stable carbon isotope analysis on C1 through C4.

4 GEOLOGICAL

The geological summary report and final geological column diagram is included in Appendix K. A description of all cuttings collected is in the detailed report. All bagged and vialed cuttings samples are stored in Investcan Energy storage facility. Samples were collected every 5 meters from 940 m to 1970 m MD. Two sets of drill cuttings were washed and dried on site. One set was submitted to the Department of Natural Resources on August 29th, 2013.

4.1 CORING

Baker Hughes's HT10 Conventional Coring System (159 mm*67mm*18m) had been planned to take two core samples in following intervals:

Core#1: 1410mRF – 1428mRF

Core#2: 1632mRF – 1650mRF

Core was not taken as hydrocarbon bearing reservoir rocks of sufficient quality were not intersected during drilling.

4.2 HYDROCARBON SHOWS

Minor gas shows as measured by the gas detector were encountered down to a depth of approx 1690 m MD. The maximum gas detector value encountered was 513 units at 1685 m, and this level may be affected by the addition of glycol previously. Below that depth, the gas detector response was minimal. Spotted oil shows were encountered at 1000 m and 1475 m. A very slow milky cut came from the 995-1000 m sample. In the 1470-1475 m sample, a yellow/white bright cut was observed. At 1505 m, some "brown oil" was reported on the shaker. A log of "brightness" of fluorescence was reported by wellsite geologist assistant Marine Di Matteo from drill out to the top of the conglomerate at 1510 m and is presented in Appendix M. Only minor discontinuous fluorescence was reported below 1510 m.

A full geological strip log is attached for detailed reference in Appendix M.

4.3 GEOLOGIC TOPS

Depth Top	Depth Base	Formation	Predominant Lithology
0	198	Spout Falls Formation- Fischells Brook Member	Frey Pebble Conglomerate
198	790	Spout Falls Formation	Alternating red beds of sandstone, siltstone and conglomerate
790	1415	Friars Cove Formation	Grey sandstone, siltstone and minor shales
1415	1510	Snakes Bight Formation	Chalky limestone, grey Siltstone and minor sandstones
1510	1970 (TD)	Kennels Brook Formation	Pebble Supported conglomerate

Table 4-1 - Geologic Tops Summary

5 WELL EVALUATION PROGRAM

5.1 LOGGING PROGRAM

A summary of the wireline logs run by Baker Hughes is shown below:

Hole Size [mm]	Logging Depth		Services Run	Run #	Date
	Start [m]	Stop [m]			
178 Casing	0	323	SBT "Segment Bond Tools Log"	1	Jun 18, 2013
159	324	1969	HDIL, ML, ZDL, CN, XMAC, ORIT, DSL, TTRM, GR	2	Jul 14, 2013
159	324	1965	TTRM, GR,STAR, ORIT, CBIL	3	Jul 14, 2013
159	340	1962	MREX, GRSL	4	Jul 15, 2013
159	1104	1476	GR, FMT	5	Jul 16, 2013

Table 5-1 - Logging Program Summary

5.1.1 FORMATION MULTI TESTER

Baker Hughes Formation Multi-Test (FMT) was run on July 16th, 2013. The purpose of this test was to collect a fluid sample and to measure in-situ permeability. In total, 11 tests were done between the intervals 1104 and 1476 mMD over the course of 2 runs. The pressure test summary report is presented in Table 5-2. Measureable drawdown permeability measurements ranged from 16 to 48 mD. Final buildup pressures range from 3938 kPa at 1104 m to 8932 kPa at 1476 m RKB, which indicates the zones are significantly underpressured. No fluid samples were captured in any of FMT's.

MEASURED DEPTH (m)	TVD DEPTH (m)	FILL TIME (s)	SAND FACE PRESSURE (kPa)	FLOWING PRESSURE (kPa)	FINAL BUILDUP PRESSURE (kPa)	HYDRO-STATIC BEFORE (kPa)	HYDRO-STATIC AFTER (kPa)	DRAWDOWN PERMEA-BILITY (mD)	CHAMBER USED	REMARKS
1475.9	1475.9	3.0	8930.5	7635.7	8930.5	16738.2	16745.8	21.8	P	TIGHT 21.8 deg
1473.6	1473.6	3.0	8262.7	7406.9	8262.7	16721.9	16716.4	33.0	P	TIGHT 21.9 deg
1355.1	1355.1	3.2	7178.4	6292.9	7178.4	15376.6	15365.2	30.1	P	GOOD 20.9 deg
1351.5	1351.5	3.0	7006.4	6312.8	7006.4	15330.6	15321.2	40.7	P	GOOD 20.4 DEG
1348.2	1348.2	4.5	6899.9	6047.3	6899.9	15289.9	15284.4	22.1	P	TIGHT 20.4 deg
1355.1	1355.1	3.0	7323.3	6192.7	7323.3	15370.2	15361.3	25.0	P	REPEAT 20.9
1322.5	1322.5	3.0	113.1	6002.8	6857.1	15000.0	14904.8	0.0	P	TIGHT 20.0 deg
1245.8	1245.8	2.9	136.5	3968.6	4571.4	14107.3	14099.3	0.0	P	TIGHT 18.9 deg
1231.0	1231.0	2.7	104.7	6126.0	6714.3	13940.6	13932.9	0.0	P	TIGHT 18.8
1122.0	1122.0	3.0	5289.2	3537.4	5289.2	12693.2	12680.0	16.1	P	TIGHT 18.0 deg
1103.9	1103.9	3.0	3979.7	3390.2	3979.7	12484.7	12478.1	47.9	P	TIGHT 17.6 deg

Table 5-2 - Formation Multi-Tester (FMT) Pressure Test Summary Report

5.1.2 Gamma Ray Logging

A Gamma Ray tool was run with the directional BHA to measure gamma ray response in the open hole section, from 1329-1970 m RKB. Gamma Ray logging while drilling was continued from 1344 m to TD in order to better pick the coring intervals: unfortunately, no intersected reservoir interval was deemed of sufficient quality to be cored.

5.2 Drill Stem Tests

The Holland Tester DST tools and equipment was rigged up and run in 159mm hole at July 17th, 2013 to evaluate the productivity of several openhole intervals. Four DST runs were run in the hole among which the first run failed due to missing the production sleeve in the DST assembly.

- DST#1: failed.
- DST#2 [1440-1480.5 m RKB]: mud sample recovered in bottom hole sampler, no gas to surface.
- DST#3 [1316.5-1371 m RKB]: mud sample and gas sample recovered in bottom hole sampler, no gas to surface.
- DST#4 [1090-1125.5 m RKB]: mud sample and gas sample recovered in bottom hole sampler, no gas to surface.

The DSTs reports and results are attached for detailed reference in Appendix L.

5.3 Formation Flow Testing

No formation flow testing was performed.

5.4 FORMATION STIMULATION

No formation stimulation has been performed during the operations. Review of results and incorporation of the latter in their geological context will dictate whether there is any merit for any stimulation at a later stage.

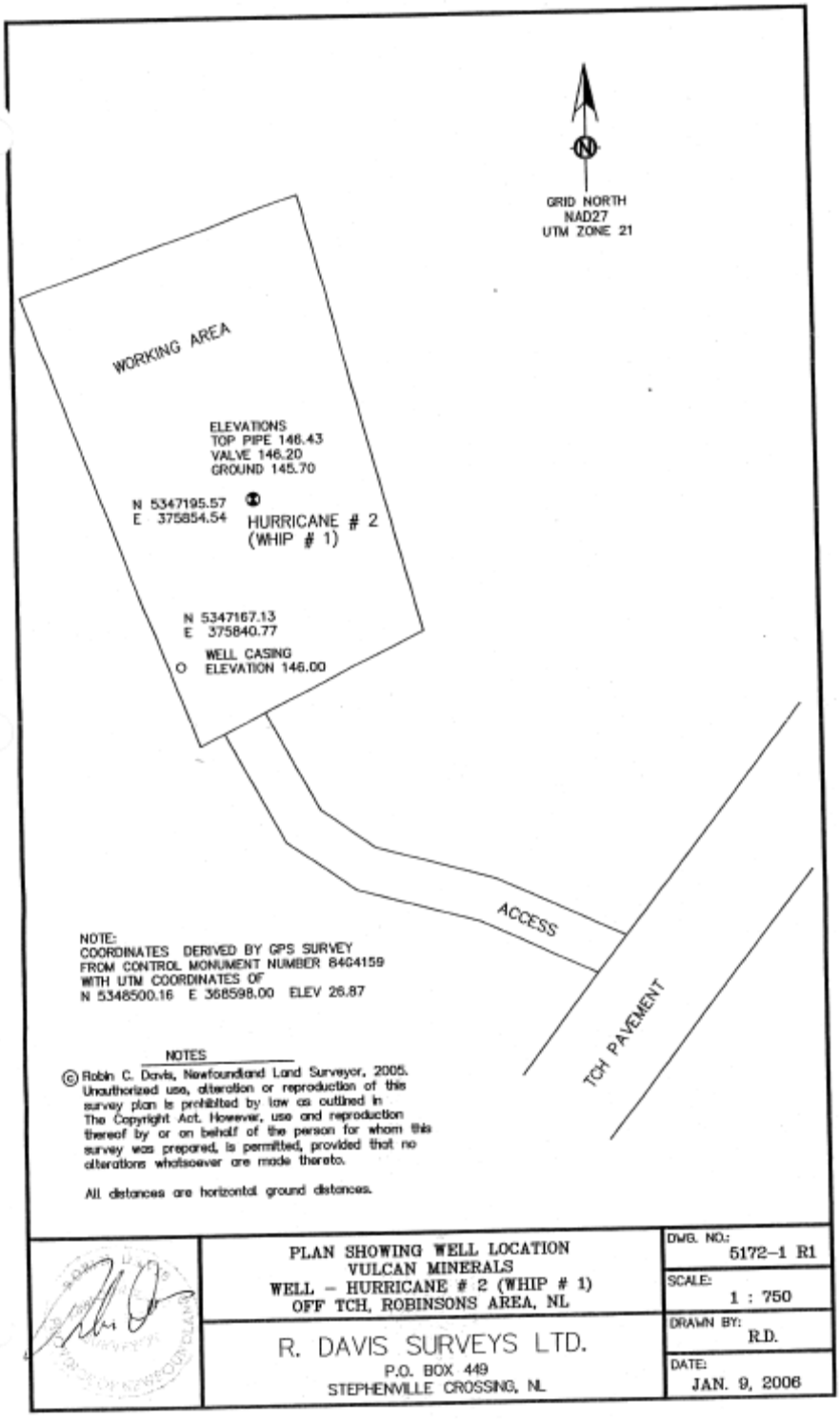
End

APPENDIX A : Maps & Layouts

Number of pages : *4*

Summary of the content: Several maps and layouts.

- Crown land for Flat Bay project
- Site layout
- Rig layout, from Junex / Foragaz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NAD27
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WORKING AREA
ELEVATIONS
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VALVE 146.20
GROUND 145.70
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HURRICANE # 2
(WHIP # 1)
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E 375840.77
WELL CASING
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ACCESS
TCH PAVEMENT
NOTE:
COORDINATES DERIVED BY GPS SURVEY
FROM CONTROL MONUMENT NUMBER 8404159
WITH UTM COORDINATES OF
N 5348500.16 E 368598.00 ELEV 26.87
NOTES
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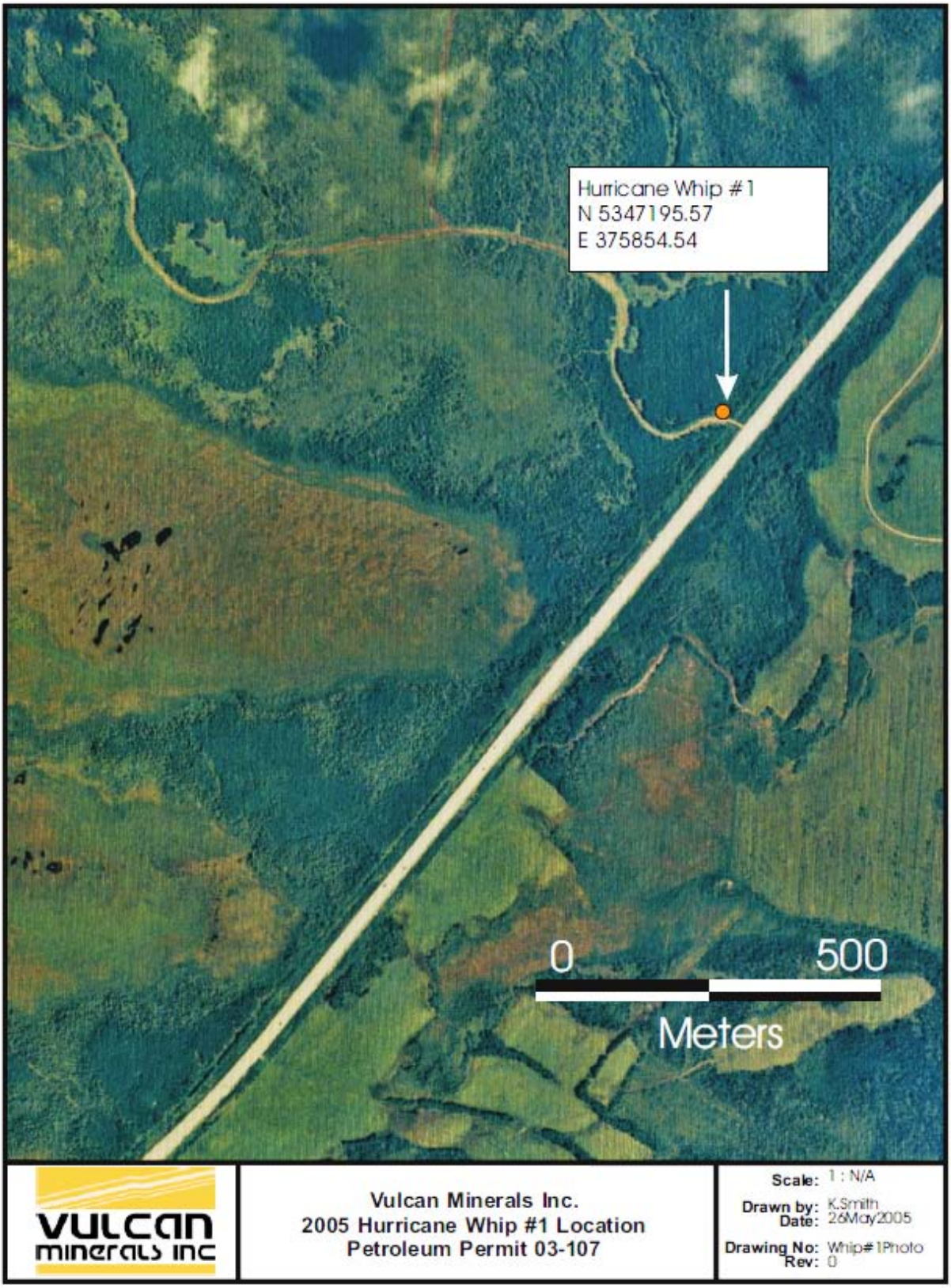
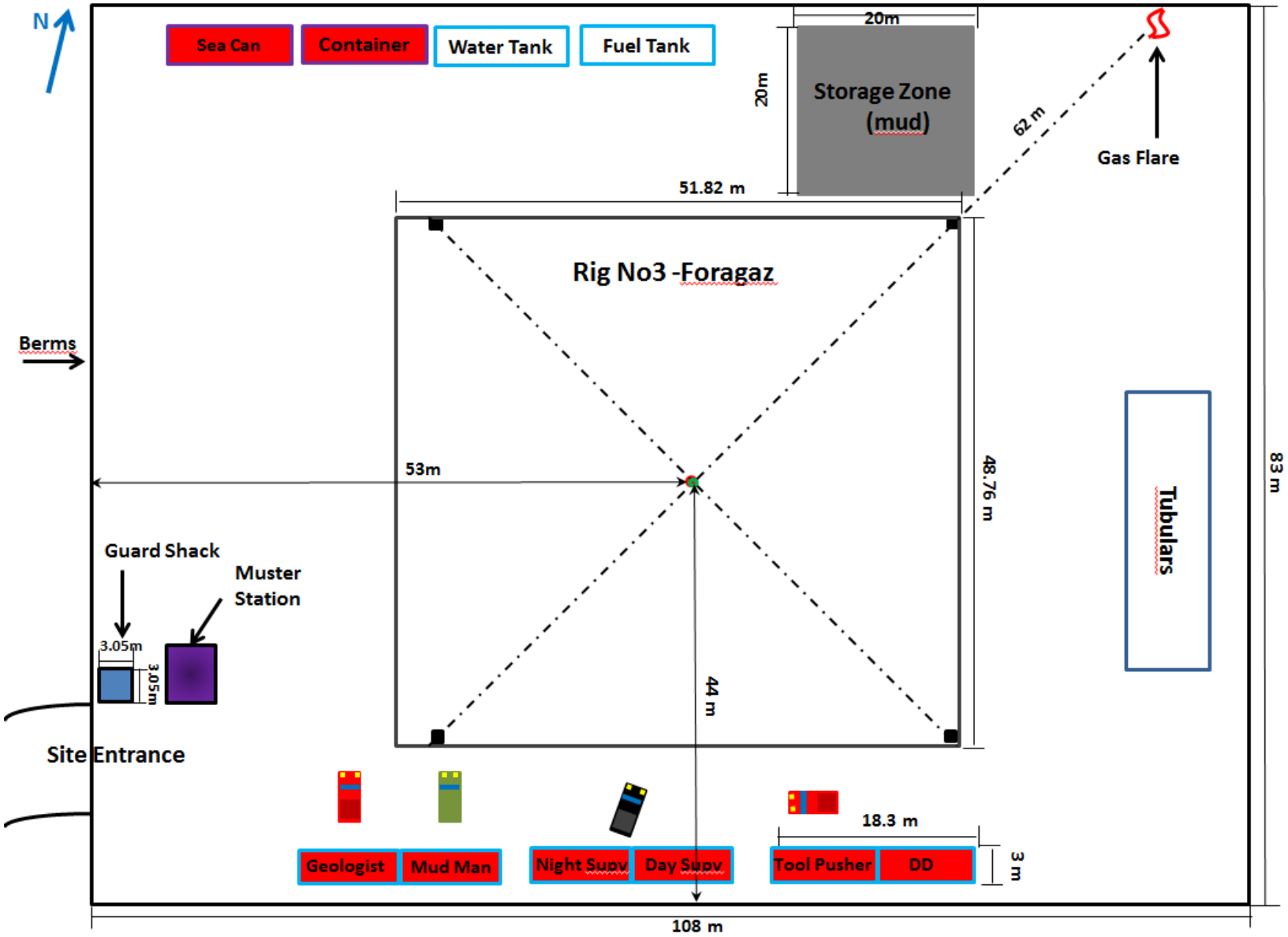
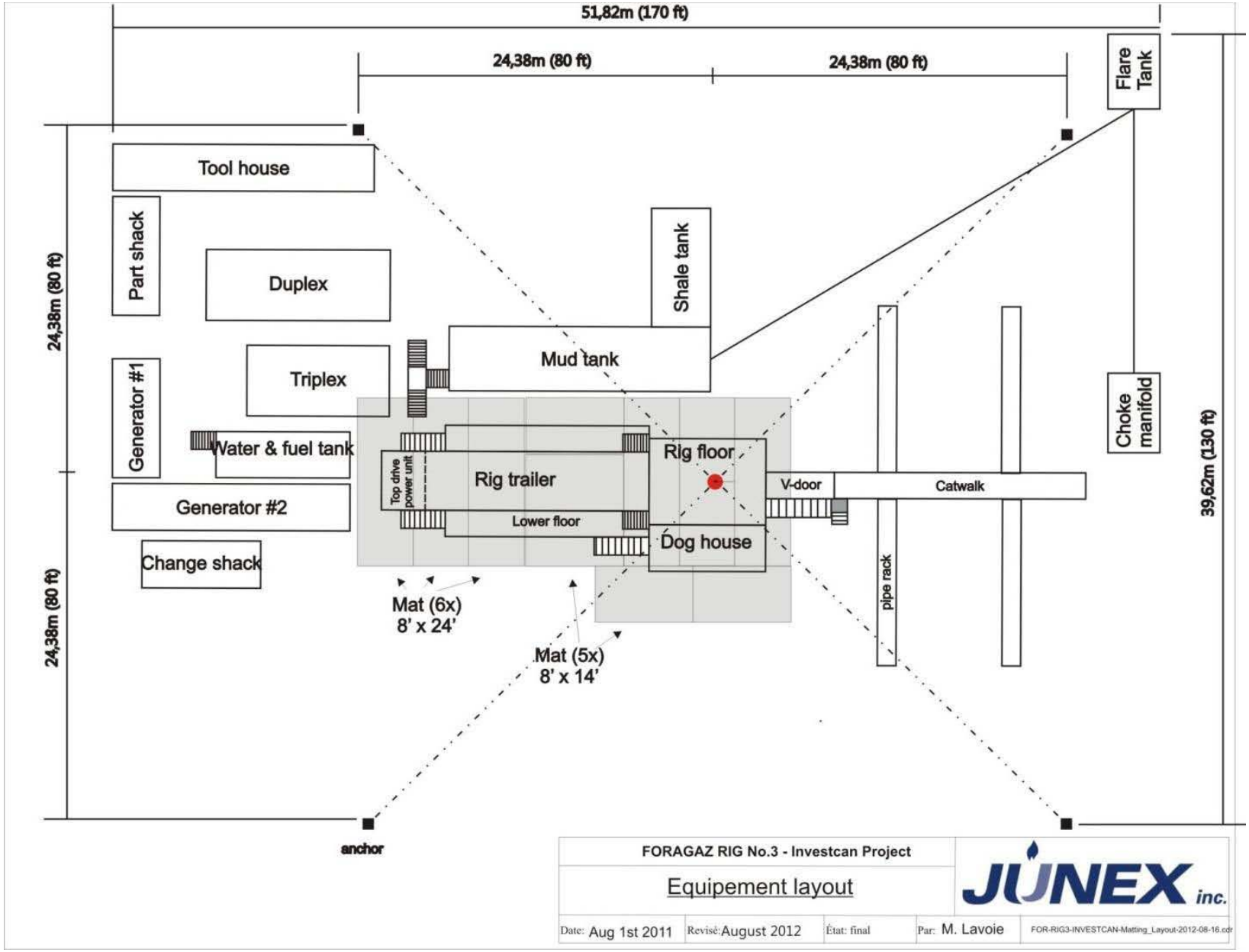
All distances are horizontal ground distances.
PLAN SHOWING WELL LOCATION
VULCAN MINERALS
WELL – HURRICANE # 2 (WHIP # 1)
OFF TCH, ROBINSONS AREA, NL
R. DAVIS SURVEYS LTD.
P.O. BOX 449
STEPHENVILLE CROSSING, NL
DWG. NO.: 5172-1 R1
SCALE: 1 : 750
DRAWN BY: R.D.
DATE: JAN. 9, 2006


Hurricane Whip #1
N 5347195.57
E 375854.54
0
500
Meters
VULCAN minerals inc
Vulcan Minerals Inc.
2005 Hurricane Whip #1 Location
Petroleum Permit 03-107
Scale: 1 : N/A
Drawn by: K.Smith
Date: 26May2005
Drawing No: Whip#1Photo
Rev: 0


N
Sea Can
Container
Water Tank
Fuel Tank
20m
20m
Storage Zone (mud)
62 m
Gas Flare
51.82 m
Rig No3 -Foragaz
Berms
53m
48.76 m
83 m
Tubulars
Guard Shack
Muster Station
3.05m
3.05m
44 m
Site Entrance
18.3 m
3 m
Geologist
Mud Man
Night Supv
Day Supv
Tool Pusher
DD
108 m


51,82m (170 ft)
24,38m (80 ft)
24,38m (80 ft)
Flare Tank
Tool house
Part shack
Duplex
Shale tank
Mud tank
Triplex
Generator #1
Water & fuel tank
Rig floor
Top drive power unit
Rig trailer
V-door
Catwalk
Choke manifold
Generator #2
Lower floor
Dog house
Change shack
pipe rack
Mat (6x) 8' x 24'
Mat (5x) 8' x 14'
24,38m (80 ft)
24,38m (80 ft)
39,62m (130 ft)
anchor
FORAGAZ RIG No.3 - Investcan Project
Equipement layout
JUNEX inc.
Date: Aug 1st 2011
Revisé: August 2012
État: final
Par: M. Lavoie
FOR-RIG3-INVESTCAN-Matting_Layout-2012-08-16.cdr

APPENDIX B : Copies Of Government Approvals

Number of pages : *2*

Summary of the content: This appendix contains the Government Approvals Required for Gobineau#1.

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

AUTHORITY TO RE-ENTER A WELL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act* and in compliance with section 24(1)(b) of the *Petroleum Drilling Regulations*,

INVESTCAN ENERGY CORPORATION as operator, hereby applies for Authority to Re-enter the Well known as HURRICANE #2 (WHIP #1) using the equipment and procedures described in the program entitled BAY SAINT-GEORGE - 03-107 - HURRICANE #2 (WHIP #1) REOA dated April 23rd, 20 13 As revised May 23, 2013 Permit, Licence or Lease to which this Program applies: EP 03-107

Area:	BAY ST. GEORGE	**CO-ORDINATES**	
Field/Pool:	FLAT BAY (BAY ST. GEORGE)		UTM (NAD 27)
Rig:	FORAGAZ #3	Long:	Northing: 5347195.57
Rig Type:	GUYED TELESCOPIC DOUBLE	Lat:	Easting: 375854.54
Drilling/Servicing Contractor:	FORAGAZ (division of JUNEX)	**ELEVATION**	**DEPTH**
Completion or Workover Fluid:		☐ RT ☐ KB ☒ RF 149.0 m	M.D.: 935.70
		G.L.: 145.70	TVD: 933.76

Purpose of Re-Entry: ☒ Drilling ☐ Completion ☐ Testing ☐ Workover ☐ Abandonment Other:

CASING AND TUBULAR SUMMARY

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m)
244.5 (9 5/8)	53.6 kg/m	J-55	19
177.8 (7)	25.3 kg/m	H-40	323

Other Downhole Equipment: (attach a schematic)

ESTIMATES		PRESSURES (kpa)		TARGET INTERVAL(S): (m)
Re-entry Date:	May 15th, 2013	BHSIP(@MPP):	13300KPa@1650m	#1: 1410-1428 mKB #2: 1632-1650 mKB
Days on Location:	30	SITHP :	0	
Cost:	$1,300,000	STP :	0	

RE-ENTRY/TESTING SUMMARY

Program Overview: Re-Entry of Hurricane #2 (Whip #1) and deepen the well from 935m to approximately 1970m to evaluate the hydrocarbon potential of the Snakes Bight Formation.

Suspension or Abandonments: (Provide details and attach schematic). Depending on the results of the formation evaluation, the well either will be suspended or completed. A separate program would be submitted to that effect, once the proper evaluation of the results have determined the way-forward.

The undersigned operator's Representative hereby declares that, to the best of the Representative's knowledge, the information contained herein and in the attached detailed program is true, accurate and complete.

Signed: _____ Operator's Representative Date: April 23rd, 2013

AUTHORIZATION

Whereas the Minister of Natural Resources has jurisdiction under the *Petroleum Drilling Regulations*, ("the Regulations").
In accordance with section 32 of the Regulations, the operator named in the Application is authorized to undertake the proposed well program described above subject to the following conditions:

1. This Authorization shall be prominently displayed at the well site at all times during which operations are being conducted;
2. Copies of all logs and well test data shall be submitted to the director by the operator promptly after their acquisition;
3. Evidence of financial responsibility in a form satisfactory to the Director, shall be provided prior to commencing re-entry operations
4. This ARW is for re-entry operations of the well originally approved under Drilling Program Approval No. 2005-116-01
5. No change in the well program hereby approved may be made unless it is first approved by the director in writing;
6. This ARW approval shall, unless otherwise extended or terminated, expire upon the 04 day of June, 2014
7. This Authorization is conditional on the operator commencing operations within 120 days of the effective Authorization date; and
8. The operator shall comply with such other conditions as are appended to this Authorization.

Signed: W Foote Director

Effective Date: 2013-06-05

Authority to Re-enter a Well No. 2013-131-01-01

1 R.S.N.L. 1990, c P-10 2 CNR 1150/96 (Revised January, 2007 FRM-61) ARW1150RE-ENTRY.PDF

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

RE-ENTRY PROGRAM APPROVAL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act(1)*, INVESCAN ENERGY CORPORATION
as operator on behalf of INVESTCAN ENERGY CORPORATION, holding a
subsisting licence, permit or lease issued pursuant to the *Petroleum Regulations (2)*, namely; EP 03-107
(licence, permit, or lease #)
hereby applies for approval to conduct a re-entry program using the rig FORAGAZ RIG #3 and
equipment and procedures described in the detailed program entitled BAY SAINT GEORGE - 03-107 - HURRICANE #2 (WHIP #1)-REOA
Dated April 23, 2013
As Revised May 23, 2013

The undersigned operator's Representative hereby declares that, to the best of the operator's knowledge, the information contained herein and in the attached detailed program is true, accurate and complete.

Signed: _____ Date: 23/04/2013
Operator's Representative

APPROVAL

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act*, the operator named in the Application is hereby authorized to conduct the proposed program subject to the following conditions:

1. This Re-entry Program Approval shall, unless otherwise extended or terminated, expire upon the 04 day of June, 20 14
2. This Authorization shall be prominently displayed at the well site at all times during which operations are being conducted;
3. Evidence of financial responsibility, as required pursuant to Section 14 of the *Petroleum Drilling Regulations (3)*,shall be provided by the operator to the Minister of Natural Resources;
4. The operator shall use the equipment and procedures described in the detailed program dated April 23, 2013 as Revised May 23, 2013 unless a change in the equipment or procedures is approved in writing by the Director; and
5. The operator shall comply with such other conditions as are appended to this Approval.

Signed: _____ Effective Date: 2013-06-05
Director

Re-entry Program Approval No. 2013-131-01

(1) - R.S.N.L. 1990, c. P-10

(2) - CNR 1151/96

(3) CNR 1150/96

Revised January, 2007 FRM-65

RPA1150adraft.wpd

APPENDIX C : Daily Drilling Reports

Number of pages : *78*

Summary of the content: Daily Drilling Reports for Hurricane#2

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DAILY DRILLING REPORT N° 1

INVESTCAN Energy Corp

Date : 15/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : Well Licence # EP 03-107

Weather @ 8:00	*Overcast/fog*	mKB		Daily MD		Daily Costs	est.
Wind	light	mGL	145.7	Total MD		Cum Costs	
Temperature	8 degC	24h Avg ROP	0	Expected MD		AFE	

Summary of Daily Operations: Waited on daylight and crews to arrive. Held toolbox talk with both rig crews. Continued to rig up to spud with both crews. Shut down @ 7:00 pm. Wait until morning to resume operations.

SAFETY SUMMARY

Workers on site		Workers Injuried		Incidents / Injuries			
IEC	3	IEC	0	None to report	Hrs since last Medical Treatment Case		24
Rig	11	Rig	0		Hrs since last Lost Time Incident		24
Others	2	Others	0		H_2S Level	0	Trip Drill
Total	16	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	0	BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Tool box talk prior raising the derrick.

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	935	Wait on daylight to continue to rig up to spud.
7:00	7:15		Tool box talk.
			Continue to rig up to spud. Raise and pin derrick. Install guy lines. Rig up top drive torque tube and top drive.
	19:00		Rig in lines to flare tank, degasser lines, mud lines, water and hydraulic lines. Shut down for the night @ 19:00.
19:00	0:00		Wait on daylight to continue to rig up to spud.
			Note: Rig guy anchors were installed and pull tested to 19,000 lbs @ 45 degree angle using Sparkes Trucking crane truck.
			Sean Sparkes (Operator) June 14/2013 witnessed by Greg Mckinnon (Rig Manager Foragaz #3).
			and Victor Leroux (Wellsite Supervisor for Investcan Energy).

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	935	Wait on daylight and crew to continue to finish rigging up to spud.

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.25	Rig move	
Rig Service		DST		WOC		Reaming		Wait on Daylight	12
Tripping		Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair		Wait on location		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up	11.75	LOT/FIT		**DOWNTIME**	**0**

24 HOURS FORECAST

Nipple down and cut off casing bowl, cut casing and weld on 9"- 21000 kpa casing bowl. Nipple up and pressure test BOP's. Make up Drilling BHA. Fill mud tanks with water (1 tank to start with). Run in hole to tag plug #1. Drillout plug #1.

Date : 15/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type		Solids	[kg/m^3]
Mud Co		Sands	[ppm]
Time Check		OWR	[%]
Mud Man	L. Anthony	MBT	[kg/m^3]
		Cl-	[mg/L]
Density	[kg/m^3]	Calcium	[mg/L]
Viscosity	[s/l]		
P.V.	[cp]		
Y.P.	[g/100cm^2]		
Gels 10"/10'			
Temperature			
Pressure			
pH			

Volumes Balance

Vol hauled	[m^3]
Vol dumped	[m^3]
Circ loss	[m^3]
Boiler loss	[m^3]
Daily Mud Cost	
Cum Mud Cost	

ADDITIVES ADDED

NAME	Quantity	Concentration

COMMENTS

BOTTOM HOLE ASSEMBLY

N° **Component**	ID [mm]	OD [mm]	Length [m]	Connection	Weight

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2'' X 14	-
SPM			-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate			[m^3/min]
Pump Eff	90	90	[%]
Pump Press			[kPa]
Drillpipe AV			[mm]
Drill Collar AV			[mm]

Circuit		
	Mud Cycle	[min]
	Bottom Up	[min]
	Mud Tank	[m^3]
	Hole Volume	[m^3]
	System Vol.	[m^3]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP		
Next BOP		

BITS

Bit		**N°**
Size		[mm]
Mfg		-
Type		-
Serial		-
Nozzle		[mm^2]
WOB		[daN]
RPM		[tr/min]
Flow		[gal/s]
Pres		[kPa]
From		[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
			0	sacs
			0	sacs
			0	sacs
			0	sacs
			0	
			0	sacs
			0	sacs
			0	sacs
			0	sacs
Fuel	4500			liters
Drill Water			0	[m^3]
			0	[m^3]
			0	5gal pails
Pot Water			0	[m^3]

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m^3]
Volume	50	[m^3]
Time to GL		[min]
Addittives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m^3]
Volume		[m^3]
Time to GL		[min]
Addittives		

CENTRIFUGE

Make		
OF density		[kg/m^3]
UF density		[kg/m^3]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT N° 2

INVESTCAN Energy Corp

Date : 16/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : Well Licence # EP 03-107

Weather @ 8:00	*Overcast*	mKB		Daily MD		Daily Costs	est.
Wind	light	mGL	145.7	Total MD		Cum Costs	
Temperature	8 degC	24h Avg ROP	0	Expected MD		AFE	

Summary of Daily Operations: Waited on daylight and crews to arrive. Finish R/U, weld and pressure test new casing bowl nipple up BOP.
Rig inspection.

SAFETY SUMMARY

Workers on site		Workers Injuried		Incidents / Injuries	Hrs since last Medical Treatment Case	48
IEC	3	IEC	0		Hrs since last Lost Time Incident	48
Rig	11	Rig	0	None to report	H_2S Level 0	Trip Drill
Others	3	Others	0		CO_2 Level 0	Pit Drill
Total	16	Total	0		Gas Level 0	BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614	7:00	Discussed uneven lease, rocks on location. No running to prevent tripping injuries.
Company Man	Victor Leroux	(780) 678 5108		Use of handrail on stairs. Clean up lease. Welding on bowl and nippling up BOP's
Company Man	Travis Young	(709) 721 1994	19:00	Nipple up BOPs

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	935	Wait on daylight to continue to rig up to spud.
7:00	7:15		Tool box talk
7:15			Finish rig in on flare tank, cut off existing casing bowl and weld on 9"-3000 lb (21,000kpa) Weatherford Casing Bowl
			S/N 12110022-005. Pressure tested to 8400kpa for 10 minutes. Test held. Witnessed by Victor Leroux, Greg McKinnon,
	10:00		Dave White and crew.
10:00	12:00		Complete fit for purpose rig inspection, except the section related to BOP tests.
12:00	19:00		Nipple up BOP's
19:00	19:15		Crew change and toolbox talk
19:15	0:00		Continue to nipple up BOP'S (had to nipple down spool to casing bowl to move to accommodate the diverter line).
12:00	19:00		Nipple up BOP's.
19:00	19:15		Crew change and toolbox talk.
19:15	0:00		Continue to nipple up BOP's (had to nipple down spool to casing bowl to move to accommodate the diverter line).

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00		935	Finish nipple up BOP'S.
			Install kill line valve and kill line.
			Install HCR valve.
			Install Stand Pump.
			Install flow nipple and flow line.
			Install propane tank to flare stack.
	4:30		Wire skip line.
4:30			Start fuction test BOP stack. Problems with closing bland and pipe rams due to hoses incorrectly installed.
	5:30		Function test BOP Blind and Pipe rams, HCR valve.
5:45	6:00		Fill BOP stack to start pressure test BOP stack and manifold and lines.

RIG TIME (operation duration in hours)

Drilling		Weld Bowl	2.75	Cement		Safety/BOP	0.5	Rig move	
Rig Service		DST		WOC		Reaming		Wait on Daylight	7
Tripping		Logging		Nipple U/D	11.75	Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair		Wait on location		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up	2	LOT/FIT		**DOWNTIME**	**0**

24 HOURS FORECAST

Spud well and Pressure test BOPs as per program. Complete Fit For Purpose Rig Inspection.
Transfer of mud products from storage yard to site.

Date : 16/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type		Solids	[kg/m^3]
Mud Co		Sands	[ppm]
Time Check		OWR	[%]
Mud Man	L. Anthony	MBT	[kg/m^3]
		Cl-	[mg/L]
Density	[kg/m^3]	Calcium	[mg/L]
Viscosity	[s/l]		
P.V.	[cp]		
Y.P.	[g/100cm^2]		
Gels 10"/10'			
Temperature			
Pressure			
pH			

Volumes Balance

Vol hauled	[m^3]
Vol dumped	[m^3]
Circ loss	[m^3]
Boiler loss	[m^3]
Daily Mud Cost	
Cum Mud Cost	

ADDITIVES ADDED

NAME	Quantity	Concentration

COMMENTS

BOTTOM HOLE ASSEMBLY

N° **Component**	ID [mm]	OD [mm]	Length [m]	Connection	Weight

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2'' X 14	-
SPM			-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate			[m^3/min]
Pump Eff	90	90	[%]
Pump Press			[kPa]
Drillpipe AV			[mm]
Drill Collar AV			[mm]

Circuit

Mud Cycle		[min]
Bottom Up		[min]
Mud Tank		[m^3]
Hole Volume		[m^3]
System Vol.		[m^3]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP		
Next BOP		

BITS

Bit		**N°**
Size		[mm]
Mfg		-
Type		-
Serial		-
Nozzle		[mm^2]
WOB		[daN]
RPM		[tr/min]
Flow		[gal/s]
Pres		[kPa]
From		[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
			0	sacs
			0	sacs
			0	sacs
			0	sacs
			0	
			0	sacs
			0	sacs
			0	sacs
			0	sacs
Fuel	4500			liters
Drill Water			0	[m^3]
			0	[m^3]
			0	5gal pails
Pot Water			0	[m^3]

CASING / CEMENTING PROGRAM

Last Casing	Surface		***Last Casing***		
Date	07/12/2005		Date		
grade	H-40	-	grade		-
diam	177.8	[mm]	diam		[mm]
Lin Weight	25.3	[kg/m]	Lin Weight		[kg/m]
Nb Joint		-	Nb Joint		-
Set at	323	[m]	Set at		[m]
Length	323	[m]	Length		[m]
Burst	16000	[kPa]	Burst		[kPa]
Collapse	10000	[kPa]	Collapse		[kPa]
Tensile	54000	[daN]	Tensile		[daN]
TEST			TEST		
Date			Date		
Pressure		[kPa]	Pressure		[kPa]
Last Cement	Plug		***Last Cement***		
Date	16/12/2005		Date		
Class	A		Class		
Density	1520	[kg/m^3]	Density		[kg/m^3]
Volume	50	[m^3]	Volume		[m^3]
Time to GL		[min]	Time to GL		[min]
Addittives			Addittives		

CENTRIFUGE

Make		
OF density		[kg/m^3]
UF density		[kg/m^3]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT N° 3

Date : 17/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*Overcast/ light rain*	mKB	149.97	Daily MD	0	Daily Costs	est.
Wind	light	mGL	145.7	Total MD		Cum Costs	
Temperature	7 Deg C	24h Avg ROP	0	Expected MD		AFE	

Summary of Daily Operations: Pressure test BOPs, drill mouse hole.

SAFETY SUMMARY

Workers on site		Workers Injuried		Incidents / Injuries	Hrs since last Medical Treatment Case	72
IEC	3	IEC	0	None to report	Hrs since last Lost Time Incident	72
Rig	11	Rig	0		H_2S Level 0	Trip Drill
Others	3	Others	0		CO_2 Level 0	Pit Drill
Total	16	Total	0		Gas Level 0	BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Pressure testing BOP's. High pressure lines
17:00	Muster area location, PPE, smoking policy, High pressure lines while pressure testing BOP's

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:30	0	Continue to nipple up BOP'S (had to nipple down spool to casing bowl to move to accommodate the diverter line).
6:30	7:00		Pressure Test BOP's (NOV pump pressure sensor failed).
7:00	7:15		Meetings- Pre-job safety.
7:15	11:30		Trouble shoot NOV pressure recording sensor
11:30	12:00		Pressure Test BOP's. Test #1 pressure test Blind ram, Casing Bowl, Casing, Back 3 Manifold valves. 1500 kPa low 11250 kPa high All tests 15 minutes each (first test failed due to trapped air in the manifold. Had to retest and held)
12:00	15:00		Continue pressure testing BOP's: Test #2 Middle 3 Manifold valves, Inside kill valve, Blind ram. Test #3 Front 2 Manifold valves, 1500 kPa low 11250 KPa high. All tests 15 minutes each.
15:00	15:30		Rig Service. Pick up and service top drive, check NOV rotary sensor, pick up one single, stabbing valve and inside BOP to continue pressure testing.
15:30	16:30		Rig up to pump water from Mud tanks through BOP's to get air out of system.
16:30	17:00		Continue Pressure testing BOP's: Test #4 HCR valve,Pipe Ram, & Stabbing Valve. Inside BOP. 1500 kPa low 11250 kPa high. 15 minutes each test. Test #5: Annular, Inside Manual HCR valve, Inside kill valve, Upper kelly cock. 1500 kPa low 11250 kPa high. all tests 15 minutes each.
17:00	17:15		Pre-job safety meeting with new day crew.
17:15	19:00		Finish pressure testing BOP's.
19:00	22:45		Level rig prior to drilling mouse hole and picking up BHA.
22:45	0:00		Set Up & Drill Mouse Hole.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:30		Rig down mouse hole frilling equipment.
1:30	3:30		Pick up and make up BHA.
3:30	4:45	80.63	RIH with BHA to 62.67 mKB no cement plug @ 35m. Draw works gear chain broke.
4:45	6:00		Drawworks chain under repair.

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.5	Rig move	
Rig Service	0.5	DST		WOC		Reaming		Rig to pump air out	1
Tripping		Logging		Nipple U/D	6.5	Slip and Cut			
Survey		Clean to Btm		Press. Test	6.25	Drill R & M hole	1.25		
Circ./Cond.		Handle Tools		Repair	4.25	Level Rig	3.75	**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**4.25**

24 HOURS FORECAST

Repair Draw works Chain. Locate true depth and Tag #1 cement plug and driil out plug. Locate, tag, drill out #2 plug.

Date : 17/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Water		
Mud Co	Baroid		
Time Check			
Mud Man	L. Anthony		
Density	1010		[kg/m^3]
Viscosity	29		[s/l]
P.V.			[cp]
Y.P.			[g/100cm^2]
Gels 10"/10'			
Temperature			
Pressure			
pH			

Solids			[kg/m^3]
Sands			[ppm]
OWR			[%]
MBT			[kg/m^3]
Cl-			[mg/L]
Calcium			[mg/L]

Volumes Balance

Vol hauled		[m^3]
Vol dumped		[m^3]
Circ loss		[m^3]
Boiler loss		[m^3]
Daily Mud Cost		
Cum Mud Cost		

ADDITIVES ADDED

NAME	Quantity	Concentration

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.15	3.5 Reg P	
2	Near Bit Reamer	57	155	1	3.5 Reg BX3.5Reg P	
3	114mm 60kgm DC X1	57	114	8.82	3.5IF B X 3.5IF P	
4	Sprial String Stabilizer	57	155	1	3.5IF B X 3.5IF P	
5	144mm 60kgm DC X 3	57	114	27.02	3.5IF B X 3.5IF P	
6	Jars (22,500 UP / 19500 DN - 42 SEC)	54	121	7	3.5IF B X 3.5IF P	
7	114mm 60kgm DC X 6	57	114	35.64	3.5IF B X 3.5IF P	
8	124mm 44.5kgm HWDP X 24	64	127		3.5IF B X 3.5IF P	
9	102mm 20.6 kgm S-135 DP					
	Depth before chains on Drawworks broke			80.63		

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM			-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate			[m^3/min]
Pump Eff	90	90	[%]
Pump Press			[kPa]
Drillpipe AV			[mm]
Drill Collar AV			[mm]

Circuit		
	Mud Cycle	[min]
	Bottom Up	[min]
	Mud Tank	[m^3]
	Hole Volume	[m^3]
	System Vol.	[m^3]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	1	N°
Size	159	[mm]
Mfg	Hughes	-
Type	SCX-!	-
Serial	5177714	-
Nozzle		[mm^2]
WOB		[daN]
RPM		[tr/min]
Flow		[gal/s]
Pres		[kPa]
From		[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250		250	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122		122	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30		30	sacs
Fuel	10,300		10300	liters
Drill Water	21.8		21.8	[m^3]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Defoamer	10		10	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface		***Last Casing***		
Date	07/12/2005		Date		
grade	H-40	-	grade		-
diam	177.8	[mm]	diam		[mm]
Lin Weight	25.3	[kg/m]	Lin Weight		[kg/m]
Nb Joint		-	Nb Joint		-
Set at	323	[m]	Set at		[m]
Length	323	[m]	Length		[m]
Burst	16000	[kPa]	Burst		[kPa]
Collapse	10000	[kPa]	Collapse		[kPa]
Tensile	54000	[daN]	Tensile		[daN]
TEST			TEST		
Date	17/06/2013		Date		
Pressure	11250	[kPa]	Pressure		[kPa]
Last Cement	Plug		***Last Cement***		
Date	16/12/2005		Date		
Class	A		Class		
Density	1520	[kg/m^3]	Density		[kg/m^3]
Volume	50	[m^3]	Volume		[m^3]
Time to GL		[min]	Time to GL		[min]
Addittives			Addittives		

CENTRIFUGE

Make		
OF density		[kg/m^3]
UF density		[kg/m^3]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 4

Date : 18/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*Overcast/ light rain*	mKB	149.97	Daily MD		Daily Costs	est.
Wind	light	mGL	145.7	Total MD		Cum Costs	
Temperature	7 Deg C	24h Avg ROP	0	Expected MD		AFE	

Summary of Daily Operations: Drill cement plug#2, LOT. Scraper run.

SAFETY SUMMARY

Workers on site		Workers Injuried		Incidents / Injuries	Hrs since last Medical Treatment Case	96
IEC	3	IEC	0	None to report	Hrs since last Lost Time Incident	96
Rig	11	Rig	0		H_2S Level 0 Trip Drill	
Others	3	Others	0		CO_2 Level 0 Pit Drill	
Total	16	Total	0		Gas Level 0 BOP Drill	

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Pressure testing BOP's. High pressure lines
Company Man	Travis Young	(709) 721 1994		
			17:00	Hazards While tripping

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:30		Rig service, rig repair. Set mouse hole.
1:30	3:30		Pick & Make up BHA.
3:30	4:45		Pick up drill collars to tag cement plug #1. NOTE: cement plug was not at 35m as per FWR.
4:45	6:15		Rig repair (broken draw works chain).
6:15	7:00		Continue to pick up Drill Collars & HWDP to tag cement plug #2.
7:00	7:15		Toolbox safety talk.
7:15	10:30		Continue to pick up HWDP to tag cement plug #2. NOTE: Tagged plug #2 @273m.
10:30	12:00		Drill cement plug from 273m to 293m.
12:00	14:00		Continue to drill cement plug from 293m to 310m. NOTE: Bottom of Plug #2 @310m.
14:00	14:15		Flow check @ 310m for 15 minutes.
14:15	15:00		Ream and clean casing from 310m to 327m.
15:00	15:15		Circulate hole clean.
15:15	15:30		Rig to and perform Formation Integrity test (Leak Off Test). Pressure was applied up to 6084 kPa then started to leak off and stabilized at 6041 kpa. Pressure was then bled of the formation.
15:30	15:45		Flow check @ 327m for 15 minutes.
15:45	18:15		Trip out of hole to laydown near bit stabilizer and pick up 7" casing scraper.
18:15	20:15		RIH with casing scraper.
20:15	20:30		Rig up Top Drive pick up single.
20:30	21:00		Circulate hole clean.
21:00	22:30		POOH lay down 1 single.
22:30	0:00		Baker on site start rigging in to run cement bond log.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:30		Baker running CBL.
1:30	5:30		RIH with BHA to drill out 3rd plug. Scraper was included in the BHA by mistake (misunderstanding between wellsite supervisor and rig crew).
5:30	6:00		Casing Scaper ran pass casing shoe, stuck @ 334 mRF. Unable to rotate the BHA. Top drive connected and circulation established.

RIG TIME (operation duration in hours)

Drilling	2	Weld Bowl		Cement		Safety/BOP	0.25	Rig move			
Rig Service	1.5	DST		WOC		Reaming	0.75				
Tripping	13.25	Logging	1.5	Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test	0.25	Drill R & M hole					
Circ./Cond.	0.25	Handle Tools		Repair	1.5	Other	2.5	**TOTAL**	**24**		
Pick up BHA	0.25	Run Casing		Rig Up	0	LOT/FIT		**DOWNTIME**	**1.5**		

24 HOURS FORECAST

POOH Take off scraper and RIH to drill plug #3

Date : 18/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Water		
Mud Co	Baroid		
Time Check			
Mud Man	L. Anthony		
Density	1010		[kg/m³]
Viscosity	29		[s/l]
P.V.			[cp]
Y.P.			[ε/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH			

Solids			[kg/m³]
Sands			[ppm]
OWR			[%]
MBT			[kg/m³]
Cl-			[mg/L]
Calcium			[mg/L]

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	
Cum Mud Cost	

ADDITIVES ADDED

NAME	Quantity	Concentration

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.15	3.5 Reg P	
2	Casing Scaper	38	168	1.21	3.5 Reg BX3.5Reg P	
3	Near Bit Reamer	57	155	1	3.5 Reg BX3.5IF P	
4	114mm 60kgm DC X1	57	114	8.82	3.5IF B X 3.5IF P	
5	Sprial String Stabilizer	57	155	1	3.5IF B X 3.5IF P	
6	144mm 60kgm DC X 3	57	114	27.02	3.5IF B X 3.5IF P	
7	Jars (22,500 UP / 19500 DN - 42 SEC)	54	121	7	3.5IF B X 3.5IF P	
8	114mm 60kgm DC X 6	57	114	53.06	3.5IF B X 3.5IF P	
9	124mm 44.5kgm HWDP X 24	64	127	222.12	3.5IF B X 3.5IF P	
10	102mm 20.6 kgm S-135 DP	57	121	18.78	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM			-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate			[m³/min]
Pump Eff	90	90	[%]
Pump Press			[kPa]
Drillpipe AV			[mm]
Drill Collar AV			[mm]

Circuit

Mud Cycle		[min]
Bottom Up		[min]
Mud Tank		[m³]
Hole Volume		[m³]
System Vol.		[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	1	N°
Size	159	[mm]
Mfg	Hughes	-
Type	SCX-!	-
Serial	5177714	-
Nozzle		[mm²]
WOB		[daN]
RPM		[tr/min]
Flow		[gal/s]
Pres		[kPa]
From		[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250		250	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122		122	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30		30	sacs
Fuel	10,300		10300	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Defoamer	10		10	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]
Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]
Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 5

Date : 19/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107 Page 1/2

Weather @ 8:00	*Light cloud*	mKB	149.97	Daily MD		Daily Costs	$190,400 est.
Wind	light	mGL	145.7	Total MD		Cum Costs	$484,700
Temperature	10 Deg C	24h Avg ROP	0	Expected MD		AFE	$2,410,000

Summary of Daily Operations: CBL run. Scraper run in BHA by mistake. POOH and RIH with slick BHA w/ stabilizers to 597 mRF with no further progress (tight hole). POOH, decision to run back with motor BHA without stabilizers.

SAFETY SUMMARY

Workers on site		Workers Injuried		Incidents / Injuries	Hrs since last Medical Treatment Case	120	
IEC	3	IEC	0	None to report	Hrs since last Lost Time Incident	120	
Rig	11	Rig	0		H_2S Level	0	Trip Drill
Others	3	Others	0		CO_2 Level	0	Pit Drill
Total	16	Total	0		Gas Level	0	BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Environmental concerns. Repair any oil leks, clean up spills.
Company Man	Travis Young	(709) 721 1994		
			17:00	Communication between supervisors and crews.

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:30	935	Baker running CBL.
1:30	5:30		RIH with BHA to drill out 3rd plug. Scraper was included in the BHA by mistake (misunderstanding between wellsite supervisor and rig crew).
5:30			Casing Scaper ran pass casing shoe, stuck @ 334 mRF.
	6:00		Unable to rotate the BHA. Top drive connected and circulation established.
6:00	9:15		Work out pite, activate jars, scraper unstuck.
9:15	10:15		Trip out of hole to lay down casing scraper.
10:15	11:00		Make up BHA.
11:00	12:30		Trip in hole to 330 m.
12:30	14:15		Pick up top drive and ream & clean tight spots from 330m to 363m.
14:15	15:45		Downtime- Replace hydraulic drive motor on top drive.
15:45	20:45		RIH with top drive. Pick up drill pipe and ream to 597m from 330m
20:45	23:00		Stuck in hole @597m. Work pipe and jars to pull free.
23:00	23:15		Lay down drill pipe single + Top drive
23:15	0:00		POOH. Discussion with IEC office, decision to run motor BHA without MWD or stabilizer.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:45	935	POOH lay down near bit stabilizer, sprial string stabilizer.
0:45	1:45		Prepare mud motor for CHOICE.
1:45	3:15		RIH motor BHA.
3:15	4:00		Rig service and pickup top drive
4:00	6:00		Ream and clean 706m. Note: well is releasing trap gas. Flow checks conducted and flow monitored.

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP		Rig move	
Rig Service		DST		WOC		Reaming	6.75		
Tripping	6.75	Logging	3	Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair	1.5	Other	6	**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**1.5**

24 HOURS FORECAST

RIH with Mud Motor and drill down to cement plug#3 and approximatively 10m of new formation.
POOH, connect MWD and

Date : 19/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Water		Solids		[kg/m³]
Mud Co	Halliburton		Sands		[ppm]
Time Check	21:00		OWR		[%]
Mud Man	L. Anthony		MBT		[kg/m³]
			Cl-		[mg/L]
Density	1010	[kg/m³]	Calcium		[mg/L]
Viscosity	32	[s/l]			
P.V.		[cp]			
Y.P.		[g/100cm²]			
Gels 10"/10'					
Temperature					
Pressure					
pH	12				

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	
Cum Mud Cost	

ADDITIVES ADDED

NAME	Quantity	Concentration

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.19	3.5 Reg P	
2	Motor	57	155	9.1	3.5 Reg BX3.5IF P	
3	114mm 60kgm DC X 4	57	114	35.84	3.5IF B X 3.5IF P	
4	Jars (22,500 UP / 19500 DN - 42 SEC)	57	155	6.56	3.5IF B X 3.5IF P	
5	144mm 60kgm DC X 6	57	114	53.15	3.5IF B X 3.5IF P	
6	124mm 44.5kgm HWDP X 24	64	121	222.12	3.5IF B X 3.5IF P	
7	102mm 20.6 kgm S-135 DP	57	121	628.25	3.5IF B X 3.5IF P	
8						
9						
10						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM			-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate			[m³/min]
Pump Eff	90	90	[%]
Pump Press			[kPa]
Drillpipe AV			[mm]
Drill Collar AV			[mm]

Circuit		
	Mud Cycle	[min]
	Bottom Up	[min]
	Mud Tank	[m³]
	Hole Volume	[m³]
	System Vol.	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	1	N°
Size	159	[mm]
Mfg	Hughes	-
Type	STX-1	-
Serial	5177714	-
Nozzle	3 x 20/32"	[mm²]
WOB	4	[daN]
RPM		[tr/min]
Flow		[gal/s]
Pres		[kPa]
From		[m]
To		[m]
Drilled	used bit	[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250		250	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122		122	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30		30	sacs
Fuel	10,300		10300	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576		576	Sacs
Defoamer	10		10	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Addittives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Addittives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments: Due to serveral factors, communication issues, etc. the casing scraper got tripped into the well after the bond log was completed. Due to the casing scraper having a larger diameter than the drillbit, the scraper got stuck in the hole. After serveral attempts the jars fired and the pipe got free. The scaper was the tripped out of the hole The BHAa was then run back in the hole. Due to the length of time this well has been open below the shoe we had to ream and clean the hole from below the shoe to the top of the next plug.

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 6

Date : 20/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107 Page 1/2

Weather @ 8:00	*Light cloud*	mKB	149.97	Daily MD	4	Daily Costs	$27,300	est.
Wind	light	mGL	145.7	Total MD	940	Cum Costs	$512,100	
Temperature	10 Deg C	24h Avg ROP	2	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: RIH and drill 3rd cement plug, well displaced with drilling mud before drilling 4m of new formation
POOH and RIH with directional BHA (PDC, mud motor and MWD).

SAFETY SUMMARY

Workers on site		Workers Injuried		Incidents / Injuries			
IEC	3	IEC	0	None to report	Hrs since last Medical Treatment Case		144
Rig	12	Rig	0		Hrs since last Lost Time Incident		144
Others	5	Others	0		H_2S Level	0	Trip Drill
Total	20	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	0	BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614	7:00	Loader operation/High PH mud/wash off, can irriate the skin or burn you if left long enough
Company Man	Victor Leroux	(780) 678 5108		
Company Man	Travis Young	(709) 721 1994	17:00	Rolling pipe on catwalk

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Spout Falls
LITHOLOGY : Silty sandstone 70%
SHOWS : None

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:45	935	POOH lay down near bit stabilizer, spriral string stabilizer.
0:45	1:45		Prepare lower speed mud motor (78-2.9) for CHOICE.
1:45	3:15		RIH with lower speed motor BHA.
3:15	4:00		Rig service and pick up top drive.
4:00	7:00		Ream & clean from 597m to 820m.
7:00	7:15		Tool box safety talk.
7:15	8:45		Ream & clean from 597m to 830m with Choice mud motor.
8:45	12:00		Drill cement from 830 to 874m.
12:00	14:45		Drill cement / Drill out cement 874-936m.
14:45	15:00		Flow check displace well to drilling mud.
15:00	17:15	940	Drill 936-940.54m
17:15	17:30		Flow check @ 940 mRF.
17:30	21:00		Trip out of hole flow check at 748m, 470m, 105m.
21:00	23:00		Handle Directional tools.
23:00	23:45		Rig service, fix problem with pipe tally.
23:45	0:00		RIH with directional BHA (78-3.8 mud motor and MWD).

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	2:00	940	RIH with directional BHA. Directional Survey.
2:00	2:30		Lay down singles pick up Top Drive.
2:30	2:45		Rig Repair fix Hydraulic leaks.
2:45	6:00		Drill forward with Directional tools.

RIG TIME (operation duration in hours)

Drilling	8.25	Weld Bowl		Cement		Safety/BOP	0.5	Rig move	
Rig Service	1.5	DST		WOC		Reaming	4.5	DIR Work	2
Tripping	5.75	Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair		Other	1.5	**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

RIH with Directional BHA drill ahead.

Date : 20/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Water		
Mud Co	Halliburton		
Time Check	19:00		
Mud Man	L. Anthony		
Density	1075		[kg/m³]
Viscosity	37		[s/l]
P.V.	11		[cp]
Y.P.	3		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	12		

Solids			[kg/m³]
Sands			[ppm]
OWR			[%]
MBT			[kg/m³]
Cl-			[mg/L]
Calcium			[mg/L]

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	$995.00
Cum Mud Cost	$7,960.00

ADDITIVES ADDED

NAME	Quantity	Concentration

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit QD406FX**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	7.49	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.87	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM			-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate			[m³/min]
Pump Eff	90	90	[%]
Pump Press			[kPa]
Drillpipe AV			[mm]
Drill Collar AV			[mm]

Circuit		
	Mud Cycle	[min]
	Bottom Up	[min]
	Mud Tank	[m³]
	Hole Volume	[m³]
	System Vol.	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	1	2	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	STX-1	QD406FX	-
Serial	5177714	7032271	-
Nozzle	3 X 15.9	4x12.7 2x8.7	[mm²]
WOB	4		[daN]
RPM	50		[tr/min]
Flow			[gal/s]
Pres	7565		[kPa]
From	936		[m]
To	940.54		[m]
Drilled	4.54		[m]
Hours	2.25		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250		250	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122		122	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30		30	sacs
Fuel	10,300		10300	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576		576	Sacs
Defoamer	10		10	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Addittives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Addittives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 7

Date : 21/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*Sunny*	mKB	149.97	Daily MD	940.5	Daily Costs	$45,000 est.
Wind	light	mGL	145.7	Total MD	1049	Cum Costs	$629,800
Temperature	19 Deg C	24h Avg ROP	5.3	Expected MD	1970	AFE	$2,410,000

Summary of Daily Operations: Run in hole with directional assembly (PDC, 78-3.8 mud motor, MWD). Rotate and slide from 940.54m to 1049m.
Tidy up drill pipe and site. BOP Drill.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	3	IEC	0	None to report	Hrs since last Medical Treatment Case		168
Rig	12	Rig	0		Hrs since last Lost Time Incident		168
Others	8	Others	0		H_2S Level	0	Trip Drill
Total	23	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	10000	BOP Drill 21/06/2013

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614	7:00	Talked about mixing of mud chemicals. Wear the proper PPE. Location of MSDS sheets. Held BOP Drill with Crew
Company Man	Victor Leroux	(780) 678 5108		
Company Man	Travis Young	(709) 721 1994	19:00	Held BOP Drill with crew.

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Friars Cove
LITHOLOGY : Silty Sandstone interbedded w/shales
SHOWS : Minimal

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	2:00	940.54	RIH with directional BHA.
2:00	2:30		Lay down singles pick up Top Drive.
2:30	3:00		Rig Repair fix Hydraulic leaks.
3:00	7:00	949	Drill forward with Directional BHA from 940.5m to 949mRF.
7:00	7:15		Safety Meeting.
7:15	12:00	970	Drill forward with Directional BHA from 949m to 970mRF.
12:00	16:00	997	Drill forward with Directional BHA from 970m to 997m
16:00	16:15	997	BOP Drill w/crew. Well secure in 95 sec., Function motor kills, HCR, Pipe Rams.
16:15	19:00	1017	Drill forward with Directional tools from 997-1017m.
19:00	0:00	1049	Drill forward with Directional tools from 1017-1049m.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1087	Drill forward with Directional BHA from 1049-1088m.

RIG TIME (operation duration in hours)

Drilling	20.75	Weld Bowl		Cement		Safety/BOP	0.25	Rig move			
Rig Service		DST		WOC		Reaming		DIR Work			
Tripping	2	Logging		Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair	0.5	Other	0.5	**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**0.5**		

24 HOURS FORECAST

Continue drilling ahead with directional BHA. Possible whiper trip as hole conditions dictate.

Date : 21/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer base.		
Mud Co	Halliburton		
Time Check	21:00		
Mud Man	L. Anthony		
Density	1100		[kg/m³]
Viscosity	39		[s/l]
P.V.	11		[cp]
Y.P.	3		[g/100cm²]
Gels 10"/10'	1		
Temperature			
Pressure	9913		
pH	12		

Solids			[kg/m³]
Sands			[ppm]
OWR			[%]
MBT			[kg/m³]
Cl-			[mg/L]
Calcium			[mg/L]

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	$4,718.00
Cum Mud Cost	$13,673.00

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	8	Bags
Baracarb	16	Bags
Defoamer	2	Pails

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	7.49	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.87	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64.00	127.00	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM			-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate			[m³/min]
Pump Eff	90	90	[%]
Pump Press			[kPa]
Drillpipe AV			[mm]
Drill Collar AV			[mm]

Circuit		
	Mud Cycle	[min]
	Bottom Up	[min]
	Mud Tank	[m³]
	Hole Volume	[m³]
	System Vol.	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
10:00	956	954.54	349.5	4.7	5.45
11:10	965.39	963.89	353.1	5.4	2.45
12:35	974.78	973.24	358.9	5.9	2.42
14:15	984.24	982.65	359.2	6	0.33
15:32	993.71	992.06	356.4	6.4	1.59
17:00	1003.18	1001.47	351.8	6.9	2.31
18:14	1012.6	1010.81	357.3	7.4	2.7
19:52	1022.02	1020.15	359.8	8.3	3.06
21:10	1031.48	1029.49	13	9.8	8.09
22:29	1040.94	1038.8	20.1	10.5	4.54
0:00	1050.36	1048.07	25.8	10	3.6

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	1	2	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	STX-1	QD406FX	-
Serial	5177714	7032271	-
Nozzle	3 X 15.9	4x12.7 2x8.7	[mm²]
WOB	4	10	[daN]
RPM	50	40/140	[tr/min]
Flow			[gal/s]
Pres	7565		[kPa]
From	936	940.54	[m]
To	940.54		[m]
Drilled	4.54		[m]
Hours	2.25		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	16	234	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	8	114	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30		30	sacs
Fuel	20,708	5143	15565	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	2	8	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Fuel Delivery planned.
Mud weight is increasing rapidly due to dilling very fine sands. Working closely on mud weight until centrifuge arrives onsite.
Gas detector showing high BG. Decision not to change the gas detection for consistancy throughough drilling.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 8

Date : 22/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*Sunny*	mKB	149.97	Daily MD	71	Daily Costs	$35,300	est.
Wind	light	mGL	145.7	Total MD	1190	Cum Costs	$665,100	
Temperature	19 Deg C	24h Avg ROP	6.7	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Rotate and slide from 1049m to 1190 mRF
Install Cutting holding pit.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries	Hrs since last Medical Treatment Case		192
IEC	3	IEC	0	None to report	Hrs since last Lost Time Incident		192
Rig	12	Rig	0		H_2S Level 0	Trip Drill	
Others	8	Others	0		CO_2 Level 0	Pit Drill	
Total	23	Total	0		Gas Level 6000	BOP Drill	

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614	7:00	Hydraulics and high pressure lines
Company Man	Victor Leroux	(780) 678 5108		
Company Man	Travis Young	(709) 721 1994	19:00	Housekeeping

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Friars Cove
LITHOLOGY : Sandstone interbedded w/shales
SHOWS : Faint dull brown fluorescence from 1175 to 1185m. No gas response.

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	1119	Drill forward with Directional BHA from 1049-1094m.
7:00	7:15	1094	Safety meeting.
7:15	0:00	1190	Drill forward with Directional BHA to 1190m.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1225	Drill forward with Directional BHA from 1190-1225m.

RIG TIME (operation duration in hours)

Drilling	24	Weld Bowl		Cement		Safety/BOP		Rig move	
Rig Service		DST		WOC		Reaming		DIR Work	
Tripping		Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair		Other		**TOTAL**	24
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

Continue drilling ahead with directional BHA. Possible whiper trip as hole conditions dictate.

Date : 22/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3 **Page 2/2**

DRILLING MUD

Fluid type	polymer base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1120		[kg/m³]
Viscosity	45		[s/l]
P.V.	10		[cp]
Y.P.	4		[g/100cm²]
Gels 10"/10'	1		
Temperature			
Pressure	9913		
pH	12		

Solids	3	[kg/m³]
Sands	0.5	[%]
OWR		[%]
MBT		[kg/m³]
Cl-		[mg/L]
Calcium	840	[mg/L]

Volumes Balance

Vol hauled	6	[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$2,671.00	
Cum Mud Cost	$16,344.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	7	Bags
Baracarb	5	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	7.49	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.87	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	70	[min]
Bottom Up	28	[min]
Mud Tank	33.78	[m³]
Hole Volume	23.75	[m³]
System Vol.	58.75	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
0:00	1050.36	1048.07	25.8	10	3.6
2:55	1069.36	1066.78	27.2	10.2	0.64
6:00	1088.45	1085.55	26.5	11.2	2.49
9:20	1107.48	1104.25	33.9	9.9	3.25
13:45	1126.55	1123.1	45.6	7.2	6.31
15:00	1135.97	1132.46	53.1	5.4	6.29
16.:51	1145.06	1141.52	65.2	4.4	4.73
18:00	1154..98	1151.42	76	3.8	2.95
19:45	1164.35	1160.77	75.7	3.5	0.96
22:50	1183.41	1179.79	69.3	3.3	0.67
2:10	1202.43	1198.78	61.4	3.4	0.74

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	1	2	N°	
Size	159	159		[mm]
Mfg	Hughes	Hughes		-
Type	STX-1	QD406FX		-
Serial	5177714	7032271		-
Nozzle	3 X 15.9	4x12.7 2x8.7		[mm²]
WOB	4	10		[daN]
RPM	50	40/140		[tr/min]
Flow				[gal/s]
Pres	7565			[kPa]
From	936	940.54		[m]
To	940.54			[m]
Drilled	4.54			[m]
Hours	2.25			[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	11	239	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	20	102	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	20,708	7331	13377	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	2	8	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 9

Date : 23/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*Sunny*	mKB	149.97	Daily MD	85	Daily Costs	$35,000	est.
Wind	light	mGL	145.7	Total MD	1317	Cum Costs	$700,700	
Temperature	19 Deg C	24h Avg ROP	5.8	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Rotate and slide from 1190 to 1317 mKB.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries	Hrs since last Medical Treatment Case		216
IEC	3	IEC	0	None to report	Hrs since last Lost Time Incident		216
Rig	12	Rig	0		H_2S Level 0	Trip Drill	
Others	8	Others	0		CO_2 Level 0	Pit Drill	
Total	23	Total	0		Gas Level 3500	BOP Drill	21/06/2013

			Safety Meetings / Tool Box Talks
Rig Manager	Greg McKinnon	(905) 371 4614	7:00 Safety Meeting: snub line condition/ Trapped torque in top drive/ Personal hydration.
Company Man	Victor Leroux	(780) 678 5108	Weekly Rig Inspection conducted by Vic Leroux/ Dave White HSE/ Greg MacKinnon
Company Man	Travis Young	(709) 721 1994	19:00 Stabbing Valve

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Friars Cove
LITHOLOGY : Interbedded sandstone, siltstone.
SHOWS : No shows.

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	1232	Drill f/ 1190m to 1232m.
7:00	7:15	1232	Safety Meeting : Snub line condition/ Trapped torque in top drive/ Personal hydration.
7:15	9:15	1245	Drill f/1232m to 1245m.
9:15	9:30	1245	Rig Service: Function Annular Preventer 10 seconds to close.
9:30	12:00	1256	Drill f/1245m to 1256m.
12:00	19:00	1290	Drill f/ 1256m to 1290m.
19:00	19:15		Safety Meeting stabbing valve.
19:15	0:00	1317	Drill f/ 1290m to 1317m.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1341	Drill f/ 1317m to 1341m.

RIG TIME (operation duration in hours)

Drilling	23.25	Weld Bowl		Cement		Safety/BOP	0.5	Rig move	
Rig Service	0.25	DST		WOC		Reaming		DIR Work	
Tripping		Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair		Other		**TOTAL**	24
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

POOH for bit inspection since ROP has dropped significantly.

Date : 23/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	polymer base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1130		[kg/m³]
Viscosity	46		[s/l]
P.V.	15		[cp]
Y.P.	5		[g/100cm²]
Gels 10"/10'	2		
Temperature			
Pressure	9913		
pH	10		

Solids	6	[kg/m³]
Sands	0.5	[%]
OWR		[%]
MBT		[kg/m³]
Cl-		[mg/L]
Calcium	400	[mg/L]

Volumes Balance

Vol hauled	6	[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,631.00	
Cum Mud Cost	$17,975.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	3	Bags
Baracarb		Bags
Defoamer		Pails

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	7.49	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.87	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	70	[min]
Bottom Up	28	[min]
Mud Tank	33.78	[m³]
Hole Volume	23.75	[m³]
System Vol.	58.75	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
2:10	1202.43	1198.78	61.4	3.4	0.74
5:31	1221.72	1218	50.5	3.4	1
8:29	1240.6	1236.88	44.9	3.7	0.73
10:10	1250.42	1246.68	49.9	3.6	1.02
12:13	1259.81	1256.05	59.8	3.7	1.11
12:35	1269.27	1265.49	69.2	3.2	1.36
17:05	1278.68	1274.89	77.5	3.4	1.51
18:40	1288.1	1284.29	87.5	3.3	1.59
20:25	1297.53	1293.71	111.1	2.7	1.52
23:45	1316.43	1312.6	150.9	1.6	1.13

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	1	2	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	STX-1	QD406FX	-
Serial	5177714	7032271	-
Nozzle	3 X 15.9	4x12.7 2x8.7	[mm²]
WOB	4	10	[daN]
RPM	50	40/140	[tr/min]
Flow			[gal/s]
Pres	7565		[kPa]
From	936	940.54	[m]
To	940.54	1344	[m]
Drilled	4.54	404	[m]
Hours	2.25	65	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	16	234	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	27	95	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	20,708	8062	16646	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	4	6	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 10

Date : 24/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*cloudy*	mKB	149.97	Daily MD	17	Daily Costs	$43,800	est.
Wind	light	mGL	145.7	Total MD	1355	Cum Costs	$745,300	
Temperature	15 Deg C	24h Avg ROP	4.2	Expected MD	1980	AFE	$2,410,000	

Summary of Daily Operations: Drill from 1137m to 1356 mRF. POOH, check PDC bit and install Gamma tool. Run Gamma from 1339 to 1344 mRF.

SAFETY SUMMARY

Workers on site		Workers Injured	
IEC	3	IEC	0
Rig	12	Rig	0
Others	10	Others	0
Total	25	Total	0

Incidents / Injuries: None to report

Hrs since last Medical Treatment Case	240		
Hrs since last Lost Time Incident	240		
H_2S Level	0	Trip Drill	
CO_2 Level	0	Pit Drill	
Gas Level	10000	BOP Drill	24/06/2013

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Tripping proceedures/Work short handed.
19:00	Flow check security

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Friars Cove.
LITHOLOGY : Medium to course grained pebbly sandstone, quartz and chert rich, poorly sorted.
SHOWS : No shows.

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	5:00	1338	Drill f/1317m to 1338m.
5:00	5:15	1338	Rig service. Function pipe ram (4 sec. to close).
5:15	7:00	1345	Drill f/ 1338m to 1344.51m.
7:00	7:15	1345	Lay down 2 drill pipe. Safety Meeting (tripping proceedures/work short handed).
7:15	7:30	1345	Flow check @1335m.
7:30	8:15	1345	Trip out of hole f/ 1328m to 1263m.
8:15	8:30	1345	Flow check @1263m.
8:30	9:45	1345	Trip out of hole f/ 1263m to 664m.
9:45	10:00	1345	Flow check @ 664m.
10:00	11:15	1345	Trip out of hole f/ 664m to 144.57m
11:15	11:30	1345	Flow check @ 144.57m.
11:30	11:45	1345	Function pipe ram (4 sec. to close).
11:45	12:00	1345	Safety meeting: BOP trip drill. Install stabbing valve & function.
12:00	13:00	1345	Trip out of hole f/144m to 0m.
13:00	13:15	1345	Flow check while out of hole (Function Blind Rams).
13:15	14:00	1345	Pick up 3rd party tools. Switch MWD battery pack, pick up Gamma Tool & run in hole with Choice Directional assembly (re-run Bit #2).
14:00	16:00	1345	Trip in hole f/ 73.25m to 643m.
16:00	16:15	1345	BOP drill with new crew. Well secured 1min. 40 sec.
16:15	18:00	1345	Downtime: set up brakes, tighten draw works chain. Change oil in torque converter.
18:00	19:15	1345	Trip in hole f/ 643m to 1329 mRF. Safety meeting (Flow Check Security).
19:15	20;15	1345	Pick up top drive, and run Gamma from 1329.45 to 1338.91 mRF.
20:15	21:30		Down time - Mud pump replace valve.
21:30	21:45	1345	Pick up top drive, and run Gamma from 1329.45 to 1344.51m.
21:45	0:00	1355	Drill from 1344.51m - 1355m.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1355	Drill from 1355m - 1379m.

RIG TIME (operation duration in hours)

Drilling	9	Weld Bowl		Cement		Safety/BOP	0.75	Rig move			
Rig Service	0.25	DST		WOC		Reaming		Flow Check	1.25		
Tripping	8.5	Logging		Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair	3	Other	1.25	**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**3**		

24 HOURS FORECAST

RIH with gamma tools in drill string. Continue drilling ahead with directional tools to core point. Pull out of hole to pick up core bbls.

Date : 24/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		Solids	6	[kg/m³]
Mud Co	Baroid		Sands	0.5	[%]
Time Check	7:00		OWR		[%]
Mud Man	L. Anthony		MBT		[kg/m³]
Density	1120	[kg/m³]	Cl-	45000	[mg/L]
Viscosity	47	[s/l]	Calcium	320	[mg/L]
P.V.	14	[cp]			
Y.P.	5	[g/100cm²]			
Gels 10"/10'	2				
Temperature					
Pressure	9913				
pH	10				

Volumes Balance

Vol hauled	11	[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995.00	
Cum Mud Cost	$18,970.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Baracarb		Bags
Defoamer		Pails

COMMENTS

Maintain viscosity to 45-50 s/L with n-drill (cello size). Maintain wt. As low as possible by using screens as fine as possible.

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	7.49	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.87	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	28	[min]
	Mud Tank	33.78	[m³]
	Hole Volume	23.75	[m³]
	System Vol.	58.75	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
23:45	1316.43	1312.6	150.9	1.6	1.13
21:35	1325.83	1322	147.2	1.2	0.93
23:40	1335.24	1331.4	140.8	1	0.78
	1354.13	1350.29	124.1	0.9	0.57

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	2	2RR	N°	
Size	159	159		[mm]
Mfg	Hughes	Hughes		-
Type	QD406FX	QD406FX		-
Serial	7032271	7032271		-
Nozzle	4x12.7 2x8.7	4x12.7 2x8.7		[mm²]
WOB	7	7		[daN]
RPM	40/140	40/140		[tr/min]
Flow		97		[l/min]
Pres	9500	10600		[kPa]
From	940.54	1344.51		[m]
To	1344.51	1355		[m]
Drilled	403.97	10.49		[m]
Hours	65	2		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	16	234	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	27	95	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	28,372	12316	16056	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	4	6	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 11

Date : 25/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*cloudy*	mKB	149.97	Daily MD	50	Daily Costs	$36,400 est.
Wind	light	mGL	145.7	Total MD	1426	Cum Costs	$780,300
Temperature	15 Deg C	24h Avg ROP	3.3	Expected MD	1970	AFE	$2,410,000

Summary of Daily Operations: Drill and slide from 1376.3 m to 1426 mRF.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries	Hrs since last Medical Treatment Case	264
IEC	2	IEC	0		Hrs since last Lost Time Incident	264
Rig	11	Rig	0	None to report	H_2S Level 0 Trip Drill	
Others	8	Others	0		CO_2 Level 0 Pit Drill	
Total	21	Total	0		Gas Level 10000 BOP Drill	

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Lock outs when working on equipment & electricity
Company Man	Travis Young	(709) 721 1994		
			19:00	Tripping operations pay attention to prevent injury

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Snakes Bight
LITHOLOGY : Interbedded ss, sltst and ls
SHOWS : no shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:45	1376	Drill f/1355 m to 1376.30 mRF
6:45	7:00	1376	Safety meeting: lock outs when working on equipment & electricity
7:00	7:30	1376	Downtime: mud system work on lubricator pump
7:30	8:15	1384	Drill from 1376.3 to 1384.2 mRF
8:15	9:30	1384	Downtime- Mud system Work on valve seals on mud pump
9:30	12:00	1393	Drill f/1384.2 to 1392.7 mRF
12:00	15:00	1405	Drill f/1392.7 to 1405 mRF
15:00	16:45	1411	Slide f/1405 to 1411.3 mRF
16:45	19:00	1417	Drill f/1411.32 to 1417mRF
19:00	19:15	1417	Safety meeting
19:15	21:30	1423	Drill f/1417 to 1423 mRF
21:30	21:45	1423	Rig Service
21:45	23:45	1426	Drill f/1423 to 1426 mRF
23:45	0:00	1426	Condition mud and circulate

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1438	Slide f/ 1426-1438mRF

RIG TIME (operation duration in hours)

Drilling	21.25	Weld Bowl		Cement		Safety/BOP	0.5	Rig move	
Rig Service	0.25	DST		WOC		Reaming		Flow check	
Tripping		Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.	0.25	Handle Tools		Repair	1.75	Other		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**1.25**

24 HOURS FORECAST

Continue drilling/sliding ahead with directional tools to core point. Pull out of hole to pick up core bbls/ core

Date : 25/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		Solids		7	[kg/m³]
Mud Co	Baroid		Sands		0.5	[%]
Time Check	7:00		OWR			[%]
Mud Man	L. Anthony		MBT		0	[kg/m³]
			Cl-		45000	[mg/L]
Density	1120	[kg/m³]	Calcium		320	[mg/L]
Viscosity	46	[s/l]				
P.V.	14	[cp]				
Y.P.	5	[g/100cm²]				
Gels 10"/10'	2					
Temperature						
Pressure	9913					
pH	9.5					

Volumes Balance

Vol hauled	13	[m³]
Vol dumped	4	[m³]
Circ loss	0	[m³]
Boiler loss	0	[m³]
Daily Mud Cost	$1,842.84	
Cum Mud Cost	$20,812.84	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	4	Bags
Baracarb		Bags
Defoamer		Pails

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	7.49	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.87	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	70	[min]
Bottom Up	28	[min]
Mud Tank	33.78	[m³]
Hole Volume	23.75	[m³]
System Vol.	58.75	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
4:05	1373.13	1369.29	152.5	0.4	0.43
7:45	1382.56	1378.72	330.3	0.5	0.43
11:55	1392.01	1388.17	329.7	1.5	0.58
13:55	1401.41	1397.56	336	2.7	0.89
16:25	1410.78	1406.92	337.05	3.6	1.36
20:05	1420.25	1416.37	341.5	3.2	1.88

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	2	2RR	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	QD406FX	QD406FX	-
Serial	7032271	7032271	-
Nozzle	4x12.7 2x8.7	4x12.7 2x8.7	[mm²]
WOB	7	7	[daN]
RPM	40/140	40/140	[tr/min]
Flow		97	[l/min]
Pres	9500		[kPa]
From	940.54	1344.51	[m]
To	1344.51		[m]
Drilled	403.97		[m]
Hours	65		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	16	234	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	31	91	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	28,372	12316	16056	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	4	6	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 12

Date : 26/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*cloudy*	mKB	149.97	Daily MD	58	Daily Costs	$40,600	est.
Wind	light	mGL	145.7	Total MD	1484	Cum Costs	$831,500	
Temperature	15 Deg C	24h Avg ROP	2.3	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill and slide to 1484m

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries	Hrs since last Medical Treatment Case			288
IEC	2	IEC	0	None to report	Hrs since last Lost Time Incident			288
Rig	11	Rig	0		H_2S Level	0	Trip Drill	
Others	8	Others	0		CO_2 Level	0	Pit Drill	
Total	21	Total	0		Gas Level	10000	BOP Drill	

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	PPE, 3 point contact with handrails and steps when using stairs. No running on location
Company Man	Travis Young	(709) 721 1994		
			22:45	High voltage line on mud tank

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Snakes Bight.
LITHOLOGY : Limestone, with interbeds sandstone.
SHOWS : No shows.

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15	1426	Flow check Function annular 11 sec to close
0:15	0:45	1428	Rotate 2 meters 1426 to 1428m
0:45	6:00	1438	Drill 1428 to 1438m (Sliding)
6:00	6:30	1438	Downtime - Mud Pump
6:30	9:00	1442	Drill 1438 to 1442m (Sliding). Safety Meeting
9:00	9:15	1442	Rig Service; Function pipe ram 4 sec. to close
9:15	9:45	1442	Downtime - Mud Pump
9:45	12:00	1452	Drill 1442 to 1451.6m (Rotating)
12:00	19:00	1471	Drill 1451.6 to 1471.3m
19:00	22:45	1481	Drill 1471.3 -1481m
22:45	23:00	1481	Safety meeting and rig service.
23:00	0:00	1484	Drill f/ 1481 -1484m Function test Annular ok 6sec to close.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	4:45	1490	Drill f/ 1484-1489.5m Test GAS Logger all ok
4:45	5:00	1490	Condition Mud & Circulate
5:00	5:15	1490	Flow Check 1484
5:15	6:00	1497	Drill f/ 1489.5 - 1496.7m

RIG TIME (operation duration in hours)

Drilling	22.25	Weld Bowl		Cement		Safety/BOP	0.5	Rig move	
Rig Service	0.25	DST		WOC		Reaming		Flow check	
Tripping		Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair	1	Other		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**1**

24 HOURS FORECAST

Continue drilling/sliding ahead with directional tools to core point. Pull out of hole to pick up core bbls/ core

Date : 26/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1130		[kg/m^3]
Viscosity	47		[s/l]
P.V.	16		[cp]
Y.P.	5		[g/100cm^2]
Gels 10"/10'	2		
Temperature			
Pressure	9913		
pH	9.5		

Solids		7	[kg/m^3]
Sands		0.5	[%]
OWR			[%]
MBT		0	[kg/m^3]
Cl-		45000	[mg/L]
Calcium		360	[mg/L]

Volumes Balance

Vol hauled	13	[m^3]
Vol dumped	4	[m^3]
Circ loss	0	[m^3]
Boiler loss	0	[m^3]
Daily Mud Cost	$995.00	
Cum Mud Cost	$21,807.84	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Baracarb		Bags
Defoamer		Pails

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	7.49	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.87	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m^3/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	28	[min]
	Mud Tank	33.78	[m^3]
	Hole Volume	23.75	[m^3]
	System Vol.	58.75	[m^3]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
0:00	1410	1406	337.5	3.6	1.36
3:30	1420	1416	341.5	3.2	1.88
9:45	1429	1426	345.1	2.2	2.32
1:25	1439	1435	0.6	1.7	2.64
11:05	1448.81	1444.91	4.8	2	2.94
14:15	1458.3	1454.39	355.7	2.8	2.79
17:15	1467.84	1463.92	343.5	3.4	2.79

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	2	2RR	N°	
Size	159	159		[mm]
Mfg	Hughes	Hughes		-
Type	QD406FX	QD406FX		-
Serial	7032271	7032271		-
Nozzle	4x12.7 2x8.7	4x12.7 2x8.7		[mm^2]
WOB	7	7		[daN]
RPM	40/140	40/140		[tr/min]
Flow		97		[l/min]
Pres	9500	9200		[kPa]
From	940.54	1344.51		[m]
To	1344.51			[m]
Drilled	403.97			[m]
Hours	65	46.5		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	16	234	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	31	91	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	28,372	14226	14146	liters
Drill Water	21.8		21.8	[m^3]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	4	6	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m^3]
Volume	50	[m^3]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m^3]
Volume		[m^3]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m^3]
UF density		[kg/m^3]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

ROP decreasing to 1.88-2.05 m/hr.

Centrifuge arrive onsite need boom truck to set up. Sparks will arrive onsite June 27 2013 in the a.m

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 13

Date : 27/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*cloudy*	mKB	149.97	Daily MD	20	Daily Costs	$40,200	est.
Wind	light	mGL	145.7	Total MD	1510	Cum Costs	$875,900	
Temperature	15 Deg C	24h Avg ROP	2.1	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill ahead to 1510m. POOH, pick up new PDC bit, mud motor and RIH with gamma tool.

SAFETY SUMMARY

Workers on site		Workers Injured	
IEC	4	IEC	0
Rig	11	Rig	0
Others	7	Others	0
Total	21	Total	0

Incidents / Injuries: None to report

Hrs since last Medical Treatment Case	312		
Hrs since last Lost Time Incident	312		
H_2S Level	0	Trip Drill	
CO_2 Level	0	Pit Drill	
Gas Level	50	BOP Drill	

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Fall protection/Safety harness
0:15	Working around moving objects

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Snakes Bight
LITHOLOGY : Interbeds of sandstone and siltstone.
SHOWS : Moderate to bright yellow, direct fluorescence, with a faint residual white cut.

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	4:45	1490	Drill f/ 1484-1489.5m. Test gas logger: all ok.
4:45	5:00	1490	Condition Mud and Circulate
5:00	7:00	1498	Drill f/ 1489.75m to 1498.17m
7:00	10:30	1507	Drill f/ 1498.17 to 1506.64m
10:30	10:45	1507	Rig service. Function pipe ram 4 sec. to close. Rig in power to centrifuge.
10:45	12:00	1510	Drill f/ 1506.64 to 1509.5m
12:00	13:00	1510	Down time: check electronics on pump engine with electrician
13:00	17:30	1510	Trip out of hole, Flow check @ 1509m,752m,114.5m, Out of Hole
17:30	17:45	1510	Rig service. Function blind ram 4 sec. to close
17:45	19:00	1510	Pick up third party tools. Handle Choice directional tools
19:00	19:45	1510	Trip in hole with directional assembly & gamma tool. Flow check @132m
19:45	20:30	1510	Slip & cut drilling line.
20:30	0:00	1510	Trip in hole Flow check @742m

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15	1509.5	Safety meeting
0:15	4:00	1509.5	Mud pump down foam into mud + shear pin detected sheared in POP Valve after all system was checked.
4:00	6:00	1517.5	Drill f/ 1509.5 - 1517.5m

RIG TIME (operation duration in hours)

Drilling	9.5	Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service		DST		WOC		Reaming		Flow check	1		
Tripping	9.75	Logging		Nipple U/D		Slip and Cut	0.75				
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.	0.25	Handle Tools	1.25	Repair	1	Other		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**1**		

24 HOURS FORECAST

Continue drilling/sliding ahead with directional tools to core point. Pull out of hole to pick up core bbls/ core

Date : 27/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	polymer base		Solids	7	[kg/m³]
Mud Co	Baroid		Sands	0.5	[%]
Time Check	7:00		OWR		[%]
Mud Man	L. Anthony		MBT	0	[kg/m³]
			Cl-	44000	[mg/L]
Density	1120	[kg/m³]	Calcium	400	[mg/L]
Viscosity	47	[s/l]			
P.V.	15	[cp]			
Y.P.	5	[g/100cm²]			
Gels 10"/10'	2				
Temperature					
Pressure	11900				
pH	9				

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss	0	[m³]
Boiler loss	0	[m³]
Daily Mud Cost	$1,608.10	
Cum Mud Cost	$23,416.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Baracarb		Bags
Defoamer	2	Pails

COMMENTS

Cum mud costs include Mud engineer day rate. ($995/day)

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	9.14	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.89	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	70	[min]
Bottom Up	28	[min]
Mud Tank	33.78	[m³]
Hole Volume	23.75	[m³]
System Vol.	58.75	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
17:15	1467.84	1463.92	343.5	3.4	2.79
0:45	1486.8	1482.83	345.7	4.9	2.39
5:45	1496.91	1492.9	347.8	5.3	1.31

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	2	3	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	QD406FX	QD406FX	-
Serial	7032271	7029738	-
Nozzle	4x12.7 2x8.7	4x12.7 2x8.7	[mm²]
WOB	7	7	[daN]
RPM	40/140	40/140	[tr/min]
Flow		97	[l/min]
Pres	9500	9200	[kPa]
From	940.54	1509.5	[m]
To	1509.5		[m]
Drilled	586.96		[m]
Hours	122.5	2	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	16	234	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	31	91	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	28,372	15952	12420	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	6	4	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[gal/s]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

Occupational Health & Safety were on location for an inspection on the 27/06.

Mud pump down checked all system for possible leaks and washouts, shear pin detected sheared in Mud Pump Pop Valve on final check.

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 14

Date : 28/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*rain*	mKB	149.97	Daily MD	63.5	Daily Costs	$38,600	est.
Wind	light	mGL	145.7	Total MD	1573	Cum Costs	$914,500.00	
Temperature	12	24h Avg ROP	3.5	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill and slide from 1509.5 to 1573m. Trouble shot mud pump and fix leak.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries		
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	312
Rig	11	Rig	0		Hrs since last Lost Time Incident	312
Others	7	Others	0		H_2S Level 0	Trip Drill
Total	21	Total	0		CO_2 Level 0	Pit Drill
					Gas Level 50	BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Working around moving equipment/pump lockouts
Company Man	Travis Young	(709) 721 1994		
			19:30	Stabbing valve / function motor kills

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Snakes Bight (?)
LITHOLOGY : Conglomerate
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15	1510	Safety meeting
0:15	4:00	1510	Mud pump down foam into mud + shear pin detected sheared in POP Valve after all system was checked.
4:00	7:30	1527	Drill f/ 1509.5 to 1517.5m
7:30	8:00	1527	Circulate up sample
8:00	8:45	1531	Drill f/ 1526.6 to 1530.73m
8:45	9:00	1531	Rig service: function HCR, 3sec to open
9:00	12:00	1543	Drill f/ 1530.73 to 1542.73m
12:00	15:45	1558	Drill f/ 1542.73 to 1557.58m
15:45	16:45	1558	Downtime - Repair mud pump
16:45	19:30	1567	Drill f/ 1557.58 to 1567.33m
19:30	19:45	1567	Rig service/Safety meeting: function motor kills & stabbing valve
19:45	0:00	1573	Drill f/ 1567.33 to 1573.00m

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1586	Drill f/ 1573 to 1586m

RIG TIME (operation duration in hours)

Drilling	18	Weld Bowl		Cement		Safety/BOP	0.25	Rig move			
Rig Service	0.5	DST		WOC		Reaming		DIR Work			
Tripping		Logging		Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.	0.5	Handle Tools		Repair	4.75	Other		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**4.75**		

24 HOURS FORECAST

Continue drilling/sliding ahead with directional tools to core point. Pull out of hole to pick up core bbls/ core

Date : 28/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1095		[kg/m^3]
Viscosity	47		[s/l]
P.V.	15		[cp]
Y.P.	4.5		[g/100cm^2]
Gels 10"/10'	2		
Temperature			
Pressure	11900		
pH	9		

Solids		5	[kg/m^3]
Sands		0.5	[%]
OWR			[%]
MBT		0	[kg/m^3]
Cl-		454000	[mg/L]
Calcium		440	[mg/L]

Volumes Balance

Vol hauled		[m^3]
Vol dumped		[m^3]
Circ loss	0	[m^3]
Boiler loss	0	[m^3]
Daily Mud Cost	$1,694	
Cum Mud Cost	$25,110	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Baracarb	2	Bags
Defoamer	2	Pails

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	9.14	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.89	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m^3/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	28	[min]
	Mud Tank	33.78	[m^3]
	Hole Volume	23.75	[m^3]
	System Vol.	58.75	[m^3]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
4:45	1497	1493	347.9	5.4	1.31
7:00	1507	1502.3	346.2	5.8	1.66
9:35	1534	1548	49.4	2.7	1.85
12:05	1543.58	1539.44	82.5	3.8	6.81
14:15	1553.17	1549.01	109.5	4.1	5.84

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	2	3	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	QD406FX	QD406FX	-
Serial	7032271	7029738	-
Nozzle	4x12.7 2x8.7	4x12.7 2x8.7	[mm^2]
WOB	7	7	[daN]
RPM	40/140	40/140	[tr/min]
Flow		97	[l/min]
Pres	9500	9200	[kPa]
From	940.54	1509.5	[m]
To	1509.5		[m]
Drilled	586.96		[m]
Hours	122.5	20	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	18	232	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27		27	sacs
Cellosize	122	31	91	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	36,156	15952	12420	liters
Drill Water	21.8		21.8	[m^3]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	Sacs
Defoamer	10	8	2	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]
Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m^3]
Volume	50	[m^3]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]
Last Cement		
Date		
Class		
Density		[kg/m^3]
Volume		[m^3]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1075	[kg/m^3]
UF density	1730	[kg/m^3]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Drilling is slow due to drilling conglomerate formation.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 15

Date : 29/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*rain*	mKB	149.97	Daily MD	-1586	Daily Costs	$50,300	est.
Wind	light	mGL	145.7	Total MD	1604	Cum Costs	$974,700	
Temperature	12	24h Avg ROP	1.9	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Trip out of hole to change bit. RIH with insert bit and continue drilling ahead to 1604m.

SAFETY SUMMARY

Workers on site		Workers Injured	
IEC	4	IEC	0
Rig	11	Rig	0
Others	7	Others	0
Total	21	Total	0

Incidents / Injuries: None to report

Hrs since last Medical Treatment Case	360		
Hrs since last Lost Time Incident	360		
H_2S Level	0	Trip Drill	
CO_2 Level	0	Pit Drill	
Gas Level	25ppm	BOP Drill	

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Working in the rain, Watch footing/Slippery surfaces
19:00	Keep a look out for falling objects from derrick when tripping

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Snakes Bight (?)
LITHOLOGY : Conglomerate
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	1586	Drill from 1573.62 to 1596m
7:00	7:15		Safety Meeting
7:15	10:45	1596	Drill from 1586 to 1596m
10:45	11:00	1596	Rig service. Function annular 11 sec to close
11:00	12:00	1597	Drill from 1596 to 1597.2m
12;00	12:30	1598	Drill from 1597.2 to 1597.6m
12:30	16:00	1598	Trip out of hole Flow Check @1590m, 772m, 188m, Out of hole. Rig function blind ram. 4 sec. to close
16:00	19:15	1598	Trip in hole with bit #4 (547) and same mud motor.
19:15	19:30		Flow check before circulation
19:30	20:00		Condition mud and circulate. Safety meeting
20:00	0:00	1604	Drill from 1597 to 1604m

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1615	Drill from 1604 to 1615m

RIG TIME (operation duration in hours)

Drilling	16.25	Weld Bowl		Cement		Safety/BOP	0.25	Rig move	
Rig Service	0.25	DST		WOC		Reaming		Flw check	0.75
Tripping	6	Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.	0.5	Handle Tools		Repair		Other		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

Continue drilling/sliding ahead with directional tools to core point. Pull out of hole to pick up core bbls.

Date : 29/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		Solids	5	[kg/m³]
Mud Co	Baroid		Sands	0.5	[%]
Time Check	7:00		OWR		[%]
Mud Man	L. Anthony		MBT	7	[kg/m³]
			Cl-	42000	[mg/L]
Density	1090	[kg/m³]	Calcium	400	[mg/L]
Viscosity	47	[s/l]			
P.V.	14	[cp]			
Y.P.	5	[g/100cm²]			
Gels 10"/10'	2				
Temperature					
Pressure	11700				
pH	8				

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$2,052	
Cum Mud Cost	$27,162	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	2	Bags
Bi-acarb	2	Bags
Defoamer	1	Pails
N-Vis	1	Bags

COMMENTS

Cum mud costs include Mud engineer day rate. ($995/day)

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	9.14	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.89	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	28	[min]
	Mud Tank	33.78	[m³]
	Hole Volume	23.75	[m³]
	System Vol.	58.75	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
14:15	1553.17	1549.01	109.5	4.1	5.84
21:55	1571.97	1567.76	131	4.5	2.63
8:25	1581.36	1577.12	137	4.8	1.82
22:15	1600	1596.21	139.2	5.5	1.14

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	3	4	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	QD406FX	STX-35DX	-
Serial	7029738	5217719	-
Nozzle	4x12.7 2x8.7	3 x 15.9	[mm²]
WOB	8	7	[daN]
RPM	40/140	40/140	[tr/min]
Flow	94	97	[l/min]
Pres	11400	9200	[kPa]
From	1509.5	1597.6	[m]
To	1597.6		[m]
Drilled	88.1		[m]
Hours	30.25	1	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	18	232	sacs
Baroseal (M)	80		80	sacs
Soda Ash	10		10	sacs
N-Vis Plus	27	1	26	sacs
Cellosize	122	31	91	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	10	20	sacs
Fuel	36156	20927	15229	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	sacs
Defoamer	10	9	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

	United	
Make		
OF density	1080	[kg/m³]
UF density	1750	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Drilling is slow due to drilling conglomerate formation. Pulled bit #3 Nose cutters & shoulder cutters worn flat due to formation.
Stop centrifuge @ 00:00 restart @ 04:00
WOB 12-13 kdaN ROP still in range of 1.75-2.25m/hr.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 16

Date : 30/06/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*rain*	mKB	149.97	Daily MD	45.5	Daily Costs	$39,400	est.
Wind	light	mGL	145.7	Total MD	1661.5	Cum Costs	$1,017,000	
Temperature	10	24h Avg ROP	2.4	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill ahead from 1604m to 1662m.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries	Hrs since last Medical Treatment Case	384	
IEC	4	IEC	0	None to report	Hrs since last Lost Time Incident	384	
Rig	11	Rig	0		H_2S Level	0	Trip Drill
Others	7	Others	0		CO_2 Level	0	Pit Drill
Total	21	Total	0		Gas Level	25ppm	BOP Drill

			Safety Meetings / Tool Box Talks
Rig Manager	Greg McKinnon	(905) 371 4614	
Company Man	Victor Leroux	(780) 678 5108	7:00 No loose or torn clothing while working around moving equipment
Company Man	Travis Young	(709) 721 1994	
			19:00 Safety Meeting (MSDS sheet review, proper PPE when handling mud products)

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Snakes Bight (?)
LITHOLOGY : Conglomerate
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	5:30	1616	Drill from 1604 to 1616m
5:30	5:45	1616	Rig service: tighten drawworks chains. Function Annular BOP: 12 sec to close
5:45	7:00	1618	Drill from 1616m to 1618m
7:00	7:15	1618	Safety Meeting (No loose or torn clothing to be worn while working around moving equipment)
7:15	12:00	1635	Drill from 1618m to 1634.56m
12:00	19:00	1652	Drill from 1634.56m to 1652.15m
19:00	19:15		Safety Meeting (MSDS sheet review, proper PPE when handling mud products)
19:15	19:30		Rig service grease and inspect top drive
19:30	0:00	1662	Drill from 1652.15m to 1661.5m

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00	1672	Drilled from 1661.5 to 1672.09m

RIG TIME (operation duration in hours)

Drilling	23	Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service	0.5	DST		WOC		Reaming		Flow check			
Tripping		Logging		Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair		Other		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**			

24 HOURS FORECAST

Continue drilling/sliding ahead with directional tools to core point. Pull out of hole to pick up core bbls/ core

Date : 30/06/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		Solids	5.5	[kg/m³]
Mud Co	Baroid		Sands	0.5	[%]
Time Check	7:00		OWR		[%]
Mud Man	L. Anthony		MBT	7	[kg/m³]
			Cl-	42000	[mg/L]
Density	1100	[kg/m³]	Calcium	480	[mg/L]
Viscosity	47	[s/l]			
P.V.	15	[cp]			
Y.P.	5	[g/100cm²]			
Gels 10"/10'	2				
Temperature					
Pressure	11000				
pH	7.5				

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$2,272	
Cum Mud Cost	$29,435	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	2	Bags
Bi-acarb		Bags
Defoamer	2	Pails
N-Vis	1	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	9.14	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.89	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	70	[min]
Bottom Up	28	[min]
Mud Tank	33.78	[m³]
Hole Volume	23.75	[m³]
System Vol.	58.75	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
7:20	1619.39	1614.99	5.3	136.7	0.49
13:25	1638.15	1633.67	4.9	136.9	0.64
21:20	1656.98	1652.44	4.6	138.2	0.51

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	4	N°
Size	159	[mm]
Mfg	Hughes	-
Type	STX-35DX	-
Serial	5217719	-
Nozzle	3 x 15.9	[mm²]
WOB	12	[daN]
RPM	40/140	[tr/min]
Flow	830	[l/min]
Pres	11000	[kPa]
From	1597.6	[m]
To	1661.5	[m]
Drilled	121.4	[m]
Hours	24	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	8	242	sacs
Baroseal (M)	80		80	sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	27	95	sacs
Barathin	15		15	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	36156	22836	13320	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20		20	sacs
Sodium	576	5	571	sacs
Defoamer	15	11	4	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface		***Last Casing***		
Date	07/12/2005		Date		
grade	H-40	-	grade		-
diam	177.8	[mm]	diam		[mm]
Lin Weight	25.3	[kg/m]	Lin Weight		[kg/m]
Nb Joint		-	Nb Joint		-
Set at	323	[m]	Set at		[m]
Length	323	[m]	Length		[m]
Burst	16000	[kPa]	Burst		[kPa]
Collapse	10000	[kPa]	Collapse		[kPa]
Tensile	54000	[daN]	Tensile		[daN]
TEST			TEST		
Date	17/06/2013		Date		
Pressure	11250	[kPa]	Pressure		[kPa]
Last Cement	Plug		***Last Cement***		
Date	16/12/2005		Date		
Class	A		Class		
Density	1520	[kg/m³]	Density		[kg/m³]
Volume	50	[m³]	Volume		[m³]
Time to GL		[min]	Time to GL		[min]
Additives			Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1720	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 17

Date : 01/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107 Page 1/2

Weather @ 8:00	*rain*	mKB	149.97	Daily MD	34	Daily Costs	$40,300	est.
Wind	light	mGL	145.7	Total MD	1708	Cum Costs	$1,062,800	
Temperature	10	24h Avg ROP	2	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill ahead from 1662 to 1708m.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries		
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	408
Rig	11	Rig	0		Hrs since last Lost Time Incident	408
Others	7	Others	0		H_2S Level 0	Trip Drill
Total	21	Total	0		CO_2 Level 0	Pit Drill
					Gas Level 25ppm	BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Caution to be used when working around hydraulic and high pressure lines. Smoke in designated areas only.
19:00	Short change hrs possible lack of sleep drive with caution and working

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Snakes Bight (?)
LITHOLOGY : Interbedded conglomerate and sandstone
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:45	1674	Drilled from 1661.5 to 1673.95m
6:45	7:00	1674	Rig Service. Function Annular BOP: 12 sec. to close
7:00	7:15	1674	Safety Meeting: caution around hydraulic and high pressure lines / smoke in designated areas only
7:15	12:00	1684	Drill from 1673.95m to 1684.31m
12:00	13:45	1687	Drill from 1684.31 to 1687.48m
13:45	14:30	1687	Downtime: NOV system down due to error with server connection. Trouble shoot with NOV Helpdesk
14:30	19:00	1696	Drill from 1687.48 to 1696m
19:00	19:15		Safety Meeting : short change hours
19:15	0:00	1708	Drill from 1696 to 1708m.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	3:00	1715	Drill and slide from 1708 to 1715.08m
3:00	3:15		Rig service. Test Annular BOP.
3:15	6:00		Drill and slide from 1718.08 to 1727m

RIG TIME (operation duration in hours)

Drilling	22.5	Weld Bowl		Cement		Safety/BOP	0.5	Rig move	
Rig Service	0.25	DST		WOC		Reaming		Flow check	
Tripping		Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair		Other	0.75	**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**0.75**

24 HOURS FORECAST

Continue drilling/sliding ahead with directional tools to core point. Pull out of hole to pick up core bbls/ core

Date : 01/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		Solids	5	[kg/m³]
Mud Co	Baroid		Sands	0.5	[%]
Time Check	7:00		OWR		[%]
Mud Man	L. Anthony		MBT	7	[kg/m³]
Density	1095	[kg/m³]	Cl-	40000	[mg/L]
Viscosity	47	[s/l]	Calcium	360	[mg/L]
P.V.	17	[cp]			
Y.P.	7.5	[g/100cm²]			
Gels 10"/10'	2				
Temperature					
Pressure	10250				
pH	7.5				

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	$2,936
Cum Mud Cost	$32,370

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	2	Bags
Bi-acarb		Bags
Defoamer	1	Pails
N-Vis	3	Bags
Barathin	4	Bags
barabuf	1	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	78-3.8 Choice Mud Motor		121	9.14	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.89	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	30	[min]
	Mud Tank	34.35	[m³]
	Hole Volume	23.75	[m³]
	System Vol.	58.1	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
6:00	1656.98	1652.44	138.2	4.6	0.51
8:00	1676.01	1671.41	139.2	4.2	0.64
12:15	1685.33	1680.72	157.4	2.4	6.63
17:55	1694.75	1690.13	272.7	1.1	9.67
22:20	1704.35	1699.73	282.9	2.2	3.54

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	17/06/2013	11250
Next BOP		

BITS

Bit	4	N°
Size	159	[mm]
Mfg	Hughes	-
Type	STX-35DX	-
Serial	5217719	-
Nozzle	3 x 15.9	[mm²]
WOB	12	[daN]
RPM	40/140	[tr/min]
Flow	830	[l/min]
Pres	11000	[kPa]
From	1661.5	[m]
To	1708	[m]
Drilled	167.9	[m]
Hours	48.98	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	8	242	sacs
Baroseal (M)	80		80	sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	29	93	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	36156	25389	10767	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	1	19	sacs
Sodium	576	5	571	sacs
Defoamer	15	12	3	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface		***Last Casing***		
Date	07/12/2005		Date		
grade	H-40	-	grade		-
diam	177.8	[mm]	diam		[mm]
Lin Weight	25.3	[kg/m]	Lin Weight		[kg/m]
Nb Joint		-	Nb Joint		-
Set at	323	[m]	Set at		[m]
Length	323	[m]	Length		[m]
Burst	16000	[kPa]	Burst		[kPa]
Collapse	10000	[kPa]	Collapse		[kPa]
Tensile	54000	[daN]	Tensile		[daN]
TEST			TEST		
Date	17/06/2013		Date		
Pressure	11250	[kPa]	Pressure		[kPa]
Last Cement	Plug		***Last Cement***		
Date	16/12/2005		Date		
Class	A		Class		
Density	1520	[kg/m³]	Density		[kg/m³]
Volume	50	[m³]	Volume		[m³]
Time to GL		[min]	Time to GL		[min]
Additives			Additives		

CENTRIFUGE

Make	United	
OF density	1090	[kg/m³]
UF density	1800	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 18

Date : 02/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*sunny*	mKB	149.97	Daily MD	16	Daily Costs	$72,700	est.
Wind	light	mGL	145.7	Total MD	1731.12	Cum Costs	$1,214,700	
Temperature	12	24h Avg ROP	1.9	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill ahead from 1604m to 1731m. POOH to change BHA and test BOPs. BOP tested except blind rams.

SAFETY SUMMARY

Workers on site		Workers Injured	
IEC	4	IEC	0
Rig	11	Rig	0
Others	7	Others	0
Total	21	Total	0

Incidents / Injuries: None to report

Hrs since last Medical Treatment Case			432
Hrs since last Lost Time Incident			432
H_2S Level	0	Trip Drill	
CO_2 Level	0	Pit Drill	
Gas Level	25ppm	BOP Drill	

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

9:00	Safety Meeting: Eye Protection
23:15	Eye Protection (with night crew)

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Red Beds / Snakes Bight (?)
LITHOLOGY : Interbedded red beds, siltstones and very fine grained sandstone
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	3:00	1715	Drill and slide from 1708 to 1715.08m
3:00	3:15		Rig service/ test BOP annular.
3:15	9:00	1725	Drill and slide from 1718.08 to 1724.72m
9:00	9:15	1725	Safety Meeting (eye protection)
9:15	11:45	1731	Drill from 1724.72m to 1731.12m
11:45	12:00	1731	Circulate up bottom hole sample.
12:00	12:15		Circulate up bottom hole sample.
12:15	17:45	1731	Trip out of hole- Flow check @ 1727m, 1628.78m, 886.16m, 158.02m, Out of hole. Handle directional tools. Function test blind rams: 3 sec to close.
17:45	20:15	1731	Attempt to pessure test BOP's, issue with test cup size.
20:15	20:45	1731	Discussion with IEC office. Wait on orders.
20:45	23:15		Service draworks chains and change oil in engines (scheduled maintenance).
23:15	23:30		Safety Meeting (Eye Protection) & Rig service.
23:30	0:00		Make up test cup & RIH with 1 JNT DP and Pre Test.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00			Test back 2 manifold valves, outside kill line valve 1400kPa low and 11250kPa high: OK
			Test middle 3 manifold valves and inside kill line valve 1400kPa low and 11250kPa high: OK
			Test 2 front manifold valves 1400kPa low and 11250kPa high: OK
			Test HCR/Manual choke line valve/Pipe rams at 1400kPa low and 11250kPa high: OK
			Test annular 1400kPa low and 10500kPa (50% of BOP working pressure) high: OK
	2:30		Test insite BOP and stabbing valve at 1400kPa low and 11250kPa high: OK. All tests conducted as per Petroleum Drilling Regulations.
2:30	4:00		Slip/Cut drilling line
4:00	4:45		Handle Directional Tool
4:45	6:00	1731	RIH to 690m

RIG TIME (operation duration in hours)

Drilling	11.25	Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service	0.25	DST		WOC		Reaming		Flow check	0.75		
Tripping	4.75	Logging		Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test	3	Drill R & M hole					
Circ./Cond.	0.5	Handle Tools	0.75	Repair		Other	2.25	**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**0.5**		

24 HOURS FORECAST

RIH BHA and Continue drilling/sliding ahead with directional tools.

Date : 02/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		Solids	5.5	[kg/m³]
Mud Co	Baroid		Sands	0.5	[%]
Time Check	7:00		OWR		[%]
Mud Man	L. Anthony		MBT	7	[kg/m³]
			Cl-	40000	[mg/L]
Density	1095	[kg/m³]	Calcium	360	[mg/L]
Viscosity	55	[s/l]			
P.V.	17	[cp]			
Y.P.	7.5	[g/100cm²]			
Gels 10"/10'	3				
Temperature					
Pressure	10000				
pH	8				

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss	0	[m³]
Boiler loss	0	[m³]
Daily Mud Cost	$1,302.00	
Cum Mud Cost	$33,672.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Barathin		Bags
barabuf		

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	Choice Mud Motor (medium speed - 75 rpm).		121	9.14	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.89	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	30	[min]
	Mud Tank	34.35	[m³]
	Hole Volume	23.75	[m³]
	System Vol.	58.1	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
22:20	1704.35	1699.73	282.9	2.2	3.54
2:15	1713.77	1709.14	286.1	2.4	0.76

BOP STACK

Op	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	4	5	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	STX-35DX	QD405FX	-
Serial	5217719	7137507	-
Nozzle	3 x 15.9		[mm²]
WOB	12		[daN]
RPM	40/140	40/140	[tr/min]
Flow	830		[l/min]
Pres	11000		[kPa]
From	1597.6	1731.12	[m]
To	1731.12		[m]
Drilled	133.52		[m]
Hours	56.5		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb		8		sacs
Baroseal (M)				sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	29	93	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	43150	27419	15731	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	1	19	sacs
Sodium	75	5	70	sacs
Defoamer	15	12	3	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface		***Last Casing***		
Date	07/12/2005		Date		
grade	H-40	-	grade		-
diam	177.8	[mm]	diam		[mm]
Lin Weight	25.3	[kg/m]	Lin Weight		[kg/m]
Nb Joint		-	Nb Joint		-
Set at	323	[m]	Set at		[m]
Length	323	[m]	Length		[m]
Burst	16000	[kPa]	Burst		[kPa]
Collapse	10000	[kPa]	Collapse		[kPa]
Tensile	54000	[daN]	Tensile		[daN]
TEST			TEST		
Date	17/06/2013		Date		
Pressure	11250	[kPa]	Pressure		[kPa]
Last Cement	Plug		***Last Cement***		
Date	16/12/2005		Date		
Class	A		Class		
Density	1520	[kg/m³]	Density		[kg/m³]
Volume	50	[m³]	Volume		[m³]
Time to GL		[min]	Time to GL		[min]
Additives			Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1780	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Unable to test the blind rams with the test cup provided.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 19

Date : 03/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*sunny*	mKB	149.97	Daily MD	42	Daily Costs	$30,300	est.
Wind	light	mGL	145.7	Total MD	1773	Cum Costs	$1,245,000	
Temperature	12	24h Avg ROP	2.9	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: BOP tests, except blind rams. Pick up new BHA (PDC+mud motor+gamma) and drill to 1773m.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case		456
Rig	11	Rig	0		Hrs since last Lost Time Incident		456
Others	7	Others	0		H_2S Level	0	Trip Drill
Total	21	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	25ppm	BOP Drill 03/07/2013

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00 Bop Drills (review well control procedures)

19:00 Bop Drills (review well control proceedures)

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate Snakes Bight (?)
LITHOLOGY : Conglomerate with sand matrix
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00		1731	Test back 2 manifold valves, outside kill line valve 1400kPa low and 11250kPa high: OK
			Test middle 3 manifold valves and inside kill line valve 1400kPa low and 11250kPa high: OK
			Test 2 front manifold valves 1400kPa low and 11250kPa high: OK
			Test HCR/Manual choke line valve/Pipe rams at 1400kPa low and 11250kPa high: OK
			Test annular 1400kPa low and 10500kPa (50% of BOP working pressure) high: OK
	2:30		Test insite BOP and stabbing valve at 1400kPa low and 11250kPa high: OK. All tests conducted as per Petroleum Drilling Regulations.
2:30	4:00	1731	Slip & cut drilling line
4:00	5:00	1731	Handle directional tools
5:00	7:00	1731	Trip in hole with bit #5 (QD405FX- PDC) and new mud motor
7:00	7:15	1731	Safety meeting
7:15	8:00		Trip in hole with new BHA.
8:00	9:00	1731	Rig up top drive & circulate out air from trip
9:00	12:00	1738	Drill from 1731.12m to 1738m
12:00	14:30	1747	Drill from 1738 to 1746.8m
14:30	14:45		Rig Service
14:45	17:00	1756	Drill from 1746.8 to 1756.44m
17:00	17:15		Function test BOP's (Pipe Rams) and BOP Drill
17:15	19:00	1764	Drill from 1756.44 to 1764.25m
19:00	19:15		Safety Meetings - BOP drills
19:15			Drill from 1764.25 to 1773.13m.
	0:00	1773	Work drill string from 1768 to 1773m (drag onto string).

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:45	1775.11	Drill f from 1173.13 to 1775.11m
1:45	2:00		Rig Service. Function test Pipe Ram: 5sec
2:00	6:00	1785	Drill from 1775.11 to 1785m.

RIG TIME (operation duration in hours)

Drilling	14.25	Weld Bowl		Cement		Safety/BOP	0.75	Rig move	
Rig Service	0.25	DST		WOC		Reaming		Flow check	
Tripping	2.75	Logging		Nipple U/D		Slip and Cut	1.5		
Survey		Clean to Btm		Press. Test	2.5	Drill R & M hole			
Circ./Cond.	1	Handle Tools	1	Repair		Other		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

POOH, run packer to test blind rams and RIH with insert bit.

Date : 03/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1095		[kg/m³]
Viscosity	49		[s/l]
P.V.	17		[cp]
Y.P.	6		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure	10100		
pH	9		

Solids	5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	7		[kg/m³]
Cl-	38000		[mg/L]
Calcium	360		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,725.50	
Cum Mud Cost	$35,397.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	2	Bags
Bi-acarb		Bags
Defoamer	2	Pails
N-Vis		Bags
Barathin		Bags
barabuf	2	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit**		159	0.24	3.5 Reg P	
2	Choice Mud Motor (medium speed - 75 rpm).		121	9.14	3.5 Reg BX3.5IF P	
3	UBHO	61	120	0.89	3.5IF B X 3.5IF P	
4	NM TOOL CARRIER	69	120	5.48	3.5IF B X 3.5IF P	
5	GAP SUB	68	117	1.16	3.5IF B X 3.5IF P	
6	NM BATTERY CARRIER	70	126	3.96	3.5IF B X 3.5IF P	
7	FLEX NM	69	116	9.35	3.5IF B X 3.5IF P	
8	JARS	54	121	6.56	3.5IF B X 3.5IF P	
9	10 DC'S	58	115	88.99	3.5IF B X 3.5IF P	
10	24 HWDP	64	127	222.14	3.5IF B X 3.5IF P	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	30	[min]
	Mud Tank	30.81	[m³]
	Hole Volume	25.75	[m³]
	System Vol.	56.56	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
22:20	1704.35	1699.73	282.9	2.2	3.54
2:15	1713.77	1709.14	286.1	2.4	0.76
7:40	1723.33	1718.7	20.7	1	8.39
9:25	1732.8	1728.17	43.1	1.4	1.93
13:40	1742.44	1737.81	122	0.9	4.7
15:35	1751.88	1747.25	138.3	0.6	1.16
18:10	1761.36	1756.72	337.4	0.6	3.74

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	4	5	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	STX-35DX	QD405FX	-
Serial	5217719	7137507	-
Nozzle	3 x 15.9	5 x 12.7	[mm²]
WOB	12	10	[daN]
RPM	40/75	40/75	[tr/min]
Flow	830	830	[l/min]
Pres	11000	10100	[kPa]
From	1597.6	1731.12	[m]
To	1731.12	1773.13	[m]
Drilled	133.52	42	[m]
Hours	56.5	14.25	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb		8		sacs
Baroseal (M)				sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	31	91	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	43,150	28917	14233	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	3	17	sacs
Sodium	75	5	70	sacs
Defoamer	15	14	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1800	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
BOP drill and function test BOPs.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 20

Date : 04/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*overcast*	mKB	149.97	Daily MD	11	Daily Costs	$52,000	est.
Wind	light	mGL	145.7	Total MD	1786	Cum Costs	$1,304,000	
Temperature	10	24h Avg ROP	1.8	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill to 1786mRF. Set TAM packer in the 7" casing and test Blind Rams (OK).
When bleeding off pressure, packer deflated and dropped to TD. Fishing attempt#1 with overshot#1 from TAM International. Overshot#2 in preparation.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries				
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case		480	
Rig	11	Rig	0		Hrs since last Lost Time Incident		480	
Others	8	Others	0		H_2S Level	0	Trip Drill	
Total	21	Total	0		CO_2 Level	0	Pit Drill	
					Gas Level	25ppm	BOP Drill	03/07/2013

Rig Manager	Greg McKinnon	(905) 371 4614	Safety Meetings / Tool Box Talks	
Company Man	Victor Leroux	(780) 678 5108	7:00	Keeping rig floor clean / House keeping
Company Man	Travis Young	(709) 721 1994		
			19:00	Picking up tubing

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate Snakes Bight (?)
LITHOLOGY : Conglomerate with sand matrix
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:45	1775	Drill from 1773.13 to 1775.11m
1:45	2:00		Rig Service: function test Pipe Ram 5sec
2:00	7:00	1786	Drill from 1775.11 to 1786.15m
7:00	7:15		Safety Meeting
7:15	7:45	1786	Drill from 1785.96 to 1786.15m (circulate up bottom hole sample)
7:45	12:00	1786	Trip out of hole and laydown 1 single & rack back top drive. Flow check @1689m, 877m, 236m. Handle directional tools.
12:00	12:30	1786	Laydown directional tools. Function blind ram 3 sec to close.
12:30	15:00	1786	Pickup single set TAM packer to pressure test blind rams. Set packer at 12.98mRF.
15:00		1786	Pressure test blind ram: 1400 kPa low 11500 kPa high. Both tests 15minutes each. Test held.
	15:45		Bleed off pressure and open blind ram to retrieve packer.
15:45			Trip in with overshot. Run in 1 joint of tubing with TAM overshot to latch onto and retrieve packer. No tag.
	19:00		Run in hole with 2-3/8" tubing and overshot to locate and latch packer.
19:00	19:15		Safety meeting
19:15	0:00	1786	Continue to pick up 2-3/8" tubing with TAM overshot to retrieve packer assembly. Packer has deflated and felt down the well.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	3:30		Continue RIH with overshot on 2-3/8" tubing
3:30	5:30		Tag fish attempt to latch onto fish
5:30	6:00		Prepare to slip and cut

RIG TIME (operation duration in hours)

Drilling	7.25	Weld Bowl		Cement		Safety/BOP	1	Rig move			
Rig Service	0.25	DST		WOC		Reaming		Flow check	0.75		
Tripping	3.5	Logging		Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test	0.75	Drill R & M hole					
Circ./Cond.		Handle Tools		Repair		Fishing	8	**TOTAL**	**24**		
Pick up BHA	2.5	Run Casing		Rig Up		LOT/FIT		**DOWNTIME**			

24 HOURS FORECAST

POOH and check whether packer has been retrieved. RIH with bigger overshot made up and retrieve fish.

Date : 04/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1095		[kg/m³]
Viscosity	53		[s/l]
P.V.	17		[cp]
Y.P.	6.5		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure	10100		
pH	8.5		

Solids	5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	7		[kg/m³]
Cl-			[mg/L]
Calcium	400		[mg/L]

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	$995
Cum Mud Cost	$36,392

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer	1	Pails
N-Vis		Bags
Barathin		Bags
barabuf		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**TAM OVERSHOT**		159	0.49	2 3/8 EUE	
2	TUBING	50.67	60.33	1784.37	2 3/8 EUE	
3						
4						
5						
6						
7						
8						
9						
10						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	30	[min]
	Mud Tank	26.76	[m³]
	Hole Volume	25.75	[m³]
	System Vol.	52.21	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
18:10	1761.36	1756.72	337.4	0.6	3.74
22:05	1770.16	1756.72	340.1	0.8	0.65

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	5	6	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	QD405FX		-
Serial	7137507		-
Nozzle	5 x 12.7		[mm²]
WOB	11		[daN]
RPM	40/75	40/75	[tr/min]
Flow	830	830	[l/min]
Pres	11000		[kPa]
From	1731.12	1786.15	[m]
To	1786.15		[m]
Drilled	55.03		[m]
Hours	21.5		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb		8		sacs
Baroseal (M)				sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	31	91	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	43150	31066	12084	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	3	17	sacs
Sodium	75	5	70	sacs
Defoamer	15	15	0	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1800	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Mudman will get more deformer out of warehouse in St George's.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 21

Date : 05/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*overcast*	mKB	149.97	Daily MD	0	Daily Costs	$34,100	est.
Wind	light	mGL	145.7	Total MD	0	Cum Costs	$1,345,300	
Temperature	10	24h Avg ROP	0	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Fishing attempt#1 (tubing + TAM overshot): failed. Fishing attempt#2 (tubing + modified overshot): failed

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries				
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case		432	
Rig	11	Rig	0		Hrs since last Lost Time Incident		432	
Others	8	Others	0		H_2S Level	0	Trip Drill	
Total	21	Total	0		CO_2 Level	0	Pit Drill	
					Gas Level	25ppm	BOP Drill	03/07/2013

Rig Manager	Greg McKinnon	(905) 371 4614	Safety Meetings / Tool Box Talks	
Company Man	Victor Leroux	(780) 678 5108	7:00	Procedures on tripping tubing
Company Man	Travis Young	(709) 721 1994		
			20:00	Pressure equipment

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate Snakes Bight (?)
LITHOLOGY : Conglomerate with sand matrix
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	3:30	1786	Continue RIH with overshot#1 on 2-3/8" tubing
3:30	5:30		Tag fish, attempt to latch onto fish. Flow check @ 1784m.
5:30	7:30		Rig service. Slip & cut drilling line.
7:30	7:45		Safety Meeting
7:45	11:30		Trip out of hole with tubing. Flow check @ 893m, 323m.
11:30	13:15		Modify cut lip on overshot#2. Flow check while out of hole.
13:15	13:30		Rig service
13:30	18:30		Trip in hole with cut lip overshot and 2-3/8" tubing to attempt to retrieve TAM packer. Flow check @ 875m (.01m3 loss).
18:30	20:00		Top of fish tagged @ 1782m. Circulate to top of fish
20:00	20:15		Safety Meeting
20:15	0:00		POOH. flow check on the way out.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30		Waiting on orders
0:30	1:00		Modify cut lip overshot (sharper)
1:00	6:00		RIH with modify overshot#3 on 2-3/8" tubing.

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service	0.25	DST		WOC		Reaming		Flow check	1		
Tripping	12.5	Logging		Nipple U/D		Slip and Cut	2				
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair		Fishing	7.75	**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**0.5**		

24 HOURS FORECAST

POOH with custom made overshot#3. Attempt to retrieve fish while lining up other options.

Date : 05/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1095		[kg/m³]
Viscosity	55		[s/l]
P.V.	19		[cp]
Y.P.	8		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8.5		

Solids	5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	7		[kg/m³]
Cl-	38000		[mg/L]
Calcium	400		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,302	
Cum Mud Cost	$37,693	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Barathin		Bags
barabuf		Bags

COMMENTS

Cum mud costs include Mud engineer day rate. ($995/day)

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**TAM OVERSHOT**		159	0.9	2 3/8 EUE	
2	TUBING	50.67	60.33	1784.37	2 3/8 EUE	
3						
4						
5						
6						
7						
8						
9						
10						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	30	[min]
	Mud Tank	26.76	[m³]
	Hole Volume	25.75	[m³]
	System Vol.	52.21	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	6	6	N°
Size	159		[mm]
Mfg	Hughes		-
Type	STX-30DX		-
Serial	52052668		-
Nozzle	3 x 15.9		[mm²]
WOB			[daN]
RPM			[tr/min]
Flow			[l/min]
Pres			[kPa]
From	1786.15		[m]
To			[m]
Drilled			[m]
Hours			[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb		8		sacs
Baroseal (M)				sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	31	91	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	43150	31066	12084	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	3	17	sacs
Sodium	75	5	70	sacs
Defoamer	20	15	5	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1800	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 22

Date : 06/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	0	Daily Costs	$34,500	est.
Wind	light	mGL	145.7	Total MD	0	Cum Costs	$1,380,000	
Temperature	12	24h Avg ROP	0	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Fishing attempt#3 (tubing + modified overshot with sharpen lips): failed.
Fishing attempt#4 (DP+modified overshot with sharpen lips): packer latched but inflated d/t circulation; unable to deflate packer.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	528	
Rig	11	Rig	0		Hrs since last Lost Time Incident	528	
Others	8	Others	0		H_2S Level 0		Trip Drill
Total	21	Total	0		CO_2 Level 0		Pit Drill
					Gas Level 25ppm		BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00 Proceedures on tripping tubing
19:00 House keeping

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate Snakes Bight (?)
LITHOLOGY : Conglomerate with sand matrix
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30	1786	Waiting on orders
0:30	1:00		Sharpen the lip of the overshot
1:00	7:00		RIH with modified overshot
7:00	9:30		Attempt#3 to latch on to fish. After several attempts to turn tubing to latch tubing string could not rotate. Trip out to check fishing assembly.
9:30	9:45		Safety meeting : review laying down tubing proceedures
9:45	12;00		Pull out of hole and lay down tubing string. Flow check @ 1780m
12:00	14:30		Pull out of hole and lay down tubing string. Flow check @893m, 320m, & out of hole. The packer was not latched on.
14:30	14:45		Rig service. Function test blind rams while out of hole: 3 sec. to close
14:45	15:30		Wait on orders and clean rig floor
15:30	20:00		Trip in hole. Rig to and run fishing tools on drill pipe. Run in hole to recover single set TAM packer. Flow Check @ half way in hole.
20:00	20:15		Safety meeting: house keeping
20:15	21:15		Fishing: wash down to top of fish and attempt#4 to latch on. Packer latched, and inflated due to circulation.
21:15	0:00		Attempt to deflate packer and unstick packer by rotating and pulling 72-75 daN: unsuccessful

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00			Discussion with AF: decision to unlatch off fish and ciruclate over fish
	6:00		Relatch and work fish, POOH.

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service	0.25	DST		WOO	1.25	Reaming		Flow check	1		
Tripping	12	Logging		Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair		Fishing	9	**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**1.75**		

24 HOURS FORECAST

Attempt to wash around packer, latch onto fish and unstick from wellbore.

Date : 06/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer base		Solids	5	[kg/m³]
Mud Co	Baroid		Sands	0.5	[%]
Time Check	7:00		OWR		[%]
Mud Man	L. Anthony		MBT	7	[kg/m³]
Density	1095	[kg/m³]	Cl-	38000	[mg/L]
Viscosity	53	[s/l]	Calcium	440	[mg/L]
P.V.	21	[cp]			
Y.P.	6	[g/100cm²]			
Gels 10"/10'					
Temperature					
Pressure					
pH	8.5				

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995	
Cum Mud Cost	$38,688	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Barathin		Bags
barabuf		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**TAM overhot (modified)**		159	0.9	2 3/8 EUE	
2	DC'S	58	115	53.34	3 1/2 IF	
3	HWDP	58	115	221.71	3 1/2 IF	
4						
5						
6						
7						
8						
9						
10						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	30	[min]
	Mud Tank	26.76	[m³]
	Hole Volume	25.75	[m³]
	System Vol.	52.21	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	6	6	N°
Size	159		[mm]
Mfg	Hughes		-
Type	STX-30DX		-
Serial	52052668		-
Nozzle	3 x 15.9		[mm²]
WOB			[daN]
RPM			[tr/min]
Flow			[l/min]
Pres			[kPa]
From	1786.15		[m]
To			[m]
Drilled			[m]
Hours			[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb		8		sacs
Baroseal (M)				sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	31	91	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	49090	32367	16723	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	3	17	sacs
Sodium	75	5	70	sacs
Defoamer	20	15	5	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

	United	
Make		
OF density	1085	[kg/m³]
UF density	1800	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 23

Date : 07/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	15	Daily Costs	$56,700	est.
Wind	light	mGL	145.7	Total MD	1801	Cum Costs	$1,436,600	
Temperature	12	24h Avg ROP	2.3	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Fishing attempt#4: work packer free and POOH.
Make up 159mm 617 Baker Tri-cone bit on Choice Directional assembly. Run in hole and drill ahead.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries				
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case		552	
Rig	11	Rig	0		Hrs since last Lost Time Incident		562	
Others	6	Others	0		H_2S Level	0	Trip Drill	
Total	21	Total	0		CO_2 Level	0	Pit Drill	
					Gas Level	25ppm	BOP Drill	07/07/2013

Rig Manager	Greg McKinnon	(905) 371 4614	Safety Meetings / Tool Box Talks	
Company Man	Victor Leroux	(780) 678 5108	7:00	Drink fliuds to remain hydrated while working in the heat.
Company Man	Travis Young	(709) 721 1994		
			19:00	House keeping

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate Snakes Bight (?)
LITHOLOGY : Conglomerate with sand matrix
SHOWS : Very faint fluorescence

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00		1786	Fishing attempt#4: after several attemps to deflate packer, discussion with AF and decision to unlatch off packer and circulate over it.
	6:00		Relatch and work fish, POOH.
6:00	7:00		Trip out of hole with fishing assembly. Flow check @1690m, 893m and out of hole.
7:00	7:15		Safety meeting
7:00	11:00		Continue to trip out
11:00	11:15		Rig service. Clean floor and function test blind ram: 3 sec to close.
11:15	11:30		Handle fishing tools; lay down fishing assembly & fish (TAM Single set packer)
11:30	12:00		Make up directional assembly and run in hole.
12:00	16:00		Continue trip in hole. Flow check @893m lay down singles, pick up top drive and continue to drill forward
16:00	17:15		Circulate and washdown 2 singles down
17:15	19:00	1791	Drill from 1786.12 to 1790.71m
19:00	19:15		Safety meeting - BOP drill.
19:15	0:00	1801	Drill from 1790.71 to 1801.16m

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	2:15	1804	Drill from 1801.16 to 1804m
2:15	2:30		Rig Service
2:30	6:00	1807	Drill from 1804 to 1807m

RIG TIME (operation duration in hours)

Drilling	6.5	Weld Bowl		Cement		Safety/BOP	0.25	Rig move			
Rig Service	0.25	DST		WOO		Reaming		Flow check	0.5		
Tripping	9.5	Logging		Nipple U/D		Slip and Cut		other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools	1	Repair		Fishing	6	**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**			

24 HOURS FORECAST

Drill ahead to TD.

Date : 07/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3 **Page 2/2**

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1090		[kg/m³]
Viscosity	49		[s/l]
P.V.	16		[cp]
Y.P.	6		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure	10100		
pH	8.5		

Solids	5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	10.5		[kg/m³]
Cl-	37000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss	0	[m³]
Boiler loss	0	[m³]
Daily Mud Cost	$995.00	
Cum Mud Cost	$39,683.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Barathin		Bags
barabuf		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit stx 40dx 617**		159	0.18	3.5 IF	
2	Choice Mud Motor (medium speed - 75 rpm).		121	9.06	3.5IF	
3	UBHO	82	165	0.87	3.5IF	
4	NM TOOL CARRIER	69	120	5.48	3.5 IF	
5	GAP SUB	68	117	1.16	3.5IF	
6	NM BATTERY CARRIER	70	126	3.96	3.5 IF	
7	FLEX NM	29	116	9.35	3.5IF	
8	JARS	54	121	6.56	3.5IF	
9	DC 4.75	58	115	88.89	3.5 IF	
10	DP					

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	70	[min]
	Bottom Up	30	[min]
	Mud Tank	29.3	[m³]
	Hole Volume	31.3	[m³]
	System Vol.	60.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
19:15	1789.59	1784.95	336.4	1.3	0.67

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	6	N°
Size	159	[mm]
Mfg	Hughes	-
Type	STX-40DX	-
Serial	5186682	-
Nozzle	3 x 15.9	[mm²]
WOB		[daN]
RPM		[tr/min]
Flow		[l/min]
Pres		[kPa]
From	1786.15	[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb		8		sacs
Baroseal (M)				sacs
Soad ash	10		10	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	31	91	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	49,555	34207	15348	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	3	17	sacs
Sodium	75	5	70	sacs
Defoamer	20	15	5	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1800	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 24

Date : 08/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	37.3	Daily Costs	$44,000	est.
Wind	light	mGL	145.7	Total MD	1842	Cum Costs	$1,480,600	
Temperature	12	24h Avg ROP	2.2	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill from 1801.16m to 1841m
Downtime: work on rig brakes and mud pump

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries				
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case		576	
Rig	12	Rig	0		Hrs since last Lost Time Incident		576	
Others	6	Others	0		H_2S Level	0	Trip Drill	
Total	22	Total	0		CO_2 Level	0	Pit Drill	
					Gas Level	25ppm	BOP Drill	08/07/2013

Rig Manager	Greg McKinnon	(905) 371 4614	Safety Meetings / Tool Box Talks	
Company Man	Victor Leroux	(780) 678 5108	7:00	Safety Inspection: Safety pins & safety lines
Company Man	Travis Young	(709) 721 1994	12:00	Safety meeting on increased hole drag on connections
			19:00	BOP drill with crew coming off long change

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate - Snakes Bight (?)
LITHOLOGY : Conglomerate with sand matrix
SHOWS : Very faint fluorescence

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	2:15	1804.0	Drill from 1801.16 to 1804m
2:15	2:30		Rig Service: function pipe ram 4 sec. to close
2:30	7:00	1808.0	Drill from 1804 to 1808.74m
7:00	7:15	1808.0	Safety Meeting.
7:15	12:00	1820.1	Drill from 1808.74 to 1820.14m
12:00	12:15	1820.1	Safety meeting.
12:15	18:45	1841.3	Drill from 1820.14 to 1841.31m
18:45	19:00	1841.3	Rig Service: check oil and grease swivel, block booster and adjust brakes
19:00	19:15		BOP drill with crew coming off long change
19:15	0:00		Downtime - Drawworks work on brake pots

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:45		Rig service : change out valve in the mud pump, rotate rods, change lubrication fluid.
0:45	6:00	1851	Drill from 1841.31 to 1851m

RIG TIME (operation duration in hours)

Drilling	18.25	Weld Bowl		Cement		Safety/BOP	0.75	Rig move			
Rig Service	0.25	DST		WOO		Reaming		Flow check			
Tripping		Logging		Nipple U/D		Slip and Cut		other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair	4.75	Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**4.75**		

24 HOURS FORECAST

Drill ahead to 1970m or top basement whichever comes first

Date : 08/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3 **Page 2/2**

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1095		[kg/m³]
Viscosity	62		[s/l]
P.V.	22		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8.5		

Solids	5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	10.5		[kg/m³]
Cl-	36000		[mg/L]
Calcium	560		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,537.12	
Cum Mud Cost	$41,225.49	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	2	Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Barathin		Bags
barabuf		Bags
soda ash	4	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit STX- 40DX (617)**		159	0.18	3.5 IF	
2	Choice Mud Motor (medium speed - 75 rpm).		121	9.06	3.5IF	
3	UBHO	82	165	0.87	3.5IF	
4	NM TOOL CARRIER	69	120	5.48	3.5 IF	
5	GAP SUB	68	117	1.16	3.5IF	
6	NM BATTERY CARRIER	70	126	3.96	3.5 IF	
7	FLEX NM	29	116	9.35	3.5IF	
8	JARS	54	121	6.56	3.5IF	
9	DC 4.75	58	115	88.89	3.5 IF	
10	DP					

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	67.5	[min]
	Bottom Up	25.1	[min]
	Mud Tank	27.9	[m³]
	Hole Volume	33.4	[m³]
	System Vol.	61.3	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
19:15	1789.59	1784.95	336.4	1.3	0.67

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	6	N°
Size	159	[mm]
Mfg	Hughes	-
Type	STX-40DX	-
Serial	5186682	-
Nozzle	3 x 15.9	[mm²]
WOB	Dec-14	[daN]
RPM	40	[tr/min]
Flow	878	[l/min]
Pres	10000	[kPa]
From	1786.15	[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb		8		sacs
Baroseal (M)				sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	3	24	sacs
Cellosize	122	33	89	sacs
Barathin	15	4	11	sacs
Citric Acid	15		15	sacs
Bicarb	30	17	13	sacs
Fuel	52,937	35407	17530	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	3	17	sacs
Sodium	75	5	70	sacs
Defoamer	20	15	5	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1780	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 25

Date : 09/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	12.69	Daily Costs	$68,000	est.
Wind	light	mGL	145.7	Total MD	1854	Cum Costs	$1,548,500	
Temperature	15	24h Avg ROP	1.4	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill to 1855m. POOH to replace mud motor and drill bit. RIH with new mud motor and PDC bit.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	600	
Rig	12	Rig	0		Hrs since last Lost Time Incident	600	
Others	6	Others	0		H_2S Level	0	Trip Drill
Total	22	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	25ppm	BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00 House keeping: Maintain a clean safe work area. Ensure trapped pressure is bled off before working on high pressure lines

19:45 Pay close attention to new crew member while tripping.

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate - Kennels Brook
LITHOLOGY : Interbedded conglomerate with sandstones and red siltstones increasing red beds
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:45		Rig service : Change out valve in the Mud Pump, rotate rods, change lubrication fluid.
0:45	7:00	1851	Drill from 1841.31 to 1851m
7:00	7:15	1851	Safety Meeting.
7:15	7:30	1852	Drill from 1851 to 1852m
7:30	8:00	1852	Downtime: tighten and grease washpipe packing.
8:00	11:00	1855	Drill from 1852.23 to 1854.78m
11:00	11:45		Drill string pressured up and blew pop valve. Attempt to regain circulation. Trip out to check for mud motor failure.
11:45	12:00		Flow check @ 1854m
12:00	12:45	1855	Trip out of hole flow check @1827m
12:45	14:30		Downtime: replace brake booster
14:30	17:00		Trip out of hole flow check @ 923m
17:00	18:00		Downtime - Hoisting : repair hydraulic oil leak
18:00	19:15	1855	Trip out of hole. Flow check @ 123m and out of hole.
19:15	19:45		Check and laydown mud motor.
19:45	20:00		Safety meeting.
20:00	21:00		Pick up 3rd party tools: pick up and set new motor, mwd and gamma
21:00		1855	Trip in hole, flow check half way in (0.05m3 loss) and at 290m (0.04m3 loss)

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30		RIH
0:00	0:45		Rig Service
0:45	2:45		Pick up Top Drive and wash down 3 singles, Pattern bit
2:45		1867	Drill from 1854 to 1866.5 m

RIG TIME (operation duration in hours)

Drilling	9.5	Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service	0.75	DST		WOO		Reaming		Flow check	1		
Tripping	8.5	Logging		Nipple U/D		Slip and Cut		Other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair	3.75	Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**3.75**		

24 HOURS FORECAST

Drill ahead to 1970m or top basement whichever comes first

Date : 09/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3 **Page 2/2**

DRILLING MUD

Fluid type	Polymer base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1090		[kg/m³]
Viscosity	52		[s/l]
P.V.	19		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	9		

Solids	5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	10.5		[kg/m³]
Cl-	36000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	$2,048
Cum Mud Cost	$43,273

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	1	Bags
Bi-acarb	4	Bags
Defoamer	1	Pails
N-Vis	5	Bags
Barathin	2	Bags
barabuf		Bags
soda ash	0	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit DP307S PDC**		159	0.18	3.5 IF	
2	Choice Mud Motor (medium speed - 75 rpm).		121	9.06	3.5IF	
3	UBHO	82	165	0.87	3.5IF	
4	NM TOOL CARRIER	69	120	5.48	3.5 IF	
5	GAP SUB	68	117	1.16	3.5IF	
6	NM BATTERY CARRIER	70	126	3.96	3.5 IF	
7	FLEX NM	29	116	9.35	3.5IF	
8	JARS	54	121	6.56	3.5IF	
9	DC 4.75	58	115	88.89	3.5 IF	
10	DP					

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	67.5	[min]
	Bottom Up	28.1	[min]
	Mud Tank	34.3	[m³]
	Hole Volume	34.1	[m³]
	System Vol.	68.4	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
19:15	1789.59	1784.95	336.4	1.3	0.67
22:25	1798.99	1794.34	337.8	1.3	0.1
6:25	1808.47	1803.83	343.3	1.4	0.52
11:05	1817.87	1813.22	342.8	1.4	0.4
14:15	1827.31	1822.66	340.2	1.4	0.2
17:25	1836.84	1832.19	344.5	1.2	0.7
2:25	1845.47	1840.82	349.2	1	0.76

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	6	7	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	STX-40DX	DP307S	-
Serial	5186682	7032500	-
Nozzle	3 x 15.9	5 x 12.7 2 x 11.1	[mm²]
WOB	14		[daN]
RPM	40		[tr/min]
Flow	878		[l/min]
Pres	10000		[kPa]
From	1786.15	1854.78	[m]
To	1854.78		[m]
Drilled	68.63		[m]
Hours	34.25		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288		288	sacs
Baracarb	250	6		sacs
Baroseal (M)	80			sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	34	88	sacs
Barathin	15	6	9	sacs
Citric Acid	15		15	sacs
Bicarb	30	21	9	sacs
Fuel	52937	37501	15436	liters
Drill Water	21.8		21.8	[m³]
Gypsum	20		20	sacs
Barabuf	20	3	17	sacs
Sodium	75	5	70	sacs
Defoamer	20	16	4	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1810	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 26

Date : 10/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	28	Daily Costs	$36,200	est.
Wind	light	mGL	145.7	Total MD	1882	Cum Costs	$1,585,000	
Temperature	15	24h Avg ROP	1.8	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill to 1882mRF. Trip out of hole to change BHA.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	624	
Rig	12	Rig	0		Hrs since last Lost Time Incident	624	
Others	6	Others	0		H_2S Level 0	Trip Drill	
Total	22	Total	0		CO_2 Level 0	Pit Drill	
					Gas Level 20ppm	BOP Drill	

Rig Manager	Greg McKinnon	(905) 371 4614	Safety Meetings / Tool Box Talks	
Company Man	Victor Leroux	(780) 678 5108	7:00	House keeping/ Repair oil leaks asap & clean up any spills.
Company Man	Travis Young	(709) 721 1994		
			19:00	Laying down HW drill pipe

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate - Kennels Brook
LITHOLOGY : Interbedded conglomerate with sandstones and red siltstones increasing red beds
SHOWS : No shows

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30	1854	RIH
0:30	0:45		Rig Service
0:45	2:45		Pick up Top Drive and wash down 3 singles, pattern bit
2:45	7:00	1870	Drill from 1854 to 1869.95m
7:00	7:15		Safety meeting
7:15	12:00	1878	Drill from 1869.95 to 1878m
12:00	17:00	1882	Drill from 1878m to 1882.42m
17:00	19:00	1882	Condition mud and circulate: increase mud weight and attempt to regain rotation. Work pipe and attempt to drill
19:00	0:00	1882	Take off top drive. Trip out of hole to change BHA. Flow check @1792m (0 loss), 850m (0.02m3 loss), 150m (0.05m3 loss)

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30		POOH Lay down 8 DC
0:30	0:45		Rig Service
0:45	2:00		Handle Directional tools , RIH
2:00	3:30		Slip/Cut Drill Line Rig service drawworks brakes.
3:30	5:00		RIH
5:00	5:15		Flow check (0.01 M3 loss)
5:15	6:00		RIH with new tricone bit

RIG TIME (operation duration in hours)

Drilling	14	Weld Bowl		Cement		Safety/BOP	0.25	Rig move			
Rig Service	0.25	DST		WOO		Reaming		Flow check	0.75		
Tripping	4.75	Logging		Nipple U/D		Slip and Cut		Other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.	2	Handle Tools	2	Repair		Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**			

24 HOURS FORECAST

Drill ahead to 1970m or top basement whichever comes first

Date : 10/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1150		[kg/m³]
Viscosity	53		[s/l]
P.V.	20		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	9		

Solids	6.5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	14		[kg/m³]
Cl-	50000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$4,878	
Cum Mud Cost	$48,151	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	0	Bags
Bi-acarb	0	Bags
Defoamer	1	Pails
N-Vis	0	Bags
Salt	70	Bags
Barite	96	Bags
soda ash	0	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit TC537**		159	0.19	3.5 IFPIN	
2	Motor		121	9.06	3.5IF	
3	UBHO	82	165	0.87	3.5IF	
4	NM TOOL CARRIER	69	120	5.48	3.5 IF	
5	GAP SUB	68	117	1.16	3.5IF	
6	NM BATTERY CARRIER	70	126	3.96	3.5 IF	
7	FLEX NM	29	116	9.35	3.5IF	
8	JARS	54	121	6.56	3.5IF	
9	DC 4.75	58	127	17.41	3.5 IF	
10	HWDP		121	222.09	3.5if	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	67.5	[min]
	Bottom Up	28.1	[min]
	Mud Tank	34.3	[m³]
	Hole Volume	34.1	[m³]
	System Vol.	68.4	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
2:25	1845.47	1840.82	349.2	1	0.76
9:45	1854.91	1850.03	356	1.2	0.76
5:05	1863.69	1859.03	0.3	1.2	0.31

BOP STACK

	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	7	8	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	DP3075	TC537	-
Serial	7032500	5205268	-
Nozzle	5 x 12.7 2 x 11.1	3X20	[mm²]
WOB	9		[daN]
RPM	25		[tr/min]
Flow	850		[l/min]
Pres	9200		[kPa]
From	1854.78	1882.4	[m]
To	1882.44		[m]
Drilled	27.66		[m]
Hours	14		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	34	88	sacs
Barathin	15	6	9	sacs
Citric Acid	15	0	15	sacs
Bicarb	30	21	9	sacs
Fuel	52937	38456	14481	liters
Drill Water	21.8	15	6.8	[m³]
Gypsum	20	0	20	sacs
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	17	3	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1810	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Start centrifuge at 5am, stop centrifuge at 8am.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 27

Date : 11/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	35	Daily Costs	$38,500	est.
Wind	light	mGL	145.7	Total MD	1917	Cum Costs	$1,646,200	
Temperature	15	24h Avg ROP	2.42	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill to 1917mKB

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	648	
Rig	12	Rig	0		Hrs since last Lost Time Incident	648	
Others	6	Others	0		H_2S Level	0	Trip Drill
Total	22	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	20ppm	BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

0:00/9:00	Laying down drill collars
12:15	H2S simulation drill
19:00	Crew handover safety meeting

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , Limestone, Sandstone
LITHOLOGY : Sandstone and conglomerate
SHOWS : Very faint residual

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30	1882	POOH Lay down 8 DC. Safety meeting on laying down collars
0:30	0:45		Rig Service: function pipe ram, 3 sec to close
0:45	2:00		Handle directional tools , RIH
2:00	3:30		Slip/cut drill line. Rig service drawworks brakes.
3:30	5:00		RIH
5:00	6:15		Trip in hole, Flow check @940m (0.01m3 loss)
6:15	9:00	1882	Pick up singles to replace drill collars, pick up top drive, fill pipe, circulate out air and wash to bottom
9:00	9:15	1882	Safety Meeting
9:15	12:00	1888	Pattern bit and drill from 1882m to 1888m
12:00	12:15	1889	Drill from 1888m to 1888.5m
12:15	12:30	1889	Safety Meeting
12:30	19:00	1901	Drill from 1888.5 to 1901m
19:00	19:15		Safety meeting
19:15	0:00	1917	Drill from 1901 to 1917m

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	2:45	1928	Drill from 1917 to 1927.83m
2:45	3:00		Rig service , function test pipe rams and annular
3:00	5:00	1935	Drill from 1927.83 to 1935.38m
5:00	5:30		Circulate bottoms up
5:30	6:00	1937	Drill from 1935.38 to 1936.5,

RIG TIME (operation duration in hours)

Drilling	14.5	Weld Bowl		Cement		Safety/BOP	0.75	Rig move			
Rig Service	0.25	DST		WOO		Reaming		Flow check	0.25		
Tripping	5.5	Logging		Nipple U/D		Slip and Cut	1.5	Other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools	1.25	Repair		Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**1.5**		

24 HOURS FORECAST

Drill ahead to 1970m or top basement whichever comes first

Date : 11/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3 **Page 2/2**

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1160		[kg/m³]
Viscosity	51		[s/l]
P.V.	18		[cp]
Y.P.	5		[g/100cm²]
Gels 10"/10'	3		
Temperature			
Pressure			
pH	8.5		

Solids	7		[kg/m³]
Sands	0,5		[%]
OWR			[%]
MBT	14		[kg/m³]
Cl-	55000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,608.10	
Cum Mud Cost	$49,758.84	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer	2	Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit STX-30DX (537 Tri-cone)**		159	0.19	3.5 IFPIN	
2	Motor (angle set at 0)		121	9.06	3.5IF	
3	UBHO	82	165	0.87	3.5IF	
4	NM TOOL CARRIER	69	120	5.48	3.5 IF	
5	GAP SUB	68	117	1.16	3.5IF	
6	NM BATTERY CARRIER	70	126	3.96	3.5 IF	
7	FLEX NM	29	116	9.35	3.5IF	
8	JARS	54	121	6.56	3.5IF	
9	DC 4.75	58	127	17.41	3.5 IF	
10	HWDP		121	222.09	3.5if	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
5:05	1863.69	1859.03	0.3	1.2	0.31
11:00	1877.05	1872.39	3.4	1.3	0.27
11:05	1886.48	1881.82	5.8	1.7	1.29
15:35	1895.94	1891.27	15.1	2	1.34
20:05	1905.34	1900.67	12.7	2.1	4.36

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	7	8	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	DP3075	TC537	-
Serial	7032500	5205268	-
Nozzle	5 x 12.7 2 x 11.1	3X20	[mm²]
WOB	9	12	[daN]
RPM	25	26	[tr/min]
Flow	850	850	[l/min]
Pres	9200	9275	[kPa]
From	1854.78	1882.4	[m]
To	1882.44	1917	[m]
Drilled	27.66	34.6	[m]
Hours	14	14.25	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	34	88	sacs
Barathin	15	6	9	sacs
Citric Acid	15	0	15	sacs
Bicarb	30	21	9	sacs
Fuel	52,937	39745	13192	liters
Drill Water	21.8	15	6.8	[m³]
Gypsum	20	0	20	sacs
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density	1085	[kg/m³]
UF density	1830	[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

New BHA has reduced drag up and down.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 28

Date : 12/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	29	Daily Costs	$59,100	est.
Wind	light	mGL	145.7	Total MD	1957	Cum Costs	$1,704,400	
Temperature	15	24h Avg ROP	2.65	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill to 1937mRF. POOH to replace mud motor and bit. Drill to 1957 mRF.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries		
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	672
Rig	12	Rig	0		Hrs since last Lost Time Incident	672
Others	6	Others	0		H_2S Level 0	Trip Drill
Total	22	Total	0		CO_2 Level 0	Pit Drill
					Gas Level 20ppm	BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Review Tripping proceedures
Company Man	Travis Young	(709) 721 1994		
			19:00	BOP Drill

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , sandstone
LITHOLOGY : Interbedded conlomerate and sandstone
SHOWS : Faint to dull residual cut

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	2:45	1928	Drill from 1917 to 1927.83m
2:45	3:00		Rig service, function test pipe rams and annular BOP
3:00	5:00	1935	Drill from 1927.83 to 1935.38m
5:00	5:30		Circulate bottoms up
5:30	7:00	1937	Drill from 1935.38 to 1936.60m
7:00	7:15		Pre-job Safety Meeting
7:15	7:30		Rig service: function stabbing valve
7:30	11:30		Trip out of hole: flow check @1918m, @967.5m, @52.25m and out of hole. Function blind rams: 3 sec to close
11:30	12:00		Laydown mud motor and dress bit
12:00	13:15		Pickup and set angle to 0 degrees
13:15	16:45		Trip in hole: flow check @ 960m, @1900m
16:45	17:15	1937	Condition mud and circulate out air from trip.
17:15	19:00	1938	Drill from 1936.60 to 1937.8m
19:00	19:15		Safety meeting
19:15	0:00	1957	Drill from 1937.80 to 1957m

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:45	1958	Drill from 1950 to 1957.96
1:45	2:00		Rig Service and connection. Function test pipe rams
2:00	5:15	1970	Drill from 1957.96 to 1970 TD
5:15	6:00	1970	Circulate bottoms Up

RIG TIME (operation duration in hours)

Drilling	12.75	Weld Bowl		Cement		Safety/BOP	0.5	Rig move	
Rig Service	0.5	DST		WOO		Reaming		Flow check	1
Tripping	8.25	Logging		Nipple U/D		Slip and Cut			
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.	1	Handle Tools		Repair		Fishing		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

Wash out of hole. Wiper Trip and Log well.

Date : 12/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1155		[kg/m³]
Viscosity	55		[s/l]
P.V.	18		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	9		

Solids	3		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	14		[kg/m³]
Cl-	52000		[mg/L]
Calcium	400		[mg/L]

Volumes Balance

Vol hauled	[m³]
Vol dumped	[m³]
Circ loss	[m³]
Boiler loss	[m³]
Daily Mud Cost	$2,247
Cum Mud Cost	$52,006

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit STX-30DX (537 Tri-cone)**		159	0.19	3.5 IFPIN	
2	Motor (low speed motor#1, used - 128hrs when RIH)		121	9.06	3.5IF	
3	UBHO	82	165	0.87	3.5IF	
4	NM TOOL CARRIER	69	120	5.48	3.5 IF	
5	GAP SUB	68	117	1.16	3.5IF	
6	NM BATTERY CARRIER	70	126	3.96	3.5 IF	
7	FLEX NM	29	116	9.35	3.5IF	
8	JARS	54	121	6.56	3.5IF	
9	DC 4.75	58	127	17.41	3.5 IF	
10	HWDP		121	222.09	3.5IF	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
20:05	1905.34	1900.67	12.7	2.1	4.36
0:30	1914.83	1910.15	5.9	2.1	4.7
2:10	1925.11	1920.42	356.6	1.7	5.04
4:45	1934.55	1929.86	351.5	1.5	5.3
7:20	1943.96	1939.27	337.2	1.3	5.52
0:25	1953.34	1948.64	335.6	1.4	5.72
5:15	1970	1965.3	333.8	1.4	6.09

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	8	9	N°
Size	159	159	[mm]
Mfg	Hughes	Hughes	-
Type	STX-30DX	STX-30DX	-
Serial	5205268	5206281	-
Nozzle	3 x 15.9	3 x 15.9	[mm²]
WOB	12	12	[daN]
RPM	25	40	[tr/min]
Flow	850	850	[l/min]
Pres	9225	8950	[kPa]
From	1882.4	1936.6	[m]
To	1936.6	1957	[m]
Drilled	54.6	20.4	[m]
Hours	20.5	6.75	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	35	87	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57,937	41633	16304	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	sacs
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 29

Date : 13/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	12	Daily Costs	$36,600	est.
Wind	light	mGL	145.7	Total MD	1970	Cum Costs	$1,745,000	
Temperature	15	24h Avg ROP	3.84	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Drill to TD=1970. Wiper trip. Baker Hughes logging Run#1

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case		696
Rig	12	Rig	0		Hrs since last Lost Time Incident		696
Others	8	Others	0		H_2S Level	0	Trip Drill
Total	24	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	20ppm	BOP Drill 08/07/2013

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Pinch points while tripping
15:00	Safety meeting with Baker Hughes prior to logging
19:00	Safety meeting with Baker Hughes prior to logging with night crew

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , sandstone
LITHOLOGY : Interbedded conlomerate and sandstone
SHOWS : Faint to dull residual cut

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	1:45	1958	Drill from 1950 to 1957.96m
1:45	2:00		Rig Service and Connection (function test pipe rams)
2:00	5:15	1970	Drill from 1957.96 to 1970 (TD)
5:15	7:15	1970	Circulate up bottom sample and condition mud
7:15	8:30		Wiper trip 10 stands
8:30	10:00	1970	Circulate, condition mud and hole
10:00	12:00	1970	Trip out of hole to log: flow check @1950m, @985m
12:00	14:00	1970	Trip out of hole to log: flow check @323m, out of hole
14:00	15:00	1970	Laydown Choice directional assembly
15:00	15:15	1970	Safety meeting
15:15	19:00		Openhole logging: R/U logging tool assembly and log with Baker Hughes. Troubles with ZDL, POOH and change out tool with spare. RIH.
19:00	19:15		Safety meeting
19:15	0:00		Openhole logging

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	5:00		Complete Logging Run#1 (HDIL, ML, ZDL, CN, XMAC, ORIT, DSL,TTRM)
5:00	6:00		Rig out logging tools prepare logging tools for Run#2 (TTRM, GR, STAR, ORIT, CIBL)

RIG TIME (operation duration in hours)

Drilling	5	Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service		DST		WOO		Reaming		DIR Work			
Tripping	6.25	Logging	8.75	Nipple U/D		Slip and Cut		other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.	3.5	Handle Tools		Repair		Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**			

24 HOURS FORECAST

Logging Run#2 (formation imager), Run#3 (NMR) and Run#4 (FMT).

Date : 13/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1150		[kg/m³]
Viscosity	54		[s/l]
P.V.	19		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8.5		

Solids	3		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	14		[kg/m³]
Cl-	52000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,447	
Cum Mud Cost	$51,206	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**Bit STX-30DX (537 Tri-cone)**		159	0.19	3.5 IFPIN	
2	Motor		121	9.06	3.5IF	
3	UBHO	82	165	0.87	3.5IF	
4	NM TOOL CARRIER	69	120	5.48	3.5 IF	
5	GAP SUB	68	117	1.16	3.5IF	
6	NM BATTERY CARRIER	70	126	3.96	3.5 IF	
7	FLEX NM	29	116	9.35	3.5IF	
8	JARS	54	121	6.56	3.5IF	
9	DC 4.75	58	127	17.41	3.5 IF	
10	HWDP		121	222.09	3.5 IF	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation
5:15	1970	1965.3	333.8	1.4	6.09

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	9	N°
Size	159	[mm]
Mfg	Hughes	-
Type	STX-30DX	-
Serial	5206281	-
Nozzle	3 x 15.9	[mm²]
WOB	12	[daN]
RPM	40	[tr/min]
Flow	850	[l/min]
Pres	8950	[kPa]
From	1936.6	[m]
To	1970	[m]
Drilled	33.4	[m]
Hours	13	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	35	87	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	43304	14210	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	sacs
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 30

Date : 14/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 Well Licence # EP 03-107

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	N/A	Daily Costs	$33,200	est.
Wind	light	mGL	145.7	Total MD	1970	Cum Costs	$1,778,000	
Temperature	15	24h Avg ROP		Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Logging Run#2 (TTRM, GR, STAR, ORIT, CBIL) complete. Logging Run#3 (TTRM, MREX, GRSL) ongoing.
Rig crew doing rig maintenance / cleaning drilling mud / cleaning out sand trap

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries				
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case			720
Rig	12	Rig	0		Hrs since last Lost Time Incident			720
Others	14	Others	0		H_2S Level	0	Trip Drill	
Total	30	Total	0		CO_2 Level	0	Pit Drill	
					Gas Level	19ppm	BOP Drill	12/07/2013

Rig Manager	Greg McKinnon	(905) 371 4614	Safety Meetings / Tool Box Talks	
Company Man	Victor Leroux	(780) 678 5108	7:00	Safety Meeting: hazards associated with wireline logs
Company Man	Travis Young	(709) 721 1994	15:00	
			19:00	Safety Meeting: Hazards associated with wireline logs

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , sandstone
LITHOLOGY : Interbedded conlomerate and sandstone
SHOWS : Faint to dull residual cut

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	1970	Complete Logging Run#1: HDIL, ML, ZDL, CN, XMAC, ORIT, DSL, TTRM
7:00	7:15		Safety meeting
7:15	21:00		Open hole logging Run #2: TTRM,GR, STAR, ORIT, CBIL . Strip back drilling fluid. Clean out sand trap.
21:00	22:00		Rig up for open hole log #3. Safety Meeting
22:00	0:00		Open hole logging Run #3: TTRM, MREX, GRSL

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00			Open hole logging Run #3: TTRM, MREX, GRSL.
			Issue with main computer @1420 mRF during logging of the main pass
	6:00		Decision to convert that pass into repeat and log again the entire openhole section

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service	0.25	DST		WOO		Reaming		Flow check			
Tripping		Logging	23.25	Nipple U/D		Slip and Cut					
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair		Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**			

24 HOURS FORECAST

Complete logging Run#3 (NMR) and Run#4 (FMT). Perform DSTs as required.

Date : 14/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1150		[kg/m³]
Viscosity	53		[s/l]
P.V.	19		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8.5		

Solids	3		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	14		[kg/m³]
Cl-	52000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995.00	
Cum Mud Cost	$54,448.25	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	9	N°
Size	159	[mm]
Mfg	Hughes	-
Type	STX-30DX	-
Serial	5206281	-
Nozzle	3 x 15.9	[mm²]
WOB	12	[daN]
RPM	40	[tr/min]
Flow	850	[l/min]
Pres	8950	[kPa]
From	1936.6	[m]
To	1970	[m]
Drilled	33.4	[m]
Hours	13	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	35	87	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	44465	13472	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	sacs
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow	750	[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
RIH to 400m with logging run#2: tension sensor working improperly. POOH replace sensor and RIH with logging run#2
Problems with logging truck recording system but recording on laptop

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 31

Date : 15/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*clear*	mKB	149.97	Daily MD		Daily Costs	$30,000	est.
Wind	light	mGL	145.7	Total MD	1970	Cum Costs	$1,809,000	
Temperature	15	24h Avg ROP		Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Logging Run#3 (TTRM, MREX, GRSL). Make up Logging Run#4 (FMT).

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	4	IEC	0	None to report	Hrs since last Medical Treatment Case	744	
Rig	12	Rig	0		Hrs since last Lost Time Incident	744	
Others	14	Others	0		H_2S Level 0	Trip Drill	
Total	30	Total	0		CO_2 Level 0	Pit Drill	
					Gas Level 19ppm	BOP Drill	

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Safety Meeting: Working in hot weather.
Company Man	Travis Young	(709) 721 1994	16:00	Safety Meeting: with new crew on safe logging proceedures

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , sandstone
LITHOLOGY : Interbedded conlomerate and sandstone
SHOWS : Faint to dull residual cut

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	1970	RIH with logging run#3 (TTRM, MREX, GRSL). Main computer crashed at 1420mRF while logging. RIH to TD to log from TD to casing shoe.
7:00	7:15		Safety Meeting
7:15	12:00		Logging Run#3 (TTRM, MREX, GRSL)
12:00	16:00		Logging Run#3 (TTRM, MREX, GRSL)
16:00	16:15		Safety Meeting
16:15	21:30	1970	Logging Run#3 (TTRM, MREX, GRSL)
21:30	23:30		Rig out logging Run# 3 / Rig up logging Run#4 FMT Tools.
23:30	0:00		WOO to run in to test intervals with FMT tools.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15		Safety meeting
0:15	0:30		Rig Service
0:30	6:00		RIH logging Run#4 (FMT) to specified intervals and run test

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service		DST		WOO	0.5	Reaming		Flow check			
Tripping		Logging	23	Nipple U/D		Slip and Cut		Other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools		Repair		Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**0.5**		

24 HOURS FORECAST

Complete logging Run#4. BOP tests. Wiper trip. DSTs.

Date : 15/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1150		[kg/m³]
Viscosity	54		[s/l]
P.V.	19		[cp]
Y.P.	8		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	9		

Solids	6.5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	14		[kg/m³]
Cl-	53000		[mg/L]
Calcium	400		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,419	
Cum Mud Cost	$55,867	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	2	Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	02/07/2013	11250
Next BOP		

BITS

Bit	N°
Size	[mm]
Mfg	-
Type	-
Serial	-
Nozzle	[mm²]
WOB	[daN]
RPM	[tr/min]
Flow	[l/min]
Pres	[kPa]
From	[m]
To	[m]
Drilled	[m]
Hours	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	37	85	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	45034	12903	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Reboot system and run off back computers, but had to return to TD and recommence NMR log (saved from TD to 1420m as repeat run)

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 32

Date : 16/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*clear*	mKB	149.97	Daily MD		Daily Costs	$464,000	est.
Wind	light	mGL	145.7	Total MD	1970	Cum Costs	$2,273,600	
Temperature	15	24h Avg ROP		Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Complete logging run#4 (FMT). Clean out trip. Prepare BHA for DST#1

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	3	IEC	0	None to report	Hrs since last Medical Treatment Case	768	
Rig	12	Rig	0		Hrs since last Lost Time Incident	768	
Others	6	Others	0		H_2S Level 0	Trip Drill	
Total	21	Total	0		CO_2 Level 0	Pit Drill	
					Gas Level 19ppm	BOP Drill	

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

0:00	Safety Meeting: Lock outs used while servicing equipment.
7:00	Safety Meeting: Safe Logging Proceedures
0:15	Safety Meeting: Running DST Tools

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , sandstone
LITHOLOGY : Interbedded conlomerate and sandstone
SHOWS : Faint to dull residual cut

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15	1970	Safety meeting
0:15	0:30		Rig Service
0:30			RIH with FMT to specified intervals and run test. 3 attempts made to test @1202.8m (no seal) and 1199.9m (no seal). Pull up to test on casing (OK)
	7:00		Run back in to continue with FMT
7:00	7:15		Safety meeting
7:15	9:45		Complete logging run#4 (FMT) and laydown logging tools
9:45	12:00		Test BOP's: Pressure test all manifold valves, HCR valve, Manual HCR valve, Manifold lines, Casing Bowl & valves, Inside & Outside kill valves, Stabbing valve, Inside BOP,Pipe rams. 1400 kPa low 11250 kPa high. All tests 15 minutes each. Test Annular Preventer 1400 kPa low, 10250 kPa high for15 minutes each. Accumulator Function Test: start pressure 22000 kpa. Final pressure after 3 functions: 11600 kPa (functioned annular, pipe ram and HCR)
	14:15		Recharge time: 2 minutes and 9 seconds
14:15	18:00		Run in hole with Re-run Bit # 9 for clean out trip.
18:00	19:00		Pick up top drive, fill pipe, and wash 3 singles to bottom
19:00	20:00		Circulate hole clean, condition mud and hole
20:00	23:15		POOH with Flow checks @ 1956.08, @25m, OOH
23:15	0:00		Handle DST tools

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15		Make up test tools for DST#1
0:15	0:30		Safety meeting
0:30	1:15		RIH with tail pipe and test tools
1:15	3:30		Make up DST tool string RIH
3:30	6:00		RIH with tail pipe, DST test tools, top string

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	5.25	Rig move	
Rig Service	0.25	DST	0.75	WOO		Reaming	1	Flow checks	0.5
Tripping	6.25	Logging	9	Nipple U/D		Slip and Cut		other	
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.	1	Handle Tools		Repair		Fishing		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

Openhole DST.

Date : 16/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1145		[kg/m³]
Viscosity	54		[s/l]
P.V.	19		[cp]
Y.P.	7.5		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8		

Solids	6.5		[kg/m³]
Sands	0.5		[%]
OWR			[%]
MBT	14		[kg/m³]
Cl-	52000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$1,419	
Cum Mud Cost	$55,286.00	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize	2	Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	Bit #9		159	0.19	3 1/2 Reg	
2	Bit sub	58	116	0.9	3 1/2 Reg x 3 1/2 IF	
3	2 DC's	58	115	17.41	3 1/2 IF	
4	Jar	54	121	6.56	3 1/2 IF	
5	24 HWDP	60	127	222.09	3 1/2 IF	
6	183 Drillpipe	65	102	1722.85	3 1/2 IF	
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	79	[min]
Bottom Up	27.6	[min]
Mud Tank	29.6	[m³]
Hole Volume	18.3	[m³]
System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP		

BITS

Bit	9	9 Re-Run	N°	
Size	159	159		[mm]
Mfg	Hughes	Hughes		-
Type	STX-30DX	STX-30DX		-
Serial	5206281	5206281		-
Nozzle	3 x 15.9	3 x 15.9		[mm²]
WOB	12	2		[daN]
RPM	40	24		[tr/min]
Flow	850	500		[l/min]
Pres	8950	3500		[kPa]
From	1936.6	1970		[m]
To	1970	1970		[m]
Drilled	33.4	0		[m]
Hours	13	9		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	39	83	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	45034	12903	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	75	75	#REF!	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]
Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]
Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
No trip gas on wiper trip

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 33

Date : 17/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	0	Daily Costs	$38,300	est.
Wind	light	mGL	145.7	Total MD	1970	Cum Costs	$2,312,000	
Temperature	15	24h Avg ROP	0	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: Prepare BHA for DST#1. RIH with DST tools, mud found insite DST string: missing sleeve in hydraulic production tool. Stand By.

SAFETY SUMMARY

Workers on site		Workers Injured	
IEC	3	IEC	0
Rig	12	Rig	0
Others	6	Others	0
Total	21	Total	0

Incidents / Injuries: None to report

Hrs since last Medical Treatment Case	792		
Hrs since last Lost Time Incident	792		
H_2S Level	0	Trip Drill	
CO_2 Level	0	Pit Drill	
Gas Level	30ppm	BOP Drill	

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

0:15	Handling DST tools
7:00	Safety meeting: Hazards associated with DST testing
19:00	Safety meeting: Hazards associated with DST testing

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , sandstone
LITHOLOGY : Interbedded conlomerate and sandstone
SHOWS : Faint to dull residual cut

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30	1970	Make up test tools and RIH / Safety meeting
0:30	1:15		RIH with tail pipe and test tools
1:15	3:30		Make up DST tool string RIH
3:30	7:00		RIH with tail pipe, DST test tools, top string
7:00	7:15		Safety Meeting
7:15	11:30		DST #1 from 1444m to 1480.5m. Got drill mud to surface inside of pipe. DST test failed.
11:30	12:00		Trip out DST tools to check for equipment failure.
12:00	15:00		Trip out DST tools to check for equipment failure.
15:00	16:00		Handle test tools. Found missing sleeve in the hydraulic production tool.
16:00	19:00		W/O Third party tools: Wait on production sleeve for DST tool. Slip & cut drilling line.
19:00	19:15		Safety Meeting
19:15	0:00		W/O Third party tools: wait on production sleeve for DST tool.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	4:15		W/O Third party tools: Wait on production sleeve for DST tool.
4:15	4:45		Make up test tools with production sleeve.
4:45	6:00		RIH with DST tools (DST#1)

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.75	Rig move			
Rig Service		DST	11	WOO		Reaming		Flow checks			
Tripping	3.5	Logging		Nipple U/D		Slip and Cut		Stand By	7.75		
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools	1	Repair		Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**7.75**		

24 HOURS FORECAST

Openhole DST.

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1145		[kg/m³]
Viscosity	55		[s/l]
P.V.	21		[cp]
Y.P.	8		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8		

Solids	6		[kg/m³]
Sands	0.75		[%]
OWR			[%]
MBT	10.5		[kg/m³]
Cl-	51000		[mg/L]
Calcium	440		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995	
Cum Mud Cost	$58,281	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	Bullnose	61.5	120.65	0.61	3.5 IF	
2	DP	69	121	482.96	3.5 IF	
3	Recorder Sub	12.7	120.65	1.524	3.5 IF	
4	Perf Sub	61.5	120.65	1.22	3.5 IF	
5	Packer	12.7	120.65	2.34	3.5 IF	
6	Packer	12.7	120.65	0.915	3.5 IF	
7	Packer	12.7	120.65	0.915	3.5 IF	
8	Blank Sub	61.5	120.65	0.305	3.5 IF	
9	HWDP	64	127	27.65	3.5 IF	
10	E/Recorder Sub	12.7	120.65	1.524	3.5 IF	
11	Perf Sub	61.5	120.65	5.795	3.5 IF	
12	Packer	12.7	120.65	0.305	3.5 IF	
13	Packer	12.7	120.65	1.524	3.5 IF	
14	Packer	12.7	120.65	2.34	3.5 IF	
15	Safety Sub	61.5	120.65	0.61	3.5 IF	
16	E/Recorder Sub	12.7	120.65	1.524	3.5 IF	
17	Jars	61.5	120.65	2.05	3.5 IF	
18	Hydraulic Valve	61.5	120.65	1.72	3.5 IF	
19	Sampler	12.7	120.65	0.93	3.5 IF	
20	Shut -in Sub	61.5	120.65	1.65	3.5 IF	
21	Recorder Sub	12.7	120.65	1.524	3.5 IF	
22	DC	58	127	19.5	3.5 IF	
23	PO Sub	61.5	120.65	0.305	3.5 IF	
24	DC	58	115	88.31	3.5 IF	
25	HWDP	64	127	194.41	3.5 IF	
26	DP	69	121	1133	3.5 IF	

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	79	[min]
Bottom Up	27.6	[min]
Mud Tank	29.6	[m³]
Hole Volume	18.3	[m³]
System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP	30/07/2013	

BITS

Bit	N°
Size	[mm]
Mfg	-
Type	-
Serial	-
Nozzle	[mm²]
WOB	[daN]
RPM	[tr/min]
Flow	[l/min]
Pres	[kPa]
From	[m]
To	[m]
Drilled	[m]
Hours	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	39	83	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	46414	11523	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]
Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]
Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
There is no info in bit section due to no bits being run.

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 34

Date : 18/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*Rain*	mKB	149.97	Daily MD	0	Daily Costs	$29,000	est.
Wind	light	mGL	145.7	Total MD	1970	Cum Costs	$2,340,000	
Temperature	12	24h Avg ROP	0	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: W/O Production sleeve for DST tool. Complete DST#1 (1444m to 1480.5m): 10 min. pre-flow, 2 hour shut in, 30 min open, 4 hour shut in DST#2 (1316.5m-1371m) started

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries	Hrs since last Medical Treatment Case		816
IEC	3	IEC	0	None to report	Hrs since last Lost Time Incident		816
Rig	12	Rig	0		H_2S Level	0	Trip Drill
Others	6	Others	0		CO_2 Level	0	Pit Drill
Total	21	Total	0		Gas Level	30ppm	BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Safety Meeting: DST testing proceedures
Company Man	Travis Young	(709) 721 1994	19:00	Safety Meeting: Working on slippery drill floor (watch footing and clean often)

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP : Conglomerate , sandstone
LITHOLOGY : Interbedded conlomerate and sandstone
SHOWS : Faint to dull residual cut

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	4:15	1970	Standby: wait on production sleeve for DST tool.
4:15	4:45		Make up test tools with production sleeve.
4:45	7:00		RIH tools for DST#1
7:00	7:15		Safety Meeting
7:15	7:30		RIG with BHA
7:30			Drill Stem Test: 10 minute pre-flow (weak pre-flow) , 2 hour shut in, 30 minute Open tool (Initial weak flow to faint after 10 minutes, dead after 30 minutes)
	10:10		Shut in 4 hours (DST#1 Interval: 1444m to 1480.5m)
10:10	14:10		PBU for DST#1
14:10	18:00		Deflate packers and pull out of hole to recover recorders from DST#1. Flow check @985m
18:00	21:30		Trip in Test Tools: Make up DST Assembly #2 and run in hole to test interval 1316.5m to 1371m
21:30	0:00		DST#2: interval 1316.5m to 1371m, 10min pre-flow (weak) followed by 2 hrs shut in.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15		Safety Meeting
0:15	0:30		Rig Service: repair high clutch
0:30			DST#2: 60 min open tool (Initial weak flow to faint after 40 minutes, dead after 60 minutes)
	6:00		Shut in 6 hours (DST#2 Interval: 1316.5m to 1371m)

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.25	Rig move	
Rig Service		DST	13	WOO		Reaming		Flow checks	0.25
Tripping	2.25	Logging		Nipple U/D		Slip and Cut		Stand by	4.25
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools	4	Repair		Fishing		**TOTAL**	**24**
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**4.25**

24 HOURS FORECAST

Openhole DST.

Date : 18/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1140		[kg/m³]
Viscosity	54		[s/l]
P.V.	20		[cp]
Y.P.	8.5		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8		

Solids	6		[kg/m³]
Sands	0.75		[%]
OWR			[%]
MBT	10.5		[kg/m³]
Cl-	48000		[mg/L]
Calcium	360		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995	
Cum Mud Cost	$59,276	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	Bullnose	61.5	120.65	0.61	3.5 IF	
2	DP	69	121	586.76	3.5 IF	
3	Recorder Sub	12.7	120.65	1.524	3.5 IF	
4	Perf Sub	61.5	120.65	6.7	3.5 IF	
5	Packer	12.7	120.65	2.34	3.5 IF	
6	Packer	12.7	120.65	0.915	3.5 IF	
7	Packer	12.7	120.65	0.915	3.5 IF	
8	Blank Sub	61.5	120.65	0.305	3.5 IF	
9	HWDP	64	127	46.22	3.5 IF	
10	E/Recorder Sub	12.7	120.65	1.524	3.5 IF	
11	Perf Sub	61.5	120.65	5.18	3.5 IF	
12	Packer	12.7	120.65	0.305	3.5 IF	
13	Packer	12.7	120.65	1.524	3.5 IF	
14	Packer	12.7	120.65	2.34	3.5 IF	
15	Safety Sub	61.5	120.65	0.61	3.5 IF	
16	E/Recorder Sub	12.7	120.65	1.524	3.5 IF	
17	Jars	61.5	120.65	2.05	3.5 IF	
18	Hydraulic Valve	61.5	120.65	1.72	3.5 IF	
19	Sampler	12.7	120.65	0.93	3.5 IF	
20	Shut -in Sub	61.5	120.65	1.65	3.5 IF	
21	Recorder Sub	12.7	120.65	1.524	3.5 IF	
22	PO Sub	61.5	120.65	0.305	3.5IF	
23	HWDP	64	127	175.84	3.5IF	
24	DP	69	121	1129.67	3.5IF	
25						
26						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle	79	[min]
Bottom Up	27.6	[min]
Mud Tank	29.6	[m³]
Hole Volume	18.3	[m³]
System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP	30/07/2013	

BITS

Bit	N°
Size	[mm]
Mfg	-
Type	-
Serial	-
Nozzle	[mm²]
WOB	[daN]
RPM	[tr/min]
Flow	[l/min]
Pres	[kPa]
From	[m]
To	[m]
Drilled	[m]
Hours	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	39	83	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	46679	11258	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface		***Last Casing***		
Date	07/12/2005		Date		
grade	H-40	-	grade		-
diam	177.8	[mm]	diam		[mm]
Lin Weight	25.3	[kg/m]	Lin Weight		[kg/m]
Nb Joint		-	Nb Joint		-
Set at	323	[m]	Set at		[m]
Length	323	[m]	Length		[m]
Burst	16000	[kPa]	Burst		[kPa]
Collapse	10000	[kPa]	Collapse		[kPa]
Tensile	54000	[daN]	Tensile		[daN]
TEST			TEST		
Date	17/06/2013		Date		
Pressure	11250	[kPa]	Pressure		[kPa]
Last Cement	Plug		***Last Cement***		
Date	16/12/2005		Date		
Class	A		Class		
Density	1520	[kg/m³]	Density		[kg/m³]
Volume	50	[m³]	Volume		[m³]
Time to GL		[min]	Time to GL		[min]
Additives			Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Standby due to new production sleeve to come onsite from Ontario (Holland Testers).

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 35

Date : 19/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*clear*	mKB	149.97	Daily MD	0	Daily Costs	$28,000	est.
Wind	light	mGL	145.7	Total MD	1970	Cum Costs	$2,369,000	
Temperature	12	24h Avg ROP	0	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: DST#2 (1316.5-1371 mRF) complete after 1 hr of drawdown followed by 6 hrs of PBU. RIH DST#4 assembly, test ongoing (1090-1125.5 mRF).

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries	Hrs since last Medical Treatment Case	840	
IEC	3	IEC	0	None to report	Hrs since last Lost Time Incident	840	
Rig	12	Rig	0		H_2S Level	0	Trip Drill
Others	6	Others	0		CO_2 Level	0	Pit Drill
Total	21	Total	0		Gas Level		BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	0:00	Tripping Hazards
Company Man	Travis Young	(709) 721 1994	7:00	Tripping Hazards
			19:00	Check safety lines and shackles

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:15	1970	Safety Meeting (DST#2 ongoing)
0:15	0:30		Rig Service: repair high clutch
0:30			DST#2 (1316.5m to 1371m): 60 min open tool (initial weak flow to faint after 40 min, dead at 60 min)
	7:00		Shut in 6 hrs.
7:00	7:15		Safety Meeting
7:15	10:00		Trip out test tools to recover recorders and mud sample. Flow check @1188m, @588m
10:00	11:30		Recover mud samples and recorders. Service DST tool. Note: no oil in retort test on mud sample
11:30	12:00		Downtime: repair hydromatic shifter on drawworks
12:00	14:00		Make up DST#4 assembly (DST#3 cancelled)
14:00	15:30		Trip in DST Tools to test interval 1090m to 1125.5m
15:30			DST#4 (Interval 1090m to 1125.5m): 10 min Pre-flow, bubble test 3" into pail for the full 10 minutes. Shut in 2 hours. Open tool for 1 hour. Bubble test 2" in pail.
	19:00		Weak to faint and dead after a half hour (no gas to surface).
19:00	19:15		Safety Meeting
19:15	0:00		Shut in 6 hours.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30		6 hours PBU complete
0:30	3:00		POOH with DST #4 tools. Lay down tools flow check @1900m, @905m, @50m and out of hole
3:00	5:30		Recover mud samples and recorders. Unload pressure into gas canister and fluid into sample jar. Lay down DST tools. DST testing completed.
5:30	5:45		Safety Meeting
5:45	6:00		POOH with tail pipe remove bullnose.

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.75	Rig move			
Rig Service	0.25	DST	18.5	WOO		Reaming		Flow checks	0.5		
Tripping		Logging		Nipple U/D		Slip and Cut		other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.		Handle Tools	3.5	Repair	0.5	Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing		Rig Up		LOT/FIT		**DOWNTIME**	**0.5**		

24 HOURS FORECAST

Wiper trip and condition hole for running casing.

Date : 19/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1135		[kg/m³]
Viscosity	54		[s/l]
P.V.	18		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8		

Solids	6		[kg/m³]
Sands	0.75		[%]
OWR			[%]
MBT	10.5		[kg/m³]
Cl-	47000		[mg/L]
Calcium	400		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995	
Cum Mud Cost	$60,271	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	Bullnose	61.5	120.65	0.61	3.5 IF	
2	DP	69	121	832.28	3.5 IF	
3	Recorder Sub	12.7	120.65	1.524	3.5 IF	
4	Perf Sub	61.5	120.65	6.7	3.5 IF	
5	Packer	12.7	120.65	2.34	3.5 IF	
6	Packer	12.7	120.65	0.915	3.5 IF	
7	Packer	12.7	120.65	0.915	3.5 IF	
8	Blank Sub	61.5	120.65	0.305	3.5 IF	
9	HWDP	64	127	27.65	3.5 IF	
10	E/Recorder Sub	12.7	120.65	1.524	3.5 IF	
11	Perf Sub	61.5	120.65	4.87	3.5 IF	
12	Packer	12.7	120.65	0.305	3.5 IF	
13	Packer	12.7	120.65	1.524	3.5 IF	
14	Packer	12.7	120.65	2.34	3.5 IF	
15	Safety Sub	61.5	120.65	0.61	3.5 IF	
16	E/Recorder Sub	12.7	120.65	1.524	3.5 IF	
17	Jars	61.5	120.65	2.05	3.5 IF	
18	Hydraulic Valve	61.5	120.65	1.72	3.5 IF	
19	Sampler	12.7	120.65	0.93	3.5 IF	
20	Shut -in Sub	61.5	120.65	1.65	3.5 IF	
21	Recorder Sub	12.7	120.65	1.524	3.5 IF	
22	PO Sub	61.5	120.65	0.305	3.5 IF	
23	HWDP	64	127	175.84	3.5 IF	
24	DP	69	121	884.15	3.5IF	
25						
26						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP	30/07/2013	

BITS

Bit	N°
Size	[mm]
Mfg	-
Type	-
Serial	-
Nozzle	[mm²]
WOB	[daN]
RPM	[tr/min]
Flow	[l/min]
Pres	[kPa]
From	[m]
To	[m]
Drilled	[m]
Hours	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	39	83	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	47473	10464	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]
Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]
Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 36

Date : 20/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 | Well Licence # EP 03-107 | Page 1/2

Weather @ 8:00	*Cloudy*	mKB	149.97	Daily MD	0	Daily Costs	$33,700	est.
Wind	Mod	mGL	145.7	Total MD	1970	Cum Costs	$2,408,000	
Temperature	15	24h Avg ROP	0	Expected MD	1970	AFE	$2,410,000	

Summary of Daily Operations: POOH with DST string. Condition mud and circulate. Start running 5" casing.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	3	IEC	0	None to report	Hrs since last Medical Treatment Case	864	
Rig	12	Rig	0		Hrs since last Lost Time Incident	864	
Others	6	Others	0		H_2S Level 0		Trip Drill
Total	21	Total	0		CO_2 Level 0		Pit Drill
					Gas Level 25		BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

5:30	Safety Meeting: Handling DST tools
19:30	Safety Meeting : running casing

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30	1970	DST#4 (1090 - 1125.5mRF): 6hrs PBU complete
0:30	3:00		POOH with DST#4 tools. Lay down tools flow check @1900m, @905m, @50m and out of hole
3:00	5:30		Recover mud samples and recorders. Unload pressure into gas canister and fluid into sample jar. Lay down DST tools. DST testing completed.
5:30	5:45		Safety Meeting
5:45	7:00		Trip out of hole to remove bull nose and prepare for wiper trip.
7:00	10:30		Trip in hole. Flow check @ 985m
10:30	12:00		Condition mud and circulate
12:00	12:30		Condition mud and circulate
12:30	19:15		Laydown drillpipe and HWDP
19:15	19:30		Clean rig floor
19:30	19:45		Safety Meeting
19:45	20:15		Rig up to run casing.
20:15	0:00		Run 5" casing with Rig Service power tongs.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	6:00		Run casing with Rig Service Power tongs

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.5	Rig move			
Rig Service	0.25	DST	0.5	WOO		Reaming		Flow checks	1		
Tripping	15.5	Logging		Nipple U/D		Slip and Cut		other			
Survey		Clean to Btm		Press. Test		Drill R & M hole					
Circ./Cond.	2	Handle Tools		Repair		Fishing		**TOTAL**	**24**		
Pick up BHA		Run Casing	4.25	Rig Up		LOT/FIT		**DOWNTIME**			

24 HOURS FORECAST

Land casing. Circulate and cement casing

DRILLING MUD

Fluid type	Polymer Base		
Mud Co	Baroid		
Time Check	7:00		
Mud Man	L. Anthony		
Density	1135		[kg/m³]
Viscosity	54		[s/l]
P.V.	18		[cp]
Y.P.	7		[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH	8		

Solids	6		[kg/m³]
Sands	0.75		[%]
OWR			[%]
MBT	10.5		[kg/m³]
Cl-	47000		[mg/L]
Calcium	400		[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995	
Cum Mud Cost	$61,266	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
Barite		Bags
soda ash		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**shoe**		127	0.44	LT/C	
2	float		127	0.39	LT/C	
3	Casing	108.61	127	1955.23	LT/C	
4	X=over	118.62	139.7	0.25	LT/C	
5						
6						
7						
8						
9						
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24						
25						
26						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP	30/07/2013	

BITS

Bit	N°
Size	[mm]
Mfg	-
Type	-
Serial	-
Nozzle	[mm²]
WOB	[daN]
RPM	[tr/min]
Flow	[l/min]
Pres	[kPa]
From	[m]
To	[m]
Drilled	[m]
Hours	[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
Baroseal (M)	80	0	80	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	39	83	sacs
Barathin	15	9	6	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	48414	9523	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	75	75	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing		
Date		
grade		-
diam		[mm]
Lin Weight		[kg/m]
Nb Joint		-
Set at		[m]
Length		[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement		
Date		
Class		
Density		[kg/m³]
Volume		[m³]
Time to GL		[min]
Additives		

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

Casing centrilizers every 10 joints in open hole and every 3 joints in 7'' casing

Mud will be centrifuged and salt added for long term storage (next well) since mud condition has been deemed sufficient for further drilling

DAILY DRILLING REPORT

N° 37

Date : 21/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

INVESTCAN Energy Corp

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*CLOUDY*	mKB	149.97	Daily MD	0	Daily Costs	est.
Wind	Mod	mGL	145.7	Total MD	1970	Cum Costs	
Temperature	15	24h Avg ROP	0	Expected MD	1970	AFE	

Summary of Daily Operations: Run and cement 5" casing

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	3	IEC	0	6:40. Minor collision between 2 vehicles (water truck and safety vehicle) when backing out. No injuries.	Hrs since last Medical Treatment Case		888
Rig	12	Rig	0		Hrs since last Lost Time Incident		888
Others	9	Others	0		H_2S Level	0 Trip Drill	
Total	24	Total	0		CO_2 Level	0 Pit Drill	
					Gas Level	25ppm BOP Drill	

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Rigging out power tongs
19:00	Halliburton Safety Meeting: pumping casing cement

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	7:00	1970	Run Casing with Rig Service power tongs
7:00	7:15		Safety Meeting
7:15	8:00		Run Casing with Rig Service power tongs to 1960.63m KB.
8:00	12:00		Condition mud and circulate casing. Wait on cementers.
12:00	19:00		Condition mud and circulate casing. Wait on cementers.
19:00	19:15		Pre job safety meeting cementing procedures with Halliburton
19:15			Primary cementing : Pre Hydrate gel water for lead cement head up.
			Pressure test lines to 17 Mpa
			Pump 3m3 Pre flush followed by 9.90m3 (8.50T) Class G + Additives lead cement. 8.22m3 (10.5t) Class G + additives Tail Cement.
			Displace with 18.25m3 water.
			Bump Plug hold pressure 10 min and rig out. Casing landed @ 1960.33m. 2m3 good cement returns.
	0:00		Transfer condition drilling mud from rig tanks to 400 stb holding tank.

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30		Place rods down outside 7" casing to top up cement from 39m to surface
0:30	1:15		Top up cement aroung 7" casing from 39m - surface. Start nippling down BOP's to set slips
1:15	2:00		Rig out and clean up cement pumper with Crosbie Vac Truck
2:00	5:00		Nipple down BOP's and set slips
5:00	6:00		WO cement

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement	4.75	Safety/BOP	0.5	Rig move	
Rig Service		DST		WOO		Reaming		Flow checks	
Tripping		Logging		Nipple U/D		Slip and Cut		other	
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.	11	Handle Tools		Repair		Fishing		**TOTAL**	24
Pick up BHA		Run Casing	7.75	Rig Up		LOT/FIT		**DOWNTIME**	9

24 HOURS FORECAST

WO Cement. Start rigging out Rig. Salt added to drilling mud for storage.

Date : 21/07/2013 **Well :** Hurricane#2 RE **Rig :** Foragaz#3 **Page 2/2**

DRILLING MUD

Fluid type			
Mud Co			
Time Check			
Mud Man			
Density			[kg/m³]
Viscosity			[s/l]
P.V.			[cp]
Y.P.			[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH			

Solids			[kg/m³]
Sands			[%]
OWR			[%]
MBT			[kg/m³]
Cl-			[mg/L]
Calcium			[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost		
Cum Mud Cost		

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt	229	Bags
CW8551	2	Pails
Bara Thin	2	Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**shoe**		127	0.44	LT/C	
2	float		127	0.39	LT/C	
3	Casing	108.61	127	1955.23	LT/C	
4	Crossover	118.62	139.7	0.25	LT/C	
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23						
24						
25						
26						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit			
	Mud Cycle	79	[min]
	Bottom Up	27.6	[min]
	Mud Tank	29.6	[m³]
	Hole Volume	18.3	[m³]
	System Vol.	67.6	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP	30/07/2013	

BITS

Bit		N°
Size		[mm]
Mfg		-
Type		-
Serial		-
Nozzle		[mm²]
WOB		[daN]
RPM		[tr/min]
Flow		[l/min]
Pres		[kPa]
From		[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
CW8551	4	2	2	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	39	83	sacs
Barathin	15	15	0	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	49297	8640	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	304	304	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing	*Surface*	
Date	21/07/2013	
grade	L80D10	-
diam	127	[mm]
Lin Weight	26.79	[kg/m]
Nb Joint		-
Set at	1960.33	[m]
Length	1960.33	[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement	Casing cement	
Date	21/07/2013	
Class	G	
Density	1895	[kg/m³]
Volume	17.9	[m³]
Time to GL		[min]
Additives	0.5% Halad 344	

CENTRIFUGE

Make	United	
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

DAILY DRILLING REPORT

INVESTCAN Energy Corp

N° 38

Date : 22/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*sunny*	mKB	149.97	Daily MD	0	Daily Costs	est.
Wind	Mod	mGL	145.7	Total MD	1970	Cum Costs	
Temperature	15	24h Avg ROP	0	Expected MD	1970	AFE	

Summary of Daily Operations: Nipple down BOP's, install slips. Rig down.

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries			
IEC	3	IEC	0	None to report	Hrs since last Medical Treatment Case		912
Rig	12	Rig	0		Hrs since last Lost Time Incident		912
Others	9	Others	0		H_2S Level	0	Trip Drill
Total	24	Total	0		CO_2 Level	0	Pit Drill
					Gas Level	0	BOP Drill

Rig Manager	Greg McKinnon	(905) 371 4614
Company Man	Victor Leroux	(780) 678 5108
Company Man	Travis Young	(709) 721 1994

Safety Meetings / Tool Box Talks

7:00	Nippling down BOPs / Rigging down

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
0:00	0:30		Place rods down outside 7" casing to top up cement from 39m to surface.
0:30	1:15		Top up cement aroung 7" casing from 39m - surface. Start nippleing down BOP's to set slips.
1:15	2:00		Rig out and clean up cement pumper with Crosbie Vac Truck.
2:00	5:00		Nipple down BOP's and set slips
5:00	6:00		WO cement
6:00	7:00		Wash out and service BOP's. Release Mud Man, Day company Man (Victor Leroux). Travis Young becomes supervisor (12h ops)
7:00	7:15		Safety Meeting
7:15	12:00		Wash out and service BOP's. Continue to rig down.
12:00			Lay down Halliburton valve, lay down landing casing joint, Rig out and clean up centrifuge. Lay down rig service slips and elevators.
	19:00		No night crew for FORAGAZ (all crews going on days)

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.25	Rig move	
Rig Service		DST		WOC	6.75	Reaming		Flow checks	
Tripping		Logging		Nipple U/D	3	Slip and Cut		Other	
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools	2	Repair		Fishing		**TOTAL**	**19**
Pick up BHA		Run Casing		Rig down	7	LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

Prep and install tubing spool and blind flange onto casing bowl, release rig. Ship all Investcan equipment to secured yard in Stephenville.

DRILLING MUD

Fluid type			
Mud Co			
Time Check			
Mud Man			
Density			[kg/m³]
Viscosity			[s/l]
P.V.			[cp]
Y.P.			[g/100cm²]
Gels 10"/10'			
Temperature			
Pressure			
pH			

Solids			[kg/m³]
Sands			[%]
OWR			[%]
MBT			[kg/m³]
Cl-			[mg/L]
Calcium			[mg/L]

Volumes Balance

Vol hauled		[m³]
Vol dumped		[m³]
Circ loss		[m³]
Boiler loss		[m³]
Daily Mud Cost	$995	
Cum Mud Cost	$69,521	

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
CW8551		Pails
Bara Thin		Bags

COMMENTS

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**shoe**		127	0.44	LT/C	
2	float		127	0.39	LT/C	
3	Casing	108.61	127	1955.23	LT/C	
4	Crossover	118.62	139.7	0.25	LT/C	
5						
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25						
26						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit

Mud Cycle		[min]
Bottom Up		[min]
Mud Tank		[m³]
Hole Volume		[m³]
System Vol.		[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP	30/07/2013	

BITS

Bit		N°
Size		[mm]
Mfg		-
Type		-
Serial		-
Nozzle		[mm²]
WOB		[daN]
RPM		[tr/min]
Flow		[l/min]
Pres		[kPa]
From		[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
Barite	288	96	192	sacs
Baracarb	250	6	244	sacs
CW8551	4	2	2	sacs
Soad ash	10	4	6	sacs
N-Vis Plus	27	5	22	sacs
Cellosize	122	39	83	sacs
Barathin	15	15	0	sacs
Citric Acid	15	1	14	sacs
Bicarb	30	21	9	sacs
Fuel	57937	50677	7260	liters
Drill Water	21.8	15	6.8	[m³]
E Z mud	20	3	17	pails
Barabuf	20	3	17	sacs
Sodium	304	304	0	sacs
Defoamer	20	19	1	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface		*Last Casing*	*Surface*	
Date	07/12/2005		Date	21/07/2013	
grade	H-40	-	grade	L80D10	-
diam	177.8	[mm]	diam	127	[mm]
Lin Weight	25.3	[kg/m]	Lin Weight	26.79	[kg/m]
Nb Joint		-	Nb Joint		-
Set at	323	[m]	Set at	1960.33	[m]
Length	323	[m]	Length	1960.33	[m]
Burst	16000	[kPa]	Burst		[kPa]
Collapse	10000	[kPa]	Collapse		[kPa]
Tensile	54000	[daN]	Tensile		[daN]
TEST			TEST		
Date	17/06/2013		Date		
Pressure	11250	[kPa]	Pressure		[kPa]

Last Cement	5" casing		*Last Cement*	
Date	21/07/2013		Date	
Class	G		Class	
Density	1895	[kg/m³]	Density	
Volume	17.9	[m³]	Volume	
Time to GL		[min]	Time to GL	
Additives			Additives	

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:
Last DDR

INVESTCAN Energy Corp

DAILY DRILLING REPORT

N° 39

Date : 23/07/2013
Well : Hurricane#2 RE
Rig : Foragaz#3

Spud date : 17/06/2013 **Well Licence #** EP 03-107

Weather @ 8:00	*sunny*	mKB	149.97	Daily MD	0	Daily Costs	est.
Wind	Mod	mGL	145.7	Total MD	1970	Cum Costs	
Temperature	18	24h Avg ROP	0	Expected MD	1970	AFE	

Summary of Daily Operations:
Rig out Foragaz rig
Foragaz Rig released as of 19:00 July 23 2013

SAFETY SUMMARY

Workers on site		Workers Injured		Incidents / Injuries		
IEC	2	IEC	0	None to report	Hrs since last Medical Treatment Case	936
Rig	12	Rig	0		Hrs since last Lost Time Incident	936
Others	2	Others	0		H_2S Level 0	Trip Drill
Total	16	Total	0		CO_2 Level 0	Pit Drill
					Gas Level 0	BOP Drill

			Safety Meetings / Tool Box Talks	
Rig Manager	Greg McKinnon	(905) 371 4614		
Company Man	Victor Leroux	(780) 678 5108	7:00	Rigging down
Company Man	Travis Young	(709) 721 1994	19:00	

TIME LOG - 00:00 to 24:00 (include Safety meetings and Tool box talks)

FORMATION/TOP :
LITHOLOGY :
SHOWS :

From [Hr]	To [Hr]	Depth [m]	Operation description
7:00	9:00		Prep and cut of casing to suit tubing spool. Install secondary and primary seals and tubing hanger spool and blank flange.
9:00	10:00		Load out production tubing for storage ayrd.
10:00	19:00		Continue rigging down Forgaz rig. No night shift. Rig Release as of 19:00 July 23 2013

TIME LOG - 24:00 to 6:00am (include Safety meetings and Tool box talks)

From [Hr]	To [Hr]	Depth [m]	Operation description

RIG TIME (operation duration in hours)

Drilling		Weld Bowl		Cement		Safety/BOP	0.25	Rig move	
Rig Service		DST		WOC		Reaming		Flow checks	
Tripping		Logging		Nipple U/D		Slip and Cut		WOO	
Survey		Clean to Btm		Press. Test		Drill R & M hole			
Circ./Cond.		Handle Tools		Repair		Fishing		**TOTAL**	12
Pick up BHA		Run Casing		Rig out	11.75	LOT/FIT		**DOWNTIME**	

24 HOURS FORECAST

Rig out Foragaz rig Ship all Investcan equipment to yard in stephenville. Rig Release.

Date :	23/07/2013	Well :	Hurricane#2 RE	Rig :	Foragaz#3	Page 2/2

DRILLING MUD

Fluid type			Solids			[kg/m³]	
Mud Co			Sands			[%]	
Time Check			OWR			[%]	
Mud Man			MBT			[kg/m³]	
			Cl-			[mg/L]	
Density		[kg/m³]	Calcium			[mg/L]	
Viscosity		[s/l]					
P.V.		[cp]	**Volumes Balance**				
Y.P.		[g/100cm²]	Vol hauled		[m³]		
Gels 10"/10'			Vol dumped		[m³]		
Temperature			Circ loss		[m³]		
Pressure			Boiler loss		[m³]		
pH			**Daily Mud Cost**				
			Cum Mud Cost				

ADDITIVES ADDED

NAME	Quantity	Concentration
Cellosize		Bags
Bi-acarb		Bags
Defoamer		Pails
N-Vis		Bags
Salt		Bags
CW8551		Pails
Bara Thin		Bags

COMMENTS

Total Mud cost includes mudman cost of $995.00d

BOTTOM HOLE ASSEMBLY

N°	Component	ID [mm]	OD [mm]	Length [m]	Connection	Weight
1	**shoe**		127	0.44	LT/C	
2	float		127	0.39	LT/C	
3	Casing	108.61	127	1955.23	LT/C	
4	X=over	118.62	139.7	0.25	LT/C	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						

HYDRAULICS

Pump	1	2	
Make&Model	Dragon 660	Wilson 600	
Liner x Stack	8 1/2" X 6	6 1/2" X 14	-
SPM	70		-
Litre/Sk 100%	0.012	0.0152	-
Circ Rate	0.84		[m³/min]
Pump Eff	90	90	[%]
Pump Press	8500		[kPa]
Drillpipe AV	8400		[mm]
Drill Collar AV	38.9		[mm]

Circuit		
	Mud Cycle	[min]
	Bottom Up	[min]
	Mud Tank	[m³]
	Hole Volume	[m³]
	System Vol.	[m³]

SURVEY

Time	m MD	m TVD	Azimuth	Inclination	Deviation

BOP STACK

OP	Item	Diam [mm]	W.P. [kPa]
Drilling	Stack	228.6	10500
	Diverter		
	Annular	228.6	21000
	Blind	228.6	21000
	Other	228.6	21000
Other	Stack		
	Diverter		
	Annular		
	Blind		
	Other		

TESTS

	Date	Pres [kPa]
Last BOP	16/07/2013	11250
Next BOP	30/07/2013	

BITS

Bit		N°
Size		[mm]
Mfg		-
Type		-
Serial		-
Nozzle		[mm²]
WOB		[daN]
RPM		[tr/min]
Flow		[l/min]
Pres		[kPa]
From		[m]
To		[m]
Drilled		[m]
Hours		[hrs]

STOCK

Name	In	Used	Stock	Unit
			0	sacs
			0	sacs
			0	sacs
			0	sacs
			0	sacs
			0	sacs
			0	sacs
			0	sacs
			0	sacs
Fuel	57937	51977	5960	liters
			0	[m³]
			0	pails
			0	sacs
			0	sacs
			0	pails

CASING / CEMENTING PROGRAM

Last Casing	Surface	
Date	07/12/2005	
grade	H-40	-
diam	177.8	[mm]
Lin Weight	25.3	[kg/m]
Nb Joint		-
Set at	323	[m]
Length	323	[m]
Burst	16000	[kPa]
Collapse	10000	[kPa]
Tensile	54000	[daN]
TEST		
Date	17/06/2013	
Pressure	11250	[kPa]

Last Cement	Plug	
Date	16/12/2005	
Class	A	
Density	1520	[kg/m³]
Volume	50	[m³]
Time to GL		[min]
Additives		

Last Casing	***Surface***	
Date	21/07/2013	
grade	L80D10	-
diam	127	[mm]
Lin Weight	26.79	[kg/m]
Nb Joint		-
Set at	1960.33	[m]
Length	1960.33	[m]
Burst		[kPa]
Collapse		[kPa]
Tensile		[daN]
TEST		
Date		
Pressure		[kPa]

Last Cement	Casing cement	
Date	21/07/2013	
Class	G	
Density	1895	[kg/m³]
Volume	17.9	[m³]
Time to GL		[min]
Additives	0.5% Halad 344	

CENTRIFUGE

Make		
OF density		[kg/m³]
UF density		[kg/m³]
Flow		[L/min]
Last Dump		

CASING BOWL

Make	Weatherford	
Serial	12110022005	
Size OD	228.6	[mm]
Size ID	177.8	[mm]
Rating	21,000	[kPa]

Comments:

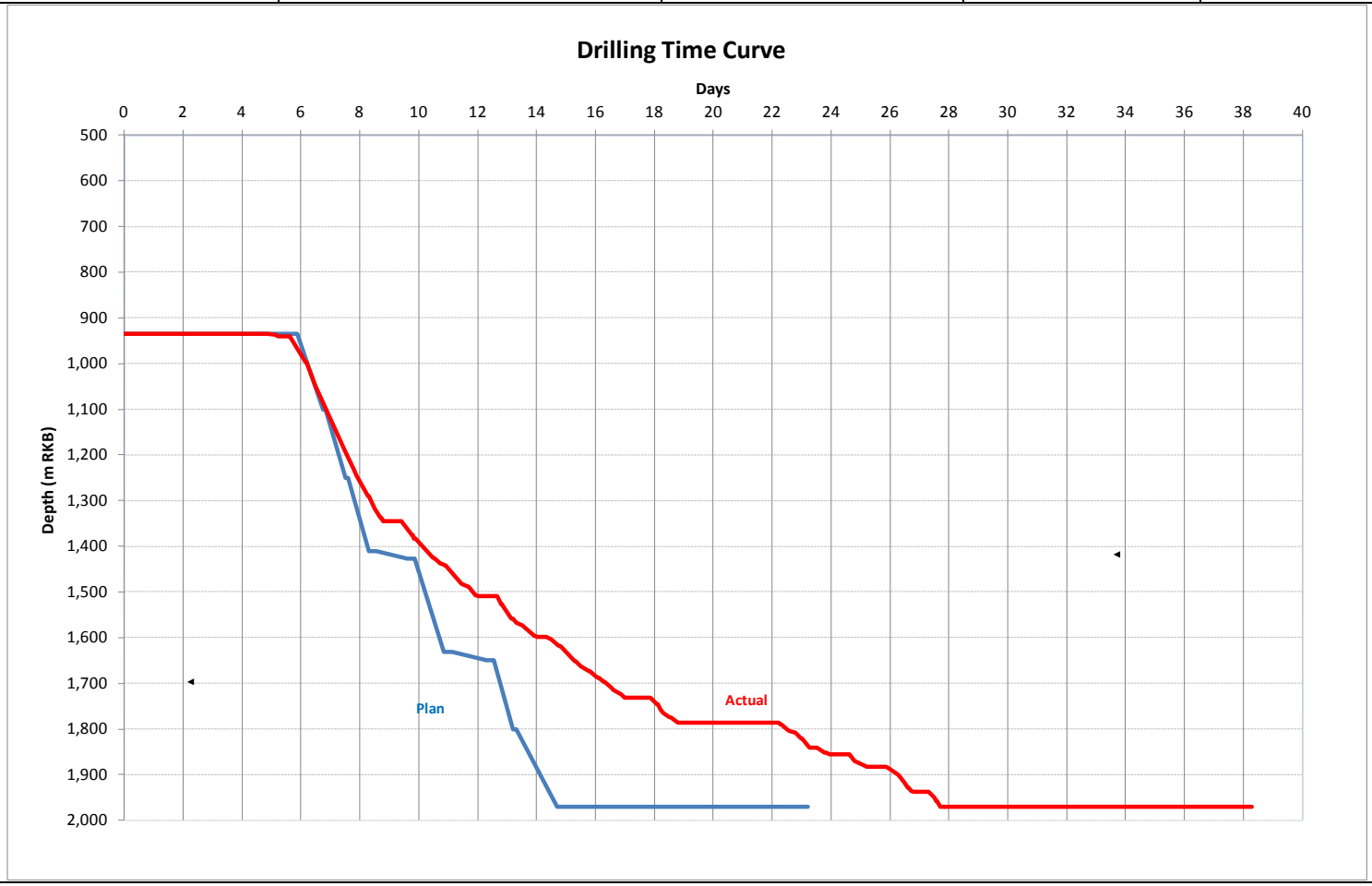
APPENDIX D : Drilling Curve & Time Breakdown

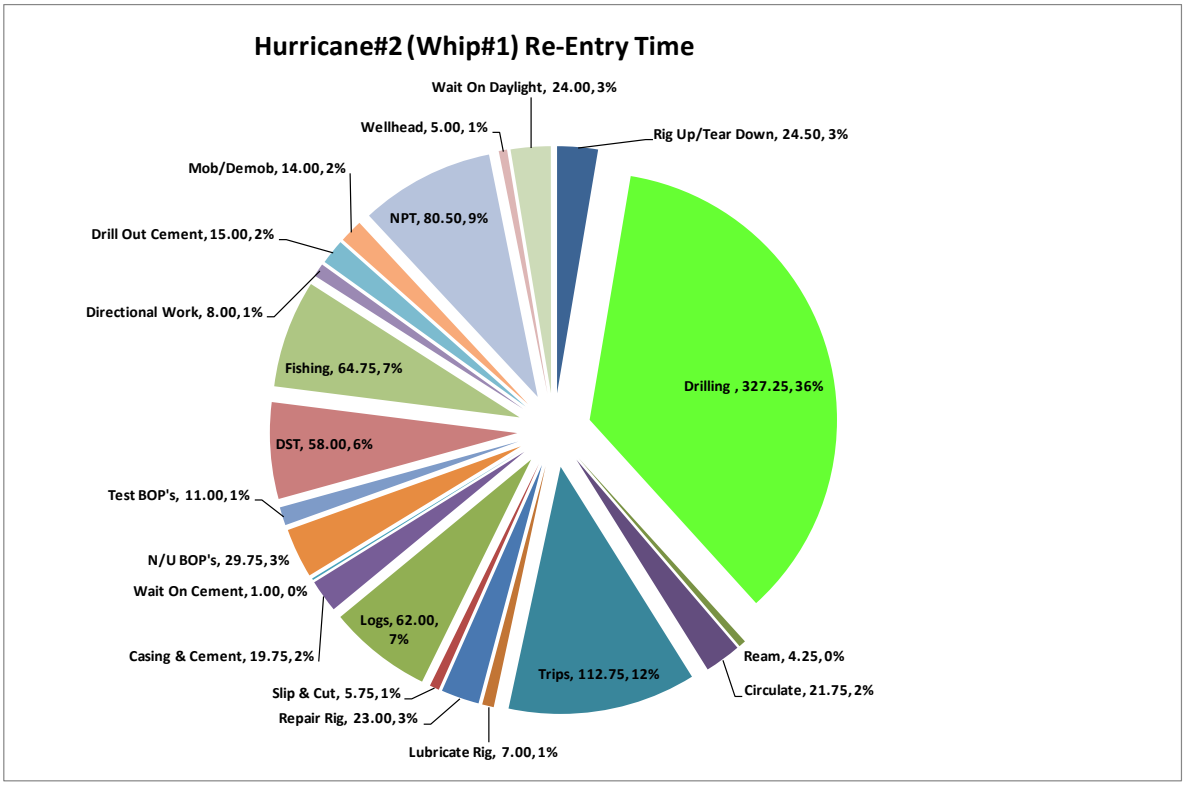
Number of pages : *2*

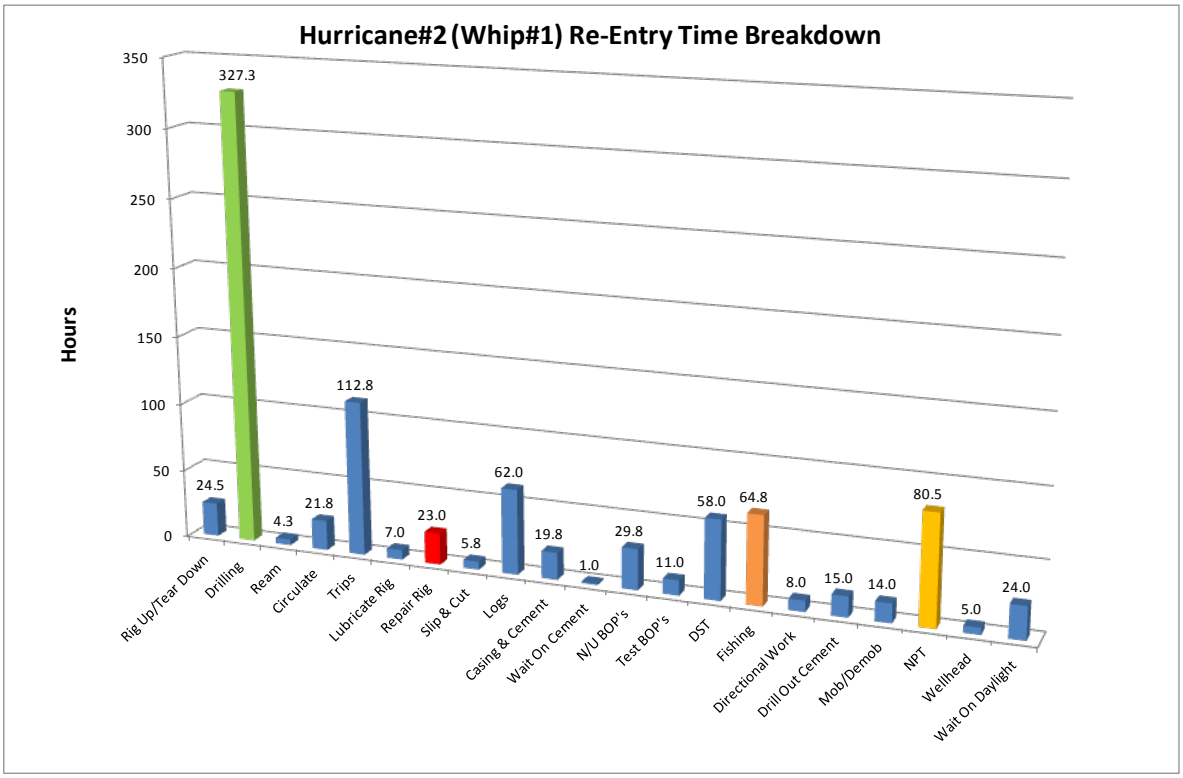
Summary of the content: .Drilling Curve and Time Breakdown for Hurricane#2

.

Operating Company	Investcan Energy	**Start Date**	15/06/13 12:00 AM
Well Name	Hurricane#2	**Spud Date**	16/06/13 9:00 AM
Rig	Foragaz Rig#3	**TD Date**	13/07/13 5:15 AM
Field (if applicable)	Bay Saint George 03-107	**Rig Release Date**	23/07/13 7:00 PM




Hurricane#2 (Whip#1) Re-Entry Time
Wait On Daylight, 24.00, 3%
Wellhead, 5.00, 1%
Rig Up/Tear Down, 24.50, 3%
Mob/Demob, 14.00, 2%
NPT, 80.50, 9%
Drill Out Cement, 15.00, 2%
Directional Work, 8.00, 1%
Fishing, 64.75, 7%
Drilling , 327.25, 36%
DST, 58.00, 6%
Test BOP's, 11.00, 1%
N/U BOP's, 29.75, 3%
Wait On Cement, 1.00, 0%
Logs, 62.00, 7%
Casing & Cement, 19.75, 2%
Ream, 4.25, 0%
Trips, 112.75, 12%
Circulate, 21.75, 2%
Slip & Cut, 5.75, 1%
Repair Rig, 23.00, 3%
Lubricate Rig, 7.00, 1%


Hurricane#2 (Whip#1) Re-Entry Time Breakdown
Hours
350
300
250
200
150
100
50
0
327.3
24.5
4.3
21.8
112.8
7.0
23.0
5.8
62.0
19.8
1.0
29.8
11.0
58.0
64.8
8.0
15.0
14.0
80.5
5.0
24.0
Rig Up/Tear Down
Drilling
Ream
Circulate
Trips
Lubricate Rig
Repair Rig
Slip & Cut
Logs
Casing & Cement
Wait On Cement
N/U BOP's
Test BOP's
DST
Fishing
Directional Work
Drill Out Cement
Mob/Demob
NPT
Wellhead
Wait On Daylight

APPENDIX E : Well Costs

Number of pages : *1*

Summary of the content: .Well Costs for Hurricane#2 (Whip#1) Re-Entry

Pre-Spud and Post Rig release cost	$ 199,000
Operating Costs	$ 807,000
Bits and Hole openers	$ 126,000
Drilling tools and equipment	$ 72,000
Drilling fluids	$ 63,000
Casing and casing setting services	$ 286,000
Fishing	$ 2,000
Well control and Rig Instrumentation	$ 33,000
Material Supply and Haulage	$ 158,000
Directional Services	$ 242,000
Testing and Completion services	$ 55,000
Evaluation Services	$ 433,000
Supervision and Administration	$ 301,000
Total	**$2.78 M**

APPENDIX F : Benefits Tracking

Number of pages : *1*

Summary of the content: This appendix presents a summary of the workforce during the Hurricane#2 operations.

RESIDENCE			
Week	**NL**	**OTHER**	**Total**
1	5	13	18
2	6	16	22
3	6	16	22
4	5	17	22
5	5	19	24
6	5	16	21
Average	**6**	**16**	**22**
Percentage	**25.4%**	**74.6%**	**100.0%**

APPENDIX G : Bit Run Summary

Number of pages : *1*

Summary of the content: Bit Run Summary for Hurricane#2

BIT RECORD

Operator	Investcan Energy Corp	**Well**	Hurricane#2 Re-Entry
Contractor	Foragaz	**Rig #**	3

Bit #	Size (mm)	Make	Type	IADC CODE	Jet (1/32)"	Serial #	Depth IN (m)	Depth Out (m)	Drilled (m)	Hours	ROP MPH	RPM	WOB daN	TRQ	Flow lpm	Pres kPa	CONDITION (IADC) TI	TO	MDC	LO	B/S	GA	ODC	RP	Comments
1	159	Hughes	STX-1	117	3x20	5177714	936	940.5	4.5	2.25	2.0	50.0	4		830	7,600	2	2	WT	A	2	I	NO	BHA	Used Bit D/O 2 cement plugs 143m in 9.5 hrs
2	159	Hughes	QD406FX	M333	4x16+2x11	7032271	940.5	1509.5	569	122.25	4.7	40+140	7		830	9,500	4	2	WT	N	X	I	CT	PR	
3	159	Hughes	QD406FX	M333	4x16+2x12	7029738	1509.5	1597.6	88.1	30.25	2.9	40+140	8		830	11,400	2	7	WT	S	X	I	CT	PR	
4	159	Hughes	STX-35DX	547	3x20	5217719	1597.6	1731.1	133.5	56.5	2.4	40+75	12		830	11,000	4	4	WT	A	4	I	SD	HR	
5	159	Hughes	QD405FX	M333	5x16	7137507	1731.1	1786.2	55.1	21.5	2.6	40+75	11		830	11,000	6	5	WT	A	X	I	CT	PR	
6	159	Hughes	STX-40DX	617	3x20	5186692	1786.2	1854.8	68.6	34.25	2.0	40+75	14		880	10,000	4	8	WT	A	3	1/8	SD	PR	3mm undergage
7	159	Hughes	DP307S	M333	5x16+2x14	7032500	1854.8	1882.4	27.6	14	2.0	25+75	9		850	9,200	7	8	RO	S	X	I	LN	PR	
8	159	Hughes	STX-30DX	537	3x20	5205268	1882.4	1936.6	54.2	20.5	2.6	25+75	12		850	9,225	3	6	WT	A	4	I	BT	DSF	
9	159	Hughes	STX-30DX	537	3x20	5206281	1936.6	1970	33.4	13	2.6	40+75	12		850	8,950	3	4	LT	H	3	I	LT	TD	

APPENDIX H : Cementing Reports

Number of pages : *3*

Summary of the content: Reports of the cementation of production casing.

HALLIBURTON

Version 5.0
Cement Service Report

Investcan Energy Corp

Sunday, July 21, 2013

Hurricane 2

Post Job Summary
CEMENT PRODUCTION CASING

SO# :

PREPARED FOR: Victor Leraux

PREPARED BY: Monford, Keith

HALLIBURTON

CEMENTING

Mount Pearl

Customer Service Center
1-800-335-6333

HALLIBURTON

Cementing Service Report

Customer:	Investcan Energy Corp	**Customer Representative:**	Victor Leroux
Well Name:		**Salesman:**	
UWI:		**Sales Order Number:**	
Province:	NL	**Field:**	
Called Out:	July 20, 2013 0:00	**Job Started:**	July 21, 2013 22:41
On Location:	July 21, 2013 20:00	**Job Completed:**	July 22, 2013 2:00
Supervisor:	Monford, Keith	**Rig Name:**	Hurricane 2
Job Type:	CMT PRODUCTION CASING - BOM	**Service BOM #:**	7523

Wellbore Configuration:

Hole Data	Measured Depth (m)
	1971

Casing or Liner Data	Size (mm)	Weight (kg/m)	Grade	Depth (m)
	127		J-55	1970

Products & Equipment:

Equipment	Type	Quantity	Depth (m)
	FLOAT COLLAR	1	1958.0

Plug Type	Top: HWE	Bottom: HWE	Cement Head Type:	SWEDGE

Temperature Data:

Fluid	Temp(°C)	Fluid	Temp(°C)
Mixing Water:	14	Displacing Fluid:	14
Lead Slurry:	16		
Tail Slurry:	16	Returns:	18
Ambient Air:	14		

QA Data:

Mix Water Analysis

Source:	RIG TANK
pH:	7
Chloride (mg/L):	0

Cement Data:

	Tonne	Cement Blend	Density (kg/m³)	Water (m³/t)	Yield (m³/t)	Volume (m³)
LEAD	8.5	Class G + 0.5% Halad 344	1600	0.83	1.17	9.9
TAIL	10.5	Class G + 0.5% Halad 344	1895	0.44	0.76	8.0

Casing or Liner Job Data:

Event	Volume (m³)	Time Start	Time Finish	Rate (m³/min)	Pressure (MPa) Minimum	Pressure (MPa) Maximum	Comments
Water @ 1000 kg/m3	3.0	18:15	18:22	0.5	0.0	3.0	
Pressure Test		18:22	18:26		0.0	20.0	
LEAD	9.9	18:49	19:16	0.7	3.0	8.0	
TAIL	8.0	19:28	19:41	0.7	6.0	9.0	
Release Plug		19:41	19:55				
Water @ 1000 kg/m3	19.0	19:55	20:32	0.8	0.0	21.0	All Times are in Sask time
Talk to Company Rep							
Leave Location		2:00					

Plug Displaced By: Halliburton Fluid Returns: Full Cement Volume (m³): 17.9 Cement Returns Density (kg/m3): 1600

Bump Plug: Floats Held? Cement to Surface (m³): 2.0

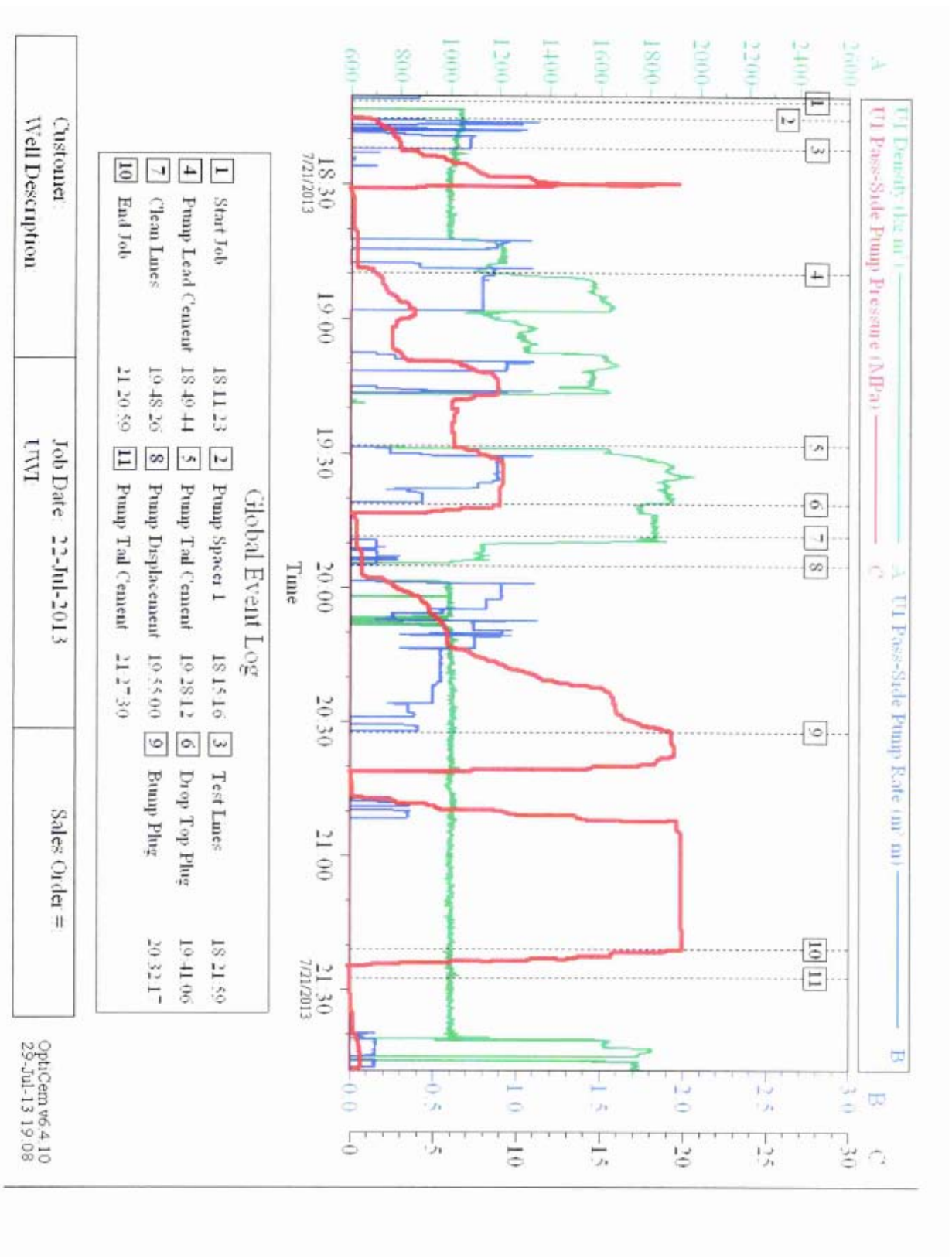
Pipe Movement: Reciprocated

Base of Tail (m): 1971

Personnel & Equipment:

Name	Empl #	Unit #	Tractor #	Unit Type	Assigned
Monford, Keith	230086	11858833		PICKUP	16056
Lobert, Jamie	507319	10230733	10297343	BULK TRAILER 660	16056
Liesch, Darrick	513825	10700079		TARGET	16056

OWNER, OPERATOR OR AGENT SIGNATURE


Customer
Well Description
Job Date: 22-Jul-2013
UWI
Sales Order =
Global Event Log
1 Start Job 18:11:23
2 Pump Spacer 1 18:15:16
3 Test Lines 18:21:59
4 Pump Lead Cement 18:49:44
5 Pump Tail Cement 19:28:12
6 Drop Top Plug 19:41:06
7 Clean Lines 19:48:26
8 Pump Displacement 19:55:00
9 Bump Plug 20:32:17
10 End Job 21:20:59
11 Pump Tail Cement 21:27:30
Time
7/21/2013
7/21/2013
OptiCem v6.4.10
29-Jul-13 19:08

APPENDIX I : Mud Reports

Number of pages : *37*

Summary of the content: Daily Mud Reports for Hurricane#2

DRILLING FLUID REPORT

Halliburton - Baroid

Ivestcan Energy	**Well Name:** Hurricane # 2	**06/15/2013**	
L.S.D.:	**Rig #:** Foragaz # 3	**Spud Date:**	@ 06/15/2013
Victor Leroux	**Report For:** Greg MacKinnon	**Report # :** 1	**Total Days:** 1

DRILLING FLUID PROPERTIES

Time	**13:00**	24hr.
Depth M.D.	**Mud**	meters
Depth T.V.D.	**from green ta**	meters
Density	**1130**	kg/m^3
Funnel Viscosity	**43**	sec/L
Fann 600	**40**	
Fann 300	**25**	
Fann 200	**17**	
Fann 100	**10**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**2**	Pa
Apparent Viscosity	**20**	mPa-sec
Plastic Viscosity	**15**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**4.3**	ml/30 min
Filter Cake	**0.25**	mm
pH Strip / Meter	**8**	scale
Alkalinity pF	**1.5**	ml
Alkalinity mF	**2**	ml
Chloride	**82000**	mg/L
Calcium	**760**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue		kg/m^3
Sand Content	**0**	%
Oil Content	**tr**	vol frac
Water Content	**#VALUE!**	vol frac
Solids Content	**0.081**	vol frac
Low "n" value	**0.70**	slope
Low "K" value	**1.63**	dyn-sec/cm^2
High "n" value	**0.68**	slope
High "K" value	**1.87**	dyn-sec/cm^2
A.S.G.	**#VALUE!**	Spec.Grav.
Lo-Grav Solids	**#VALUE!**	kg/m³
Drill Solids	**#VALUE!**	kg/m³
Hi-Grav Solids	**#VALUE!**	kg/m³
PHPA Content		kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing			
D.P.			#VALUE!
HWDP			
D.C. # 1			

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #		Depth In		meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.	#DIV/0!	m/sec
Weight dN		Bit HHP	#DIV/0!	KW
ROP		Jet Impact	#DIV/0!	N
Nozzles				mm
Nozzles				mm

PUMP DATA

	#1 PUMP:				#2 PUMP:			
	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total**	**Total**
# 1			100	0.00		0.0	**L / min.**	**m^3 / min.**
# 2			100	0.00		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement		%
Tank Volume		m^3
Circulating Pressure:		kPa
Adjusted Hole Size		mm
String Capacity	#VALUE!	m^3
String Displacement	#VALUE!	m^3
Casing Ann Volume	0.0	m^3
Annular Volume	#VALUE!	m^3
Total Volume	#VALUE!	m^3
Bottoms Up	#VALUE!	min.
Surface to Bit	#VALUE!	min.
Circulation Time	**#VALUE!**	min.
Hydrostatic Pressure	#VALUE!	kPa
Mud Gradient	11.1	kPa/m
EC Density	#DIV/0!	kg/m^3
Ann. Vel. D.P.	#DIV/0!	m/min
Ann. Vel. D.P.Csg.	#DIV/0!	m/min
Ann. Vel. HWDP	#DIV/0!	m/min
Ann. Vel. D.C # 1	#DIV/0!	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1			
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na		
Desilter	na		
Other	na		

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	0.0	0.0
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	0.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Do mud check on used mud from last well and drilling ahead Lloyd

Mud should be good to displace hole after drilling cement plugs with water andrr

Leave home Thursday at 3:00 PM

Catch ferry, arrive at rig late Friday. Discuss plans with Drilling F Foreman and Rig manager, Did mud check on mud from last well and contact warehouse and make up load of products to be delivered to rig site.

Lloyd

Materials Used Since Last Report

Material	Amt.	Price	Cost
Caustic Soda			$0.00
Bentonite			$0.00
Sawdust			$0.00
Lime			$0.00
Soda Ash			$0.00
Drilling Detergent			$0.00
Envirofloc			$0.00
Floxit			$0.00
Drispac R			$0.00
Lignite			$0.00
Barite			$0.00
Engineering	3		$2,985.00
Cellophane			$0.00

RECOMMENDATIONS

Mud report for mud in green tank from last well !

Daily Cost	#2895		
Previous Cost	$ -		
Total Cost $	$ 2,895.00		
Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
902 456 6752		**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	16-Jun-2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :**	2 **Total Days:**

DRILLING FLUID PROPERTIES

Time		24hr.
Depth M.D.		
Depth T.V.D.		meters
Density		kg/m^3
Funnel Viscosity		sec/L
Fann 600		
Fann 300		
Fann 200		
Fann 100		
Fann 6		
Fann 3		
10 Sec. Gel Strength		Pa
10 Min. Gel Strength		Pa
30 Min. Gel Strength		Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity		mPa-sec
Yield Point		Pa
Fluid Loss		ml/30 min
Filter Cake		mm
pH Strip / Meter		scale
Alkalinity pF		ml
Alkalinity mF		ml
Chloride		mg/L
Calcium		mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue		kg/m^3
Sand Content	**0**	%
Oil Content	**0.000**	vol frac
Water Content		vol frac
Solids Content		vol frac
Low "n" value	**#DIV/0!**	slope
Low "K" value	**#DIV/0!**	dyn-sec/cm^2
High "n" value	**#DIV/0!**	slope
High "K" value	**#DIV/0!**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids		kg/m³
Drill Solids		kg/m³
Hi-Grav Solids		kg/m³
PHPA Content		kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing			
D.P.			
core bbl			
D.C. # 1			

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #		Depth In		meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.	0.0	m/sec
Weight dN		Bit HHP	#DIV/0!	KW
ROP		Jet Impact	0.0	N
Nozzles		9.5		mm
Nozzles				mm

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	90	12.47	0	0.0		
# 2			100	0.00		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement		%
Tank Volume		m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size		mm
String Capacity	0.0	m^3
String Displacement		m^3
Casing Ann Volume	0.0	m^3
Annular Volume	0.0	m^3
Total Volume	0.0	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	0.0	kPa
Mud Gradient	0.0	kPa/m
EC Density	#DIV/0!	kg/m^3
Ann. Vel. D.P.	#DIV/0!	m/min
Ann. Vel. D.P.Csg.	#DIV/0!	m/min
Ann. Vel. HWDP	#DIV/0!	m/min
Ann. Vel. D.C # 1	#DIV/0!	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	110	110	110	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	0.0	
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	0.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Should drill out tonight or tomorrow, will use water fraction off shale bin @ last well for makeup wate when we mud up.

Presently:

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Cal Carb		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	
N-Vis Plus		$240.47	$0.00
B-1008		$290.10	
Salt		$35.80	
Engineering	1	$995.00	$995.00

Daily Cost	$	995.00
Previous Cost	$	2,985.00
Total Cost $	$	3,980.00

RECOMMENDATIONS

TODAY

Tested water in shale bin @ last well PH 9.5 CA 840 ppm Cl 15000 mg/L .

Tested makeup water hauled to rig PH 7.0 CA 100 ppm Cl 400 mg/L

Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/17/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 3	**Total Days:**

DRILLING FLUID PROPERTIES

Time		24hr.
Depth M.D.		
Depth T.V.D.		meters
Density		kg/m^3
Funnel Viscosity		sec/L
Fann 600		
Fann 300		
Fann 200		
Fann 100		
Fann 6		
Fann 3		
10 Sec. Gel Strength		Pa
10 Min. Gel Strength		Pa
30 Min. Gel Strength		Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity		mPa-sec
Yield Point		Pa
Fluid Loss		ml/30 min
Filter Cake		mm
pH Strip / Meter		scale
Alkalinity pF		ml
Alkalinity mF		ml
Chloride		mg/L
Calcium		mg/L
Carbonates		mg/L
Bicarbonates	**0**	mg/L
Methylene Blue		kg/m^3
Sand Content	**0**	%
Oil Content		vol frac
Water Content		vol frac
Solids Content		vol frac
Low "n" value	**#DIV/0!**	slope
Low "K" value	**#DIV/0!**	dyn-sec/cm^2
High "n" value	**#DIV/0!**	slope
High "K" value	**#DIV/0!**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids		kg/m³
Drill Solids	**0**	kg/m³
Hi-Grav Solids		kg/m³
PHPA Content		kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing			
D.P.			
core bbl			
D.C. # 1			

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #		Depth In		meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.	0.0	m/sec
Weight dN		Bit HHP	#DIV/0!	KW
ROP		Jet Impact	0.0	N
Nozzles		9.5		mm
Nozzles				mm

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	90	12.47	0	0.0		
# 2			100	0.00		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement		%	
Tank Volume		m^3	
Circulating Pressure:		kPa	
Adjusted Hole Size		mm	
String Capacity		m^3	
String Displacement		m^3	
Casing Ann Volume		m^3	
Annular Volume	0.0	m^3	
Total Volume	0.0	m^3	
Bottoms Up	#DIV/0!	min.	
Surface to Bit	#DIV/0!	min.	
Circulation Time	**#DIV/0!**	min.	
Hydrostatic Pressure	0.0	kPa	
Mud Gradient	0.0	kPa/m	
EC Density	#DIV/0!	kg/m^3	
Ann. Vel. D.P.	#DIV/0!	m/min	
Ann. Vel. D.P.Csg.	#DIV/0!	m/min	
Ann. Vel. HWDP	#DIV/0!	m/min	
Ann. Vel. D.C # 1	#DIV/0!	m/min	

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	110	110	110
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	0.0	
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	0.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Test results on completion fluid PH 10.0 Ca 400 ppm Cl 8500 Mg/L

Presently: Pressure testing

RECOMMENDATIONS

TODAY

Pick up sample of completion fluid,test same,fluid suitable for makeup water for drilling cemer .

Thanx Lloyd

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Cal Carb		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
B-1008		$290.10	$0.00
Salt		$35.80	$0.00
Engineering		$995.00	$0.00

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 3,980.00
Total Cost $	$ 4,975.00

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/18/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 4	**Total Days:**

DRILLING FLUID PROPERTIES

Time	**21:00**	24hr.
Depth M.D.	**329**	
Depth T.V.D.		meters
Density		kg/m^3
Funnel Viscosity	**32**	sec/L
Fann 600		
Fann 300		
Fann 200		
Fann 100		
Fann 6		
Fann 3		
10 Sec. Gel Strength		Pa
10 Min. Gel Strength		Pa
30 Min. Gel Strength		Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity		mPa-sec
Yield Point		Pa
Fluid Loss		ml/30 min
Filter Cake		mm
pH Strip / Meter	**12**	scale
Alkalinity pF		ml
Alkalinity mF		ml
Chloride	**2000**	mg/L
Calcium	**720**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue		kg/m^3
Sand Content	**0**	%
Oil Content	**0.000**	vol frac
Water Content		vol frac
Solids Content		vol frac
Low "n" value	**#DIV/0!**	slope
Low "K" value	**#DIV/0!**	dyn-sec/cm^2
High "n" value	**#DIV/0!**	slope
High "K" value	**#DIV/0!**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids		kg/m³
Drill Solids	**0**	kg/m³
Hi-Grav Solids		kg/m³
PHPA Content		kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	177.8	159.6	
D.P.	102.0	85.0	
core bbl			0.0
D.C. # 1			

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	10	Depth In		meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.	0.0	m/sec
Weight dN		Bit HHP	#DIV/0!	KW
ROP		Jet Impact	0.0	N
Nozzles		9.5		mm
Nozzles				mm

PUMP DATA

#1 PUMP: | #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	90	12.47	0	0.0		
# 2			100	0.00		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement		%
Tank Volume	18.0	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	156.0	mm
String Capacity	0.0	m^3
String Displacement		m^3
Casing Ann Volume	0.0	m^3
Annular Volume		m^3
Total Volume		m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	0.0	kPa
Mud Gradient	0.0	kPa/m
EC Density	#DIV/0!	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	#DIV/0!	m/min
Ann. Vel. D.C # 1	#DIV/0!	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	110	110	110
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	0.0	
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	0.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Drilled out cement plug @293 m. Drill to 329 m. POH.

Presently: Tripping out of hole

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Cal Carb		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
B-1008		$290.10	$0.00
Salt		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 4,975.00
Total Cost $	$ 5,970.00

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/19/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 5	**Total Days:**

DRILLING FLUID PROPERTIES

Time	**20:00**	24hr.
Depth M.D.	**564**	
Depth T.V.D.	**564**	meters
Density		kg/m^3
Funnel Viscosity	**32**	sec/L
Fann 600		
Fann 300		
Fann 200		
Fann 100		
Fann 6		
Fann 3		
10 Sec. Gel Strength		Pa
10 Min. Gel Strength		Pa
30 Min. Gel Strength		Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity		mPa-sec
Yield Point		Pa
Fluid Loss		ml/30 min
Filter Cake		mm
pH Strip / Meter	**12**	scale
Alkalinity pF		ml
Alkalinity mF		ml
Chloride	**10000**	mg/L
Calcium	**280**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue		kg/m^3
Sand Content	**0**	%
Oil Content	**0.000**	vol frac
Water Content		vol frac
Solids Content		vol frac
Low "n" value	**#DIV/0!**	slope
Low "K" value	**#DIV/0!**	dyn-sec/cm^2
High "n" value	**#DIV/0!**	slope
High "K" value	**#DIV/0!**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids		kg/m³
Drill Solids		kg/m³
Hi-Grav Solids		kg/m³
PHPA Content		kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing		159.6	323.0
D.P.		85.0	
core bbl			0.0
D.C. # 1			

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	10	Depth In		meters
Size mm	156.0	Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	#DIV/0!	KW
ROP		Jet Impact	0.0	N
Nozzles				mm
Nozzles				mm

PUMP DATA

#1 PUMP: | #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	90	12.47	63	785.6		
# 2			100	0.00		0.0	785.6	0.79

CIRCULATING SYSTEM

Hole Enlargement		%
Tank Volume	24.6	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	156.0	mm
String Capacity		m^3
String Displacement		m^3
Casing Ann Volume		m^3
Annular Volume		m^3
Total Volume		m^3
Bottoms Up	0.0	min.
Surface to Bit	0.0	min.
Circulation Time	**0.0**	min.
Hydrostatic Pressure	0.0	kPa
Mud Gradient	0.0	kPa/m
EC Density	#DIV/0!	kg/m^3
Ann. Vel. D.P.	41.1	m/min
Ann. Vel. D.P.Csg.	39.3	m/min
Ann. Vel. HWDP	41.1	m/min
Ann. Vel. D.C # 1	41.1	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	110	110	110	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	0.0	
Water added (m^3)	10.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	10.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Reaming to bottom

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$290.10	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

moved 40 m3 used mud from last well site,put in remote tank.

moved completion fluid and water from shale bin at last well site and used as makeup water for reaming and drilling cement.

Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 5,970.00
Total Cost $	$ 6,965.00

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/20/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 6	**Total Days:**

DRILLING FLUID PROPERTIES

Time	**19:00**	24hr.
Depth M.D.	**940**	
Depth T.V.D.	**940**	meters
Density	**1075**	kg/m^3
Funnel Viscosity	**37**	sec/L
Fann 600	**16**	
Fann 300	**5**	
Fann 200	**4**	
Fann 100	**3**	
Fann 6	**1**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**1**	Pa
30 Min. Gel Strength	**1**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**11**	mPa-sec
Yield Point	**3**	Pa
Fluid Loss	**5.4**	ml/30 min
Filter Cake	**0.25**	mm
pH Strip / Meter	**12.5**	scale
Alkalinity pF	**1.2**	ml
Alkalinity mF	**1.7**	ml
Chloride	**44000**	mg/L
Calcium	**1320**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue		kg/m^3
Sand Content	**0**	%
Oil Content	**0.000**	vol frac
Water Content		vol frac
Solids Content		vol frac
Low "n" value	**0.35**	slope
Low "K" value	**2.89**	dyn-sec/cm^2
High "n" value	**1.68**	slope
High "K" value	**0.00**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids		kg/m³
Drill Solids		kg/m³
Hi-Grav Solids		kg/m³
PHPA Content		kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing		163.6	323.0
D.P.		85.0	
core bbl			0.0
D.C. # 1			

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	2	Depth In		meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	N
Nozzles	4- 12.7			mm
Nozzles	2 - 8.7			mm

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
#1 PUMP:					#2 PUMP:			
# 1	165.0	216.0	90	12.47		0.0		
# 2			100	0.00		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement		%
Tank Volume	30.2	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity		m^3
String Displacement		m^3
Casing Ann Volume		m^3
Annular Volume		m^3
Total Volume		m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	9913.0	kPa
Mud Gradient	10.5	kPa/m
EC Density	1076.9	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	110	110	110
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	30.0	
Water added (m^3)	20.0	0.0
Volume discarded (m^3)	20.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	50.0	0.0
Total fluid discarded (m^3)	20.0	0.0

REMARKS

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$290.10	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	$	995.00
Previous Cost	$	6,965.00
Total Cost $	$	7,960.00

RECOMMENDATIONS

TODAY Displace hole to mud,dilute mud back to lower wt. Use cement water for makeup water.

Will adjust properties tonight. TONIGHT add 10 sx. Bicarb @ 15 min./sk. .

Lloyd Add4 sx.Cello size @ 1 Hr./sk.

Thanx Lloyd _____

Any problems,questions or concerns please contact me. Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/21/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 7	**Total Days:** 6

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**959**	
Depth T.V.D.	**959**	meters
Density	**1075**	kg/m^3
Funnel Viscosity	**35**	sec/L
Fann 600	**15**	
Fann 300	**6**	
Fann 200	**3**	
Fann 100	**2**	
Fann 6	**1**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**1**	Pa
30 Min. Gel Strength	**1**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**9**	mPa-sec
Yield Point	**1.5**	Pa
Fluid Loss	**4.8**	ml/30 min
Filter Cake	**0.25**	mm
pH Strip / Meter	**12**	scale
Alkalinity pF	**1.1**	ml
Alkalinity mF	**1.4**	ml
Chloride	**46000**	mg/L
Calcium	**1320**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0**	%
Oil Content	**0.000**	vol frac
Water Content	**0.960**	vol frac
Solids Content	**0.040**	vol frac
Low "n" value	**0.39**	slope
Low "K" value	**2.71**	dyn-sec/cm^2
High "n" value	**1.32**	slope
High "K" value	**0.01**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing		159.6	323.0
D.P.	102.0	85.0	846.5
jars	115.0	58.0	6.6
D.C. # 1	115.0	58.0	105.9

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	2	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run	3.0	hrs.
RPM	86	Noz Vel.	626.0	m/sec
Weight dN	8.3	Bit HHP	4.8	KW
ROP	8.46	Jet Impact	11717.2	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

PUMP DATA

#1 PUMP: | #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	90	12.47	85	1060.0		
# 2			100	0.00		0.0	1060.0	1.06

CIRCULATING SYSTEM

Hole Enlargement		%
Tank Volume	33.8	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity		m^3
String Displacement		m^3
Casing Ann Volume		m^3
Annular Volume		m^3
Total Volume		m^3
Bottoms Up	0.0	min.
Surface to Bit	0.0	min.
Circulation Time	**0.0**	min.
Hydrostatic Pressure	10113.4	kPa
Mud Gradient	10.5	kPa/m
EC Density	1099.5	kg/m^3
Ann. Vel. D.P.	90.7	m/min
Ann. Vel. D.P.Csg.	89.5	m/min
Ann. Vel. HWDP	111.9	m/min
Ann. Vel. D.C # 1	111.9	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	110	110	110	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	5.0	
Water added (m^3)	10.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	15.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$290.10	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Add Cello size as req'd (3 sx.) to maintain vis 40 - 45 S/L .

Maintain wt. as low as possible by running fine screens on shaker.

Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 7,960.00
Total Cost $	$ 8,955.00

Field Representative: Lloyd Anthony
Phone:
Cellular: 902 456 6752

Warehouse:
Phone:
Engineer #: 403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/22/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 8	**Total Days:** 7

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,093**	
Depth T.V.D.	**1,071**	meters
Density	**1100**	kg/m^3
Funnel Viscosity	**42**	sec/L
Fann 600	**28**	
Fann 300	**18**	
Fann 200	**7**	
Fann 100	**2**	
Fann 6	**1**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**1**	Pa
30 Min. Gel Strength	**1**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**10**	mPa-sec
Yield Point	**4**	Pa
Fluid Loss	**4.8**	ml/30 min
Filter Cake	**0.25**	mm
pH Strip / Meter	**12**	scale
Alkalinity pF	**1.1**	ml
Alkalinity mF	**1.4**	ml
Chloride	**44000**	mg/L
Calcium	**840**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.095**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.63**	slope
Low "K" value	**1.84**	dyn-sec/cm^2
High "n" value	**0.64**	slope
High "K" value	**1.73**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing		159.6	323.0
D.P.		85.0	
core bbl			0.0
D.C. # 1			

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	2	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run	27.0	hrs.
RPM	86	Noz Vel.	626.0	m/sec
Weight dN	8.3	Bit HHP	5.4	KW
ROP	8.46	Jet Impact	8745.4	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

PUMP DATA

	#1 PUMP:				#2 PUMP:			
	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	90	12.47	62	773.2		
# 2			100	0.00		0.0	773.2	0.77

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	29.6	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity		m^3
String Displacement		m^3
Casing Ann Volume		m^3
Annular Volume		m^3
Total Volume		m^3
Bottoms Up	0.0	min.
Surface to Bit	0.0	min.
Circulation Time	**0.0**	min.
Hydrostatic Pressure	11557.2	kPa
Mud Gradient	10.8	kPa/m
EC Density	1102.6	kg/m^3
Ann. Vel. D.P.	38.9	m/min
Ann. Vel. D.P.Csg.	38.6	m/min
Ann. Vel. HWDP	38.9	m/min
Ann. Vel. D.C # 1	38.9	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	5.0	
Water added (m^3)	10.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	15.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	11	$211.96	$2,331.56
Barabuf		$78.33	$0.00
Baracarb	6	$43.05	$258.30
Bicarbonates	10	$43.05	$430.50
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer	2	$306.55	$613.10
N-Vis Plus		$240.47	$0.00
Salt 20 kg	5	$17.90	$89.50
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

When volume req'd use water for makeup.

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 4,717.96
Previous Cost	$ 8,955.00
Total Cost $	$ 13,672.96

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/23/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 9	**Total Days:** 8

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,232**	
Depth T.V.D.	**1,228**	meters
Density	**1120**	kg/m^3
Funnel Viscosity	**47**	sec/L
Fann 600	**36**	
Fann 300	**23**	
Fann 200	**15**	
Fann 100	**9**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**2**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**1**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**13**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.8**	ml/30 min
Filter Cake	**0.25**	mm
pH Strip / Meter	**11**	scale
Alkalinity pF	**0.6**	ml
Alkalinity mF	**0.9**	ml
Chloride	**42000**	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0**	%
Oil Content	**tr**	vol frac
Water Content	**0.094**	vol frac
Solids Content	**0.060**	vol frac
Low "n" value	**0.68**	slope
Low "K" value	**1.68**	dyn-sec/cm^2
High "n" value	**0.65**	slope
High "K" value	**2.09**	dyn-sec/cm^2
A.S.G.		Spec.Grav.
Lo-Grav Solids	**6**	kg/m³
Drill Solids	**6**	kg/m³
Hi-Grav Solids	**.**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1119.0
jars		85.0	6.6
D.C. # 1	121.0	58.0	105.9

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	2	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run	27.0	hrs.
RPM	86	Noz Vel.	626.0	m/sec
Weight dN	8.3	Bit HHP	12.9	KW
ROP	8.46	Jet Impact	9191.7	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

PUMP DATA

	#1 PUMP:				#2 PUMP:			
	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total**	**Total**
# 1	165.0	216.0	90	12.47	64	798.1	**L / min.**	**m^3 / min.**
# 2			100	0.00		0.0	798.1	0.80

CIRCULATING SYSTEM

Hole Enlargement		%
Tank Volume	29.6	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity		m^3
String Displacement		m^3
Casing Ann Volume		m^3
Annular Volume		m^3
Total Volume		m^3
Bottoms Up	0.0	min.
Surface to Bit	0.0	min.
Circulation Time	**0.0**	min.
Hydrostatic Pressure	13492.3	kPa
Mud Gradient	11.0	kPa/m
EC Density	1190.6	kg/m^3
Ann. Vel. D.P.	68.3	m/min
Ann. Vel. D.P.Csg.	61.6	m/min
Ann. Vel. HWDP	40.2	m/min
Ann. Vel. D.C # 1	95.5	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	6.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	6.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	4	$211.96	$847.84
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates	5	$43.05	$215.25
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer	2	$306.55	$613.10
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

When volume req'd use water for makeup.

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 2,671.19
Previous Cost	$ 13,672.96
Total Cost $	$ 16,344.15

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/24/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 10	**Total Days:** 9

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,344**	
Depth T.V.D.	**1,340**	meters
Density	**1120**	kg/m^3
Funnel Viscosity	**47**	sec/L
Fann 600	**40**	
Fann 300	**25**	
Fann 200	**17**	
Fann 100	**10**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**2**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**1**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**15**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.4**	ml/30 min
Filter Cake	**0.25**	mm
pH Strip / Meter	**10**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.4**	ml
Chloride	**43000**	mg/L
Calcium	**240**	mg/L
Carbonates	**271.92**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.094**	vol frac
Solids Content	**0.060**	vol frac
Low "n" value	**0.70**	slope
Low "K" value	**1.63**	dyn-sec/cm^2
High "n" value	**0.68**	slope
High "K" value	**1.87**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**6**	kg/m³
Drill Solids	**6**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1119.0
jars		57.0	6.6
D.C. # 1	121.0	57.0	105.9

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	2	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	38	Noz Vel.	626.0	m/sec
Weight dN	8.3	Bit HHP	14.0	KW
ROP	3.68	Jet Impact	9191.7	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
#1 PUMP:								
# 1	165.0	216.0	90	12.47	64	798.1		
#2 PUMP:								
# 2			100	0.00		0.0	798.1	0.80

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	27.8	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	7.6	m^3
String Displacement	4.0	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	10.3	m^3
Total Volume	51.0	m^3
Bottoms Up	19.5	min.
Surface to Bit	9.5	min.
Circulation Time	**63.9**	min.
Hydrostatic Pressure	14722.8	kPa
Mud Gradient	11.0	kPa/m
EC Density	1189.5	kg/m^3
Ann. Vel. D.P.	68.3	m/min
Ann. Vel. D.P.Csg.	61.6	m/min
Ann. Vel. HWDP	40.2	m/min
Ann. Vel. D.C # 1	95.5	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	6.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	6.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	3	$211.96	$635.88
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

When volume req'd use water for makeup.

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 1,630.88
Previous Cost	$ 16,344.15
Total Cost $	$ 17,975.03

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/25/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 11	**Total Days:** 10

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,380**	
Depth T.V.D.	**1,376**	meters
Density	**1120**	kg/m^3
Funnel Viscosity	**46**	sec/L
Fann 600	**38**	
Fann 300	**24**	
Fann 200	**15**	
Fann 100	**9**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**2**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**1**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**14**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.5**	ml/30 min
Filter Cake	**0.25**	mm
pH Strip / Meter	**9.5**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.4**	ml
Chloride	**45000**	mg/L
Calcium	**320**	mg/L
Carbonates	**271.92**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.094**	vol frac
Solids Content	**0.060**	vol frac
Low "n" value	**0.69**	slope
Low "K" value	**1.66**	dyn-sec/cm^2
High "n" value	**0.66**	slope
High "K" value	**1.97**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**6**	kg/m³
Drill Solids	**6**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1270.0
jars		57.0	6.6
D.C. # 1	121.0	57.0	105.9

SURVEYS

Depth (m)			
Survey °			

PUMP DATA

	#1 PUMP:				#2 PUMP:			
	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	71	934.6		
# 2			95	0.00		0.0	934.6	0.93

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	38.4	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	7.6	m^3
String Displacement	4.0	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	10.7	m^3
Total Volume	62.0	m^3
Bottoms Up	17.1	min.
Surface to Bit	8.1	min.
Circulation Time	**66.3**	min.
Hydrostatic Pressure	15118.4	kPa
Mud Gradient	11.0	kPa/m
EC Density	1197.4	kg/m^3
Ann. Vel. D.P.	80.0	m/min
Ann. Vel. D.P.Csg.	72.1	m/min
Ann. Vel. HWDP	47.1	m/min
Ann. Vel. D.C # 1	111.8	m/min

BIT DATA

Bit #	2 RR	Depth In	1344.0		meters
Size mm	159.0	Depth Out			meters
Type	Hughes	Hours Run			hrs.
RPM	40	Noz Vel.	626.0		m/sec
Weight dN	7.2	Bit HHP	15.8		KW
ROP	4	Jet Impact	10763.5		N
Nozzles	4x12.7				mm
Nozzles	2x8.7				mm

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)	6.0	
Water added (m^3)	7.0	0.0
Volume discarded (m^3)	4.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	13.0	0.0
Total fluid discarded (m^3)	4.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	$ 995.00
Previous Cost	$ 17,975.03
Total Cost $	$ 18,970.03

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

When volume req'd use mud from green tank and water from brown tank (50/50

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/26/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 12	**Total Days:** 11

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,440**	
Depth T.V.D.	**1,436**	meters
Density	**1125**	kg/m^3
Funnel Viscosity	**46**	sec/L
Fann 600	**42**	
Fann 300	**26**	
Fann 200	**17**	
Fann 100	**9**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**2**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**16**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.2**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9.5**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.4**	ml
Chloride	**45000**	mg/L
Calcium	**320**	mg/L
Carbonates	**271.92**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.930**	vol frac
Solids Content	**0.070**	vol frac
Low "n" value	**0.71**	slope
Low "K" value	**1.61**	dyn-sec/cm^2
High "n" value	**0.69**	slope
High "K" value	**1.78**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**6**	kg/m³
Drill Solids	**6**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1119.0
jars		57.0	6.6
D.C. # 1	121.0	57.0	105.9

SURVEYS

Depth (m)			
Survey °			

PUMP DATA

	#1 PUMP:				#2 PUMP:			
	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total**	**Total**
# 1	165.0	216.0	95	13.16	70	921.4	**L / min.**	**m^3 / min.**
# 2			100	0.00		0.0	921.4	0.92

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	34.4	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	7.9	m^3
String Displacement	4.2	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	11.2	m^3
Total Volume	58.8	m^3
Bottoms Up	17.9	min.
Surface to Bit	8.6	min.
Circulation Time	**63.8**	min.
Hydrostatic Pressure	15848.1	kPa
Mud Gradient	11.0	kPa/m
EC Density	1196.9	kg/m^3
Ann. Vel. D.P.	78.8	m/min
Ann. Vel. D.P.Csg.	71.1	m/min
Ann. Vel. HWDP	46.4	m/min
Ann. Vel. D.C # 1	110.2	m/min

BIT DATA

Bit #	2 RR	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	0	Noz Vel.	626.0	m/sec
Weight dN	8.3	Bit HHP	16.8	KW
ROP	2.06	Jet Impact	10659.3	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	0.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	4	$211.96	$847.84
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

When volume req' use mud from green tank and water from brown tank (50/50)

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 1,842.84
Previous Cost	$ 18,970.00
Total Cost $	$ 20,812.84

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/27/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 13	**Total Days:** 12

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,499**	
Depth T.V.D.	**1,495**	meters
Density	**1130**	kg/m^3
Funnel Viscosity	**47**	sec/L
Fann 600	**42**	
Fann 300	**26**	
Fann 200	**18**	
Fann 100	**10**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**2**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**16**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.2**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.4**	ml
Chloride	**45000**	mg/L
Calcium	**360**	mg/L
Carbonates	**271.92**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.930**	vol frac
Solids Content	**0.070**	vol frac
Low "n" value	**0.71**	slope
Low "K" value	**1.61**	dyn-sec/cm^2
High "n" value	**0.69**	slope
High "K" value	**1.78**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**6**	kg/m³
Drill Solids	**6**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1375.0
jars		57.0	6.6
D.C. # 1	121.0	57.0	105.9

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	2 RR	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	0	Noz Vel.	626.0	m/sec
Weight dN	8.3	Bit HHP	17.0	KW
ROP	2.06	Jet Impact	10859.6	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
#1 PUMP:					#2 PUMP:			
# 1	165.0	216.0	95	13.16	71	934.6		
# 2			100	0.00		0.0	934.6	0.93

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	36.3	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	8.2	m^3
String Displacement	4.2	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	11.8	m^3
Total Volume	61.6	m^3
Bottoms Up	18.3	min.
Surface to Bit	8.8	min.
Circulation Time	**65.9**	min.
Hydrostatic Pressure	16572.5	kPa
Mud Gradient	11.1	kPa/m
EC Density	1211.2	kg/m^3
Ann. Vel. D.P.	80.0	m/min
Ann. Vel. D.P.Csg.	72.1	m/min
Ann. Vel. HWDP	47.1	m/min
Ann. Vel. D.C # 1	111.8	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	3.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	$ 995.00
Previous Cost	$ 20,812.84
Total Cost $	$ 21,807.84

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size) .

Maintain wt. as low as possible by using screens as fine as possible.

When volume req' use mud from green tank and water from brown tank (50/50)

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/28/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 14	**Total Days:** 13

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,522**	
Depth T.V.D.	**1,518**	meters
Density	**1120**	kg/m^3
Funnel Viscosity	**47**	sec/L
Fann 600	**40**	
Fann 300	**25**	
Fann 200	**17**	
Fann 100	**10**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**2**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**15**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.2**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.05**	ml
Chloride	**44000**	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**0.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**0.500**	vol frac
Water Content	**0.940**	vol frac
Solids Content	**0.070**	vol frac
Low "n" value	**0.70**	slope
Low "K" value	**1.63**	dyn-sec/cm^2
High "n" value	**0.68**	slope
High "K" value	**1.87**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1375.0
jars	121.0	57.0	6.6
D.C. # 1	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #	3	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	0	Noz Vel.	626.0	m/sec
Weight dN	11	Bit HHP	13.8	KW
ROP	13.06	Jet Impact	9095.9	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

PUMP DATA

	#1 PUMP:				#2 PUMP:			
	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	60	789.8		
# 2			100	19.90		0.0	789.8	0.79

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	28.5	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	8.2	m^3
String Displacement	4.2	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	12.0	m^3
Total Volume	54.0	m^3
Bottoms Up	21.9	min.
Surface to Bit	10.4	min.
Circulation Time	**68.4**	min.
Hydrostatic Pressure	16678.6	kPa
Mud Gradient	11.0	kPa/m
EC Density	1192.8	kg/m^3
Ann. Vel. D.P.	67.6	m/min
Ann. Vel. D.P.Csg.	61.0	m/min
Ann. Vel. HWDP	94.5	m/min
Ann. Vel. D.C # 1	94.5	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1075.0	1730.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	0.0	0.0
Total fluid added (m^3)	3.0	0.0
Total fluid discarded (m^3)	0.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer	2	$306.55	$613.10
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size) .

Maintain wt. as low as possible by using screens as fine as possible.

When volume req' use mud from green tank and water from brown tank (50/50)

Add 2 sx. Bicarb. @ 30 min./sk. To keep calcium in control.

Run centrifuge full time except when mixing product

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 1,608.10		
Previous Cost	$ 21,807.84		
Total Cost $	$ 23,415.94		

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/29/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 15	**Total Days:** 1314

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,587**	
Depth T.V.D.	**1,583**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**47**	sec/L
Fann 600	**39**	
Fann 300	**24**	
Fann 200	**16**	
Fann 100	**9**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**2**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**15**	mPa-sec
Yield Point	**4.5**	Pa
Fluid Loss	**3.4**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.1**	ml
Alkalinity mF	**0.2**	ml
Chloride	**45000**	mg/L
Calcium	**440**	mg/L
Carbonates	**135.96**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**0.500**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.69**	slope
Low "K" value	**1.66**	dyn-sec/cm^2
High "n" value	**0.70**	slope
High "K" value	**1.56**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**7.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1440.0
jars	121.0	57.0	6.6
39	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	3	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	39	Noz Vel.	626.0	m/sec
Weight dN	8.7	Bit HHP	15.1	KW
ROP	1.98	Jet Impact	10078.6	N
Nozzles	4x12.7			mm
Nozzles	2x8.7			mm

PUMP DATA

#1 PUMP: | #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	68	895.1		
# 2			100	19.90		0.0	895.1	0.90

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	29.7	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	8.6	m^3
String Displacement	4.4	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	12.8	m^3
Total Volume	56.4	m^3
Bottoms Up	20.3	min.
Surface to Bit	9.6	min.
Circulation Time	**63.0**	min.
Hydrostatic Pressure	17004.5	kPa
Mud Gradient	10.7	kPa/m
EC Density	1169.4	kg/m^3
Ann. Vel. D.P.	76.6	m/min
Ann. Vel. D.P.Csg.	69.1	m/min
Ann. Vel. HWDP	107.1	m/min
Ann. Vel. D.C # 1	107.1	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1080.0	1750.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	8.0	0.0
Total fluid added (m^3)	3.0	0.0
Total fluid discarded (m^3)	8.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb	2	$43.05	$86.10
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer	2	$306.55	$613.10
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd (less than 22 m3) add water slowly

Add 2 sx. Bicarb. @ 30 min./sk. To keep calcium in control.

Run centrifuge 4 Hrs. on/ 4 hrs. off today

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 1,694.20
Previous Cost	$ 23,415.94
Total Cost $	$ 25,110.14

Field Representative: Lloyd Anthony
Phone:
Cellular: 902 456 6752
Warehouse:
Phone:
Engineer #: 403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	06/30/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 16	**Total Days:** 15

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,618**	
Depth T.V.D.	**1,614**	meters
Density	**1090**	kg/m^3
Funnel Viscosity	**47**	sec/L
Fann 600	**38**	
Fann 300	**24**	
Fann 200	**16**	
Fann 100	**9**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**2**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**14**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.6**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8**	scale
Alkalinity pF	**0.1**	ml
Alkalinity mF	**0.2**	ml
Chloride	**42000**	mg/L
Calcium	**400**	mg/L
Carbonates	**135.96**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**0.500**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.69**	slope
Low "K" value	**1.66**	dyn-sec/cm^2
High "n" value	**0.66**	slope
High "K" value	**1.97**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1440.0
jars	121.0	57.0	6.6
39	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	4	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	38	Noz Vel.	42.3	m/sec
Weight dN	13.2	Bit HHP	16.2	KW
ROP	2.7	Jet Impact	727.8	N
Nozzles	3x15.9			mm
tfa	594.0			mm

PUMP DATA

#1 PUMP: | #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	73	960.9		
# 2			100	19.90		0.0	960.9	0.96

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	30.8	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	9.0	m^3
String Displacement	4.5	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	13.1	m^3
Total Volume	58.2	m^3
Bottoms Up	19.2	min.
Surface to Bit	9.4	min.
Circulation Time	**60.6**	min.
Hydrostatic Pressure	17258.3	kPa
Mud Gradient	10.7	kPa/m
EC Density	1165.7	kg/m^3
Ann. Vel. D.P.	82.2	m/min
Ann. Vel. D.P.Csg.	74.2	m/min
Ann. Vel. HWDP	115.0	m/min
Ann. Vel. D.C # 1	115.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1085.0	1720.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	0.0	0.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	8.0	0.0
Total fluid added (m^3)	3.0	0.0
Total fluid discarded (m^3)	8.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	2	$211.96	$423.92
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates	2	$43.05	$86.10
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer	1	$306.55	$306.55
N-Vis Plus	1	$240.47	$240.47
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 2,052.04
Previous Cost	$ 25,110.14
Total Cost $	$ 27,162.18

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/01/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report #:** 17	**Total Days:** 16

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,673**	
Depth T.V.D.	**1,669**	meters
Density	**1100**	kg/m³
Funnel Viscosity	**47**	sec/L
Fann 600	**40**	
Fann 300	**25**	
Fann 200	**18**	
Fann 100	**10**	
Fann 6	**2**	
Fann 3	**1**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**2**	Pa
30 Min. Gel Strength	**2**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**15**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**3.4**	ml/30 min
Filter Cake	**0.75**	mm
pH Strip / Meter	**7.5**	scale
Alkalinity pF	**0.1**	ml
Alkalinity mF	**0.2**	ml
Chloride	**42000**	mg/L
Calcium	**480**	mg/L
Carbonates	**135.96**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m³
Sand Content	**0.5**	%
Oil Content	**0.500**	vol frac
Water Content	**0.940**	vol frac
Solids Content	**0.055**	vol frac
Low "n" value	**0.70**	slope
Low "K" value	**1.63**	dyn-sec/cm²
High "n" value	**0.68**	slope
High "K" value	**1.87**	dyn-sec/cm²
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1547.5
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)	Survey °

BIT DATA

Bit #	4	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	37	Noz Vel.	42.3	m/sec
Weight dN	14.2	Bit HHP	15.4	KW
ROP	1.87	Jet Impact	674.1	N
Nozzles	3x15.9			mm
TFA	594.0			mm

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m³ / min.
#1 PUMP:					#2 PUMP:			
#1	165.0	216.0	95	13.16	67	881.9		
#2			100	19.90		0.0	881.9	0.88

CIRCULATING SYSTEM

Hole Enlargement	0.0	%
Tank Volume	28.2	m³
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	9.3	m³
String Displacement	4.6	m³
Casing Ann Volume	5.3	m³
Annular Volume	14.6	m³
Total Volume	57.4	m³
Bottoms Up	22.6	min.
Surface to Bit	10.5	min.
Circulation Time	**65.1**	min.
Hydrostatic Pressure	18010.2	kPa
Mud Gradient	10.8	kPa/m
EC Density	1176.6	kg/m³
Ann. Vel. D.P.	75.5	m/min
Ann. Vel. D.P.Csg.	68.1	m/min
Ann. Vel. HWDP	105.5	m/min
Ann. Vel. D.C #1	105.5	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m³	Under Flow kg/m³	Under Flow L/min.
Centrifuge #1	1090.0	1800.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m³)		
Water added (m³)	0.0	0.0
Volume discarded (m³)	0.0	
Solids equipment underflow (m³)	8.0	0.0
Total fluid added (m³)	3.0	0.0
Total fluid discarded (m³)	8.0	0.0

REMARKS

Presently: Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	2	$211.96	$423.92
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
GYP		$14.06	$0.00
XL Defoamer	2	$306.55	$613.10
N-Vis Plus	1	$240.47	$240.47
Salt 20 kg	.	$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	$ 2,272.49
Previous Cost	$ 27,162.18
Total Cost $	$ 29,434.67

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	2/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 18	**Total Days:** 17

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,722**	
Depth T.V.D.	**1,718**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**53**	sec/L
Fann 600	**49**	
Fann 300	**32**	
Fann 200	**22**	
Fann 100	**13**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**17**	mPa-sec
Yield Point	**7.5**	Pa
Fluid Loss	**3.0**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.3**	ml
Chloride	**40000**	mg/L
Calcium	**360**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**0.500**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.60**	slope
Low "K" value	**3.83**	dyn-sec/cm^2
High "n" value	**0.61**	slope
High "K" value	**3.55**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1492.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	4	Depth In	940.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	0	Noz Vel.	42.3	m/sec
Weight dN	14.6	Bit HHP	21.4	KW
ROP	1.45	Jet Impact	711.1	N
Nozzles	3x15.9			mm
TFA	594.0			mm

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	71	934.6		
# 2			100	19.90		0.0	934.6	0.93

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	34.8	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	9.3	m^3
String Displacement	4.6	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	13.7	m^3
Total Volume	63.1	m^3
Bottoms Up	20.4	min.
Surface to Bit	10.0	min.
Circulation Time	**67.5**	min.
Hydrostatic Pressure	18454.7	kPa
Mud Gradient	10.7	kPa/m
EC Density	1196.3	kg/m^3
Ann. Vel. D.P.	80.0	m/min
Ann. Vel. D.P.Csg.	72.1	m/min
Ann. Vel. HWDP	111.8	m/min
Ann. Vel. D.C # 1	111.8	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1085.0	1780.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	6.0	6.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	2.0	2.0
Total fluid added (m^3)		6.0
Total fluid discarded (m^3)		2.0

REMARKS

Presently sliding

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	2	$211.96	$423.92
Barabuf	1	$78.33	$78.33
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin	4	$102.59	$410.36
XL Defoamer	1	$306.55	$306.55
N-Vis Plus	3	$240.47	$721.41
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size) .

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

Do not run water on shakers, we will have to use more defoamer.

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 2,935.57
Previous Cost	$ 29,434.67
Total Cost $	$ 32,370.24

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	3/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 19	**Total Days:** 18

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,731**	
Depth T.V.D.	**1,727**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**55**	sec/L
Fann 600	**49**	
Fann 300	**32**	
Fann 200	**21**	
Fann 100	**12**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**17**	mPa-sec
Yield Point	**7.5**	Pa
Fluid Loss	**3.1**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.3**	ml
Chloride	**40000**	mg/L
Calcium	**360**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**94.500**	vol frac
Solids Content	**0.055**	vol frac
Low "n" value	**0.60**	slope
Low "K" value	**3.83**	dyn-sec/cm^2
High "n" value	**0.61**	slope
High "K" value	**3.55**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1500.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	5	Depth In	1731.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	0	Noz Vel.	33.0	m/sec
Weight dN	14.6	Bit HHP	0.0	KW
ROP	1.45	Jet Impact	0.0	N
Nozzles	5x12.7			mm
TFA	760.0			mm

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16		0.0		
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	33.3	m^3
Circulating Pressure:	0	kPa
Adjusted Hole Size	159.0	mm
String Capacity	9.4	m^3
String Displacement	4.6	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	13.8	m^3
Total Volume	61.8	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	18551.3	kPa
Mud Gradient	10.7	kPa/m
EC Density	1118.1	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1085.0	1800.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	6.0	6.0
Volume discarded (m^3)	0.0	
Solids equipment underflow (m^3)	2.0	2.0
Total fluid added (m^3)		6.0
Total fluid discarded (m^3)		2.0

REMARKS

Present Activity RIH

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer	1	$306.55	$306.55
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Do not run water on shakers, we will have to use more defoamer.

Add 2 sx. BARABUF to raise PH @ 1 Hr./sk.

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 1,301.55
Previous Cost	$ 32,370.24
Total Cost $	$ 33,671.55

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	4/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 20	**Total Days:** 19

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,784**	
Depth T.V.D.	**1,780**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**49**	sec/L
Fann 600	**46**	
Fann 300	**29**	
Fann 200	**20**	
Fann 100	**12**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**17**	mPa-sec
Yield Point	**6**	Pa
Fluid Loss	**3.2**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.3**	ml
Chloride	**38000**	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**0.500**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.58**	slope
Low "K" value	**3.96**	dyn-sec/cm^2
High "n" value	**0.67**	slope
High "K" value	**2.34**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1492.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	4	Depth In	1731.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	47	Noz Vel.	33.0	m/sec
Weight dN	11.5	Bit HHP	19.5	KW
ROP	0.91	Jet Impact	554.7	N
Nozzles	5x12.7			mm
TFA	760.0			mm

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	71	934.6		
# 2			100	19.90		0.0	934.6	0.93

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	28.8	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	9.6	m^3
String Displacement	4.8	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	14.4	m^3
Total Volume	58.1	m^3
Bottoms Up	21.1	min.
Surface to Bit	10.3	min.
Circulation Time	**62.2**	min.
Hydrostatic Pressure	19120.7	kPa
Mud Gradient	10.7	kPa/m
EC Density	1184.7	kg/m^3
Ann. Vel. D.P.	80.0	m/min
Ann. Vel. D.P.Csg.	72.1	m/min
Ann. Vel. HWDP	111.8	m/min
Ann. Vel. D.C # 1	111.8	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1085.0	1820.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)	2.0	
Solids equipment underflow (m^3)	2.0	2.0
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		2.0

REMARKS

Presently Drilling ahe ad

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo	2	$211.96	$423.92
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer	1	$306.55	$306.55
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size) .

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

Do not run water on shakers, we will have to use more defoamer.

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 1,725.47
Previous Cost	$ 33,671.55
Total Cost $	$ 35,396.82

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	5/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 21	**Total Days:** 19

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,786**	
Depth T.V.D.	**1,782**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**53**	sec/L
Fann 600	**47**	
Fann 300	**30**	
Fann 200	**22**	
Fann 100	**12**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**17**	mPa-sec
Yield Point	**6.5**	Pa
Fluid Loss	**3.2**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.3**	ml
Chloride	38000	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.59**	slope
Low "K" value	**3.92**	dyn-sec/cm^2
High "n" value	**0.65**	slope
High "K" value	**2.71**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1492.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	4	Depth In	1731.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	47	Noz Vel.	33.0	m/sec
Weight dN	11.5	Bit HHP	0.0	KW
ROP	0.91	Jet Impact	0.0	N
Nozzles	5x12.7			mm
TFA	760.0			mm

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	0	0.0		
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	26.8	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	9.6	m^3
String Displacement	4.8	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	14.4	m^3
Total Volume	60.9	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	19142.2	kPa
Mud Gradient	10.7	kPa/m
EC Density	1116.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	0.0	0.0	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)		
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Fishing for packer

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 45-50 S/L with n-dril (cello size)

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

Do not run water on shakers, we will have to use more defoamer.

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 35,396.82
Total Cost $	$ 36,391.82

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	6/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 22	**Total Days:** 20

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,786**	
Depth T.V.D.	**1,782**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**55**	sec/L
Fann 600	**54**	
Fann 300	**35**	
Fann 200	**25**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**19**	mPa-sec
Yield Point	**8**	Pa
Fluid Loss	**3.1**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.3**	ml
Chloride	38000	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.62**	slope
Low "K" value	**3.71**	dyn-sec/cm^2
High "n" value	**0.63**	slope
High "K" value	**3.62**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1492.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	4	Depth In	1731.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	47	Noz Vel.	33.0	m/sec
Weight dN	11.5	Bit HHP	0.0	KW
ROP	0.91	Jet Impact	0.0	N
Nozzles	5x12.7			mm
TFA	760.0			mm

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m^3 / min.**
# 1	165.0	216.0	95	13.16	0	0.0		
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	26.4	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	9.6	m^3
String Displacement	4.8	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	14.4	m^3
Total Volume	60.5	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	19142.2	kPa
Mud Gradient	10.7	kPa/m
EC Density	1119.4	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	0.0	0.0	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)		
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Fishing for packer

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer	1	$306.55	$306.55
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 50 - 55 S/L with cellosize @ I Hr./Sk.

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

Do not run water on shakers, we will have to use more defoamer.

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	$ 1,301.55
Previous Cost	$ 36,391.82
Total Cost $	$ 37,693.37

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	7/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 23	**Total Days:** 21

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,786**	
Depth T.V.D.	**1,782**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**53**	sec/L
Fann 600	**54**	
Fann 300	**33**	
Fann 200	**24**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**21**	mPa-sec
Yield Point	**6**	Pa
Fluid Loss	**3.0**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.3**	ml
Chloride	38000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**7.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.61**	slope
Low "K" value	**3.79**	dyn-sec/cm^2
High "n" value	**0.71**	slope
High "K" value	**2.01**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1492.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	4	Depth In	1731.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	47	Noz Vel.	33.0	m/sec
Weight dN	11.5	Bit HHP	0.0	KW
ROP	0.91	Jet Impact	0.0	N
Nozzles	5x12.7			mm (◉ Triplex ○ Duplex)
TFA	760.0			

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.			
#1 PUMP:					#2 PUMP:			○ Triplex ○ Duplex
# 1	165.0	216.0	95	13.16	0	0.0	**L / min.**	**m³ / min.**
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	29.3	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	10.2	m^3
String Displacement	4.5	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	15.8	m^3
Total Volume	60.6	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	19142.2	kPa
Mud Gradient	10.7	kPa/m
EC Density	1095.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	0.0	0.0	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)		
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently POH with packer ?

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	$ 995.00
Previous Cost	$ 37,693.37
Total Cost $	$ 38,688.37

RECOMMENDATIONS

TODAY

Maintain vis 50 - 55 S/L with cellosize @ I Hr./Sk.

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

Do not run water on shakers, we will have to use more defoamer.

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	8/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 24	**Total Days:** 22

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,808**	
Depth T.V.D.	**1,804**	meters
Density	**1090**	kg/m^3
Funnel Viscosity	**49**	sec/L
Fann 600	**44**	
Fann 300	**28**	
Fann 200	**20**	
Fann 100	**12**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**16**	mPa-sec
Yield Point	**6**	Pa
Fluid Loss	**3.0**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.2**	ml
Alkalinity mF	**0.3**	ml
Chloride	37000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**10.5**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.57**	slope
Low "K" value	**4.01**	dyn-sec/cm^2
High "n" value	**0.65**	slope
High "K" value	**2.46**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1682.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	5	Depth In	1786.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	40	Noz Vel.	42.3	m/sec
Weight dN	13.1	Bit HHP	18.3	KW
ROP	1.55	Jet Impact	687.9	N
Nozzles	3x15.9			mm
TFA	594.0			mm

Pump 1 ___ ◉ Triplex ○ Duplex

Pump 2 ___ ◉ Triplex ◉ Duplex

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m³ / min.
#1 PUMP:					#2 PUMP:			
# 1	165.0	216.0	95	13.16	69	908.3		
# 2			100	19.90		0.0	908.3	0.91

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	27.9	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	10.6	m^3
String Displacement	5.1	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	17.5	m^3
Total Volume	61.3	m^3
Bottoms Up	25.1	min.
Surface to Bit	11.7	min.
Circulation Time	**67.5**	min.
Hydrostatic Pressure	19290.0	kPa
Mud Gradient	10.7	kPa/m
EC Density	1090.0	kg/m^3
Ann. Vel. D.P.	77.7	m/min
Ann. Vel. D.P.Csg.	70.1	m/min
Ann. Vel. HWDP	108.7	m/min
Ann. Vel. D.C # 1	108.7	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1085.0	1780.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)		
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Fishing for packer

Materials Used Since Last Report

Material	Amt.	Price	Cost
Baro seal M		$37.41	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	#####	$ 995.00
Previous Cost	#####	$ 38,688.37
Total Cost $	#####	$ 39,683.37

RECOMMENDATIONS

TODAY

Maintain vis 50 - 55 S/L with cellosize @ I Hr./Sk.

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

Do not run water on shakers, we will have to use more defoamer.

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	9/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 25	**Total Days:** 23

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,851**	
Depth T.V.D.	**1,846**	meters
Density	**1095**	kg/m^3
Funnel Viscosity	**62**	sec/L
Fann 600	**58**	
Fann 300	**36**	
Fann 200	**26**	
Fann 100	**16**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**22**	mPa-sec
Yield Point	**7**	Pa
Fluid Loss	**2.9**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9.5**	scale
Alkalinity pF	**0.4**	ml
Alkalinity mF	**0.7**	ml
Chloride	36000	mg/L
Calcium	**560**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**10.5**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.63**	slope
Low "K" value	**3.67**	dyn-sec/cm^2
High "n" value	**0.69**	slope
High "K" value	**2.52**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1682.4
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	5	Depth In	1786.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	40	Noz Vel.	42.3	m/sec
Weight dN	12.5	Bit HHP	21.3	KW
ROP	0.82	Jet Impact	631.0	N
Nozzles	3x15.9			mm
TFA	594.0			mm

Pump 1 ___ ◉ Triplex ○ Duplex

Pump 2 ___ ◉ Triplex ◉ Duplex

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	95	13.16	63	829.3		
# 2			100	19.90		0.0	829.3	0.83

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	34.3	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	10.8	m^3
String Displacement	5.2	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	18.0	m^3
Total Volume	68.4	m^3
Bottoms Up	28.1	min.
Surface to Bit	13.0	min.
Circulation Time	**82.5**	min.
Hydrostatic Pressure	19829.6	kPa
Mud Gradient	10.7	kPa/m
EC Density	1095.0	kg/m^3
Ann. Vel. D.P.	71.0	m/min
Ann. Vel. D.P.Csg.	64.0	m/min
Ann. Vel. HWDP	99.2	m/min
Ann. Vel. D.C # 1	99.2	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1085.0	1810.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)	4.0	
Volume discarded (m^3)		
Solids equipment underflow (m^3)	1.0	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash	4	$29.55	$118.20
N-Dril Lo	2	$211.96	$423.92
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 50 - 55 S/L with cellosize @ I Hr./Sk.

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Thanx Lloyd

Do not run water on shakers, we will have to use more defoamer.

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Daily Cost	#####	$ 1,537.12
Previous Cost	#####	$ 39,688.37
Total Cost $	#####	$ 41,225.49

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	10/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 26	**Total Days:** 25

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,876**	
Depth T.V.D.	**1,871**	meters
Density	**1090**	kg/m^3
Funnel Viscosity	**52**	sec/L
Fann 600	**52**	
Fann 300	**33**	
Fann 200	**22**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**19**	mPa-sec
Yield Point	**7**	Pa
Fluid Loss	**3.0**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	36000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**10.5**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**0.950**	vol frac
Solids Content	**0.050**	vol frac
Low "n" value	**0.61**	slope
Low "K" value	**3.79**	dyn-sec/cm^2
High "n" value	**0.66**	slope
High "K" value	**2.83**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**6.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1750.0
jars	121.0	57.0	6.6
DC	121.0	57.0	119.0

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	7	Depth In	1854.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	25	Noz Vel.	30.4	m/sec
Weight dN	9.0	Bit HHP	21.1	KW
ROP	3.96	Jet Impact	486.6	N
Nozzles	5x12.7	2x11.1		mm
TFA	827.0			mm

Pump 1 ___ (•) Triplex ( ) Duplex

Pump 2 ___ (•) Triplex (•) Duplex

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
#1 PUMP:					#2 PUMP:			
# 1	165.0	216.0	95	13.16	68	895.1		
# 2			100	19.90		0.0	895.1	0.90

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	33.0	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	11.0	m^3
String Displacement	5.3	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	18.3	m^3
Total Volume	67.6	m^3
Bottoms Up	26.4	min.
Surface to Bit	12.2	min.
Circulation Time	**75.5**	min.
Hydrostatic Pressure	20006.4	kPa
Mud Gradient	10.7	kPa/m
EC Density	1090.0	kg/m^3
Ann. Vel. D.P.	76.6	m/min
Ann. Vel. D.P.Csg.	69.1	m/min
Ann. Vel. HWDP	107.1	m/min
Ann. Vel. D.C # 1	107.1	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	1085.0	1800.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Drilling ahead

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo	1	$211.96	$211.96
Barabuf	2	$78.33	$156.66
Baracarb		$43.05	$0.00
Bicarbonates	4	$43.05	$172.20
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin	2	$102.59	$205.18
XL Defoamer	1	$306.55	$306.55
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	#####	$ 2,047.55
Previous Cost	#####	$ 41,225.49
Total Cost $	#####	$ 43,272.99

RECOMMENDATIONS

TODAY

Maintain vis 50 - 55 S/L with cellosize @ I Hr./Sk.

Maintain wt. as low as possible by using screens as fine as possible.

If volume req'd use water from brown tank.

Run centrifuge 4hrs. On/ 4 hrs. off

Mix products while centrifuge is off

Do not run water on shakers, we will have to use more defoamer.

PH is good, all properties OK, use defoamer sparingly and only if req'd.

Thanx Lloyd

**Any problems, questions or concers feel free to call anytime. Thanks Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	11/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 27	**Total Days:** 26

DRILLING FLUID PROPERTIES

Time	**7:30**	24hr.
Depth M.D.	**1,882**	
Depth T.V.D.	**1,877**	meters
Density	**1150**	kg/m^3
Funnel Viscosity	**53**	sec/L
Fann 600	**54**	
Fann 300	**34**	
Fann 200	**24**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**20**	mPa-sec
Yield Point	**7**	Pa
Fluid Loss	**2.6**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	50000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**14.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**93.500**	vol frac
Solids Content	**6.500**	vol frac
Low "n" value	**0.62**	slope
Low "K" value	**3.75**	dyn-sec/cm^2
High "n" value	**0.67**	slope
High "K" value	**2.71**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1827.0
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	8	Depth In	1882.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	18	Noz Vel.	42.3	m/sec
Weight dN	9.0	Bit HHP	20.8	KW
ROP		Jet Impact	683.7	N
Nozzles	3x15.9	2x11.1		mm
TFA	593.5			mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m³ / min.
#1 PUMP:					#2 PUMP:			
# 1	165.0	216.0	95	13.16	65	855.6		
# 2			100	19.90		0.0	855.6	0.86

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	29.6	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	159.0	mm
String Capacity	11.0	m^3
String Displacement	5.3	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	18.3	m^3
Total Volume	67.6	m^3
Bottoms Up	27.6	min.
Surface to Bit	12.8	min.
Circulation Time	**79.0**	min.
Hydrostatic Pressure	21175.4	kPa
Mud Gradient	11.3	kPa/m
EC Density	1150.0	kg/m^3
Ann. Vel. D.P.	73.2	m/min
Ann. Vel. D.P.Csg.	66.0	m/min
Ann. Vel. HWDP	102.4	m/min
Ann. Vel. D.C # 1	102.4	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m³	Under Flow kg/m³	Under Flow L/min.
Centrifuge #1	1085.0	1830.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Wash to bottom

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite	96	$24.20	$2,323.20
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer	1	$306.55	$306.55
N-Vis Plus		$240.47	$0.00
Salt 20 kg	70	$17.90	$1,253.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	#####	$ 4,877.75
Previous Cost	#####	$ 43,272.99
Total Cost $	#####	$ 48,150.74

RECOMMENDATIONS

TODAY

Maintain vis 50 - 55 S/L with cellosize @ I Hr./Sk.

Maintain wt. @ 1150 kg/m3 or as req'd with SALT

Do not run water on shakers, we will have to use more defoamer.

PH is good, all properties OK, use defoamer sparingly and only if req'd.

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	12/7/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 28	**Total Days:** 27

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1,937**	
Depth T.V.D.	**1,932**	meters
Density	**1160**	kg/m^3
Funnel Viscosity	**51**	sec/L
Fann 600	**46**	
Fann 300	**28**	
Fann 200	**20**	
Fann 100	**12**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**18**	mPa-sec
Yield Point	**5**	Pa
Fluid Loss	**2.5**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	55000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**14.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**93.000**	vol frac
Solids Content	**7.000**	vol frac
Low "n" value	**0.57**	slope
Low "K" value	**4.01**	dyn-sec/cm^2
High "n" value	**0.72**	slope
High "K" value	**1.65**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1827.0
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	8	Depth In	1882.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	22	Noz Vel.	42.3	m/sec
Weight dN	13.6	Bit HHP	12.0	KW
ROP	1.06	Jet Impact	477.4	N
Nozzles	3x15.9			mm
TFA	593.5			mm

Pump 1 ___ ◉ Triplex ○ Duplex

Pump 2 ___ ◉ Triplex ◉ Duplex

PUMP DATA

	#1 PUMP:			#2 PUMP:				
	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	**Total L / min.**	**Total m³ / min.**
# 1	165.0	216.0	95	13.16	45	592.3		
# 2			100	19.90		0.0	592.3	0.59

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	25.0	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	11.3	m^3
String Displacement	5.4	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	19.0	m^3
Total Volume	66.0	m^3
Bottoms Up	41.1	min.
Surface to Bit	19.1	min.
Circulation Time	**111.4**	min.
Hydrostatic Pressure	21985.4	kPa
Mud Gradient	11.4	kPa/m
EC Density	1160.0	kg/m^3
Ann. Vel. D.P.	50.7	m/min
Ann. Vel. D.P.Csg.	45.7	m/min
Ann. Vel. HWDP	70.9	m/min
Ann. Vel. D.C # 1	70.9	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)		
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Wash to bottom

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
CW 8551		$280.70	$0.00
barathin		$102.59	$0.00
XL Defoamer	2	$306.55	$613.10
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
Salt 40 kg		$35.80	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Maintain vis 50 - 55 S/L with cellosize @ I Hr./Sk.

Maintain wt. @ 1150 kg/m3 or as req'd with SALT

If volume req'd add cement water from brown tank.

Today add 2 sx cellosize and 1 sk barathin to boost rheology.

Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Daily Cost	#####	$ 1,608.10
Previous Cost	#####	$ 48,150.74
Total Cost $	#####	$ 49,758.84

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/13/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 29	**Total Days:** 28

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1155**	kg/m^3
Funnel Viscosity	**55**	sec/L
Fann 600	**50**	
Fann 300	**32**	
Fann 200	**22**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**18**	mPa-sec
Yield Point	**7**	Pa
Fluid Loss	**2.8**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	52000	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**14.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**93.500**	vol frac
Solids Content	**6.500**	vol frac
Low "n" value	**0.60**	slope
Low "K" value	**3.83**	dyn-sec/cm^2
High "n" value	**0.64**	slope
High "K" value	**2.96**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #	9	Depth In	1882.0	meters
Size mm	159.0	Depth Out		meters
Type	Hughes	Hours Run		hrs.
RPM	23	Noz Vel.	42.3	m/sec
Weight dN		Bit HHP	19.9	KW
ROP	3.24	Jet Impact	697.2	N
Nozzles	3x15.9			mm
TFA	593.5			mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
#1 PUMP:					#2 PUMP:			
# 1	165.0	216.0	95	13.16	66	868.8		
# 2			100	19.90		0.0	868.8	0.87

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	26.8	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	11.5	m^3
String Displacement	5.5	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	19.4	m^3
Total Volume	63.0	m^3
Bottoms Up	28.5	min.
Surface to Bit	13.2	min.
Circulation Time	**72.5**	min.
Hydrostatic Pressure	22264.5	kPa
Mud Gradient	11.3	kPa/m
EC Density	1155.0	kg/m^3
Ann. Vel. D.P.	74.3	m/min
Ann. Vel. D.P.Csg.	67.1	m/min
Ann. Vel. HWDP	103.9	m/min
Ann. Vel. D.C # 1	103.9	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently POH to LOG

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo	1	$211.96	$211.96
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid	1	$190.57	$190.57
barathin	3	$102.59	$307.77
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
EZ Mud	3	$180.56	$541.68
Engineering	1	$995.00	$995.00

Daily Cost	#####	$ 2,246.98
Previous Cost	#####	$ 49,758.84
Total Cost $	#####	$ 52,005.82

RECOMMENDATIONS

TODAY

TD'd well, POH to log, no mixing req'd today.

Hole in good condition for logging !

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/14/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 30	**Total Days:** 29

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1150**	kg/m^3
Funnel Viscosity	**54**	sec/L
Fann 600	**53**	
Fann 300	**34**	
Fann 200	**24**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**19**	mPa-sec
Yield Point	**7**	Pa
Fluid Loss	**2.6**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	52000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**14.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**93.500**	vol frac
Solids Content	**6.500**	vol frac
Low "n" value	**0.62**	slope
Low "K" value	**3.75**	dyn-sec/cm^2
High "n" value	**0.64**	slope
High "K" value	**3.21**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #		Depth In	1882.0	meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	N
Nozzles				mm
TFA				mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	95	13.16	0	0.0	0.0	0.00
# 2			100	19.90		0.0		

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	26.8	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	11.5	m^3
String Displacement	5.5	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	19.4	m^3
Total Volume	63.0	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	22168.1	kPa
Mud Gradient	11.3	kPa/m
EC Density	1150.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175
Shaker #2			

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently logging

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo	1	$211.96	$211.96
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus	1	$240.47	$240.47
Salt 20 kg		$17.90	$0.00
EZ Mud		$180.56	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Logging, no additions req'd

Stripping solids from rig tanks with centrifuge

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Daily Cost	#####	$	1,447.43
Previous Cost	#####	$	49,758.84
Total Cost $	#####	$	51,206.27

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/15/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 31	**Total Days:** 30

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1150**	kg/m^3
Funnel Viscosity	**54**	sec/L
Fann 600	**53**	
Fann 300	**34**	
Fann 200	**24**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**19**	mPa-sec
Yield Point	**7**	Pa
Fluid Loss	**2.6**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	52000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**14.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**93.500**	vol frac
Solids Content	**6.500**	vol frac
Low "n" value	**0.62**	slope
Low "K" value	**3.75**	dyn-sec/cm^2
High "n" value	**0.64**	slope
High "K" value	**3.21**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

PUMP DATA

#1 PUMP: | #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	95	13.16	0	0.0	0.0	0.00
# 2			100	19.90		0.0		

CIRCULATING SYSTEM

Hole Enlargement	5.0	%
Tank Volume	19.9	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	167.0	mm
String Capacity		m^3
String Displacement		m^3
Casing Ann Volume	6.8	m^3
Annular Volume	34.6	m^3
Total Volume	61.3	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	22168.1	kPa
Mud Gradient	11.3	kPa/m
EC Density	1150.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

BIT DATA

Bit #		Depth In	1882.0	meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	N
Nozzles				mm
TFA				mm

Pump 1: Triplex / Duplex — Pump 2: Triplex / Duplex

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1			
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently logging

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
EZ Mud		$180.56	$0.00
Engineering	1	$995.00	$995.00

Daily Cost	#####	$ 995.00
Previous Cost	#####	$ 53,453.25
Total Cost $	#####	$ 54,448.25

RECOMMENDATIONS

TODAY

Logging, no additions req'd

Hole volumes calculated with open hole and 5% washout

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/16/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 32	**Total Days:** 31

DRILLING FLUID PROPERTIES

Time	**7:00**	24hr.
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1150**	kg/m^3
Funnel Viscosity	**56**	sec/L
Fann 600	**54**	
Fann 300	**35**	
Fann 200	**24**	
Fann 100	**14**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**19**	mPa-sec
Yield Point	**8**	Pa
Fluid Loss	**2.8**	ml/30 min
Filter Cake	**0.5**	mm
pH Strip / Meter	**9**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	53000	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**14.0**	kg/m^3
Sand Content	**0.5**	%
Oil Content	**tr**	vol frac
Water Content	**93.500**	vol frac
Solids Content	**6.500**	vol frac
Low "n" value	**0.00**	slope
Low "K" value	**178.85**	dyn-sec/cm^2
High "n" value	**0.63**	slope
High "K" value	**3.62**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

PUMP DATA

#1 PUMP: | #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	95	13.16	0	0.0		
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	07/16/2013	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	11.5	m^3
String Displacement	5.5	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	19.4	m^3
Total Volume	63.0	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	22168.1	kPa
Mud Gradient	11.3	kPa/m
EC Density	1150.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

BIT DATA

Bit #		Depth In	1882.0 meters
Size mm		Depth Out	meters
Type		Hours Run	hrs.
RPM		Noz Vel.	m/sec
Weight dN		Bit HHP	#DIV/0! KW
ROP		Jet Impact	0.0 N
Nozzles			mm
TFA			mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)		
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently logging

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo	2	$211.96	$423.92
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
EZ Mud		$180.56	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Logging, no additions req'd

Added 2 sx. N-Drill to rig tanks.

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Daily Cost	$ 1,418.92
Previous Cost	$ 54,448.25
Total Cost $	$ 55,867.17

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/18/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 34	**Total Days:** 33

DRILLING FLUID PROPERTIES

Time	**6:45**	
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1145**	kg/m^3
Funnel Viscosity	**55**	sec/L
Fann 600	**58**	
Fann 300	**37**	
Fann 200	**26**	
Fann 100	**15**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**21**	mPa-sec
Yield Point	**8**	Pa
Fluid Loss	**2.8**	ml/30 min
Filter Cake	**0.75**	mm
pH Strip / Meter	**8**	scale
Alkalinity pF	**0.5**	ml
Alkalinity mF	**0.8**	ml
Chloride	51000	mg/L
Calcium	**440**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**10.5**	kg/m^3
Sand Content	**0.75**	%
Oil Content	**tr**	vol frac
Water Content	**94.000**	vol frac
Solids Content	**6.000**	vol frac
Low "n" value	**0.63**	slope
Low "K" value	**3.64**	dyn-sec/cm^2
High "n" value	**0.65**	slope
High "K" value	**3.32**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #		Depth In	1882.0	meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	N
Nozzles				mm
TFA				mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	95	13.16	0	0.0		
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	33.6	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	0.0	m^3
String Displacement	5.5	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	19.4	m^3
Total Volume	59.0	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	22071.8	kPa
Mud Gradient	11.2	kPa/m
EC Density	1145.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently testing

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
EZ Mud		$180.56	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Today

No additions req'd today,testing.

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 57,286.09
Total Cost $	$ 58,281.09

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/19/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 35	**Total Days:** 34

DRILLING FLUID PROPERTIES

Time	**7;00**	
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1140**	kg/m^3
Funnel Viscosity	**56**	sec/L
Fann 600	**57**	
Fann 300	**37**	
Fann 200	**26**	
Fann 100	**15**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**20**	mPa-sec
Yield Point	**8.5**	Pa
Fluid Loss	**2.9**	ml/30 min
Filter Cake	**0.75**	mm
pH Strip / Meter	**8**	scale
Alkalinity pF	**0.4**	ml
Alkalinity mF	**0.7**	ml
Chloride	48000	mg/L
Calcium	**360**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**10.5**	kg/m^3
Sand Content	**0.75**	%
Oil Content	**tr**	vol frac
Water Content	**94.000**	vol frac
Solids Content	**6.000**	vol frac
Low "n" value	**0.63**	slope
Low "K" value	**3.64**	dyn-sec/cm^2
High "n" value	**0.62**	slope
High "K" value	**3.88**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #		Depth In	1882.0	meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	N
Nozzles				mm
TFA				mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
#1 PUMP:								
# 1	165.0	216.0	95	13.16	0	0.0		
#2 PUMP:								
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	31.7	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	0.0	m^3
String Displacement	5.5	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	19.4	m^3
Total Volume	61.9	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	21975.4	kPa
Mud Gradient	11.2	kPa/m
EC Density	1140.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)		
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently testing

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
EZ Mud		$180.56	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Today

No additions req'd today,testing.

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 58,281.09
Total Cost $	$ 59,276.09

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/20/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 36	**Total Days:** 35

DRILLING FLUID PROPERTIES

Time	**7;00**	
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1135**	kg/m^3
Funnel Viscosity	**54**	sec/L
Fann 600	**52**	
Fann 300	**34**	
Fann 200	**22**	
Fann 100	**13**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**18**	mPa-sec
Yield Point	**7**	Pa
Fluid Loss	**2.8**	ml/30 min
Filter Cake	**0.75**	mm
pH Strip / Meter	**8**	scale
Alkalinity pF	**0.4**	ml
Alkalinity mF	**0.7**	ml
Chloride	47000	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**10.5**	kg/m^3
Sand Content	**0.75**	%
Oil Content	**tr**	vol frac
Water Content	**94.000**	vol frac
Solids Content	**6.000**	vol frac
Low "n" value	**0.62**	slope
Low "K" value	**3.75**	dyn-sec/cm^2
High "n" value	**0.61**	slope
High "K" value	**3.81**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #		Depth In	1882.0	meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	N
Nozzles				mm
TFA				mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

PUMP DATA

#1 PUMP: #2 PUMP:

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m^3 / min.
# 1	165.0	216.0	95	13.16	0	0.0	0.0	0.00
# 2			100	19.90		0.0		

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	23.1	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	0.0	m^3
String Displacement	2.0	m^3
Casing Ann Volume	5.3	m^3
Annular Volume	36.0	m^3
Total Volume	64.4	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	21879.0	kPa
Mud Gradient	11.1	kPa/m
EC Density	1135.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently POH to run csg.

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
EZ Mud		$180.56	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Today

no additions req'd tod ay, wiper trip, POH sideways to run csg.

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 59,276.09
Total Cost $	$ 60,271.09

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:**	Hurricane # 2	**Date:**	07/21/2013
L.S.D.:		**Rig #:**	Foragaz # 3	**Spud Date:**	
Report For:	Victor Leroux	**Report For:**	Greg MacKinnon	**Report # :** 37	**Total Days:** 36

DRILLING FLUID PROPERTIES

Time	**7;00**	
Depth M.D.	**1970 TD**	
Depth T.V.D.	**1,965**	meters
Density	**1135**	kg/m^3
Funnel Viscosity	**55**	sec/L
Fann 600	**53**	
Fann 300	**34**	
Fann 200	**22**	
Fann 100	**13**	
Fann 6	**3**	
Fann 3	**2**	
10 Sec. Gel Strength	**1**	Pa
10 Min. Gel Strength	**3**	Pa
30 Min. Gel Strength	**3**	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	**20**	mPa-sec
Yield Point	**6.5**	Pa
Fluid Loss	**2.6**	ml/30 min
Filter Cake	**0.75**	mm
pH Strip / Meter	**8.5**	scale
Alkalinity pF	**0.4**	ml
Alkalinity mF	**0.7**	ml
Chloride	45000	mg/L
Calcium	**400**	mg/L
Carbonates	**0**	mg/L
Bicarbonates	**0**	mg/L
Methylene Blue	**10.5**	kg/m^3
Sand Content	**0.75**	%
Oil Content	**tr**	vol frac
Water Content	**94.000**	vol frac
Solids Content	**6.000**	vol frac
Low "n" value	**0.62**	slope
Low "K" value	**3.75**	dyn-sec/cm^2
High "n" value	**0.64**	slope
High "K" value	**3.21**	dyn-sec/cm^2
A.S.G.	**2.6**	Spec.Grav.
Lo-Grav Solids	**3**	kg/m³
Drill Solids	**3**	kg/m³
Hi-Grav Solids	**4**	kg/m³
PHPA Content	**8.0**	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey ^{o}			

BIT DATA

Bit #		Depth In		meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	N
Nozzles				mm
TFA				mm

Pump 1 — Triplex / Duplex

Pump 2 — Triplex / Duplex

PUMP DATA

	Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	Total m³ / min.
#1 PUMP:					#2 PUMP:			
# 1	165.0	216.0	95	13.16	0	0.0		
# 2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	3.0	%
Tank Volume	25.9	m^3
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
csg. capacity	19.5	m^3
csg. Displacement	5.5	m^3
Casing Ann Volume	3.3	m^3
Annular Volume	16.7	m^3
Total Volume	62.1	m^3
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	21879.0	kPa
Mud Gradient	11.1	kPa/m
EC Density	1135.0	kg/m^3
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT

	Over Flow kg/m^3	Under Flow kg/m^3	Under Flow L/min.
Centrifuge #1	na	na	0.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m^3)		
Water added (m^3)		
Volume discarded (m^3)		
Solids equipment underflow (m^3)	0.5	
Total fluid added (m^3)		0.0
Total fluid discarded (m^3)		0.0

REMARKS

Presently Run csg.

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
Baracarb		$43.05	$0.00
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin		$102.59	$0.00
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg		$17.90	$0.00
EZ Mud		$180.56	$0.00
Engineering	1	$995.00	$995.00

RECOMMENDATIONS

TODAY

Today

no additions req'd tod ay. Run csg.

Thanx Lloyd

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

Daily Cost	$ 995.00
Previous Cost	$ 60,271.09
Total Cost $	$ 61,266.09

Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

DRILLING FLUID REPORT

Halliburton - Baroid

Operator:	Investcan Energy	**Well Name:** Hurricane # 2	**Date:** 07/22/2013
L.S.D.:		**Rig #:** Foragaz # 3	**Spud Date:**
Report For:	Victor Leroux	**Report For:** Greg MacKinnon	**Report #:** 38 **Total Days:** 37

DRILLING FLUID PROPERTIES

Time	7;00	
Depth M.D.	1970 TD	
Depth T.V.D.	1,965	meters
Density	1135	kg/m³
Funnel Viscosity	44	sec/L
Fann 600	42	
Fann 300	24	
Fann 200	18	
Fann 100	9	
Fann 6	2	
Fann 3	1	
10 Sec. Gel Strength	1	Pa
10 Min. Gel Strength	2	Pa
30 Min. Gel Strength	2	Pa
Apparent Viscosity		mPa-sec
Plastic Viscosity	18	mPa-sec
Yield Point	3	Pa
Fluid Loss	2.6	ml/30 min
Filter Cake	0.75	mm
pH Strip / Meter	8	scale
Alkalinity pF	0.4	ml
Alkalinity mF	0.7	ml
Chloride	82000	mg/L
Calcium	400	mg/L
Carbonates	0	mg/L
Bicarbonates	0	mg/L
Methylene Blue	7.0	kg/m³
Sand Content	0.5	%
Oil Content	tr	vol frac
Water Content	96.000	vol frac
Solids Content	4.000	vol frac
Low "n" value	0.69	slope
Low "K" value	1.66	dyn-sec/cm²
High "n" value	0.81	slope
High "K" value	0.80	dyn-sec/cm²
A.S.G.	2.6	Spec.Grav.
Lo-Grav Solids	3	kg/m³
Drill Solids	3	kg/m³
Hi-Grav Solids	4	kg/m³
PHPA Content	8.0	kg/m³

HOLE GEOMETRY

	OD mm	ID mm	Length m
Casing	222.0	164.0	323.0
D.P.	102.0	85.0	1916.6
jars	121.0	57.0	6.6
DC	121.0	57.0	46.8

SURVEYS

Depth (m)			
Survey °			

BIT DATA

Bit #		Depth In	1882.0	meters
Size mm		Depth Out		meters
Type		Hours Run		hrs.
RPM		Noz Vel.		m/sec
Weight dN		Bit HHP	0.0	KW
ROP		Jet Impact	0.0	
Nozzles				
TFA				

Pump 1 ___ mm ◉ Triplex ○ Duplex

Pump 2 ___ mm ◉ Triplex ◉ Duplex

PUMP DATA

	#1 PUMP: Liner mm	Stroke mm	EFF. %	L / stroke	Strokes/min.	L / min.	Total L / min.	#2 PUMP: Total m³ / min.
#1	165.0	216.0	95	13.16	0	0.0		
#2			100	19.90		0.0	0.0	0.00

CIRCULATING SYSTEM

Hole Enlargement	5.0	%
Tank Volume		m³
Circulating Pressure:	12,390	kPa
Adjusted Hole Size	164.0	mm
String Capacity	0.0	m³
String Displacement		m³
Casing Ann Volume		m³
Annular Volume		m³
Total Volume		m³
Bottoms Up	#DIV/0!	min.
Surface to Bit	#DIV/0!	min.
Circulation Time	**#DIV/0!**	min.
Hydrostatic Pressure	21879.0	kPa
Mud Gradient	11.1	kPa/m
EC Density	1135.0	kg/m³
Ann. Vel. D.P.	0.0	m/min
Ann. Vel. D.P.Csg.	0.0	m/min
Ann. Vel. HWDP	0.0	m/min
Ann. Vel. D.C # 1	0.0	m/min

FLOWLINE CLEANERS - MESH SIZES

Shaker #1	175	175	175	
Shaker #2				

SOLIDS REMOVAL EQUIPMENT	Over Flow kg/m³	Under Flow kg/m³	Under Flow L/min.
Centrifuge #1	1100.0	2040.0	750.0
Centrifuge #2	na	na	0.0
Desander	na	na	
Desilter	na	na	
Other	na	na	

FLUID ACCOUNTING

	0:00-12:00	12:00-24:00
Premix added (m³)		
Water added (m³)		
Volume discarded (m³)		
Solids equipment underflow (m³)	0.5	
Total fluid added (m³)		0.0
Total fluid discarded (m³)		0.0

REMARKS

Presently Well complete

Materials Used Since Last Report

Material	Amt.	Price	Cost
Soda Ash		$29.55	$0.00
N-Dril Lo		$211.96	$0.00
Barabuf		$78.33	$0.00
CW 8551	2	$280.70	$561.40
Bicarbonates		$43.05	$0.00
Barite		$24.20	$0.00
citric acid		$190.57	$0.00
barathin	6	$102.59	$615.54
XL Defoamer		$306.55	$0.00
N-Vis Plus		$240.47	$0.00
Salt 20 kg	229	$17.90	$4,099.10
EZ Mud		$180.56	$0.00
Engineering	2	$995.00	$1,990.00

Daily Cost	$ 7,266.04
Previous Cost	$ 61,260.09
Total Cost $	$ 68,526.13

RECOMMENDATIONS

TODAY

Today

no additions req'd tod ay, well complete, mud transferred to remote tanks.

Thanx Lloyd Approx. 60 m3.

2 days engineering charged, today and travel day for tomorrow (July 23)

**Any problems, questions ns or concerns please call anytime Thanx Lloyd

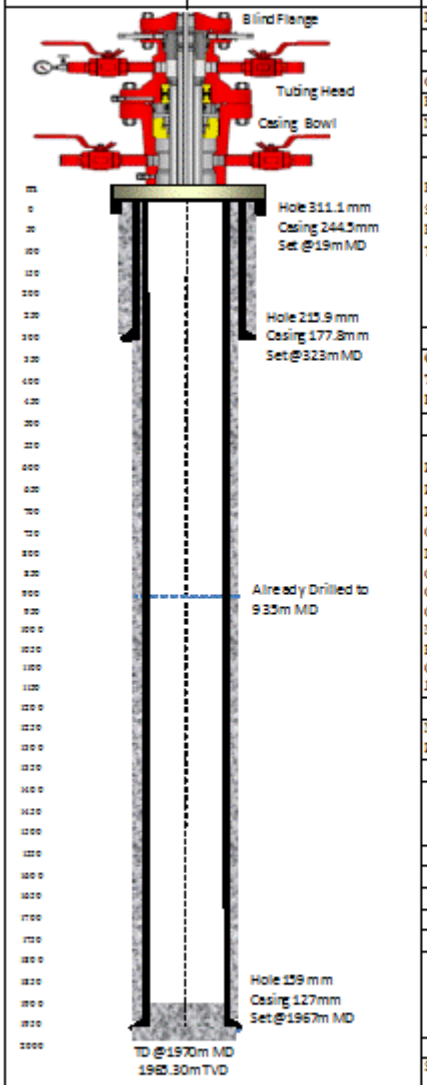
Field Representative:	Lloyd Anthony	**Warehouse:**	
Phone:		**Phone:**	
Cellular:	902 456 6752	**Engineer #:**	403 231 9483

APPENDIX J : Wellbore & Wellhead Schematics

Number of pages : *1*

Summary of the content: The figure summarizes the final wellbore and wellhead configuration on Hurricane#2

WELLBORE SCHEMATIC



HURRICANE#2 (WHIP#1) RE ENTRY

Investcan Energy Corp	100% Working Interest	EP	03-107

ELEVATIONS & RIGS PECS

Ground Level	145.7 m	Forigaz	3	Pump 1	Triplex Dragon Workforce 660HP
KB	4.0 m	Rotted depth	1970 m	Pump 2	Duplex Wilson 600 400HP
Number of loads(winter)	18	kB to Grd	149.66 m	Mud Tank Size	60m3

FORMATION TOPS

	mSS	mKB TVD	mKB MD	Thk	kPa	Max grad	Equiv MW
Friars Cove		788.81	790.00	622			
Snakes Bight		1411.13	1415.0	95			
Kennels Brook		1505.93	1510.00	459	12500	8.1 kPa/m	822.1 kg/m³
TD		1965.30	1970.00				

WELL HEAD DATA

Casing Bowl: Weatherford Type W9 (228.8mm-20.7 MPa) x 177.8mm Slip on Weld c/w two 50.8mm line pipe side outlets
Tubing Head: Weatherford Type B (228.8mm-20.7 MPa) x (179mm-20.7 MPa) c/w two 50.8mm line pipe side outlets
Blind Flange: 179mm-13.8MPa

CASING DESIGN

	Conductor	Surface	Hole (Drilled)	Production
Hole Size	311.0 mm	216 -219 mm	159.0 mm	159.0 mm
Hole Depth TVD	19 m TVD	323 m TVD	935 m TVD	1965 m TVD
Hole Depth MD	19 mMD	323 mMD	935 mMD	1970 mMD
Casing Size	244.5 mm	177.8 mm		127.0 mm
Drift	222.6 mm	162.9 mm		105.4 mm
Casing Weight	53.60 kg/m	25.30 kg/m		26.79 kg/m
Casing Grade	J-55	H-40		L-80
Coupling	8Rd Short	8Rd Short		LT&C
Make up Torque	5340 N-m	1650 N-m		5400 N-m
Burst Pressure	24,000 kPa	16,000 kPa		70,000 kPa
Collapse Pressure	14,000 kPa	10,000 kPa		72,000 kPa
Joint Strength	175,000 daN	54,000 daN		167,000 daN

DRILL BITS

Milled Tooth Bit	117	159 mm	D/O CMT Plugs
PDC / Insert Bits	M333 / 537	159 mm	935-1970m

DRILLING FLUID

Section	Interval	Mud System
Surface	0-935	Clay Free Polymer
Production	935 - 1970	Clay Free Polymer

CEMENT

Section	Cement	Density	Additives	Excess
Lead Slurry: 0-1100	Class G	1600.0 kg/m³	0.5% Halad 344, 21.8 kg/m³ Bentonite	30%
Tail Slurry: 1100-1970	Class G	1895.0 kg/m³	0.5% Halad 344	30%

FORMATION EVALUATION

Cores	No					
DST (mMD)	#1 Failed	#2: 1666-1680.5	#3: 1765 - 1771	#4: 1090-1125.5		
Logs (Baker Hughes)	HDIL, MIL, EDL, CN, XMAC, ORIT, DSL, TTRM, GR, STAR, ORIT, CBIL, MREX					
FMT (mMD)	1475.9, 1473.6, 1355.1, 1351.5, 1348.2, 1355.1, 1322.5, 1245.8, 1231.0, 1122.3, 1103.9					

ADDITIONNAL INFORMATION

SET from 0 to 323 m

INVESTCAN Energy Corp	Investcan Energy Corporation Hurricane#2 (Whip#1) Re-Entry Termination Configuration	Drawn By: Date: Drawing No:	M. Kouzehgar 24-Sep-13 Hur#2RE Term Rev#0

APPENDIX K : Geological Reports

Number of pages : *28*

Summary of the content: Geological reports of Hurricane#2.

DAILY GEOLOGICAL REPORT N° 1

INVESTCAN Energy Corp

Date : 06/20/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	940.54m	TVD ss @ 24h	790.57m	24 Hrs Progress (m)	4.5		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.0m/hr
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1075kg/m3

Formation @ 24h	Friars Cove	Prognosed next marker	Snakes Bight @ ~1050m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
935.2	940.5	**Silty Sandstone 70%:** whitish to light grey, common orange pink stained grains, upper fine to lower medium	2
		grained, common upper medium and occasional lower coarse grains, quartzitic with 5% medium grey lithic	
		grains, trace to minor micaceous flakes, rare to trace pyrite, in part argillaceous and kaolinitic matrix,	
		subangular to angular grains, in part rounded grains, moderately to poorly sorted, siliceous and common	
		calcitic cement, common loose grains, in part fair grain relief, tight to poor intergranualr porosity (0-3%),	
		minor yellow fluorescence, no cut; **Siltstone(30%)**: light grey grading to medium grey, gritty textured, siliceous	
		cement, argillaceous in part, in part grading to lower very fine grained sandstone, tight.	
		From midnight to 6 am	
940.5	945	**Silty Sandstone 100%:** as above	2.7

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
940	22100	11700	10400	BGG
From midnight to 6 am				
942	75000	62700	12300	POG
941	55900	44000	11900	TG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				

Bit type Hughes- STX-1 **in** 936 **out** 940.5 **footage** 4.5

OPERATION SUMMARY

Continue POOH to P/U BHA. RIH and ream old hole to 820m. Tag Soft cement @ 820m and hard cement at 830m.
Drill Cement from 830m to 936m. Displace well to drilling mud.
Drill new fromation from 936m to 940.5m. POOH for BHA and bit.
P/U BHA and RIH to drill ahead 159mm hole.

From midnight to 6 am

Continue to RIH surveying every ~56m.
Drill ahead to 947.7m.
Slide to correct deviation.

Planned operations	Drill ahead 159mm hole.
Recorded Temperature	
Others	Recorded significant gas readings while reaming old hole and between 2nd and 3rd cement plugs (>10000units) with water in open hole.

DAILY GEOLOGICAL REPORT N# 2

INVESTCAN Energy Corp

Date : 21/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1049m	TVD ss @ 24h	-898.3m	24 Hrs Progress (m)	108.5		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	5.3m/hr
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1100 kg/m3

Formation @ 24h	Silty Sandstones interbedded w/ shales	Prognosed next marker	Snakes Bight Limestones @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
940.5	1005	**SS(70%):**lt and m gy grdg occly to off wh, L and U vf gr to U f gr, com L m grs and occ U m grs, ip grdg to sdy	5.9
		sltst, qtzc with tr lthc grs, mnr Pyr thru, tr mics, com arg and slty mtx, ip kao mtx, a and sr grs, occ R fros qtz	
		grs, mod to p srt, silc and calc cmt, tt to tr inferred p intgran por(0-3%), tr m yel flor, n cut; **SLTST(30%)**: lt and	
		m gy, ip dk gy, gritty tex, silc and calc cmt, arg, ip shy, ip sdy, tt.	
1005	1049	**SS(70%):** wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, arg and slty, calc, mica, tr pyr and cal vns,	5.9
		tt, no shows; SH(30%): m gy occ dk gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.	
From midnight to 6 am			
1049	1085	SS#1(60%): like the above ss, (ie slty and tt, sub ark).	6.5
		SH(20%): m - dk gy, sub fis, blky, mic	
		SS#2(10%)(ie @ 1060-1070m)- f - m gred, qtztc, modly srt, p intgrn por (0-3%), abnt lse grs, no s.	
		LS(10%): chlky - crm, occ wh, sft, tt, no s. Assumed to be LS stringers.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
971	93300	71100	22200	FG
974	66700	50900	15800	FG
998	43500	30100	13400	FG
From midnight to 6 am				
1036	23000	15600	7400	FG
1056	23000	15900	7100	FG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1012.6	7.4	357.3	-860.98	2.7
1022.02	8.3	359.8	-870.32	3.06
1031.48	9.8	13	-879.66	8.09
From midnight to 6 am				
1040.94	10.5	20.1	-888.97	4.54

Bit type	Hughes QD406FX	in	940.5	out	xxx	footage	xxx

OPERATION SUMMARY

RIH w/ mud motor and new bit.
Drill from 940.5m to 1049m surveying every stand and sliding to correct deviation.

From midnight to 6 am
Drill from 1049m to 1088.5m

Planned operations	Drill ahead 159mm hole, evaluating formation for core point
Recorded Temperature	
Others	Background gas is about 100units (10000ppm)

DAILY GEOLOGICAL REPORT N# 3

INVESTCAN Energy Corp

Date : 22/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: 375854
NAD 27 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1190m	TVD ss @ 24h		24 Hrs Progress (m)	151		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	6.7
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1120 kg/m3

Formation @ 24h	Friars Cove- intrbd ss, sltst w/ sh	Prognosed next marker	Snakes Bight Limestones @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1049	1123	Interbedded sandstones and shales with trace limestone stringers.	7.2
1123	1163	Increasing amounts of medium grey shale and light grey siltstones. Siltstone rarely grade to a very fine	5.8
		grained silty sandstone.	
1163	1190	Silty sandstones and shales, with samples from 1175-1185m displaying a faint dull brown fluorescence	6.2
		(<10% cuttings), no cu; and roughneck reporting seeing "oil" at shakers, but no gas response.	
		From midnight to 6 am	
1190	1225	Interbedded silty sandstone and shales. Sandstones are tight and very fine grained, well cemented with	7.3
		calcareous cement, poor porosity and no shows.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
1067	21700	14800	6900	FG
	6200	4000	2200	BGG
		From midnight to 6 am		
1200.5	25600	20500	5100	FG
	5400	3000	2400	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1135.97	5.4	53.1	-982.63	6.29
1145.06	4.4	65.2	-991.69	4.73
1154.98	3.8	76	-1001.59	2.95
From midnight to 6 am				
1183.41	3.3	69.3	-1029.96	0.96
1202.43	3.4	61.4	-1048.95	0.67

Bit type Hughes QD406FX **in** 940.5 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill from 1049m to 1190m, surveying every stand and sliding to reduce inc.

From midnight to 6 am

Drill from 1190m to 1225m

Bump test gas detector @ 02:05; good response (157 units)

Planned operations	Drill ahead 159mm hole, evaluating formation for core point
Recorded Temperature	
Others	Background gas is ~ 60 units (6000ppm)

DAILY GEOLOGICAL REPORT N# 4

INVESTCAN Energy Corp

Date : 23/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1317m	TVD ss @ 24h	-1163.33m	24 Hrs Progress (m)	127		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	5.8
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1130 kg/m3

Formation @ 24h	Friars Cove- interbedded ss, sltst	Prognosed next marker	Snakes Bight Limestones @ 1410m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1190	1317	Interbedded **silty sandstone** and **siltsones** with minor **shales. Sandstones** very fine to fine grained,	5.8
		well cemented with calcareous cement, poor porosity and no shows. Minor **Limestone** @ 1274.5m-1276m.	
		Siltstones are light grey to medium grey, occasionally light brownish grey, hard, calcareous cement,	
		with calcareous stringers and/or veinlets.	
From midnight to 6 am			
1317	1323	Interbedded **silty sandstone** and **siltsones**.	5.8
1323	1325	Sandstone with poor intergranular porosity (0-3%), 20% of cuttings show bluish green fluorescence, no cut.	7.5
1325	1343	Interbedded tight hard **silty sandstone** and **siltsones**.	3.9

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
1200.5	25600	20500	5100	FG
From midnight to 6 am				
1324	13900	10600	3300	FG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1278.68	3.4	77.5	-1125.06	1.65
1288.1	3.3	87.8	-1134.46	1.94
1297.53	2.7	111.1	-1143.88	4.28
From midnight to 6 am				
1316.43	1.6	150.9	-1162.77	2.84

Bit type Hughes QD406FX **in** 940.5 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill from 1190m to 1317m, surveying every stand.

From midnight to 6 am
Drill from 1317m to 1343m

Planned operations	Drill ahead 159mm hole, evaluating formation for core point
Recorded Temperature	
Others	Background gas is ~ 35 units (3500ppm)

DAILY GEOLOGICAL REPORT N# 5

INVESTCAN Energy Corp

Date : 24/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1355	TVD ss @ 24h		24 Hrs Progress (m)	38		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	4.2
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1120 kg/m3

Formation @ 24h	Friars cove- intrbd ss, sltst	Prognosed next marker	Snakes Bight Limestones @ 1410m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1317	1323	Interbedded **silty sandstone** and **siltsones**.	5.8
1323	1325	Sandstone with poor intergranular porosity (0-3%), 20% of cuttings show bluish green flourescence, no cut.	7.5
1325	1339	Interbedded tight hard **silty sandstone** and **siltsones**.	3.9
1339	1355	Medium to coarse grained **pebbly sandstone**, quartz and chert rich, poorly sorted, no shows.	3.7
From midnight to 6 am			
1355	1370	Medium to coarse grained **pebbly sandstone**, quartz and chert rich, poorly sorted, no shows.	4.5
1370	1375	Medium to dark grey **siltstone,** micaceous, calcareous, tt.	3.9

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
1324	13900	10600	3300	FG
	63200	42700	20500	TG
1349	54400	40400	14000	FG
From midnight to 6 am				
1369	35200	23500	11700	FG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1316.43	1.6	150.9	-1162.77	2.84
From midnight to 6 am				

Bit type Hughes QD406FX **in** 940.5 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill from 1317m to 1344.5m
Pull out of hole for slow ROP / wiper trip.
M/U new BHA with gamma, RIH w/ same bit.
Wash down last 3 stands, resume drilling.
Drill from 1344.5 to 1355m

From midnight to 6 am
Drill from 1355m to 1378m.

Planned operations	Drill ahead 159mm hole, evaluating formation for core point
Recorded Temperature	
Others	

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 6

Date : 25/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor/Pearce Bradley

Coord: NAD 27 375854 5347195

MD KB @ 24h	1426	TVD ss @ 24h	-1272m	24 Hrs Progress (m)	71		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	3.3
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1120 kg/m3

Formation @ 24h	Snakes Bight- intrbd ss, sltst and ls	Prognosed next marker	Core Point - Snakes Bight Sandstone @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1355	1370	Medium to coarse grained **pebbly sandstone**, quartz and chert rich, poorly sorted, no shows.	4.5
1370	1380	Medium to dark grey **siltstone,** micaceous, calcareous, tt.	3.9
1380	1400	Interbedded **siltstone** and very fine grained sandstones	2.7
1400	1426	Interbedded **siltsone** and very fine grained **sandstones** primarily in washed and dried samples	2.7
		although, somewhat chalky, muddy samples were observed at shakers. Trace to 10% of cuttings in dried	
		samples were cream to light brown, micro-crystalline, **limestone**. PDC bit is believed to be pulverizing LS	
		cuttings, thus explaining poor returns to shakers. (Reduce in ROP, and difficult for directional to steer.)	
		From midnight to 6 am	
1426	1438	Interbedded **siltsone** and very fine grained **sandstones** primarily in washed and dried samples	1.9
		although, somewhat chalky, muddy samples were observed at shakers. Trace to 10% of cuttings in dried	
		samples were cream to light brown, micro-crystalline, **limestone**. PDC bit is believed to be pulverizing LS	
		cuttings, thus explaining poor returns to shakers. (Reduce in ROP, and difficult for directional to steer.)	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
1369	35200	23500	11700	FG
1396	27400	17300	10100	FG?
	22100	12000	10100	BGG
From midnight to 6 am				
	6500	3000	3500	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1392.01	1.5	3329.7	-1238.34	3.17
1401.41	2.7	336	-1247.73	3.89
1410.78	3.6	337.5	-1257.09	2.89
From midnight to 6 am				
1420.25	3.2	341.5	-1266.54	1.47

Bit type Hughes QD406FX **in** 940.5 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill from 1355m to 1426m.
Believe to have intersected top of Limestone @ ~ 1414m

From midnight to 6 am

Continue drilling from 1426m to 1438m, sliding to correct deviation.

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, coarse sandstone)
Recorded Temperature	
Others	

DAILY GEOLOGICAL REPORT N# 7

INVESTCAN Energy Corp

Date : 26/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1484m	TVD ss @ 24h	-1338m	24 Hrs Progress (m)	58		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.3
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1135 kg/m3

Formation @ 24h	Limestone, with interbeds of ss	Prognosed next marker	Core Point - Snakes Bight Sandstone @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1426	1484	Interbedded **siltsone** and very fine grained **sandstones** primarily in washed and dried samples	2.3
		although, somewhat chalky, muddy samples were observed at shakers. Trace to 10% of cuttings in dried	
		samples were cream to light brown, micro-crystalline, **limestone**. PDC bit is believed to be pulverizing LS	
		cuttings, thus explaining poor returns to shakers. (Reduce in ROP)	
From midnight to 6 am			
1484	1495	Interbedded **siltstones** and **sandstones**, with minor limestones (as described above)	2.05
		Appears to be **transitioning out of limestone** environment, although sandstones and siltstone are still	
		quite calcareous.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
1448	24600	15200	9400	FG
1461.5	23800	15800	8000	FG
@24h00	6000	3100	2900	BGG
From midnight to 6 am				
@ 6h00	6000	3000	3000	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1439.41	1.7	0.6	-1293.44	2.29
1448.81	2	4.8	-1302.84	1.05
1458.3	2.8	355.7	-1312.33	2.79
From midnight to 6 am				

Bit type Hughes QD406FX **in** 940.5 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill and slide from 1426m to 1484m.
Believe to have intersected top of Limestone @ ~ 1414m; evaluating samples for core point.

From midnight to 6 am

Drill ahead 159mm section, evaluating formation for core point

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse sandstone)
Recorded Temperature	
Others	Bump test gas detector @ 04h30, service gas detector.

DAILY GEOLOGICAL REPORT N# 8

INVESTCAN Energy Corp

Date : 27/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1509.5m	TVD ss @ 24h	-1355m	24 Hrs Progress (m)	25.5		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.09
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1140 kg/m3 @ 10h00

Formation @ 24h	Interbeds of ss and sltst,	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1484	1495	Interbedded **siltstones** and **sandstones**, with minor limestones (as described above)	2.05
		Appears to be **transitioning out of limestone** environment, although sandstones and siltstone are still	
		quite calcareous.	
1495	1509.5	Interbedded **siltstones** and **sandstones,** generally increasing grain size with depth.	2.11
		Sandstone is medium to very coarse grained (rare pebble fragments of varicolored quartz and other lithic	
		fragments. 3-5% interganular porosity.Questionable spotty dark brown oil staining on some grains, trace	
		moderate to bright yellow, direct fluorescence, with a faint residual white cut. Dark Brown oil @ shakers.	
		From midnight to 6 am	
1509.5	1515	**Conglomerate -** m to coarse to pebble size (inferred from grain fragments), predominately of varicolored	4.48
		quartz and chert, volcanics and other lithic fragments. Matrix is inferred to be light grey argillaceous and	
		sandy material.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
1502	19800	14900	4900	FG
1505.5	11100	7500	3600	FG
From midnight to 6 am				
1511	11800	8800	3000	FG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				
1496.91	5.3	347.8	-1343.07	1.31

Bit type Hughes QD406FX **in** 940.5m **out** 1509.5m **footage** 569m

OPERATION SUMMARY

Drill ahead 159mm section from 1484m-1509.5m, evaluating formation (for core point??)
POOH to change bit/motor. Lay down old BHA, M/U new BHA.
Slip and cut 19m drilling line.
RIH with new bit and new motor.
Trouble shoot rig pump.

From midnight to 6 am

Continue to troubleshoot rig pump. Wash down last STD.
Drill ahead 159mm section from 1509.5 to 1518m(sliding), evaluating formation for core point

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse sandstone)
Recorded Temperature	
Others	No trip gas, bump test gas detector @4h50, good tests.

DAILY GEOLOGICAL REPORT N# 9

INVESTCAN Energy Corp

Date : 28/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1573	TVD ss @ 24h	-1419	24 Hrs Progress (m)	63.5		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	3.53
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1080 kg/m3 @ 10h00

Formation @ 24h	Conglomerate - Snakes Bight?	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1509.5	1573	**Conglomerate -** medium to coarse to pebble size (inferred from grain fragments), predominately of	3.53
		varicoloured quartz and chert, volcanics and other lithic fragments. Matrix is inferred to be light grey	
		argillaceous and sandy material, weakly calcareous, becoming predominately sandy matrix downhole	
		<5% of cuttings exhibit pale to dull mineral fluorescence.	
		Conglomerate seems to grade to and from medium to coarse grained **pebbly sandstone** with similar	
		composition (varicolored clasts of quartz,chert and other lithic fragments) as above conglomerate.	
		Formation is considered to have poor porosity, no oil shows.	
From midnight to 6 am			
1573	1585	**Conglomerate - as above**	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
1511	11800	8800	3000	FG
1544	28200	22200	6000	FG
1548	23500	17600	5900	FG
From midnight to 6 am				
	3300	1800	1500	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1524.79	3	39.4	-1370.85	7.96
1534.2	2.7	49.4	-1380.25	1.85
1543.58	3.8	82.5	-1389.61	6.81
From midnight to 6 am				
1553.17	4.1	109.5	-1399.18	5.84

Bit type Hughes QD406FX **in** 1509.5 **out** xxx **footage** xxx

OPERATION SUMMARY

Continue to troubleshoot rig pump. Wash down last STD.
Drill ahead 159mm section from 1509.5 to 1573m (sliding to correct deviation), evaluating formation for core point.

From midnight to 6 am

Drill ahead 159mm section from 1573m to 1586m, evaluating formation for core point

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse grained porous sandstone)
Recorded Temperature	Rain overnight, lows of 13 degrees.
Others	Excellent observations by junior geologist onsite re: previous shows.

DAILY GEOLOGICAL REPORT N# 10

INVESTCAN Energy Corp

Date : 29/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1604	TVD ss @ 24h	-1450	24 Hrs Progress (m)	31		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	1.9
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1090 kg/m3

Formation @ 24h	Conglomerate - Snakes Bight??	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1573	1604	**Conglomerate -** medium to coarse to pebble sized ++ (inferred from grain fragments), predominately of	1.9
		varicoloured quartz and chert, volcanics and other lithic fragments. Matrix is inferred to be light grey	
		argillaceous and sandy material, weakly calcareous, becoming predominately sandy matrix downhole.	
		Conglomerate seems to grade to and from medium to coarse grained **pebbly sandstone** with similar	
		composition (varicolored clasts of quartz,chert and other lithic fragments) as above conglomerate.	
		Formation is considered to have poor porosity, no oil shows.	
		From midnight to 6 am	
1604	1615	**Conglomerate, as above.**	2

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
before trip	3300	1800	1500	BGG
1597.6*	65100	49100	16000	TG
after trip	20000	10000	10000	BGG
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1581.36	4.8	137	-1427.29	1.82
From midnight to 6 am				
1600.53	5.5	139.2	-1446.38	1.14

Bit type Hughes QD406FX **in** 1509.5 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill 159mm section from 1573m to 1597.6m, evaluating formation for core point
POOH for slow penetration rate. RIH w/ tricone to drill out conglomerate.
Drill from 1597.6m to 1604m.

From midnight to 6 am

Drill 159mm section from 1604m to 1615m

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse grained porous sandstone)
Recorded Temperature	Rain overnight, lows of 18 degrees.
Others	Slight oil slick at shakers and on mud tanks observed after trip (recycled oil in mud?? Mud Retort suggests no increase of oil in mud)

DAILY GEOLOGICAL REPORT N# 11

INVESTCAN Energy Corp

Date : 30/06/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1661.5	TVD ss @ 24h	-1502.4m	24 Hrs Progress (m)	57.5		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.4
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1090 kg/m3

Formation @ 24h	Conglomerate - Snakes Bight ??	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1604	1661.5	**Conglomerate -** medium to coarse to pebble sized ++ (inferred from grain fragments), predominately of	2.4
		varicoloured quartz and chert, volcanics and other lithic fragments. Matrix is inferred to be light grey	
		argillaceous and sandy material, weakly calcareous, becoming predominately sandy matrix downhole.	
		Conglomerate seems to grade to and from medium to coarse grained **pebbly sandstone,** with cleaner	
		composition (predominately sub rounded to sub angular quartz grains with only minor lithic fragments)	
		Formation is considered to have poor porosity, no oil shows.	
		From midnight to 6 am	
1661.5	1672	**Conglomerate, as above.**	1.8

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
	7100	3100	4000	BGG
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1600.53	5.5	139.2	-1446.38	1.14
1619.39	5.3	136.7	-1465.16	0.49
1638.15	4.9	136.9	-1483.84	0.64
From midnight to 6 am				
1656.98	4.6	138.2	-1502.61	0.51

Bit type Hughes STX-35DX **in** 1597.6 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill 159mm section from 1604m to 1661.5m, evaluating formation for core point

From midnight to 6 am

Drill 159mm section from 1661.5m to 1672m

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse grained porous sandstone)
Recorded Temperature	Downhole Temperature of 27.5 degrees
Others	Hoepfully visiting basement outcrop to take Mag readings to tie-in to Mag survey.

DAILY GEOLOGICAL REPORT N# 12

INVESTCAN Energy Corp

Date : 01/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor/Pearce Bradley

MD KB @ 24h	1708	TVD ss @ 24h	-1553m	24 Hrs Progress (m)	46.5		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	1.99
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1090

Formation @ 24h	Conglomerate - Snakes Bight??	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1661.5	1679	Polymictic clast supported **conglomerate** with varicolored clasts as seen from last two days of reports.	1.99
		Conglomerate seems to grade to and from medium to coarse grained **pebbly sandstone,** with cleaner	
		composition (predominately sub rounded to sub angular quartz grains with only minor lithic fragments)	
		Formation is considered to have poor porosity, no oil shows.	
1679	1687	**Pebbly sandstone**, medium grained sub litharenite, sub rounded,slightly calcareous, trace to 3%	2.11
		interganular porosity, no oil shows. Slight increase in gas (513 units over ~300 BGG)	
1687	1708	Conglomerate , as above.	2.04
		From midnight to 6 am	
1708	1721	**Interbedded conglomerate and sandstone** (rather grading from conglomerate to pebbly sandstone). Inferred	1.98
		tight to poor porosity. In unwashed samples straight from the shakers, grey clay content was noted and	
		increase in quartz in sample 1715m (sand from matrix or medium to very coarse grained sandstone??)	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@6h00	7100	3100	4000	BGG
@10h00	33100	18100	15000	BGG
1686	54600	33300	21300	FG?
From midnight to 6 am				
@06h00	12200	5800	6400	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1656.98	4.6	138.2	-1502.61	0.51
1676.01	4.2	139.2	-1521.58	0.64
1685.33	2.4	157.4	-1530.89	6.63
From midnight to 6 am				
1694.75	1.1	272.7	-1540.3	9.67
1704.35	2.2	282.9	-1549.9	3.54

Bit type Hughes STX-35DX **in** 1597.6 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill 159mm section from 1661.5m to 1708m, evaluating formation for core point
NOV system down for 0.75 hrs. Troubleshoot gas detector.

From midnight to 6 am

Drill 159mm section from 1708m to 1721m

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse grained porous sandstone)
Recorded Temperature	Downhole Temperature of 27 degrees
Others	After adding "glycol"- to drying jars at gas detector - background gas was at ~ 300 units.

DAILY GEOLOGICAL REPORT N# 13

INVESTCAN Energy Corp

Date : 02/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor/Pearce Bradley

Coord: NAD 27 375854 5347195

MD KB @ 24h	1731.1	TVD ss @ 24h		24 Hrs Progress (m)	23.3		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1090

Formation @ 24h	RED BEDS - Snakes Bight??	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1708	1730	**Interbedded conglomerate and sandstone** (rather grading from conglomerate to pebbly sandstone). Inferred	1.91
		tight to poor porosity. In unwashed samples straight from the shakers, grey clay content was noted and	
		increase in quartz in sample 1715m (sand from matrix or medium to very coarse grained sandstone??)	
1730	1731	Bottom's Up sample revealed redmud at the shakers, unwashed sample is red (rather then grey), after	1.8
		washing most red clays are removed. **Interbedded red beds**, **siltstones** and very fine grained **sandstones.**	
From midnight to 6 am			

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@06h00	12600	6000	6600	BGG
1730	19400	10200	9200	FG??
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1694.75	1.1	272.7	-1540.3	9.67
1704.35	2.2	282.9	-1549.9	3.54
1713.77	2.4	286.1	-1559.2	0.76
From midnight to 6 am				

Bit type Hughes STX-35DX **in** 1597.6 **out** 1731.1 **footage** 133.5

OPERATION SUMMARY

Drill 159mm section from 1708m to 1731m, evaluating formation for core point
POOH for bit/ Pressure test BOP. Test OK.

From midnight to 6 am

RIH with new bit (PDC-Hughes QD405FX)

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse grained porous sandstone)
Recorded Temperature	Downhole Temperature of 27 degrees
Others	

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 14

Date : 03/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor/Pearce Bradley

Coord: NAD 27 375854 5347195

MD KB @ 24h	1773m	TVD ss @ 24h	-1617m	24 Hrs Progress (m)	42		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.94
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1090 kg/m3

Formation @ 24h	Conglomerate - Snakes Bight (?)	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1731	1765	**Conglomerate**- polymictic, with sandy matrix, (matrix supported??), varicolored (pink,orange,white,cream,buff	3.16
		to brown, clear and green grey) fragments of quartz and chert, with lesser fragments of pebbles from other	
		lithic fragments. Poorly sorted, moderately to well cemented (or infilled with green grey clay) with	
		calcareous and siliceous cement, poor porosity, no oil shows	
1765	1773	**Conglomerate**- polymictic, absence of sandy matrix (grey clay washed away?? clast supported??),	2.27
		varicolored (pink,orange,white,cream,buff, rare green grey) fragments of granitic material (quartz, k-spar	
		and plagioclase) with less other lithic fragments. Poor porosity, no shows.	
		From midnight to 6 am	
1773	1784.5	**Conglomerate**- polymictic, with sandy matrix, (matrix supported??), varicolored (pink,orange,white,cream,buff	1.79
		to brown, clear and green grey) fragments of quartz and chert, with lesser fragments of pebbles from other	
		lithic fragments. Increase in **"sandstone"** cuttings (sandy matrix or **pebbly sandstone interbeds**??). Poor porosity	
		no shows.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@15h30	15700	5500	10200	BGG
From midnight to 6 am				
@02h30	7100	3000	4200	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1732.8	1.4	43.1	-1578.34	1.93
1742.44	0.9	122	-1587.98	4.7
1751.88	0.6	138.3	-1597.42	1.16
From midnight to 6 am				
1761.36	0.6	337.4	-1606.89	3.74

Bit type HughesQD405FX **in** 1731.1 **out** xxx **footage** xxx

OPERATION SUMMARY

RIH w/ new bit and mud motor (Hughes QD405FX)
Drill/Slide 159mm section from 1731m to 1773m, evaluating formation for core point

From midnight to 6 am

Drill 159mm section from 1773m to 1784.5m, evaluating formation for core point.

Planned operations	Drill ahead 159mm hole, evaluating formation for core point (ROP,gas, oil shows, medium to coarse grained porous sandstone)
Recorded Temperature	Downhole Temperature of 25.8 degrees
Others	Gamma confirms small (0.5m-1.0m) shaley red bed @ 1730m-1731m.

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 15

Date : 04/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor/Pearce Bradley

Coord: NAD 27 — 375854 / 5347195

MD KB @ 24h	1786.4m	TVD ss @ 24h	-1630m	24 Hrs Progress (m)	13.4		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	1.85
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1090 kg/m3

Formation @ 24h	Conglomerate - Snakes Bight??	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1773	1786.4	**Conglomerate-** polymictic, with sandy matrix, (matrix supported??), varicolored (pink,orange,white,cream,buff	1.85
		to brown, clear and green grey) fragments of quartz and chert, with lesser fragments of pebbles from other	
		lithic fragments. Increase in **"sandstone"** cuttings (sandy matrix or **pebbly sandstone interbeds**??). Poor porosity	
		no shows.	
		From midnight to 6 am	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
	4000	1700	2300	BGG
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1761.36	0.6	337.4	-1606.89	3.74
1770.76	0.8	340.1	-1616.29	0.65
From midnight to 6 am				

Bit type	HughesQD405FX	in	1731.1	out	1786.4	footage	55.3

OPERATION SUMMARY

Drill 159mm section from 1773m to 1784.5m, evaluating formation for core point.
POOH for bit and to pressure test Blind Rams.
Set Packer and pressure test blind rams. Good test.
Retrieve Packer. Not there. RIH with tubing and TAM overshot to retrieve packer.

From midnight to 6 am

Continue to RIH with tubing and TAM overshot to retrieve packer.
@6h00hrs they are currently at bottom of hole and attempting to retrieve packer.

Planned operations	Retrieve packer, POOH with tubing, RIH with tricone, drill ahead 159mm section to core point/basement.
Recorded Temperature	Downhole Temperature of 25.8 degrees
Others	

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 16

Date : 05/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor/Pearce Bradley

Coord: NAD 27 375854 5347195

MD KB @ 24h	1786.4m	TVD ss @ 24h	-1630m	24 Hrs Progress (m)	0		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1095

Formation @ 24h	Conglomerate - Snakes Bight??	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
From midnight to 6 am			

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				

Bit type	HughesQD405FX	in	1731.1	out	1786.4	footage	55.3

OPERATION SUMMARY

Continue to RIH with tubing and TAM overshot to retrieve packer (attempt #1)
POOH with overshot on tubing. No Fish. Modify Overshot and RIH for attempt #2.
POOH with modified overshot on tubing (attempt # 2). No Fish.

From midnight to 6 am

Modify overshot again and RIH on tubing to attempt to retrieve fish (attempt #3)

Planned operations	Retrieve packer, POOH tubing, RIH with tricone, drill ahead 159mm section to core point/basement.
Recorded Temperature	Downhole Temperature of 25.8 degrees
Others	

DAILY GEOLOGICAL REPORT N# 17

INVESTCAN Energy Corp

Date : 06/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor / Marine Di Matteo

Coord: NAD 27 375854 5347195

MD KB @ 24h	1786.4m	TVD ss @ 24h	-1630m	24 Hrs Progress (m)	0		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1095

Formation @ 24h	Conglomerate - Snakes Bight??	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
From midnight to 6 am			

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				

Bit type	HughesQD405FX	in	1731.1	out	1786.4	footage	55.3

OPERATION SUMMARY

Modify overshot again and RIH on 2-3/8" tubing to attempt to retrieve fish (attempt #3). No fish.
Run overshot/TAM tool in on drill pipe (attempt #4). Wash down to top of fish.
Fish (single set packer) is latched on but inflated. Attempt to deflate packer.

From midnight to 6 am

Continue to attempt to deflate packer.

Planned operations	Retrieve packer, POOH, RIH with tricone, drill ahead 159mm section to core point/basement.
Recorded Temperature	Downhole Temperature of 25.8 degrees
Others	

DAILY GEOLOGICAL REPORT N# 18

INVESTCAN Energy Corp

Date : 07/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor / Marine Di Matteo

MD KB @ 24h	1801.2	TVD ss @ 24h	-1645m	24 Hrs Progress (m)	14.8		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.31
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Gel based polymer	MW	1095 kg/m3

Formation @ 24h	Conglomerate - Snakes Bight (?)	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1786	1801	**Conglomerate -** polymictic with sandy calcareous matrix, estimated 40% vcol pbl frags ranging from orange	2.31
		pink , brown, buff, light grey, light green, dark green, estimated 60% sandy calcareous matrix, predominately	
		clear and translucent quartz grains with estimated 10-20% lithic grains, (**sub litharenite**??), medium to fine	
		grains, abundant unconsolidated sub-rounded grains, minor rounded frosted grains, poorly sorted, tight,	
		very faint flourescence in part, very faint residual cut. **Red brown mud** at shakers between 1788m and 1795m	
		but is washed out in cleaning process, some red staining on some cuttings (red clays? Or siderite?).	
		From midnight to 6 am	
1801	1807	**Conglomerate -** polymictic, with sandy matrix, sample is composed primarily of quartz and feldspar	1.02
		fragments with lesser amounts of lithic fragments. Occasional red brown mud shakers. Else, **conglomerate**	
		is like above.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
	1500	600	900	BGG
1786	7900	6100	1800	TG
From midnight to 6 am				
	1800	1000	800	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1780.17	1.1	333.1	-1625.7	1.02
From midnight to 6 am				
1789.59	1.3	336.4	-1635.12	0.67

Bit type Hughes STX-40DX **in** 1786.4 **out** xxx **footage** xxx

OPERATION SUMMARY

Continue to attempt to retrieve packer, packer retrieved, POOH.
RIH with tricone mudmotor and gamma ray, wash hole, drill ahead 159mm section from 1786.4m to 1801m.

From midnight to 6 am

Drill ahead 159mm section from 1801m to 1807m

Planned operations	Drill ahead 159mm section to core point/basement.
Recorded Temperature	Downhole Temperature of 24.6 degrees
Others	

DAILY GEOLOGICAL REPORT N# 19

INVESTCAN Energy Corp

Date : 08/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor / Marine Di Matteo

MD KB @ 24h	1841.3	TVD ss @ 24h		24 Hrs Progress (m)	40.3		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.2
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1095 kg/m3

Formation @ 24h	Conglomerate - Snakes Bight (?)	Prognosed next marker	Core Point - Snakes Bight Sandstone # 2 @ ???m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1801	1842	**Interbedded conglomerate with sandstones and red siltstones and claystones - conglomerate** ranges from being	2.2
		clast supported to sand matrix supported, probably grading (uphole) to **pebbly sandstone** layers, and even	
		to a red **silty claystone**, before having more clast supported deposited **conglomerate** on top. Clasts in	
		conglomerate are dominated by angular fragments of clear to white quartz and lesser feldspars, with	
		minor lithic clasts (volcanics (rhyolite??) and green to dark green metasediments).	
From midnight to 6 am			
1842	1851	**Conglomerate -** clast supported, clasts are dominated by quartz and feldspars with minor volcanics and	1.84
		metasediments.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
	1800	1000	800	BGG
1841.3	5500	4400	1100	STG
From midnight to 6 am				
@05h30	2700	2000	800	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1798.98	1.3	337.8	-1644.51	0.1
1808.47	1.4	343.3	-1654	0.52
1817.87	1.4	342.8	-1663.39	0.04
From midnight to 6 am				
1827.31	1.4	340.2	-1672.83	0.2
1836.84	1.2	344.5	-1682.36	0.7

Bit type Hughes STX-40DX **in** 1786.4 **out** xxx **footage** xxx

OPERATION SUMMARY

Drill ahead 159mm section from 1801m to 1841.3m
Rig service - brakes on draw works.

From midnight to 6 am

Drill ahead 159mm section from 1841.3m to 1851m

Planned operations	Drill ahead 159mm section to core point/basement.
Recorded Temperature	Downhole Temperature of 25 degrees
Others	

DAILY GEOLOGICAL REPORT N# 20

INVESTCAN Energy Corp

Date : 09/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: 375854
NAD 27 5347195

WSG : Jonathan Taylor / Marine Di Matteo

MD KB @ 24h	1854.5	TVD ss @ 24h	-1709	24 Hrs Progress (m)	13.2		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	1.39
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1095 kg/m3

Formation @ 24h	Conglomerate - Kennels Brook	Prognosed next marker	Basement @ ~ 1930m.

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1841.3	1854.5	**Interbedded conglomerate with sandstones and red siltstones and claystones - conglomerate** ranges from being	1.39
		clast supported to sand matrix supported, probably grading (uphole) to **pebbly sandstone** layers, and even	
		to a red **silty claystone**, before having more clast supported deposited **conglomerate** on top. Clasts in	
		conglomerate are dominated by angular fragments of clear to white quartz and lesser feldspars, with	
		minor lithic clasts (volcanics (rhyolite??) and green to dark green metasediments.	
		From midnight to 6 am	
1854.5	1866	As above - but with increasing **red beds** downhole, especially below 1861m.	3.59
		(1865m sample hadn't lagged up at time of report but ROP has increased, along with WOB)	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@05h30	2700	2000	800	BGG
1854	8300	6800	1500	TG
From midnight to 6 am				
@06h00	2700	2000	700	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1827.31	1.4	340.2	-1672.83	0.2
1836.84	1.2	344.5	-1682.36	0.7
From midnight to 6 am				
1854.47	1	349.2	-1690.99	0.76

Bit type Hughes STX-40DX **in** 1786.15 **out** 1854.78 **footage** 68.63

OPERATION SUMMARY

Drill ahead 159mm section from 1841.3m to 1854.5m
POOH for mud motor.
Rig service - draw works.
RIH with new mud motor and PDC bit.

From midnight to 6 am

Continue to RIH with new mud motor and bit.
Drill ahead 159mm section from 1854.5m to 1866m

Planned operations	Drill ahead 159mm section to basement.
Recorded Temperature	Downhole Temperature of 22 degrees
Others	Please see Strip Log for updated fluorescence, cut and shows from previous sections.

DAILY GEOLOGICAL REPORT N# 21

INVESTCAN Energy Corp

Date : 10/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor / Marine Di Matteo

MD KB @ 24h	1882.44	TVD ss @ 24h	-1737m	24 Hrs Progress (m)	27.9		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	1.77
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3

Formation @ 24h	Conglomerate - Kennels Brook	Prognosed next marker	Basement @ ~ 1930m.

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1854.5	1882.44	**Interbedded conglomerate with sandstones and red siltstones and claystones - conglomerate** ranges from being	1.77
		clast supported to sand matrix supported, probably grading (uphole) to **pebbly sandstone** layers, and even	
		to a red **silty claystone**, before having more clast supported deposited **conglomerate** on top. Clasts in	
		conglomerate are dominated by rounded fragments of clear to white quartz and lesser feldspars, with	
		minor lithic clasts (volcanics (rhyolite??) and green to dark green metasediments. Slight increase in	
		frequency of mafic minerals within clasts and as fragments. Red mud noted in several conglomerate	
		cuttings - red mud at shakers can be attributed to red mud in matrix rather then grading to mudstone.	
		From midnight to 6 am	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@06h00	2700	2000	700	BGG
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1854.91	1	349.2	-1700.42	0.76
1863.69	1.2	0.3	-1709.2	0.31
From midnight to 6 am				

Bit type	Hughes STX-40DX	in	1786.15	out	1854.78	footage	68.63

OPERATION SUMMARY

Continue to RIH with new mud motor and bit.
Drill ahead 159mm section from 1854.5m to 1882.44m
Condition mud and circulate, increase mud weight and attempt to regain rotation.
POOH to change bit.

From midnight to 6 am

RIH with tricone and straight mud motor, (less 8 DC).
Slip and cut drilling line.
Continue to RIH.

Planned operations	Drill ahead 159mm section to basement.
Recorded Temperature	Downhole Temperature of 23 degrees
Others	

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 22

Date : 11/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: 375854
NAD 27 5347195

WSG : Jonathan Taylor / Marine Di Matteo

MD KB @ 24h	1917	TVD ss @ 24h		24 Hrs Progress (m)	34.6		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.42
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3

Formation @ 24h	Conglomerate, Limestone and Sandstone	Prognosed next marker	Basement @ ~ 1960m.

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1882	1901	**Conglomerate-** polymictic, clast supported, with only minor (estimated <10%) sandy matrix with occasional	2.07
		red mud matrix as een on several cuttings and red mud intermittently at shakers. Clasts are composed of	
		granites, gabbros, volcanics (rhyolites and basalts??) and metasediments. Rare clasts of chert.	
1901	1903	**Limestone**- buff to cream colored, microcrystalline, tight to poor porosity, no flourescence, no cut.	2.43
		Best observed in spot sample taken at 1903.5m. Trace amounts of oil observed at shakers just below this.	
1903	1917	**Sandstone and conglomerate** - (ss) quartz arenite, clear to white, fine to medium grained, rare coarse grained,	3.18
		predominately unconsolidated sub angular to sub rounded quartz grains, minor kspar and lithic fragments	
		From midnight to 6 am	
		(cont'd) .... Poorly cemented with calcareous and siliceous cement, moderately sorted, 3-5% porosity	
		(local to 1912m to 1914m) inferred from unconsolidated grains, and increase in ROP, spotty brown oil stain	
		on trace cuttings, trace dull orange mineral fluorescence (DOL??), spotty faint yellow direct fluorecence on	
		trace quartz grains,very faint residual bluish white cut. **Sandstone** grades to and from **polymictic conglomerate**.	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@12h00	2200	1400	800	BGG
1882	4600	3600	1000	TG
1913.5	3800	2800	1000	FG
From midnight to 6 am				
@3h30	2600	1800	1000	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1863.69	1.2	0.3	-1709.2	0.31
1877.05	1.3	3.4	-1722.56	0.27
1886.48	1.7	5.8	-1731.99	1.29
From midnight to 6 am				
1895.94	2	15.1	-1741.44	1.34
1905.34	2.1	12.7	-1750.84	0.42

Bit type Hughes STX-30DX **in** 1882 **out** xxx **footage** xxx

OPERATION SUMMARY

RIH with tricone and straight mud motor, (less 8 DC).
Slip and cut drilling line.
Continue to RIH.
Circulate hole clean and drill ahead 159mm section to 1917m, assessing formation for basement.

From midnight to 6 am

Drill ahead 159mm section, from 1917m to 1935m.

Planned operations	Drill ahead 159mm section to basement.
Recorded Temperature	Downhole Temperature of 25.3 degrees
Others	No room on report for lithology after midnight - please see strip log for update to 06h00 hrs. In general - interbedded ss and cgl

DAILY GEOLOGICAL REPORT N# 23

INVESTCAN Energy Corp

Date : 12/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor / Marine Di Matteo

Coord: NAD 27 — 375854 / 5347195

MD KB @ 24h	1950.8	TVD ss @ 24h		24 Hrs Progress (m)	33.8		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	2.65
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3

Formation @ 24h	Conglomerate and Sandstone	Prognosed next marker	Basement @ ~ 1960m.

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1917	1950.8	**Conglomerate-** polymictic, clast supported to matrix supported, <10% to >25% sandy matrix with occasional	2.65
		red mud matrix as seen on several cuttings and red mud intermittently at shakers. Clasts are composed of	
		granites, gabbros, volcanics (rhyolites and basalts??) and metasediments. Rare clasts of chert. Grades to	
		medium grained pebbly **sandstone** uphole (intermittently)**.** Pebbly Sandstone is fine to medium grained,	
		with rare coarse to pebble sized clasts of similar material found in conglomerate. On rare quartz grains,	
		a spotty dark brown to black oil stain can be obseved, which has a spotty dull yellow to white fluorescence	
		and a faint to dull residual (very very slow) cut.	
		From midnight to 6 am	
1950.8	1970	**Interbedded conglomerate and sandstones (or a sandy conglomerate/pebbly sandstone). As above.**	3.84

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@20h00	1800	1100	700	BGG
From midnight to 6 am				
@05h00	2100	1400	700	BGG

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1895.94	2	15.1	-1741.44	1.34
1905.34	2.1	12.7	-1750.84	0.42
From midnight to 6 am				

Bit type Hughes STX-30DX **in** 1882 **out** 1936.6 **footage** 54.6

OPERATION SUMMARY

Drill ahead 159mm section, from 1917m to 1936.6m.
POOH to change mud motor/bit. P/U and RIH with slower mud motor and new bit (tri-cone 537).
Drill ahead 159mm section, from 1936.6m to 1957.8m.

From midnight to 6 am

Drill ahead 159mm section, from 1957.8m to 1970m.
Circulate bottom's up.

Planned operations	Drill ahead 159mm section to basement.
Recorded Temperature	Downhole Temperature of 24.1 degrees
Others	

DAILY GEOLOGICAL REPORT N# 24

INVESTCAN Energy Corp

Date : 13/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3
Coord: NAD 27 375854 5347195

WSG : Jonathan Taylor / Marine Di Matteo

MD KB @ 24h	1970	TVD ss @ 24h	-1815.47m	24 Hrs Progress (m)	19.2		
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	3.84
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3

Formation @ 24h	Conglomerate and Sandstone	Prognosed next marker	TD @ 1970m

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
1950.8	1970	**Conglomerate -** polymictic, clast supported to matrix supported, <10% to >25% sandy matrix with increasing	3.84
		red mud matrix downhole (to TD) as seen on cuttings and intermittently at shakers. Clasts are composed of	
		granites, gabbros, volcanics (rhyolites and basalts??) and metasediments. Rare clasts of chert. Grades to	
		medium grained pebbly **sandstone** uphole (intermittently)**.** Pebbly Sandstone is fine to medium grained,	
		with rare coarse to pebble sized clasts of similar material found in conglomerate. On rare quartz grains,	
		a spotty dark brown to black oil stain can be obseved, which has a spotty dull yellow to white fluorescence	
		and a faint to dull residual (very very slow) cut.	
		From midnight to 6 am	

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
@05h00	2100	1400	700	BGG
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
1943.96	1.3	337.2	-1789.44	1.28
1953.34	1.3	335.6	-1798.81	0.12
1970	1.4	333.8	-1815.47	0
From midnight to 6 am				

Bit type	Hughes STX-30DX	**in**	1936.6	**out**	1970	**footage**	34.4

OPERATION SUMMARY

Drill ahead 159mm section, from 1957.8m to 1970m(TD) @ 05h12
Circulate bottom's up.
Alerted wireline loggers and perform 10STD wiper trip before POOH.
Rig in wireline and RIH with Log Run # 1 (TTRM/DGR/SP/CAL/ORIT/XMAC/CN/ZDL/ML/HDIL)
Troubles with ZDL, POOH and change out tool with spare.
Logger's On bottom (1968.93m MD) @ 22:35 (repeat pass)
Repeat Section from TD up to ~ 1800m. Main pass from TD (@ 23:15) to casing. High Res from 1500m to 935m MD.
From midnight to 6 am
Continue to wireline log Run # 1.
Logging Tools Run #1 @ surface @ 04:40
Rig out Run #1 tools and Rig in Run #2 (TTRM/GR/STAR/ORIT/CBIL)

Planned operations	Continue wireline logging
Recorded Temperature	
Others	

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 25

Date : 14/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor / Marine Di Matteo

Coord: NAD 27 375854 5347195

MD KB @ 24h	1970	TVD ss @ 24h	-1815.47	24 Hrs Progress (m)			
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3 (in hole)

Formation @ 24h		Prognosed next marker	

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
From midnight to 6 am			

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				

Bit type	Hughes STX-30DX	in	1936.6	out	1970	footage	34.4

OPERATION SUMMARY

Continue to wireline log Run # 1.
Logging Tools Run #1 @ surface @ 04:40
Rig out Run #1 tools and Rig in Run #2 (TTRM/GR/STAR/ORIT/CBIL).
Rig out Run #2 tools and Rig in Run #3 (TTRM/GRSL/MREX).

From midnight to 6 am

Continue Logging Run #3.

Planned operations	Continue wireline logging (Run#3) from TD to CSG. Repeat section (100m over zone of interest)
Recorded Temperature	25.9 degrees at bottom of hole as per loggers
Others	Selecting intervals for FMT with chief geologist.

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 26

Date : 15/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor / Marine Di Matteo

Coord: NAD 27 375854 5347195

MD KB @ 24h	1970	TVD ss @ 24h	-1815.47	24 Hrs Progress (m)			
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3 (in hole)

Formation @ 24h		Prognosed next marker	

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
From midnight to 6 am			

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				

Bit type	Hughes STX-30DX	in	1936.6	out	1970	footage	34.4

OPERATION SUMMARY

Continue Logging Run #3. Main Computer in logging shack crashed at 1420m when logging NMR.
Reboot system and run off back computers, but must return to TD and recommence NMR log (saved from TD to 1420m as repeat run)
Wireline log NMR from TD to casing shoe. Rig out NMR (Run # 3) and rig up FMT (Run#4)
RIH with FMT (Run #4)

From midnight to 6 am

Commence "logging" FMT with first target @ 1475.8m
Perform 8 tests (see attached sheet for details). Test 9 and 10 had no seal. Come up to casing to test packer.

Planned operations	Finish FMT (run #4). Perform wiper trip
Recorded Temperature	25.9 degrees at bottom of hole as per loggers
Others	

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 27

Date : 16/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor / Marine Di Matteo

Coord: NAD 27 375854 5347195

MD KB @ 24h	1970	TVD ss @ 24h	-1815.47	24 Hrs Progress (m)			
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3 (in hole)

Formation @ 24h		Prognosed next marker	

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
From midnight to 6 am			

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				

Bit type	Hughes STX-30DX	in	1936.6	out	1970	footage	34.4

OPERATION SUMMARY

Commence "logging" FMT with first target @ 1475.8m
Perform 8 tests. Test 9 and 10 had no seal. Come up to casing to test packer.
Packer seemed good. Test against casing. Test good. Return to attempt test interval 9 and 10. Still no seal. Move to test 11 and 12.
POOH with Wireline Logging Run # 4. Rig out wireline logging equipment.
Perform BOP pressure test. Good test.
RIH to perform 10 STD wiper trip prior to DSTs.
M/U DST tools on drill string assembly and RIH

From midnight to 6 am

Continue to M/U DST tools on drill string assembly and RIH to test DST # 1 (1444.0 to 1480.5m)

Planned operations	Perform DST #1 and #2
Recorded Temperature	25.9 degrees at bottom of hole as per loggers
Others	No trip gas on wiper trip.

INVESTCAN Energy Corp

DAILY GEOLOGICAL REPORT N# 28

Date : 17/07/2013
Well : Hurricane #2 Re-Entry
Rig : Foragaz#3

WSG : Jonathan Taylor / Marine Di Matteo

Coord: NAD 27 375854 5347195

MD KB @ 24h	1970	TVD ss @ 24h	-1815.47	24 Hrs Progress (m)			
Spud date	16/06/13	Last casing at MD	323.2m	Hole size (in)	6 1/4	Average ROP	
KB - ASL	149.97m	GL - ASL	145.7	Mud type	Polymer	MW	1150 kg/m3 (in hole)

Formation @ 24h		Prognosed next marker	

DEPTH INTERVAL		Description / Shows / Remarks	Av ROP m/h
Top MD (m)	Base MD (m)		
From midnight to 6 am			

GAS DATA

Depth MD (m)	Total ppm	C1 ppm	C3 ppm	Type
From midnight to 6 am				

Legend: BGG=background gas; FG=Formation Gas; PCG=Pipe connection Gas; TG=Trip Gas; STG = Short Trip Gas; SW=Swab gas; POG=Pumps Off Gas

SURVEY DATA

Depth MD (m)	Inc. (°)	Azimuth (°)	TVD ss	DLS (°/30m)
From midnight to 6 am				

Bit type	Hughes STX-30DX	in	1936.6	out	1970	footage	34.4

OPERATION SUMMARY

Continue to M/U DST tools on drill string assembly and RIH to test DST # 1 (1444.0 to 1480.5m)
Commence DST # 1 @ 9:45 (Shut-in) .
Test # 1 failed (mud leaked into drill string from somewhere). POOH to check tool @ 11:05
Check tools, notice protective sleeve is missing in one of pressure tools, no spare on site.
Wait on tool to be flown in from Ontario.

From midnight to 6 am

Continue to wait on tool to be flown in from Ontario.
Tool arrived, replace tool. RIH with test string on drill pipe to re-try DST interval #1 (144.0 to 1480.5m)

Planned operations	Perform DST #1
Recorded Temperature	25.9 degrees at bottom of hole as per loggers
Others	Perform QA/QC on samples over zones of interest, compare to log response.

APPENDIX L : DST Summary

Number of pages : *6*

Summary of the content: The DST Reports & Results for Hurricane#2

HOLLAND TESTERS LTD.

R.R. #3 Wheatley, Ontario N0P 2P0 1-519-825-3680

Customer	INVESTCAN ENERGY CORPORATION	Customer Rep.	MR. VICTORY LEROUX
Location	HURRICANE #2 (WHIP #1) EP03 - 107		
Interval	1444-1480.5 Total Depth 1970 MKB	Formation	SNAKES BIGHT
Test Number	TWO	Tester	DERRICK HOLLAND
Test Type	DUAL STRADDLE CONVENTIONAL	K. B. Elevation	149.97 m Ground Elevation 145.7 m
Test Date	JULY 18, 2013.	Bottom Hole Temperature (C)	21.2

RECOVERY:	12.2	Metres Total Fluid		Sampler #	#
		Metres of		SAMPLED AT:	
		Metres of			10.00 Metres
	12.2	Metres of	DRILLING FLUID		1.52 Metres
		Metres of			BOTTOM HOLE SAMPLER
		Metres of			

REMARKS: OPEN FOR PRE-FLOW, HAD WEAK INITIAL PUFF, 1" IN BUBBLE PAIL. STEADY THROUGH OUT. VALVE OPEN HAD WEAK INITIAL PUFF, 2" IN BUBBLE PAIL. DECREASING TO DEAD IN 20 MIN. SHUT-IN AFTER 30 MIN. NO GAS TO SURFACE. MUD HELD THROUGH OUT.

GAS READINGS

TIME min.	PRESS kPa	TEMP C	ORIFICE mm	RATE m3/d	TIME min	PRESS kPa	TEMP C	ORIFICE mm	RATE m3/d

Gas Samples: # # Sent to:

Gas Measured by:

DOWNHOLE PRESSURE DATA (KPAG) Test Times: PF 10 **ISN** 120 **VO** 30 **FSN** 240

Recorder Number		40411	40386		40367	40389	40405
Recorder Range		41370	41370		41370	41370	41370
Clock Hour-Emp		EMP	EMP		EMP	EMP	EMP
Depth - Metres		1430.698	1438.552		1450.65	1450.955	1485.516
Position of Pressure Port		FLUID	INSIDE	INSIDE	OUTSIDE	OUTSIDE	OUTSIDE
Initial Hydrostatic	(A)					16314	17052
Start First Flow	(B)					323	
End First Flow	(B1)					323	
First Shut-In	(C)	112				831	
Start Second Flow	(D)					303	
End Second Flow	(E)					341	
Second Shut-In	(F)	105				850	
Start Third Flow	(H)						
End Third Flow	(I)						
Third Shut-In	(J)						
Final Hydrostatic	(G)					16299	16685

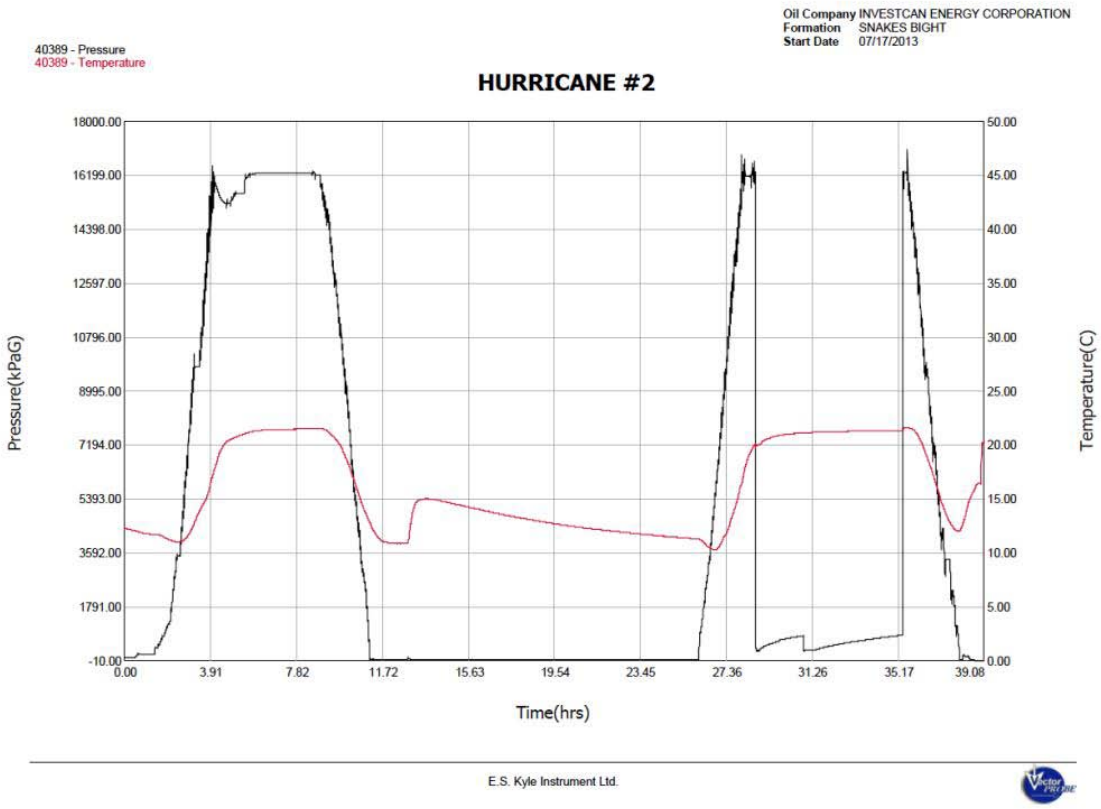
TEST IS: Misrun; X Satisfactory

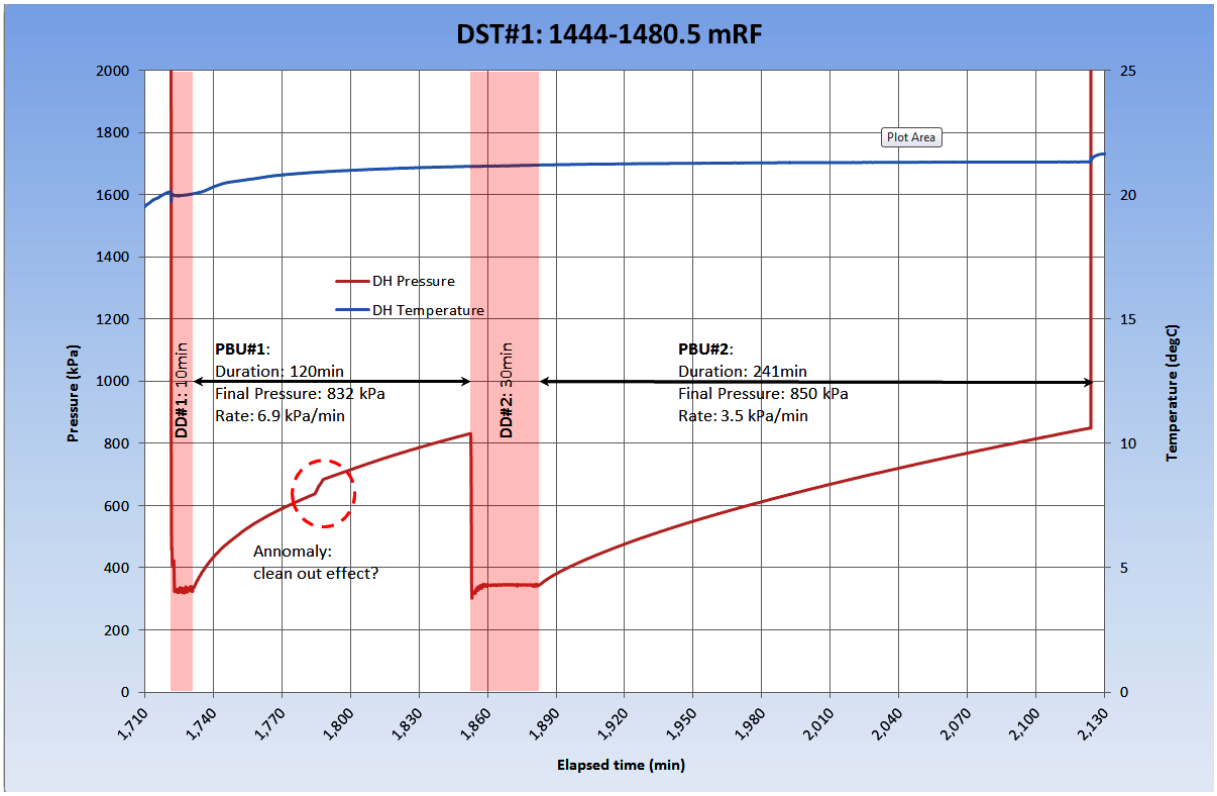
Started in hole @	0430 HR	Opened tool @	0730 HR	Out of hole @	1700 HR
DP size (mm)	101.6	Weight (kg/m)	20.87	Main hole size (mm)	159
DP length (m)	1438.28	DC size ID (mm)		DC above tool (m)	
Mud weight (kg/m3)	1145	Visc (s/L)	2.8	Water loss (cm3)	2.8

PACKER RUBBER SIZE (MM) 139.70 **BOTTOM HOLE COKE (MM)** 19.05

TOOL TALLY

PO Sub	0.305
DP/X Over	
Recorder	1.524
Shut-In	1.650
Sampler	0.930
Sampler	
Hydraulic	1.720
Jars	2.030
M/Record	
E/Record	1.524
Temp Rec	
By-pass	
Safety Jt	0.610
Packer	2.340
Packer	1.524
Upper Packer depth	1443.94
Packer	0.305
Perfs	5.795
By-pass	
M/Record	
E/Record	1.524
X Over	
DP/DC	27.650
X Over	
Blank	0.305
Packer	0.915
Lower Packer depth	1480.43
Packer	0.915
Packer	2.340
Perfs	1.220
Recorder	1.524
X Over	
DP/DC	482.960
X Over	
Bullnose	0.610
Total Depth	1970.00
Total Interval	36.494
Total Tail Pipe	489.569
Tool Make up Time	2.25 Hr


Oil Company INVESTCAN ENERGY CORPORATION
Formation SNAKES BIGHT
Start Date 07/17/2013
40389 - Pressure
40389 - Temperature
HURRICANE #2
Pressure(kPaG)
Temperature(C)
Time(hrs)
E.S. Kyle Instrument Ltd.


DST#1: 1444-1480.5 mRF
Plot Area
DH Pressure
DH Temperature
DD#1: 10min
PBU#1:
Duration: 120min
Final Pressure: 832 kPa
Rate: 6.9 kPa/min
DD#2: 30min
PBU#2:
Duration: 241min
Final Pressure: 850 kPa
Rate: 3.5 kPa/min
Annomaly:
clean out effect?
Pressure (kPa)
Temperature (degC)
Elapsed time (min)

HOLLAND TESTERS LTD.

R.R. #3 Wheatley, Ontario N0P 2P0 1-519-825-3680

Customer	INVESTCAN ENERGY CORPORATION	Customer Rep.	MR. VICTOR LEROUX
Location	HURRICANE #2 (WHIP #1) EP03 - 107		
Interval	1316.5-1371	Total Depth 1970 MKB	Formation FRIAR'S COVE / SNAKES BIGHT
Test Number	THREE	Tester	DERRICK HOLLAND
Test Type	DUAL STRADDLE CONVENTIONAL	K. B. Elevation 149.97 m	Ground Elevation 145.7 m
Test Date	JULY 18, 2013.	Bottom Hole Temperature (C)	19.47

RECOVERY:	2.5	Metres Total Fluid	Sampler #	#
		Metres of	SAMPLED AT:	
		Metres of		Metres
	2.5	Metres of DRILLING MUD	2.00	Metres
		Metres of		Metres
		Metres of		Metres
			Bottom hole sampler	Above Tool

REMARKS: OPEN FOR PRE-FLOW, HAD FAINT BLOW IN BUBBLE HOSE WITH 1/8" IN BUBBLE PAIL. DEAD IN 5 MINS. NO GAS TO SURFACE.
OPEN FOR VALVE OPEN, HAD WEAK INITIAL PUFF, WITH 3" IN BUBBLE PAIL. DECREASING THROUGH OUT. DEAD IN 40 MINS. NO GAS TO SURFACE. MUD HELD THROUGHOUT.
RECOVERD A GAS SAMPLE FROM BOTTOM HOLE SAMPLER. NO FLUID IN SAMPLER.

GAS READINGS

TIME min.	PRESS kPa	TEMP C	ORIFICE mm	RATE m3/d	TIME min	PRESS kPa	TEMP C	ORIFICE mm	RATE m3/d

Gas Samples: # # Sent to:

Gas Measured by:

DOWNHOLE PRESSURE DATA (KPAG) Test Times: PF 10 **ISN** 125 **VO** 60 **FSN** 360

Recorder Number		40411	40386		40367	40389	40405
Recorder Range		41370	41370		41370	41370	41370
Clock Hour-Emp		EMP	EMP		EMP	EMP	EMP
Depth - Metres		1303.432	1311.306		1322.486	1322.791	1381.716
Position of Pressure Port		FLUID	INSIDE	INSIDE	OUTSIDE	OUTSIDE	OUTSIDE
Initial Hydrostatic	(A)					14770	
Start First Flow	(B)					1073	
End First Flow	(B1)					1387	
First Shut-In	(C)					1774	
Start Second Flow	(D)					195	
End Second Flow	(E)					251	
Second Shut-In	(F)	22				765	
Start Third Flow	(H)						
End Third Flow	(I)						
Third Shut-In	(J)						
Final Hydrostatic	(G)					14769	

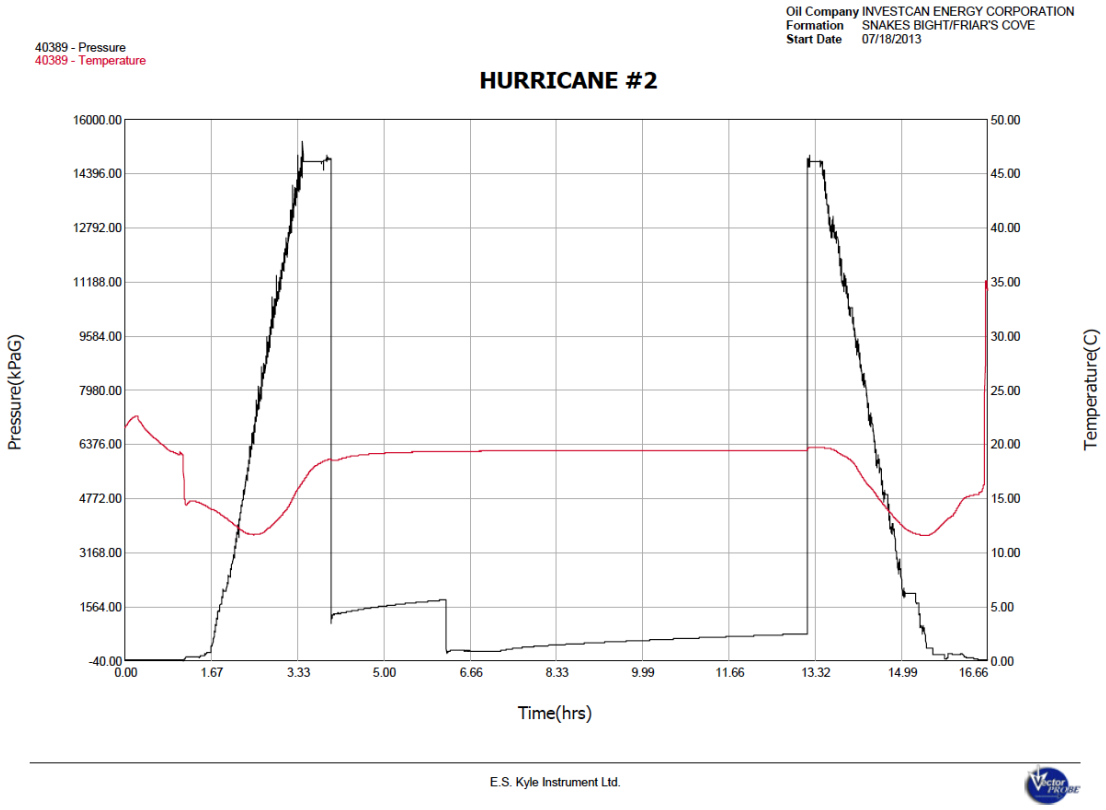
TEST IS: Misrun; X Satisfactory

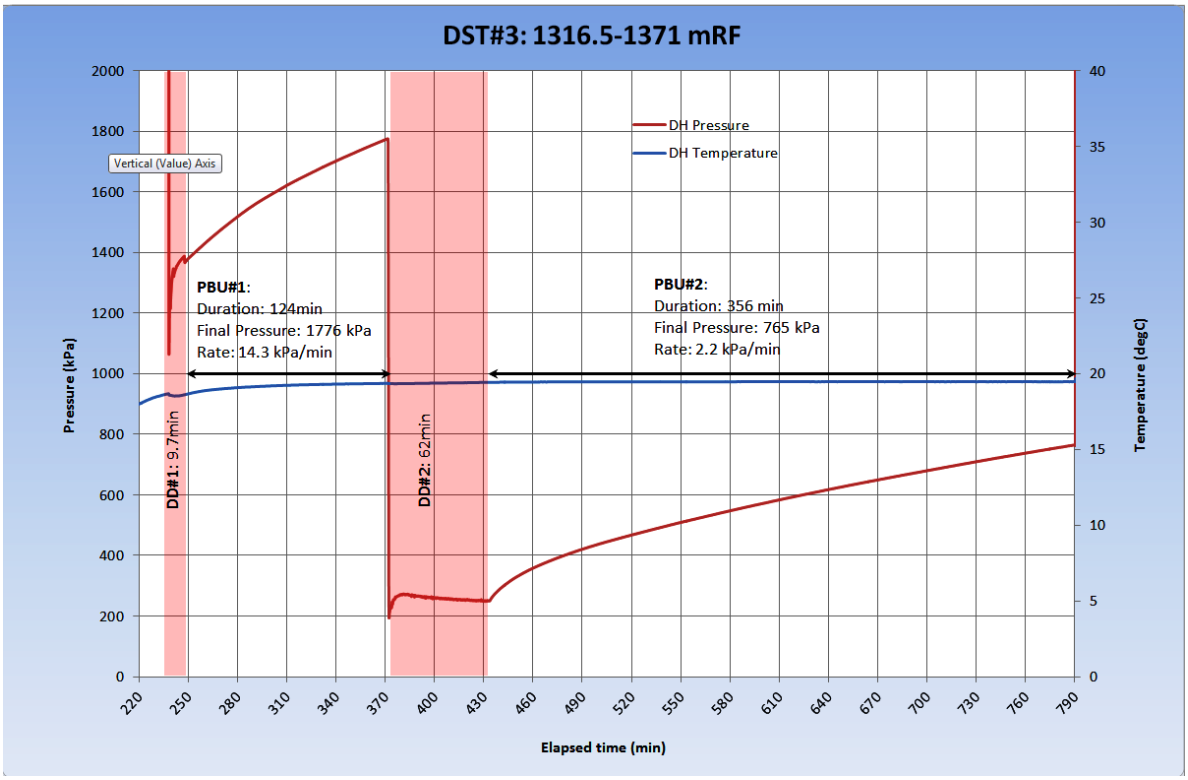
Started in hole @	1930 HR	Opened tool @	2155 HR	Out of hole @	0945 HR
DP size (mm)	101.6	Weight (kg/m)	20.87	Main hole size (mm)	159
DP length (m)	1306.51	DC size ID (mm)		DC above tool (m)	
Mud weight (kg/m3)	1145	Visc (s/L)	2.8	Water loss (cm3)	2.8

PACKER RUBBER SIZE (MM) 139.70 **BOTTOM HOLE COKE (MM)** 19.05

TOOL TALLY

PO Sub	0.305
DP/X Over	
Recorder	1.524
Shut-In	1.650
Sampler	0.930
Sampler	
Hydraulic	1.720
Jars	2.030
M/Record	
E/Record	1.524
Temp Rec	
By-pass	
Safety Jt	0.610
Packer	2.340
Packer	1.524
Upper Packer depth	1316.69
Packer	0.305
Perfs	5.182
By-pass	
M/Record	
E/Record	1.524
X Over	
DP/DC	46.22
X Over	
Blank	0.305
Packer	0.915
Lower Packer depth	1371.14
Packer	0.915
Packer	2.340
Perfs	6.706
Recorder	1.524
X Over	
DP/DC	586.76
X Over	
Bullnose	0.61
Total Depth	1970.00
Total Interval	54.451
Total Tail Pipe	598.85
Tool Make up Time	1.00 Hr


Oil Company INVESTCAN ENERGY CORPORATION
Formation SNAKES BIGHT/FRIAR'S COVE
Start Date 07/18/2013
40389 - Pressure
40389 - Temperature
HURRICANE #2
Pressure(kPaG)
Temperature(C)
Time(hrs)
E.S. Kyle Instrument Ltd.


DST#3: 1316.5-1371 mRF
DH Pressure
DH Temperature
Vertical (Value) Axis
PBU#1:
Duration: 124min
Final Pressure: 1776 kPa
Rate: 14.3 kPa/min
PBU#2:
Duration: 356 min
Final Pressure: 765 kPa
Rate: 2.2 kPa/min
DD#1: 9.7min
DD#2: 62min
Pressure (kPa)
Temperature (degC)
Elapsed time (min)

HOLLAND TESTERS LTD.

R.R. #3 Wheatley, Ontario N0P 2P0 1-519-825-3680

Customer	INVESTCAN ENERGY CORPORATION	Customer Rep.	MR. VICTOR LEROUX
Location	HURRICANE #2 (WHIP #1) EP03 - 107		
Interval	1090-1125.5	Total Depth 1970 MKB	Formation FRIAR'S COVE
Test Number	FOUR	Tester	DERRICK HOLLAND
Test Type	DUAL STRADDLE CONVENTIONAL	K. B. Elevation 149.97 m	Ground Elevation 145.7 m
Test Date	JULY 19, 2013.	Bottom Hole Temperature (C)	16.85

RECOVERY:	1.52	Metres Total Fluid	Sampler #	#
		Metres of	SAMPLED AT:	
	1.52	Metres of DRILLING MUD	BOTTOM HOLE SAMPLER	Metres
		Metres of		Metres
		Metres of		Metres
		Metres of		Metres
				Above Tool

REMARKS: OPEN FOR PRE-FLOW, HAD WEAK INITIAL PUFF IN BUBBLE PAIL 3". STEADY THOUGH OUT. NO GAS TO SURFACE. OPEN FOR VALVE OPEN, HAD WEAK INITIAL PUFF IN BUBBLE PAIL 2". SLOWLY DECREASING, DEAD IN 40 MINS. NO GAS TO SURFACE. MUD HELD THROUGHOUT.

GAS READINGS

TIME min.	PRESS kPa	TEMP C	ORIFICE mm	RATE m3/d	TIME min	PRESS kPa	TEMP C	ORIFICE mm	RATE m3/d

Gas Samples: # # Sent to:

Gas Measured by:

DOWNHOLE PRESSURE DATA (KPAG) Test Times: PF 10 ISN 120 VO 60 FSN 360

Recorder Number		40411	40386		40367	40389	40405
Recorder Range		41370	41370		41370	41370	41370
Clock Hour-Emp		EMP	EMP		EMP	EMP	EMP
Depth - Metres		1076.787	1084.661		1095.841	1096.146	1136.196
Position of Pressure Port		FLUID	INSIDE	INSIDE	OUTSIDE	OUTSIDE	OUTSIDE
Initial Hydrostatic	(A)					12250	
Start First Flow	(B)					205	
End First Flow	(B1)					234	
First Shut-In	(C)	11.5				620	
Start Second Flow	(D)					188	
End Second Flow	(E)					235	
Second Shut-In	(F)	6.5				951	
Start Third Flow	(H)						
End Third Flow	(I)						
Third Shut-In	(J)						
Final Hydrostatic	(G)					12244	

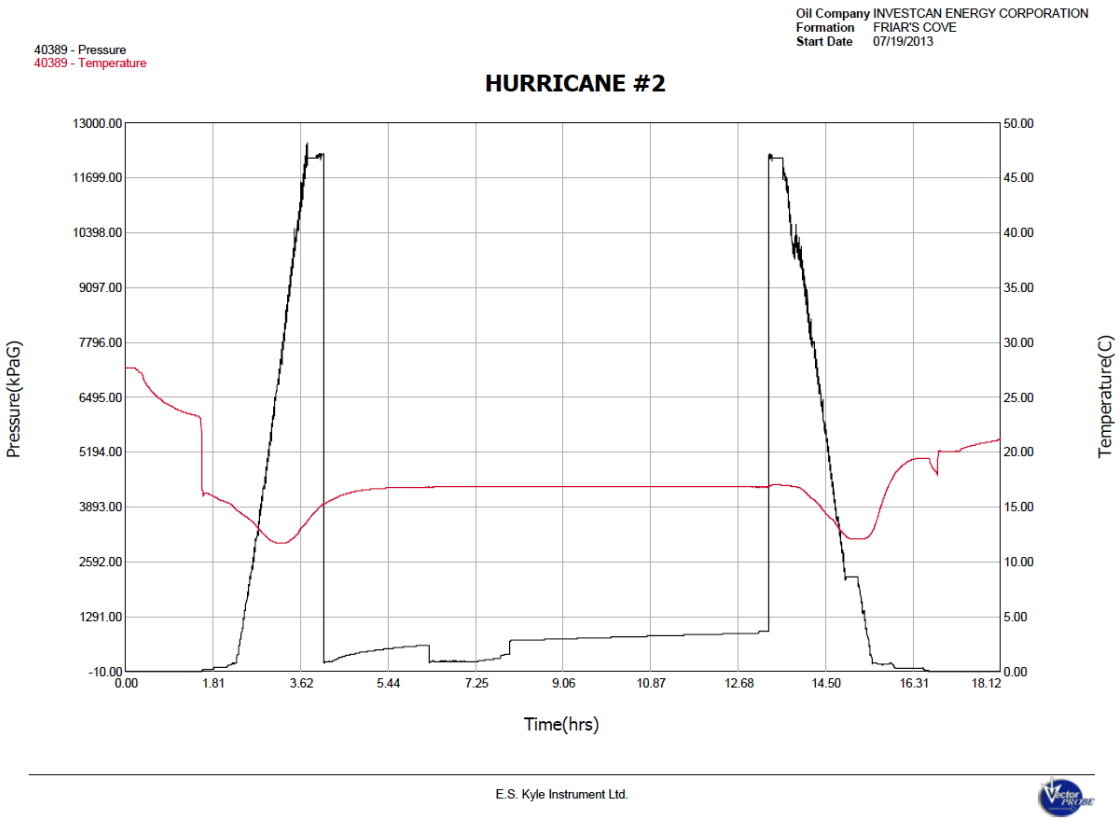
TEST IS: Misrun; X Satisfactory

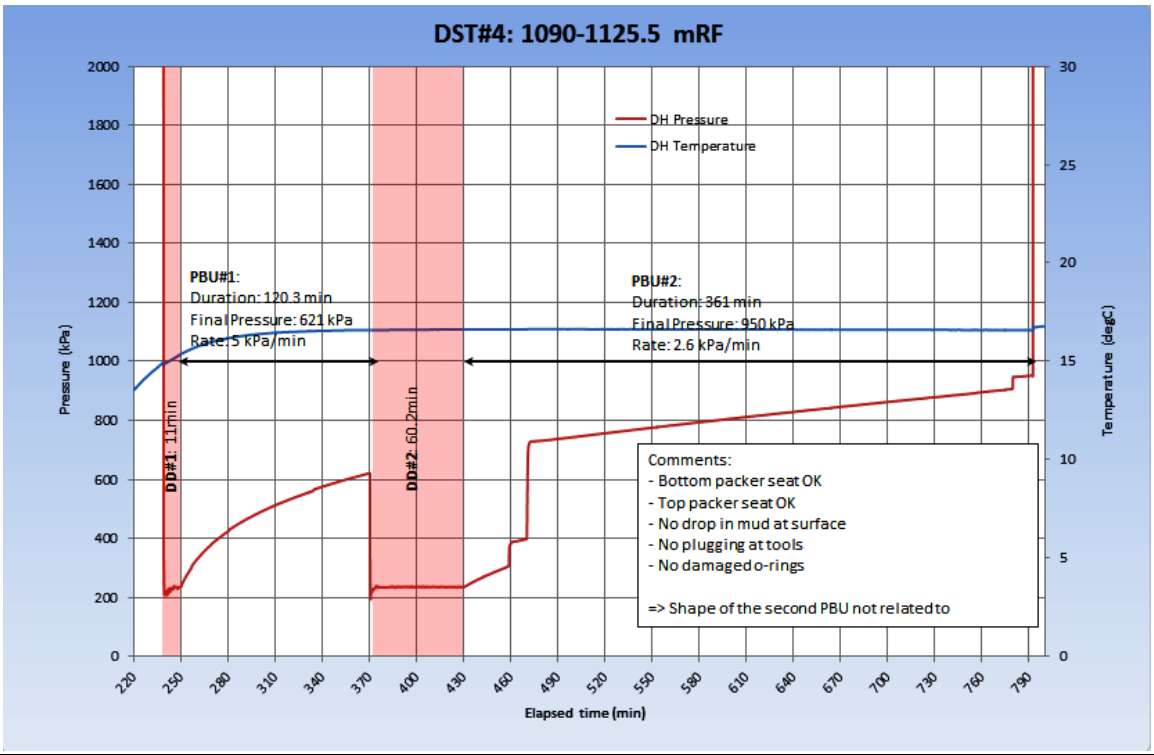
Started in hole @	1345 HR	Opened tool @	1529 HR	Out of hole @	0300 HR
DP size (mm)	101.6	Weight (kg/m)	20.87	Main hole size (mm)	159
DP length (m)	1079.87	DC size ID (mm)		DC above tool (m)	
Mud weight (kg/m3)	1145	Visc (s/L)	2.8	Water loss (cm3)	2.8

PACKER RUBBER SIZE (MM) 139.70 BOTTOM HOLE COKE (MM) 19.05

TOOL TALLY

PO Sub	0.305
DP/X Over	
Recorder	1.524
Shut-In	1.650
Sampler	0.930
Sampler	
Hydraulic	1.720
Jars	2.030
M/Record	
E/Record	1.524
Temp Rec	
By-pass	
Safety Jt	0.610
Packer	2.340
Packer	1.524
Upper Packer depth	1090.05
Packer	0.305
Perfs	4.877
By-pass	
M/Record	
E/Record	1.524
X Over	
DP/DC	27.65
X Over	
Blank	0.305
Packer	0.915
Lower Packer depth	1125.63
Packer	0.915
Packer	2.340
Perfs	6.706
Recorder	1.524
X Over	
DP/DC	832.28
X Over	
Bullnose	0.61
Total Depth	1970.00
Total Interval	35.576
Total Tail Pipe	844.375
Tool Make up Time	1.50 Hr


Oil Company INVESTCAN ENERGY CORPORATION
Formation FRIAR'S COVE
Start Date 07/19/2013
40389 - Pressure
40389 - Temperature
HURRICANE #2
Pressure(kPaG)
Temperature(C)
Time(hrs)
13000.00
11699.00
10398.00
9097.00
7796.00
6495.00
5194.00
3893.00
2592.00
1291.00
-10.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
0.00
1.81
3.62
5.44
7.25
9.06
10.87
12.68
14.50
16.31
18.12
E.S. Kyle Instrument Ltd.


DST#4: 1090-1125.5 mRF
DH Pressure
DH Temperature
PBU#1:
Duration: 120.3 min
Final Pressure: 621 kPa
Rate: 5 kPa/min
PBU#2:
Duration: 361 min
Final Pressure: 950 kPa
Rate: 2.6 kPa/min
DD#1: 11min
DD#2: 60.2min
Comments:
- Bottom packer seat OK
- Top packer seat OK
- No drop in mud at surface
- No plugging at tools
- No damaged o-rings
=> Shape of the second PBU not related to
Pressure (kPa)
Temperature (degC)
Elapsed time (min)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
30
25
20
15
10
5
0
220
250
280
310
340
370
400
430
460
490
520
550
580
610
640
670
700
730
760
790

APPENDIX M : Geological Strip Log

Number of pages : *20*

Summary of the content: This appendix presents the geological strip log recorded during Hurricane#2 operations.

BELLOY PETROLEUM CONSULTING LTD.
SUITE 102, 902 – 9TH AVENUE S.E.
CALGARY, ALBERTA T2G 0S4

24 Hrs. Bus: (403) 237-8700
Fax: (403) 265-6947

EAST ROCK GEOCONSULTING
36 PINEGROVE DRIVE
PARADISE, NL A1L 1B8
Bus: (709) 770-3187

INVESTCAN ENERGY CORP.
335 DUCKWORTH STREET
ST. JOHN, NL A1C 1G9
Bus: (709) 740-3390

Scale 1:240 (5"=100') Metric
Measured Depth Log

Well Name: HURRICANE #2 RE-ENTRY
Location: U.W.I. # Not provided
License Number: EP 03-107
Region: Flat Bay
Spud Date: 2005-11-24 / Re-Entry-2013-06-17-1200
Drilling Completed: 2013-07-13-0512
Surface Coordinates: Northing 5347195.57
Easting 375854.54
Bottom Hole Coordinates: Northing 5347200.87
Easting 375858.93
Ground Elevation (m): 145.70
K.B. Elevation (m): 149.97
Logged Interval (m): 935.20 **To:** 1970.00
Total Depth (m): 1970.00
Formation: Friar's Cove, Snake's Bight and Kennel's Brook
Type of Drilling Fluid: Polymer

OPERATOR

Company: INVESTCAN ENERGY CORPORATION.
Address: 335 Duckworth Street
St. John's, NL, A1G 1G9

GEOLOGIST

Name: Pearce Bradley, P.Geol. / Jonathan Taylor / Marine Di Matteo
Company: Belloy / East Rock / Investcan
Address: Suite 102, 902 - 9th Avenue S.E.
Calgary, Alberta T2G 0S4
403-237-8700

DSTs

Holland Testing Ltd.
RR#3 Wheatley, Ontario
Operator: Derrick Holland

Comments

Contractor: Foragaz - Rig #3
Gas Detection equipment provided by: NOV
Drilling Supervisor: Victor Leroux Ph No. 780-678-5108
Directional: Choice Directional Services Ltd.

ROCK TYPES

EVENTS

- Motor
- Button bit
- Pdc bit
- Casing
- Connection
- Top (depth)
- Top (drilling)
- Normal fault
- Thrust fault
- Thrust fault 2
- Isotube
- Photo
- Rft / mdt
- Sidewall core

LITHOLOGY

- Anhy
- Bent
- Brec
- Cement
- Cht
- Cht dk
- Clyst
- Coal
- Congl
- Congl dk
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Sh blk
- Sh brn
- Sh dkgy
- Sh gn
- Sh gy
- Sh red
- Sid
- Sltst
- Sltst arg
- Ss
- Ss arg
- Ss slty
- Till

ACCESSORIES

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

MINERAL

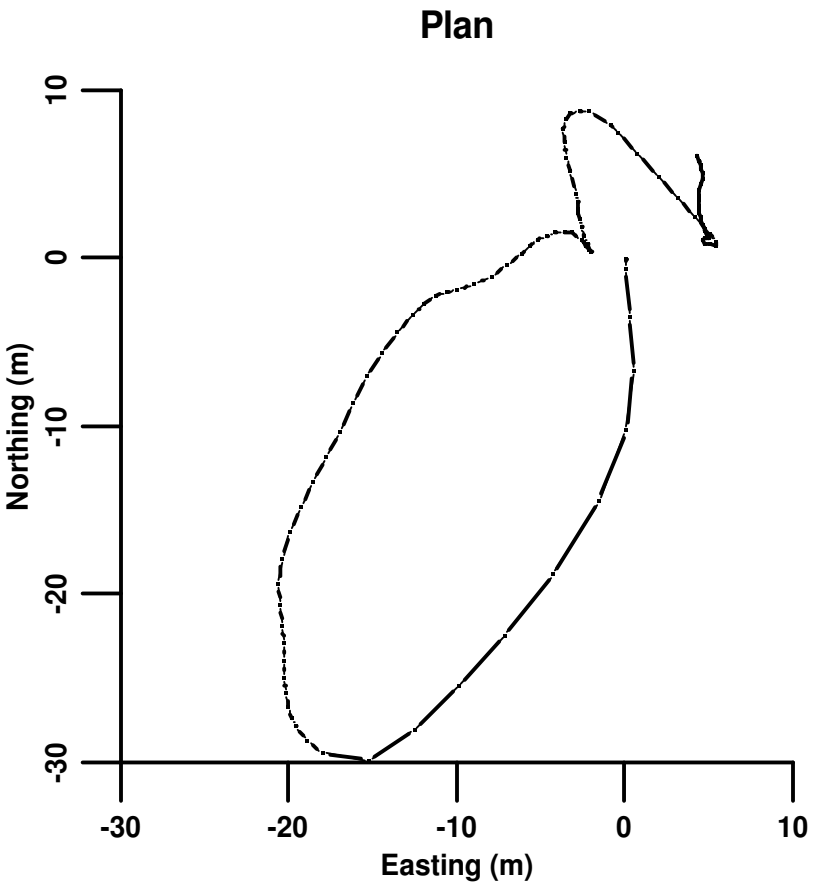
- Anhy
- Arg grs
- Arg
- Arg 2
- Bent
- Biot
- Bit
- Calc
- Calc 2
- Carb
- Chlor
- Cht dk
- Cht gn
- Cht grs
- Cht lt
- Coal mtx
- Dol
- Dol 2
- Feldspar
- Ferr pel
- Ferr
- Glau
- Glau 2
- Granules
- Gyp
- Hvymin
- Kaol
- Marl
- Mica
- Minxl
- Nodule
- Pebbles
- Phos
- Pyr
- Qtz grs
- Salt
- Sandy
- Sandy 2
- Siderite
- Silt
- Red mud
- Silt 2
- Sil
- Sulphur
- Tuff

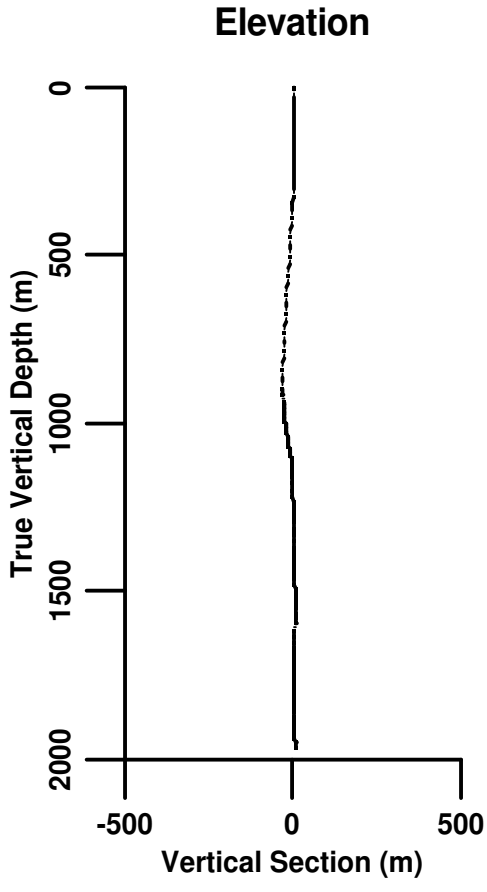
STRINGER

- Anhy
- Arg
- Bent
- Coal
- Congl
- Dol
- Gyp
- Ls
- Mrst
- Sltst
- Ss

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest


Plan
Northing (m)
10
0
-10
-20
-30
-30
-20
-10
0
10
Easting (m)


Elevation
True Vertical Depth (m)
0
500
1000
1500
2000
-500
0
500
Vertical Section (m)

OTHER SYMBOLS

INTERVALS
- Core
- Isojar
- Dst

EVENTS
- Motor
- Button bit
- Pdc bit
- Casing
- Connection
- Top (depth)
- Top (drilling)
- Normal fault
- Thrust fault
- Thrust fault 2
- Isotube

Photo
- Photo
- Rft / mdt
- Sidewall core

POROSITY TYPE
- Earthy

Fenest
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint

Vuggy
- Vuggy

SORTING
- Well
- Moderate
- Poor

ROUNDING
- Rounded
- Subrnd
- Subang
- Angular

OIL SHOWS
- Even
- Spotted
- Ques
- Dead

Drilling Track
- ROP (m/hr)
- Total Gas (units)
- Methane (units)
- Propane (units)
- Gamma (API)

Well Name: June 20/13 2400 Hrs

Depth 940m
Dens 1075 kg/m3
Vis 37 s/L

Bit No. 1
Size: 159mm
Type: Hughes
STX-1
Depth In: 936m
Depth Out: 940.5m
Drilled: 4.5m new formation
Hours: 14.25 (2.25hrs)
Cond: 2-2-WT-A-2-I-NO-BHA

3809 U Gas

WOB 4.0
RPM 60
PR 0.78

Survey Track: Vert Sect

MD 918.03 TVD 916.65
INC 3.3 AZ 317

2005 Hole
New Hole

MD 936.94 TVD 935.52
INC 3.7 AZ 329.1

Bit No. 2
Size: 159mm - PDC
Type: Hughes QD406FX
Depth In: 940.5m

MD 946.44 TVD 945
INC 3.7 AZ 329.9

2.0 @ 120R

MD 956 TVD 954.54
INC 4.7 AZ 349.5

Photos: 940 m

Lithology: PEF

GR logs: GR (API), CAL (mm)

Density/Neutron: ZDEN (pu), CNSS (pu)

Resistivities: M2R2 (ohm.m), M2R3 (ohm.m), M2R6 (ohm.m), M2R9 (ohm.m)

HURRICANE #2 RE-ENTRY

KB: 149.97; GRD: 145.70

Spud: 2005-11-24 / Re-entry: 2013-06-17-12:00

TD Surface Hole: 323.20 m MD @ 2005-12-05-16:00 Hrs

Surface Casing: 177.80 mm OD (28.80 kg/m - J-40 gd) Set @ 323.20 m

Drilled Out Surface Hole: 2013-06-08-04:30 Hrs

Mud Type:

Air - (323.20-935.20m)

Polymer - (935.20-1970.00m)

TD: 1970.00 m MD @ 2013-07-13-05:15 Hrs

Gas Detection from 0 m MD to TD.

Sample Point Reached on 2013-06-20-17:16 @ 940.00 m

935-940 SS(70%): lt gy, grdg sl to off wh, com orng pnk stnd grs, U f to L m gr, com U m and occ L c grs, qtzc with 5% m gy lthc grs, tr to mnr mic flks, rr to tr Pyr, ip arg and kao mtx, a to A grs, ip r grs, mod to p srt, silc and com calc cmt, com lse grs, ip fr gr relief, tt to p intgran por(0-3%), 20% ptchy fnt orng dir flor, 5% uniform bri wh min flor, ple cut; SLTST(30%): lt gy grdg to m gy, gritty tex, silc cmt, arg ip, ip grdg to L vf gr ss, tt.

940-945 SS(90%): lt gy, grdg sl to off wh, vf - f gr, rr U m and occ L c grs, qtzc with 10% m gy lthc grs and 5% fld, tr Pyr, mnr mic flks, ip arg and kao mtx, r to a grs, mod srt, calc cmt, tt, 10% ptch fnt amb dir flor, ple cut. SLTST(10%): lt gy grdg to m gy, gritty tex, silc cmt, arg ip, ip grdg to L vf gr ss, tt.

945-950 SS(80%): lt gy, ip grdg to off wh and m gy, mnr to ip com orng pnk to fnt brn stnd grs, var U vf to L m gr, com U m and occ L c grs, qtzc with tr m gy lthc grs, tr mic flks, rr Pyr, com arg, slty and kao mtx, a to r grs, mod to p srt, silc and calc cmt, com lse grs, occ fr gr relief, tt to tr p intgran por(0-3%), 30% ptch fnt/ple amb dir flor, dull/ple cut; SLTST(20%): lt gy grdg to m gy, gritty tex, silc cmt, arg ip, com grdg to L vf gr ss, tt.

950-955 SS(70%): lt and m gy, tr orng pnk to fnt brn stnd grs, var U vf to L m gr, mnr U m grs, qtzc with tr m gy lthc grs, tr mic flks, rr Pyr, com arg, slty and kao mtx, a to r grs, mod srt, silc and calc cmt, mnr lse grs, tr fr gr relief, tt to inferred tr p intgran por(0-3%), 10% ptch fnt amb dir flor, dull/ple cut; SLTST(30%): lt gy and m gy, gritty tex, silc cmt, arg mtx, com grdg to L vf gr ss, tt.

955-960 SS(70%): lt and m gy, tr orng pnk to fnt brn stnd grs, U vf to U f gr, ip L m gr, qtzc with tr to 3% lthc grs, tr mic flks, rr Pyr, com arg, slty and kao mtx, a to r grs, mod srt, silc and calc cmt, mnr lse grs, tt to inferred tr p intgran por(0-3%), 10% ptch fnt amb dir flor, dull/ple cut; SLTST(30%): lt and m gy, occly grdg to dk gy, gritty tex, silc cmt,

933 U Gas

667 U Gas

Depth 990m
Dens 1105 kg/m3
Vis 37 s/L

0 ROP (m/hr) 10
0 Total Gas (units) 500
0 Methane (units) 500
0 Propane (units) 500
0 Gamma (API) 150

WOB 6.8 kdaN
RPM 36
PR 0.78 m3/min

3.0 @ 120R

MD 965.39 TVD 963.89
INC 5.4 AZ 353.1

3.0 @ 90R

MD 974.78 TVD 973.24
INC 5.9 AZ 358.9

MD 984.24 TVD 982.65
INC 6 AZ 359.2

MD 993.71 TVD 992.06
INC 6.4 AZ 356.4

-25 Vert Sect 25

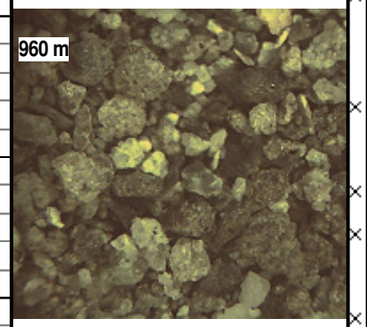
MD 1003.18 TVD 1001.47
INC 6.9 AZ 351.8

4.0 @ 110R

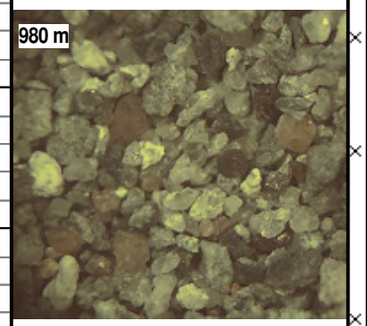
MD 1012.6 TVD 1010.81
INC 7.4 AZ 357.3

MD 1022.02 TVD 1020.15
INC 8.3 AZ 359.8

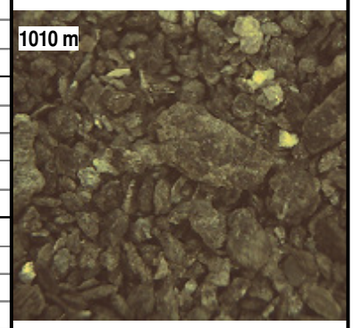
960 m



980 m



1010 m



2 PEF 5

0 GR (API) 200 45
159 CAL (mm) 300 45

ZDEN (pu) -15
CNSS (pu) -15 1

M2R2 (ohm.m)
M2R1 (ohm.m)
M2R3 (ohm.m)
1 10 1000 e4

arg mtx, ip mics, com grdg to vf gr ss, tt.

960-965 SS(70%): lt and m gy, rr orng pnk to fnt brn stnd grs L f to L m gr, ip U vf gr and mnr U m grs, qtzc with tr to 3% lthc grs, tr mic flks, rr Pyr, com arg, slty and kao mtx, a to r grs, occ fros R grs, mod srt, silc and calc cmt, com lse grs, tt to inferred p intgran por(0-3%), 5% ptch fnt dk amb dir flor, fnt cut; SLTST(30%): lt and m gy, occly grdg to sl dk gy, gritty tex, silc cmt, arg mtx, ip mics, com vf sdy, tt.

965-970 SS(70%): lt gy, ip m gy and occly off wh, L f to L m gr, com U vf gr and mnr U m grs, predly qtzc with 15% m gy lthc grs, tr mics, tr Pyr, sr and a grs, tr R fros grs, mod srt, silc and calc cmt, com lse grs, tt to inferred p intgran por(0-3%), tr ptch fnt dk amb dir flor, fnt cut; SLTST(30%): lt and m gy, gritty tex, silc cmt, ip calc cmt, ip vf sdy, tt.

970-975 SS(70%): lt and m gy grdg occly to off wh, L and U vf gr to U f gr, com L m grs and occ U m grs, ip grdg to sdy sltst, qtzc with tr lthc grs, mnr Pyr thru, tr mics, com arg and slty mtx, ip kao mtx, a and sr grs, occ R fros qtz grs, mod to p srt, silc and calc cmt, tt to tr inferred p intgran por(0-3%), 5% sp fnt/ple amb dir flor, fnt cut; SLTST(30%): lt and m gy, ip dk gy, gritty tex, silc and calc cmt, arg, ip shy, ip sdy, tt.

975-980 SS(80%): lt and m gy, mnr grdg to off wh, abnt clr and trnsl qtz grs, ip fros, U f to L m gr, ip L f and U m grs, tr mica flks, com Pyr, com arg and kao mtx, a to r grs, ip A, mod srt, silc and calc cmt, inferred tt to p intrgran por(0-3%), sp dk/brn oil stn, 15% sp ple amb dir flor, tr bri yel/wh flor, ple cut; SLTST(20%): m gy, gritty, silc and calc cmt, ip vf sdy and com arg, tt.

980-985 SS(80%): lt and m gy grdg occly to off wh, L f to U m gr, com U vf gr and mnr L c grs, qtzc to 15% lthc grs, tr mica, com Pyr, com arg and kao mtx, a to r grs, occ A, mod srt, silc and calc cmt, com qtz ovgth, com lse grs, tt to inferred p intgran por(0-3%), sp dk/brn oil stn, 20% sp ple/dull amb/dk yel dir flor, fnt/ple cut; SLTST(20%): lt and m gy grdg occly to dk gy, gritty tex, silc and calc cmt, ip vf sdy, tt.

985-990 SS(100%): lt to m gy, U f to U m gr, mnr L f and L c grs, 80% clr, wh, trnsl and tr pnk qtz and 20% m gy lthc grs, ip sl arg and kao mtx, A to r grs, mod srt, silc and calc cmt, com to abnt qtz ovgth, com lse grs, tt to p intgran por(0-5%), sp dk/brn oil stn, 10% ptch bri yel/wh dir flor, tr bri/wh min flor, ple cut.

990-995 SS(80%): lt gy, mnr m gy, U f to U m gr, tr L and U c grs, com L vf to L f gr, ip grdg to sltst, 75% qtz and 25% m gy cht, tr mica flks, tr Pyr, mnr arg and kao mtx, a to r grs, mod srt, silc and calc cmt, com lse grs, tt to mnr p intgran por(0-3%), sp dk/brn oil stn, 5% ptch bri yel/wh dir flor, tr bri/wh min flor, fnt cut; SLTST(20%): lt and m gy, gritty tex, silc and calc cmt, arg, ip vf sdy, tt.

995-1000 SS(100%): lt gy to occly m gy and ip sl fnt brn, U f to U m gr, occ L c grs and tr U c grs, 80% clr and trnsl qtz and 20% m gy lthc grs, tr mica flks, arg and kao, tr sltst strgs, a to r grs, tr fros R grs, mod srt, silc and calc cmt, mnr qtz ovgth, tt to p intgran por(0-5%), rr ques spkl pyrbit, sp dk/brn oil stn, 10% ptch bri yel/wh dir flor, tr bri/wh min flor, tr v slow mlky cut.

1000-1005 SS(75%): lt to m gy, U vf to L f gr, ip L vf gr and grdg to sltst, mnr U f to U m grs aa, 80% qtz and 20% m gy lthc grs, tr mica flks, arg and kao mtx, ip slty, a to r grs, mod srt, silc and calc cmt, tt/p por, sp dk/brn oil stn, 10% ptch bri yel/wh dir flor, tr bri/wh min flor, dull cut; SLTST(25%): lt to m gy, gritty tex, silc and calc cmt, sb lthc, rr Pyr, ip vf sdy, tt.

1005-1010 SS(50%): lt to m gy, L and U vf gr grdg sl to L f gr and sltst, sb lthc, arg, sr, mod srt, silc and calc cmt, tt/p por, sp dk/brn oil stn, 5% ptch bri yel/wh dir flor, tr bri/wh min flor, dull/bri cut; SLTST(50%): lt and m gy, gritty tex, silc and ip calc cmt, ip vf sdy, tt.

1010-1015 SLTST(55%): lt and m gy, gritty tex, silc and com calc cmt, arg and mica, ip grdg to L vf gr ss, tt; SS(30%): lt to ip m gy, L and U vf gr, com grdg to sltst, sb lthc, arg and slty, mica, tt/p por, rr sp dk/brn oil stn, 5% sp bri yel/wh dir flor, tr bri wh/bl min flor, dull cut; SH(15%): m gy, blky and mnr sbfis, micmica, slty.

1015-1020 SS(80%): lt to ip m gy, L and U vf gr, com grdg to sltst, sb lthc, arg and slty, mica, tt/p por, tr sp bri yel/wh dir flor, tr bri wh/bl min flor, dull cut; SH(20%): m gy, blky and mnr sbfis, micmica, slty.

1020-1025 SS(70%): lt to ip m gy, L and U vf gr, com grdg to sltst, sb lthc, arg and slty, mica, tt/p por, tr sp bri yel/wh dir flor, tr bri wh/bl min flor, dull/bri cut; SH(30%): m gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.

June 21/13 24h00

Dens 1090 kg/m3
Vis 37 s/L

0 ROP (m/hr) 10
0 Total Gas (units) 500
0 Methane (units) 500
0 Propane (units) 500
0 Gamma (API) 150

Bump test
Gas Detector

WOB 6.0 kdaN
RPM 40
PR 0.78 m3/min

Depth 1093m
Dens 1100 kg/m3
Vis 42 s/L

1025 1030 1035 1040 1045 1050 1055 1060 1065 1070 1075 1080 1085 1090

6.0 @ 120R

MD 1031.41 TVD 1029.42
INC 9.8 AZ 13

6.0 @ 120R

MD 1040.94 TVD 1038.8
INC 10.5 AZ 20.1

9.46 @ 160R

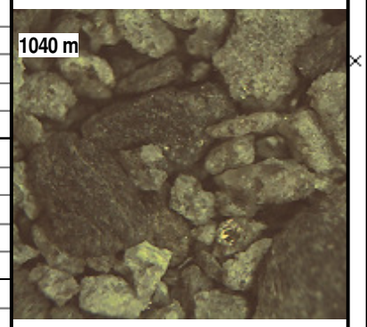
-25 Vert Sect 25
MD 1050.36 TVD 1048.07
INC 10 AZ 25.8

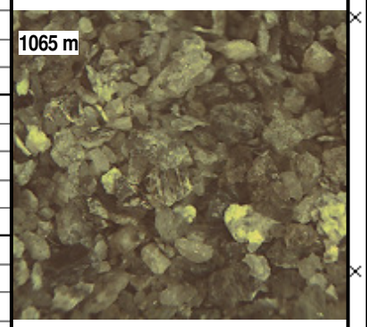
MD 1059.79 TVD 1057.36
INC 10 AZ 27.4

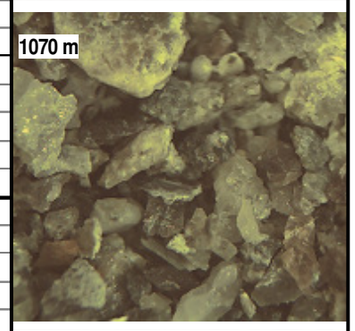
MD 1069.36 TVD 1066.78
INC 10.2 AZ 27.2

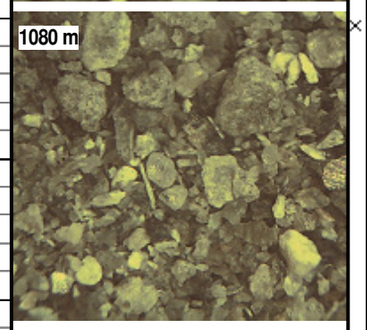
MD 1078.81 TVD 1076.08
INC 10.4 AZ 26.6

MD 1088.45 TVD 1085.55
INC 11.2 AZ 26.5









2 PEF 5

0 GR (API) 200 45
59 CAL (mm) 300 45
ZDEN (pu) -15
CNSS (pu) -15 1
M2R2 (ohm.m)
M2R3 (ohm.m)
M2R6 (ohm.m)
1 10 1000e4

1025-1030 SS(60%): wh to lt gy, L and U vf gr, com grdg to sltst, sb lthc, arg and slty, mica, tt/p por, tr sp bri yel/wh dir flor, tr bri wh/bl min flor, dull cut; SH(40%): m gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.

1030-1035 SS(40%): wh to lt gy, L and U vf gr, com grdg to sltst, sb lthc, arg and slty, calc, mica, tr pyr and cal vns, tt to p intgran por (0-3% inf), tr sp bri yel/wh dir flor, tr bri wh/bl min flor, dull cut; SH(60%): m gy occ dk gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.

1035-1040 SS(70%): wh to lt gy, L and U vf gr, com grdg to sltst, sb lthc, arg and slty, calc, mica, tr pyr and cal vns, tt/p por, tr ptch ple/dull yel dir flor, tr unif bri wh min flor, ple cut; SH(30%): m gy occ dk gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.

1040-1045 SS(60%): wh to lt gy, L and U vf gr, com grdg to sltst, sb lthc, arg and slty, calc, mica, tr pyr and cal vns, tt/p por, tr ptch ple/dull yel dir flor, tr bri wh min flor, ple cut; SH(40%): m gy occ dk gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.

1045-1050 SS(70%): wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, arg and slty, calc, mica, tr pyr and cal vns, tt/p por, rr sp dk/brn oil stn, 10% ptch dull/bri yel/wh dir flor, tr bri wh min flor, ple/dull cut; SH(30%): m gy occ dk gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.

1050-1055 SS(70%): wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt/p por, rr sp dk/brn oil stn, 20% ptch dull/bri yel/wh dir flor, 5% bri wh min flor, ple/dull cut; SH(20%): m gy occ dk gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.LS(10%): chlky - crm, occ wh, sft, tt, no s.

1055-1060 SS(70%): wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt/p por, 5% ptch dull/bri yel/wh dir flor, tr bri wh min flor, ple cut; SH(20%): m gy occ dk gy, blky and mnr sbfis, micmica, slty. SH is more abnt in c grd ctgs.LS(10%): chlky - crm, occ wh, sft, tt, no s.

1060-1065 SS (60%) clr to wh, occ lt gy, abnt lse ctgs, f - m gr, qtzc (<10% lithic grs), mod srt, a - A, p intgrnlr (0-3% inf), abnt sp dk/brn oil stng, 50% sp dull dir flor, tr bri wh min flor, dull/bri cut. SLTY SS (20%)wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt, no shows;SH(10%): m - dk gy, slty, subfis, sbblky, micmica. LS (10%):chlky - crm, occ wh - lt brn, sft, tt, no s.

1065-1070 SS (60%) clr to wh, occ lt gy, abnt lse ctgs, f - m gr, qtzc (<10% lithic grs), mod srt, a - A, p intgrnlr (0-3% inf), rr sp dk/brn oil stng, 10% sp dull dir flor, tr bri wh min flor, ple cut. SLTY SS (20%)wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt, no shows;SH(10): m - dk gy, slty, subfis, sbblky, micmica. LS (10%):chlky - crm, occ wh - lt brn, sft, tt, no s.

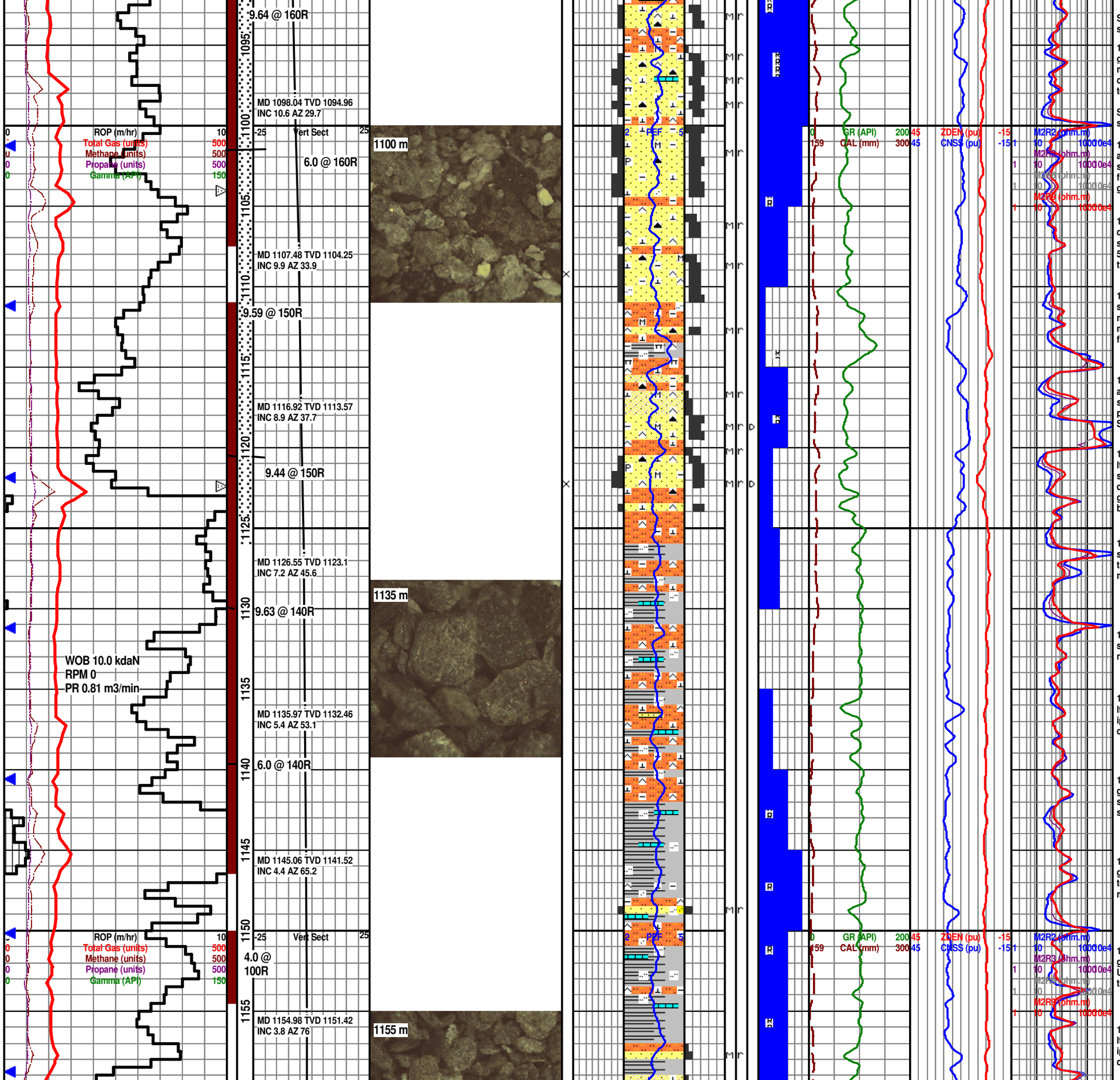
1070-1075 SS (60%) clr to wh, occ lt gy, abnt lse grs, f - m gr, qtzc (<10% lithic grs), mod srt, a - A, p intgrnlr por (0-3% inf), rr sp dk/brn oil stng, tr sp dull dir flor, tr bri wh min flor, ple/dull cut. SLTY SS (20%) wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt, fnt/ple cut;SH(10): m - dk gy, slty, subfis, sbblky, micmica. LS (20%):chlky - crm, occ wh - lt brn, sft, tt, no s.

1075-1080 SLTY SS (70%) wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt, no shows;SLTYSH(20): lt - m gy, slty, subfis, sbblky, micmica. SS (10%) clr to wh, occ lt gy, abnt lse grs, f - m gr, qtzc (<10% lithic grs), mod srt, a - A, p intgrnlr por (0-3% inf), tr sp dull dir flor, tr bri wh min flor, fnt/ple cut.

1080-1085 SLTY SS (70%) wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt/p por, rr sp dk/brn oil stng, 10% sp fnt/ple yel dir flor, tr bri wh/orng min flor, dull/bri cut;SLTY SH(20%): lt - m gy, slty, subfis, sbblky, calc, micmica, dull/bri cut. LS (10%) chlky - crm col, occ wh, sft, tt.

1085-1090 SLTY SH(70%): lt - m gy, slty, subfis, sbblky, calc, grdg - mrlst, micmica. LS (20%) chlky - crm col, occ wh, sft, tt.SLTY SS (10%) wh to lt gy, L and U vf gr, com grdg to sltst, qtzs to sub ark, <10% lithic frag, arg and slty, calc, tt/p por, v rr sp dk brn/blk sp oil stn (pyrbit?) on ctgs, 5% ptch dull yel dir flor, dull/bri cut;

1090-1095 SLTST(45%): lt gy grdg occly to m gy, gritty tex, calc and ip silc cmt, arg, occly grdg to slty sh, occly vf sdy, tt; SS(30%): lt gy, L and U f gr, ip grdg to U vf and occ L m grs, sb lthc with 15% m gy lthc grs, com arg mtx, sr, mod srt, calc cmt, ip silc cmt, tt/p por, v rr sp dk brn/blk sp oil stn (pyrbit?) on ctgs, 5% sp fnt yel dir flor, bri cut;



SH(20%): m and dk gy and occly gy brn, blky, slty, occly calc, slty and occ grdg to shy sltst; LS(5%): crm and occly wh, chky tex, arg and occly slty,

1095-1100 SS(65%): lt gy, L and U f gr, ip grdg to U vf gr and mnr L m grs and tr U m grs, tr qtz pbl frags, sb lthc with 5-10% lthc grs, rr mica flks, rr Pyr, com arg and ip slty mtx, sr, mod srt, calc cmt, ip silc cmt, tt/p por, v rr sp dk brn/blk sp oil stn (pyrbit?) on ctgs, 5% ptch fnt/ple yel dir flor, 5% bri yel/wh min flor, bri cut; SLTST(20%): lt gy, gritty tex, calc and ip silc cmt, arg, ip vf sdy, tt;

SH(10%): dk gy to ip gy brn, blky, ip slty, calc ip; LS(5%): wh to tr crm col, chky ip, arg, sft.

1100-1105 SS(75%): lt gy, U vf to U f gr, mnr L m gr and L vf gr, occ U m grs, 95% qtz and 5% gy lthc grs, tr Pyr and mica flks, occ ls strgs, com arg mtx, calc and ip silc cmt, sr, mod srt, tt/p por, v rr sp dk brn/blk sp oil stn (pyrbit?) on ctgs, 5% ptch fnt/ple yel dir flor, tr bri wh min flor, dull/bri cut; SLTST(20%): lt gy, gritty tex, calc cmt, arg, occly grdg to L vf gr slty ss, tt; SH(5%): dk gy, blky, slty, calc.

1105-1110 SS(70%): lt gy, U vf to U f gr, ip grdg to L vf gr and sltst, com L m grs, 90% qtz and 10% lthc grs, mnr mica flks desm thru, arg and ip slty, sr, mod srt, calc and ip silc cmt, tt/p por, v rr sp dk brn/blk sp oil stn (pyrbit?) on ctgs, 5% ptch ple yel dir flor, 5% bri wh min flor, ple/dull cut; SLTST(30%): lt gy, gritty tex, calc cmt, arg and ip vf sdy, tt; SH(Tr): m to dk gy, blky, calc.

1110-1115 SH(55%): dk gy grdg occly to m gy and gy brn, blky and mnr sbfis, micmica, slty and occly grdg to shy sltst, calc, tr calc strgs; SS(30%): lt gy, rr m gy, L and U f gr, mnr L m and U vf gr, 95% qtz and 5% lthc grs, mnr mica flks, occ calc strgs, arg and slty mtx, sr, mod srt, calc cmt, ip silc cmt, tt, tt/p por, tr sp fnt orng dir flor, tr dull orng min flor, fnt cut; SLTST(15%): lt to m gy ip, gritty tex, calc cmt, arg, tt.

1115-1120 SS(75%): lt gy, U vf to U f gr and ip L vf gr grdg to sltst, com L and U m gr and qtz/ cht pbl frags, qtzs to sb lthc, < 10% lthc grs, loc mica flks, arg and slty, sr, mod srt, calc cmt, ip silc cmt, tt/p por, rr ques pyrbit, tr sp fnt yel dir flor, tr brn/wh min flor, ple/dull cut; SLTST(20%): lt gy, gritty tex, calc cmt, ip silc cmt, arg and ip vf sdy, tt; SH(5%): m and dk gy, blky, slty, ip calc.

1120-1125 SS(60%): lt gy to ip off wh, U f to L m gr, ip L f and occ U m grs, qtzs to sb lthc with tr to loc 5% lthc grs, tr mica flks, rr Pyr, arg and ip slty mtx, sr and a grs, mod srt, calc and silc cmt, com lse grs, mnr fr gr relief, tt to p intgran por(0-5%), tr to mnr ques pyrbit, tr sp fnt yel dir flor, tr brn/wh min flor, tr v fnt mlky wh cut; SLTST(30%): lt gy grdg occly to m gy, gritty tex, silc and ip calc cmt, arg, tt; SH(10%): m and dk gy, blky, ip micmica, ip slty.

1125-1130 SLTST(50%): m gy, ip lt gy, gritty tex, calc and silc cmt, arg, mnr grdg to slty sh, occly grdg to L vf gr slty ss, tt; SH(45%): m gy, blky and mnr sbfis, ip micmica, slty, tr calc strgs, mnr grdg to shy sltst; SS(5%): lt gy, U vf to L fg gr, sb lthc, arg and slty, sr, mod srt, calc and silc cmt, tt/p por, no dir flor, tr bri orng min flor, ple cut.

1130-1135 SLTST(50%): m to ip lt gy, gritty tex, calc and silc cmt, arg, com grdg to slty sh, rr Pyr, tt; SH(50%): m gy, blky, ip micmica, slty, tr calc strgs, com grdg to shy sltst. no shows.

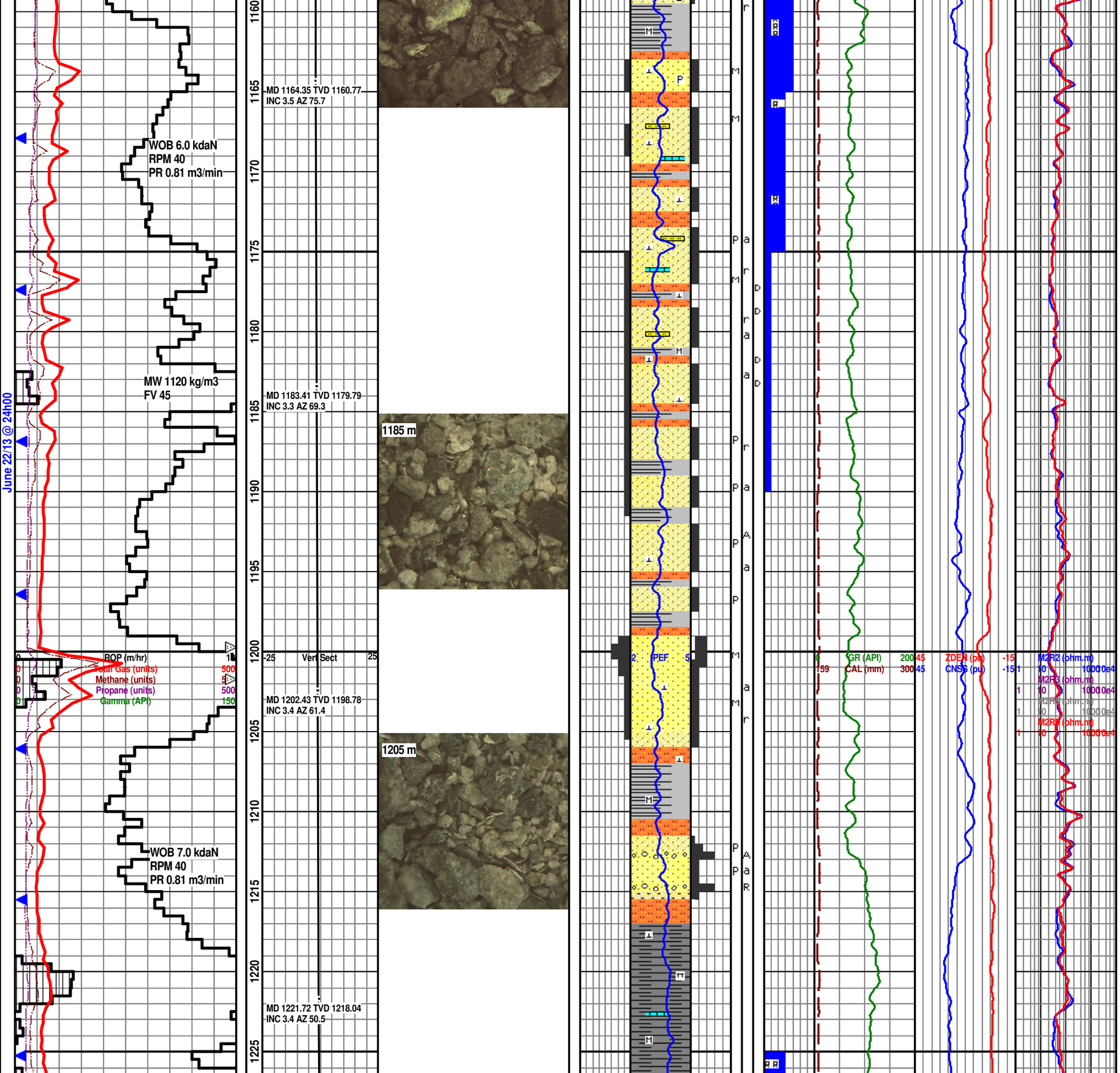
1135-1140 SH(55%): m and dk gy, blky, micmica, slty, com grdg to slty sh; SLTST(40%): lt to m gy, gritty tex, calc and silc cmt, arg, com grdg to slty sh, tt; SS(5%): lt gy, L f gr, ip U vf and U f gr, qtzs to sb lthc with 10% lthc grs, arg mtx, sr, mod srt, calc and silc cmt, tt/p por, tr dull orng min flor, fnt/ple cut.

1140-1145 SH(70%): m and ip dk gy, blky and occ sbfis, micmica, slty, tr calc strgs, com grdg to shy sltst; SLTST(25%): lt to m gy, gritty tex, calc and silc cmt, arg, ip grdg to slty sh, tt; SS(5%): lt gy, U vf to U f gr, sb lthc, arg and ip slty mtx, sr, mod srt, calc and silc cmt, tt/p por, tr dull orng min flor, tr bri yel/wh min flor, ple/dull cut.

1145-1150 SH(65%): m and dk gy, blky and ip sbfis, micmica, slty, tr calc strgs, mnr grdg to shy sltst; SLTST(35%): lt and m gy, gritty tex, silc and calc cmt, arg, com grdg to slty sh, tt; SS(Tr): lt gy, U vf to L f gr, ip U f gr, qtzs to sb lthc, arg and slty mtx ip, sr, mod srt, calc and silc cmt, tt, tr dull orng min flor, tr bri yel/wh min flor, dull/bri cut.

1150-1155 SH(65%): m and dk gy, blky and occ sbfis, micmica, slty, tr calc strgs, mnr grdg to shy sltst; SLTST(35%): lt to m gy, gritty tex, silc and calc cmt, tt; SS(5%): lt gy, U vf to U f gr, qtzs to sb lthc, ip mics, arg and slty mtx, sr, mod srt, calc and silc cmt, tt, tr dull orng min flor, tr bri yel/wh min flor, ple/dull cut.

1155-1160 SH(50%): m and dk gy, blky, micmica, slty, com grdg to slty sh; SLTST(10%): lt to m gy, gritty tex, calc and silc cmt, arg, com grdg to slty sh, tt; SS(40%): lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg mtx, sr, mod srt, calc and silc cmt, tt/p por, tr dull orng min flor, tr bri yel/wh min flor, ple/dull cut.



1160-1165 SH(50%): m and dk gy, blky, micmica, slty, com grdg to slty sh; SS(50%): lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg mtx, sr, mod srt, calc and silc cmt, tt/p por, tr sp fnt orng dir flor, ple/dull cut.

1165-1170 SS(90%): sb ark, lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg mtx, sr, mod srt, calc and silc cmt, tt/p por, tr fnt orng dir flor, tr dull orng min flor, ple cut.SH(50%): m gy, blky, micmica, slty, com grdg to slty sh.

1170-1175 SS(90%): sb ark, lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg mtx, sr, mod srt, calc and silc cmt, tt, tr ;in flor, ple cut.SH(50%): m gy, blky, micmica, slty, com grdg to slty sh.

1175-1180 SS(90%): sb ark, lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg mtx, sr, mod srt, calc, tt - p intgranular por (0-3%), wk d blsh flor on <5% ctgs, tr min flor, fnt cut. SH(10%): m gy, blky, micmica, slty, com grdg to slty sh.

1180-1185 SS(90%): sb ark, lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg mtx, sr, mod srt, calc, tt - p intgranular por (0-3%), 5% sp fnt orng/dk yel dir flor, fnt cut. SH(10%): m gy, blky, micmica, slty, com grdg to slty sh.

1185-1190 SS(80%): sb ark, lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg - slty mtx, sr, mod srt, calc, tt, tr bri wh min flor, fnt cut . SH(20%): m gy, blky, micmica, slty, com grdg to slty sh.

1190-1195 SS(80%): sb ark, lt gy, L f gr, ip U vf and U f gr, qtzs to sbark with <10% lthc grs, arg - slty mtx, sr, mod srt, calc, tt, no shows. SH(20%): m gy, blky, micmica, slty, com grdg to slty sh.

1195-1200 SLTY SS(50%): lthc sb ark; vf gr, grdg - sltst ip, slty mtx, m cmtd w/ calc cmt, p por, no s. SH(50%): m gy, blky, sb fis, micmica, slty, grdg - sltst ip.

1200-1205 SLTY SS(50%): sb ark; vf gr, grdg - sltst ip, slty mtx, m cmtd w/ calc cmt, tt - p por (0-3%), tr unif lt brn stn, dk brn sp stn, 5% dull orng (min?) flor, no cut. SH(50%): m gy, blky, sb fis, micmica, slty, grdg - sltst ip.

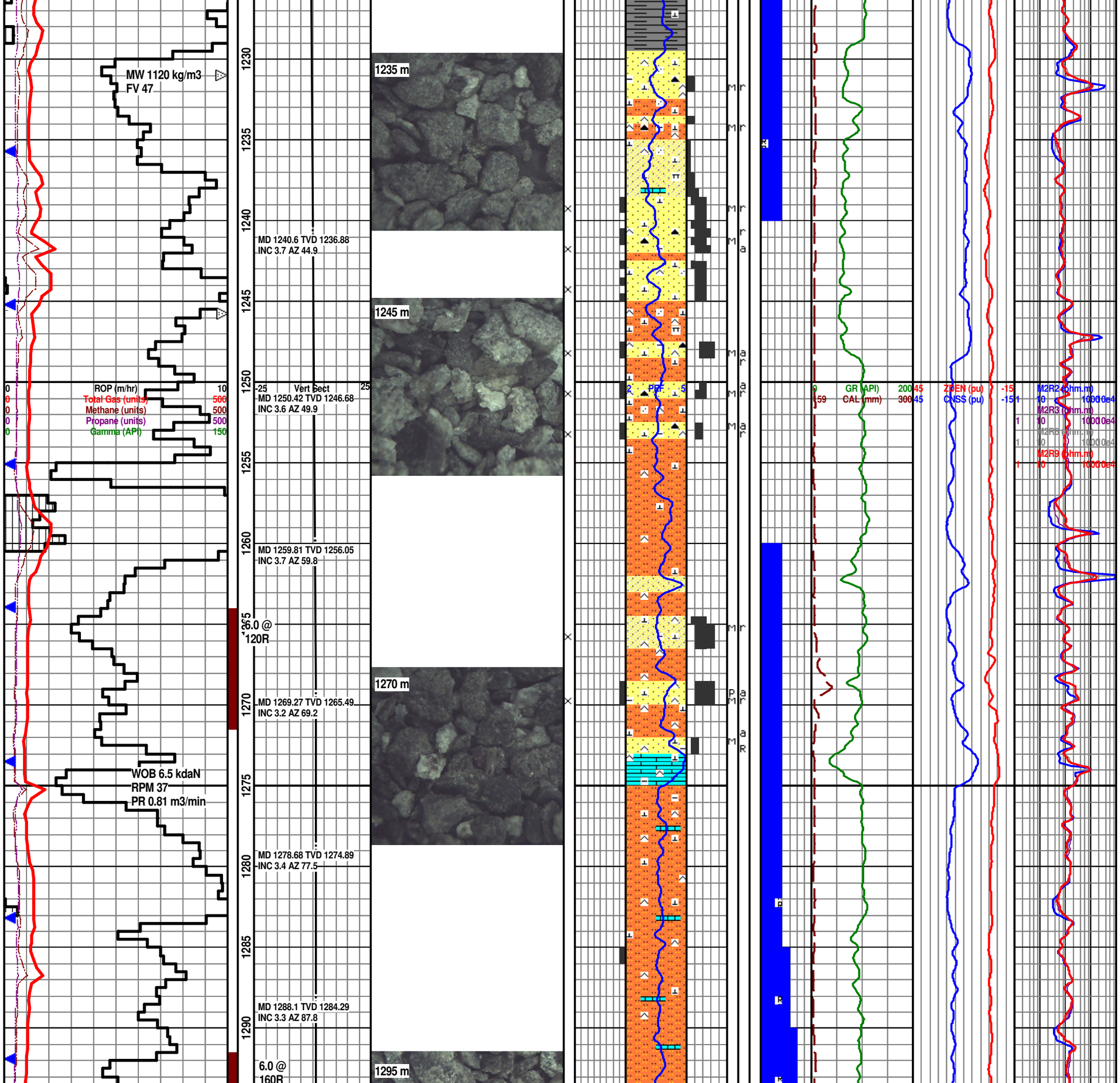
1205-1210 SLTY SS(50%): lthc sb ark; vf gr, grdg - sltst ip, slty mtx, m cmtd w/ calc cmt, p por, tr bri wh min flor, no cut. SH(50%): m gy, blky, sb fis, micmica, slty, grdg - sltst ip.

1210-1215 SH(50%): m gy, blky, sb fis, micmica, slty, grdg - sltst ip. SLTY SS(40%): sb ark; vf gr, grdg - sltst ip, slty mtx, m cmtd w/ calc cmt, p por, no s. CGL??(50%): uncons ctgs, predly frgm of qtz and cht, w/ mnr lthc frgm.

1215-1220 SH 100(%): m - dk gy, sbfis, sbblky, mod hrd. Tr slty ss.

1220-1225 SH 100(%): m - dk gy, sbfis, sbblky, mod hrd, occ grdg - arg sltst, calc, mnr calc strg or vn. Tr slty ss.

1225-1230 SH(45%): m and dk gy, blky, micmica, slty, ip calc, rr calc strgs, occly grdg to shy sltst; SLTST(40%): lt gy, gritty tex, silc and calc cmt, arg, tt; SS(15%): lt to m gy,



L and U f gr occ U vf gr and tr L m gr, qtzs with 5% lthc grs, arg mtx ip, sr, mod srt, calc and silc cmt, tt/p por, ple cut.

1230-1235 SLTST(50%): lt gy grdg ip to m gy, gritty tex, calc and silc cmt, ip mics, arg, ip grdg to L vf gr ss, tt; SH(25%): m to ip dk gy, blky, micmica, ip slty, calc; SS(25%): lt gy, L and U vf gr, com grdg to sltst and L f gr ss, qtzs, tr mica, rr Pyr, arg mtx, calc and ip silc cmt, tt/p por, ple cut.

1235-1240 SLTST(65%): lt gy, gritty tex, calc and ip silc cmt, tt; SS(35%): lt gy, L f to L m gr, mnr to ip com qtz and lt to dk gy cht pbl frags, arg mtx ip, sr, mod srt, calc and silc cmt, com lse grs, tt to inferred p intgran por(0-3%), ple cut.

1240-1245 SS(90%): lt gy, L f to L m gr, mnr U vf gr and occ U m grs, mnr qtz and cht frags, qtzs to 5-10% lthc grs, tr mica flks, rr Pyr, arg mtx ip, a to r grs, mod srt, calc and ip silc cmt, com lse grs, inferred tt to p intgran por(0-3%), ns, tr dull yel flor, n cut; SLTST(10%): lt gy, gritty tex, calc and ip silc cmt, arg, tt; SH(Tr): m to dk gy, blky and mnr sbfis, micmica, slty, calc;

1245-1250 SLTST(80%): lt gy grdg ip to m gy, gritty tex, calc and silc cmt, arg, tt; SS(20%): lt gy, U f to L c gr, com L f gr and qtz and cht frags, qtzs to 5% lthc grs, tr Pyr, arg mtx ip, a to r grs, mod srt, mnr lse grs, tt, ns;

1250-1255 SLTST(60%): m gy grdg ip to lt gy, gritty tex, calc and silc cmt, ip mics, tt; SS(40%): lt gy, L and U f gr, mnr L m grs, occ qtz and cht frags, qtzs, tr lthc grs, tr Pyr, arg ip, calc cmt, a to r grs, mod srt, abnt lse grs, inferred tt to p intgran por(0-3%), ns, n flor, n cut.

1255-1260 SLTST(100%): m mnr dk gy, gritty tex, silc and calc cmt, arg, ip sl shy, tt; SS(Tr): lt gy, L and U f gr, occ L m gr, qtzs, tr lthc grs, tr mica flks, sr, a to r grs, mod srt, calc and silc cmt, tt, ns,

1260-1265 SLTST(90%): lt to m gy, occ m to dk gy, gritty tex, silc and calc cmt, arg, tt; SS(10%): off wh to ip lt gy, U vf to U f gr, tr L m grs, qtzs, tr lthc grs, rr pyr, ip arg mtx, a to r grs, mod srt, calc and silc cmt, tt, ple cut.

1265-1270 SLTST(50%): lt to ip m gy, gritty tex, calc and silc cmt, arg ip, tt; SS(50%): off wh to lt gy, var L f to L c gr, occ vf gr, mnr qtz and cht frags, qtzs, tr lthc grs, sr and tr R fros grs, mod and p srt, calc and silc cmt, com lse grs, inferred tt to p intgran por(0-3%), ns, n flor, ple cut.

1270-1275 SLTST(85%): lt to m gy, gritty tex, calc and silc cmt, ip sb lthc, arg, tr Pyr, tt; SS(15%): lt gy, U vf to L f gr, qtzs, tr lthc grs, arg ip, a to r grs, mod srt, calc and silc cmt, tt, ple cut.

1275-1280 SLTST(70%): lt to m gy, gritty tex, silc and calc cmt, arg, tt; LS(30%): bf to pale gy brn and ip off wh to crm, mdst, mas tex, occ mot tex, arg ip, tt, ns, dull yel mineral flor, ple cut.

1280-1285 SLTST(100%): lt to m gy, gritty tex, silc and calc cmt, mnr calc vn, arg, ple cut; LS(Tr): bf to gy brn, mdst, mas tex, tt.

1285-1290 SLTST(100%): lt gy grdg to m gy, gritty tex, silc and calc cmt, arg, mnr to com wh calc strgs, tt, ple/dull cut.

1290-1295 SLTST(100%): lt gy grdg to m gy, gritty tex, silc and calc cmt, arg, occly grdg - slty ss,mnr to com wh calc strgs, tt, dull cut.

MW 1130 kg/m3
FV 46 s/L

ROP (m/hr) 0 10
Total Gas (units) 0 500
Methane (units) 0 500
Propane (units) 0 500
Gamma (API) 0 150

Run Gamma in hole after bit trip, wash down last 3 STDs

WOB 5.8 kdaN
RPM 39
PR 0.79 m3/min

Bit No. 2 run again

Trip Gas- 632 units, pumps off for ~14hrs, new BGG of 260 units

FG- 544 units

FG- 404 units

June 23/13 24:00

June 24/13 @ 24h00

MD 1297.53 TVD 1293.71
INC 2.7 AZ 111.1

MD 1316.43 TVD 1312.6
INC 1.6 AZ 150.9

MD 1325.83 TVD 1322
INC 1.2 AZ 147.2

MD 1335.24 TVD 1331.4
INC 1 AZ 140.8

MD 1354.13 TVD 1350.29
INC 0.9 AZ 124.1

-25 Vert Sect 25

1330 m

1335 m

1340 m

1345 m

2 PEF 5

0 GR (API) 200 45
159 CAL (mm) 300 45
ZDEN (pu) -15
CNSS (pu) -15 1
M2R2 (ohm.m) 1 10 10000e4
M2R3 (ohm.m) 1 10 10000e4
M2R6 (ohm.m) 1 10 10000e4
M2R9 (ohm.m) 1 10 10000e4

1295-1300 SLTST(90%): lt gy grdg to m gy, gritty tex, silc and calc cmt, arg, occly grdg - slty ss,mnr to com wh calc strgs, tt. SLTY SS 10%) lt gy, vf gred, slty, arg mtx, calc cmt, mod srt, tt, dull cut.

1300-1305 SLTST(80%): lt gy grdg to m gy, gritty tex, silc and calc cmt, arg, occly grdg - slty ss, tt. SLTY SS 10%) lt gy, vf gred, slty, arg mtx, calc cmt, mod srt, tt, no os.SH (10%) m - dk gy, plty, sub fis, mod hrd.

1305-1310 SLTST(90%): lt gy grdg to m gy, gritty tex, silc and calc cmt, arg, occly grdg - slty ss, tt. SLTY SS 10%) lt gy, vf gred, slty, arg mtx, calc cmt, mod srt, tt, no os.

1310-1315 SLTST(90%): m gy, gritty tex, silc and calc cmt, arg, shly ip, occly grdg - slty ss, tt. SLTY SS 10%) lt gy to bf, vf gred, slty, arg mtx, calc cmt, mod srt, tt, fnt cut.

1315-1320 SLTST(90%): m gy, gritty tex, silc and calc cmt, arg, shly ip, occly grdg - slty ss, tt. SLTY SS 10%) lt gy to bf, vf gred, slty, arg mtx, calc cmt, mod srt, tt, fnt cut.

1320-1325 SS(80%) clr - wh - lt gy, lthc sub ark, smpl is composed of predly uncons grs of ang to sub ang qtz ctgs and lthc frags, w/ mnr fldsp; vf - m gred, p srtd, w cmt w/ calcs cmt, tr pybit, p intgrnlr por (0-3%), 20% of ctgs show bluish green flourescence, no cut. SLTST(20%) m gy, gritty tex, silc and calc cmt, arg, shly ip, occly grdg - slty ss, tt.

1325-1330 SS(90%) clr - wh - lt gy, lthc sub ark, vf - f gred, mod srtd, w cmt w/ calcs cmt, tr pybit, p por (0-3%), no shows. SLTST(10%) m gy, gritty tex, silc and calc cmt, arg, shly ip, occly grdg - slty ss, tt.

1330-1335 SLTY SS(60%) clr - wh - lt gy, lthc sub ark, vf - f gred, mod srtd, sub ang to ang, w cmt w/ calcs cmt, tt - p por, fnt cut. SLTST(40%) m gy, gritty tex, silc and calc cmt, arg, shly ip, occly grdg - slty ss, tt.

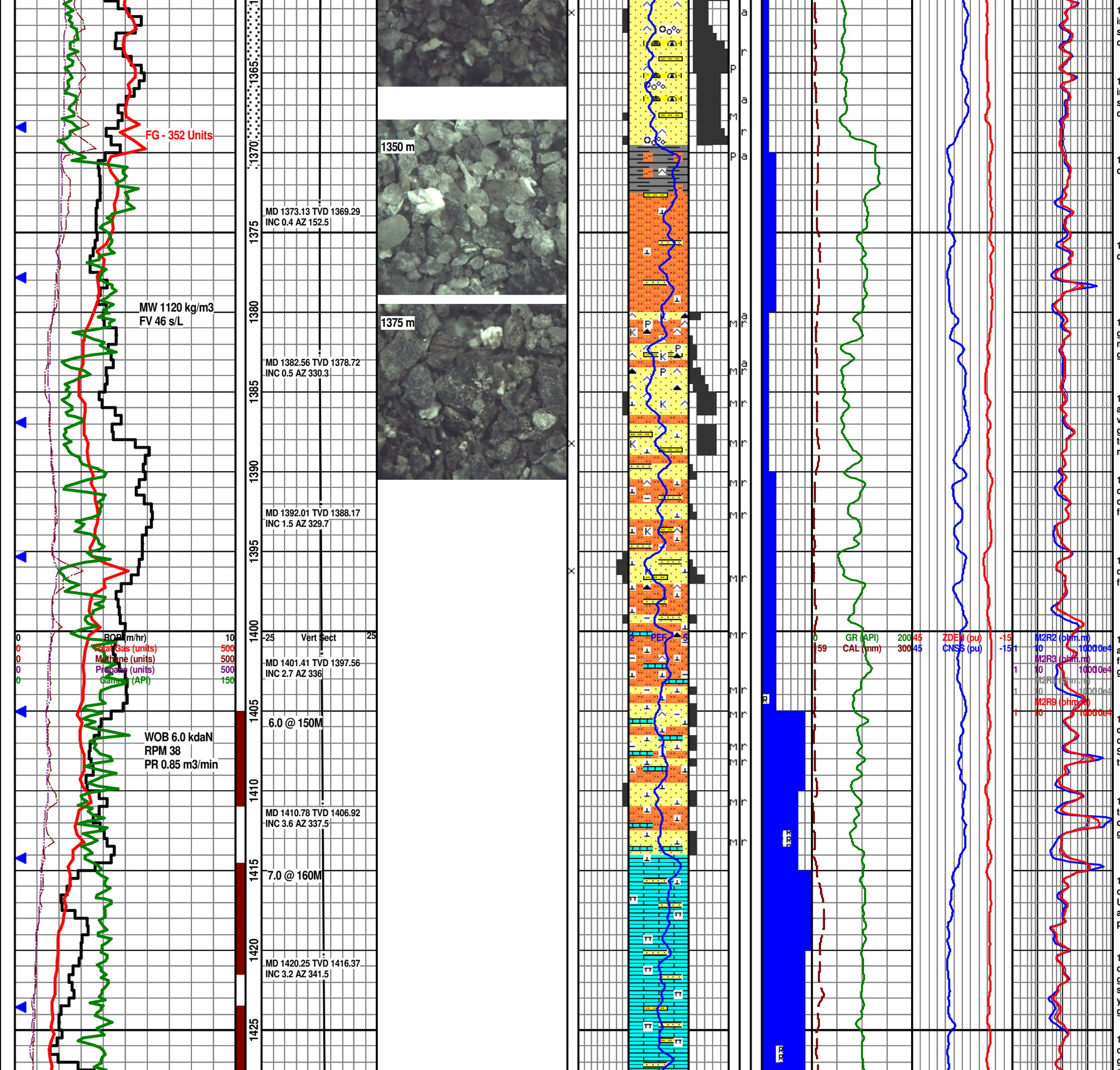
1335-1340 SLTY SS(30%) wh - lt gy, lthc sub ark, vf - f gred, mod srtd, sub ang to ang, w cmt w/ calcs cmt, tt - p por, no shows. SLTST(30%) m gy, gritty tex, silc and calc cmt, arg, shly ip, occly grdg - slty ss, tt. SS/CGL (40%) smpl comp of plty ctgs or shards of glassy qtz, fldsp and rare blky lit frags. Infr a lthc ark to sub ark ss or pos a sdy cgl.

1340-1345 SS(90%): lt gy, var L f to U c gr, mnr to com vc grs and qtz frags indicative of pos pbl size grs, 90% clr, trnsl, wh and tr smoky gy qtz and 10% cht frags, mnr wh chky grs pos kao, com Pyr thru, tr mica flks, ip vf sdy mtx, a to r grs, p srt, silc and calc cmt, abnt lse grs and frags, inferred tt to p intgran por(0-3%), ns, com dull to m bri yel mineral flor, fnt/ple cut; SLTST(10%): lt gy to pale gy brn, gritty tex, silc and calc cmt, arg, ip grdg to vf gr ss, tt.

1345-1350 SS(80%): lt gy, var L f to U c gr, mnr to com vc grs and qtz frags indicative of pos pbl size grs, 90% clr, trnsl, wh and tr smoky gy qtz and 10% cht frags, mnr wh chky grs pos kao, com Pyr thru, tr mica flks, ip vf sdy mtx, a to r grs, p srt, silc and calc cmt, abnt lse grs and frags, tt, fnt/ple cut. SLTST(20%): lt gy to pale gy brn, gritty tex, silc and calc cmt, arg, ip grdg to vf gr ss, tt.

1350-1355 SS(90%): clr - lt gy, var L f to U c gr, mnr to com vc grs and qtz frags indicative of pos pbl size grs, smpl comp of 90% uncons ctgs, clr, trnsl, wh and tr smoky gy qtz w/ mnr wh chky grs, tr mica flks, ip vf sdy mtx, a to r grs, p srt, silc and calc cmt, tt, fnt/ple cut. SLTST(10%): lt gy, calc cmt, arg, tt.

1355-1360 SS(90%): clr - lt gy, var L f to U c gr, mnr to com vc grs and qtz frags indicative of pos pbl size grs, smpl comp of 90% uncons ctgs, clr, trnsl, wh and tr smoky gy qtz w/ mnr wh chky grs, tr mica flks, ip vf sdy mtx, a to r grs, p srt, silc and calc cmt, tt, fnt/ple cut. SLTST(10%): lt gy, calc cmt, arg, tt.



1360-1365 SS(95%): clr - lt gy, var L f to U c gr, mnr to com vc grs and qtz frags indicative of pos pbl size grs, smpl comp of 90% uncons ctgs, clr, trnsl, wh and tr smoky gy qtz w/ mnr wh chky grs, tr mica flks, ip vf sdy mtx, a to r grs, p srt, silc and calc cmt, tt, fnt cut. SLTST(5%): lt gy, calc cmt, arg, tt.

1365-1370 SS(95%): clr - lt gy, var L f to U c gr, mnr to com vc grs and qtz frags indicative of pos pbl size grs, smpl comp of 90% uncons ctgs, clr, trnsl, wh and tr smoky gy qtz w/ mnr wh chky grs, tr mica flks, ip vf sdy mtx, a to r grs, p srt, silc and calc cmt, tt, fnt cut. SLTST(5%): lt gy, calc cmt, arg, tt.

1370-1375 SLTST(90%) m - dk gy, occly brnsh gy, micmica, sb plty ctgs, arg, calc, mnr calc vns. SS (10%) lt gy to brnsh, vf to fine gred, slty, calc and sil cmt, tt, fnt/ple cut.

1375-1380 SLTST(100%): m and lt gy, occ grdg to dk gy, gritty tex, silc and calc cmt, rr calc cmt, tr Pyr, tr grdg to L vf gr ss, tt, fnt/ple cut.

1380-1385 SS(70%): lt gy to sl off wh ip, L and U vf gr to L f gr, occ U f and L m grs, rr m gy vc to cht grs, 90% qtz and 10% m gy lthc grs, rr mica flks, rr Pyr, kao mtx, a to sr grs, mod srt, silc and calc, tt, fnt cut; SLTST(30%): pale to m gy to sl gy brn, occly dk gy, gritty tex, silc and calc cmt, mnr Pyr, arg, dk gy sh occly grdg to slty sh, tt.

1385-1390 SLTST(60%): pale to m gy grdg ip to sl gy brn, gritty tex, silc and calc cmt, arg, occly grdg to slty sh, tt; SS(40%): lt gy, L and U f gr to L c gr, mnr to com U c and L vc grs, qtzs with predly clr, trnsl with occ wh and smoky gy qtz grs and tr m gy lthc grs(pos cht), rr desm Pyr, com kao mtx, tr calc vn, a to r grs, occly R fros qtz grs, mod to p srt, com to abnt lse grs, tt to inferred p intgran por(0-3%), ns. mnr m and bri yel mineral flor, fnt cut.

1390-1395 SLTST(85%): m gy grdg ip to lt gy and mnr v fnt brn, gritty tex, silc and calc cmt, arg, rr desm Pyr, tr mica flks, occly grdg to L vf gr ss, tt; SS(15%): v lt gy grdg to off wh, L and U vf gr, qtzc, kao mtx, tr calc strgs, sr, mod srt, silc and calc cmt, tt, rr yel flor, fnt/ple cut.

1395-1400 SS(50%): v lt gy to ip off wh, L and U vf gr grdg occly to L f gr and tr to U f gr, qtzc, tr lthc grs, tr mica flks, kao, arg ip, sr, mod to w srt, abnt calc cmt, tt, tr yel mineral flor, fnt/ple cut; SLTST(50%): m to lt gy, gritty tex, silc and calc cmt, arg ip, tt;

1400-1405 SS(60%): lt gy to off wh and com bf to pale gy brn, L and U vf gr grdg to sltst, arg, pos kao, sr, mod srt, abnt calc cmt and occly grdg to sdy slty ls, tt, tr bri wh min flor, fnt/ple cut; SLTST(40%): bf and m gy, grity tex ip, abnt calc and ip silc cmt, pos grdg to arg slty ls, tt, ns.

1405-1410 SS(65%): lt gy grdg ip to bf, L and U vf gr, com grdg to sltst and occ L f grs, qtzs to sb lthc, abnt calc cmt, occly pos grdg to sdy - slty ls, mnr calc strgs, arg, mnr calc cmt, tt/p por, tr ptch lt+dk brn oil stn, tr ptch bri wh dir flor, dull/bri cut; SLTST(35%): m to occly dk gy and ip gy brn, gritty tex ip, calc, occly pos grdg to slty ls, tt.

1410-1415 SS(50%): lt gy grdg sl to fnt gy brn, L and U vf gr grdg to sdy sltst, qtzs with tr lthc grs, arg and kao, tr Pyr, tr mica flks, mnr calc strgs, sr, mod srt, abnt calc and occly grdg to sdy - slty ls, tt/p por, no dir flor, dull cut; SLTST(50%): pale gy brn and dk gy, gritty tex, ip v calc, pos tt.

1415-1420 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain w/ tr LS ctgs. SS(50%) lt gy grdg sl to fnt gy brn, L and U vf gr grdg to sdy sltst, qtzs with tr lthc grs, tr mica flks, mnr calc strgs, sr, mod srt, abnt calc ls, tt/p por, co; sp brn oil stn, 15% ptch bri wh dir flor, bri cut.SLTST (50%) pale gy brn and dk gy, gritty tex, v calc, ip grdg - mrlst.

1420-1425 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain w/ <10% LS ctgs. SLTST (50%) pale gy brn and dk gy, gritty tex, v calc, arg ip grdg - mrlst.SS(40%) lt gy - fnt gy brn, L and U vf gr grdg to sdy sltst, qtzs with tr lthc grs, mnr calc strgs, sr, mod srt, abnt calc ls, tt/p por, tr ptch bri yel/wh dir flor, dull/bri cut. LS(10%) whsh to crm, mcxln, p por, ns. Possible PDC is grinding LS into powder.

1425-1430 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain w/ 15% LS ctgs. SLTST (45%) pale gy brn and dk gy, gritty tex, v calc, arg ip grdg - mrlst.SS(40%) lt gy - fnt gy brn, L and U vf gr grdg to sdy

Glycol level too low. Filled jar to appropriate level

MW 1125 kg/m3
FV 46 s/L

WOB 7.0 kdaN
RPM 36
PR 0.93 m3/min

June 26/13 @24h00

0 ROP (m/hr) 10
0 Total Gas (units) 500
0 Methane (units) 500
Propane (units) 500
0 Gamma (API) 150

7.0 @ 160R
9.71 @ 160R

MD 1429.96 TVD 1426.07
INC 2.2 AZ 345.1

MD 1439.41 TVD 1435.51
INC 1.7 AZ 0.6

MD 1448.81 TVD 1444.91
INC 2 AZ 4.8

Vert Sect

MD 1458.3 TVD 1454.39
INC 2.8 AZ 355.7

MD 1467.84 TVD 1463.92
INC 3.4 AZ 343.5

MD 1486.8 TVD 1482.83
INC 4.9 AZ 345.7

1430 1435 1440 1445 1450 1455 1460 1465 1470 1475 1480 1485 1490

1440 m

1460 m

1480 m

2 PEF 5

0 GR (API) 200
159 CAL (mm) 300

45

ZDEN (pu) -15
CNSS (pu) -15

1

M2R6 (ohm.m)
M2R3 (ohm.m)
M2R9 (ohm.m)
M2R9 (ohm.m)

1 10 10000e4

sltst, qtzs with tr lthc grs, mnr calc strgs, sr, mod srt, abnt calc ls, tt/p por, 5% ptch dull/bri yel/wh dir flor, dull/bri cut. LS(15%) whsh to crm, mcxln, p por, ns. Possible PDC is grinding LS into powder.

1430-1435 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain w/ tr LS ctgs. SS(50%) lt gy grdg sl to fnt gy brn, L and U vf gr grdg to sdy sltst, qtzs with tr lthc grs, tr mica flks, mnr calc strgs, sr, mod srt, abnt calc ls, tt/p por, tr ptch dull/bri yel/wh dir flor, dull/bri cut.SLTST (50%) pale gy brn and dk gy, gritty tex, v calc, ip grdg - mrlst.

1435-1440 lt gy, chky muddy - lmy spl, after washing and drying spl, only vf gr calc ss and sltst remain with tr LS cuttings. SS(50%) lt gy grdg sl to pale gy brn, L and U vf gr grdg to sdy sltst, qtzs with tr lthc grs, tr mica flks, mnr calc strgs, sr, mod srt, com ls strgs, tt/p por, rr sp brn oil stn, tr ptch fnt/ple yel/wh dir flor, dull/bri cut.SLTST (50%) pale to m gy and com dk gy, gritty tex, v calc, ip grdg to mrlst, tt.

1440-1445 lt gy, chky muddy spl, after washing and drying spl, only vf gr calc ss and sltst remain with tr LS cuttings. SS(50%) lt gy grdg sl to v fnt gy brn, L and U vf gr grdg sl to L f gr and sdy sltst, qtzs with tr lthc grs, tr mica flks, mnr calc strgs, sr, mod srt, com ls strgs, tt/p por, tr ptch fnt/ple yel/wh dir flor, ple cut.SLTST(50%): pale to m gy and com dk gy, gritty tex, v calc, ip grdg to mrlst, tt.

1445-1450 lt gy, chky muddy spl, after washing and drying spl, only vf gr calc ss and sltst remain with tr LS cuttings. SS(50%) lt gy grdg sl to v fnt gy brn, L and U vf gr grdg sl to L f gr and sdy sltst, qtzs with tr lthc grs, tr mica flks, mnr calc strgs, sr, mod srt, com ls strgs, tt, no dir flor, dull/bri cut.SLTST(50%): pale to m gy and com dk gy, gritty tex, v calc, ip grdg to mrlst, tt.

1450-1455 lt gy, chky muddy spl, after washing and drying spl, only vf gr calc ss and sltst remain with tr LS cuttings; SS(65%): lt gy, L and U vf gr, mnr U f grs, rr L m grs, ip slty, qtzs, tr lthc grs, com desm mica flks and occ mics ptgs, v rr coal grs, sr, mod srt, abnt calc cmt, tt/p por, no dir flor, fnt/ple cut; SLTST(25%): lt gy, occly m gy, gritty tex, calc and silc cmt, arg, occly grdg to slty sh and L vf gr slty ss, tt; SH(10%): m gy, blky and sbfis, sl calc and ip grdg to mrlst.

1455-1460 lt gy, chky muddy spl, after washing and drying spl, only vf gr calc ss and sltst remain with tr LS cuttings; SS(65%): lt gy, L and U vf gr, mnr U f grs, rr L m grs, ip slty, qtzs, tr lthc grs, com desm mica flks and occ mics ptgs, rr Pyr strgs, rr calc strgs, sr, mod srt, abnt calc cmt, tt/p por, no dir flor, dull cut; SLTST(35%): lt gy, occly m gy, gritty, calc, arg, occly grdg to slty sh and L vf gr slty ss, tt.

1460-1465 lt gy, chky muddy spl, after washing and drying spl, only vf gr calc ss and sltst remain with tr LS cuttings; SS(60%): lt gy grdg sl to fnt gy brn, L and U vf gr grdg occly to U f gr, ip sdy slty, qtzs, tr lthc grs, com desm mica flks and occ mics ptgs, rr Pyr, rr calc strgs, sr, mod srt, abnt calc cmt, tt/p por, tr ptch dull/bri yel/wh dir flor, dull cut; SLTST(40%): lt and m gy, gritty tex ip, sl calc, arg, occly grdg to slty sh and L vf gr slty ss, tt.

1465-1470 lt gy, chky muddy spl, after washing and drying spl, only vf gr calc ss and sltst remain with tr LS cuttings; SS(60%): lt gy grdg ip to m gy, L and U vf gr, com grdg to sltst, mnr grdg to L f and tr U f gr, v rr L m grs, qtzs, tr lthc grs, tr desm mica flks, rr Pyr, com calc strgs, sr, mod srt, abnt calc cmt, tt/p por, tr ptch ple/dull yel/wh dir flor, bri cut; SLTST(40%): m and com dk gy, gritty tex ip, sl calc, arg, mnr calc cmt, com grdg to slty sh, tt.

1470-1475 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain w/ 15% LS ctgs. SLTST (45%) pale gy brn and dk gy, gritty tex, v calc, arg ip grdg - mrlst.SS(40%) lt gy - fnt gy brn, L and U vf gr grdg to sdy sltst, qtzs with tr lthc grs, mnr calc strgs, sr, mod srt, abnt calc ls, tt/p por, rr brn/dk brn sptty oil stng, 5% ptchy ple/dull yel/wh dir flor, bri cut;

LS(15%) mostly bf col, whsh to crm, mcxln, arg, grdg -slty mrlst, p por, ns. Possible PDC is grinding LS into powder.

1475-1480 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain w / only tr LS ctgs. .SS(70%) clr - lt gy, occly gy brn, L and U vf gr grdg to sdy sltst, rr m grs, qtzs with tr lthc grs, smpl comp primarily of vf uncons clr glassy qtz grs, mnr calc strgs, sr, mod srt, abnt calc ls, tt/p por, rr brn/dk brn sptty oil stng, 5% ptchy ple/dull yel/wh dir flor, bri cut;

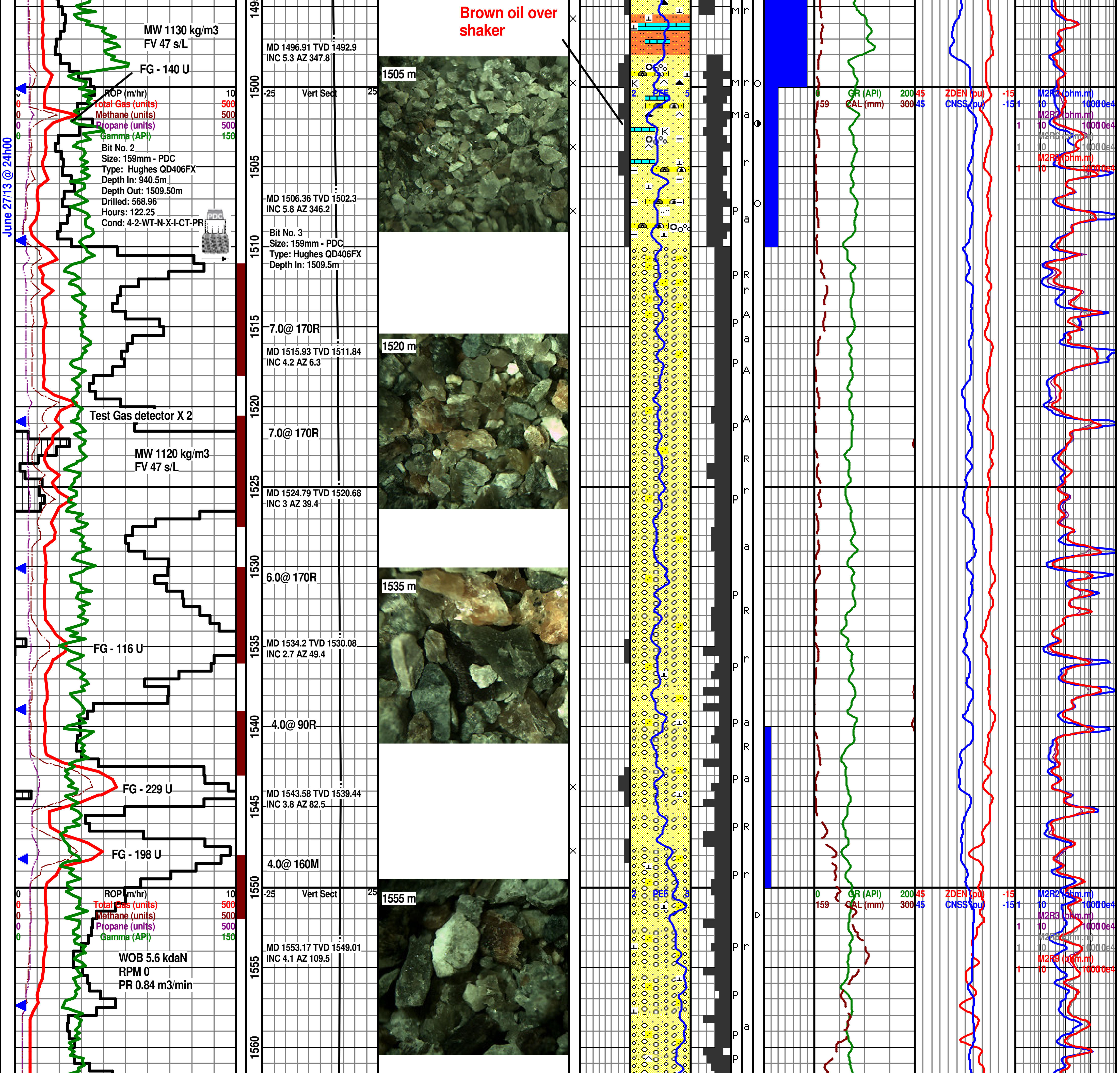
SLTST (30%) pale gy brn and dk gy, gritty tex, v calc, arg ip grdg - mrlst Pos PDC is grinding LS into powder.

1480-1485 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain w / only tr LS ctgs. .SS(70%) clr - lt gy, occly gy brn, L and U vf gr grdg to sdy sltst, rr m grs, qtzs with tr lthc grs, smpl comp primarily of vf uncons clr glassy qtz grs, mnr calc strgs, sr, mod srt, abnt calc ls, tt/p por, rr brn/dk brn sptty oil stng, 5% ptchy ple/dull yel/wh dir flor, bri cut;

SLTST (30%) pale gy brn and dk gy, gritty tex, v calc, arg ip grdg - mrlst Pos PDC is grinding LS into powder.

1485-1490 lt gy, chlky mdy smpl, poor ctgs recovered, after washing & drying smpl, only vf gred ss and sltst remain.SLTST (70%) pale gy brn and dk gy, gritty tex, v calc, arg ip grdg - mrlst. SS(30%) lt gy, occly gy brn, L and U vf gr grdg to sdy sltst, qtzs with tr lthc grs, mnr calc strgs, sr, mod srt, p por, rr brn/dk brn sptty oil stng, 5% ptchy ple/dull yel/wh dir flor, bri cut.

1490-1495 CLYST(55%): lt gy and crm, occ m gy, ip mas tex, tr calc, tr slty, ip sl micmica, com wxy appnc, mnr calc strgs, sft; SS(20%): lt gy, predly clr and trnsl grs, L f to U m grs, qtzs, sr and a grs, tr R grs, mod srt, predly uncons grs, inferred tt to p intgran por(0-3%), rr brn/dk brn sptty oil stng, 5% ptchy ple/dull yel/wh dir flor, bri cut; SLTST(15%): lt gy, gritty ip, com wxy clay mtx; ip vf ss;



SH(10%): m and dk gy, com sbfis, micmica, ip slty and occly grdg to shy sltst, calc ip.

1495-1500 SLTST(75%): lt to m gy and com dk gy, gritty to mas tex, arg, occ lrdg to slty sh, tr calc strgs, ip grdg to slty clyst, occly vf sdy, tt; SS(25%): lt gy, U vf to L f gr, occ U f gr and tr L m gr, qtzs, tr lthc grs, sr, mod srt, abnt calc cmt, tt/p por, vr ptch brn oil stn, tr ptch bri wh dir flor, tr bri wh min flor, dull to bri cut.

1500-1505 SS(70%): lt gy, L m to vc gr and occ pbl size frags, 80% qtz, clr, trnsl, wh, occ smoky gy, orng, sl yelsh and purp col, 20% lt to dk gy lthc grs and wh qtzs grs, mnr wh and crm col ls strgs, tr Pyr, r to a grs, m to p srt, predly uncons grs and gr frags, f gr sd aggs contain abnt calc cmt, inferred p intgran por(3-5%), dk brn o on shaker, vr ptch brn oil stn, tr ptch bri wh dir flor, tr bri wh min flor, dull to bri cut;

SLTST(20%): m gy, gritty, calc cmt, tt; SH(10%): dk gy, blky, slty.

1505-1510 SS(55%): lt gy, L m to U c gr, mnr vc grs, rr pbl size frags tr U vf to U f gr, 85% vcol qtz aa and 10% lthc grs, mnr to ip com kao grs, r to a grs, tr R fros grs, mod to p srt, predly uncons grs, inferred p intgran por(3-5%), brn to blk o on shaker, rr ques spty o stng on grs, tr m and bri yel flor in spl, tr wh halo cut; SH(25%): dk gy, blky and sbfis, micmica, slty; SLTST(20%): lt and m gy gritty tex, calc cmt, arg, tt gritty tex tt.

1510-1515 CGL (100%): polymictic, mud supported, vcol (wh,pk,clr,gn,brn) frags of 80% qtz, chrt, volc and other lith, lt gy arg and c gred mtx, calcs cmt, p intrgrnlr por, tr ques spty o stng on very few grs, fnt yel dir flor, no cut.

1515-1520 CGL (100%): polymictic, mud supported, vcol (wh,pk,clr,gn,brn) frags of 80% qtz, chrt, volc and other lith, lt gy arg mtx, calcs, no s.

1520-1525 CGL(100%): polymictic, pos cly to pbl sup, predly vcol pbl frags ranging from clr and trnsl qtz, orng pk(pos feld), lt to dk gy, smoky gy, brn and tr gn and purple lthc grs, occ wh qtzc grs with abnt sid spec, mnr to ip com U m to U vc fros R uncons qtz grs and tr cht grs, tr ls grs, tr f to m gr sdy mtx, p srt, inferred tt, ns, tr dul yel flor, n cut.

1525-1530 CGL(100%): polymitic, pos pbl sup with a cly mtx, predly vcol pbl frags ranging from lt to dk gy, orng pk, occ yel brn and smoky gy, com lse L m to L vc fros R qtz grs inferred mtx to cgl, mnr wh gy rthy ls grs, inferred tt, rr dull yel flor, n cut.

1530-1535 CGL(100%): polymitic, pbl sup with cly/ sdy mtx, vcol lthc pbl frags aa, ranging from lt to m gy, gy brn, orng pk, occ yel brn, tr gn and clr and trnsl qtz, tr qtzc and ls grs, abnt L m to L c lse fros, R qtz grs, p srt, tr sltst grs, inferred tt, rr v dull yel flor, n cut.

1535-1540 CGL(65%): polymitic, cly/ sdy mtx, vcol lthc pbl frags from lt to m gy, orng yel, gy brn and com clr and trnsl qtz, tr qtzc and ls grs, p srt, inferred tt, rr v dull yel flor, n cut; SS(35%): lt gy, U f to U m gr, com c grs, 75% qtz and 25% vcol lthc grs, predly uncons grs with occ gr aggs showing a pale gy gn clay mtx, a to r grs, mod to p srt, inferred tt to p intgran por(0-3%), ns.

1540-1545 SS(55%): off wh to lt gy, U f to L c gr, mnr U c grs, qtzs to sb lthc with 10% predly dk gy and mnr vcol lthc grs, a to r grs, mod to p srt, predly lse grs, inferred tt to p intgran por(0-4%), ns, tr yel flor, n cut; CGL(45%): polymitic, cly/ sdy mtx, vcol lthc pbl frags aa, tr sltst grs, p srt, inferred tt, rr v dull yel flor, fnt cut.

1545-1550 SS(60%): lt gy, U f to U c gr mnr vc grs, mnr U v fr gr, some grs prob pbl frags, 80% qtz and 20% vcol lthc grs, predly lse grs, com clay mtx in gr aggs, A to r grs, mnr R fros grs, p srt, inferred tt to p intgran por(0-3%), tr yel flor, n cut; CGL(40%): polymitic, cly/ sdy mtx, vcol lthc pbl frags, lt to m gy, orng yel, gy brn and com clr and trnsl qtz, mnr qtzc grs, tr sltst, p srt, inferred tt to tr p intgran por(0-3%), rr v dull yel flor, fnt cut.

1550-1555 CGL(50%): prob sd sup, polymictic, cly/ sdy mtx, vcol pbl frags, lt gy, gn gy, orng pk, crm, bf to brn, yelsh and com wh, clr and trnsl, com qtzc frags, tr sltst grs, p srt, inferred tt; SS(50%): prob sdy mtx in cgl, lt gy, L m to L c gr, com U c and mnr vc grs, 70% clr, trnsl fros qtz and 30% lthc grs, predly uncons grs, com pale gn gy cly mtx ip wxy appnc, a to r grs com R fros grs, mod to p srt, inferred tt.

1555-1560 CGL(70%): prob sd sup, polymictic, cly/ sdy mtx, vcol pbl frags aa, tr sltst grs, p srt, inferred tt; SS(30%): prob sdy mtx in cgl, lt gy, L m to L c gr, com U c and mnr vc grs, 70% clr, trnsl fros qtz and 30% lthc grs, predly uncons grs, com pale gn gy cly mtx ip wxy appnc, a to r grs com R fros, grs, mod to p srt, inferred tt.

1560-1565 CGL(100%): prob cl sup, polymictic, vcol (wh, clr, lt brn, pk, blsh-gr, lt gy, and rr red) cls or frgmt of cls of predly qtz & cht, w/ mnr volc & other lithc frags. Cls are

June 28/13 @ 24h00

June 29/13 @ 24h00

WOB 10.8 kdaN
RPM 40
PR 0.91 m3.min

MW 1095 kg/m3
FV 47 s/L

Bit No. 3
Size: 159mm - PDC
Type: Hughes QD406FX
Depth In: 1509.5m
Depth Out: 1597.60m
Drilled: 88.10
Hours: 30.25
Cond: 2-7-WT-S-X-I-CT-PR

0	ROP (m/hr)	10
0	Total Gas (units)	500
0	Methane (units)	500
0	Propane (units)	500
0	Gamma (API)	150

WOB 13.5 kdaN
RPM 40
PR 0.96m3/min

connection, probably false ROP

1565 1570 1575 1580 1585 1590 1595 1600 1605 1610 1615 1620 1625

5.0 @ 100R

MD 1571.97 TVD 1567.76
INC 4.5 AZ 131

MD 1581.36 TVD 1577.12
INC 4.8 AZ 137

Trip gas of 651 units, pumps off ~8hrs, new BGG established @ 200 units

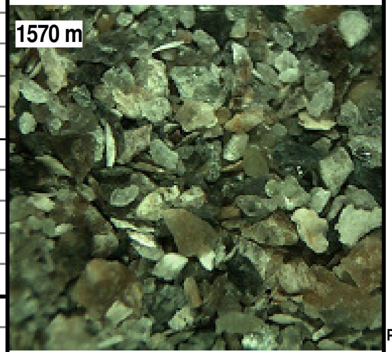
Bit No. 4
Size: 159mm - Tri-Cone
Type: Hughes STX-35DX
Depth In: 1597.6m

-25 Vert Sect 25

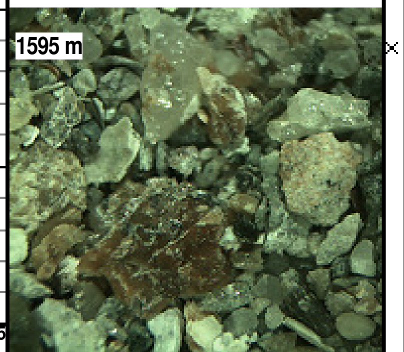
MD 1600.53 TVD 1596.21
INC 5.5 AZ 139.2

MD 1619.39 TVD 1614.99
INC 5.3 AZ 136.7

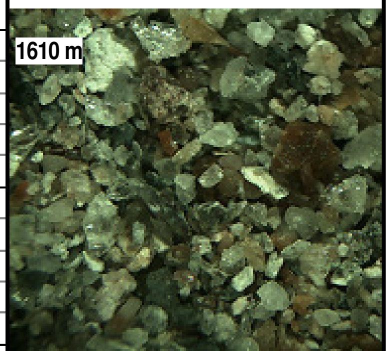
1570 m



1595 m

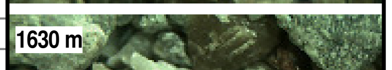


1610 m



1620 m

1630 m



2 REF 5

0	GR (API)	200
159	CAL (mm)	300

45	ZDEN (pu)	-15
45	CNSS (pu)	-15

M2R2 (ohm.m) 1 10 1000 10e4
M2R3 (ohm.m) 1 10 1000 10e4
M2R6 (ohm.m) 1 10 1000 10e4
M2R9 (ohm.m) 1 10 1000 10e4

inferred to be from m gred sd up to bldr sized. Prob grdg to and from pbly ss (feldspathic litharenite). m - c gred, composition simialr to cgl, tt to p por, no shows.

1565-1570 CGL(100%): prob cl sup, polymictic, vcol (wh, clr, lt brn, pk, blsh-gr, lt gy, and rr red) cls or frgmt of cls of predly qtz & cht, w/ mnr volc & other lithc frags. Cls are inferred to be from m gred sd up to bldr sized. Prob grdg to and from pbly ss (feldspathic litharenite). tt to p por, no shows.

1570-1575 CGL(100%): prob cl sup, polymictic, vcol (wh, clr, lt brn, pk, blsh-gr, lt gy, and rr red) cls or frgmt of cls of predly qtz & inc cht, w/ mnr volc & other lithc frags. Cls are inferred to be from m gred sd up to bldr sized. Prob grdg to and from pbly ss (feldspathic litharenite). tt to p por, <5% ctgs have pale to dull min flor, no shows.

1575-1580 CGL(100%): prob cl sup, polymictic, vcol (wh, clr, lt brn, pk, blsh-gr, lt gy, and rr red) cls or frgmt of cls of predly qtz & inc cht, w/ mnr volc & other lithc frags. Cls are from m gred sd up to bldr sized inferred). Prob grdg to and from pbly ss (feldspathic litharenite), as seen by ctgs of m gred ss (mtx of cgl??) tt to p por, no shows.

1580-1585 CGL(100%): prob cl sup, polymictic, vcol (wh, clr, lt brn, pk, blsh-gr, lt gy, and rr red) cls or frgmt of cls of predly qtz & inc cht, w/ mnr volc & other lithc frags. Cls are from m gred sd up to bldr sized inferred). Prob grdg to and from pbly ss (feldspathic litharenite), as seen by ctgs of m gred ss (mtx of cgl??) tt to p por, no shows.

1585-1590 CGL(100%): prob sd/ pbl sup, polymictic, vcol, predly clr, wh, orng pk, off wh to crm, mnr lt gy, sl gn gy and occ brn pbl frags, com pk pbl frags appear granitic like, mnr cht, ls and qtzc pbl frags, abnt L m to U c gr a to R ip fros predly lse qtz grs, mnr pale gy to gy gn cly mtx infill in occ vis sd aggs, sl calc mtx, sd and cly prob mtx infill between pbls and larger size cls, inferred tt; tr dull and rr bri yel mineral flor, n cut.

1590-1595 CGL(100%): prob sd/ pbl sup, polymictic, vcol, predly clr, wh, orng pk, lt to m gy, sl gn gy, off wh to bf and occ brn and red brn pbl frags, Predly granitic like, mnr cht, ls and qtzc pbl frags, abnt L m to L c gr a to R ip fros predly lse qtz grs, mnr to ip com pale gy to gy gn cly mtx infill in sd agg cuttings, mod calc mtx, sd and cly prob mtx infill between pebs and larger size cls, inferred tt; tr dull yel mineral flor, n cut.

1595-1600 CGL(100%): polymictic, prob cls sup, vcol (wh,clr, pk, orng, lt gy, gn gy, bf and brn) frags of qtz,cht and lith frags. Inc in L m to U C sd grs in spl (grdg - from pebbly ss or inc in mtx??). Wkly calcs, p por , no flor, fnt to ple cut.

1600-1605 CGL(100%): polymictic, prob cls sup, vcol (wh,clr, pk, orng, lt gy, gn gy, bf and brn) frags of qtz,cht and lith frags. Inc in L m to U C sd grs in spl (grdg - from pebbly ss or inc in mtx??). Wkly calcs, p por , no s.

1605 - 1610 CGL(100%): polymictic, prob cls sup, vcol (wh,clr, pk, orng, lt gy, gn gy, bf and brn) frags of qtz,cht and lith frags (volcs, metamorphics). L m to U C sd grs in spl (grdg - from pebbly ss or inc in mtx??). Wkly calcs, p por , no s.

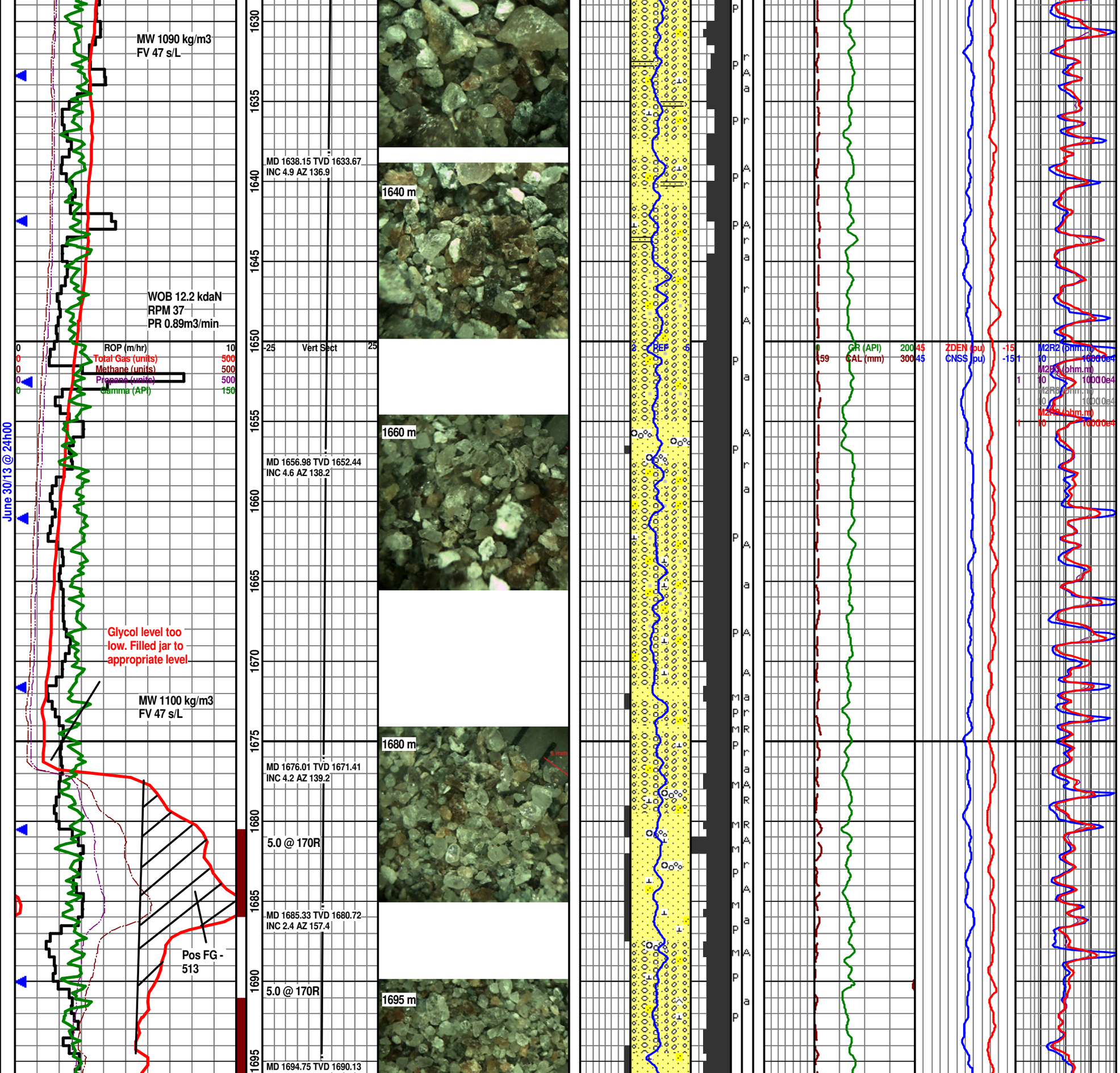
1610-1615 CGL(70%): polymictic, prob cls sup, bcmg mtx sup??, vcol (wh,clr, pk, orng, lt gy, gn gy, bf and brn) frags of qtz,cht and lith frags (volcs, metamorphics ie. see photos). L m to U C, r to a sd grs in spl (grdg - from pebbly ss or inc in mtx??). Wkly calcs, p por , no s. SS(30%) questionable ss (mtx for mtx sup cgl or grdg to peb cgl?); inc in L m qtz grs, (sub litharenite if ss), r to a grs, mod srt, p intrgrnlr por, no os.

1615-1620 CGL(100%): c cuttings spl, prob sd/ pbl sup, polymictic, vcol, predly orng pk, wh and clr, lt to m gy and occ dk gy, mnr red brn and gy brn pbl frags, predly granitic like with occ desm mica flks, mnr cht, qtzc and rr ls pbl frags, com L m to U c gr sdy mtx with occ tr pale gn gy clay like mtx, a to A grs and rr R fros c gr lse qtz grs, com calc mtx, inferred tt, rr m yel mineral flor, n cut.

1620-1625 CGL(100%): c cuttings spl, prob sd/ pbl sup, polymictic, vcol, predly orng pk, wh and clr, lt to m gy and occ dk gy, mnr red brn and gy brn pbl frags, predly granitic like with occ desm mica flks, mnr cht, qtzc and rr ls pbl frags, com L m to U c gr sdy mtx with ip mnr pale gn gy clay like mtx, a to A grs and rr R fros c gr lse qtz grs, com calc mtx, inferred tt, n flor, n cut.

Samples 1620-1630m were not processed through coarse seive at the shaker and cuttings in sample are coarse as a result.

1625-1630 CGL(100%): prob sd/ pbl sup, polymictic, vcol, orng pk, lt to m gy and occ dk gy, wh and clr, mnr red brn and gy brn pbl frags, predly granitic like, mnr cht, qtzc and rr ls(tr foss) pbl frags, com L m to L c gr sdy mtx with ip mnr pale gn gy clay like mtx, A to r grs and mnr to com R fros m and c gr lse qtz grs, com calc mtx, inferred tt, tr yel



flor, n cut; SS(Tr): lt gy, L and U vf gr, occly grdg to sltst, qtzc, tr lthc grs, silc and calc cmt, tt.

1630-1635 CGL(100%): prob sd/ pbl sup, polymictic, vcol, abnt wh, clr and orng pk, mnr lt to m gy and tr dk gy, mnr red brn and gy brn pbl frags, predly granitic like, mnr cht, qtzc and rr ls pbl frags, abnt m gr to L c and ip U f gr sd mtx interpreted as mtx mat with occ pale gn gy clay like mtx infill, A to r grs and com R fros m and c gr lse qtz grs, com calc mtx, inferred tt, tr dull yel mineral flor, n cut.

1635-1640 SS(100%): ques mtx sd in a sd sup cgl, with the c pbl frags being collected on the c seive, lt gy, L m to L c gr, mnr U c grs, mnr vc grs and com vcol pbl frags aa, 70% clr, trnsl and ip fros qtz grs and 30% vcol lthc grs ranging from pk, lt and m gy and red brn, same as col of pbl frags in previous samples, could be pos pbl frags, A to r grs and mnr R grs, mod to p srt, predly uncons grs, calc cmt, inferred tt, rr yel flor, n cut.

1640-1645 SS(100%): ques mtx sd in a sd sup cgl, with majority of the c pbl frags being collected on the c sieve, sd is lt gy, L m to U c gr, mnr vc grs and com vcol pbl frags aa, 70% clr, trnsl, fros and tr purplish trnsl qtz grs and 30% vcol lthc grs ranging from pk, lt gy, brn and red brn, same col of pbl frags in previous samples, prob pbl frags, A to r grs and com R grs, mod to p srt, predly uncons grs, calc cmt, inferred tt, rr yel flor, n cut.

1645-1650 CGL (100%): polymictic, vcol cls (clr, wh, pk, gn gy, lt gy, orng, prplsh); frags of pbl cls in cgl, frags are a to A, though some rr R edges may be observed, majority of spl is L m to L c sd, prob as mtx for cgl, or grdg to and from cgl, "ss" ctgs are predly clr to trnsl qtz grs (sub lith arenite if ss), U f to m grs, r to a, mod srt, mod cmtd w/ calcs and sil cmt, p por, no oil shows.

1650-1655 CGL (100%): polymictic, mtx sup??, vcol cls (clr, wh, pk, gn gy, lt gy, orng, prplsh); frags of pbl cls in cgl, frags are a to A, though some rr R edges may be observed, majority of spl is L m to L c cls of qtz, prob as mtx for cgl, or grdg to and from cgl, slight inc in "ss" ctgs, predly clr to trnsl qtz grs (sub lith arenite if ss), U f to m grs, r to a, mod srt, mod cmtd w/ calcs and sil cmt, p por, no oil shows.

1655-1660 CGL (100%): polymictic, mtx sup??, vcol cls (clr, wh, pk, gn gy, lt gy, orng, prplsh); frags of pbl cls in cgl, frags are a to A, though some rr R edges may be observed, majority of spl is L m to L c cls of qtz, prob as mtx for cgl, or grdg to and from cgl, slight inc in "ss" ctgs, predly clr to trnsl qtz grs (sub lith arenite if ss), U f to m grs, r to a, mod srt, mod cmtd w/ calcs and sil cmt, p por, no oil shows.

1660-1665 CGL (100%): polymictic, mtx sup??, vcol cls (clr, wh, pk, gn gy, lt gy, orng, prplsh); frags of pbl cls in cgl, frags are a to A, though some rr R edges may be observed, majority of spl is L m to L c cls of qtz, prob as mtx for cgl, or grdg to and from cgl, slight inc in "ss" ctgs, predly clr to trnsl qtz grs (sub lith arenite if ss, else mtx for CGL), U f to m grs, r to a, mod srt, mod cmtd w/ calcs and sil cmt, p por, no oil shows.

1665-1670 CGL (100%): polymictic, vcol cls (clr, wh, pk, gn gy, lt gy, orng, prplsh); frags of pbl cls in cgl, frags are a to A, though some rr R edges may be observed, majority of spl is L m to L c cls of qtz, prob as mtx for cgl, or grdg to and from cgl, slight inc in "ss" ctgs, predly clr to trnsl qtz grs (sub lith arenite if ss, else mtx for CGL), U f to m grs, r to a, mod srt, mod cmtd w/ calcs (spl in general is more calcs then above) and sil cmt, p por, no oil shows.

1670-1675 CGL(100%): sd/ pbl sup polymictic cgl grdg to pbly ss, spl comprises 65% clr, trnsl and occ fnt purplish qtz grs and 35% lthc frags, frags are predly pale orng pk with mnr lt to m gy and occ dk gy, red brn and brn pbl frags, pbl frags appear A to a and L m to U c gr with mnr vc gr, qtz grs are predly U f to U m and occ L c gr, uncons, r to a with mnr R fros grs, mod srt, occ gr aggs show mnr pale gn gy clay like mtx, calc ip, prob sb lithar inferred tt, n flor, n cut.

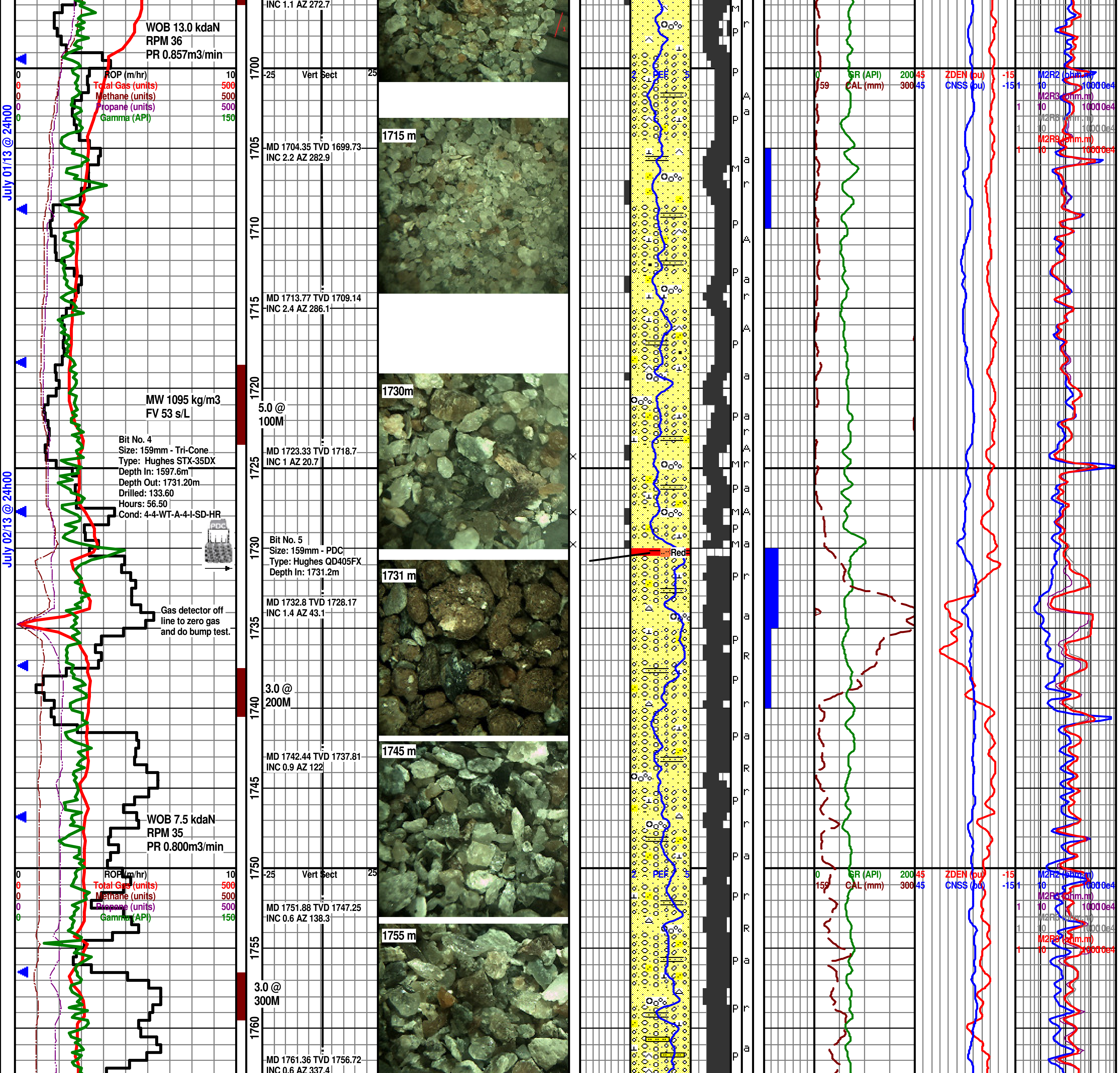
1675-1680 CGL(100%): sd/ pbl sup polymictic cgl grdg to pbly ss, spl comprises 70% clr, trnsl and tr purplish qtz grs and 30% lthc frags, frags are predly pale orng pk with mnr lt to m gy, tr dk gy, red brn, brn and rr purplish pbl frags, tr cht like grs/ frags observed, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly U f to U m and occ L c gr, uncons, r to a, mnr R fros grs, mod srt, calc ip, prob sb lithar, inferred tt.

1680-1685 CGL(100%): sd/ pbl sup polymictic cgl grdg occly to pbly ss, spl comprises 65% clr, trnsl and tr purplish qtz grs and 35% lthc frags, frags are predly pale orng pk with mnr lt to m gy, tr dk gy, lt to dk brn and rr purplish pbl frags, tr cht frags, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly U f to U m and occ L c gr, predly uncons, mnr clay mtx, A to r grs, mnr R fros grs, mod srt, calc ip, prob sb lithar, inferred tt, tr yel flor.

1685-1690 CGL(100%): sd/ pbl sup polymictic cgl grdg occly to pos pbly ss, spl comprises 65% clr, trnsl and tr purplish qtz grs and 35% lthc frags, frags are predly pale orng pk and yel brn with mnr lt to m gy, tr dk gy, lt to dk brn, tr cht and qtz frags, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly U f to U m and occ L c, occly U c gr, predly uncons, mnr to com gn gy clay mtx, A to r grs, mnr R fros grs, mod srt, calc, inferred tt, tr dull yel flor, n cut.

1690-1695 CGL(100%): sd/ pbl sup polymictic cgl grdg occly to pos pbly ss, spl comprises 65% clr, trnsl and rr purplish qtz grs and 35% lthc frags, frags are predly pale orng pk, brn and gy aa, occ cht and qtz pbl frags, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly L to U m gr and occ U f and L c gr, predly uncons grs, mnr gn gy clay mtx, A to r grs, mnr R fros grs, mod srt, calc, inferred tt, tr dull yel flor, n cut.

1695-1700 CGL(100%): unwashed coarse spl shows signs of gy clv + vf sd mtx



1695-1700 CGL(100%): unwashed coarse spl shows signs of gy cly + vf sd mtx, otherwise pos cls sup polymictic cgl grdg occly to pbly ss, spl comprises 50% clr, trnsl qtz grs and 50% lthc frags, frags are predly pale orng pk, brn and gy, occ cht and qtz pbl frags, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly L to U m gr and occ U f and L c gr, predly uncons grs, p srt, calc and sil cmt, tt, no oil shows.

1700-1705 CGL(100%): unwashed coarse spl shows signs of gy cly + vf sd mtx, otherwise pos cls sup polymictic cgl grdg occly to pbly ss, spl comprises 50% clr, trnsl qtz grs and 50% lthc frags, frags are predly pale orng pk, brn and gy, occ cht and qtz pbl frags, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly L to U m gr and occ U f and L c gr, predly uncons grs, p srt, calc and sil cmt, tt, no oil shows.

1705-1710 CGL(100%): unwashed coarse spl shows signs of gy cly + vf sd mtx, otherwise pos cls sup polymictic cgl grdg occly to pbly ss, spl comprises 70% clr, trnsl qtz grs and 30% lthc (inc in ls and gyp??) frags, frags are predly pale orng pk, brn and gy, occ cht and qtz pbl frags, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly L to U m gr and occ U f and L c gr, predly uncons grs, p srt, calc and sil cmt, tt, no flor, fnt cut.

1710-1715 CGL(100%): unwashed coarse spl shows signs of gy cly + vf sd mtx, otherwise pos cls sup polymictic cgl grdg occly to pbly ss, spl comprises 80% clr, trnsl qtz grs (cgl mtx or m to c gr ss??) and 20% lthc (inc in ls and gyp??) frags, frags are predly pale orng pk, brn and gy, occ cht and qtz pbl frags, pbl frags appear A to a and L m to U c gr size with mnr vc gr, qtz grs are predly L to U m gr and occ U f and L c gr, predly uncons grs, p srt, calc and sil cmt, tt, no oil shows.

1715-1720 CGL(100%): unwashed coarse spl shows signs of gy cly + vf sd mtx, otherwise pos cls sup polymictic cgl grdg occly to pbly ss, spl comprises 80% clr to trnsl qtz grs (cgl mtx or m to c gr ss??) and 20% lthc (inc in ls and gyp??) frags, frags are predly pale orng pk, brn and gy, occ cht and qtz pbl frags, pbl frags appear A to a, qtz grs are predly L to U m gr and occ U f and L c gr, predly uncons grs, p srt, calc and sil cmt, tt, no oil shows.

1720-1725 CGL(100%): polymictic cgl with sdy mtx, estimate 40% lthc and occ qtz pbl frags, frags predly orng pk col, mnr lt to dk gy, bf to brn and occly clr qtz frags, mnr cht and ls/ dolc frags, estimate 70% qtz grs and gr frags, predly L m to L c gr, occ U c and U f gr, predly uncons grs, mnr to com gn gy clay mtx and mnr wh calc mtx, A to r grs, mnr R to w R fros grs, mod srt, calc, inferred tt inferred tt to por intgran por based on mnr gas response(0-3%), rr dull yel flor, n cut.

1725-1730 CGL(100%): polymictic cgl with sdy mtx, estimate 30% lthc and occ qtz pbl frags, frags predly orng and ip yelsh pk col, mnr lt to dk gy, bf, brn and occly clr qtz frags, mnr cht frags present, estimate 60% qtz grs and gr frags, predly L m to L c gr, ip U c and U f gr, predly uncons grs, mnr to com gn gy clay mtx and mnr wh calc mtx, A to r grs, mnr R fros grs, mod srt, calc, inferred tt to por intgran por based on mnr gas response(0-3%), rr dull yel flor, n cut.

1730-1735 CGL(100%): polymictic cgl with sdy mtx, estimate 60% vcol pbl frags, frags predly orng and yelsh pk, lt to dk gy, gn gy, bf to brn and occly clr qtz frags, mnr cht frags, estimate 40% qtz grs and gr frags, clr and trnsl, tr fnt purple trnsl, L m to L c gr, ip U f and tr L and U c grs, predly uncons grs, mnr to com gn gy clay grs, prob mtx, a to r grs, mnr R fros grs, mod to p srt, calc, inferred tt, com dull to bri yel flor, fnt to ple cut.

1735-1740 CGL(100%): polymictic cgl with sdy mtx, estimate 40% vcol pbl frags, frags predly orng pk, clr and trnsl qtz, lt to dk gy, gn gy, bf to brn and tr purple, mnr cht, qtzs, tr red brn sltst and ls/ dolc pbl frags, estimate 60% qtz grs and gr frags, clr and trnsl, tr fnt purple trnsl, U f to L c gr, mnr U c gr, abnt uncons grs, mnr to com gn gy clay grs, prob mtx, a to r grs, mnr R fros grs, p srt, calc, inferred tt, com dull to bri yel flor, fnt cut.

1740-1745 CGL(100%): polymictic cgl with sdy mtx, estimate 65% vcol pbl frags, frags crm to bf and lt gy, mnr dk gy, orng pk, red brn and brn, occ wh and clr qtz frag, mnr cht, abnt wh qtzc frags, tr ls/ dolc and rr reddish sltst pbl frags, estimate 35% qtz grs and gr frags, clr and trnsl, tr fnt purple trnsl, rr Pyr, L m to L c gr, mnr U c and vc grs, abnt uncons grs, mnr pale gn gy clay grs, prob mtx, a to r grs, mnr R fros grs, p srt, calc, inferred tt, tr dull yel flor, n cut.

1745-1750 CGL(100%): polymictic cgl with sdy mtx, estimate 45% vcol pbl frags, frags crm to bf and lt gy, rr dk gy, com wh and occ clr qtz, com fnt to m orng pk, sl yelsh to yel brn, mnr cht, abnt wh qtzc frags, tr ls/ dolc frags, estimate 55% qtz grs and gr frags, clr and trnsl, tr fnt purple trnsl, rr Pyr, L m to L c gr, mnr U c and vc grs, abnt uncons grs, mnr pale gn gy clay grs, prob mtx, a to r grs, mnr R fros grs, p srt, calc, inferred tt, rr dull yel flor, n cut.

1750-1755 CGL(100%): polymictic cgl with sdy mtx, estimate 50% vcol pbl frags, frags crm to bf and lt gy to tr dk gy, com orng pk and yelsh to pale brn, com wh to off wh and occly clr qtz, mnr cht, com wh qtzc frags, tr ls/ dolc frags, estimate 50% qtz grs and gr frags, clr and trnsl, tr fnt purple trnsl, rr Pyr in pbls, L m to L c gr, mnr U f and U c to vc grs, abnt uncons grs, mnr to com pale gn gy clay grs, prob mtx, a to r grs, mnr R fros grs, p srt, calc, inferred tt, n flor, n cut.

1755-1760 CGL(100%): polymictic cgl with sdy mtx, estimate 40% vcol pbl frags, frags predly crm to bf, wh and trnsl, orng pk ip yelsh, lt and m gy with tr dk gy, pale brn, mnr cht, com qtzc frags, tr ls/ dolc frags, estimate 60% qtz grs and gr frags, clr and trnsl, tr fnt purple trnsl, L m to L c gr, mnr U f and U c to vc grs, abnt uncons grs, mnr to com pale gn gy clay grs, prob mtx, a to r grs, mnr R fros grs, p srt, tt, rr v dull yel flor, n cut.

1760-1765 CGL(100%): polymictic, cls sup, 100% vcol pbl frags (wh, clr, orng, pk, gn gy) of qtz, cht, fldsp, and other lithic frags (felsic volcs?? and metamorphic rocks??, ls/dolc). All uncons frags, ie. no ctgs showing grain aggregates (cls sup w/ gy mud

July 03/13 @ 24h00

July 04/13 @ 24h00

July 07/13 @ 24h00

MW 1095 kg/m3
FV 49 s/L

WOB 11.7 kdaN
RPM 33
PR 0.875m3/min

Bit No. 5
Size: 159mm - PDC
Type: Hughes QD405FX
Depth In: 1731.2m
Depth Out: 1786.15m
Drilled: 55.03
Hours: 21.50
Cond: 6-5-WT-A-X-I-CT-PR

POOH to change bit and test blind rams. Dropped packer down hole and fished for 3 days. Negligible Trip Gas of 79 units over 19 units BGG (~80hrs pumps "off")

Bump test gas detector - 230 units

Windshield washer fluid was exchanged for glycol as a drier in gas detector

WOB 12.5 kdaN
RPM 40
PR 0.852 m3/min

0	ROP (m/hr)	10
0	Total Gas (units)	500
0	Methane (units)	500
0	Propane (units)	500
0	Gamma (API)	150

MW 1095 kg/m3
FV 49 s/L

1765 1770 1775 1780 1785 1790 1795 1800 1805 1810 1815 1820 1825 1830

MD 1770.76 TVD 1766.12
INC 0.8 AZ 340.1

MD 1780.17 TVD 1775.53
INC 1.1 AZ 333.1

Bit No. 6
Size: 159mm - Tri-cone
Type: Hughes
STX-40DX
Depth In: 1786.15m

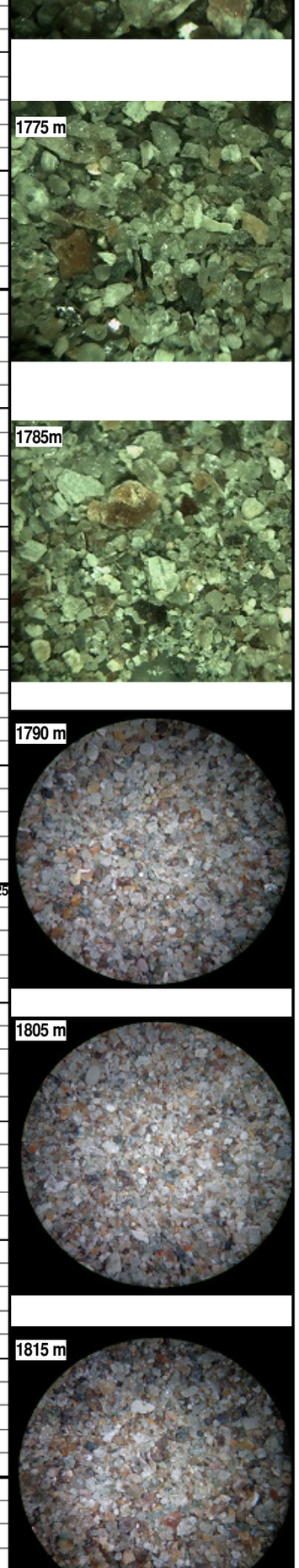
MD 1789.59 TVD 1784.95
INC 1.3 AZ 336.4

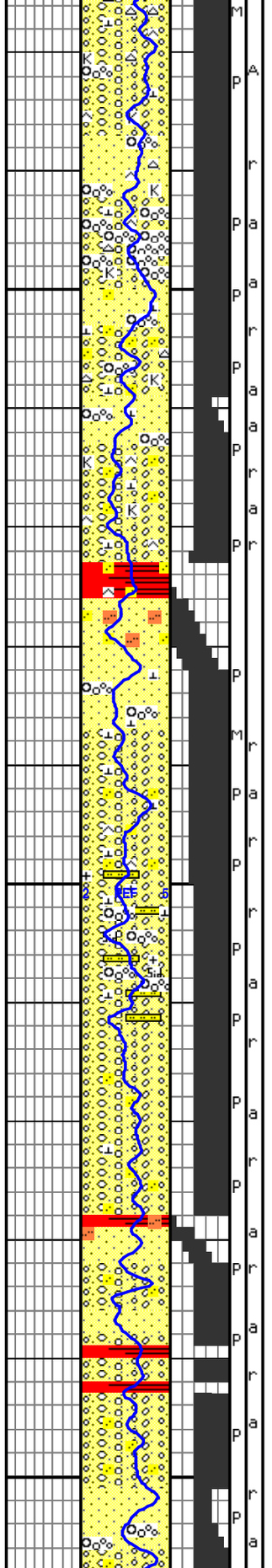
MD 1798.98 TVD 1794.34
INC 1.3 AZ 337.8

MD 1808.47 TVD 1803.83
INC 1.4 AZ 343.3

MD 1817.87 TVD 1813.22
INC 1.4 AZ 342.8

MD 1827.31 TVD 1822.66
INC 1.4 AZ 340.2





0	GR (API)	200	45	ZDEN (pu)	-15	M2R2 (ohm.m)
150	CAL (mm)	300	45	CNSS (pu)	-15	1 10 10000e4

mtx???). Frags are a to A, rr R on one side, p srt, p por inferred, tr dull orng min flor, no cut.

1765-1770 CGL(100%): polymictic, cls sup, 100% vcol pbl frags (wh, clr, orng, pk, gn gy) of qtz, cht, fldsp, and other lithic frags (felsic volcs?? and metamorphic rocks??, ls/dol). All uncons frags, ie. no ctgs showing gain aggregates (cls sup w/ gy mud mtx???). Frags are a to A, rr R on one side, presence of kaol, sl calcs, calcs and sil cmt inferred, p srt, p por inferred, tr dull orng min flor, no cut.

1770-1775 CGL(100%): polymictic, cls sup, pos bcmg more cls sup downhole, spl composed predly of m to U c vcol (pk,wh,clr,orng,gn gy,brn,crm,lt brn) frags of pbl ++ cls. Inc qtz grs/frags in this spl then two above (peb ss bed or inc in mtx%??). "SS" ctgs have a to r grs, are m to c gred, mod to w cmtd w/ sil and clacs cmt, p por, no shows.

1775-1780 CGL(100%): polymictic, cls sup, but w/ inc mtx, spl composed of m to U c vcol (pk,wh,clr,orng,gn gy, brn, crm,lt brn) frags of pbl ++ cls. Inc kaol, abnt qtz grs/frags (peb ss bed or inc in mtx%??). "SS" ctgs have a to r grs, are m to c gred, mod to w cmtd w/ sil and clacs cmt, p por, no oil shows. Spl has <5% dull orng min flor

1780-1785 CGL (100%): polymictic, cls sup, but w/ inc mtx, spl composed of m to U c vcol (pk,wh,clr,orng,gn gy, brn, crm,lt brn) frags of pbl ++ cls. Inc kaol, abnt qtz grs/frags (peb ss bed or inc in mtx%??). "SS" ctgs have a to r grs predly of qtz, w/ mnr lthc grs (sblithar, similar in composition as CGL frags), are m to c gred, mod to w cmtd w/ sil and clacs cmt, p por, no oil shows.

1785-1790 CGL(100%): polymictic cgl with sdy calc mtx, estimate 40% vcol pbl frags ranging from orng pk, brn, bf, lt gy, lt gn, dk gn, estimate 60% sdy calc mtx, predly clr and trnsl qtz grs with estimate 10-20% lthc grs, ip sb lithar, med to f grs, abnt uncons grs, r grs, mnr R fros grs, p srt, tt, v fnt flor ip, v fnt cut.Red mud spotted at shakers but not represented in washed sample.

1790-1795 CGL(100%): polymictic cgl with sdy calc mtx, estimate 30% vcol pbl frags ranging from wh, orng pk, brn, bf, lt gy, lt gn, dk gn, estimate 70% sdy calc mtx, predly clr and trnsl qtz grs with estimate 10-20% lthc grs, pos grdg - sb lithar, med to f grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. Red mud spotted at shakers but not represented in washed sample.

1795-1800 CGL(100%): polymictic cgl with sdy calc mtx, estimate 70% vcol pbl frags ranging from wh, orng pk, brn, bf, lt gy, lt gn, dk gn, estimate 30% sdy calc mtx, predly clr and trnsl qtz grs with estimate 10-20% lthc grs, <10% fld, (pos grdg - sb lithar), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows.

1800-1805 CGL(100%): polymictic cgl, bcmg more cls sup, with sdy calc mtx, estimate 80% vcol pbl frags ranging from wh, orng pk, brn, bf, lt gy, lt gn, dk gn, estimate 20% sdy calc mtx, predly clr and trnsl qtz grs with estimate 10-20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. Red mud spotted at shakers but not well represented in sample (<5% red sltst ctgs, else spty red stng on few qtz grs, siderite??)

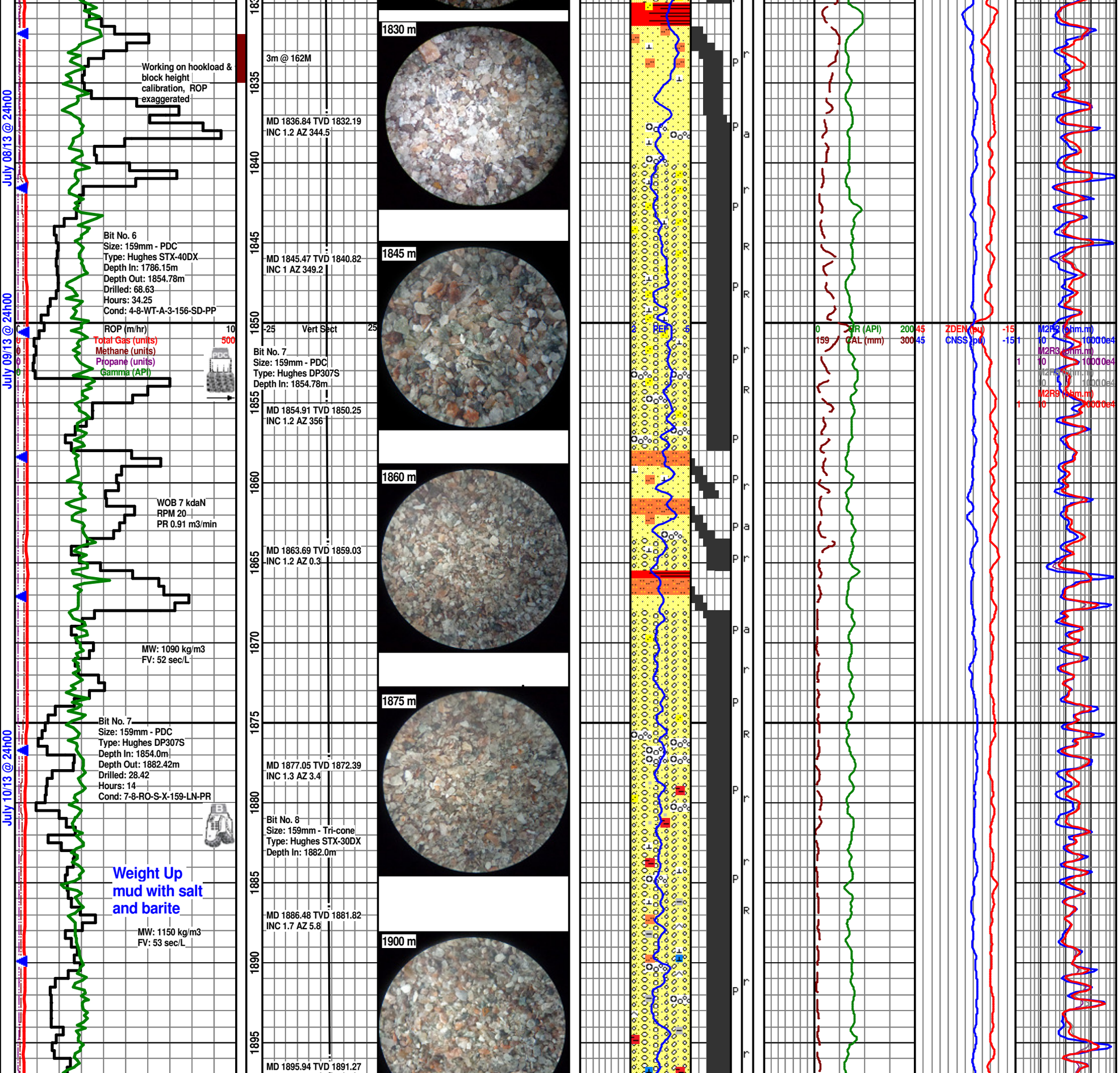
1805-1810 CGL(80%): polymictic cgl, more cls sup, with sdy calc mtx, estimate 80% vcol pbl frags ranging from wh, orng pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 20% sdy calc mtx, predly clr and trnsl qtz grs with estimate 10-20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. RED CLAY to SILT (20%): red sltst to clyst, spty red stng on few qtz grs, (siderite??)

1810-1815 CGL(100%): polymictic cgl, bcmg more matrix sup?, with sdy calc mtx, estimate 60% vcol pbl frags ranging from wh, orng pk, brn, bf, lt gy, lt gn, dk gn, estimate 40% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20-30% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. tr red cly to slt.

1815-1820 CGL(100%): polymictic cgl, matrix sup, with sdy calc mtx, estimate 30% vcol pbl frags ranging from wh, orng, brn, bf, lt gy, lt gn, dk gn, estimate 70% sdy calc mtx, predly clr and trnsl qtz grs with estimate 10% lthc grs, 30% fld, (pos grdg - lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows.

1820-1825 CGL(90%): polymictic cgl, more mtx sup?, with sdy calc mtx, estimate 40% vcol pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 60% sdy calc mtx, predly clr and trnsl qtz grs with estimate 30% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. RED CLAY to SILT (10%): red sltst to clyst.

1825-1830 CGL(70%): polymictic cgl, more mtx sup?, with sdy calc mtx, estimate 40% vcol pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 60% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. RED CLAY to SILT (30%): red sltst to clyst.



1830-1835 CGL(90%): polymictic cgl, more mtx sup?, with sdy calc mtx, estimate 30% vcol pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 70% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. RED CLAY to SILT (10%): red sltst to clyst.

1835-1840 CGL(90%): polymictic cgl, more mtx sup?, with sdy calc mtx, estimate 30% vcol pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 70% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, abnt uncons r grs, mnr R grs, p srt, tt - p por, no shows. RED CLAY to SILT (10%): red sltst to clyst.

1840-1845 CGL(90%): polymictic cgl, more cls sup, with only mnr sdy calc mtx, estimate 80% vcol A to a pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 20% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% (of mtx) lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (10%): red sltst to clyst, majority washed during cleaning of sample.

1845-1850 CGL(90%): polymictic cgl, more cls sup, with only mnr sdy calc mtx, estimate 90% vcol A to a pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 10% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (10%): red sltst to clyst, majority washed during cleaning of sample.

1850-1855 CGL(90%): polymictic cgl, more cls sup, with only mnr sdy calc mtx, estimate 90% vcol A to a pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 10% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (10%): red sltst to clyst, majority washed during cleaning of sample.

1855-1860 CGL(80%): polymictic cgl, more cls sup, with only mnr sdy calc mtx, estimate 70% vcol A to a pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 30% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (20%): red sltst to clyst, majority washed during cleaning of sample. Percentage estimated by looking at unwashed coarse cut.

1860-1865 CGL(80%): polymictic cgl, more cls sup, with only mnr sdy calc mtx, estimate 70% vcol A to a pbl frags ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 30% sdy calc mtx, predly clr and trnsl qtz grs with estimate 20% lthc grs, 10% fld, (pos grdg - sb lithar/lith subark), f to med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (20%): red sltst to clyst, majority washed during cleaning of sample. Percentage estimated by looking at unwashed coarse cut.

1865-1870 CGL(90%): polymictic cgl, cls sup, with only mnr sdy calc mtx, estimate 90% vcol A to a grvl frags? predy clr and trnsl qtz grns, others ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 10% sdy calc mtx, clr and trnsl qtz grs with estimate 20% lthc grs, 30% fld, (pos grdg - sb lithar/lith subark), f to med grs, a to r, p srt, tt - p por, no shows.

RED CLAY to SILT (10%): red sltst to clyst, majority washed during cleaning of sample. Percentage not representative of shakers red color.

1870-1875 CGL(90%): polymictic cgl, cls sup, with only mnr sdy calc mtx, estimate 90% vcol A to a grvl frags? ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 10% sdy calc mtx, clr and trnsl qtz grs with estimate 20% lthc grs, 30% fld, (pos grdg - sb lithar/lith subark), med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (10%): red sltst to clyst, majority washed during cleaning of sample. Percentage not representative of shakers red color.

1875-1880 CGL(95%): polymictic cgl, cls sup, with only mnr sdy calc mtx, estimate 95% vcol A to a grvl frags? ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 5% sdy calc mtx, which the majority is clr and trnsl qtz grs with estimate 20% lthc grs, 30% fld, (pos grdg - sb lithar/lith subark), med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (5%): red sltst to clyst, pos as mtx for cgl as seen in several ctgs, or grdg to red sltst. Majority is washed away.

1880-1885 CGL(95%): polymictic cgl, cls sup, with only mnr sdy calc mtx, estimate 95% vcol A to a grvl frags? ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, estimate 5% sdy calc mtx, which the majority is clr and trnsl qtz grs with estimate 20% lthc grs, 30% fld, (pos grdg - sb lithar/lith subark), med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (5%): red sltst to clyst. Majority is washed away.

1885-1890 CGL(95%): polymictic cgl, cls sup, with only mnr sdy calc mtx, estimate 95% vcol A to a grvl frags? ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, rr ls clast, estimate 5% sdy calc mtx, which the majority is clr and trnsl qtz grs with estimate 20% lthc grs, 30% fld, (pos grdg - sb lithar/lith subark), med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (5%): red sltst to clyst. Majority is washed away. mtx vari btw red and cristallized.

1890-1895 CGL(95%): polymictic cgl, cls sup, with only mnr sdy calc mtx, estimate 95% vcol A to a pebble frags? ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, rr ls clast, estimate 5% sdy calc mtx, which the majority is clr and trnsl qtz grs with estimate 20% lthc grs, 30% fld, (pos grdg - sb lithar/lith subark), med grs, a to r, p srt, tt - p por, no shows. RED CLAY to SILT (5%): red sltst to clyst. Majority is washed away. mtx vari btw red and cristallized.

1895-1900 CGL(95%): polymictic cgl, cls sup, with only mnr sdy calc mtx, estimate 95% vcol A to a pebble frags? ranging from wh, orng, pk, yel, brn, bf, lt gy, lt gn, dk gn, v com ls clast, estimate 5% sdy calc mtx, which the majority is clr and trnsl qtz grs with

July 11/13 @ 24h00

ROP (m/hr) 0 10
Total Gas (units) 0 500
Methane (units) 0 500
Propane (units) 0 500
Gamma (API) 0 150

-25 Vert Sect 25

MD 1905.34 TVD 1900.67
INC 2.1 AZ 12.7

MD 1914.83 TVD 1910.15
INC 2.1 AZ 5.9

MD 1925.11 TVD 1920.42
INC 1.7 AZ 356.6

1905 m

1915 m

2 PEF 5

0 GR (API) 200 45
159 CAL (mm) 300 45

ZDEN (pu) -15
CNSS (pu) -15 1

M2R2 (ohm.m) 1 10 10000e4
M2R3 (ohm.m) 1 10 10000e4
M2R6 (ohm.m) 1 10 10000e4
M2R9 (ohm.m) 1 10 10000e4

1900-1905 SS(90%): sub arkose to quartz arenite, clr to wh,U f to U m, rr L c grs, predly uncons r grs of clr to trnsl qtz, 5% fldsp (associated with ss) <5 % lthc frags, p cmtd w/ sils cmt, mod srtd, 3-5% por inf (uncons grs), tr sptty pale yel dir flor, no cut, oil sptd @ shakers. LS (5%) crm - bf,microxln, p por, no shows. LS not well represented in 1905 spl, but was observed in spot sample @ 1903.5m.CGL (5%) polymictic,cls sup, vcol a frags of various lthc frags (granite, gabbro, metaseds).

1905-1910 CGL(80%): polymictic, cls sup, vcol a frags of qtz, kspar -chrt, mnr LS and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(20%): sub arkose, clr to wh, mnr dk grn, L f to U m, rr U c grs, predly (90%) r grs of clr to trnsl qtz, 5% fldsp, <5 % lthc frags, p cmtd w/ sils cmt, mod srtd, 0-3% por inf (uncons grs), Tr dull orng min flor (DOL??), no cut.

1910-1915 CGL(50%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, mnr LS?? and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(50%): sub arkose to quartz arenite, clr to wh, mnr dk grn, L f to U m, rr U c grs, predly (90%) a - r grs of clr to trnsl qtz, 5% fldsp, <5 % lthc frags, p cmtd w/ sils cmt, mod srtd, 0-3% por inf (uncons grs), Tr dull orng min flor (DOL??), fnt cut.

1915-1920 SS(70%): sub arkose, clr to wh, mnr dk grn, L f to U m, rr U c grs, predly (80%) r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils and calcs cmt, mod srtd, 0-3% por inf (uncons grs), Tr dull orng min flor (DOL??), fnt/ple cut.CGL(30%): polymictic, mtx sup, vcol a frags of qtz, kspar, chrt, mnr LS?? and various lthc frags (granite, gabbro, metaseds). Estimated 70% cls, 30% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. Trace blk sh in spl.

1920-1925 CGL(70%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, mnr LS?? and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(30%): lithic sub arkose, clr to wh, mnr dk grn and pk grs, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng min flor (DOL??), no shows.

1925-1930 CGL(50%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(50%): sub arkose, clr to wh, mnr dk grn, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng min flor (DOL??), ple/dull cut.

SH(tr) dark grey to blk, fis, <20 ctgs in spl.Pos from 1916m?

1930-1935 CGL (100%); polymictic, mtx sup?. Estimated 60% cls, clr, trsl quartzite, gry/whsh ls, gry/whsh qtz clast, a - r grs, mod srt, 40% sdy mtx, r-R grs of clr to trnsl qtz, ple cut.

Bit No. 8
Size: 159mm - Tri-cone
Type: Hughes STX-30DX
Depth In: 1882.0m
Depth Out: 1936.6m
Drilled: 54.6
Hours: 20.5
Cond: 3-6-WT-A-4-159-BT-DSF

WOB 12.1 kdaN
RPM 43
PR 0.79 m3/min

Motor Failure, POOH, RIH with lower speed Motor, Increase Top Drive RPM

MD 1934.55 TVD 1929.86
INC 1.5 AZ 351.5
Bit No. 9
Size: 159mm - Tri-cone
Type: Hughes STX-30DX
Depth In: 1936.6m

MD 1943.96 TVD 1939.27
INC 1.3 AZ 337.2

MD 1953.34 TVD 1948.64
INC 1.3 AZ 335.6

MD 1956 TVD 1951.3
INC 1.4 AZ 333.8

1935 m

1940 m

1955 m

1935-1940 CGL(50%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(50%): sub lithark, clr to wh, mnr dk grn and pk, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng and bluish min flor(DOL/LS??), rare sptty os on qtz grs, w/ fnt dir fluor/cut.

1940-1945 CGL(50%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(50%): sub lithark, clr to wh, mnr dk grn and pk, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng and bluish min flor(DOL/LS??), rare sptty os on qtz grs, w/ fnt dir fluor/cut.

1945-1950 CGL(40%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(60%): sub lithark, clr to wh, mnr dk grn and pk, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng and bluish min flor(DOL/LS??), rare sptty os on qtz grs, w/ fnt dir fluor/cut.

1950-1955 CGL(30%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(70%): sub lithark, clr to wh, mnr dk grn and pk, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng and bluish min flor(DOL/LS??), rare sptty os on qtz grs, w/ fnt dir fluor/cut.

1955-1960 CGL(50%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(50%): sub lithark, clr to wh, mnr dk grn and pk, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng and bluish min flor(DOL/LS??), rare sptty os on qtz grs, w/ fnt dir fluor/cut.

1960-1965 CGL(80%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and various lthc frags (granite, gabbro, metaseds). Estimated 90% cls, 10% m - c sd grs for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(20%): sub lithark, clr to wh, mnr dk grn and pk, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng and bluish min flor(DOL/LS??), rare sptty os on qtz grs, w/ fnt dir fluor/cut.

July 13/13 @ 05h12

Bit No. 9
Size: 159mm - Tri-cone
Type: Hughes STX-30DX
Depth In: 1936.6m
Depth Out: 1970.0m
Drilled: 33.4
Hours: 13
Cond: 3-4-LT-H-3-I-LT-TD

MD 1970 TVD 1965.3
INC 1.4 AZ 333.8

1970 m

1965-1970 CGL(80%): polymictic, cls sup, vcol a frags of qtz, kspar, chrt, and lthc frags (grnt, gab, metaseds). Estimated 90% cls, 10% m - c sd grs and red mud for mtx, wkly calcs, p srt, w cmtd w/ sils and calcs cmt. SS(20%): sub lithark, clr to wh, mnr dk grn and pk, L f to U m, rr U c grs, predly (80%) a - r grs of clr to trnsl qtz, 10% fldsp, 10 % lthc frags, p cmtd w/ sils cmt, p srtd, tt - por, tr dull orng and bluish min flor(DOL/LS??), rare sptty os on qtz grs, w/ fnt dir fluor/cut.

TD of 1970.0 m MD reached @ 05:12 on 2013-07-13

1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 30

0	ROP (m/hr)	10
0	Total Gas (units)	500
0	Methane (units)	500
0	Propane (units)	500
0	Gamma (API)	150

-25 Vert Sect 25

2 PEF 5

0	GR (API)	200	45	ZDEN (pu)	-15		M2R2 (ohm.m)
159	CAL (mm)	300	45	CNSS (pu)	-15	1 10 10000e4	
							M2R3 (ohm.m)
						1 10 10000e4	
							M2R6 (ohm.m)
						1 10 10000e4	
							M2R9 (ohm.m)
						1 10 10000e4	

APPENDIX N : Final Geological Report

Number of pages : *68*

Summary of the content: This appendix presents the Final Geological Report.

BELLOY PETROLEUM CONSULTING LTD.

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24 Hrs. Bus: (403) 237-8700
Fax: (403) 265-6947

EAST ROCK GEOCONSULTING
36 PINEGROVE DRIVE
PARADISE, NL A1L 1B8
Bus: (709) 770-3187

INVESTCAN ENERGY CORP.
335 DUCKWORTH STREET
ST. JOHN, NL A1C 1G9
Bus: (709) 740-3390

INVESTCAN ENERGY CORPORATION

GEOLOGICAL REPORT

HURRICANE #2 RE-ENTRY

N 5347195.57 / E 375854.54

Prepared for: **Steve Emberly**

A.F.E. # **-**

License #: **EP 03-107**

Prepared by: **Pearce Bradley, P. Geol.**
Jonathan Taylor
Marine Di Matteo

WELL DATA SUMMARY

Well Name: HURRICANE #2 RE-ENTRY

U.W.I.# : N/A Province: Newfoundland

Licence #: EP 03-107 Hole Orientation: Vertical

Surface Location: N 5347195.57 / E 375854.54

Bottom Hole Location:

Licensee: INVESTCAN ENERGY CORPORATION Field Name: Flat Bay (Bay St. George)

Lahee Class: NPW AFE# : -

Elevation: Ground: 145.70 m

Kelly Bushing: 149.97 m

Surface Co-ordinates: Northing 5347195.57 Easting 375854.54

Contractor: Foragaz - Rig #3

Re-entry Date: 16-Jun-13 @ 12:00 Re-Entry Well?: Yes

Hole Size: Surface: 216.00 mm Intermediate: - mm Main: 159.00 mm

Mud Type: Surface: Floc Water Intermediate: - Main: Polymer

Surface Casing: Set at 323.20 m K.B. 177.80 mm Reached: 5-Dec-05 @ 16:00

Drilled Out: 20-Jun-13 @ 15:00 Weight 28.80 kg/m

Kickoff Point (KOP): - m K.B. Reached: - @ -

Int. Casing (or Hz Heel) Point: - m K.B. Reached: - @ - Monobore?

Int. Casing Size: - mm Weight: - kg/m Drilled Out: - @ -

Hz Leg 1 Start: - m K.B. Total Depth Leg 1: - m K.B. - @ -

Hz Leg 2 Start: - m K.B. Total Depth Leg 2: - m K.B. - @ -

Hz Leg 3 Start: - m K.B. Total Depth Leg 3: - m K.B. - @ -

Production Casing: - mm Weight: - kg/m

Total Depth: 1970.00 m Reached: 13-Jul-13 @ 5:12

Cores cut: None Formations cored: -

Intervals: -

Drill Stem Tests: Friar's Cove and Snakes Bight

Open Hole Logs: Baker Hughes Leduc, Alberta

Open Hole Logs Run	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	Scales	Run #	Date Finished
Gamma-Spontaneous Potential- Caliper-Sonic-Neutron Porosity-Density-Minilog-Induction	323.00	323.00	1969.50	1969.50	1:240	1	14-Jul-13
Simultaneous Acoustic and Resistivity Imaging - Gamma ray	323.00	323.00	1969.50	1969.50	1:240	2	14-Jul-13
Magnetic Resonance- Gamma Ray	323.00	323.00	1969.50	1969.50	1:240	3	15-Jul-13

Directional Company: Choice Directional Services Ltd. MWD/Gamma: 323.20 m to 1970.00 m

Gas Detection Co.: MD Totco Operated from: 323.20 m to 1970.00 m

Well Status: Production Zone(s): Snake's Bight

Ditch Samples: Every 5 m from: 940.00 to 1970.00 m Every 10 m from: 940.00 to 1970.00 m

2.5 m samples over zones of interest? No Geochem / Isojar / Isotube Samples? Yes

# of Sample Sets for Client: 1 # of Sample Sets for Government: 1

HURRICANE #2 RE-ENTRY

GEOLOGICAL MARKERS

K.B. ELEVATION: 149.97 m

Surface Casing Depth: 323.20 m Kickoff Point: - m Intermediate Casing Depth: - m

Formation	Prognosis Subsea (m)	Sample M.D. (m)	Log M.D. (m)	Log T.V.D. (m)	Log Subsea (m)	Diff. From Prog (m)

	Prog Subsea	Sample M.D.	Log M.D.	Log T.V.D.	Log Subsea	Difference
TOTAL DEPTH:						

HURRICANE #2 RE-ENTRY

DAILY MUD PROPERTIES

DATE	DEPTH (m)	DENSITY Kg/M3	WATER LOSS (cm3/30 min)	FILTER CAKE (mm)	pH	VISCOSITY (s/l)	PV/YP	GELS
15-Jun-13	-	1000	-	-	-	32	-	-
16-Jun-13	-		-	-	-	32	-	-
17-Jun-13	-	1000	-	-	10.0	32	-	-
18-Jun-13	329	1000	-	-	12.0	32	-	-
19-Jun-13	584	1015	-	-	12.0	32	-	-
20-Jun-13	940	1075	5.4	0.3	12.5	37	11/3	1
21-Jun-13	959	1075	4.8	0.3	12.0	35	9/1.5	1
22-Jun-13	1093	1100	4.8	0.3	12.0	42	10/4	1
23-Jun-13	1232	1120	3.8	0.3	11.0	47	13/5	2
24-Jun-13	1344	1120	3.4	0.3	10.0	47	15/5	2
25-Jun-13	1380	1120	3.5	0.3	9.5	46	14/5	2
26-Jun-13	1440	1125	3.2	0.5	9.5	46	16/5	2
27-Jun-13	1499	1130	3.2	0.5	9.0	47	16/5	2
28-Jun-13	1522	1120	3.2	0.5	9.0	47	15/5	2
29-Jun-13	1587	1095	3.4	0.5	9.0	47	15/4.5	2
30-Jun-13	1618	1090	3.6	0.5	8.0	47	14/5	2
01-Jul-13	1673	1100	3.4	0.8	7.5	47	15/5	2
02-Jul-13	1722	1095	3.0	0.5	8.0	53	17/7.5	3
03-Jul-13	1731	1095	3.1	0.5	8.0	55	17/7.5	3
04-Jul-13	1784	1095	3.2	0.5	9.0	49	17/6	3
05-Jul-13	1786	1095	3.2	0.5	8.5	53	17/6.5	3
06-Jul-13	1786	1095	3.1	0.5	8.5	55	19/8	3
07-Jul-13	1786	1095	3.0	0.5	8.5	53	21/6	3
08-Jul-13	1808	1090	3.0	0.5	8.5	49	16/6	3
09-Jul-13	1851	1095	2.9	0.5	9.5	62	22/7	3
10-Jul-13	1876	1090	3.0	0.5	9.0	52	19/7	3
11-Jul-13	1882	1150	2.6	0.5	9.0	53	20/7	3
12-Jul-13	1937	1160	2.5	0.5	8.5	51	18/5	3
13-Jul-13	1970	1150	2.6	0.5	8.5	54	19/7	3
14-Jul-13	1970	1150	2.6	0.5	8.5	54	19/7	3
15-Jul-13	1970	1150	2.6	0.5	8.5	54	19/7	3

HURRICANE #2 RE-ENTRY

DAILY MUD PROPERTIES (continued)

DATE	DEPTH (m)	DENSITY Kg/M3	WATER LOSS (cm3/30 min)	FILTER CAKE (mm)	pH	VISCOSITY (s/l)	PV/YP	GELS
16-Jul-13	1970	1150	2.8	0.5	9.0	56	19/8	3
17-Jul-13	1970	1150	2.7	0.5	8.0	54	19/7.5	3
18-Jul-13	1970	1145	2.8	0.8	8.0	55	21/8	3
19-Jul-13	1970	1140	2.9	0.8	8.0	56	20/8.5	3
20-Jul-13	1970	1140	2.8	0.8	8.0	55	20/8.5	

HURRICANE #2 RE-ENTRY - SURVEY RECORDS

Measured Depth Meters	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S Meters	E-W Meters	Vertical Section Meters	Dogleg Severity Deg/30m	Subsea TVD Meters
KB								
.00	.00	.00	.00	.00	.00	.00	.00	149.83
Ground								
4.13	.00	.00	4.13	.00	.00	.00	.00	145.70
Casing Shoe								
323.00	.00	.00	323.00	.00	.00	.00	.00	-173.17
Tie In Survey								
342.48	3.60	176.70	342.47	-.61	.04	-.61	5.54	-192.64
389.46	3.30	173.00	389.36	-3.43	.28	-3.43	.24	-239.53
446.17	3.30	178.30	445.98	-6.68	.53	-6.68	.16	-296.15
503.07	4.00	194.20	502.76	-10.24	.09	-10.24	.65	-352.93
559.57	5.10	208.10	559.09	-14.36	-1.57	-14.36	.82	-409.26
616.46	5.20	215.00	615.75	-18.71	-4.24	-18.71	.33	-465.92
672.98	4.30	221.60	672.07	-22.39	-7.12	-22.39	.56	-522.24
729.91	3.90	223.90	728.86	-25.38	-9.88	-25.38	.23	-579.03
785.90	3.70	225.20	784.72	-28.03	-12.48	-28.03	.12	-634.89
842.12	3.10	251.20	840.85	-29.79	-15.21	-29.79	.87	-691.02
899.25	3.30	303.10	897.90	-29.39	-18.05	-29.39	1.47	-748.07
918.03	3.30	317.00	916.65	-28.70	-18.87	-28.70	1.28	-766.82
936.94	3.70	329.10	935.52	-27.78	-19.55	-27.78	1.33	-785.69
946.44	3.70	329.90	945.00	-27.25	-19.86	-27.25	.16	-795.17
956.00	4.70	349.50	954.54	-26.60	-20.09	-26.60	5.45	-804.71
965.39	5.40	353.10	963.89	-25.78	-20.21	-25.78	2.45	-814.06
974.78	5.90	358.90	973.24	-24.86	-20.28	-24.86	2.42	-823.41
984.24	6.00	359.20	982.65	-23.88	-20.29	-23.88	.33	-832.82
993.71	6.40	356.40	992.06	-22.86	-20.33	-22.86	1.59	-842.23
1003.18	6.90	351.80	1001.47	-21.77	-20.45	-21.77	2.31	-851.64
1012.60	7.40	357.30	1010.81	-20.60	-20.56	-20.60	2.70	-860.98
1022.02	8.30	359.80	1020.15	-19.32	-20.59	-19.32	3.06	-870.32
1031.41	9.80	13.00	1029.42	-17.86	-20.41	-17.86	8.15	-879.59
1040.94	10.50	20.10	1038.80	-16.26	-19.93	-16.26	4.51	-888.97
1050.36	10.00	25.80	1048.07	-14.71	-19.28	-14.71	3.60	-898.24
1059.79	10.00	27.40	1057.36	-13.25	-18.54	-13.25	.88	-907.53
1069.36	10.20	27.20	1066.78	-11.76	-17.77	-11.76	.64	-916.95
1078.81	10.40	26.60	1076.08	-10.25	-17.01	-10.25	.72	-926.25
1088.45	11.20	26.50	1085.55	-8.64	-16.20	-8.64	2.49	-935.72
1098.04	10.60	29.70	1094.96	-7.04	-15.35	-7.04	2.67	-945.13
1107.48	9.90	33.90	1104.25	-5.61	-14.47	-5.61	3.25	-954.42
1116.92	8.90	37.70	1113.57	-4.36	-13.57	-4.36	3.74	-963.74
1126.55	7.20	45.60	1123.10	-3.35	-12.68	-3.35	6.31	-973.27
1135.97	5.40	53.10	1132.46	-2.67	-11.90	-2.67	6.29	-982.63
1145.06	4.40	65.20	1141.52	-2.26	-11.25	-2.26	4.73	-991.69
1154.98	3.80	76.00	1151.42	-2.02	-10.58	-2.02	2.95	-1001.59
1164.35	3.50	75.70	1160.77	-1.88	-10.00	-1.88	.96	-1010.94
1183.41	3.30	69.30	1179.79	-1.54	-8.93	-1.54	.67	-1029.96
1202.43	3.40	61.40	1198.78	-1.08	-7.92	-1.08	.74	-1048.95
1221.72	3.40	50.50	1218.04	-.44	-6.98	-.44	1.00	-1068.21
1240.60	3.70	44.90	1236.88	.35	-6.11	.35	.73	-1087.05
1250.42	3.60	49.90	1246.68	.77	-5.65	.77	1.02	-1096.85
1259.81	3.70	59.80	1256.05	1.11	-5.17	1.11	2.04	-1106.22
1269.27	3.20	69.20	1265.49	1.36	-4.66	1.36	2.39	-1115.66
1278.68	3.40	77.50	1274.89	1.51	-4.14	1.51	1.65	-1125.06
1288.10	3.30	87.80	1284.29	1.59	-3.59	1.59	1.94	-1134.46

HURRICANE #2 RE-ENTRY - SURVEY RECORDS

Measured Depth Meters	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S Meters	E-W Meters	Vertical Section Meters	Dogleg Severity Deg/30m	Subsea TVD Meters
1297.53	2.70	111.10	1293.71	1.52	-3.12	1.52	4.28	-1143.88
1316.43	1.60	150.90	1312.60	1.13	-2.57	1.13	2.84	-1162.77
1325.83	1.20	147.20	1322.00	.93	-2.45	.93	1.31	-1172.17
1335.24	1.00	140.80	1331.40	.78	-2.35	.78	.75	-1181.57
1354.13	.90	124.10	1350.29	.57	-2.12	.57	.47	-1200.46
1373.13	.40	152.50	1369.29	.43	-1.97	.43	.92	-1219.46
1382.56	.50	330.30	1378.72	.43	-1.97	.43	2.86	-1228.89
1392.01	1.50	329.70	1388.17	.58	-2.06	.58	3.17	-1238.34
1401.41	2.70	336.00	1397.56	.89	-2.21	.89	3.89	-1247.73
1410.78	3.60	337.50	1406.92	1.36	-2.41	1.36	2.89	-1257.09
1420.25	3.20	341.50	1416.37	1.88	-2.61	1.88	1.47	-1266.54
1429.96	2.20	345.10	1426.07	2.32	-2.74	2.32	3.13	-1276.24
1439.41	1.70	.60	1435.51	2.64	-2.79	2.64	2.29	-1285.68
1448.81	2.00	4.80	1444.91	2.94	-2.77	2.94	1.05	-1295.08
1458.30	2.80	355.70	1454.39	3.34	-2.78	3.34	2.79	-1304.56
1467.84	3.40	343.50	1463.92	3.84	-2.87	3.84	2.79	-1314.09
1486.80	4.90	345.70	1482.83	5.16	-3.23	5.16	2.39	-1333.00
1496.91	5.30	347.80	1492.90	6.04	-3.44	6.04	1.31	-1343.07
1506.36	5.80	346.20	1502.30	6.93	-3.64	6.93	1.66	-1352.47
1515.93	4.20	6.30	1511.84	7.75	-3.72	7.75	7.37	-1362.01
1524.79	3.00	39.40	1520.68	8.25	-3.54	8.25	7.96	-1370.85
1534.20	2.70	49.40	1530.08	8.58	-3.21	8.58	1.85	-1380.25
1543.58	3.80	82.50	1539.44	8.77	-2.74	8.77	6.81	-1389.61
1553.17	4.10	109.50	1549.01	8.69	-2.10	8.69	5.84	-1399.18
1571.97	4.50	131.00	1567.76	7.99	-.91	7.99	2.63	-1417.93
1581.36	4.80	137.00	1577.12	7.46	-.36	7.46	1.82	-1427.29
1600.53	5.50	139.20	1596.21	6.18	.78	6.18	1.14	-1446.38
1619.39	5.30	136.70	1614.99	4.86	1.97	4.86	.49	-1465.16
1638.15	4.90	136.90	1633.67	3.64	3.11	3.64	.64	-1483.84
1656.98	4.60	138.20	1652.44	2.49	4.17	2.49	.51	-1502.61
1676.01	4.20	139.20	1671.41	1.39	5.13	1.39	.64	-1521.58
1685.33	2.40	157.40	1680.72	.96	5.43	.96	6.63	-1530.89
1694.75	1.10	272.70	1690.13	.78	5.41	.78	9.67	-1540.30
1704.35	2.20	282.90	1699.73	.82	5.14	.82	3.54	-1549.90
1713.77	2.40	286.10	1709.14	.92	4.78	.92	.76	-1559.31
1723.33	1.00	20.70	1718.70	1.05	4.61	1.05	8.39	-1568.87
1732.80	1.40	43.10	1728.17	1.21	4.72	1.21	1.93	-1578.34
1742.44	.90	122.00	1737.81	1.26	4.87	1.26	4.70	-1587.98
1751.88	.60	138.30	1747.25	1.18	4.96	1.18	1.16	-1597.42
1761.36	.60	337.40	1756.72	1.19	4.98	1.19	3.74	-1606.89
1770.76	.80	340.10	1766.12	1.30	4.93	1.30	.65	-1616.29
1780.17	1.10	333.10	1775.53	1.44	4.87	1.44	1.02	-1625.70
1789.59	1.30	336.40	1784.95	1.62	4.79	1.62	.67	-1635.12
1798.98	1.30	337.80	1794.34	1.82	4.70	1.82	.10	-1644.51
1808.47	1.40	343.30	1803.83	2.03	4.63	2.03	.52	-1654.00
1817.87	1.40	342.80	1813.22	2.25	4.56	2.25	.04	-1663.39
1827.31	1.40	340.20	1822.66	2.47	4.49	2.47	.20	-1672.83
1836.84	1.20	344.50	1832.19	2.67	4.42	2.67	.70	-1682.36
1845.47	1.00	349.20	1840.82	2.83	4.39	2.83	.76	-1690.99
1854.91	1.20	356.00	1850.25	3.01	4.36	3.01	.76	-1700.42
1863.69	1.20	.30	1859.03	3.20	4.36	3.20	.31	-1709.20
1877.05	1.30	3.40	1872.39	3.49	4.37	3.49	.27	-1722.56

HURRICANE #2 RE-ENTRY - SURVEY RECORDS

Measured Depth Meters	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S Meters	E-W Meters	Vertical Section Meters	Dogleg Severity Deg/30m	Subsea TVD Meters
1886.48	1.70	5.80	1881.82	3.73	4.39	3.73	1.29	-1731.99
1895.94	2.00	15.10	1891.27	4.03	4.45	4.03	1.34	-1741.44
1905.34	2.10	12.70	1900.67	4.36	4.53	4.36	.42	-1750.84
1914.83	2.10	5.90	1910.15	4.70	4.58	4.70	.79	-1760.32
1925.11	1.70	356.60	1920.42	5.04	4.59	5.04	1.47	-1770.59
1934.55	1.50	351.50	1929.86	5.30	4.57	5.30	.78	-1780.03
1943.96	1.30	337.20	1939.27	5.52	4.51	5.52	1.28	-1789.44
1956.00	1.40	333.80	1951.30	5.78	4.39	5.78	.32	-1801.47
1970.00	1.40	333.80	1965.30	6.09	4.24	6.09	.00	-1815.47

HURRICANE #2 RE-ENTRY

BIT RECORD

BIT	SIZE (mm)	MAKE	TYPE	JETS (mm)	SERIAL #	DEPTH IN (m)	DRILLED (m)	HOURS	CONDITION (IADC) TI	TO	MDC	LO	B/S	GA	ODC	RP
1	159	Hughes	STX-1	3 x 20	5177714	323.0	617.5	66.00	2	2	WT	A	2	I	NO	BHA
2	159	Hughes	QD406FX	4x12.7 & 2x8.7	7032271	940.5	569.0	122.25	4	2	WT	N	X	I	CT	PR
3	159	Hughes	QD406FX	4x12.7 & 2x8.7	7029738	1509.5	88.1	30.25	2	7	WT	S	X	I	CT	PR
4	159	Hughes	STX-35DX	3 x 15.9	5217719	1597.6	133.5	56.50	4	4	WT	A	4	I	SD	HR
5	159	Hughes	QD405FX	5x12.7	7137507	1731.1	55.0	21.50	6	5	WT	A	X	I	CT	PR
6	159	Hughes	STX-30DX	3 x 15.9	5205268	1786.2	68.6	34.25	4	8	WT	A	3	156	SD	PP
7	159	Hughes	DP307S	5x12.7 & 2x11.1	7032500	1854.8	27.2	14.00	7	8	RO	S	X	I	LN	PR
8	159	Hughes	STX-30DX	3 x 15.9	5205268	1882.0	54.6	54.60	3	6	WT	A	4	I	BT	DSF
9	159	Hughes	STX-30DX	3 X 15.9	5206281	1936.6	33.4	5.00	3	4	LT	H	3	I	LT	TD

HURRICANE #2 RE-ENTRY

Detailed Wireline Logging Report

Logging Company : Baker Hughes **Base:** Leduc, Alberta

Logging Engineer : H. Munro / S. Shchipkov

Elevations : **Ground :** 145.70
Kelly Bushing : 149.97

Total Depth : **Drillers :** 1970.00 **Licence # :** EP 03-107
Loggers : 1969.50

Hole Size: 159.00 **Casing Depth:** 323.70
Hole Orientation: Vertical **Casing Size:** 177.80
Maximum Deviation: < 5 deg. **Casing Weight:** 25.30

Mud Parameters

Mud Type : Polymer
Density : 1.2 G/L
Viscosity : 56.0 CP
PH : 9.0
Fluid Loss : 2.8
Rmf @ Measured Temp: 0.10 ohm-m @ 23.7 degrees C
Bottom Hole Temp (BHT): 25.9 degrees C

Operations Summary

Hole Condition Prior to Logging : Several trips prior to drilling to TD, no hole problems (fill, drag etc.)
Circulation time after Wiper Trip : 2 hours
Number of Wiper Trips : 1
Details of Wiper Trips : 10 STD's
Number of Runs in the Hole : 4
Succeeded : 4 **Failed :** 0 **Total :** 0

Time Report

Loggers Called for : 13-Jul-13 @ 12:00 **Logging Completed :** 16-Jul-13 @ 9:00
Loggers Arrived : 13-Jul-13 @ 12:00 **Loggers Released :** 16-Jul-13 @ 14:00
Loggers Rigged Up : 13-Jul-13 @ 14:00 **Total Logging Time :** 67 hours
Loggers On Bottom : 13-Jul-13 @ 22:35 **Total Time on Site :** 74 hours

Comments

Main Computer in logging shack had troubles upon arrival. ZDL (density tool) had to be pulled out of hole and replaced on Run # 1.

Tensioner tool had to be pulled on Run #2. Computer crashed while logging NMR in Run #3. Returned to TD to recommence logging.

Future Casing Size : 127mm

OPEN HOLE LOGS RUN (enter all tool names in full, text will wrap)	TOP M.D.	TOP TVD	BOTTOM M.D.	BOTTOM TVD	SCALES	RUN #	DATE FINISHED
Gamma-Spontanteous Potential- Caliper-Sonic-Neutron Porosity-Density-Minilog-Induction	323.00	323.00	1969.50	1969.50	1:240	1	14-Jul-13
Simultaneous Acoustic and Resistivity Imaging - Gamma ray	323.00	323.00	1969.50	1969.50	1:240	2	14-Jul-13
Magnetic Resonance- Gamma Ray	323.00	323.00	1969.50	1969.50	1:240	3	15-Jul-13
Formation Multi tester - Gamma Ray	1103.90	1103.90	1475.80	1475.80	1:240	4	16-Jul-13

DRILL STEM TEST REPORT FIELD READINGS

WELL NAME: HURRICANE #2 RE-ENTRY DATE: 18-Jul-13

DST #: 1 INTERVAL: 1443.94 to 1480.43 m FORMATION: Snake's Bight

Type of DST: Dual Straddle Conventional

Testing Company: Holland Tester's Limited Operator: Derrick Holland

Preflow: 10 min I.S.I: 120 min V.O.: 30 min F.S.I.: 240 min

Blow Description: Open for preflow, had weak initial puff, 1" in bubble pail. Steady through out 10 min

Final Blow: Valve open had weak initial puff, 2" in bubble pail, decreasing to dead in 20 min. Shut-in after 30 min. No gas to surface.

Flow Rates:

Pressures: IHP: 16314 PF: 323 ISIP: 831

IFP: 303 FFP: 341 FSIP: 850 FHP: 16299

Date and Time Tool Opened: 13-07-18-0730 BHT: 21.2

Fluid Recovery: 12.2 meters of drilling fluid

Samples: Taken @ 10 meters and 1.52 meters and from bottom hole sampler

Shipped to:

Remarks: Test one over interval #1 failed (leaked fluid into drill stem). POOH to check tools.

Noticed missing protective sleeve, waited on part to arrive from Ontario.

DRILL STEM TEST REPORT FIELD READINGS

WELL NAME: HURRICANE #2 RE-ENTRY DATE: 19-Jul-13

DST #: 2 INTERVAL: 1316.69 m to 1371.14 m FORMATION: Friar's Cove

Type of DST: Dual Straddle Conventional

Testing Company: Holland Tester's Limited Operator: Derrick Holland

Preflow: 10 min I.S.I: 125 min V.O.: 60 min F.S.I.: 360 min

Blow Description: Open for pre-flow, had faint blow in bubble hose with 1/8" in bubble pail. Dead in 5 min.

Final Blow: Open for valve open, had weak initial puff, with 3" in bubble pail, decreasing through out,

Dead in 40 mins. No gas to surface

Flow Rates:

Pressures: IHP: 14770 PF: 1387 ISIP: 1774

IFP: 195 FFP: 251 FSIP: 765 FHP: 14769

Date and Time Tool Opened: 13-07-18-2155 BHT: 19.47

Fluid Recovery: 2.5 meters of drilling mud. Bottom hole sampler had no fluid but approximately 100psi of gas trapped.

Samples: Fluid (drilling mud) taken @ 2.0m above sampler. Gas sample recovered from sampler.

Shipped to: Gas samples shipped to Maxxam Labs in Edmonton.

Remarks: No gas to surface. Test was satisfactory, although it looks like there may have been some plugging during preflow (pressures recorded do not match observations at bubbler. Overall the DST pressures recorded would suggest depletion and virtually no permeability

DRILL STEM TEST REPORT FIELD READINGS

WELL NAME: HURRICANE #2 RE-ENTRY DATE:

DST #: 3 INTERVAL: 1194.5 m to 1250.0 m FORMATION: Friar's Cove

Type of DST: Dual Straddle Conventional

Testing Company: Holland Tester's Limited Operator: Derrick Holland

Preflow: I.S.I: V.O.: F.S.I.:

Blow Description:

Final Blow:

Flow Rates:

Pressures: IHP: PF: ISIP:

IFP: FFP: FSIP: FHP:

Date and Time Tool Opened: BHT:

Fluid Recovery:

Samples:

Shipped to:

Remarks: Cancelled - move to uppermost interval

DRILL STEM TEST REPORT FIELD READINGS

WELL NAME: HURRICANE #2 RE-ENTRY DATE: 19-Jul-13

DST #: 4 INTERVAL: 1090.05 m to 1125.63m FORMATION: Snake's Bight

Type of DST: Dual Straddle Conventional

Testing Company: Holland Tester's Limited Operator: Derrick Holland

Preflow: 10 I.S.I: 120 V.O.: 60 F.S.I.: 360

Blow Description: Weak initial puff that was maintained for the entirety of the 10 min test (at 3" level).

Final Blow: Weak initial puff at 2" level. Slowly decreasing to dead in 40 min. No gas to surface.

Mud held throughout test.
Flow Rates:

Pressures: IHP: 12250 PF: 234 ISIP: 620

IFP: 188 FFP: 235 FSIP: 951 FHP: 12244

Date and Time Tool Opened: 13-07-19-1529 BHT: 16.85

Fluid Recovery: 1.52 m of drilling mud above fluid bottom hole sampler.

One fluid sample was caught from bottom hole sampler as well as a gas bomb.

Samples: Gas bomb (questionable) and fluid (drilling fluid) from bottom hole sampler

Shipped to: Gas bomb sent to Maxxam labs, Edmonton. Fluid samples testing facilitates TBD

Remarks: Test was satisfactory.

DAILY PROGRESS SUMMARY REPORT

WELL NAME: HURRICANE #2 RE-ENTRY
LOCATION: N 5347195.57 / E 375854.54
OPERATOR: INVESTCAN ENERGY CORPORATION

DATE	DAY	TIME	FROM	TO	DRILLED	OPERATIONS SUMMARY
13-Jun-13	1	23:59	323	323	0	W/O daylight. Move rig. Setup rig. W/O daylight.
14-Jun-13	2	23:59	323	323	0	W/O daylight. Rig up. W/O daylight.
15-Jun-13	3	23:59	323	323	0	W/O daylight. Rig up. Nipple up between sub and choke manifold. W/O daylight.
16-Jun-13	4	23:59	323	323	0	W/O daylight. Cut off existing csg bowl, weld on 9" 3000 lb bowl & pressure test. Nipple up BOP's.
17-Jun-13	5	23:59	323	323	0	Continue to nipple up BOP's. Pressure test BOP's. Setup & drill mouse hole.
18-Jun-13	6	23:59	323	327	4	P/U BHA. RIH. Tag cmt @ 273 m. Drill cmt plug(273-327m). Circ. POOH. L/D stabilizer. P/U scraper. RIH. Circ. POOH.
19-Jun-13	7	23:59	327	597	270	Cmt bond log. RIH. Stuck in hole. POOH. L/D csg scraper. P/U BHA. RIH. Stuck in hole. POOH. L/D stab's & P/U motor.
20-Jun-13	8	23:59	597	941	344	POOH. P/U BHA. RIH. Ream & clean 579-830 m. Drill cmt fr 830-936m. Drill fr 936-940.54m. POOH. P/U dir tools. RIH.
21-Jun-13	9	23:59	941	1049	108	RIH. Repair hydraulic leaks. Drill fr 940.54 - 1049 m.
22-Jun-13	10	23:59	1049	1190	141	Drill ahead 159 mm main hole.
23-Jun-13	11	23:59	1190	1317	127	Drill ahead 159 mm main hole.
24-Jun-13	12	23:59	1317	1355	38	Drill ahead 159 mm main hole to 1344.5 m. POOH. P/U new directional tools. RIH. Resume drilling at 1344.5 m.
25-Jun-13	13	23:59	1355	1426	71	Drill ahead 159 mm main hole. Condition mud and circulate.
26-Jun-13	14	23:59	1426	1484	58	Drill ahead 159 mm main hole.
27-Jun-13	15	23:59	1484	1510	26	Drill ahead 159 mm main hole to 1509.50 m. POOH. Change bit 2-3 and P/U directional tools. RIH.
28-Jun-13	16	23:59	1510	1573	64	Drill ahead 159 mm main hole.
29-Jun-13	17	23:59	1573	1604	31	Drill ahead 159 mm main hole to 1597.60 m. POOH. Change bit 3-4 and RIH. Drill ahead 159 mm main hole.
30-Jun-13	18	23:59	1604	1662	58	Drill ahead 159 mm main hole.
01-Jul-13	19	23:59	1662	1708	47	Drill ahead 159 mm main hole.
02-Jul-13	20	23:59	1708	1731	23	Drill ahead 159 mm main hole. Circ. up bott. hole sample. POOH. Pressure test BOP's.
03-Jul-13	21	23:59	1731	1773	42	Finish pressure tests. RIH with Bit # 5. Drill ahead 159 mm main hole.
04-Jul-13	22	23:59	1773	1786	13	Drill ahead 159 mm main hole. POOH. Pressure test blind ram. Trip in hole to latch onto packer.
05-Jul-13	23	23:59	1786	1786	0	RIH to latch unto packer. POOH. No packer recovered. RIH on 2nd attempt with modified overshot.
06-Jul-13	24	23:59	1786	1786	0	RIH to latch unto packer (attempt 3). POOH. No packer recovered. RIH on DP (attempt #4) with modified overshot.
07-Jul-13	25	23:59	1786	1801	15	Continue to retrieve packer (inflated). POOH with fish. RIH with tri-cone and mud motor.

DAILY PROGRESS SUMMARY REPORT (continued)

WELL NAME: HURRICANE #2 RE-ENTRY
LOCATION: N 5347195.57 / E 375854.54
OPERATOR: INVESTCAN ENERGY CORPORATION

DATE	DAY	TIME	FROM	TO	DRILLED	OPERATIONS SUMMARY
08-Jul-13	26	23:59	1801	1843	42	Drill ahead 159mm hole. Rig Service on draw works
09-Jul-13	27	23:59	1843	1855	12	Drill ahead 159mm hole. POOH for mud motor. Change motor and bit and RIH. Rig service - draw works.
10-Jul-13	28	23:59	1855	1882	28	Continue to RIH with straight motor and PDC. Drill ahead 159mm section. Problems rotating. POOH for bit.
11-Jul-13	29	23:59	1882	1917	35	RIH with new bit (tri-cone); 8 less DC and a straight motor. Drill ahead 159mm section.
12-Jul-13	30	23:59	1917	1951	34	Drill ahead 159mm with tri-cone and straight motor.
13-Jul-13	31	23:59	1951	1970	19	Drill ahead 159mm section to TD. POOH (10 STD wiper trip) Rig up and RIH with Wireline Logging Run # 1.
14-Jul-13	32	23:59	1970			Rig out Run # 1 and Rig in Run # 2. Log from TD to CSG. Rig out Run#2 and Rig in Run # 3. Log from TD to CSG.
15-Jul-13	33	23:59				Continue Logging Run#3. Rig out Run |#3 and Rig up Run # 4. Perform FMT tests over several intervals
16-Jul-13	34	23:59				Continue FMT testing (Run#4). Rig out # 4. Perform BOP pressure test. RIH for clean out trip prior to DST.
17-Jul-13	35	23:59				Rig up DST tool string and run hole to test interval #1 (1444m-1480.5m). Tool failed. POOH and wait on part.
18-Jul-13	36	23:59				Part arrived onsite at 04h00, RIH to perform DST #1. POOH for recorders and RIH for DST #2 (1316.5 to 1371.0).
19-Jul-13	37	23:59				Based on first two DST results, decision was made to skip third interval and test interval 4.
20-Jul-13	38	23:59				POOH DST interval 4, RIH to perform wiper trip, POOH and lay down drill pipe to prepare for RIH with CSG.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

935 - 940

Sandstone (70%): light gray, grading slightly to off white, common orange pink stained grains, upper fine to lower medium grained, common upper medium and occasional lower coarse grains, quartzitic with 5% medium gray lithic grains, trace to minor micro flakes, rare to trace pyrite, in part argillaceous and kaolinitic matrix, subangular to angular grains, in part subrounded grains, moderately to poorly sorted, siliceous and common calcareous cement, common loose grains, in part fair grain relief, tight to poor intergranular porosity (0 to 3%), 20% patchy faint orange direct fluorescence, 5% uniform bright white mineral fluorescence, pale cut;

Siltstone (30%): light gray grading to medium gray, gritty texture, siliceous cement, argillaceous in part, in part grading to lower very fine grained sandstone, tight.

940 - 945

Sandstone (90%): light gray, grading slightly to off white, very fine to fine grained, rare upper medium and occasional lower coarse grains, quartzitic with 10% medium gray lithic grains and 5% feldspar, trace pyrite, minor micro flakes, in part argillaceous and kaolinitic matrix, subrounded to subangular grains, moderately sorted, calcareous cement, tight, 10% patchy faint amber direct fluorescence, pale cut;

Siltstone (10%): light gray grading to medium gray, gritty texture, siliceous cement, argillaceous in part, in part grading to lower very fine grained sandstone, tight.

945 - 950

Sandstone (80%): light gray, in part grading to off white and medium gray, minor to in part common orange pink to faint brown stained grains, variable upper very fine to lower medium grained, common upper medium and occasional lower coarse grains, quartzitic with trace medium gray lithic grains, trace micro flakes, rare pyrite, common argillaceous, silty and kaolinitic matrix, subangular to subrounded grains, moderately to poorly sorted, siliceous and calcareous cement, common loose grains, occasional fair grain relief, tight to trace poor intergranular porosity (0 to 3%), 30% patchy faint with pale amber direct fluorescence, dull with pale cut;

Siltstone (20%): light gray grading to medium gray, gritty texture, siliceous cement, argillaceous in part, commonly grading to lower very fine grained sandstone, tight.

950 - 955

Sandstone (70%): light and medium gray, trace orange pink to faint brown stained grains, variable upper very fine to lower medium grained, minor upper medium grains, quartzitic with trace medium gray lithic grains, trace micro flakes, rare pyrite, common argillaceous, silty and kaolinitic matrix, subangular to subrounded grains, moderately sorted, siliceous and calcareous cement, minor loose grains, trace fair grain relief,

SAMPLE DESCRIPTIONS

Depth (m)

tight to inferred trace poor intergranular porosity (0 to 3%), 10% patchy faint amber direct fluorescence, dull with pale cut;

Siltstone (30%): light gray and medium gray, gritty texture, siliceous cement, argillaceous matrix, commonly grading to lower very fine grained sandstone, tight.

955 - 960

Sandstone (70%): light and medium gray, trace orange pink to faint brown stained grains, upper very fine to upper fine grained, in part lower medium grained, quartzitic with trace to 3% lithic grains, trace micro flakes, rare pyrite, common argillaceous, silty and kaolinitic matrix, subangular to subrounded grains, moderately sorted, siliceous and calcareous cement, minor loose grains, tight to inferred trace poor intergranular porosity (0 to 3%), 10% patchy faint amber direct fluorescence, dull with pale cut;

Siltstone (30%): light and medium gray, occasionally grading to dark gray, gritty texture, siliceous cement, argillaceous matrix, in part micaceous, commonly grading to very fine grained sandstone, tight.

960 - 965

Sandstone (70%): light and medium gray, rare orange pink to faint brown stained grains lower fine to lower medium grained, in part upper very fine grained and minor upper medium grains, quartzitic with trace to 3% lithic grains, trace micro flakes, rare pyrite, common argillaceous, silty and kaolinitic matrix, subangular to subrounded grains, occasional frosted rounded grains, moderately sorted, siliceous and calcareous cement, common loose grains, tight to inferred poor intergranular porosity (0 to 3%), 5% patchy faint dark amber direct fluorescence, faint cut;

Siltstone (30%): light and medium gray, occasionally grading to slightly dark gray, gritty texture, siliceous cement, argillaceous matrix, in part micaceous, common very fine sandy, tight.

965 - 970

Sandstone (70%): light gray, in part medium gray and occasionally off white, lower fine to lower medium grained, common upper very fine grained and minor upper medium grains, predominantly quartzitic with 15% medium gray lithic grains, trace micaceous, trace pyrite, subrounded and subangular grains, trace rounded frosted grains, moderately sorted, siliceous and calcareous cement, common loose grains, tight to inferred poor intergranular porosity (0 to 3%), trace patchy faint dark amber direct fluorescence, faint cut;

Siltstone (30%): light and medium gray, gritty texture, siliceous cement, in part calcareous cement, in part very fine sandy, tight.

970 - 975

Sandstone (70%): light and medium gray grading occasionally to off white, lower and upper very fine grained to upper fine grained, common lower medium grains and occasional upper medium grains, in part grading

SAMPLE DESCRIPTIONS

Depth (m)

to sandy siltstone, quartzitic with trace lithic grains, minor pyrite throughout, trace micaceous, common argillaceous and silty matrix, in part kaolinitic matrix, subangular and subrounded grains, occasional rounded frosted quartz grains, moderately to poorly sorted, siliceous and calcareous cement, tight to trace inferred poor intergranular porosity (0 to 3%), 5% spotty faint with pale amber direct fluorescence, faint cut;

Siltstone (30%): light and medium gray, in part dark gray, gritty texture, siliceous and calcareous cement, argillaceous, in part shaly, in part sandy, tight.

975 - 980

Sandstone (80%): light and medium gray, minor grading to off white, abundant clear and translucent quartz grains, in part frosted, upper fine to lower medium grained, in part lower fine and upper medium grains, trace micromicaceous flakes, common pyrite, common argillaceous and kaolinitic matrix, subangular to subrounded grains, in part angular, moderately sorted, siliceous and calcareous cement, inferred tight to poor intergranular porosity (0 to 3%), spotty dark brown oil stain, 15% spotty pale amber direct fluorescence, trace bright yellow white fluorescence, pale cut;

Siltstone (20%): medium gray, gritty, siliceous and calcareous cement, in part very fine sandy and common argillaceous, tight.

980 - 985

Sandstone (80%): light and medium gray grading occasionally to off white, lower fine to upper medium grained, common upper very fine grained and minor lower coarse grains, quartzitic to 15% lithic grains, trace micromicaceous, common pyrite, common argillaceous and kaolinitic matrix, subangular to subrounded grains, occasional angular, moderately sorted, siliceous and calcareous cement, common quartz overgrowths, common loose grains, tight to inferred poor intergranular porosity (0 to 3%), spotty dark brown oil stain, 20% spotty pale with dull amber with dark yellow direct fluorescence, faint with pale cut;

Siltstone (20%): light and medium gray grading occasionally to dark gray, gritty texture, siliceous and calcareous cement, in part very fine sandy, tight.

985 - 990

Sandstone (100%): light to medium gray, upper fine to upper medium grained, minor lower fine and lower coarse grains, 80% clear, white, translucent and trace pink quartz and 20% medium gray lithic grains, in part slightly argillaceous and kaolinitic matrix, angular to subrounded grains, moderately sorted, siliceous and calcareous cement, common to abundant quartz overgrowths, common loose grains, tight to poor intergranular porosity (0 to 5%), spotty dark brown oil stain, 10% patchy bright yellow white direct fluorescence, trace bright with white mineral fluorescence, pale cut.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

990 - 995

Sandstone (80%): light gray, minor medium gray, upper fine to upper medium grained, trace lower and upper coarse grains, common lower very fine to lower fine grained, in part grading to siltstone, 75% quartz and 25% medium gray chert, trace micromicaceous flakes, trace pyrite, minor argillaceous and kaolinitic matrix, subangular to subrounded grains, moderately sorted, siliceous and calcareous cement, common loose grains, tight to minor poor intergranular porosity (0 to 3%), spotty dark brown oil stain, 5% patchy bright yellow white direct fluorescence, trace bright with white mineral fluorescence, faint cut;

Siltstone (20%): light and medium gray, gritty texture, siliceous and calcareous cement, argillaceous, in part very fine sandy, tight.

995 - 1000

Sandstone (100%): light gray to occasionally medium gray and in part slightly faint brown, upper fine to upper medium grained, occasional lower coarse grains and trace upper coarse grains, 80% clear and translucent quartz and 20% medium gray lithic grains, trace micromicaceous flakes, argillaceous and kaolinitic, trace siltstone stringers, subangular to subrounded grains, trace frosted rounded grains, moderately sorted, siliceous and calcareous cement, minor quartz overgrowths, tight to poor intergranular porosity (0 to 5%), rare questionable speckled pyrobitumen, spotty dark brown oil stain, 10% patchy bright yellow white direct fluorescence, trace bright with white mineral fluorescence, trace very slow milky cut.

1000 - 1005

Sandstone (75%): light to medium gray, upper very fine to lower fine grained, in part lower very fine grained and grading to siltstone, minor upper fine to upper medium grains as above, 80% quartz and 20% medium gray lithic grains, trace micromicaceous flakes, argillaceous and kaolinitic matrix, in part silty, subangular to subrounded grains, moderately sorted, siliceous and calcareous cement, tight with poor porosity, spotty dark brown oil stain, 10% patchy bright yellow white direct fluorescence, trace bright with white mineral fluorescence, dull cut;

Siltstone (25%): light to medium gray, gritty texture, siliceous and calcareous cement, sublithic, rare pyrite, in part very fine sandy, tight.

1005 - 1010

Sandstone (50%): light to medium gray, lower and upper very fine grained grading slightly to lower fine grained and siltstone, sublithic, argillaceous, subrounded, moderately sorted, siliceous and calcareous cement, tight with poor porosity, spotty dark brown oil stain, 5% patchy bright yellow white direct fluorescence, trace bright with white mineral fluorescence, dull with bright cut;

Siltstone (50%): light and medium gray, gritty texture, siliceous and in part calcareous cement, in part very fine sandy, tight.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1010 - 1015

Siltstone (55%): light and medium gray, gritty texture, siliceous and common calcareous cement, argillaceous and micromicaceous, in part grading to lower very fine grained sandstone, tight;

Sandstone (30%): light to in part medium gray, lower and upper very fine grained, commonly grading to siltstone, sublithic, argillaceous and silty, micromicaceous, tight with poor porosity, rare spotty dark brown oil stain, 5% spotty bright yellow white direct fluorescence, trace bright white with blue mineral fluorescence, dull cut;

Shale (15%): medium gray, blocky and minor subfissile, micromicaceous, silty.

1015 - 1020

Sandstone (80%): light to in part medium gray, lower and upper very fine grained, commonly grading to siltstone, sublithic, argillaceous and silty, micromicaceous, tight with poor porosity, trace spotty bright yellow white direct fluorescence, trace bright white with blue mineral fluorescence, dull cut;

Shale (20%): medium gray, blocky and minor subfissile, micromicaceous, silty.

1020 - 1025

Sandstone (70%): light to in part medium gray, lower and upper very fine grained, commonly grading to siltstone, sublithic, argillaceous and silty, micromicaceous, tight with poor porosity, trace spotty bright yellow white direct fluorescence, trace bright white with blue mineral fluorescence, dull with bright cut;

Shale (30%): medium gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings.

1025 - 1030

Sandstone (60%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, sublithic, argillaceous and silty, micromicaceous, tight with poor porosity, trace spotty bright yellow white direct fluorescence, trace bright white with blue mineral fluorescence, dull cut;

Shale (40%): medium gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings.

1030 - 1035

Sandstone (40%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, sublithic, argillaceous and silty, calcareous, micromicaceous, trace pyritic and calcite veins, tight to poor intergranular porosity (0 to 3% inferred), trace spotty bright yellow white direct fluorescence, trace bright white with blue mineral fluorescence, dull cut;

Shale (60%): medium gray occasional dark gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1035 - 1040

Sandstone (70%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, sublithic, argillaceous and silty, calcareous, micromicaceous, trace pyritic and calcite veins, tight with poor porosity, trace patchy pale with dull yellow direct fluorescence, trace unified bright white mineral fluorescence, pale cut;

Shale (30%): medium gray occasional dark gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings.

1040 - 1045

Sandstone (60%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, sublithic, argillaceous and silty, calcareous, micromicaceous, trace pyritic and calcite veins, tight with poor porosity, trace patchy pale with dull yellow direct fluorescence, trace bright white mineral fluorescence, pale cut;

Shale (40%): medium gray occasional dark gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings.

1045 - 1050

Sandstone (70%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, argillaceous and silty, calcareous, micromicaceous, trace pyritic and calcite veins, tight with poor porosity, rare spotty dark brown oil stain, 10% patchy dull with bright yellow white direct fluorescence, trace bright white mineral fluorescence, pale with dull cut;

Shale (30%): medium gray occasional dark gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings.

1050 - 1055

Sandstone (70%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight with poor porosity, rare spotty dark brown oil stain, 20% patchy dull with bright yellow white direct fluorescence, 5% bright white mineral fluorescence, pale with dull cut;

Shale (20%): medium gray occasional dark gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings;

Limestone (10%): chalky to cream, occasional white, soft, tight, no shows.

1055 - 1060

Sandstone (70%): white to light gray, lower and upper very fine grained, commonly grading to siltstone,

SAMPLE DESCRIPTIONS

Depth (m)

quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight with poor porosity, 5% patchy dull with bright yellow white direct fluorescence, trace bright white mineral fluorescence, pale cut;

Shale (20%): medium gray occasional dark gray, blocky and minor subfissile, micromicaceous, silty, shale is more abundant in coarse grade cuttings;

Limestone (10%): chalky to cream, occasional white, soft, tight, no shows.

1060 - 1065

Sandstone (60%): clear to white, occasional light gray, abundant loose cuttings, fine to medium grained, quartzitic (<10% lithic grains), moderately sorted, subangular to angular, poor intergranular (0 to 3% inferred), abundant spotty dark brown oil staining, 50% spotty dull direct fluorescence, trace bright white mineral fluorescence, dull with bright cut;

Silty Sandstone (20%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight, no shows;

Shale (10%): medium to dark gray, silty, subfissile, subblocky, micromicaceous;

Limestone (10%): chalky to cream, occasional white to light brown, soft, tight, no shows.

1065 - 1070

Sandstone (60%): clear to white, occasional light gray, abundant loose cuttings, fine to medium grained, quartzitic (<10% lithic grains), moderately sorted, subangular to angular, poor intergranular (0 to 3% inferred), rare spotty dark brown oil staining, 10% spotty dull direct fluorescence, trace bright white mineral fluorescence, pale cut;

Silty Sandstone (20%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight, no shows;

Shale (10%): medium to dark gray, silty, subfissile, subblocky, micromicaceous;

Limestone (10%): chalky to cream, occasional white to light brown, soft, tight, no shows.

1070 - 1075

Sandstone (60%): clear to white, occasional light gray, abundant loose grains, fine to medium grained, quartzitic (<10% lithic grains), moderately sorted, subangular to angular, poor intergranular porosity (0 to 3% inferred), rare spotty dark brown oil staining, trace spotty dull direct fluorescence, trace bright white mineral fluorescence, pale with dull cut;

Silty Sandstone (20%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight, faint with pale cut;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Shale (10%): medium to dark gray, silty, subfissile, subblocky, micromicaceous;
Limestone (10%): chalky to cream, occasional white to light brown, soft, tight, no shows.

1075 - 1080

Silty Sandstone (70%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight, no shows;
Silty Shale (20%): light to medium gray, silty, subfissile, subblocky, micromicaceous;
Sandstone (10%): clear to white, occasional light gray, abundant loose grains, fine to medium grained, quartzitic (<10% lithic grains), moderately sorted, subangular to angular, poor intergranular porosity (0 to 3% inferred), trace spotty dull direct fluorescence, trace bright white mineral fluorescence, faint with pale cut.

1080 - 1085

Silty Sandstone (70%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight with poor porosity, rare spotty dark brown oil staining, 10% spotty faint with pale yellow direct fluorescence, trace bright white with orange mineral fluorescence, dull with bright cut;
Silty Shale (20%): light to medium gray, silty, subfissile, subblocky, calcareous, micromicaceous, dull with bright cut;
Limestone (10%): chalky to cream color, occasional white, soft, tight.

1085 - 1090

Silty Shale (70%): light to medium gray, silty, subfissile, subblocky, calcareous, grading to marlstone, micromicaceous;
Limestone (20%): chalky to cream color, occasional white, soft, tight;
Silty Sandstone (10%): white to light gray, lower and upper very fine grained, commonly grading to siltstone, quartzose to subarkosic, <10% lithic fragments, argillaceous and silty, calcareous, tight with poor porosity, very rare spotty dark brown with black spotty oil stain (pyrobitumen?) on cuttings, 5% patchy dull yellow direct fluorescence, dull with bright cut.

1090 - 1095

Siltstone (45%): light gray grading occasionally to medium gray, gritty texture, calcareous and in part siliceous cement, argillaceous, occasionally grading to silty shale, occasionally very fine sandy, tight;
Sandstone (30%): light gray, lower and upper fine grained, in part grading to upper very fine and occasional lower medium grains, sublithic with 15% medium gray lithic grains, common argillaceous matrix, subrounded,

SAMPLE DESCRIPTIONS

Depth (m)

moderately sorted, calcareous cement, in part siliceous cement, tight with poor porosity, very rare spotty dark brown with black spotty oil stain (pyrobitumen?) on cuttings, 5% spotty faint yellow direct fluorescence, bright cut;

Shale (20%): medium and dark gray and occasionally gray brown, blocky, silty, occasionally calcareous, silty and occasionally grading to shaly siltstone;

Limestone (5%): cream and occasionally white, chalky texture, argillaceous and occasionally silty.

1095 - 1100

Sandstone (65%): light gray, lower and upper fine grained, in part grading to upper very fine grained and minor lower medium grains and trace upper medium grains, trace quartz pebble fragments, sublithic with 5 to 10% lithic grains, rare micromicaceous flakes, rare pyrite, common argillaceous and in part silty matrix, subrounded, moderately sorted, calcareous cement, in part siliceous cement, tight with poor porosity, very rare spotty dark brown with black spotty oil stain (pyrobitumen?) on cuttings, 5% patchy faint with pale yellow direct fluorescence, 5% bright yellow white mineral fluorescence, bright cut;

Siltstone (20%): light gray, gritty texture, calcareous and in part siliceous cement, argillaceous, in part very fine sandy, tight;

Shale (10%): dark gray to in part gray brown, blocky, in part silty, calcareous in part;

Limestone (5%): white to trace cream color, chalky in part, argillaceous, soft.

1100 - 1105

Sandstone (75%): light gray, upper very fine to upper fine grained, minor lower medium grained and lower very fine grained, occasional upper medium grains, 95% quartz and 5% gray lithic grains, trace pyrite and micromicaceous flakes, occasional limestone stringers, common argillaceous matrix, calcareous and in part siliceous cement, subrounded, moderately sorted, tight with poor porosity, very rare spotty dark brown with black spotty oil stain (pyrobitumen?) on cuttings, 5% patchy faint with pale yellow direct fluorescence, trace bright white mineral fluorescence, dull with bright cut;

Siltstone (20%): light gray, gritty texture, calcareous cement, argillaceous, occasionally grading to lower very fine grained silty sandstone, tight;

Shale (5%): dark gray, blocky, silty, calcareous.

1105 - 1110

Sandstone (70%): light gray, upper very fine to upper fine grained, in part grading to lower very fine grained and siltstone, common lower medium grains, 90% quartz and 10% lithic grains, minor micromicaceous flakes disseminated throughout, argillaceous and in part silty, subrounded, moderately sorted, calcareous

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Depth (m)

and in part siliceous cement, tight with poor porosity, very rare spotty dark brown with black spotty oil stain (pyrobitumen?) on cuttings, 5% patchy pale yellow direct fluorescence, 5% bright white mineral fluorescence, pale with dull cut;

Siltstone (30%): light gray, gritty texture, calcareous cement, argillaceous and in part very fine sandy, tight;

Shale (trace): medium to dark gray, blocky, calcareous.

1110 - 1115

Shale (55%): dark gray grading occasionally to medium gray and gray brown, blocky and minor subfissile, micromicaceous, silty and occasionally grading to shaly siltstone, calcareous, trace calcareous stringers;

Sandstone (30%): light gray, rare medium gray, lower and upper fine grained, minor lower medium and upper very fine grained, 95% quartz and 5% lithic grains, minor micromicaceous flakes, occasional calcareous stringers, argillaceous and silty matrix, subrounded, moderately sorted, calcareous cement, in part siliceous cement, tight, tight with poor porosity, trace spotty faint orange direct fluorescence, trace dull orange mineral fluorescence, faint cut;

Siltstone (15%): light to medium gray in part, gritty texture, calcareous cement, argillaceous, tight.

1115 - 1120

Sandstone (75%): light gray, upper very fine to upper fine grained and in part lower very fine grained grading to siltstone, common lower and upper medium grained and quartz with chert pebble fragments, quartzose to sublithic, < 10% lithic grains, locally micromicaceous flakes, argillaceous and silty, subrounded, moderately sorted, calcareous cement, in part siliceous cement, tight with poor porosity, rare questionable pyrobitumen, trace spotty faint yellow direct fluorescence, trace brown with white mineral fluorescence, pale with dull cut;

Siltstone (20%): light gray, gritty texture, calcareous cement, in part siliceous cement, argillaceous and in part very fine sandy, tight;

Shale (5%): medium and dark gray, blocky, silty, in part calcareous.

1120 - 1125

Sandstone (60%): light gray to in part off white, upper fine to lower medium grained, in part lower fine and occasional upper medium grains, quartzose to sublithic with trace to locally 5% lithic grains, trace micromicaceous flakes, rare pyrite, argillaceous and in part silty matrix, subrounded and subangular grains, moderately sorted, calcareous and siliceous cement, common loose grains, minor fair grain relief, tight to poor intergranular porosity (0 to 5%), trace to minor questionable pyrobitumen, trace spotty faint yellow direct fluorescence, trace brown with white mineral fluorescence, trace very faint milky white cut;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Siltstone (30%): light gray grading occasionally to medium gray, gritty texture, siliceous and in part calcareous cement, argillaceous, tight;

Shale (10%): medium and dark gray, blocky, in part micromicaceous, in part silty.

1125 - 1130

Siltstone (50%): medium gray, in part light gray, gritty texture, calcareous and siliceous cement, argillaceous, minor grading to silty shale, occasionally grading to lower very fine grained silty sandstone, tight;

Shale (45%): medium gray, blocky and minor subfissile, in part micromicaceous, silty, trace calcareous stringers, minor grading to shaly siltstone;

Sandstone (5%): light gray, upper very fine to lower fine grained, sublithic, argillaceous and silty, subrounded, moderately sorted, calcareous and siliceous cement, tight with poor porosity, no direct fluorescence, trace bright orange mineral fluorescence, pale cut.

1130 - 1135

Siltstone (50%): medium to in part light gray, gritty texture, calcareous and siliceous cement, argillaceous, commonly grading to silty shale, rare pyrite, tight;

Shale (50%): medium gray, blocky, in part micromicaceous, silty, trace calcareous stringers, commonly grading to shaly siltstone, no shows.

1135 - 1140

Shale (55%): medium and dark gray, blocky, micromicaceous, silty, commonly grading to silty shale;

Siltstone (40%): light to medium gray, gritty texture, calcareous and siliceous cement, argillaceous, commonly grading to silty shale, tight;

Sandstone (5%): light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to sublithic with 10% lithic grains, argillaceous matrix, subrounded, moderately sorted, calcareous and siliceous cement, tight with poor porosity, trace dull orange mineral fluorescence, faint with pale cut.

1140 - 1145

Shale (70%): medium and in part dark gray, blocky and occasional subfissile, micromicaceous, silty, trace calcareous stringers, commonly grading to shaly siltstone;

Siltstone (25%): light to medium gray, gritty texture, calcareous and siliceous cement, argillaceous, in part grading to silty shale, tight;

Sandstone (5%): light gray, upper very fine to upper fine grained, sublithic, argillaceous and in part silty matrix, subrounded, moderately sorted, calcareous and siliceous cement, tight with poor porosity, trace dull orange mineral fluorescence, trace bright yellow white mineral fluorescence, pale with dull cut.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1145 - 1150

Shale (65%): medium and dark gray, blocky and in part subfissile, micromicaceous, silty, trace calcareous stringers, minor grading to shaly siltstone;

Siltstone (35%): light and medium gray, gritty texture, siliceous and calcareous cement, argillaceous, commonly grading to silty shale, tight;

Sandstone (trace): light gray, upper very fine to lower fine grained, in part upper fine grained, quartzose to sublithic, argillaceous and silty matrix in part, subrounded, moderately sorted, calcareous and siliceous cement, tight, trace dull orange mineral fluorescence, trace bright yellow white mineral fluorescence, dull with bright cut.

1150 - 1155

Shale (65%): medium and dark gray, blocky and occasional subfissile, micromicaceous, silty, trace calcareous stringers, minor grading to shaly siltstone;

Siltstone (30%): light to medium gray, gritty texture, siliceous and calcareous cement, tight;

Sandstone (5%): light gray, upper very fine to upper fine grained, quartzose to sublithic, in part micaceous, argillaceous and silty matrix, subrounded, moderately sorted, calcareous and siliceous cement, tight, trace dull orange mineral fluorescence, trace bright yellow white mineral fluorescence, pale with dull cut.

1155 - 1160

Shale (50%): medium and dark gray, blocky, micromicaceous, silty, commonly grading to silty shale;

Siltstone (10%): light to medium gray, gritty texture, calcareous and siliceous cement, argillaceous, commonly grading to silty shale, tight;

Sandstone (40%): light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to subarkosic with <10% lithic grains, argillaceous matrix, subrounded, moderately sorted, calcareous and siliceous cement, tight with poor porosity, trace dull orange mineral fluorescence, trace bright yellow white mineral fluorescence, pale with dull cut.

1160 - 1165

Shale (50%): medium and dark gray, blocky, micromicaceous, silty, commonly grading to silty shale;

Sandstone (50%): light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to subarkosic with <10% lithic grains, argillaceous matrix, subrounded, moderately sorted, calcareous and siliceous cement, tight with poor porosity, trace spotty faint orange direct fluorescence, pale with dull cut.

1165 - 1170

Sandstone (90%): subarkosic, light gray, lower fine grained, in part upper very fine and upper fine grained,

SAMPLE DESCRIPTIONS

Depth (m)

quartzose to subarkosic with <10% lithic grains, argillaceous matrix, subrounded, moderately sorted, calcareous and siliceous cement, tight with poor porosity, trace faint orange direct fluorescence, trace dull orange mineral fluorescence, pale cut;

Shale (10%): medium gray, blocky, micromicaceous, silty, commonly grading to silty shale.

1170 - 1175

Sandstone (90%): subarkosic, light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to subarkosic with <10% lithic grains, argillaceous matrix, subrounded, moderately sorted, calcareous and siliceous cement, tight, trace in fluorescence, pale cut;

Shale (10%): medium gray, blocky, micromicaceous, silty, commonly grading to silty shale.

1175 - 1180

Sandstone (90%): subarkosic, light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to subarkosic with <10% lithic grains, argillaceous matrix, subrounded, moderately sorted, calcareous, tight to poor intergranular porosity (0 to 3%), weak dark bluish fluorescence on <5% cuttings, trace mineral fluorescence, faint cut;

Shale (10%): medium gray, blocky, micromicaceous, silty, commonly grading to silty shale.

1180 - 1185

Sandstone (90%): subarkosic, light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to subarkosic with <10% lithic grains, argillaceous matrix, subrounded, moderately sorted, calcareous, tight to poor intergranular porosity (0 to 3%), 5% spotty faint orange with dark yellow direct fluorescence, faint cut;

Shale (10%): medium gray, blocky, micromicaceous, silty, commonly grading to silty shale.

1185 - 1190

Sandstone (80%) subarkosic, light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to subarkosic with <10% lithic grains, argillaceous to silty matrix, subrounded, moderately sorted, calcareous, tight, trace bright white mineral fluorescence, faint cut;

Shale (20%): medium gray, blocky, micromicaceous, silty, commonly grading to silty shale.

1190 - 1195

Sandstone (80%) subarkosic, light gray, lower fine grained, in part upper very fine and upper fine grained, quartzose to subarkosic with <10% lithic grains, argillaceous to silty matrix, subrounded, moderately sorted, calcareous, tight, no shows;

Shale (20%): medium gray, blocky, micromicaceous, silty, commonly grading to silty shale.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1195 - 1200

Silty Sandstone (50%): lithic subarkosic, very fine grained, grading to siltstone in part, silty matrix, medium cemented with calcareous cement, poor porosity, no shows;

Shale (50%): medium gray, blocky, subfissile, micromicaceous, silty, grading to siltstone in part.

1200 - 1205

Silty Sandstone (50%): subarkosic, very fine grained, grading to siltstone in part, silty matrix, medium cemented with calcareous cement, tight to poor porosity (0 to 3%), trace unified light brown stain, dark brown spotty stain, 5% dull orange (mineral?) fluorescence, no cut;

Shale (50%): medium gray, blocky, subfissile, micromicaceous, silty, grading to siltstone in part.

1205 - 1210

Silty Sandstone (50%): lithic subarkose, very fine grained, grading to siltstone in part, silty matrix, medium cemented with calcareous cement, poor porosity, trace bright white mineral fluorescence, no cut;

Shale (50%): medium gray, blocky, subfissile, micromicaceous, silty, grading to siltstone in part.

1210 - 1215

Shale (50%): medium gray, blocky, subfissile, micromicaceous, silty, grading to siltstone in part;

Silty Sandstone (40%): subarkosic, very fine grained, grading to siltstone in part, silty matrix, medium cemented with calcareous cement, poor porosity, no shows;

Conglomerate? (10%): unconsolidated cuttings, predominantly fragments of quartz and chert, with minor lithic fragments.

1215 - 1220

Shale (100%): medium to dark gray, subfissile, subblocky, moderately hard;

Trace silty sandstone.

1220 - 1225

Shale (100%): medium to dark gray, subfissile, subblocky, moderately hard, occasionally grading to argillaceous siltstone, calcareous, minor calcareous stringers or veins;

Trace silty sandstone.

1225 - 1230

Shale (45%): medium and dark gray, blocky, micromicaceous, silty, in part calcareous, rare calcareous stringers, occasionally grading to shaly siltstone;

Siltstone (40%): light gray, gritty texture, siliceous and calcareous cement, argillaceous, tight;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Sandstone (15%): light to medium gray, lower and upper fine grained occasional upper very fine grained and trace lower medium grained, quartzose with 5% lithic grains, argillaceous matrix in part, subrounded, moderately sorted, calcareous and siliceous cement, tight with poor porosity, pale cut.

1230 - 1235

Siltstone (50%): light gray grading in part to medium gray, gritty texture, calcareous and siliceous cement, in part micaceous, argillaceous, in part grading to lower very fine grained sandstone, tight;

Shale (25%): medium to in part dark gray, blocky, micromicaceous, in part silty, calcareous;

Sandstone (25%): light gray, lower and upper very fine grained, commonly grading to siltstone and lower fine grained sandstone, quartzose, trace micromicaceous, rare pyrite, argillaceous matrix, calcareous and in part siliceous cement, tight with poor porosity, pale cut.

1235 - 1240

Siltstone (65%): light gray, gritty texture, calcareous and in part siliceous cement, tight;

Sandstone (35%): light gray, lower fine to lower medium grained, minor to in part common quartz and light to dark gray chert pebble fragments, argillaceous matrix in part, subrounded, moderately sorted, calcareous and siliceous cement, common loose grains, tight to inferred poor intergranular porosity (0 to 3%), pale cut.

1240 - 1245

Sandstone (90%): light gray, lower fine to lower medium grained, minor upper very fine grained and occasional upper medium grains, minor quartz and chert fragments, quartzose to 5 to 10% lithic grains, trace micromicaceous flakes, rare pyrite, argillaceous matrix in part, subangular to subrounded grains, moderately sorted, calcareous and in part siliceous cement, common loose grains, inferred tight to poor intergranular porosity (0 to 3%), no shows, trace dull yellow fluorescence, no cut;

Siltstone (10%): light gray, gritty texture, calcareous and in part siliceous cement, argillaceous, tight;

Shale (trace): medium to dark gray, blocky and minor subfissile, micromicaceous, silty, calcareous;

1245 - 1250

Siltstone (80%): light gray grading in part to medium gray, gritty texture, calcareous and siliceous cement, argillaceous, tight;

Sandstone (20%): light gray, upper fine to lower coarse grained, common lower fine grained and quartz and chert fragments, quartzose to 5% lithic grains, trace pyrite, argillaceous matrix in part, subangular to subrounded grains, moderately sorted, minor loose grains, tight, no shows.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1250 - 1255

Siltstone (60%): medium gray grading in part to light gray, gritty texture, calcareous and siliceous cement, in part micaceous, tight;

Sandstone (40%): light gray, lower and upper fine grained, minor lower medium grains, occasional quartz and chert fragments, quartzose, trace lithic grains, trace pyrite, argillaceous in part, calcareous cement, subangular to subrounded grains, moderately sorted, abundant loose grains, inferred tight to poor intergranular porosity (0 to 3%), no shows, no fluorescence, no cut.

1255 - 1260

Siltstone (100%): medium minor dark gray, gritty texture, siliceous and calcareous cement, argillaceous, in part slightly shaly, tight;

Sandstone (trace): light gray, lower and upper fine grained, occasional lower medium grained, quartzose, trace lithic grains, trace micromicaceous flakes, subrounded, subangular to subrounded grains, moderately sorted, calcareous and siliceous cement, tight, no shows.

1260 - 1265

Siltstone (90%): light to medium gray, occasional medium to dark gray, gritty texture, siliceous and calcareous cement, argillaceous, tight;

Sandstone (10%): off white to in part light gray, upper very fine to upper fine grained, trace lower medium grains, quartzose, trace lithic grains, rare pyritic, in part argillaceous matrix, subangular to subrounded grains, moderately sorted, calcareous and siliceous cement, tight, pale cut.

1265 - 1270

Siltstone (50%): light to in part medium gray, gritty texture, calcareous and siliceous cement, argillaceous in part, tight;

Sandstone (50%): off white to light gray, variable lower fine to lower coarse grained, occasional very fine grained, minor quartz and chert fragments, quartzose, trace lithic grains, subrounded and trace rounded frosted grains, moderately and poorly sorted, calcareous and siliceous cement, common loose grains, inferred tight to poor intergranular porosity (0 to 3%), no shows, no fluorescence, pale cut.

1270 - 1275

Siltstone (85%): light to medium gray, gritty texture, calcareous and siliceous cement, in part sublithic, argillaceous, trace pyrite, tight;

Sandstone (15%): light gray, upper very fine to lower fine grained, quartzose, trace lithic grains, argillaceous in part, subangular to subrounded grains, moderately sorted, calcareous and siliceous cement, tight, pale cut.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1275 - 1280

Siltstone (70%): light to medium gray, gritty texture, siliceous and calcareous cement, argillaceous, tight;

Limestone (30%): buff to pale gray brown and in part off white to cream, mudstone, massive texture, occasional mottled texture, argillaceous in part, tight, no shows, dull yellow mineral fluorescence, pale cut.

1280 - 1285

Siltstone (100%): light to medium gray, gritty texture, siliceous and calcareous cement, minor calcareous veins, argillaceous, pale cut;

Limestone (trace): buff to gray brown, mudstone, massive texture, tight.

1285 - 1290

Siltstone (100%): light gray grading to medium gray, gritty texture, siliceous and calcareous cement, argillaceous, minor to common white calcareous stringers, tight, pale with dull cut.

1290 - 1295

Siltstone (100%): light gray grading to medium gray, gritty texture, siliceous and calcareous cement, argillaceous, occasionally grading to silty sandstone, minor to common white calcareous stringers, tight, dull cut.

1295 - 1300

Siltstone (90%): light gray grading to medium gray, gritty texture, siliceous and calcareous cement, argillaceous, occasionally grading to silty sandstone, minor to common white calcareous stringers, tight;

Silty Sandstone (10%): light gray, very fine grained, silty, argillaceous matrix, calcareous cement, moderately sorted, tight, dull cut.

1300 - 1305

Siltstone (80%): light gray grading to medium gray, gritty texture, siliceous and calcareous cement, argillaceous, occasionally grading to silty sandstone, tight;

Silty Sandstone (10%): light gray, very fine grained, silty, argillaceous matrix, calcareous cement, moderately sorted, tight, no oil stain;

Shale (10%): medium to dark gray, platy, subfissile, moderately hard.

1305 - 1310

Siltstone (90%): light gray grading to medium gray, gritty texture, siliceous and calcareous cement, argillaceous, occasionally grading to silty sandstone, tight;

Silty Sandstone (10%): light gray, very fine grained, silty, argillaceous matrix, calcareous cement, moderately sorted, tight, no oil stain.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1310 - 1315

Siltstone (90%): medium gray, gritty texture, siliceous and calcareous cement, argillaceous, shaly in part, occasionally grading to silty sandstone, tight;

Silty Sandstone (10%): light gray to buff, very fine grained, silty, argillaceous matrix, calcareous cement, moderately sorted, tight, faint cut.

1315 - 1320

Siltstone (90%): medium gray, gritty texture, siliceous and calcareous cement, argillaceous, shaly in part, occasionally grading to silty sandstone, tight;

Silty Sandstone (10%): light gray to buff, very fine grained, silty, argillaceous matrix, calcareous cement, moderately sorted, tight, faint cut.

1320 - 1325

Sandstone (80%): clear to white to light gray, lithic subarkosic, sample is composed of predominantly unconsolidated grains of angular to subangular quartz cuttings and lithic fragments, with minor feldspar, very fine to medium grained, poorly sorted, well cement with calcareous cement, trace pyrobitumen, poor intergranular porosity (0 to 3%), 20% of cuttings shows bluish green fluorescence, no cut;

Siltstone (20%): medium gray, gritty texture, siliceous and calcareous cement, argillaceous, shaly in part, occasionally grading to silty sandstone, tight.

1325 - 1330

Sandstone (90%): clear to white to light gray, lithic subarkosic, very fine to fine grained, moderately sorted, well cemented with calcareous cement, trace pyrobitumen, poor porosity (0 to 3%), no shows;

Siltstone (10%): medium gray, gritty texture, siliceous and calcareous cement, argillaceous, shaly in part, occasionally grading to silty sandstone, tight.

1330 - 1335

Silty Sandstone (60%): clear to white to light gray, lithic subarkosic, very fine to fine grained, moderately sorted, subangular to angular, well cemented with calcareous cement, tight to poor porosity, faint cut;

Siltstone (40%): medium gray, gritty texture, siliceous and calcareous cement, argillaceous, shaly in part, occasionally grading to silty sandstone, tight.

1335 - 1340

Silty Sandstone (30%): white to light gray, lithic subarkosic, very fine to fine grained, moderately sorted, subangular to angular, well cemented with calcareous cement, tight to poor porosity, no shows;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Siltstone (30%): medium gray, gritty texture, siliceous and calcareous cement, argillaceous, shaly in part, occasionally grading to silty sandstone, tight;

Sandstone/Conglomerate (40%): sample composed of platy cuttings or shards of glassy quartz, feldspar and rare blocky lithic fragments, inferred subangular lithic arkose to subarkose sandstone or possible subangular sandy conglomerate.

1340 - 1345

Sandstone (90%): light gray, variable lower fine to upper coarse grained, minor to common very coarse grains and quartz fragments indicative of possible pebble size grains, 90% clear, translucent, white and trace smoky gray quartz and 10% chert fragments, minor white chalky grains possible kaolinitic, common pyrite throughout, trace micromicaceous flakes, in part very fine sandy matrix, subangular to subrounded grains, poorly sorted, siliceous and calcareous cement, abundant loose grains and fragments, inferred tight to poor intergranular porosity (0 to 3%), no shows, common dull to medium bright yellow mineral fluorescence, faint with pale cut;

Siltstone (10%): light gray to pale gray brown, gritty texture, siliceous and calcareous cement, argillaceous, in part grading to very fine grained sandstone, tight.

1345 - 1350

Sandstone (80%): light gray, variable lower fine to upper coarse grained, minor to common very coarse grains and quartz fragments indicative of possible pebble size grains, 90% clear, translucent, white and trace smoky gray quartz and 10% chert fragments, minor white chalky grains possible kaolinitic, common pyrite throughout, trace micromicaceous flakes, in part very fine sandy matrix, subangular to subrounded grains, poorly sorted, siliceous and calcareous cement, abundant loose grains and fragments, tight, faint with pale cut;

Siltstone (20%): light gray to pale gray brown, gritty texture, siliceous and calcareous cement, argillaceous, in part grading to very fine grained sandstone, tight.

1350 - 1355

Sandstone (90%): clear to light gray, variable lower fine to upper coarse grained, minor to common very coarse grains and quartz fragments indicative of possible pebble size grains, sample composed of 90% unconsolidated cuttings, clear, translucent, white and trace smoky gray quartz with minor white chalky grains, trace micromicaceous flakes, in part very fine sandy matrix, subangular to subrounded grains, poorly sorted, siliceous and calcareous cement, tight, faint with pale cut;

Siltstone (10%): light gray, calcareous cement, argillaceous, tight.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1355 - 1360

Sandstone (90%): clear to light gray, variable lower fine to upper coarse grained, minor to common very coarse grains and quartz fragments indicative of possible pebble size grains, sample composed of 90% unconsolidated cuttings, clear, translucent, white and trace smoky gray quartz with minor white chalky grains, trace micromicaceous flakes, in part very fine sandy matrix, subangular to subrounded grains, poorly sorted, siliceous and calcareous cement, tight, faint with pale cut;

Siltstone (10%): light gray, calcareous cement, argillaceous, tight.

1360 - 1365

Sandstone (95%): clear to light gray, variable lower fine to upper coarse grained, minor to common very coarse grains and quartz fragments indicative of possible pebble size grains, sample composed of 90% unconsolidated cuttings, clear, translucent, white and trace smoky gray quartz with minor white chalky grains, trace micromicaceous flakes, in part very fine sandy matrix, subangular to subrounded grains, poorly sorted, siliceous and calcareous cement, tight, faint cut;

Siltstone (5%): light gray, calcareous cement, argillaceous, tight.

1365 - 1370

Sandstone (95%): clear to light gray, variable lower fine to upper coarse grained, minor to common very coarse grains and quartz fragments indicative of possible pebble size grains, sample composed of 90% unconsolidated cuttings, clear, translucent, white and trace smoky gray quartz with minor white chalky grains, trace micromicaceous flakes, in part very fine sandy matrix, subangular to subrounded grains, poorly sorted, siliceous and calcareous cement, tight, faint cut;

Siltstone (5%): light gray, calcareous cement, argillaceous, tight.

1370 - 1375

Siltstone (90%): medium to dark gray, occasionally brownish gray, micromicaceous, subplaty cuttings, argillaceous, calcareous, minor calcareous veins;

Sandstone (10%): light gray to brownish, very fine to fine grained, silty, calcareous and silica cement, tight, faint with pale cut.

1375 - 1380

Siltstone (100%): medium and light gray, occasionally grading to dark gray, gritty texture, siliceous and calcareous cement, rare calcareous cement, trace pyrite, trace grading to lower very fine grained sandstone, tight, faint with pale cut.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1380 - 1385

Sandstone (70%): light gray to slightly off white in part, lower and upper very fine grained to lower fine grained, occasional upper fine and lower medium grains, rare medium gray very coarse to chert grains, 90% quartz and 10% medium gray lithic grains, rare micromicaceous flakes, rare pyrite, kaolinitic matrix, subangular to subrounded grains, moderately sorted, siliceous and calcareous, tight, faint cut;

Siltstone (30%): pale to medium gray to slightly gray brown, occasionally dark gray, gritty texture, siliceous and calcareous cement, minor pyrite, argillaceous, dark gray shale occasionally grading to silty shale, tight.

1385 - 1390

Siltstone (60%): pale to medium gray grading in part to slightly gray brown, gritty texture, siliceous and calcareous cement, argillaceous, occasionally grading to silty shale, tight;

Sandstone (40%): light gray, lower and upper fine grained to lower coarse grained, minor to common upper coarse and lower very coarse grains, quartzose with predominantly clear, translucent with occasional white and smoky gray quartz grains and trace medium gray lithic grains (possible chert), rare disseminated pyrite, common kaolinitic matrix, trace calcareous veins, subangular to subrounded grains, occasionally rounded frosted quartz grains, moderately to poorly sorted, common to abundant loose grains, tight to inferred poor intergranular porosity (0 to 3%), no shows, minor medium and bright yellow mineral fluorescence, faint cut.

1390 - 1395

Siltstone (85%): medium gray grading in part to light gray and minor very faint brown, gritty texture, siliceous and calcareous cement, argillaceous, rare disseminated pyrite, trace micromicaceous flakes, occasionally grading to lower very fine grained sandstone, tight;

Sandstone (15%): very light gray grading to off white, lower and upper very fine grained, quartzitic, kaolinitic matrix, trace calcareous stringers, subrounded, moderately sorted, siliceous and calcareous cement, tight, rare yellow fluorescence, faint with pale cut.

1395 - 1400

Sandstone (50%): very light gray to in part off white, lower and upper very fine grained grading occasionally to lower fine grained and trace to upper fine grained, quartzitic, trace lithic grains, trace micromicaceous flakes, kaolinitic, argillaceous in part, subrounded, moderately to well sorted, abundant calcareous cement, tight, trace yellow mineral fluorescence, faint with pale cut;

Siltstone (50%): medium to light gray, gritty texture, siliceous and calcareous cement, argillaceous in part, tight.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1400 - 1405

Sandstone (60%): light gray to off white and common buff to pale gray brown, lower and upper very fine grained grading to siltstone, argillaceous, possible kaolinitic, subrounded, moderately sorted, abundant calcareous cement and occasionally grading to sandy silty limestone, tight, trace bright white mineral fluorescence, faint with pale cut;

Siltstone (40%): buff and medium gray, gritty texture in part, abundant calcareous and in part siliceous cement, possibly grading to argillaceous silty limestone, tight, no shows.

1405 - 1410

Sandstone (65%): light gray grading in part to buff, lower and upper very fine grained, commonly grading to siltstone and occasional lower fine grains, quartzose to sublithic, abundant calcareous cement, occasionally possibly grading to sandy to silty limestone, minor calcareous stringers, argillaceous, minor calcareous cement, tight with poor porosity, trace patchy light plus dark brown oil stain, trace patchy bright white direct fluorescence, dull with bright cut;

Siltstone (35%): medium to occasionally dark gray and in part gray brown, gritty texture in part, calcareous, occasionally possibly grading to silty limestone, tight.

1410 - 1415

Sandstone (50%): light gray grading slightly to faint gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, argillaceous and kaolinitic, trace pyrite, trace micromicaceous flakes, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous and occasionally grading to sandy to silty limestone, tight with poor porosity, no direct fluorescence, dull cut;

Siltstone (50%): pale gray brown and dark gray, gritty texture, in part very calcareous, possibly tight.

1415 - 1420

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain with trace limestone cuttings;

Sandstone (50%): light gray grading slightly to faint gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, trace micromicaceous flakes, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous limestone, tight with poor porosity, common spotty brown oil stain, 15% patchy bright white direct fluorescence, bright cut;

Siltstone (50%): pale gray brown and dark gray, gritty texture, very calcareous, in part grading to marlstone.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1420 - 1425

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain with <10% limestone cuttings;

Siltstone (50%): pale gray brown and dark gray, gritty texture, very calcareous, argillaceous in part grading to marlstone;

Sandstone (40%): light gray to faint gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous limestone, tight with poor porosity, trace patchy bright yellow white direct fluorescence, dull with bright cut;

Limestone (10%): whitish to cream, microcrystalline, poor porosity, no shows;

Possible PDC is grinding limestone into powder.

1425 - 1430

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain with 15% limestone cuttings;

Siltstone (45%): pale gray brown and dark gray, gritty texture, very calcareous, argillaceous in part grading to marlstone;

Sandstone (40%): light gray to faint gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous limestone, tight with poor porosity, 5% patchy dull with bright yellow white direct fluorescence, dull with bright cut;

Limestone (15%): whitish to cream, microcrystalline, poor porosity, no shows;

Possible PDC is grinding limestone into powder.

1430 - 1435

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain with trace limestone cuttings;

Sandstone (50%): light gray grading slightly to faint gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, trace micromicaceous flakes, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous limestone, tight with poor porosity, trace patchy dull with bright yellow white direct fluorescence, dull with bright cut;

Siltstone (50%): pale gray brown and dark gray, gritty texture, very calcareous, in part grading to marlstone.

1435 - 1440

Light gray, chalky muddy to limy sample, after washing and drying sample, only very fine grained calcareous sandstone and siltstone remain with trace limestone cuttings;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Sandstone (50%): light gray grading slightly to pale gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, trace micromicaceous flakes, minor calcareous stringers, subrounded, moderately sorted, common limestone stringers, tight with poor porosity, rare spotty brown oil stain, trace patchy faint with pale yellow white direct fluorescence, dull with bright cut;

Siltstone (50%): pale to medium gray and common dark gray, gritty texture, very calcareous, in part grading to marlstone, tight.

1440 - 1445

Light gray, chalky muddy sample, after washing and drying sample, only very fine grained calcareous sandstone and siltstone remain with trace limestone cuttings;

Sandstone (50%): light gray grading slightly to very faint gray brown, lower and upper very fine grained grading slightly to lower fine grained and sandy siltstone, quartzose with trace lithic grains, trace micromicaceous flakes, minor calcareous stringers, subrounded, moderately sorted, common limestone stringers, tight with poor porosity, trace patchy faint with pale yellow white direct fluorescence, pale cut;

Siltstone (50%): pale to medium gray and common dark gray, gritty texture, very calcareous, in part grading to marlstone, tight.

1445 - 1450

Light gray, chalky muddy sample, after washing and drying sample, only very fine grained calcareous sandstone and siltstone remain with trace limestone cuttings;

Sandstone (50%): light gray grading slightly to very faint gray brown, lower and upper very fine grained grading slightly to lower fine grained and sandy siltstone, quartzose with trace lithic grains, trace micromicaceous flakes, minor calcareous stringers, subrounded, moderately sorted, common limestone stringers, tight, no direct fluorescence, dull with bright cut;

Siltstone (50%): pale to medium gray and common dark gray, gritty texture, very calcareous, in part grading to marlstone, tight.

1450 - 1455

Light gray, chalky muddy sample, after washing and drying sample, only very fine grained calcareous sandstone and siltstone remain with trace limestone cuttings;

Sandstone (65%): light gray, lower and upper very fine grained, minor upper fine grains, rare lower medium grains, in part silty, quartzose, trace lithic grains, common disseminated micromicaceous flakes and occasional micaceous partings, very rare coal grains, subrounded, moderately sorted, abundant calcareous cement, tight with poor porosity, no direct fluorescence, faint with pale cut;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Siltstone (25%): light gray, occasionally medium gray, gritty texture, calcareous and siliceous cement, argillaceous, occasionally grading to silty shale and lower very fine grained silty sandstone, tight;
Shale (10%): medium gray, blocky and subfissile, slightly calcareous and in part grading to marlstone.

1455 - 1460

Light gray, chalky muddy sample, after washing and drying sample, only very fine grained calcareous sandstone and siltstone remain with trace limestone cuttings;
Sandstone (65%): light gray, lower and upper very fine grained, minor upper fine grains, rare lower medium grains, in part silty, quartzose, trace lithic grains, common disseminated micromicaceous flakes and occasional micaceous partings, rare pyrite stringers, rare calcareous stringers, subrounded, moderately sorted, abundant calcareous cement, tight with poor porosity, no direct fluorescence, dull cut;
Siltstone (35%): light gray, occasionally medium gray, gritty, calcareous, argillaceous, occasionally grading to silty shale and lower very fine grained silty sandstone, tight.

1460 - 1465

Light gray, chalky muddy sample, after washing and drying sample, only very fine grained calcareous sandstone and siltstone remain with trace limestone cuttings;
Sandstone (60%): light gray grading slightly to faint gray brown, lower and upper very fine grained grading occasionally to upper fine grained, in part sandy silty, quartzose, trace lithic grains, common disseminated micromicaceous flakes and occasional micaceous partings, rare pyrite, rare calcareous stringers, subrounded, moderately sorted, abundant calcareous cement, tight with poor porosity, trace patchy dull with bright yellow white direct fluorescence, dull cut;
Siltstone (40%): light and medium gray, gritty texture in part, slightly calcareous, argillaceous, occasionally grading to silty shale and lower very fine grained silty sandstone, tight.

1465 - 1470

Light gray, chalky muddy sample, after washing and drying sample, only very fine grained calcareous sandstone and siltstone remain with trace limestone cuttings;
Sandstone (60%): light gray grading in part to medium gray, lower and upper very fine grained, commonly grading to siltstone, minor grading to lower fine and trace upper fine grained, very rare lower medium grains, quartzose, trace lithic grains, trace disseminated micromicaceous flakes, rare pyrite, common calcareous stringers, subrounded, moderately sorted, abundant calcareous cement, tight with poor porosity, trace patchy pale with dull yellow white direct fluorescence, bright cut;
Siltstone (40%): medium and common dark gray, gritty texture in part, slightly calcareous, argillaceous, minor calcareous cement, commonly grading to silty shale, tight.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1470 - 1475

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain with 15% limestone cuttings;

Siltstone (45%): pale gray brown and dark gray, gritty texture, very calcareous, argillaceous in part grading to marlstone;

Sandstone (40%): light gray to faint gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous limestone, tight with poor porosity, rare brown with dark brown spotty oil staining, 5% patchy pale with dull yellow white direct fluorescence, bright cut;

Limestone (15%): mostly buff color, whitish to cream, microcrystalline, argillaceous, grading to silty marlstone, poor porosity, no shows;

Possible PDC is grinding limestone into powder.

1475 - 1480

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain with only trace limestone cuttings;

Sandstone (70%): clear to light gray, occasionally gray brown, lower and upper very fine grained grading to sandy siltstone, rare medium grains, quartzose with trace lithic grains, sample composed primarily of very fine unconsolidated clear glassy quartz grains, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous limestone, tight with poor porosity, rare brown with dark brown spotty oil staining, 5% patchy pale with dull yellow white direct fluorescence, bright cut;

Siltstone (30%): pale gray brown and dark gray, gritty texture, very calcareous, argillaceous in part grading to marlstone;

Possible PDC is grinding limestone into powder.

1480 - 1485

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain with only trace limestone cuttings;

Sandstone (70%): clear to light gray, occasionally gray brown, lower and upper very fine grained grading to sandy siltstone, rare medium grains, quartzose with trace lithic grains, sample composed primarily of very fine unconsolidated clear glassy quartz grains, minor calcareous stringers, subrounded, moderately sorted, abundant calcareous limestone, tight with poor porosity, rare brown with dark brown spotty oil staining, 5% patchy pale with dull yellow white direct fluorescence, bright cut;

Siltstone (30%): pale gray brown and dark gray, gritty texture, very calcareous, argillaceous in part grading to marlstone;

Possible PDC is grinding limestone into powder.

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

1485 - 1490

Light gray, chalky muddy sample, poor cuttings recovered, after washing and drying sample, only very fine grained sandstone and siltstone remain;

Siltstone (70%): pale gray brown and dark gray, gritty texture, very calcareous, argillaceous in part grading to marlstone;

Sandstone (30%): light gray, occasionally gray brown, lower and upper very fine grained grading to sandy siltstone, quartzose with trace lithic grains, minor calcareous stringers, subrounded, moderately sorted, poor porosity, rare brown with dark brown spotty oil staining, 5% patchy pale with dull yellow white direct fluorescence, bright cut.

1490 - 1495

Claystone (55%): light gray and cream, occasional medium gray, in part massive texture, trace calcareous, trace silty, in part slightly micromicaceous, common waxy appearance, minor calcareous stringers, soft;

Sandstone (20%): light gray, predominantly clear and translucent grains, lower fine to upper medium grains, quartzose, subrounded and subangular grains, trace rounded grains, moderately sorted, predominantly unconsolidated grains, inferred tight to poor intergranular porosity (0 to 3%), rare brown with dark brown spotty oil staining, 5% patchy pale with dull yellow white direct fluorescence, bright cut;

Siltstone (15%): light gray, gritty in part, common waxy clay matrix, in part very fine sandstone;

Shale (10%): medium and dark gray, common subfissile, micromicaceous, in part silty and occasionally grading to shaly siltstone, calcareous in part.

1495 - 1500

Siltstone (75%): light to medium gray and common dark gray, gritty to massive texture, argillaceous, occasionally grading to silty shale, trace calcareous stringers, in part grading to silty claystone, occasionally very fine sandy, tight;

Sandstone (25%): light gray, upper very fine to lower fine grained, occasional upper fine grained and trace lower medium grained, quartzose, trace lithic grains, subrounded, moderately sorted, abundant calcareous cement, tight with poor porosity, very patchy brown oil stain, trace patchy bright white direct fluorescence, trace bright white mineral fluorescence, dull to bright cut.

1500 - 1505

Sandstone (70%): light gray, lower medium to very coarse grained and occasional pebble size fragments, 80% quartz, clear, translucent, white, occasional smoky gray orange, slightly yellowish and purple color, 20% light to dark gray lithic grains and white quartzose grains, minor white and cream color limestone stringers, trace pyrite, subrounded to subangular grains, medium to poorly sorted, predominantly

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Depth (m)

unconsolidated grains and grain fragments, fine grained sand aggregates contain abundant calcareous cement, inferred poor intergranular porosity (3 to 5%), dark brown oil on shaker, very patchy brown oil stain, trace patchy bright white direct fluorescence, trace bright white mineral fluorescence, dull to bright cut;

Siltstone (20%): medium gray, gritty, calcareous cement, tight;

Shale (10%): dark gray, blocky, silty.

1505 - 1510

Sandstone (55%): light gray, lower medium to upper coarse grained, minor very coarse grains, rare pebble size fragments trace upper very fine to upper fine grained, 85% varicolored quartz as above and 10% lithic grains, minor to in part common kaolinitic grains, subrounded to subangular grains, trace rounded frosted grains, moderately to poorly sorted, predominantly unconsolidated grains, inferred poor intergranular porosity (3 to 5%), brown to black oil on shaker, rare questionable spotty oil staining on grains, trace medium and bright yellow fluorescence in sample, trace white halo cut;

Shale (25%): dark gray, blocky and subfissile, micromicaceous, silty;

Siltstone (20%): light and medium gray gritty texture, calcareous cement, argillaceous, tight gritty texture tight.

1510 - 1515

Conglomerate (100%): polymicritic, mud supported, varicolored (white, pink, clear, green, brown) fragments of 80% quartz, chert, volcanics and other lithographic, light gray argillaceous and coarse grained matrix, calcareous cement, poor intergranular porosity, trace questionable spotty oil staining on very few grains, faint yellow direct fluorescence, no cut.

1515 - 1520

Conglomerate (100%): polymicritic, mud supported, varicolored (white, pink, clear, green, brown) fragments of 80% quartz, chert, volcanics and other lithographic, light gray argillaceous matrix, calcareous, no shows.

1520 - 1525

Conglomerate (100%): polymicritic, possible clay to pebble supported, predominantly varicolored pebble fragments ranging from clear and translucent quartz orange pink (possible feldspar), light to dark gray, smoky gray, brown and trace green and purple lithic grains, occasional white quartzitic grains with abundant siderite speck, minor to in part common upper medium to upper very coarse frosted rounded unconsolidated quartz grains and trace chert grains, trace limestone grains, trace fine to medium grained sandy matrix, poorly sorted, inferred tight, no shows, trace dull yellow fluorescence, no cut.

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Depth (m)

1525 - 1530

Conglomerate (100%): polymicritic, possible pebble supported with subangular clay matrix, predominantly varicolored pebble fragments ranging from light to dark gray orange pink, occasional yellow brown and smoky gray, common loose lower medium to lower very coarse frosted rounded quartz grains inferred matrix to conglomerate, minor white gray earthy limestone grains, inferred tight, rare dull yellow fluorescence, no cut.

1530 - 1535

Conglomerate (100%): polymicritic, pebble supported with clay with sandy matrix, varicolored lithic pebble fragments as above, ranging from light to medium gray, gray brown orange pink, occasional yellow brown, trace green and clear and translucent quartz, trace quartzitic and limestone grains, abundant lower medium to lower coarse loose frosted, rounded quartz grains, poorly sorted, trace siltstone grains, inferred tight, rare very dull yellow fluorescence, no cut.

1535 - 1540

Conglomerate (65%): polymicritic, clay with sandy matrix, varicolored lithic pebble fragments from light to medium gray orange yellow, gray brown and common clear and translucent quartz, trace quartzitic and limestone grains, poorly sorted, inferred tight, rare very dull yellow fluorescence, no cut;

Sandstone (35%): light gray, upper fine to upper medium grained, common coarse grains, 75% quartz and 25% varicolored lithic grains, predominantly unconsolidated grains with occasional grain aggregates showing a pale gray green clay matrix, subangular to subrounded grains, moderately to poorly sorted, inferred tight to poor intergranular porosity (0 to 3%), no shows.

1540 - 1545

Sandstone (55%): off white to light gray, upper fine to lower coarse grained, minor upper coarse grains, quartzose to sublithic with 10% predominantly dark gray and minor varicolored lithic grains, subangular to subrounded grains, moderately to poorly sorted, predominantly loose grains, inferred tight to poor intergranular porosity (0 to 4%), no shows, trace yellow fluorescence, no cut;

Conglomerate (45%): polymicritic, clay with sandy matrix, varicolored lithic pebble fragments as above, trace siltstone grains, poorly sorted, inferred tight, rare very dull yellow fluorescence, faint cut.

1545 - 1550

Sandstone (60%): light gray, upper fine to upper coarse grained minor very coarse grains, minor upper very fair grains, some grains probable pebble fragments, 80% quartz and 20% varicolored lithic grains, predominantly loose grains, common clay matrix in grain aggregates, angular to subrounded grains,

SAMPLE DESCRIPTIONS

Depth (m)

minor rounded frosted grains, poorly sorted, inferred tight to poor intergranular porosity (0 to 3%), trace yellow fluorescence, no cut;

Conglomerate (40%): polymicritic, clay with sandy matrix, varicolored lithic pebble fragments, light to medium gray orange yellow, gray brown and common clear and translucent quartz, minor quartzitic grains, trace siltstone, poorly sorted, inferred tight to trace poor intergranular porosity (0 to 3%), rare very dull yellow fluorescence, faint cut.

1550 - 1555

Conglomerate (50%): probable sand supported, polymicritic, clay with sandy matrix, varicolored pebble fragments, light gray, green gray orange pink, cream, buff to brown, yellowish and common white, clear and translucent, common quartzitic fragments, trace siltstone grains, poorly sorted, inferred tight;

Sandstone (50%): probable sandy matrix in conglomerate, light gray, lower medium to lower coarse grained, common upper coarse and minor very coarse grains, 70% clear, translucent frosted quartz and 30% lithic grains, predominantly unconsolidated grains, common pale green gray clay matrix in part waxy appearance, subangular to subrounded grains common rounded frosted grains, moderately to poorly sorted, inferred tight.

1555 - 1560

Conglomerate (70%): probable sand supported, polymicritic, clay with sandy matrix, varicolored pebble fragments as above, trace siltstone grains, poorly sorted, inferred tight;

Sandstone (30%): probable sandy matrix in conglomerate, light gray, lower medium to lower coarse grained, common upper coarse and minor very coarse grains, 70% clear, translucent frosted quartz and 30% lithic grains, predominantly unconsolidated grains, common pale green gray clay matrix in part waxy appearance, subangular to subrounded grains common rounded frosted, grains, moderately to poorly sorted, inferred tight.

1560 - 1565

Conglomerate (100%): probable clastic supported, polymicritic, varicolored (white, clear, light brown, pink, bluish to green, light gray, and rare red) clasts or fragments of clasts of predominantly quartz and chert with minor volcanics and other lithic fragments, clasts are inferred to be from medium grained sand up to boulder sized, probably grading to and from pebbly sandstone (feldspathic litharenite). medium to coarse grained, composition similar to conglomerate, tight to poor porosity, no shows.

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SAMPLE DESCRIPTIONS

Depth (m)

1565 - 1570

Conglomerate (100%): probable clastic supported, polymicritic, varicolored (white, clear, light brown, pink, bluish to green, light gray, and rare red) clasts or fragments of clasts of predominantly quartz and chert with minor volcanics and other lithic fragments, clasts are inferred to be from medium grained sand up to boulder sized, probably grading to and from pebbly sandstone (feldspathic litharenite), tight to poor porosity, no shows.

1570 - 1575

Conglomerate (100%): probable clastic supported, polymicritic, varicolored (white, clear, light brown, pink, bluish to green, light gray, and rare red) clasts or fragments of clasts of predominantly quartz and increasing chert, with minor volcanics and other lithic fragments, clasts are inferred to be from medium grained sand up to boulder sized, probably grading to and from pebbly sandstone (feldspathic litharenite), tight to poor porosity, <5% cuttings have pale to dull mineral fluorescence, no shows.

1575 - 1580

Conglomerate (100%): probable clastic supported, polymicritic, varicolored (white, clear, light brown, pink, bluish to green, light gray, and rare red) clasts or fragments of clasts of predominantly quartz and increasing chert, with minor volcanics and other lithic fragments, clasts are from medium grained sand up to boulder sized inferred), probably grading to and from pebbly sandstone (feldspathic litharenite), as seen by cuttings of medium grained sandstone (matrix of conglomerate?) tight to poor porosity, no shows.

1580 - 1585

Conglomerate (100%): probable clastic supported, polymicritic, varicolored (white, clear, light brown, pink, bluish to green, light gray, and rare red) clasts or fragments of clasts of predominantly quartz and increasing chert, with minor volcanics and other lithic fragments, clasts are from medium grained sand up to boulder sized inferred), probably grading to and from pebbly sandstone (feldspathic litharenite), as seen by cuttings of medium grained sandstone (matrix of conglomerate?) tight to poor porosity, no shows.

1585 - 1590

Conglomerate (100%): probable sand with pebble supported, polymicritic, varicolored, predominantly clear, white orange pink, off white to cream, minor light gray, slightly green gray and occasional brown pebble fragments, common pink pebble fragments appear granitic like, minor chert, limestone and quartzitic pebble fragments, abundant lower medium to upper coarse grained subangular to rounded in part frosted

SAMPLE DESCRIPTIONS

Depth (m)

predominantly loose quartz grains, minor pale gray to gray green clay matrix infill in occasional visible sand aggregates, slightly calcareous matrix, sand and clay probable matrix infill between pebbles and larger size clasts, inferred tight, trace dull and rare bright yellow mineral fluorescence, no cut.

1590 - 1595

Conglomerate (100%): probable sand with pebble supported, polymicritic, varicolored, predominantly clear, white, orange pink, light to medium gray, slightly green gray, off white to buff and occasional brown and red brown pebble fragments, predominantly granitic like, minor chert, limestone and quartzitic pebble fragments, abundant lower medium to lower coarse grained subangular to rounded in part frosted predominantly loose quartz grains, minor to in part common pale gray to gray green clay matrix infill in sand aggregate cuttings, moderately calcareous matrix, sand and clay probable matrix infill between pebbles and larger size clasts, inferred tight, trace dull yellow mineral fluorescence, no cut.

1595 - 1600

Conglomerate (100%): polymicritic, probable clast supported, varicolored (white, clear, pink orange, light gray, green gray, buff and brown) fragments of quartz, chert and lithographic fragments, increasing in lower medium to upper coarse sand grains in sample (grading to from pebbly sandstone or increasing in matrix?), weakly calcareous, poor porosity, no fluorescence, faint to pale cut.

1600 - 1605

Conglomerate (100%): polymicritic, probable clast supported, varicolored (white, clear, pink orange, light gray, green gray, buff and brown) fragments of quartz, chert and lithographic fragments, increasing in lower medium to upper coarse sand grains in sample (grading to from pebbly sandstone or increasing in matrix?), weakly calcareous, poor porosity, no shows.

1605 - 1610

Conglomerate (100%): polymicritic, probable clast supported, varicolored (white, clear, pink orange, light gray, green gray, buff and brown) fragments of quartz, chert and lithographic fragments (volcanics, metamorphics), lower medium to upper coarse sand grains in sample (grading to from pebbly sandstone or increasing in matrix?), weakly calcareous, poor porosity, no shows.

1610 - 1615

Conglomerate (70%): polymicritic, probable clast supported, becoming matrix supported?, varicolored (white, clear, pink orange, light gray, green gray, buff and brown) fragments of quartz, chert and lithographic

SAMPLE DESCRIPTIONS

Depth (m)

fragments (volcanics, metamorphics ie. see photos). lower medium to upper coarse, subrounded to subangular sand grains in sample (grading to from pebbly sandstone or increasing in matrix?), weakly calcareous, poor porosity, no shows;

Sandstone (30%): questionable sandstone (matrix for matrix supported conglomerate or grading to pebble conglomerate?), increasing in lower medium quartz grains, (sublitharenite if sandstone), subrounded to subangular grains, moderately sorted, poor intergranular porosity, no oil stain.

1615 - 1620

Conglomerate (100%): coarse cuttings sample, probable sand with pebble supported, polymicritic, varicolored, predominantly orange pink, white and clear, light to medium gray and occasional dark gray, minor red brown and gray brown pebble fragments, predominantly granitic like with occasional disseminated micromicaceous flakes, minor chert, quartzitic and rare limestone pebble fragments, common lower medium to upper coarse grained sandy matrix with occasional trace pale green gray clay like matrix, subangular to angular grains and rare rounded frosted coarse grained loose quartz grains, common calcareous matrix, inferred tight, rare medium yellow mineral fluorescence, no cut.

1620 - 1625

Conglomerate (100%): coarse cuttings sample, probable sand with pebble supported, polymicritic, varicolored, predominantly orange pink, white and clear, light to medium gray and occasional dark gray, minor red brown and gray brown pebble fragments, predominantly granitic like with occasional disseminated micromicaceous flakes, minor chert, quartzitic and rare limestone pebble fragments, common lower medium to upper coarse grained sandy matrix with in part minor pale green gray clay like matrix, subangular to angular grains and rare rounded frosted coarse grained loose quartz grains, common calcareous matrix, inferred tight, no fluorescence, no cut.

1625 - 1630

Conglomerate (100%): probable sand with pebble supported, polymicritic, varicolored orange pink, light to medium gray and occasional dark gray, white and clear, minor red brown and gray brown pebble fragments, predominantly granitic like, minor chert, quartzitic and rare limestone (trace fossils) pebble fragments, common lower medium to lower coarse grained sandy matrix with in part minor pale green gray clay like matrix, angular to subrounded grains and minor to common rounded frosted medium and coarse grained loose quartz grains, common calcareous matrix, inferred tight, trace yellow fluorescence, no cut;

Sandstone (trace): light gray, lower and upper very fine grained, occasionally grading to siltstone, quartzitic, trace lithic grains, siliceous and calcareous cement, tight.

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Depth (m)

1630 - 1635

Conglomerate (100%): probable sand with pebble supported, polymicritic, varicolored, abundant white, clear and orange pink, minor light to medium gray and trace dark gray, minor red brown and gray brown pebble fragments, predominantly granitic like, minor chert, quartzitic and rare limestone pebble fragments, abundant medium grained to lower coarse and in part upper fine grained sand matrix interpreted as matrix material with occasional pale green gray clay like matrix infill, angular to subrounded grains and common rounded frosted medium and coarse grained loose quartz grains, common calcareous matrix, inferred tight, trace dull yellow mineral fluorescence, no cut.

1635 - 1640

Sandstone (100%): questionable matrix sand in subangular sand supported conglomerate with the coarse pebble fragments being collected on the coarse sieve, light gray, lower medium to lower coarse grained, minor upper coarse grains, minor very coarse grains and common varicolored pebble fragments as above, 70% clear, translucent and in part frosted quartz grains and 30% varicolored lithic grains ranging from pink, light and medium gray and red brown, same as color of pebble fragments in previous samples, could be possible pebble fragments, angular to subrounded grains and minor rounded grains, moderately to poorly sorted, predominantly unconsolidated grains, calcareous cement, inferred tight, rare yellow fluorescence, no cut.

1640 - 1645

Sandstone (100%): questionable matrix sand in subangular sand supported conglomerate with majority of the coarse pebble fragments being collected on the coarse sieve, sand is light gray, lower medium to upper coarse grained, minor very coarse grains and common varicolored pebble fragments as above, 70% clear, translucent, frosted and trace purplish translucent quartz grains and 30% varicolored lithic grains ranging from pink, light gray, brown and red brown, same color of pebble fragments in previous samples, probable pebble fragments, angular to subrounded grains and common rounded grains, moderately to poorly sorted, predominantly unconsolidated grains, calcareous cement, inferred tight, rare yellow fluorescence, no cut.

1645 - 1650

Conglomerate (100%): polymicritic, varicolored clasts (clear, white, pink, green gray, light gray orange, purplish), fragments of pebble clasts in conglomerate, fragments are subangular to angular though some rare rounded edges may be observed, majority of sample is lower medium to lower coarse sand, probably as matrix for conglomerate or grading to and from conglomerate, sandstone cuttings are predominantly clear to translucent quartz grains (sublithographic arenite if sandstone), upper fine to medium grains,

SAMPLE DESCRIPTIONS

Depth (m)

subrounded to subangular, moderately sorted, moderately cemented with calcareous and silica cement, poor porosity, no oil shows.

1650 - 1655

Conglomerate (100%): polymicritic, matrix supported?, varicolored clasts (clear, white, pink, green gray, light gray orange, purplish), fragments of pebble clasts in conglomerate, fragments are subangular to angular though some rare rounded edges may be observed, majority of sample is lower medium to lower coarse clasts of quartz, probable as matrix for conglomerate or grading to and from conglomerate, slight increase in sandstone cuttings, predominantly clear to translucent quartz grains (sublithographic arenite if sandstone), upper fine to medium grains, subrounded to subangular, moderately sorted, moderately cemented with calcareous and silica cement, poor porosity, no oil shows.

1655 - 1660

Conglomerate (100%): polymicritic, matrix supported?, varicolored clasts (clear, white, pink, green gray, light gray orange, purplish), fragments of pebble clasts in conglomerate, fragments are subangular to angular though some rare rounded edges may be observed, majority of sample is lower medium to lower coarse clasts of quartz, probable as matrix for conglomerate or grading to and from conglomerate, slight increase in sandstone cuttings, predominantly clear to translucent quartz grains (sublithographic arenite if sandstone), upper fine to medium grains, subrounded to subangular, moderately sorted, moderately cemented with calcareous and silica cement, poor porosity, no oil shows.

1660 - 1665

Conglomerate (100%): polymicritic, matrix supported?, varicolored clasts (clear, white, pink, green gray, light gray orange, purplish), fragments of pebble clasts in conglomerate, fragments are subangular to angular though some rare rounded edges may be observed, majority of sample is lower medium to lower coarse clasts of quartz, probable as matrix for conglomerate or grading to and from conglomerate, slight increase in sandstone cuttings, predominantly clear to translucent quartz grains (sublithographic arenite if sandstone, else matrix for conglomerate), upper fine to medium grains, subrounded to subangular, moderately sorted, moderately cemented with calcareous and silica cement, poor porosity, no oil shows.

1665 - 1670

Conglomerate (100%): polymicritic, varicolored clasts (clear, white, pink, green gray, light gray orange, purplish), fragments of pebble clasts in conglomerate, fragments are subangular to angular though some rare rounded edges may be observed, majority of sample is lower medium to lower coarse clasts of quartz,

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Depth (m)

probable as matrix for conglomerate or grading to and from conglomerate, slight increase in sandstone cuttings, predominantly clear to translucent quartz grains (sublithographic arenite if sandstone, else matrix for conglomerate), upper fine to medium grains, subrounded to subangular, moderately sorted, moderately cemented with calcareous (sample in general is more calcareous than above) and silica cement, poor porosity, no oil shows.

1670 - 1675

Conglomerate (100%): sand with pebble supported polymicritic conglomerate grading to pebbly sandstone, sample comprises 65% clear, translucent and occasional faint purplish quartz grains and 35% lithic fragments, fragments are predominantly pale orange pink with minor light to medium gray and occasional dark gray, red brown and brown pebble fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained with minor very coarse grained, quartz grains are predominantly upper fine to upper medium and occasional lower coarse grained, unconsolidated, subrounded to subangular with minor rounded frosted grains, moderately sorted, occasional grain aggregates shows minor pale green gray clay like matrix, calcareous in part, probable sublitharenite, inferred tight, no fluorescence, no cut.

1675 - 1680

Conglomerate (100%): sand with pebble supported polymicritic conglomerate grading to pebbly sandstone, sample comprises 70% clear, translucent and trace purplish quartz grains and 30% lithic fragments, fragments are predominantly pale orange pink with minor light to medium gray, trace dark gray, red brown, brown and rare purplish pebble fragments, trace chert like grains with fragments observed, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly upper fine to upper medium and occasional lower coarse grained, unconsolidated, subrounded to subangular, minor rounded frosted grains, moderately sorted, calcareous in part, probable sublitharenite, inferred tight.

1680 - 1685

Conglomerate (100%): sand with pebble supported polymicritic conglomerate grading occasionally to pebbly sandstone, sample comprises 65% clear, translucent and trace purplish quartz grains and 35% lithic fragments, fragments are predominantly pale orange pink with minor light to medium gray, trace dark gray, light to dark brown and rare purplish pebble fragments, trace chert fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly upper fine to upper medium and occasional lower coarse

SAMPLE DESCRIPTIONS

Depth (m)

grained, predominantly unconsolidated, minor clay matrix, angular to subrounded grains, minor rounded frosted grains, moderately sorted, calcareous in part, probable sublitharenite, inferred tight, trace yellow fluorescence.

1685 - 1690

Conglomerate (100%): sand with pebble supported polymicritic conglomerate grading occasionally to possible pebbly sandstone, sample comprises 65% clear, translucent and trace purplish quartz grains and 35% lithic fragments, fragments are predominantly pale orange pink and yellow brown with minor light to medium gray, trace dark gray, light to dark brown, trace chert and quartz fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly upper fine to upper medium and occasional lower coarse, occasionally upper coarse grained, predominantly unconsolidated, minor to common green gray clay matrix, angular to subrounded grains, minor rounded frosted grains, moderately sorted, calcareous, inferred tight, trace dull yellow fluorescence, no cut.

1690 - 1695

Conglomerate (100%): sand with pebble supported polymicritic conglomerate grading occasionally to possible pebbly sandstone, sample comprises 65% clear, translucent and rare purplish quartz grains and 35% lithic fragments, fragments are predominantly pale orange pink, brown and gray as above, occasional chert and quartz pebble fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly lower to upper medium grained and occasional upper fine and lower coarse grained, predominantly unconsolidated grains, minor green gray clay matrix, angular to subrounded grains, minor rounded frosted grains, moderately sorted, calcareous, inferred tight, trace dull yellow fluorescence, no cut.

1695 - 1700

Conglomerate (100%): unwashed coarse sample shows signs of gray clay plus very fine sand matrix, otherwise possible clast supported polymicritic conglomerate grading occasionally to pebbly sandstone, sample comprises 50% clear, translucent quartz grains and 50% lithic fragments, fragments are predominantly pale orange pink, brown and gray, occasional chert and quartz pebble fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly lower to upper medium grained and occasional upper fine and lower coarse grained, predominantly unconsolidated grains, poorly sorted, calcareous and silica cement, tight, no oil shows.

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Depth (m)

1700 - 1705

Conglomerate (100%): unwashed coarse sample shows signs of gray clay plus very fine sand matrix, otherwise possible clast supported polymicritic conglomerate grading occasionally to pebbly sandstone, sample comprises 50% clear, translucent quartz grains and 50% lithic fragments, fragments are predominantly pale orange pink, brown and gray, occasional chert and quartz pebble fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly lower to upper medium grained and occasional upper fine and lower coarse grained, predominantly unconsolidated grains, poorly sorted, calcareous and silica cement, tight, no oil shows.

1705 - 1710

Conglomerate (100%): unwashed coarse sample shows signs of gray clay plus very fine sand matrix, otherwise possible clast supported polymicritic conglomerate grading occasionally to pebbly sandstone, sample comprises 70% clear, translucent quartz grains and 30% lithic (increasing in limestone and gypsum?) fragments, fragments are predominantly pale orange pink, brown and gray, occasional chert and quartz pebble fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly lower to upper medium grained and occasional upper fine and lower coarse grained, predominantly unconsolidated grains, poorly sorted, calcareous and silica cement, tight, no fluorescence, faint cut.

1710 - 1715

Conglomerate (100%): unwashed coarse sample shows signs of gray clay plus very fine sand matrix, otherwise possible clast supported polymicritic conglomerate grading occasionally to pebbly sandstone, sample comprises 80% clear, translucent quartz grains (conglomerate matrix or medium to coarse grained sandstone?) and 20% lithic (increasing in limestone and gypsum?) fragments, fragments are predominantly pale orange pink, brown and gray, occasional chert and quartz pebble fragments, pebble fragments appear angular to subangular and lower medium to upper coarse grained size with minor very coarse grained, quartz grains are predominantly lower to upper medium grained and occasional upper fine and lower coarse grained, predominantly unconsolidated grains, poorly sorted, calcareous and silica cement, tight, no oil shows.

1715 - 1720

Conglomerate (100%): unwashed coarse sample shows signs of gray clay plus very fine sand matrix, otherwise possible clast supported polymicritic conglomerate grading occasionally to pebbly sandstone, sample comprises 80% clear to translucent quartz grains (conglomerate matrix or medium to coarse grained

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Depth (m)

sandstone?) and 20% lithic (increasing in limestone and gypsum?) fragments, fragments are predominantly pale orange pink, brown and gray, occasional chert and quartz pebble fragments, pebble fragments appear angular to subangular, quartz grains are predominantly lower to upper medium grained and occasional upper fine and lower coarse grained, predominantly unconsolidated grains, poorly sorted, calcareous and silica cement, tight, no oil shows.

1720 - 1725

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 40% lithic and occasional quartz pebble fragments, fragments predominantly orange pink color, minor light to dark gray, buff to brown and occasionally clear quartz fragments, minor chert and limestone with dolomitic fragments, estimated 70% quartz grains and grain fragments, predominantly lower medium to lower coarse grained, occasional upper coarse and upper fine grained, predominantly unconsolidated grains, minor to common green gray clay matrix and minor white calcareous matrix, angular to subrounded grains, minor rounded to well rounded frosted grains, moderately sorted, calcareous, inferred tight to porosity intergranular porosity based on minor gas response (0 to 3%), rare dull yellow fluorescence, no cut.

1725 - 1730

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 30% lithic and occasional quartz pebble fragments, fragments predominantly orange and in part yellowish pink color, minor light to dark gray, buff, brown and occasionally clear quartz fragments, minor chert fragments present, estimated 60% quartz grains and grain fragments, predominantly lower medium to lower coarse grained, in part upper coarse and upper fine grained, predominantly unconsolidated grains, minor to common green gray clay matrix and minor white calcareous matrix, angular to subrounded grains, minor rounded frosted grains, moderately sorted, calcareous, inferred tight to porosity intergranular porosity based on minor gas response (0 to 3%), rare dull yellow fluorescence, no cut.

1730 - 1735

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 60% varicolored pebble fragments, fragments predominantly orange and yellowish pink, light to dark gray, green gray, buff to brown and occasionally clear quartz fragments, minor chert fragments, estimated 40% quartz grains and grain fragments, clear and translucent, trace faint purple translucent, lower medium to lower coarse grained, in part upper fine and trace lower and upper coarse grains, predominantly unconsolidated grains, minor to common green gray clay grains, probable matrix, subangular to subrounded grains, minor rounded frosted grains, moderately to poorly sorted, calcareous, inferred tight, common dull to bright yellow fluorescence, faint to pale cut.

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Depth (m)

1735 - 1740

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 40% varicolored pebble fragments, fragments predominantly orange pink, clear and translucent quartz, light to dark gray, green gray, buff to brown and trace purple, minor chert, quartzose, trace red brown siltstone and limestone with dolomitic pebble fragments, estimated 60% quartz grains and grain fragments, clear and translucent, trace faint purple translucent, upper fine to lower coarse grained, minor upper coarse grained, abundant unconsolidated grains, minor to common green gray clay grains, probable matrix, subangular to subrounded grains, minor rounded frosted grains, poorly sorted, calcareous, inferred tight, common dull to bright yellow fluorescence, faint cut.

1740 - 1745

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 65% varicolored pebble fragments, fragments cream to buff and light gray, minor dark gray orange pink, red brown and brown, occasional white and clear quartz fragmental, minor chert, abundant white quartzitic fragments, trace limestone with dolomitic and rare reddish siltstone pebble fragments, estimated 35% quartz grains and grain fragments, clear and translucent, trace faint purple translucent, rare pyrite, lower medium to lower coarse grained, minor upper coarse and very coarse grains, abundant unconsolidated grains, minor pale green gray clay grains, probable matrix, subangular to subrounded grains, minor rounded frosted grains, poorly sorted, calcareous, inferred tight, trace dull yellow fluorescence, no cut.

1745 - 1750

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 45% varicolored pebble fragments, fragments cream to buff and light gray, rare dark gray, common white and occasional clear quartz, common faint to medium orange pink, slightly yellowish to yellow brown, minor chert, abundant white quartzitic fragments, trace limestone with dolomitic fragments, estimated 55% quartz grains and grain fragments, clear and translucent, trace faint purple translucent, rare pyrite, lower medium to lower coarse grained, minor upper coarse and very coarse grains, abundant unconsolidated grains, minor pale green gray clay grains, probable matrix, subangular to subrounded grains, minor rounded frosted grains, poorly sorted, calcareous, inferred tight, rare dull yellow fluorescence, no cut.

1750 - 1755

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 50% varicolored pebble fragments, fragments cream to buff and light gray to trace dark gray, common orange pink and yellowish to pale brown, common white to off white and occasionally clear quartz, minor chert, common white quartzitic fragments, trace limestone with dolomitic fragments, estimated 50% quartz grains and grain fragments,

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Depth (m)

clear and translucent, trace faint purple translucent, rare pyrite in pebbles, lower medium to lower coarse grained, minor upper fine and upper coarse to very coarse grains, abundant unconsolidated grains, minor to common pale green gray clay grains, probable matrix, subangular to subrounded grains, minor rounded frosted grains, poorly sorted, calcareous, inferred tight, no fluorescence, no cut.

1755 - 1760

Conglomerate (100%): polymicritic conglomerate with sandy matrix, estimated 40% varicolored pebble fragments, fragments predominantly cream to buff, white and translucent orange pink in part yellowish, light and medium gray with trace dark gray, pale brown, minor chert, common quartzitic fragments, trace limestone with dolomitic fragments, estimated 60% quartz grains and grain fragments, clear and translucent, trace faint purple translucent, lower medium to lower coarse grained, minor upper fine and upper coarse to very coarse grains, abundant unconsolidated grains, minor to common pale green gray clay grains, probable matrix, subangular to subrounded grains, minor rounded frosted grains, poorly sorted, tight, rare very dull yellow fluorescence, no cut.

1760 - 1765

Conglomerate (100%): polymicritic, clast supported, 100% varicolored pebble fragments (white, clear orange, pink, green gray) of quartz, chert, feldspar, and other lithic fragments (felsic volcanics? and metamorphic rocks?, limestone with dolomitic). All unconsolidated fragments, ie. no cuttings showing grain aggregates (clast supported with gray mud matrix??). Frags are subangular to angular, rare rounded on one side, poorly sorted, poor porosity inferred, trace dull orange mineral fluorescence, no cut.

1765 - 1770

Conglomerate (100%): polymicritic, clast supported, 100% varicolored pebble fragments (white, clear orange, pink, green gray) of quartz, chert, feldspar, and other lithic fragments (felsic volcanics? and metamorphic rocks?, limestone with dolomite), all unconsolidated fragments, (ie. no cuttings showing grain aggregates (clast supported with gray mud matrix??), fragments are subangular to angular, rare rounded on one side, presence of kaolinite, slightly calcareous, calcareous and silica cement inferred, poorly sorted, poor porosity inferred, trace dull orange mineral fluorescence, no cut.

1770 - 1775

Conglomerate (100%): polymicritic, clast supported, possible becoming more clast supported downhole, sample composed predominantly of medium to upper coarse varicolored (pink, white, clear orange, green gray, brown, cream, light brown) fragments of pebbles plus clasts, increasing quartz grains with fragments in this sample than two above (pebble sandstone bed or increasing in matrix%?), sandstone cuttings have subangular to subrounded grains, are medium to coarse grained, moderately to well cemented with silica and calcareous cement, poor porosity, no shows.

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Depth (m)

1775 - 1780

Conglomerate (100%): polymicritic, clast supported, but with increasing matrix, sample composed of medium to upper coarse varicolored (pink, white, clear orange, green gray, brown, cream, light brown) fragments of pebbles plus clasts, increasing kaolinite, abundant quartz grains with fragments (pebble sandstone bed or increasing in matrix%?), sandstone cuttings have subangular to subrounded grains, are medium to coarse grained, moderately to well cemented with silica and calcareous cement, poor porosity, no oil shows, sample has <5% dull orange mineral fluorescence

1780 - 1785

Conglomerate (100%): polymicritic, clast supported, but with increasing matrix, sample composed of medium to upper coarse varicolored (pink, white, clear orange, green gray, brown, cream, light brown) fragments of pebbles plus clasts, increasing kaolinite, abundant quartz grains with fragments (pebble sandstone bed or increasing in matrix%?), sandstone cuttings have subangular to subrounded grains predominantly of quartz with minor lithic grains (sublitharenite, similar in composition as conglomerate fragments), are medium to coarse grained, moderately to well cemented with silica and calcareous cement, poor porosity, no oil shows.

1785 - 1790

Conglomerate (100%): polymicritic conglomerate with sandy calcareous matrix, estimated 40% varicolored pebble fragments ranging from orange pink, brown, buff, light gray, light green, dark green, estimated 60% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 10 to 20% lithic grains, in part sublitharenite, medium to fine grains, abundant unconsolidated grains, subrounded grains, minor rounded frosted grains, poorly sorted, tight, very faint fluorescence in part, very faint cut;
Red mud spotted at shakers but not represented in washed sample.

1790 - 1795

Conglomerate (100%): polymicritic conglomerate with sandy calcareous matrix, estimated 30% varicolored pebble fragments ranging from white orange pink, brown, buff, light gray, light green, dark green, estimated 70% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 10 to 20% lithic grains, possibly grading to sublitharenite, medium to fine grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows;
Red mud spotted at shakers but not represented in washed sample.

1795 - 1800

Conglomerate (100%): polymicritic conglomerate with sandy calcareous matrix, estimated 70% varicolored pebble

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Depth (m)

fragments ranging from white orange pink, brown, buff, light gray, light green, dark green, estimated 30% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 10 to 20% lithic grains, <10% feldspar, (possibly grading to sublitharenite), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows.

1800 - 1805

Conglomerate (100%): polymicritic conglomerate, becoming more clast supported with sandy calcareous matrix, estimated 80% varicolored pebble fragments ranging from white orange pink, brown, buff, light gray, light green, dark green, estimated 20% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 10 to 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows;

Red mud spotted at shakers but not well represented in sample (<5% red siltstone cuttings, else spotty red staining on few quartz grains, siderite?)

1805 - 1810

Conglomerate (80%): polymicritic conglomerate, more clast supported with sandy calcareous matrix, estimated 80% varicolored pebble fragments ranging from white orange pink, yellow, brown, buff, light gray, light green, dark green, estimated 20% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 10 to 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (20%): red siltstone to claystone, spotty red staining on few quartz grains, (siderite?)

1810 - 1815

Conglomerate (100%): polymicritic conglomerate, becoming more matrix supported? with sandy calcareous matrix, estimated 60% varicolored pebble fragments ranging from white orange pink, brown, buff, light gray, light green, dark green, estimated 40% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20 to 30% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows. trace red clay to silt.

1815 - 1820

Conglomerate (100%): polymicritic conglomerate, matrix supported with sandy calcareous matrix, estimated 30% varicolored pebble fragments ranging from white orange, brown, buff, light gray, light green,

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Depth (m)

dark green, estimated 70% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 10% lithic grains, 30% feldspar, (possibly grading to lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows.

1820 - 1825

Conglomerate (90%): polymicritic conglomerate, more matrix supported? with sandy calcareous matrix, estimated 40% varicolored pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 60% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 30% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone.

1825 - 1830

Conglomerate (70%): polymicritic conglomerate, more matrix supported? with sandy calcareous matrix, estimated 40% varicolored pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 60% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (30%): red siltstone to claystone.

1830 - 1835

Conglomerate (90%): polymicritic conglomerate, more matrix supported? with sandy calcareous matrix, estimated 30% varicolored pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 70% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone.

1835 - 1840

Conglomerate (90%): polymicritic conglomerate, more matrix supported? with sandy calcareous matrix, estimated 30% varicolored pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray,

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Depth (m)

light green, dark green, estimated 70% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, abundant unconsolidated subrounded grains, minor rounded grains, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone.

1840 - 1845

Conglomerate (90%): polymicritic conglomerate, more clast supported with only minor sandy calcareous matrix, estimated 80% varicolored angular to subangular pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 20% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% (of matrix) lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone, majority washed during cleaning of sample.

1845 - 1850

Conglomerate (90%): polymicritic conglomerate, more clast supported with only minor sandy calcareous matrix, estimated 90% varicolored angular to subangular pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 10% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone, majority washed during cleaning of sample.

1850 - 1855

Conglomerate (90%): polymicritic conglomerate, more clast supported with only minor sandy calcareous matrix, estimated 90% varicolored angular to subangular pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 10% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone, majority washed during cleaning of sample.

1855 - 1860

Conglomerate (80%): polymicritic conglomerate, more clast supported with only minor sandy calcareous matrix, estimated 70% varicolored angular to subangular pebble fragments ranging from white orange, pink,

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Depth (m)

yellow, brown, buff, light gray, light green, dark green, estimated 30% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (20%): red siltstone to claystone, majority washed during cleaning of sample, percentage estimated by looking at unwashed coarse cut.

1860 - 1865

Conglomerate (80%): polymicritic conglomerate, more clast supported with only minor sandy calcareous matrix, estimated 70% varicolored angular to subangular pebble fragments ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 30% sandy calcareous matrix, predominantly clear and translucent quartz grains with estimated 20% lithic grains, 10% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (20%): red siltstone to claystone, majority washed during cleaning of sample, percentage estimated by looking at unwashed coarse cut.

1865 - 1870

Conglomerate (90%): polymicritic conglomerate, clast supported with only minor sandy calcareous matrix, estimated 90% varicolored angular to subangular gravel fragments? predominantly clear and translucent quartz grains, others ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 10% sandy calcareous matrix, clear and translucent quartz grains with estimated 20% lithic grains, 30% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), fine to medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone, majority washed during cleaning of sample, percentage not representative of shakers red color.

1870 - 1875

Conglomerate (90%): polymicritic conglomerate, clast supported with only minor sandy calcareous matrix, estimated 90% varicolored angular to subangular gravel fragments? ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 10% sandy calcareous matrix, clear and translucent quartz grains with estimated 20% lithic grains, 30% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (10%): red siltstone to claystone, majority washed during cleaning of sample, percentage not representative of shakers red color.

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SAMPLE DESCRIPTIONS

Depth (m)

1875 - 1880

Conglomerate (95%): polymicritic conglomerate, clast supported with only minor sandy calcareous matrix, estimated 95% varicolored angular to subangular gravel fragments? ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 5% sandy calcareous matrix which the majority is clear and translucent quartz grains with estimated 20% lithic grains, 30% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (5%): red siltstone to claystone, possible as matrix for conglomerate as seen in several cuttings or grading to red siltstone, majority is washed away.

1880 - 1885

Conglomerate (95%): polymicritic conglomerate, clast supported with only minor sandy calcareous matrix, estimated 95% varicolored angular to subangular gravel fragments? ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, estimated 5% sandy calcareous matrix which the majority is clear and translucent quartz grains with estimated 20% lithic grains, 30% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (5%): red siltstone to claystone, majority is washed away.

1885 - 1890

Conglomerate (95%): polymicritic conglomerate, clast supported with only minor sandy calcareous matrix, estimated 95% varicolored angular to subangular gravel fragments? ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, rare limestone clast, estimated 5% sandy calcareous matrix which the majority is clear and translucent quartz grains with estimated 20% lithic grains, 30% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (5%): red siltstone to claystone, majority is washed away, matrix varies between red and crystallized.

1890 - 1895

Conglomerate (95%): polymicritic conglomerate, clast supported with only minor sandy calcareous matrix, estimated 95% varicolored angular to subangular pebble fragments? ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, rare limestone clast, estimated 5% sandy calcareous matrix which the majority is clear and translucent quartz grains with estimated 20% lithic grains, 30% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Red Clay to Silt (5%): red siltstone to claystone, majority is washed away, matrix varies between red and crystallized.

1895 - 1900

Conglomerate (95%): polymicritic conglomerate, clast supported with only minor sandy calcareous matrix, estimated 95% varicolored angular to subangular pebble fragments? ranging from white orange, pink, yellow, brown, buff, light gray, light green, dark green, very common limestone clast, estimated 5% sandy calcareous matrix which the majority is clear and translucent quartz grains with estimated 20% lithic grains, 30% feldspar, (possibly grading to sublitharenite with lithographic subarkosic), medium grains, subangular to subrounded, poorly sorted, tight to poor porosity, no shows;

Red Clay to Silt (5%): red siltstone to claystone, majority is washed away.

1900 - 1905

Sandstone (90%): subarkose to quartz arenite, clear to white, upper fine to upper medium, rare lower coarse grains, predominantly unconsolidated subrounded grains of clear to translucent quartz, 5% feldspar (associated with sandstone) <5% lithic fragments, poorly cemented with silica cement, moderately sorted, 3 to 5% porosity inferred (unconsolidated grains), trace spotty pale yellow direct fluorescence, no cut, oil spotted at shakers;

Limestone (5%): cream to buff, microcrystalline, poor porosity, no shows, limestone not well represented in 1905.0 m sample, but was observed in spot sample at 1903.5 m;

Conglomerate (5%): polymicritic, clast supported, varicolored subangular fragments of various lithic fragments (granite, gabbro, metaseds).

1905 - 1910

Conglomerate (80%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar to chert, minor limestone and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (20%): subarkosic, clear to white, minor dark green, lower fine to upper medium, rare upper coarse grains, predominantly (90%) subrounded grains of clear to translucent quartz, 5% feldspar, <5% lithic fragments, poorly cemented with silica cement, moderately sorted, 0 to 3% porosity inferred (unconsolidated grains), trace dull orange mineral fluorescence (dolomite?), no cut.

1910 - 1915

Conglomerate (50%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert,

SAMPLE DESCRIPTIONS

Depth (m)

minor limestone? and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (50%): subarkose to quartz arenite, clear to white, minor dark green, lower fine to upper medium, rare upper coarse grains, predominantly (90%) subangular to subrounded grains of clear to translucent quartz, 5% feldspar, <5% lithic fragments, poorly cemented with silica cement, moderately sorted, 0 to 3% porosity inferred (unconsolidated grains), trace dull orange mineral fluorescence (dolomite?), faint cut.

1915 - 1920

Sandstone (70%): subarkosic, clear to white, minor dark green, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica and calcareous cement, moderately sorted, 0 to 3% porosity inferred (unconsolidated grains), trace dull orange mineral fluorescence (dolomite?), faint with pale cut;

Conglomerate (30%): polymicritic, matrix supported, varicolored subangular fragments of quartz, feldspar, chert, minor limestone? and various lithic fragments (granite, gabbro, metaseds), estimated 70% clasts, 30% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Trace black shale in sample.

1920 - 1925

Conglomerate (70%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, minor limestone? and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (30%): lithic subarkosic, clear to white, minor dark green and pink grains, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange mineral fluorescence (dolomite?), no shows.

1925 - 1930

Conglomerate (50%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Sandstone (50%): subarkosic, clear to white, minor dark green, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange mineral fluorescence (dolomite?), pale with dull cut;

Shale (trace): dark gray to black, fissile, <20 cuttings in sample, possibly from 1916.0 m.

1930 - 1935

Conglomerate (100%): polymicritic, matrix supported?, estimated 60% clasts, clear, translucent quartzite, gray with whitish limestone, gray with whitish quartz clast, subangular to subrounded grains, moderately sorted, 40% sandy matrix, subrounded to rounded grains of clear to translucent quartz, pale cut.

1935 - 1940

Conglomerate (50%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (50%): subarkosic, clear to white, minor dark green and pink, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange and bluish mineral fluorescence (dolomite with limestone?), rare spotty oil stain on quartz grains with faint direct fluorescence with cut.

1940 - 1945

Conglomerate (50%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (50%): subarkosic, clear to white, minor dark green and pink, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange and bluish mineral fluorescence (dolomite with limestone?), rare spotty oil stain on quartz grains with faint direct fluorescence with cut.

1945 - 1950

Conglomerate (40%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert,

SAMPLE DESCRIPTIONS

Depth (m)

and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (60%): subarkosic, clear to white, minor dark green and pink, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange and bluish mineral fluorescence (dolomite with limestone?), rare spotty oil stain on quartz grains with faint direct fluorescence with cut.

1950 - 1955

Conglomerate (30%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (70%): subarkosic, clear to white, minor dark green and pink, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange and bluish mineral fluorescence (dolomite with limestone?), rare spotty oil stain on quartz grains with faint direct fluorescence with cut.

1955 - 1960

Conglomerate (50%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (50%): subarkosic, clear to white, minor dark green and pink, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange and bluish mineral fluorescence (dolomite with limestone?), rare spotty oil stain on quartz grains with faint direct fluorescence with cut.

1960 - 1965

Conglomerate (80%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, and various lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

HURRICANE #2 RE-ENTRY

SAMPLE DESCRIPTIONS

Depth (m)

Sandstone (20%): subarkosic, clear to white, minor dark green and pink, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange and bluish mineral fluorescence (dolomite with limestone?), rare spotty oil stain on quartz grains with faint direct fluorescence with cut.

1965 - 1970

Conglomerate (80%): polymicritic, clast supported, varicolored subangular fragments of quartz, feldspar, chert, and lithic fragments (granite, gabbro, metaseds), estimated 90% clasts, 10% medium to coarse sand grains and red mud for matrix, weakly calcareous, poorly sorted, well cemented with silica and calcareous cement;

Sandstone (20%): subarkosic, clear to white, minor dark green and pink, lower fine to upper medium, rare upper coarse grains, predominantly (80%) subangular to subrounded grains of clear to translucent quartz, 10% feldspar, 10% lithic fragments, poorly cemented with silica cement, poorly sorted, tight to porosity, trace dull orange and bluish mineral fluorescence (dolomite with limestone?), rare spotty oil stain on quartz grains with faint direct fluorescence with cut.

TOTAL DEPTH 1970.0 meters

APPENDIX O : Well Survey Report

Number of pages : *6*

Summary of the content: This appendix presents the Survey Report for Hurricane#2.

Choice Directional Services Ltd.
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Investcan Energy Corp.

Bay St. George, NFLD
Hurricane #2
Hurricane #2 (Whip #1)
Wellbore #1
UWI:
License No:
Job No: 13306

Survey Report

Design: As Drilled Final Surveys

13 July, 2013

CHOICE Directional Services Ltd.

CHOICE Directional
Survey Report

INVESTCAN Energy Corp

Company:	Investcan Energy Corp.	**Local Co-ordinate Reference:**	Well Hurricane #2 (Whip #1)
Project:	Bay St. George, NFLD	**TVD Reference:**	KBE @ 149.83m (Foragaz 3)
Site:	Hurricane #2	**MD Reference:**	KBE @ 149.83m (Foragaz 3)
Well:	Hurricane #2 (Whip #1)	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled Final Surveys	**Database:**	EDM 5000.1 Single User Db
UWI:			
License No:			
Job No:	13306		

Project Bay St. George, NFLD

Map System:	Universal Transverse Mercator	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Canada - Eastern		
Map Zone:	Zone 21N (60 W to 54 W)		

Site Hurricane #2

Site Position:		**Northing:**	5,347,195.57 m	**Latitude:**	48° 16' 3.952 N
From:	Map	**Easting:**	375,854.54 m	**Longitude:**	58° 40' 22.432 W
Position Uncertainty:	0.00 m	**Slot Radius:**	335.28 mm	**Grid Convergence:**	-1.25 °

Well Hurricane #2 (Whip #1), 13306

Well Position	**+N/-S**	0.00 m	**Northing:**	5,347,195.57 m	**Latitude:**	48° 16' 3.952 N
	+E/-W	0.00 m	**Easting:**	375,854.54 m	**Longitude:**	58° 40' 22.432 W
Position Uncertainty		0.00 m	**Wellhead Elevation:**	m	**Ground Level:**	145.70 m

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/19/2013	-19.62	69.16	52,602

Design As Drilled Final Surveys

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (m)	+N/-S (m)	+E/-W (m)	Direction (°)
	0.00	0.00	0.00	0.00

Survey Program **Date** 7/13/2013

From (m)	To (m)	Survey (Wellbore)	Tool Name	Description
4.13	1,970.00	As Drilled Final Surveys (Wellbore #1)		

Survey

MD (m)	Inc (°)	Azi (°)	TVD Vertical	SSTVD (m)	+N/-S (m)	+E/-W (m)	Vertical Section	D'Leg (°/30m)	Build (°/30m)	Turn (°/30m)
0.00	0.00	0.00	0.00	149.83	0.00	0.00	0.00	0.000	0.00	0.00
GROUND LEVEL										
4.13	0.00	0.00	4.13	145.70	0.00	0.00	0.00	0.000	0.00	0.00
SURFACE CASING SHOE - SURFACE CASING										
323.00	0.00	0.00	323.00	-173.17	0.00	0.00	0.00	0.000	0.00	0.00
342.48	3.60	176.70	342.47	-192.64	-0.61	0.04	-0.61	5.544	5.54	0.00
389.46	3.30	173.00	389.36	-239.53	-3.43	0.28	-3.43	0.238	-0.19	-2.36
446.17	3.30	178.30	445.98	-296.15	-6.68	0.53	-6.68	0.161	0.00	2.80
503.07	4.00	194.20	502.76	-352.93	-10.24	0.09	-10.24	0.645	0.37	8.38
559.57	5.10	208.10	559.09	-409.26	-14.36	-1.57	-14.36	0.823	0.58	7.38
616.46	5.20	215.00	615.75	-465.92	-18.71	-4.24	-18.71	0.331	0.05	3.64
672.98	4.30	221.60	672.07	-522.24	-22.39	-7.12	-22.39	0.558	-0.48	3.50

CHOICE Directional Services Ltd.

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Survey Report

INVESTCAN Energy Corp

Company:	Investcan Energy Corp.	**Local Co-ordinate Reference:**	Well Hurricane #2 (Whip #1)
Project:	Bay St. George, NFLD	**TVD Reference:**	KBE @ 149.83m (Foragaz 3)
Site:	Hurricane #2	**MD Reference:**	KBE @ 149.83m (Foragaz 3)
Well:	Hurricane #2 (Whip #1)	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled Final Surveys	**Database:**	EDM 5000.1 Single User Db
UWI:			
License No:			
Job No:	13306		

Survey MD (m)	Inc (°)	Azi (°)	TVD Vertical	SSTVD (m)	+N/-S (m)	+E/-W (m)	Vertical Section	D'Leg (°/30m)	Build (°/30m)	Turn (°/30m)
729.91	3.90	223.90	728.86	-579.03	-25.38	-9.88	-25.38	0.228	-0.21	1.21
785.90	3.70	225.20	784.72	-634.89	-28.03	-12.48	-28.03	0.117	-0.11	0.70
842.12	3.10	251.20	840.85	-691.02	-29.79	-15.21	-29.79	0.873	-0.32	13.87
899.25	3.30	303.10	897.90	-748.07	-29.39	-18.05	-29.39	1.473	0.11	27.25
918.03	3.30	317.00	916.65	-766.82	-28.70	-18.87	-28.70	1.275	0.00	22.20
936.94	3.70	329.10	935.52	-785.69	-27.78	-19.55	-27.78	1.329	0.63	19.20
946.44	3.70	329.90	945.00	-795.17	-27.25	-19.86	-27.25	0.163	0.00	2.53
956.00	4.70	349.50	954.54	-804.71	-26.60	-20.09	-26.60	5.446	3.14	61.51
965.39	5.40	353.10	963.89	-814.06	-25.78	-20.21	-25.78	2.454	2.24	11.50
974.78	5.90	358.90	973.24	-823.41	-24.86	-20.28	-24.86	2.423	1.60	18.53
984.24	6.00	359.20	982.65	-832.82	-23.88	-20.29	-23.88	0.332	0.32	0.95
993.71	6.40	356.40	992.06	-842.23	-22.86	-20.33	-22.86	1.588	1.27	-8.87
1,003.18	6.90	351.80	1,001.47	-851.64	-21.77	-20.45	-21.77	2.313	1.58	-14.57
1,012.60	7.40	357.30	1,010.81	-860.98	-20.60	-20.56	-20.60	2.698	1.59	17.52
1,022.02	8.30	359.80	1,020.15	-870.32	-19.32	-20.59	-19.32	3.065	2.87	7.96
1,031.41	9.80	13.00	1,029.42	-879.59	-17.86	-20.41	-17.86	8.154	4.79	42.17
1,040.94	10.50	20.10	1,038.80	-888.97	-16.26	-19.93	-16.26	4.509	2.20	22.35
1,050.36	10.00	25.80	1,048.07	-898.24	-14.71	-19.28	-14.71	3.599	-1.59	18.15
1,059.79	10.00	27.40	1,057.36	-907.53	-13.25	-18.54	-13.25	0.884	0.00	5.09
1,069.36	10.20	27.20	1,066.78	-916.95	-11.76	-17.77	-11.76	0.637	0.63	-0.63
1,078.81	10.40	26.60	1,076.08	-926.25	-10.25	-17.01	-10.25	0.720	0.63	-1.90
1,088.45	11.20	26.50	1,085.55	-935.72	-8.64	-16.20	-8.64	2.490	2.49	-0.31
1,098.04	10.60	29.70	1,094.96	-945.13	-7.04	-15.35	-7.04	2.665	-1.88	10.01
1,107.48	9.90	33.90	1,104.25	-954.42	-5.61	-14.47	-5.61	3.253	-2.22	13.35
1,116.92	8.90	37.70	1,113.57	-963.74	-4.36	-13.57	-4.36	3.739	-3.18	12.08
1,126.55	7.20	45.60	1,123.10	-973.27	-3.35	-12.68	-3.35	6.307	-5.30	24.61
1,135.97	5.40	53.10	1,132.46	-982.63	-2.67	-11.90	-2.67	6.291	-5.73	23.89
1,145.06	4.40	65.20	1,141.52	-991.69	-2.26	-11.25	-2.26	4.729	-3.30	39.93
1,154.98	3.80	76.00	1,151.42	-1,001.59	-2.02	-10.58	-2.02	2.950	-1.81	32.66
1,164.35	3.50	75.70	1,160.77	-1,010.94	-1.88	-10.00	-1.88	0.962	-0.96	-0.96
1,183.41	3.30	69.30	1,179.79	-1,029.96	-1.54	-8.93	-1.54	0.675	-0.31	-10.07
1,202.43	3.40	61.40	1,198.78	-1,048.95	-1.08	-7.92	-1.08	0.744	0.16	-12.46
1,221.72	3.40	50.50	1,218.04	-1,068.21	-0.44	-6.98	-0.44	1.004	0.00	-16.95
1,240.60	3.70	44.90	1,236.88	-1,087.05	0.35	-6.11	0.35	0.728	0.48	-8.90
1,250.42	3.60	49.90	1,246.68	-1,096.85	0.77	-5.65	0.77	1.019	-0.31	15.27
1,259.81	3.70	59.80	1,256.05	-1,106.22	1.11	-5.17	1.11	2.036	0.32	31.63
1,269.27	3.20	69.20	1,265.49	-1,115.66	1.36	-4.66	1.36	2.389	-1.59	29.81
1,278.68	3.40	77.50	1,274.89	-1,125.06	1.51	-4.14	1.51	1.649	0.64	26.46
1,288.10	3.30	87.80	1,284.29	-1,134.46	1.59	-3.59	1.59	1.940	-0.32	32.80
1,297.53	2.70	111.10	1,293.71	-1,143.88	1.52	-3.12	1.52	4.282	-1.91	74.13
1,316.43	1.60	150.90	1,312.60	-1,162.77	1.13	-2.57	1.13	2.844	-1.75	63.17
1,325.83	1.20	147.20	1,322.00	-1,172.17	0.93	-2.45	0.93	1.308	-1.28	-11.81
1,335.24	1.00	140.80	1,331.40	-1,181.57	0.78	-2.35	0.78	0.747	-0.64	-20.40
1,354.13	0.90	124.10	1,350.29	-1,200.46	0.57	-2.12	0.57	0.465	-0.16	-26.52
1,373.13	0.40	152.50	1,369.29	-1,219.46	0.43	-1.97	0.43	0.916	-0.79	44.84
1,382.56	0.50	330.30	1,378.72	-1,228.89	0.43	-1.97	0.43	2.863	0.32	565.64
1,392.01	1.50	329.70	1,388.17	-1,238.34	0.58	-2.06	0.58	3.175	3.17	-1.90
1,401.41	2.70	336.00	1,397.56	-1,247.73	0.89	-2.21	0.89	3.894	3.83	20.11
1,410.78	3.60	337.50	1,406.92	-1,257.09	1.36	-2.41	1.36	2.893	2.88	4.80
1,420.25	3.20	341.50	1,416.37	-1,266.54	1.88	-2.61	1.88	1.473	-1.27	12.67
1,429.96	2.20	345.10	1,426.07	-1,276.24	2.32	-2.74	2.32	3.132	-3.09	11.12
1,439.41	1.70	0.60	1,435.51	-1,285.68	2.64	-2.79	2.64	2.294	-1.59	49.21

CHOICE Directional Services Ltd.

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Survey Report

INVESTCAN Energy Corp

Company:	Investcan Energy Corp.	**Local Co-ordinate Reference:**	Well Hurricane #2 (Whip #1)
Project:	Bay St. George, NFLD	**TVD Reference:**	KBE @ 149.83m (Foragaz 3)
Site:	Hurricane #2	**MD Reference:**	KBE @ 149.83m (Foragaz 3)
Well:	Hurricane #2 (Whip #1)	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled Final Surveys	**Database:**	EDM 5000.1 Single User Db
UWI:			
License No:			
Job No:	13306		

Survey MD (m)	Inc (°)	Azi (°)	TVD Vertical	SSTVD (m)	+N/-S (m)	+E/-W (m)	Vertical Section	D'Leg (°/30m)	Build (°/30m)	Turn (°/30m)
1,448.81	2.00	4.80	1,444.91	-1,295.08	2.94	-2.77	2.94	1.050	0.96	13.40
1,458.30	2.80	355.70	1,454.39	-1,304.56	3.34	-2.78	3.34	2.794	2.53	-28.77
1,467.84	3.40	343.50	1,463.92	-1,314.09	3.84	-2.87	3.84	2.794	1.89	-38.36
1,486.80	4.90	345.70	1,482.83	-1,333.00	5.16	-3.23	5.16	2.386	2.37	3.48
1,496.91	5.30	347.80	1,492.90	-1,343.07	6.04	-3.44	6.04	1.310	1.19	6.23
1,506.36	5.80	346.20	1,502.30	-1,352.47	6.93	-3.64	6.93	1.661	1.59	-5.08
1,515.93	4.20	6.30	1,511.84	-1,362.01	7.75	-3.72	7.75	7.365	-5.02	63.01
1,524.79	3.00	39.40	1,520.68	-1,370.85	8.25	-3.54	8.25	7.959	-4.06	112.08
1,534.20	2.70	49.40	1,530.08	-1,380.25	8.58	-3.21	8.58	1.848	-0.96	31.88
1,543.58	3.80	82.50	1,539.44	-1,389.61	8.77	-2.74	8.77	6.812	3.52	105.86
1,553.17	4.10	109.50	1,549.01	-1,399.18	8.69	-2.10	8.69	5.837	0.94	84.46
1,571.97	4.50	131.00	1,567.76	-1,417.93	7.99	-0.91	7.99	2.633	0.64	34.31
1,581.36	4.80	137.00	1,577.12	-1,427.29	7.46	-0.36	7.46	1.825	0.96	19.17
1,600.53	5.50	139.20	1,596.21	-1,446.38	6.18	0.78	6.18	1.138	1.10	3.44
1,619.39	5.30	136.70	1,614.99	-1,465.16	4.86	1.97	4.86	0.491	-0.32	-3.98
1,638.15	4.90	136.90	1,633.67	-1,483.84	3.64	3.11	3.64	0.640	-0.64	0.32
1,656.98	4.60	138.20	1,652.44	-1,502.61	2.49	4.17	2.49	0.508	-0.48	2.07
1,676.01	4.20	139.20	1,671.41	-1,521.58	1.39	5.13	1.39	0.642	-0.63	1.58
1,685.33	2.40	157.40	1,680.72	-1,530.89	0.96	5.43	0.96	6.634	-5.79	58.58
1,694.75	1.10	272.70	1,690.13	-1,540.30	0.78	5.41	0.78	9.673	-4.14	367.20
1,704.35	2.20	282.90	1,699.73	-1,549.90	0.82	5.14	0.82	3.544	3.44	31.87
1,713.77	2.40	286.10	1,709.14	-1,559.31	0.92	4.78	0.92	0.757	0.64	10.19
1,723.33	1.00	20.70	1,718.70	-1,568.87	1.05	4.61	1.05	8.388	-4.39	296.86
1,732.80	1.40	43.10	1,728.17	-1,578.34	1.21	4.72	1.21	1.930	1.27	70.96
1,742.44	0.90	122.00	1,737.81	-1,587.98	1.26	4.87	1.26	4.704	-1.56	245.54
1,751.88	0.60	138.30	1,747.25	-1,597.42	1.18	4.96	1.18	1.161	-0.95	51.80
1,761.36	0.60	337.40	1,756.72	-1,606.89	1.19	4.98	1.19	3.745	0.00	-509.18
1,770.76	0.80	340.10	1,766.12	-1,616.29	1.30	4.93	1.30	0.647	0.64	8.62
1,780.17	1.10	333.10	1,775.53	-1,625.70	1.44	4.87	1.44	1.024	0.96	-22.32
1,789.59	1.30	336.40	1,784.95	-1,635.12	1.62	4.79	1.62	0.674	0.64	10.51
1,798.98	1.30	337.80	1,794.34	-1,644.51	1.82	4.70	1.82	0.101	0.00	4.47
1,808.47	1.40	343.30	1,803.83	-1,654.00	2.03	4.63	2.03	0.517	0.32	17.39
1,817.87	1.40	342.80	1,813.22	-1,663.39	2.25	4.56	2.25	0.039	0.00	-1.60
1,827.31	1.40	340.20	1,822.66	-1,672.83	2.47	4.49	2.47	0.202	0.00	-8.26
1,836.84	1.20	344.50	1,832.19	-1,682.36	2.67	4.42	2.67	0.700	-0.63	13.54
1,845.47	1.00	349.20	1,840.82	-1,690.99	2.83	4.39	2.83	0.762	-0.70	16.34
1,854.91	1.20	356.00	1,850.25	-1,700.42	3.01	4.36	3.01	0.758	0.64	21.61
1,863.69	1.20	0.30	1,859.03	-1,709.20	3.20	4.36	3.20	0.308	0.00	14.69
1,877.05	1.30	3.40	1,872.39	-1,722.56	3.49	4.37	3.49	0.271	0.22	6.96
1,886.48	1.70	5.80	1,881.82	-1,731.99	3.73	4.39	3.73	1.288	1.27	7.64
1,895.94	2.00	15.10	1,891.27	-1,741.44	4.03	4.45	4.03	1.343	0.95	29.49
1,905.34	2.10	12.70	1,900.67	-1,750.84	4.36	4.53	4.36	0.421	0.32	-7.66
1,914.83	2.10	5.90	1,910.15	-1,760.32	4.70	4.58	4.70	0.787	0.00	-21.50
1,925.11	1.70	356.60	1,920.42	-1,770.59	5.04	4.59	5.04	1.470	-1.17	-27.14
1,934.55	1.50	351.50	1,929.86	-1,780.03	5.30	4.57	5.30	0.780	-0.64	-16.21
1,943.96	1.30	337.20	1,939.27	-1,789.44	5.52	4.51	5.52	1.278	-0.64	-45.59
LAST MWD SURVEY										
1,956.00	1.40	333.80	1,951.30	-1,801.47	5.78	4.39	5.78	0.319	0.25	-8.47
EXTRPOLATION TO TD										
1,970.00	1.40	333.80	1,965.30	-1,815.47	6.09	4.24	6.09	0.000	0.00	0.00

CHOICE Directional Services Ltd.

CHOICE Directional

Survey Report

INVESTCAN Energy Corp

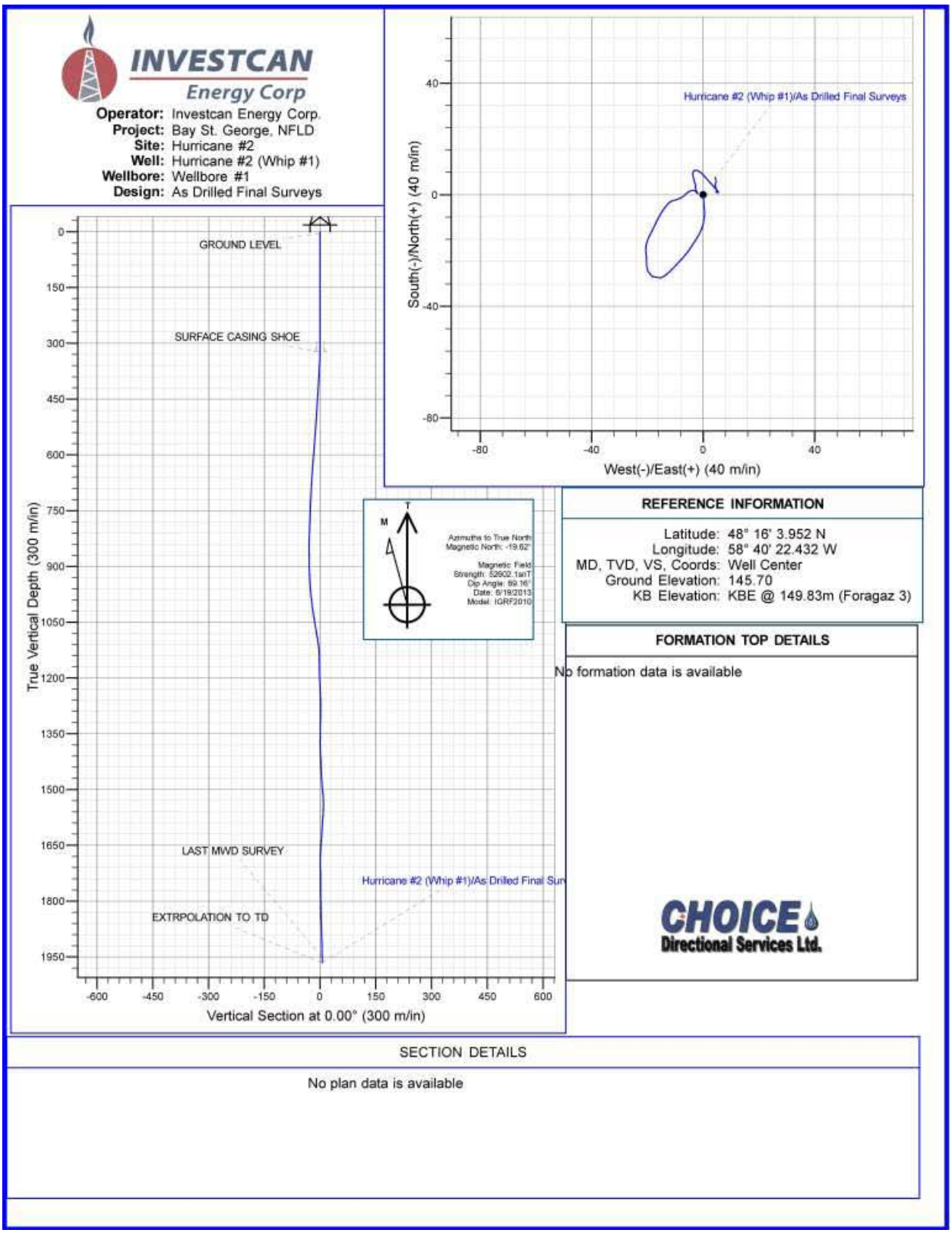
Company:	Investcan Energy Corp.	**Local Co-ordinate Reference:**	Well Hurricane #2 (Whip #1)
Project:	Bay St. George, NFLD	**TVD Reference:**	KBE @ 149.83m (Foragaz 3)
Site:	Hurricane #2	**MD Reference:**	KBE @ 149.83m (Foragaz 3)
Well:	Hurricane #2 (Whip #1)	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled Final Surveys	**Database:**	EDM 5000.1 Single User Db
UWI:			
License No:			
Job No:	13306		

Casing Points

MD (m)	TVD (m)	Name	Casing Diameter (mm)	Hole Diameter (mm)
323.00	323.00	SURFACE CASING	139.70	152.40

Design Annotations

		Local Coordinates		
MD (m)	TVD (m)	+N/-S (m)	+E/-W (m)	Comment
4.13	4.13	0.00	0.00	GROUND LEVEL
323.00	323.00	0.00	0.00	SURFACE CASING SHOE
1,956.00	1,951.30	5.78	4.39	LAST MWD SURVEY
1,970.00	1,965.30	6.09	4.24	EXTRPOLATION TO TD


INVESTCAN Energy Corp
Operator: Investcan Energy Corp.
Project: Bay St. George, NFLD
Site: Hurricane #2
Well: Hurricane #2 (Whip #1)
Wellbore: Wellbore #1
Design: As Drilled Final Surveys
Hurricane #2 (Whip #1)/As Drilled Final Surveys
South(-)/North(+) (40 m/in)
West(-)/East(+) (40 m/in)
GROUND LEVEL
SURFACE CASING SHOE
LAST MWD SURVEY
EXTRPOLATION TO TD
Hurricane #2 (Whip #1)/As Drilled Final Sur
True Vertical Depth (300 m/in)
Vertical Section at 0.00° (300 m/in)
REFERENCE INFORMATION
Latitude: 48° 16' 3.952 N
Longitude: 58° 40' 22.432 W
MD, TVD, VS, Coords: Well Center
Ground Elevation: 145.70
KB Elevation: KBE @ 149.83m (Foragaz 3)
FORMATION TOP DETAILS
No formation data is available
CHOICE Directional Services Ltd.
SECTION DETAILS
No plan data is available

APPENDIX P : Gas Analysis

Number of page : *2*

Summary of the content: This appendix presents the Gas Analysis Result for Hurricane#2 (Whip#1) Re-entry.

Maxxam

GAS MIGRATION ANALYSIS

MaxxID | Client ID | Meter Number | Laboratory Number: B364288:HA1812

Operator Name: INVESTCAN ENERGY CORPORATION | LSD | Well ID

Well Name: INVESTCAN HURRICANE #2 EP03-107 | Initials of Sampler: N/A | Sampling Company: HOLLAND TESTERS

Field or Area | Pool or Zone: FRIARS COVE | Sample Point: DST TOOL | Container Identity: 11500 | Percent Full

Test Recovery | Sample Gathering Point | Solution Gas

Test Type | No. | Multiple Recovery

Interval: From 1316.5, To 1371

Elevations (m): KB 147.97, GRD 145.7

GPS: N 0.000000 | GPS: W 0.000000

Production Rates: Water m3/d | Oil m3/d | Gas 1000m3/d

Gauge Pressures kPa: Source 345 | As Received

Temperature °C: Source 19.5 | As Received 21

Well Fluid Type | Licence No.

Date Sampled Start	Date Sampled End	Date Received	Date Reported	Date Reissued	Analyst
2013/07/19 09:45		2013/07/26	2013/07/30	2013/07/31	AT3,GM1

COMPOSITION

Component	Mole Fraction As Rec'd	ppm (v/v)	$\delta^{13}C$ ‰
H2	0.0025		
He	0.0007		
O2	0.0359		
N2	0.2165		
CO2	0.0001	110	-12.69
H2S	0.0000		
C1	0.6809		-41.06
C2	0.0482		-33.74
C3	0.0112		-29.25
IC4	0.0014		-27.23
NC4	0.0017		-28.26
IC5	0.0004	420	
NC5	0.0003	330	
C6	0.0002	240	
C7+	Trace	160	
TOTAL	1.0000		

PROPERTIES

Calculated Molar Mass (Moisture Free as Sampled): 18.6 (Total)

Calculated Gross Heating Value (MJ/m3) @ 101.325 kPa & 15°C: 36.81 (GPA 2172)

Calculated Relative Densities (Relative to Air @15°C): 0.644 (Moisture Free as Sampled)

Hydrogen Sulphide

On Site		In Lab		
Gastec (ppm v/v)	Tutweiler (mole%)	Gastec (ppm v/v)	Tutweiler (mole%)	H2S from GC (mole%)

Onsite analysis is required for accurate source H2S content.
H2S degrades variably in all sample containers and is also matrix dependant.

$$\delta^{13}C\,‰ = [(^{13}C / {}^{12}C_{sample} - {}^{13}C / {}^{12}C_{standard}) / ({}^{13}C / {}^{12}C_{standard})] * 1000$$

INTERPRETATION

QC Check Std # 5321/5226 | Date 2013/07/29 | QC Passed Yes

** Information not supplied by client – data derived from LSD information

Results relate only to items tested

Remarks:

MaxxALERT: The duplicate sample was analyzed for confirmation of results.
MaxxALERT: The opening pressure varies significantly from the reported source pressure.
MaxxALERT: The sample is contaminated with air, a resample is recommended.
MaxxALERT: The H2 concentration is atypically high.

EDMONTON 6744-50 Street, Edmonton, Canada T6B 3M9 Tel: (780) 378-8500 Fax: (780) 378-0589

Page 1 of 1

2013/07/31 12:03

Maxxam

GAS MIGRATION ANALYSIS

MaxxID | Client ID | Meter Number | Laboratory Number: B364288:HA1811

Operator Name: INVESTCAN ENERGY CORPORATION

LSD | Well ID

Well Name: INVESTCAN HURRICANE #2 EP03-107 | Initials of Sampler: N/A | Sampling Company: HOLLAND TESTERS

Field or Area: FRIARS COVE | Pool or Zone | Sample Point: DST TOOL | Container Identity: 14039 | Percent Full

Test Recovery | Sample Gathering Point | Solution Gas

Test Type | No. | Multiple Recovery

Interval: From 1090 To 1125

Elevations (m): KB 149.97 GRD 145.7

GPS: N 0.000000 W 0.000000

Production Rates: Water m3/d | Oil m3/d | Gas 1000m3/d

Gauge Pressures kPa: Source 100 | As Received

Temperature °C: Source 16.8 | As Received 21

Well Fluid Type | Licence No.

Date Sampled Start	Date Sampled End	Date Received	Date Reported	Date Released	Analyst
2013/07/20 03:00		2013/07/26	2013/07/30	2013/07/31	AT3,GM1

COMPOSITION

Component	Mole Fraction As Rec'd	ppm (v/v)	$\delta^{13}C$ ‰
H2	0.0031		
He	0.0006		
O2	0.0012		
N2	0.0671		
CO2	Trace	40	
H2S	0.0000		
C1	0.8333		-41.31
C2	0.0722		-33.42
C3	0.0165		-28.69
IC4	0.0021		-27.56
NC4	0.0027		-28.31
IC5	0.0006	550	
NC5	0.0004	390	
C6	0.0002	220	
C7+	Trace	60	
TOTAL	1.0000		

PROPERTIES

Calculated Molar Mass (Moisture Free as Sampled): 18.5 (Total)

Calculated Gross Heating Value (MJ/m3) @ 101.325 kPa & 15°C: 38.87 (GPA 2172)

Calculated Relative Densities Relative to Air @15°C: 0.640 (Moisture Free as Sampled)

Hydrogen Sulphide

On Site		In Lab		
Gastec (ppm v/v)	Tutweiler (mole%)	Gastec (ppm v/v)	Tutweiler (mole%)	H2S from GC (mole%)

Onsite analysis is required for accurate source H2S content.
H2S degrades variably in all sample containers and is also matrix dependant.

$\delta^{13}C$ ‰ = [(^{13}C / $^{12}C_{sample}$ - ^{13}C / $^{12}C_{standard}$) / (^{13}C / $^{12}C_{standard}$)] * 1000

INTERPRETATION

QC Check Std # 5321/5226 Date 2013/07/29 QC Passed Yes

** Information not supplied by client – data derived from LSD information

Results relate only to items tested

Remarks:

MaxxALERT: The duplicate sample was analyzed for confirmation of results.
MaxxALERT: The opening pressure varies significantly from the reported source pressure.
MaxxALERT: The H2 concentration is atypically high.

APPENDIX Q : List of Acronyms

Number of page : *1*

Summary of the content: This appendix presents a list of acronyms used for Hurricane#2 Final Well Report.

ADW	Authority to Drill a Well
BOP	Blow Out Preventer
COND	Condensate
d	Day
daN	Deca Newton
ft	Foot
GR	Gamma Ray
h	Hour
IF	Inside Face
KB	Kelly Bushing
kg	Kilogram
km	Kilometre
kPa	Kilopascals
lbf	Pound Force
LCM	Lost Circulation Material
m	Metre
min	Minute
mKB	Meters Below Kelly Bushing
mm	Millimetre
mW	Megawatt
OD	Outside Diameter
ROP	Rate of Penetration
RPM	Revolutions per Minute
TD	Total Depth
TVD	True Vertical Depth
VSP	Vertical Seismic Profile
XO	Cross-over