Final Well Report

Revision:	**Version 0**
Operating Company:	**Vulcan Minerals Inc. (Investcan Energy Corp)**
Hole Name:	**Flat Bay Test Hole # 8**
Rig:	**Duralite 800**
Field:	**Flat Bay**
Location:	**Western Newfoundland, Canada**
Date:	**March 27th, 2012**
Revised On:	**N/A**

Prepared by: **Elliott Stuckless** **Vulcan Minerals** **Date:**	**Reviewed by:** **Patrick Laracy, P.Geo.** **Vulcan Minerals** **Date:**

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1.0 Introduction

Flat Bay Test Hole #8 was operated by Vulcan Minerals Inc. - Investcan Energy Corp. Joint Venture and drilled by Logan Drilling Limited utilizing a Duralite 800 Core Drilling Rig. The test hole was spudded on October 11th, 2011 and the rig was subsequently released October 31st, 2011 upon completion of the hole.

The purpose of the hole was to acquire reservoir information in regards to the commercial viability of a hydrocarbon bearing formation identified in the Flat Bay area from the previous drilling at Flat Bay. In particular, preserved core is desired to measure and/or determine reservoir parameters such as in-situ fluid contents and physical properties, rock properties such as porosity, permeability and any related information available from laboratory analysis regarding reservoir properties of the cored interval. Other wells drilled within the basin by Vulcan Minerals Inc. (i.e. Flat Bay #1) had encountered significant oil in a relatively thick sequence of sandstone and conglomerate (Fishell's Brook Formation).

As predicted the hole penetrated a thick sequence of anhydrite, a thin interval of Ship Cove limestone followed by the target reservoir formation, conglomerate and sandstone of the Anguille Group. The Anhydrite unit was much thicker than anticipated and as such the depth required to reach the target formation had to be amended. Hydrocarbon shows, varying from excellent to minor, were detected throughout the entire reservoir section. Live oil was observed weeping out around clast boundaries and some sections of coarse grained matrix. Because of the relatively low porosity/permeability of the core, oil would weep from the core many hours after the core was retrieved. Some core had no obvious oil shows when taken from the core barrel but wept oil later. As a result the reservoir sections may contain more significant oil than originally described upon core retrieval.

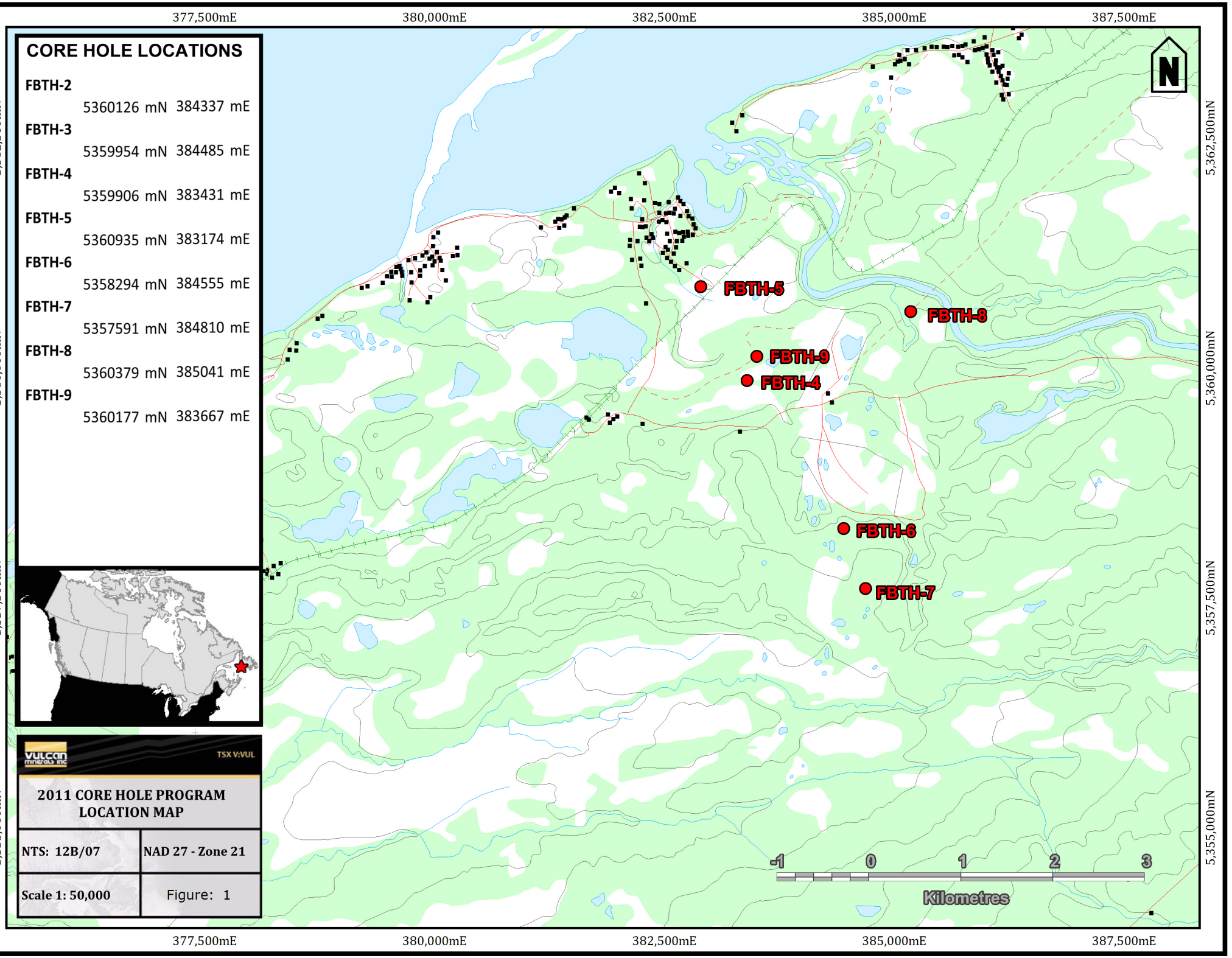
2.0 General Information

The drill site is located just North of the former gypsum quarry. Stephenville, the regional service center for the area is approximately 30 km from the site.

Well Name

Vulcan - Investcan Flat Bay Test Hole #8

2.1 Map


377,500mE
380,000mE
382,500mE
385,000mE
387,500mE
5,362,500mN
5,360,000mN
5,357,500mN
5,355,000mN
CORE HOLE LOCATIONS
FBTH-2
5360126 mN 384337 mE
FBTH-3
5359954 mN 384485 mE
FBTH-4
5359906 mN 383431 mE
FBTH-5
5360935 mN 383174 mE
FBTH-6
5358294 mN 384555 mE
FBTH-7
5357591 mN 384810 mE
FBTH-8
5360379 mN 385041 mE
FBTH-9
5360177 mN 383667 mE
FBTH-5
FBTH-8
FBTH-9
FBTH-4
FBTH-6
FBTH-7
N
-1
0
1
2
3
Kilometres
VULCAN minerals inc
TSX V:VUL
2011 CORE HOLE PROGRAM
LOCATION MAP
NTS: 12B/07
NAD 27 - Zone 21
Scale 1: 50,000
Figure: 1

Exploration Permit

The well was drilled on exploration Permit 96 – 105 under the authority of Drilling Program Approval (DPA) # 2011-116-01 and Authority to Drill a Well (ADW) # 2011-116-01-05, both issued on August 19th, 2011 (Appendix I).

Location Co-ordinates

The NAD 27 UTM co-ordinates of the well are as follows:

Northing: 5360379.149 m N
Easting: 385040.549 m E
Elevation: 18.464 m

The survey was carried out by R. Davis Surveys Ltd. of Stephenville Crossing using differential GPS surveying equipment and techniques (Appendix VIII).

2.2 Difficulties and Delays

Difficulties encountered while drilling were as follows:

- Transmission Failure – October 12 – 24 hours

3.00 Drilling Operations

A summary of the daily drilling operations are contained in Appendix II – Daily Drilling Reports.

3.1 Elevation

Elevations for the entire hole were measured from the bottom edge of the surface casing and are above mean sea level as follows:

Ground – 18.464 m
Casing – 19.464 m

3.2 Total Depth

The following depths are measured from the top of casing:

Total drilled depth – 349.0 m
Total Vertical Depth – 349.0 m

3.3 Spud Date

The well was spudded October 11th, 2011

3.4 Date Drilling Completed

The well ceased drilling on October 31st, 2011

3.5 Rig Release Date

The drilling rig was released on October 31st, 2011

3.6 Well Status

The well was abandoned at 349.0m. The hole was completely filled with cement while the rods were pulled out of the hole from 202.0m to surface. The casing was cut 1 m below ground level. The well head was then marked by a large boulder.

3.7 Hole Sizes and Depth

The following depths are measured from top of surface casing and hole sizes are outside diameters (O.D. (mm)).

Hole Section	Size (mm)	Depth (m)
Surface	91.7 (NW)	66.0
Main	75.7 (NQ)	349.0

3.8 Bit Records

The surface hole was drilled with three 91.7 mm (NW) diamond casing shoe bit. The main hole was drilled with two 75.7 mm (NQ) diamond-drilling bits. Depths in and out of each bit as well as type and serial # are outlined in Appendix III.

3.9 Casing and Cementing Record

The drilling program used NW shoe bit, advanced with NW core. The casing used for the surface/conductor pipe was NW casing, 88.9 mm – 12.8 kg/m3 with a NW shoe placed at 66m. 66 meters of NW casing set in hole (Appendix XI).

The NW casing was cemented with 0.1 m^3 of Class A Portland Cement at a density of 1820 kg/m^3, no cement returns were observed at surface, additional cement was poured from surface to stabilize the top of the casing. Cement was tagged in the casing from 62-67 m.

3.10 Side-tracked Hole

Not applicable (N/A)

3.11 Drilling Fluid

The drilling fluids consisted of fresh water. Entirety of the hole was drilled with fluid densities approximately equal to fresh water 1000 kg/m3.

3.12 Fluid Disposal

Drilling fluid was disposed of by Logan Drilling in compliance with government regulations.

3.13 Fishing Operations

No fishing operations were conducted on this particular well.

3.14 Well Kicks

There were no kicks encountered during drilling of test hole.

3.15 Formation Leak – Off Tests

There was no Formation Leak – Off Tests performed during drilling of hole.

3.16 Time Distribution

Activity	Total Hours
Drilling	87
Site Mob/Demob	20
Rig Repairs	24
Circulating	2
Tripping	0
Cementing	8
Wait on Cement	18
Drill Out Cement	4
Survey	0
Casing Preparation	13
BOP Rig Up / Tests	2
Wait on Parts	0
Stand By	0

3.17 Deviation Plot

Not applicable (N/A)

3.18 Suspension Program

Not applicable

3.19 Well Schematic

A detailed well schematic containing pertinent well bore information is attached (Appendix XI).

3.20 Fluid Samples

No formation fluid samples were taken.

3.21 Composite Well Record

A composite Well Record is included as Appendix IV.

4.00 Geology

4.1 Drill Cuttings

No cuttings were taken because entire hole from bedrock surface to total depth was cored.

4.2 Cores

The entire hole from bedrock surface to total depth was cored. Practically one hundred percent core recovery was achieved. Drill core not sent for analysis is stored at Vulcan Minerals Inc. storage warehouse in Stephenville, Newfoundland and Labrador. All core boxes are numbered sequentially and marked with respective depth intervals (Appendix VI).

4.3 Lithology

A detailed description of drill core was compiled and is included in Appendix VII. Roland Strickland under contract to Vulcan Minerals Inc. provided geological descriptions of all drill cores.

4.4 Stratigraphic Column

A stratigraphic column chart is attached as Appendix V.

4.5 Biostratigraphic Data

No biostratigraphic analysis has been carried out on core samples.

5.0 Well Evaluation

5.1 Downhole Logs

There were no downhole logging operations conducted.

5.2 Other Logs

There were no other downhole logging operations conducted.

5.3 Synthetic Seismogram

Not applicable

5.4 Vertical Seismic Profile

Not applicable

5.5 Velocity Surveys

Not applicable

5.6 Formation Stimulation

Not applicable

5.7 Formation Flow Tests

Not applicable

6.0 Other Data

6.1 Mud Loggers Report

Not applicable

6.2 Directional and Deviation Survey

Not applicable

6.3 Final Legal Survey

The final legal survey as carried out by R. Davis Surveys Ltd. is contained in Appendix VIII.

6.4 Core Photos

Core photos are contained in Appendix IX.

6.5 Core Analysis Report

Core analysis report is contained in Appendix X.

6.6 Fluid Analysis Report(s)

Not Applicable.

6.7 Oil, Gas and Water Analysis Report(s)

Not Applicable.

6.8 Geochemical, Biostratigraphic, Petrological, Palynogical Paleontological Reports

Not Applicable.

6.9 Well Termination Report

A well termination program is included in Appendix XI of this report.

Appendix I
Authority to Drill Well

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources

Dawn - hold onto originals
Elliot - copies need to be made to have at rig site.

August 19th, 2011

Mr. Patrick Laracy, President
Vulcan Minerals Inc.
333 Duckworth Street
St. John's, NL, A1C 1G9

Dear Mr. Laracy:

RE: Drilling Program Approval and Authority to Drill a Well for Vulcan Minerals Flat Bay Test Holes #4, #5, #6, #7 and #8

Please find attached the following executed documents:
Drilling Program Approval (DPA 2011-116-01);
Authority to Drill a Well (ADW 2011-116-01-01);
Authority to Drill a Well (ADW 2011-116-01-02);
Authority to Drill a Well (ADW 2011-116-01-03);
Authority to Drill a Well (ADW 2011-116-01-04);
Authority to Drill a Well (ADW 2011-116-01-05).

These documents contain attached conditions. Please review these conditions and ensure that they are prominently displayed at the wellsite at all times.

Thank you for your interest in western Newfoundland and good luck with your exploration efforts.

Yours sincerely,

Keith Hynes

Keith Hynes, P. Eng.
Director
Petroleum Engineering

P.O. Box 8700, St. John's, NL, Canada, A1B 4J6, Telephone (709) 729-2005, Facsimile (709) 729-2871

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

DRILLING PROGRAM APPROVAL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act(1.)*, Vulcan Minerals Inc.
as operator on behalf of Vulcan Minerals Inc. & Investcan Energy Corp. Joint Venture, holding a
subsisting licence, permit or lease issued pursuant to the *Petroleum Regulations(2)*, namely; 03-106 & 96-105
(licence, permit, or lease #)

hereby applies for approval to conduct a drilling program using the drilling rig Duralite 800
and equipment and procedures described in the detailed program dated . 13-Jun-2011

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: 16-Jun-2011
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 drilling program subject to the following conditions:

1. This Drilling Program Approval shall, unless otherwise extended or terminated, expire upon the 31 day of August, 20 12

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 2011-06-13 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: 2011-08-19

Drilling Program Approved No. 2011-116-01

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

(2) - CNR 1151/96

(3) - CNR 1150/96

SCHEDULE "A"

TO

DRILLING PROGRAM APPROVAL #2011-116-01

OTHER CONDITIONS

1. Notwithstanding condition # 4 of the Approval (see previous page), the Operator shall comply with the requirements of the *Petroleum Drilling Regulations* (the Regulations) unless the Operator has received written approval from the Director to deviate from the Regulations.

2. Pursuant to Section 154 of the Regulations, the director shall release to the public, general information including the name, classification, location, identity of the drilling contractor and rig used by the Operator, depth and operational status of the drilling program.

3. It is a condition of approval of this DPA that the Operator, pursuant to Section 52(2)(a) of the *Petroleum Regulations, (CNR1151/96)* provide to the director on a weekly basis a benefits monitoring report as well as a cost summary report showing AFE costs, costs to date and variances for all major cost categories.

4. The core acquired under this DPA may be requested under Section 149 of the Petroleum Drilling Regulations but shall otherwise be submitted to the Director upon expiration of the relevant Exploration Permit 03-106 or 96-105.

5. Crew certificates are to be supplied upon confirmation of rig contracts. The Operator shall also ensure that the crew is familiar with diverting procedures and related equipment.

6. The Operator shall, prior to commencement of drilling operations, supply to the Department a security deposit for the amount of $18,000 to ensure abandonment, reclamation, and reporting requirements are met. The security deposit secures the Operator's commitments to comply with the *Petroleum and Natural Gas Act,* the regulations under this Act and the terms and conditions of the Vulcan Minerals Test Holes #4, #5, #6, #7 and #8 Authority to Drill a Well and Drilling Program Approval.

7. The Minister may use the security deposit to compensate the Province for any losses, costs, demands or other charges that the Province incurs as a result of the Operator's non-compliance with the *Petroleum and Natural gas Act*, the regulations under this Act and the terms and conditions of this approval.

8. The submission of the security deposit and any usage of that deposit by the Minister shall not limit or restrict the liability of the Operator for its actions or the actions of its agents, contractors, employees and other acting under the Operator's authority, or limit or restrict the Operator's obligation to indemnify the Province pursuant to the Newfoundland and Labrador Petroleum Regulations.

9. The security deposit or any unexpended balance shall be refunded without interest to the applicant

10. If, during this drilling program, all or part of the security deposit is expended by the Minister, the Operator shall, on request by the Director, provide further security so that the security deposit is replenished to its original amount.

11. The detailed program referenced in Approval condition #4 attached consists of the following documents supplied by the Operator:

Title	Date Issued	Date Revised
2011 Flat Bay Test Hole Drilling Program Information	13 June 2011	16 June 2011
Emergency Response Plan	18 June 2010	30 May 2011

August 19th, 2011

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

AUTHORITY TO DRILL A WELL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act (R.S.N.L. 1990, c. P-10)* and in compliance with section 29 of the *Petroleum Drilling Regulations,(CNR 1150/96)* Vulcan Minerals Inc. , as operator, hereby applies for Authority to Drill a Well to be known as Flat Bay Test Hole #4 using the equipment and procedures described in the well program dated June 13th ,20 11

Permit, Licence or Lease to which this Program applies: Exploration Permit #03-106

Area: Western Newfoundland, Bay St. George Basin	CO-ORDINATES	
		UTM (N A D 27)
Field/Pool: Flat Bay	Long:	Northing: 5 359 930 m
Drilling Rig: Duralite 800	Lat:	Easting: 383 525 m
Rig Type: Duralite Diamond Drill	ELEVATION	DEPTH
Drilling Contractor: Logan Drilling Ltd.	☐ RT ☐ KB ☐ RF [ ] m	T.D : 150 m
	G.L.: +47 m rel. MSL	TVD: 150 m

ESTIMATES		TARGET HORIZONS
Spud Date: 15-Jul-2011	Well Cost:$100k	Fischell's Brook Conglomerate
Days on Location: 3 days		

EVALUATION PROGRAM

Ten-metre sample intervals: n/a	Conventional cores at: continuous wireline core drilling
Five-metre sample intervals: n/a	Logs and Tests: n/a
Canned sample intervals: n/a	

CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m)	Cementing Program
88.9	12.8	4130CrMo	40	1821 kg/m Class 'A' to surface (30% excess)

Other Equipment:

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

Signed: _____ Date: 13-Jun-2011

Operator's Representative

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 sita 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 aquistition;
3. The operator shall comply with all conditions of the Drilling Program Approval No. 2011-116-01 under which the above well is to be drilled;
4. No change in the well program hereby approved may be made unless it is first approved by the director in writing;
5. This Authorization is conditional on the operator commencing drilling within 120 days of the effective Authorization date; and
6. The operator shall comply with such other conditions as are appended to this Authorization.

Signed: W Foote Effective Date: 2011-08-19

Authority to Drill a Well No. 2011-116-01-01

Revised: March, 2008 FRM-63

SCHEDULE "A" TO

AUTHORITY TO DRILL A WELL #2011-116-01-01

OTHER CONDITIONS

1. The Operator shall, prior to commencement of major site operations, ensure that an approved Operator's representative is on site to supervise all site operations.

2. Notwithstanding condition #3 of the Authorization (see previous page), the Operator shall comply with the requirements of the *Petroleum Drilling Regulations, (CNR 1150/96)* (the Regulations) unless the Operator has received written approval from the Director to deviate from the Regulations.

3. The Operator shall ensure that the test hole is drilled in a prudent and reasonable manner, consistent with good oilfield practices and with due consideration for the safety of personnel, property and the environment.

4. The Operator shall be liable for its actions and the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole.

5. The Operator's liability for the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole does not limit any liability that those agents, contractors, employees or others acting under the Operator's authority may have to the Operator.

6. The Operator shall ensure that all necessary approvals have been acquired from other government agencies and other rights holders, in respect of access to and use of land for the purpose of the drilling operations, and disposal of all materials.

7. The Operator shall attorn to the jurisdiction of the courts of the Province of Newfoundland and Labrador.

8. As per section 142(b) of the Regulations, 24 hour notice shall be provided to the Director prior to spud-in.

9. Daily drilling and daily geological reports shall be submitted on a daily basis via email to petroleum_development@gov.nl.ca.

10. A termination record signed by the operator's representative must be submitted within 21 days of the rig release date. Down-hole schematic and digital images showing the final condition of the site are to be included.

11. Prior to the end of drilling operations, the Operator shall provide a legal survey of the site acceptable to the Director to confirm the location of the test hole.

August 19, 2011

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

AUTHORITY TO DRILL A WELL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act (R.S.N.L. 1990, c. P-10)* and in compliance with section 29 of the *Petroleum Drilling Regulations,(CNR 1150/96)* Vulcan Minerals Inc. , as operator, hereby applies for Authority to Drill a Well to be known as Flat Bay Test Hole #5 using the equipment and procedures described in the well program dated June 13th ,20 11

Permit, Licence or Lease to which this Program applies: Exploration Permit #96-105

Area: Western Newfoundland, Bay St. George Basin	CO-ORDINATES	
	Long:	UTM (N A D 27)
Field/Pool: Flat Bay		Northing: 5 361 123 m
Drilling Rig: Duralite 800	Lat:	Easting: 383 208 m
Rig Type: Duralite Diamond Drill	ELEVATION	DEPTH
Drilling Contractor: Logan Drilling Ltd.	☐ RT ☐ KB ☐ RF [ ] m	T.D.: 150 m
	G.L.: +35 m rel. MSL	TVD: 150 m

ESTIMATES		TARGET HORIZONS
Spud Date: 15-Jul-2011	Well Cost: $100k	Fischell's Brook Conglomerate
Days on Location: 3 days		

EVALUATION PROGRAM

Ten-metre sample intervals: n/a	Conventional cores at: continuous wireline core drilling
Five-metre sample intervals: n/a	Logs and Tests: n/a
Canned sample intervals: n/a	

CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m)	Cementing Program
88.9	12.8	4130CrMo	40	1821 kg/m Class 'A' to surface (30% excess)

Other Equipment:

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

Signed: _____ Date: 13-Jun-2011

Operator's Representative

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 sita 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 aquistition;
3. The operator shall comply with all conditions of the Drilling Program Approval No. 2011-116-01 under which the above well is to be drilled;
4. No change in the well program hereby approved may be made unless it is first approved by the director in writing;
5. This Authorization is conditional on the operator commencing drilling within 120 days of the effective Authorization date; and
6. The operator shall comply with such other conditions as are appended to this Authorization.

Signed: W Foote Effective Date: 2011-08-19

Authority to Drill a Well No. 2011-116-01-02

SCHEDULE "A" TO

AUTHORITY TO DRILL A WELL #2011-116-01-02

OTHER CONDITIONS

1. The Operator shall, prior to commencement of major site operations, ensure that an approved Operator's representative is on site to supervise all site operations.

2. Notwithstanding condition #3 of the Authorization (see previous page), the Operator shall comply with the requirements of the *Petroleum Drilling Regulations, (CNR 1150/96)* (the Regulations) unless the Operator has received written approval from the Director to deviate from the Regulations.

3. The Operator shall ensure that the test hole is drilled in a prudent and reasonable manner, consistent with good oilfield practices and with due consideration for the safety of personnel, property and the environment.

4. The Operator shall be liable for its actions and the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole.

5. The Operator's liability for the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole does not limit any liability that those agents, contractors, employees or others acting under the Operator's authority may have to the Operator.

6. The Operator shall ensure that all necessary approvals have been acquired from other government agencies and other rights holders, in respect of access to and use of land for the purpose of the drilling operations, and disposal of all materials.

7. The Operator shall attorn to the jurisdiction of the courts of the Province of Newfoundland and Labrador.

8. As per section 142(b) of the Regulations, 24 hour notice shall be provided to the Director prior to spud-in.

9. Daily drilling and daily geological reports shall be submitted on a daily basis via email to petroleum_development@gov.nl.ca.

10. A termination record signed by the operator's representative must be submitted within 21 days of the rig release date. Down-hole schematic and digital images showing the final condition of the site are to be included.

11. Prior to the end of drilling operations, the Operator shall provide a legal survey of the site acceptable to the Director to confirm the location of the test hole.

August 19, 2011

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

AUTHORITY TO DRILL A WELL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act (R.S.N.L. 1990, c. P-10)* and in compliance with section 29 of the *Petroleum Drilling Regulations,(CNR 1150/96)* Vulcan Minerals Inc. , as operator, hereby applies for Authority to Drill a Well to be known as Flat Bay Test Hole #6 using the equipment and procedures described in the well program dated June 13th ,20 11

Permit, Licence or Lease to which this Program applies: Exploration Permit #03-106

Area: Western Newfoundland, Bay St. George Basin	CO-ORDINATES	
	Long:	UTM (N A D 27)
Field/Pool: Flat Bay		Northing: 5 358 513 m
Drilling Rig: Duralite 800	Lat:	Easting: 384 606 m
Rig Type: Duralite Diamond Drill	ELEVATION	DEPTH
Drilling Contractor: Logan Drilling Ltd.	☐ RT ☐ KB ☐ RF [ ] m	T.D.: 150 m
	G.L.: +87 m rel. MSL	TVD: 150 m

ESTIMATES		TARGET HORIZONS
Spud Date: 15-Jul-2011	Well Cost: $100k	Fischell's Brook Conglomerate
Days on Location: 3 days		

EVALUATION PROGRAM

Ten-metre sample intervals: n/a	Conventional cores at: continuous wireline core drilling
Five-metre sample intervals: n/a	Logs and Tests: n/a
Canned sample intervals: n/a	

CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m)	Cementing Program
88.9	12.8	4130CrMo	40	1821 kg/m Class 'A' to surface (30% excess)
Other Equipment:				

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

Signed: _____ Date: 13-Jun-2011

Operator's Representative

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 sita 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 aquistition;
3. The operator shall comply with all conditions of the Drilling Program Approval No. 2011-116-01 under which the above well is to be drilled;
4. No change in the well program hereby approved may be made unless it is first approved by the director in writing;
5. This Authorization is conditional on the operator commencing drilling within 120 days of the effective Authorization date; and
6. The operator shall comply with such other conditions as are appended to this Authorization.

Signed: _____ Effective Date: 2011-08-19

Authority to Drill a Well No. 2011-116-01-03

Revised: March, 2008 FRM-63

SCHEDULE "A" TO

AUTHORITY TO DRILL A WELL #2011-116-01-03

OTHER CONDITIONS

1. The Operator shall, prior to commencement of major site operations, ensure that an approved Operator's representative is on site to supervise all site operations.

2. Notwithstanding condition #3 of the Authorization (see previous page), the Operator shall comply with the requirements of the *Petroleum Drilling Regulations, (CNR 1150/96)* (the Regulations) unless the Operator has received written approval from the Director to deviate from the Regulations.

3. The Operator shall ensure that the test hole is drilled in a prudent and reasonable manner, consistent with good oilfield practices and with due consideration for the safety of personnel, property and the environment.

4. The Operator shall be liable for its actions and the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole.

5. The Operator's liability for the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole does not limit any liability that those agents, contractors, employees or others acting under the Operator's authority may have to the Operator.

6. The Operator shall ensure that all necessary approvals have been acquired from other government agencies and other rights holders, in respect of access to and use of land for the purpose of the drilling operations, and disposal of all materials.

7. The Operator shall attorn to the jurisdiction of the courts of the Province of Newfoundland and Labrador.

8. As per section 142(b) of the Regulations, 24 hour notice shall be provided to the Director prior to spud-in.

9. Daily drilling and daily geological reports shall be submitted on a daily basis via email to petroleum_development@gov.nl.ca.

10. A termination record signed by the operator's representative must be submitted within 21 days of the rig release date. Down-hole schematic and digital images showing the final condition of the site are to be included.

11. Prior to the end of drilling operations, the Operator shall provide a legal survey of the site acceptable to the Director to confirm the location of the test hole.

August 19, 2011

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

AUTHORITY TO DRILL A WELL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act (R.S.N.L. 1990, c. P-10)* and in compliance with section 29 of the *Petroleum Drilling Regulations,(CNR 1150/96)* Vulcan Minerals Inc. , as operator, hereby applies for Authority to Drill a Well to be known as Flat Bay Test Hole #7 using the equipment and procedures described in the well program dated June 13th ,20 11

Permit, Licence or Lease to which this Program applies: Exploration Permit #03-106

Area: Western Newfoundland, Bay St. George Basin	CO-ORDINATES	
	Long:	UTM (N A D 27)
Field/Pool: Flat Bay		Northing: 5 357 644 m
Drilling Rig: Duralite 800	Lat:	Easting: 384 746 m
Rig Type: Duralite Diamond Drill	ELEVATION	DEPTH
Drilling Contractor: Logan Drilling Ltd.	☐ RT ☐ KB ☐ RF [ ] m	T.D.: 150 m
	G.L.: +107 m rel. MSL	TVD: 150 m
ESTIMATES		TARGET HORIZONS
Spud Date: 15-Jul-2011	Well Cost: $100k	Fischell's Brook Conglomerate
Days on Location: 3 days		

EVALUATION PROGRAM

Ten-metre sample intervals: n/a	Conventional cores at: continuous wireline core drilling
Five-metre sample intervals: n/a	Logs and Tests: n/a
Canned sample intervals: n/a	

CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m)	Cementing Program
88.9	12.8	4130CrMo	40	1821 kg/m Class 'A' to surface (30% excess)
Other Equipment:				

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

Signed: _____ Date: 13-Jun-2011

Operator's Representative

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 sita 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 aquistition;
3. The operator shall comply with all conditions of the Drilling Program Approval No. 2011-116-01 under which the above well is to be drilled;
4. No change in the well program hereby approved may be made unless it is first approved by the director in writing;
5. This Authorization is conditional on the operator commencing drilling within 120 days of the effective Authorization date; and
6. The operator shall comply with such other conditions as are appended to this Authorization.

Signed: W Foote Effective Date: 2011-08-19

Authority to Drill a Well No. 2011-116-01-04

SCHEDULE "A" TO

AUTHORITY TO DRILL A WELL #2011-116-01-04

OTHER CONDITIONS

1. The Operator shall, prior to commencement of major site operations, ensure that an approved Operator's representative is on site to supervise all site operations.

2. Notwithstanding condition #3 of the Authorization (see previous page), the Operator shall comply with the requirements of the *Petroleum Drilling Regulations, (CNR 1150/96)* (the Regulations) unless the Operator has received written approval from the Director to deviate from the Regulations.

3. The Operator shall ensure that the test hole is drilled in a prudent and reasonable manner, consistent with good oilfield practices and with due consideration for the safety of personnel, property and the environment.

4. The Operator shall be liable for its actions and the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole.

5. The Operator's liability for the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole does not limit any liability that those agents, contractors, employees or others acting under the Operator's authority may have to the Operator.

6. The Operator shall ensure that all necessary approvals have been acquired from other government agencies and other rights holders, in respect of access to and use of land for the purpose of the drilling operations, and disposal of all materials.

7. The Operator shall attorn to the jurisdiction of the courts of the Province of Newfoundland and Labrador.

8. As per section 142(b) of the Regulations, 24 hour notice shall be provided to the Director prior to spud-in.

9. Daily drilling and daily geological reports shall be submitted on a daily basis via email to petroleum_development@gov.nl.ca.

10. A termination record signed by the operator's representative must be submitted within 21 days of the rig release date. Down-hole schematic and digital images showing the final condition of the site are to be included.

11. Prior to the end of drilling operations, the Operator shall provide a legal survey of the site acceptable to the Director to confirm the location of the test hole.

August 19, 2011

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

AUTHORITY TO DRILL A WELL - APPLICATION

Pursuant to sections 8 and 9 of the *Petroleum and Natural Gas Act (R.S.N.L. 1990, c. P-10)* and in compliance with section 29 of the *Petroleum Drilling Regulations,(CNR 1150/96)* Vulcan Minerals Inc. , as operator, hereby applies for Authority to Drill a Well to be known as Flat Bay Test Hole #8 using the equipment and procedures described in the well program dated June 13th ,20 11

Permit, Licence or Lease to which this Program applies: Exploration Permit #96-105

Area: Western Newfoundland, Bay St. George Basin	CO-ORDINATES	
	Long:	UTM (N A D 27)
Field/Pool: Flat Bay		Northing: 5 360 651 m
Drilling Rig: Duralite 800	Lat:	Easting: 385 323 m
Rig Type: Duralite Diamond Drill	ELEVATION	DEPTH
Drilling Contractor: Logan Drilling Ltd.	☐ RT ☐ KB ☐ RF [ ] m	T.D.: 150 m
	G.L.: +28 m rel. MSL	TVD: 150 m

ESTIMATES		TARGET HORIZONS
Spud Date: 15-Jul-2011	Well Cost: $100k	Fischell's Brook Conglomerate
Days on Location: 3 days		

EVALUATION PROGRAM

Ten-metre sample intervals: n/a	Conventional cores at: continuous wireline core drilling
Five-metre sample intervals: n/a	Logs and Tests: n/a
Canned sample intervals: n/a	

CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m)	Cementing Program
88.9	12.8	4130CrMo	40	1821 kg/m Class 'A' to surface (30% excess)

Other Equipment:

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

Signed: _____ Date: 13-Jun-2011

Operator's Representative

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 sita 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 aquistition;
3. The operator shall comply with all conditions of the Drilling Program Approval No. 2011-116-01 under which the above well is to be drilled;
4. No change in the well program hereby approved may be made unless it is first approved by the director in writing;
5. This Authorization is conditional on the operator commencing drilling within 120 days of the effective Authorization date; and
6. The operator shall comply with such other conditions as are appended to this Authorization.

Signed: _____ Effective Date: 2011-08-19

Authority to Drill a Well No. 2011-116-01-05

Revised: March, 2008 FRM-63

SCHEDULE "A" TO

AUTHORITY TO DRILL A WELL #2011-116-01-05

OTHER CONDITIONS

1. The Operator shall, prior to commencement of major site operations, ensure that an approved Operator's representative is on site to supervise all site operations.

2. Notwithstanding condition #3 of the Authorization (see previous page), the Operator shall comply with the requirements of the *Petroleum Drilling Regulations, (CNR 1150/96)* (the Regulations) unless the Operator has received written approval from the Director to deviate from the Regulations.

3. The Operator shall ensure that the test hole is drilled in a prudent and reasonable manner, consistent with good oilfield practices and with due consideration for the safety of personnel, property and the environment.

4. The Operator shall be liable for its actions and the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole.

5. The Operator's liability for the actions of its agents, contractors, employees and any others acting under the Operator's authority in drilling the test hole does not limit any liability that those agents, contractors, employees or others acting under the Operator's authority may have to the Operator.

6. The Operator shall ensure that all necessary approvals have been acquired from other government agencies and other rights holders, in respect of access to and use of land for the purpose of the drilling operations, and disposal of all materials.

7. The Operator shall attorn to the jurisdiction of the courts of the Province of Newfoundland and Labrador.

8. As per section 142(b) of the Regulations, 24 hour notice shall be provided to the Director prior to spud-in.

9. Daily drilling and daily geological reports shall be submitted on a daily basis via email to petroleum_development@gov.nl.ca.

10. A termination record signed by the operator's representative must be submitted within 21 days of the rig release date. Down-hole schematic and digital images showing the final condition of the site are to be included.

11. Prior to the end of drilling operations, the Operator shall provide a legal survey of the site acceptable to the Director to confirm the location of the test hole.

August 19, 2011

Appendix II
Daily Reports

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 1	DATE:	September 20, 2011
DEPTH 24:00: 0m	PROGRESS:		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: cloudy		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8°C		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A		
ST/Min			
MACP(kPa)	N/A		
Calc Hole Fill			
Act Hole Fill	N/A		
Lst BOP Drill:			
Calc Hole Fill			
Act Hole Fill			

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : september 20/2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	1900	12hrs	Logan Drilling packed up gear in deer lake,ready to load on trucks to transfer gear to flat bay location

24 HOUR Forcast :

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 2	DATE:	September 21, 2011
DEPTH 24:00: 0m	PROGRESS:		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: cloudy		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : september 21/2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	1300	6.00	demobilize rest of gear to site,
1300	1500	2.00	move drill shack and fuel tank
1500	1900	4.00	to rig up on the first drill hole.
1900			

24 HOUR Forcast :

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 3	DATE:	September 22, 2011
DEPTH 24:00: 0m	PROGRESS:		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A		
ST/Min			
MACP(kPa)	N/A		
Calc Hole Fill			
Act Hole Fill	N/A		
Lst BOP Drill:			
Calc Hole Fill			
Act Hole Fill			

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : september 22/2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	1500	8.00	set up drill buildings, ramps and get rig ready to drill.
1500	1900	4.00	lay out 800ft of water line,and put road down for pump shack.
1900			

24 HOUR Forcast :

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 4	DATE:	September 23, 2011
DEPTH 24:00:	0m	PROGRESS: 19.0 m	Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:		HOLE CND.:	WEATHER:	clear	TOOLPUSH:
CUM COST:		RIG / RIG #:	TEMP.:	10c	T.P. MOBILE:
FORMATION:		K.B. ELEV.:	ROADS:	rough	

BIT PERFORMANCE

Bit No.			
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

1.00 °

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

2 PAILS DD1200

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : september 23-24/2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	1900	12.00	DRILLED AHEAD FR-0M TO 12M.POOH TO CHANGE OUT SHOE BIT
1900	0700	12.00	DRILLED AHEAD FR- 12M TO 19M. BACKED JINT OF CASING.TRIP OUT OF HOLE TO FISH
			RAN IN HOLE TO FISH OUT CASING.REAM BACK FR-19M TO 12M.
			Held safety meeting with both crews ando n site supervisors

24 HOUR Forcast :

Continue to drill overburden, searching for bedrock to set casing.

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 4	DATE:	Sept 24,2011
DEPTH 24:00: 0m	PROGRESS: 19M to 25M		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

2 PAILS DD1200

5 bags of portland

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Sept 24,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	1300	6.00	continue reaming back to 19 M, really bad overburden , got back to 19M the shoe bit was woren out.
1300	1900	6.00	trip out a hole while waiting on shoe bit and casing to arrive from Deer Lake, crew worked on suppy
			pump while waiting.
1900	2100	3.00	continue wait on shoe bit to arrive on location
2100	0:00	9.00	make up new bit, ream casing back to 19M, drill from 19 M to 25M, pull back to 24M, cement
0:00			casing.
			Held safety meeting with crew and on site supervisiors, discussed traveling to and from location.

24 HOUR Forcast :

Continue to wait on cement to harden, nipple up deverter, run in hole, tag cement and drill ahead.

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 5	DATE:	Sept 25,2011
DEPTH 24:00: 0m	PROGRESS: 19M to 25M		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

2 PAILS DD1200

5 bags of portland

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Sept 25,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	1900	24	Wait on cement to set up. Went in to tag cement @10m. Continued to wait on cement to prior
			to drilling out. The cement job was successful. Tagged cement@9m and drilled cement down to 34m
			logan drilling then realize that the original hole depth (25)m was incorrect the correct drilling depth was
			should have been 34m instead of 25m. As a result of using incorrect depth (25m) the Casing
			was set at 24m, leaving 10m of open hole in overburden. Due to this incorrect casing depth we now
			have no well control, and no way to pressure test casing because it should have been set at 33m.
			Held a meeting to discuss the importance of keeping a pipe tally.

24 HOUR Forcast :

Cement casing to surface. Skid rig 4m back from original site and start over.

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 6	DATE:	Sept 26,2011
DEPTH 24:00: 0m	PROGRESS: 43.0 m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8°C		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)	NQ			
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

5 BAGS CSMENT

3 PAIL DD 1200

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Sept 26 2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	1600	9	SKID RIG 4m from ch7 to ch 7-2. Drill from 0m to 12m
1600	1900	3.00	drill from 12m to 25m
1900	0700	1200	drill from 25m to 43m all overburden
			Cemented CH7 to surface prior to skidding rig.
			Held a meeting prior to skidding rig with crew

24 HOUR Forcast :

From 0-39m sand & clay. From 39m to 46m overburden boulders. Presently drilling ahead to find bedrock before running casing.

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 6	DATE:	Sept 27,2011
DEPTH 24:00: 0m	PROGRESS: 43.0 m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8°C		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)	NQ			
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Sept 27 2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24.00	DRILL FROM 52m TO 58m with nq rods
			drill FROM 51m to 57m with nw casing
			drill from 58m to 64m with nq rods
			drill from 57m to63m with nw casing
			drill from 64m to 70m with nq rods
			drill from 63m to 69m with nw casing
			The hole is at 73m Casing is at 69m at this point in time.
			0m to 46.4m overburder/ (sand, clay,pebbles, boulders)
			46.4m to 52.0m Gypsum
			52.0m to 64.0m/ overburden (sand, clay, cobbles, boulders)
			56.0m to 70.0m/ Gypsum
			70.0m to 73.0m/ Anhydrate
			Hole is drilled to 73.0m Casing is presently at 69m Currently been drilled to 73.0m
			We will cement casing at 72m

24 HOUR Forcast :

Run NW Casing down to 72m, cement casing and while waiting on cement to harden, nipple up deverter, drill out and presure test prior to coring.

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH-F-B T-H # 7			REPORT #: 6	DATE:	September 28, 2011
DEPTH 24:00:	0m	PROGRESS: 73.0m	Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:		HOLE CND.:	WEATHER: clear		TOOLPUSH:
CUM COST:		RIG / RIG #:	TEMP.: 8°C		T.P. MOBILE:
FORMATION:		K.B. ELEV.:	ROADS: rough		

BIT PERFORMANCE

Bit No.			
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Sept 28 2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24.00	REAM CASING FROM 69m TO 72m
			CEMENT HOLE AT 72m WAIT ON CEMENT PRIOR TO DRILL OUT
			safety meeting with crew and onsite supervisors to prior to drill out

24 HOUR Forcast :

DRILL OUT CEMENT PRESSURE TEST RIG UP DIVERTER AND RUN in HOLE AND CORE

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH7			REPORT #: 9	DATE:	September 29, 2011
DEPTH 24:00: 100m	PROGRESS: 150m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)	NQ			
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : September 29, 2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24.00	presure test up to 500 PSI held pressure for 10 mins, no leaks
			held safety meeting with crew and on site supervisiors prior to drilling ahead
			drill nq rods from 73m to 150m
			stopped drilling wait until word from office to go ahead to drill deeper

24 HOUR Forcast :

Continue to wait on orders to drill ahead

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH-F-B T-H # 7			REPORT #: 8	DATE:	september 30 2011
DEPTH 24:00:	150.0 m	PROGRESS: 220m	Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:		HOLE CND.:	WEATHER: sunnny		TOOLPUSH:
CUM COST:		RIG / RIG #:	TEMP.: 22c		T.P. MOBILE:
FORMATION:		K.B. ELEV.:	ROADS:		

BIT PERFORMANCE

Bit No.			
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

28 bags of portland

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : sept 29 2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24.00	WAIT ON WORD FROM OFFICE TO CONTINUE.DRILL NQ RODS FROM 150m TO 199m PULL OUT
			RUN BACK TO BOTTOM DRILL FROM 199m to 220m
			safety meeting with crew and on site supevisors

24 HOUR Forcast :

drill to td cement and demobilize rig to next location

Vulcan Minerals

DAILY DRILLING REPORT

Flat Bay Test Hole # CH-F-B T-H # 7			REPORT #: 11	DATE:	OCTOBER 1 2011
DEPTH 24:00: 150M	PROGRESS: 220M		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: RANING		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 6C		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS:		

BIT PERFORMANCE

Bit No.			
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3
Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : OCTOBER 1 2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24.00	FINISHED DRILLING@ 0430hrs pull out of hole get ready for cement job
			cement hole back to surface with 1800kgm3 get ready to demolize rig to next location
			good oil shows bubbling from matrix and clast boundaries at 220m; porosity visually estimated at
			8-10% 100% core recovery
			held safety meeting with crew prior to cementing

24 HOUR Forcast :

core

Vulcan Minerals

DAILY DRILLING REPORT

FB TH-6			REPORT #: 12	DATE:	Oct 2/ 2011
DEPTH 24:00: 100m	PROGRESS: 150m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 6c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)	NQ			
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 2/2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24.00	continue to demobilize rig to new location
			safety meeting with crew to discuss hazards of moving equipment around on muddy locations

24 HOUR Forcast :

continue to demobilize rig and drill

Vulcan Minerals

DAILY DRILLING REPORT

FB TH-6			REPORT #: 13	DATE:	Oct 3/2011
DEPTH 24:00: 0m	PROGRESS: 19m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 6c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)	NQ		
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging			
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 3/ 2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24.00	Safety meeting held with crew and on site supervisiors prior to drilling ahead.
			Drill NW casing from 0m to 11m overburden
			drill from 11m to 19m bedrock and hydrate
			Set casing at 19m and cement approximately 8m into bedrock

24 HOUR Forcast :

Wait on cement and drill out cement, pressure test, nipple up deverter, and drill ahead.

Vulcan Minerals

DAILY DRILLING REPORT

FB test hole #6			REPORT #: 1	DATE:	Oct 4th 2011
DEPTH 24:00: 11m	PROGRESS: 121m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 6c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

3 bags of portland

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 4th 201 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed weather conditions and safety
			hazzards,
			Drilled out cement from 8m to 11m
			Pressure test to 500 psi for 10 mins good test
			Nipple up deverter prior to drilling ahead
			Drill NQ rods from 11m to 43m
			Drill NQ rods from 43m to 121m

24 HOUR Forcast :

Drill ahead to find conglomerate

Vulcan Minerals

DAILY DRILLING REPORT

FB test hole #6			REPORT #: 1	DATE:	Oct 5th 2011
DEPTH 24:00: 121m	PROGRESS: 202m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 6c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

3 bags of portland

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 5,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew and weatherford and on site supervisiors, discussed the importance
			of wrapping and waxing core
			Drill NQ rods from 121m to 190m
			From 190m to 202m collected 6 core sections from the conglomerate
			Waxed all 6 cores,
			Core intervals collected 193.0m to 193.44m
			193.7m to 194.10m
			195.58m to 196.0m
			198.0m to 198.40m
			199.89m to 200.28m
			201.5m to 202.0m

24 HOUR Forcast :

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #4			REPORT #: 14	DATE:	oct 6th,2011
DEPTH 24:00: 0m	PROGRESS: 46m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: cold but clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 6c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3
Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 6th,201 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew and onsite supervisiors prior to moving rig across highway to next location
			Finished tearing out rig to move to new location, Put on flat bed to move across highway
			Rig up rig and string out waterline for pump
			Drill NQ rods from 0m to 46m
			Still in overburden

24 HOUR Forcast :

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #4			REPORT #: 15	DATE:	Oct 7th,2011
DEPTH 24:00: 43m	PROGRESS: 103m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 5c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : oct 7,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew and on site supervisior, discussed pinch points and good communication
			Drill NQ rods from 43m to 73m
			Drill NW casing currently at 73m
			Drill NQ rods from 73m to 103m at 0700 hrs
			At 103m still in overburden

24 HOUR Forcast :

Continue to drill to find bedrock, set casing and cement.

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #4			REPORT #: 16	DATE:	Oct 8th,2011
DEPTH 24:00: 103m	PROGRESS: 11510c		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A		
ST/Min			
MACP(kPa)	N/A		
Calc Hole Fill			
Act Hole Fill	N/A		
Lst BOP Drill:			
Calc Hole Fill			
Act Hole Fill			

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3
Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct8th,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew and onsite supervisiors to discuss proper PPE.
			Drill NQ rods from 103m to 109m
			Pull out of hole to change out bit
			Make up new bit, run in hole, ream down from 83m to 103m
			Drill NQ rods from 109m to 115m
			Drill NW casing from 109m to 115m to set casing and cement

24 HOUR Forcast :

Continue to drill to find bedrock, set casing and cement.

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #4			REPORT #: 16	DATE:	Oct 9th,2011
DEPTH 24:00: 103m	PROGRESS: 115m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

5 bags portland

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct9th,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	saftety meeting prior to cementing with crew and onsite supervisor prior to
			cement casing at 115m cement job went good pumped down 85 L of 1850KGM3 cement
			wait on cement for 8hr run in hole from 0m to 111m taged cement
			drilled out cement from 111m to 115m
			pressured test to 500 psi good test
			drill nq rods from 115m to 120m

24 HOUR Forcast :

drill ahead recover core

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #4			REPORT #: 17	DATE:	Oct 10,2011
DEPTH 24:00: 120m	PROGRESS: 184m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

5 bags portland

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 10,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew and on site supervisiors, discussed driving to and from work site
			Drill NQ rods from 120m to 148m
			Total depth for hole is 148m due to drilling in granite nise.
			Pull out of hole from 148m to 0m
			Cement hole back to surface.
			Rig out rig and demob to next location
			Test hole #8

24 HOUR Forcast :

Cement, rig out rig and move to hole #8

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay ٦Test Hole #8			REPORT #: 18	DATE:	Oct 11th,2011
DEPTH 24:00: 0m	PROGRESS: 9m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A		
ST/Min			
MACP(kPa)	N/A		
Calc Hole Fill			
Act Hole Fill	N/A		
Lst BOP Drill:			
Calc Hole Fill			
Act Hole Fill			

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

30 bags of portland

3

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct11,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew and on site supervisiors, discussed pinched points prior to rig move
			Continue to move rig to new location
			Rig up on new location
			Set up pump shack, string out hose, etc.
			Drill NQ rods from 0m to 9m.

24 HOUR Forcast :

Drill overburden.

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #8			REPORT #: 19	DATE:	Oct 12th,2011
DEPTH 24:00: 9m	PROGRESS: 46m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: clear		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 1c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

3

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct12,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed working tight hole, and reaming
			Drilled overburden with NQ rods from 9m to 33m
			Drilled NW casing from 9m to 33m
			Drill NQ rods from 33m to 46m
			Very tight intervals from 40m to 46m with clay seams and pebbles of glacial Till
			Begin reaming with NW casing from 33m
			Pooh with NW casing and change bit , very tight, worked casing from 33m to 42m,
			,
			Mechanical problem with rig, (transmission failure)
			Unable to drill ahead at this time, wait on replacement parts

24 HOUR Forcast :

Wait on Logan to install new transmission

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #8			REPORT #: 20	DATE:	Oct 13th,2011
DEPTH 24:00: 33m	PROGRESS: 67m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: sunny		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 12c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct13,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed installing new transmission, pinch points and proper tools
			Drilled overburden with NQ rods from 33m to 58m
			Drilled NW casing from 33m to 58m
			Drill NQ rods from 58m to67m
			Currently drilling NW rods down to 66m, to cement casing
			Hit bedrock at 58m, drilled into bedrock 8m
			Mechanical problem with rig, (transmission failure)
			Unable to drill ahead at this time, wait on replacement parts

24 HOUR Forcast :

Cement casing, while waiting on cement nipple up deverter.

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay ٦Test Hole #8			REPORT #: 21	DATE:	Oct 14th,2011
DEPTH 24:00: 66m	PROGRESS: 148m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 12c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

3 bags of portland

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct14,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed pressure testing
			cement job went good, wait on cement prior to drill out for 8hrs
			run in hole, tagged cement at 62m
			Drilled cement from 62m to 67m
			Pressure test up to 500 psi for 10 mins, good test
			drill NQ rods from 67m to 115m
			Currently drilling ahead from 145m

24 HOUR Forcast :

Drill ahead, recover core, and wax core.

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #8			REPORT #: 22	DATE:	Oct15th,2011
DEPTH 24:00: 148m	PROGRESS: 208m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct15,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed good hand placement
			drill nq rods from 148m to 208m
			Still in anhydrate at 208m
			Due to government regulations, not able to drill ahead

24 HOUR Forcast :

Rig out rig, cap casing, demob rig to flat bay test hole #5

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #5			REPORT #: 22	DATE:	Oct16th,2011
DEPTH 24:00:	PROGRESS:	15.0 m	Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER:	rain	TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.:	8c	T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS:	rough	

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct16,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed rig move and overhead lines
			continue rig out rig float move and equipment to new lacation
			skid drill with tractor and equipment to set up
			supply pump and string out water hose.
			drill overburden nw casing from 0m to 15m
			currently drilling ahead@ **25m**

24 HOUR Forcast :

drill ahead

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 22	DATE:	Oct17th,2011
DEPTH 24:00: 15m	PROGRESS: 61m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

1 pail 1200

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct17,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed pinch points
			drill overburden nw casing from 15m to 30m
			move pump shack to new water hole
			pooh change shoe bit
			ream casing from 22m to 30m
			drill overburden nw casing from 30 to 61m
			currently drilling ahead@ **74m**

24 HOUR Forcast :

drill ahead in overburden

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #5			REPORT #: 23	DATE:	Oct18th,2011
DEPTH 24:00: 15m	PROGRESS: 61m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 12c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

3 pail 1200

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct18,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed driving to and from location.
			Drill overburden nw casing from 61m to 78m
			Drill overburden nq rods from 78m to 82m
			Ream nw casing from 78m to 82m

24 HOUR Forcast :

drill ahead in overburden

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 23	DATE:	Oct19th,2011
DEPTH 24:00: 61m	PROGRESS: 82m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 12c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct19,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Safety meeting with crew, discussed muddy location.
			Currently hole is drilled to 82m
			Problems occurred with motor, waiting on parts
			Eqipment went down at 0400 hrs on the 19th
			Currently waiting on mechanic or new parts

24 HOUR Forcast :

waiting on repacement parts

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 24	DATE:	Oct20th,2011
DEPTH 24:00: 61m	PROGRESS: 82m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 12c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 20,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	mechanic is arriving at 1900hr to fix problem
			Currently waiting on mechanic or new parts

24 HOUR Forcast :

waiting on repacement parts

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 25	DATE:	Oct21th,2011
DEPTH 24:00: 61m	PROGRESS: 82m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 12c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 21,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Going to change motor due to warrenty issues
			Currently waiting on new motor to arrive to install

24 HOUR Forcast :

waiting on replacement parts

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 26	DATE:	Oct22th,2011
DEPTH 24:00: 61m	PROGRESS: 82m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 12c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A		
ST/Min			
MACP(kPa)	N/A		
Calc Hole Fill			
Act Hole Fill	N/A		
Lst BOP Drill:			
Calc Hole Fill			
Act Hole Fill			

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 22,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	Going to change motor due to warrenty issues
			Currently waiting on new motor to arrive to install

24 HOUR Forcast :

waiting on replacement parts

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 27	DATE:	Oct23th,2011
DEPTH 24:00: 82m	PROGRESS: 91m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 10c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 23,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed the safety of operating machinery
			Drill overburden from 82m to 91m
			Pull out of hole, change out shoe bit
			Currently tripping to change out shoe bit, run back in and drill

24 HOUR Forcast :

Drill ahead

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 28	DATE:	Oct24th,2011
DEPTH 24:00: 91m	PROGRESS: 118m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 24,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed the safety of driving to and from location
			Drill overburden from 91m to 99m
			Pull out of hole, change out shoe bit
			Ream down from 81m to 91m
			Drill NW casing from 91m to 103m
			Drill NQ rods from 103m to 118m
			Currently drilling NW casing down to 118m to set casing 9m of bedrock

24 HOUR Forcast :

cement and wait on

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #5			REPORT #: 29	DATE:	Oct25th,2011
DEPTH 24:00: 91m	PROGRESS: 118m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 25,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed the weather conditions
			Currently drilled down to 119m with NW casing
			9m in bedrock
			Getting ready to cement casing and wait on cement

24 HOUR Forcast :

cement and wait on

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #5			REPORT #: 30	DATE:	Oct26th,2011
DEPTH 24:00: 91m	PROGRESS: 118m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: good		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A		
ST/Min			
MACP(kPa)	N/A		
Calc Hole Fill			
Act Hole Fill	N/A		
Lst BOP Drill:			
Calc Hole Fill			
Act Hole Fill			

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 26,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed pinch points
			Currently casing is cemented riged up deverter prior to drilling out cement
			mechanical problem with spider gear on the main drive at 2200hrs
			Replacement part arrived at 1630pm
			Currently installing new part
			Should be up and running at 2300hrs

24 HOUR Forcast :

cement and wait on

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #5			REPORT #: 30	DATE:	Oct27th,2011
DEPTH 24:00: 118m	PROGRESS: 148m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

6 bags of portland
2 pails of DD 1200

Mud Daily Cost
Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 27,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed well control with deverter
			Prior to drill out
			Tagged cement at 113m
			Drilled cement from 113m to 118m
			Pressure test deverter up to 500psi for 10mins, test was good
			Drilled NQ rods from 118m to 148m
			Currently drilling ahead from 148m

24 HOUR Forcast :

Drill ahead and recover core

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #5			REPORT #: 31	DATE:	Oct28th,2011
DEPTH 24:00: 148m	PROGRESS: 350m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: rain		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 8c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

6 bags of portland
2 pails of DD 1200

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 28,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed driving through town to location
			Drill NQ rods from 148m to 300m
			Due to government regulation wait on orders to contonue to drill deeper
			Drill NQ rods from 300m to 350m
			At 350m still in massive anhydrate
			Currently preparing to pull rods and cement to surface

24 HOUR Forcast :

Cement and rig out

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #5	REPORT #: 32	DATE:	Oct29th,2011
DEPTH 24:00:	PROGRESS:	Last 24 Hr Rotating Time:	Ave ROP:
OPER 09:00:		FOREMAN: H.HYNES	MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:	WEATHER: snow	TOOLPUSH:
CUM COST:	RIG / RIG #:	TEMP.: 2c	T.P. MOBILE:
FORMATION:	K.B. ELEV.:	ROADS: rough	

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

36 bags of portland

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 29,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed good communication operating tractor
			Finish cement job, cemented back to surface
			Rig out rig to demobe to test hole 8
			Skid equipment out to entrance to load on flatbed to demobe in the morning
			Move to next location in the am with Harvey Gale

24 HOUR Forcast :

moving rig

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #8			REPORT #: 33	DATE:	Oct30th,2011
DEPTH 24:00: 208m	PROGRESS: 211m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: snow		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 2c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 30,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed the importance of moving heavy equipment a
			Demobe rig to new location
			Skid equipment into test hole #8
			Rig up equipment to reenter test hole #8 to drill deeper
			Run NQ rods to 208m
			Drill NQ rods to 211m
			Currently drilling ahead from 211m

24 HOUR Forcast :

Drill ahead to find congloerate

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #8			REPORT #: 34	DATE:	Oct 31st,2011
DEPTH 24:00: 211m	PROGRESS: 349m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: cold		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 5c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Oct 31,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed pince points
			Drill NQ rods from 211m to 314m
			conglomerate came in at 311m
			Drill NQ rods from 311m to 349m
			Wax14 cores with WEATHERFORD technician

24 HOUR Forcast :

cement and demobe

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1 Test Hole #9			REPORT #: 36	DATE:	Nov 1st, 2011
DEPTH 24:00: 0m	PROGRESS: 28m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: cold		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 5c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.				1.00 °
Size (mm)				
Mfg.				
Type				
Serial #				
Nozzles				
From (mKB)				
To (mKB)				
Hrs on Bit				
WOB (daN)				
RPM				
Condition				
Pulled For?				
Meters				
m/hr				
Cum Hrs				

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

2 pails of DD1200

5 bags of cement

Mud Daily Cost

Mud Cum Cost

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Nov2,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed using proper PPE
			Continue to skid equipment into new location
			Rig up equipment
			Drill overburden from 0m to 19m
			Drilled gypsum from 19m to 22m
			Drilled Anhydrate from 22m to 28m
			Drill NW casing down to 28m
			Cement casing at 28m
			Wait on cement from 1900 hrs

24 HOUR Forcast :

Wait on cement, rig up deverter, drill out cement and pressure test

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #9			REPORT #: 37	DATE:	Nov 2nd,2011
DEPTH 24:00: 28m	PROGRESS: 62m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: cold		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 5c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Nov3,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed pressure testing
			Drill out cement from 23m to 28m
			Pressure test to 500psi for 10 mins, good test
			Drill NQ rods from 28m to 62m
			Currently drilling ahead at 62m

24 HOUR Forcast :

Drilling ahead

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay 1Test Hole #9			REPORT #: 38	DATE:	Nov 3rd,2011
DEPTH 24:00: 62m	PROGRESS: 159m		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER: cold		TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.: 5c		T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS: rough		

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3

Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Nov4,2011 (0000 hrs - 2400 hrs)

From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed muddy location
			Drill NQ rods from 62m to 137m
			Pull out of hole to change out bit
			Drill NQ rods from 137m to 159m
			Currently rigging up hole to cement back to surface

24 HOUR Forcast :

Rig out rig and demobe

Vulcan Minerals

DAILY DRILLING REPORT

Flat bay Test Hole #9			REPORT #: 39	DATE:	Nov 4th,2011
DEPTH 24:00:	PROGRESS:		Last 24 Hr Rotating Time:		Ave ROP:
OPER 09:00:			FOREMAN: H.HYNES		MOBILE NO.: 780-667-8775
DAILY COST:	HOLE CND.:		WEATHER:	cold	TOOLPUSH:
CUM COST:	RIG / RIG #:		TEMP.:	5c	T.P. MOBILE:
FORMATION:	K.B. ELEV.:		ROADS:	rough	

BIT PERFORMANCE

Bit No.			1.00 °
Size (mm)			
Mfg.			
Type			
Serial #			
Nozzles			
From (mKB)			
To (mKB)			
Hrs on Bit			
WOB (daN)			
RPM			
Condition			
Pulled For?			
Meters			
m/hr			
Cum Hrs			

BOTTOMHOLE ASSEMBLY

No.	Item	Max OD	Min ID	Connection Size & Type
1				
2				
3				

BHA Length:	Hook Load:	DP size	XXX
Avail WOB:	Jts DP Racks	DC Conn:	XXX
Jts DP in hole:	DP on Loc:	DP Conn:	XXX

DRILLING OPERATIONS TIME BREAKDOWN

RU / TO		Survey		Move Rig	
Drill w/ fluid		Logging		Fishing	
Drill w/ air		Run Casing		WO Materials	
Reaming		Cementing		WO Services	
Rm Rathole		WOC		Safety Meeting	
Cond / Circ		NU BOP's		Mix mud	
Tripping		Test BOPs		Install Wellhead	
Lubricate Rig		Drill Out Cmt			
Repair Rig		DST			
Fishing		Hndle Tools		Total Hrs	

DRILLING FLUID

Time	
Depth(m)	
Density	
Mud Grad	
Vis	
PV	
YP	
Gels	
pH	
WL (cc's)	
Filter Cake	
Sand (%)	
Solids (%)	
Oil (%)	
Pf/Mf	
MBT	
Cl (ppm)	
Ca (ppm)	
Mud Co.	
Mud Man	
Mud Up @	

VOLUMES M^3

Water added	
Losses	

WELL CONTROL

RSPP	N/A
ST/Min	
MACP(kPa)	N/A
Calc Hole Fill	
Act Hole Fill	N/A
Lst BOP Drill:	
Calc Hole Fill	
Act Hole Fill	

PUMPS

Pump No.	
Make	
Model	
Liner X Stk	
SPM	
Pump Eff.	
Pump Rate	
Pump Press.	kPa
Drillpipe AV	m/min
Drillcollar AV	m/min
Nozzle Vel	m/sec

MUD & CHEMICALS

Mud Cycle	min
Bottoms Up	min
Tanks	m3
Hole Volume	m3
System Vol.	m3
Mud Daily Cost	
Mud Cum Cost	

SOLIDS CONTROL

Shaker Make		N/A
Shaker Mesh		N/A
	Desilter	Centrifuge
Vol UF (l/min)	N/A	N/A
U.F. (kg/m3)	N/A	N/A
O.F. (kg/m3)	N/A	N/A
Hours/Days	N/A	N/A

Boiler Hrs: (to 24:00)

24 HOUR SUMMARY FOR THE DATE : Nov 5,2011 (0000 hrs - 2400 hrs)

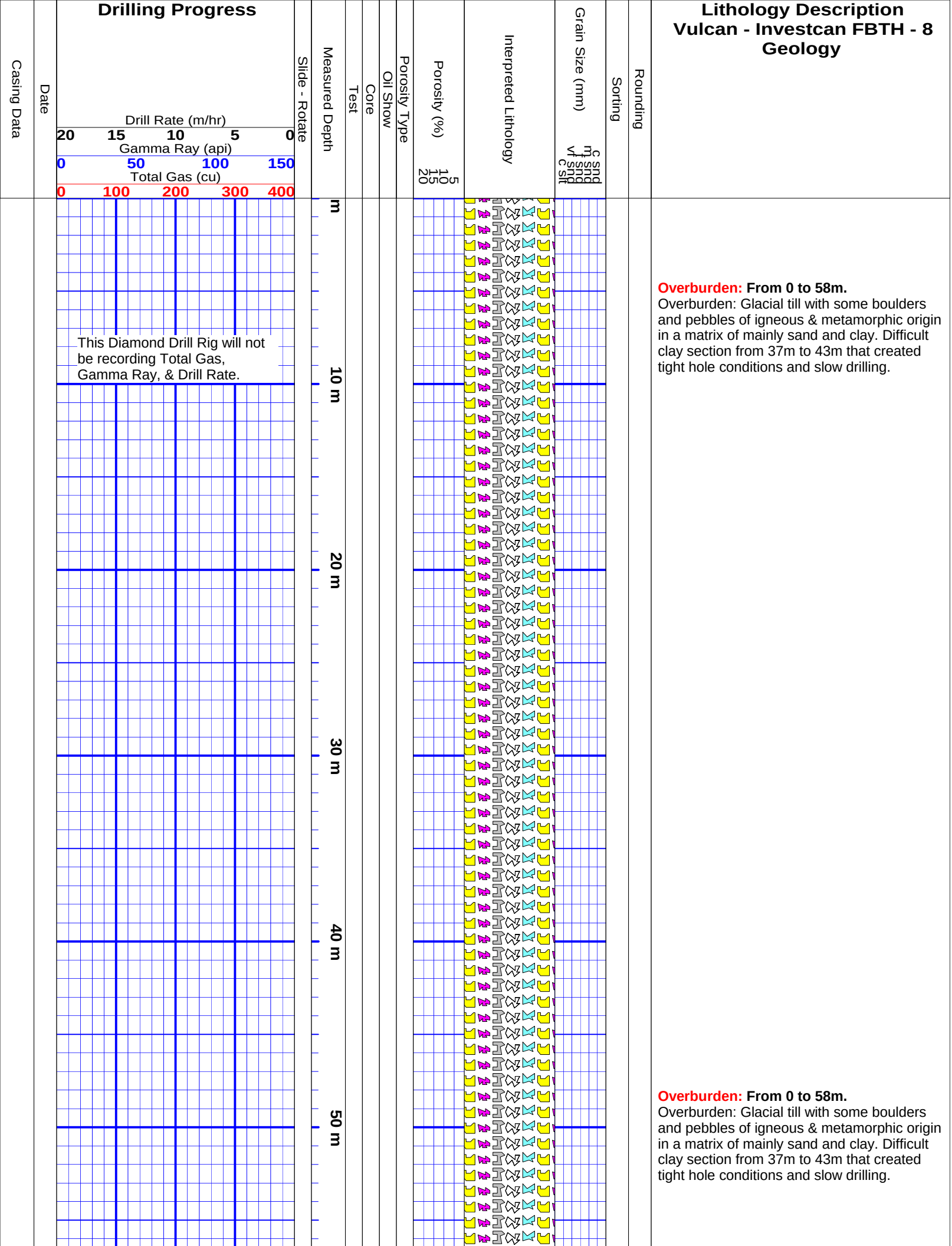
From	To	Duration	Event
0700	0700	24hr	safety meeting with crew and on site supervisiors discussed moving rig
			Finish cement job, rig out deverter and line.
			Rig out rig , cut casing off at ground level and weld on cap.
			Skid equipment out with tractor to be loaded to take to Deer Lake
			Rig released
			Waiting on float to come from Deer Lake to load equipment to be shipped to Logans yard.

24 HOUR Forcast :

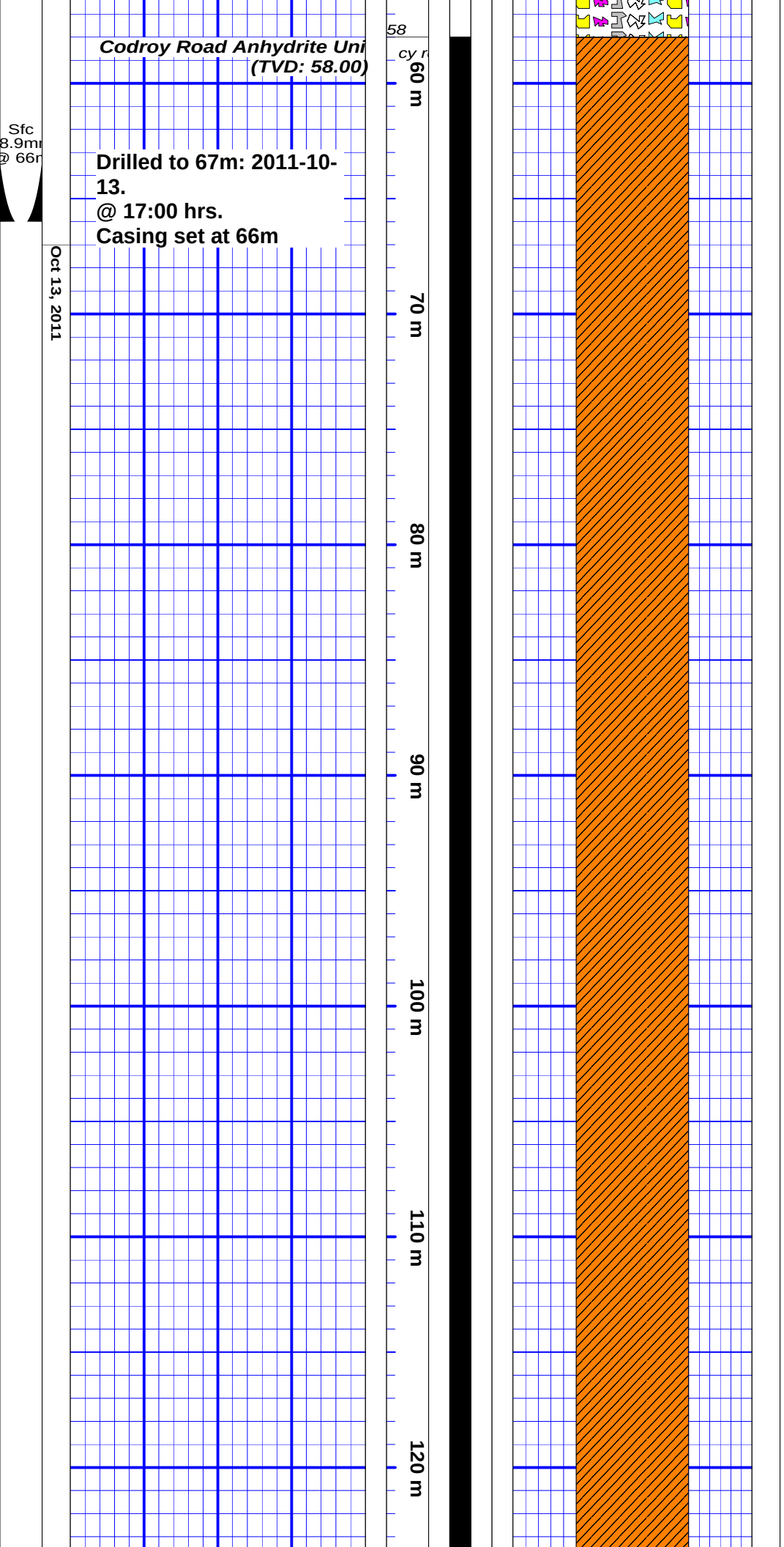
Appendix III
Bit Record

BIT RECORD	
BIT ID	**Date**
79260-11	10/02/2011
79316-10	10/06/2011
57863-09	10/07/2011
660186-04	10/10/2011
103236-08	10/16/2011
103235-08	10/17/2011
103236-09	10/20/2011
656116-01	10/23/2011
647247-04	10/24/2011

Appendix IV
Composite Well Record



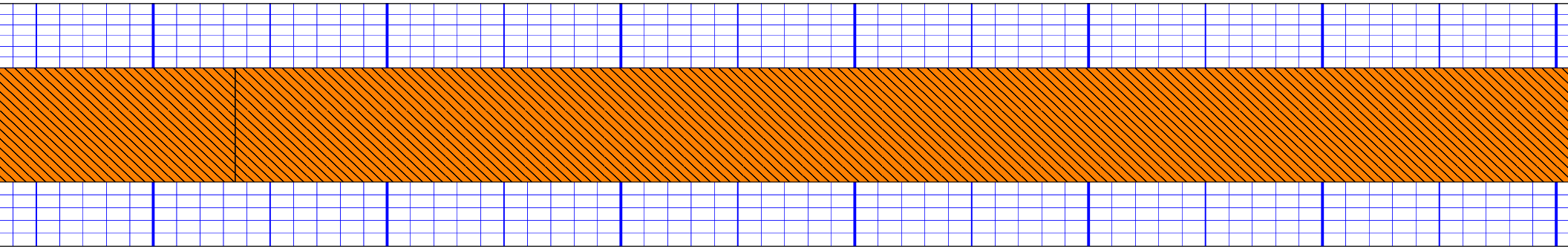
Overburden: **From 0 to 58m.**
Overburden: Glacial till with some boulders and pebbles of igneous & metamorphic origin in a matrix of mainly sand and clay. Difficult clay section from 37m to 43m that created tight hole conditions and slow drilling.



Anhydrite: **From 58m to 86.6m.**
Anhydrite: Steel blue, white, massive, very firm, sugary texture, slightly fibrous, frequent coarse crystalline, with thin (centimeter) irregular, light brown wisps to laminations of mudstone at 25 deg to Core Axis. Minor thin layers of white gypsum (1-3cm). Vertical laminations of mudstone at 77m, 0.4m long. 100% recovery. Core Boxes (1-7).

Anhydrite: **From 86.6m to 166m.**
Anhydrite: Steel blue, white, massive, powdery, predominately no impurities, very firm, sugary texture, slightly fibrous, minor coarse crystalline. Vertical fracturing at 114.7m, 0.56m long, at 115.9m, 0.25m long, and at 117m, 0.36m long. Light to dark brown shaly mudstone laminations at 118.6m and 165.6m, 3cm wide at 25 deg to Core Axis. Frequent shaly mudstone laminations 1cm wide from 152m to 163m at 30 deg to Core Axis. Core Boxes (8-25). 100% recovery.

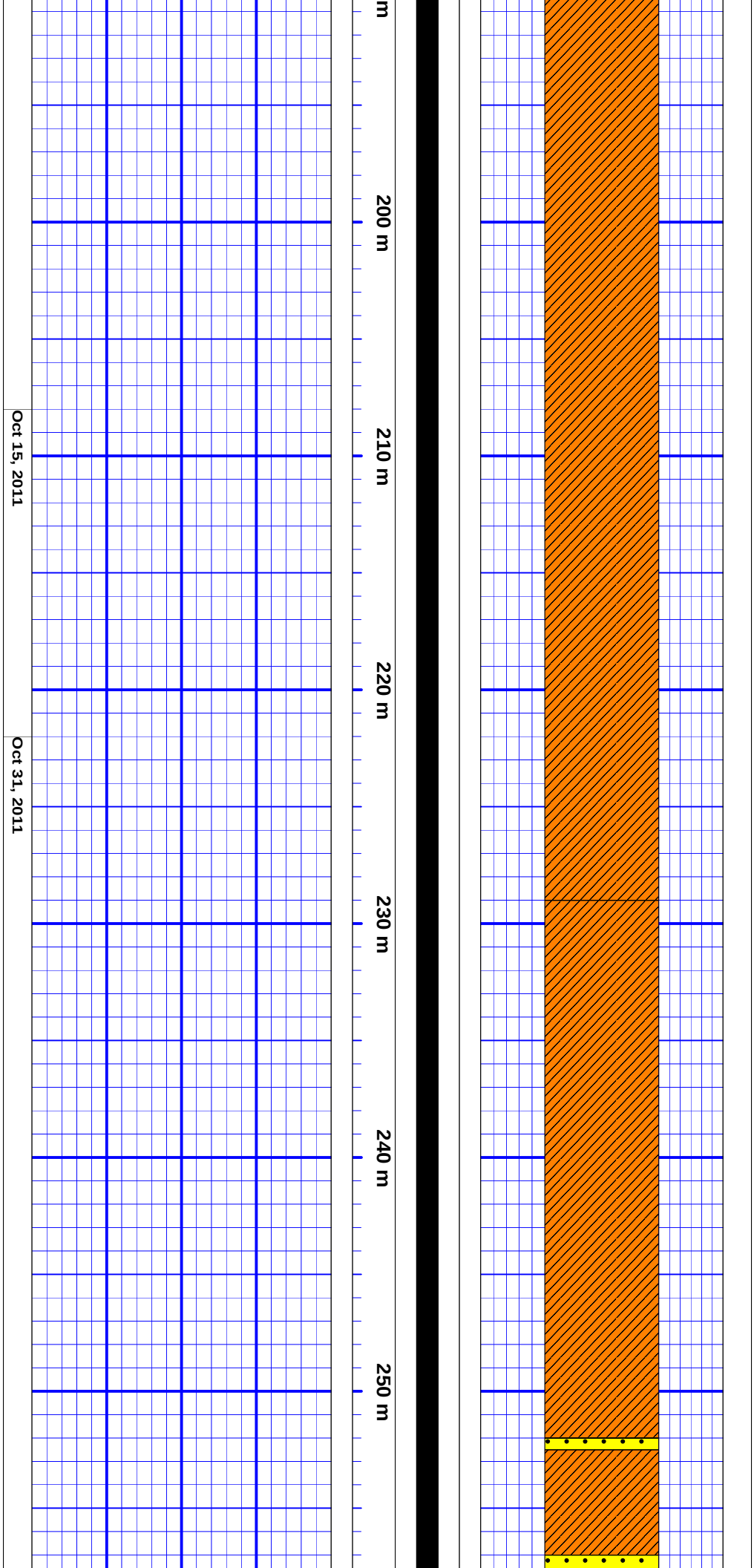
Anhydrite: From 166m to 208m.
Anhydrite: Steel blue, grey - white, massive, very firm, sugary texture, slightly fibrous, occasional coarse crystalline. at 174.6m vertical fracturing 16cm long and at 179.4m, 68cm long filled with crystalline anhydrite. Dark brown shaly mudstone laminations at 168.4m, 3cm long and at 168.7m, 5cm long at 30 deg to Core Axis. From 196m to 208m increase in wisps and thin (0.5 to 2cm) irregular, light to dark brown laminations of shaly limestone 25 deg to Core Axis. Core Boxes (26 - 35). 100% recovery. **Stop drilling because of ADW 2011-116-01-05.**



1 (100%)

130 m | 140 m | 150 m | 160 m | 170 m | 180 m | 190

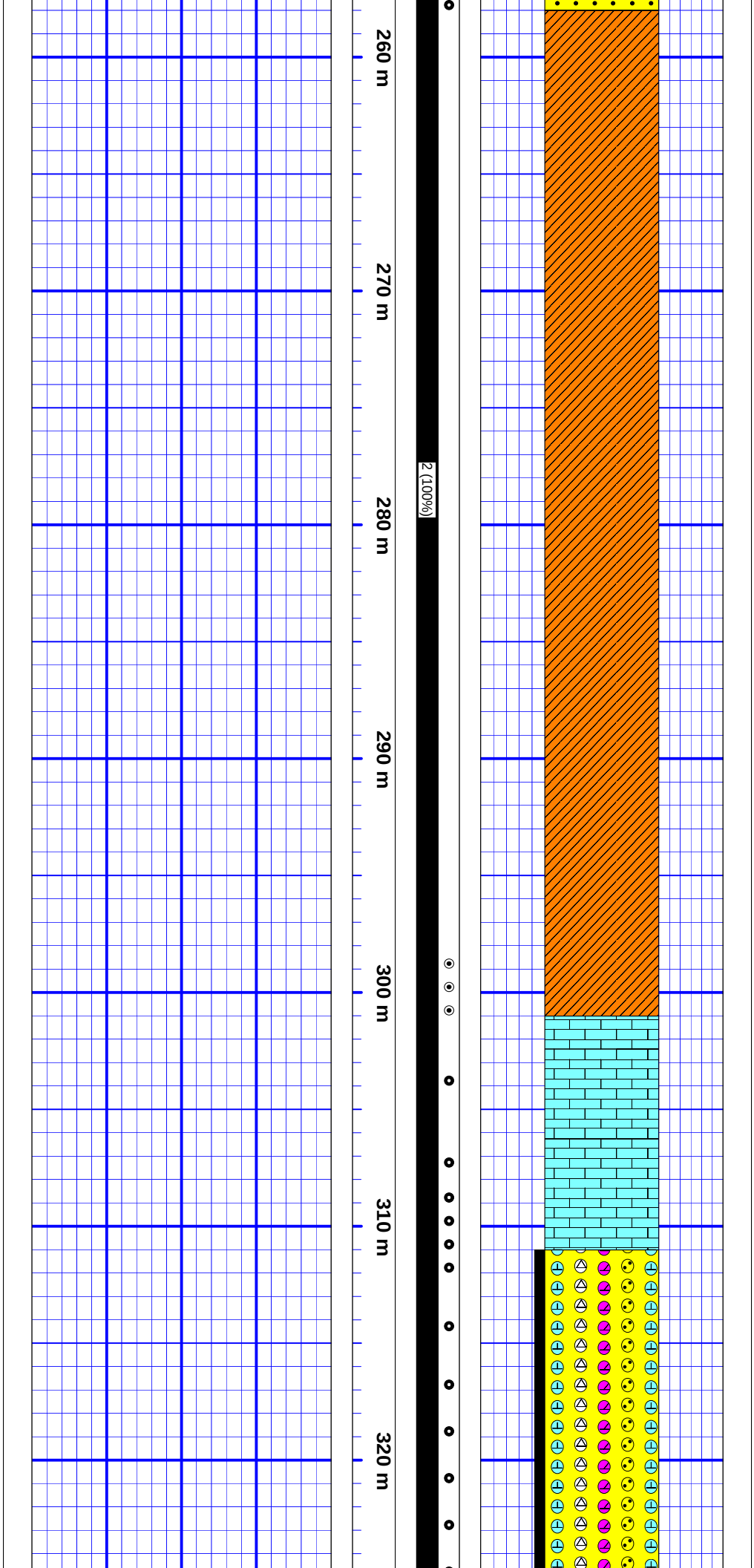
Oct 14, 2011



Anhydrite: From 166m-208m.
Anhydrite: Steel blue, grey - white, massive, very firm, sugary texture, slightly fibrous, occasional coarse crystalline. at 174.6m vertical fracturing 16cm long and at 179.4m, 68cm long filled with crystalline anhydrite. Dark brown shaly mudstone laminations at 168.4m, 3cm long and at 168.7m, 5cm long at 30 deg to Core Axis. From 196m to 208m increase in wisps and thin (0.5 to 2cm) irregular, light to dark brown laminations of shaly limestone 25 deg to Core Axis. Core Boxes (26 - 35). 100% recovery. Stop drilling because of ADW 2011-116-01-05.

Anhydrite: From 208m-254.6m.
Steel blue, medium grey, powdery, slightly fiberous, frequent coarse crystalline, minor impurities, abundant light brown calcareous wisps of muds throughout, Dark brown shaly mudstone laminations at 226.2m, 8cm long, at 225.8m, 5cm long and at 230.0m, 2cm long at 35 deg to Core Axis. Vertical fracturing, filled with crystalline anhydrite at 235.6m, 0.37m long and at 240.6m, 0.20m long. Core Boxes (36 - 46). 100% core recovery.

Anhydrite with Sandstone: From 254.6m-259m.
Light to medium grey, massive, very firm, frequent impurities, abundant sandstone sections, light brown, fine bedded to massive, mainly quartz, fine to medium grained, subround, moderately sorted, bedding at 30 deg to Core Axis. Frequent dark brown shaly mudstone laminations 2-4cm wide. Estimated visual porosity 2-4%. Live Oil weeping at



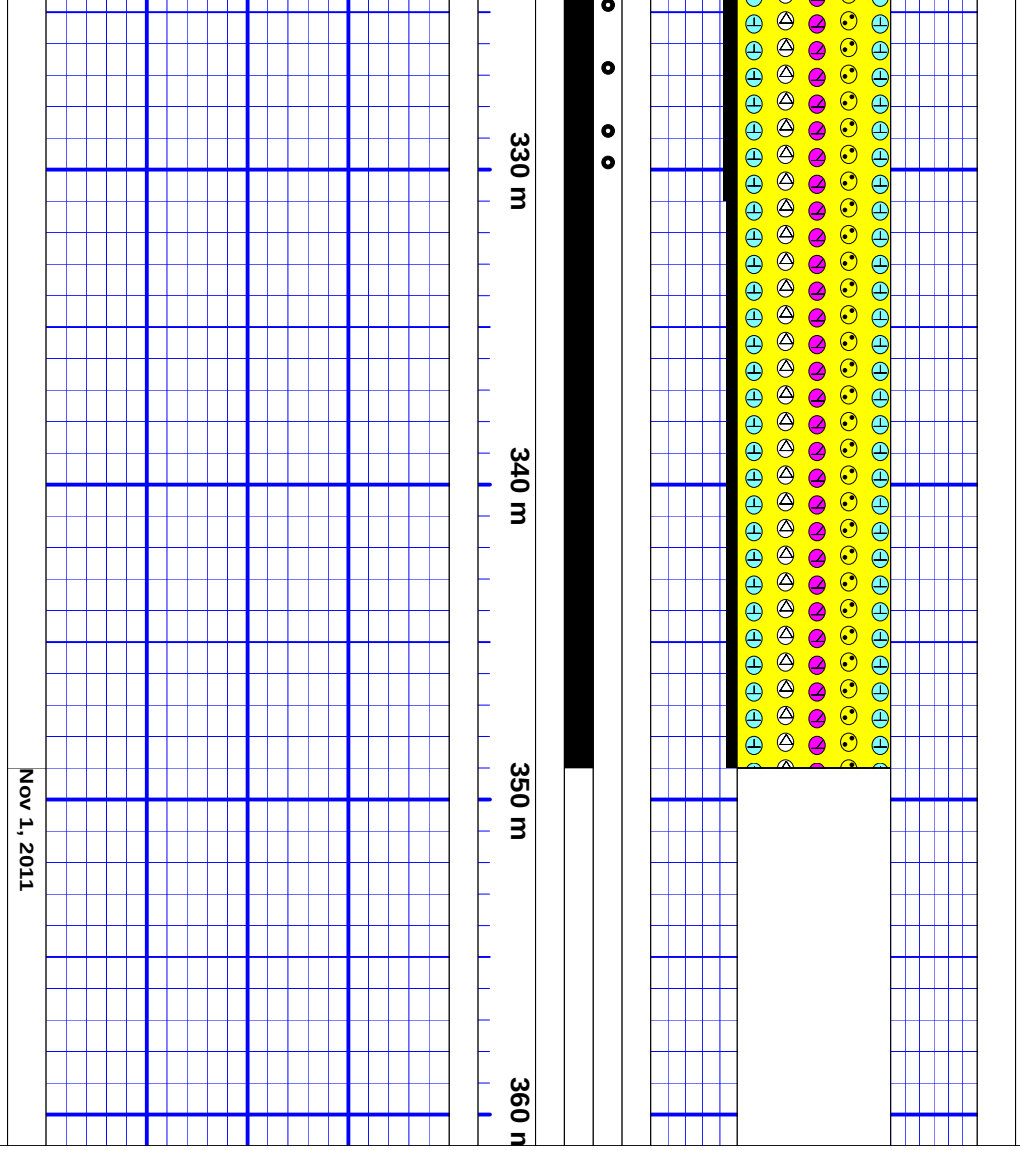
256.8m, 5cm long, at 257.1m, 12cm long, and at 257.7m 36cm long. Core Boxes (46 - 47). 100% core recovery.

Anhydrite: From 259m-265m.
Steel blue, light grey, powdery, fiberous, occasional coarse crystalline, minor light brown wisps of cemented calcareous muds. Core Boxes (47 - 48). 100% core recovery.

Anhydrite: From 265m-301m.
Steel blue, massive, powdery, occasional coarse crystalline, minor wisps of light brown calcareous muds, very firm, brittle. Dark grey shaly mudstone (micritic) laminations at 291.7m, 0.28m long, at 299.7m, 0.3m long, at 30 deg to Core Axis. Vertical fracturing at 265.5m, 0.68m long, 3mm wide infilled with crystalline anhydrite. From 295m to 301m, frequent shaly light grey limestone sections with minor live oil at 298.4m, 298.5m and 300m. Core Boxes (49 - 56). 100% core recovery.

Limestone: From 301m-311m.
Light to medium gray, microcrystalline to crystalline, frequent light brown wavy beds (1-5mm thick), laminated, hard, algae like structure. Frequent dark grey shaly mudstone laminations parallel to bedding at 302.8m, 2cm long, at 306.2m, 3cm long, at 308.5m, 1cm long, at 310.8m, 22cm long at 15 deg to Core Axis. Live oil weeping parallel to bedding at 15 deg to Core Axis at 303.1m, 10cm long and from 307.8m to 310m. Core Boxes (56 - 58). 100% recovery.

Conglomerate: From 311m-329.7m.
Rounded to sub-rounded, minor sub-angular, matrix to point supported, dominantly pebble to boulder sized clasts mainly (2-8cm) with some cobble sized zones up to (9-12cm). Clasts are predominately medium grey limestone, buff dolostone, red hematized quartzite, red-green siltstone and lithic fragments. Approximately 30% of this interval is medium to coarse grained sand matrix, reddish brown, orange, clear, occasionally arkosic, angular to rounded, poorly sorted, calcareous cemented; porosity visually estimated at 2-5%. Throughout the whole



of matrix and around clasts boundaries in contact with the sandstone, but especially abundant at 311.5m, 316m, 319.3m, 327.4m and 329.7m. Core Boxes (58-64). 100% recovery. Core intervals waxed for detailed analyses: 312.0 to 312.4m, 315.6 to 316.0m, 316.1m to 316.4m, 319.6m-319.9m, 324.3m-324.7m, 327.4m-327.8m, 329.7m-330.0m.

Conglomerate: From 329.7m-349m. Cobble - pebble conglomerate with clasts mainly sized (3-16cm), sub-rounded to rounded, occasional sub-angular, point to matrix supported, clasts mainly grey limestone, red quartzite, buff dolomite, red granite and lithic fragments. Approximately 15% of this interval is coarse to very coarse grained sand matrix, frequent red arkosic, quartzitic, angular to rounded, very poorly sorted and calcareous cemented. Minor oil weeping and bubbling out at matrix and around clasts boundaries. at 344.4m to 345.9m sandstone matrix, medium to coarse grained, sub-rounded, moderately sorted, showing an increase in oil shows. Porosity visually estimated at 1-3%. Core Boxes (65-70). 100% recovery. Core intervals waxed for detailed analyses: 333.6 - 333.9m, 334.2 - 334.6m, 339.2 - 339.6m, 340.7 - 340.9m, 344.9 - 345.2m, 345.6 - 345.9m, 346.0 - 346.4m. **Final Total Depth = 349m. 2011-11-01**

Appendix V
Stratigraphic Column

Appendix VI
Core Box Depths

Hole #	Box #	DEPTH	
		From (m)	to (m)
8	1	58.00	62.09
8	2	62.09	66.17
8	3	66.17	70.26
8	4	70.26	74.34
8	5	74.34	78.43
8	6	78.43	82.51
8	7	82.51	86.60
8	8	86.60	91.01
8	9	91.01	95.42
8	10	95.42	99.83
8	11	99.83	104.24
8	12	104.24	108.66
8	13	108.66	113.07
8	14	113.07	117.48
8	15	117.48	121.89
8	16	121.89	126.30
8	17	126.30	130.71
8	18	130.71	135.12
8	19	135.12	139.53
8	20	139.53	143.94
8	21	143.94	148.36
8	22	148.36	152.77
8	23	152.77	157.18
8	24	157.18	161.59
8	25	161.59	166.00
8	26	166.00	170.20
8	27	170.20	174.40
8	28	174.40	178.60
8	29	178.60	182.80
8	30	182.80	187.00
8	31	187.00	191.20
8	32	191.20	195.40
8	33	195.40	199.60
8	34	199.60	203.80
8	35	203.80	208.00
8	36	208.00	212.45
8	37	212.45	216.90
8	38	216.90	221.35
8	39	221.35	225.80
8	40	225.80	230.25
8	41	230.25	234.70
8	42	234.70	239.15
8	43	239.15	243.60
8	44	243.60	248.05

8	45	248.05	252.50
8	46	252.50	257.00
8	47	257.00	261.00
8	48	261.00	265.00
8	49	265.00	269.52
8	50	269.52	274.04
8	51	274.04	278.56
8	52	278.56	283.08
8	53	283.08	287.60
8	54	287.60	292.12
8	55	292.12	296.64
8	56	296.64	301.16
8	57	301.16	305.60
8	58	305.60	311.00
8	59	311.00	314.12
8	60	314.12	317.23
8	61	317.23	320.35
8	62	320.35	323.47
8	63	323.47	326.58
8	64	326.58	329.70
8	65	329.70	332.82
8	66	332.82	336.68
8	67	336.68	340.54
8	68	340.54	344.40
8	69	344.40	348.26
8	70	348.26	349.00

Appendix VII
Lithological Descriptions

Vulcan - Investcan FB TH 8: 2011-11-01

Depth (m)		Thickness (m)	Description	Lineations	Porosity	Oil/gas show	Rock quality
From	To						
0	58	58	Overburden: Glacial till with some boulders and pebbles of igneous & metamorphic origin in a matrix of mainly sand and clay. Difficult clay section from 37m to 43m that created tight hole conditions and slow drilling.				unconsolidated
58.0 - 301.0 m, Codroy Road Formation, Anhydrite Unit							
58	86.6	28.6	Anhydrite: Steel blue, white, massive, very firm, sugary texture, slightly fibrous, frequent coarse crystalline, with thin (centimeter) irregular, light brown wisps to laminations of mudstone at 25 ^{0} to CA. Minor thin layers of white gypsum (1-3cm). Vertical laminations of mudstone at 77m, 0.4m long. **100% recovery. Core Boxes (1-7).**	25^0 CA			Consolidated
86.6	166	79.4	Anhydrite: Steel blue, white, massive, powdery, predominately no impurities, very firm, sugary texture, slightly fibrous, minor coarse crystalline. Vertical fracturing at 114.7m, 0.56m long, at 115.9m, 0.25m long, and at 117m, 0.36m long. Light to dark brown shaly mudstone laminations at 118.6m and 165.6m, 3cm wide at 25^0 to CA. Frequent shaly mudstone laminations 1cm wide from 152m to 163m at 30^0 to CA. **Core Boxes (8-25). 100% recovery.**	30^0 CA			Consolidated
166	208	42	Anhydrite: Steel blue, grey - white, massive, very firm, sugary texture, slightly fibrous, occasional coarse crystalline. At 174.6m vertical fracturing 16cm long and at 179.4m, 68cm long filled with crystalline anhydrite. Dark brown shaly mudstone laminations at 168.4m, 3cm long and at 168.7m, 5cm long at 30^0 to CA. From 196m to 208m increase in wisps and thin (0.5 to 2cm) irregular, light to dark brown laminations of shaly limestone 25^0 to CA. **Core Boxes (26 - 35). 100% recovery. Stop drilling because of ADW 2011-116-01-05.**	25^0 CA			Consolidated
208	254.6	46.6	Anhydrite: Steel blue, medium grey, powdery, slightly fiberous, frequent coarse crystalline, minor impurities, abundant light brown calcareous wisps of muds throughout, Dark brown shaly mudstone laminations at 226.2m, 8cm long, at 225.8m, 5cm long and at 230.0m, 2cm long at 35^0 to CA. Vertical fracturing, filled with crystalline anhydrite at 235.6m, 0.37m long and at 240.6m, 0.20m long. **Core Boxes (36 - 46). 100% core recovery.**	35^0 CA			Consolidated
254.6	259	4.4	Anhydrite with Sandstone: Light to medium grey, massive, very firm, frequent impurities, abundant sandstone sections, light brown, fine bedded to massive, mainly quartz, fine to medium grained, subround, moderately sorted, bedding at 30^0 to CA. Frequent dark brown shaly mudstone laminations 2-4cm wide. Estimated visual porosity 2-4%, Live Oil weeping at 256.8m, 5cm long, at 257.1m, 12cm long, and at 257.7m 36cm long. **Core Boxes (46 - 47). 100% core recovery.**	30^0 CA		minor oil shows	Consolidated

259	265	6	Anhydrite: Steel blue, light grey, powdery, fiberous, occasional coarse crystalline, minor light brown wisps of cemented calcareous muds. **Core Boxes (47 - 48). 100% core recovery.**				
265	301	36	Anhydrite: Steel blue, massive, powdery, occasional coarse crystalline, minor wisps of light brown calcareous muds, very firm, brittle. Dark grey shaly mudstone (micritic) laminations at 291.7m, 0.28m long, at 299.7m, 0.3m long, at 30^0 to CA. Vertical fracturing at 265.5m, 0.68m long, 3mm wide infilled with crystalline anhydrite. From 295m to 301m, frequent shaly light grey limestone sections with minor live oil at 298.4m, 298.5m and 300m. **Core Boxes (49 - 56). 100% core recovery.**	30^0 CA		minor oil shows	Consolidated
301.0 - 311.0 m, Ship Cove Formation							
301	311	10	Limestone: Light to medium gray, microcrystalline to crystalline, frequent light brown wavy beds (1-5mm thick), laminated, hard, algae like structure. Frequent dark grey shaly mudstone laminations parallel to bedding at 302.8m, 2cm long, at 306.2m, 3cm long, at 308.5m, 1cm long, at 310.8m, 22cm long at 150 to CA. Live oil weeping parallel to bedding at 15^0 to CA at 303.1m, 10cm long and from 307.8m to 310m. **Core Boxes (56 - 58). 100% recovery.**	15^0 CA		oil shows	Consolidated
311.0 - 349.0m Spout Falls Formation, Fishell's Brook Conglomerate							
311	329.7	18.7	Conglomerate: Rounded to sub-rounded, minor sub-angular, matrix to point supported, dominantly pebble to boulder sized clasts mainly (2-8cm) with some cobble sized zones up to (9-12cm). Clasts are predominately limestone, dolostone, red hematized quartzite, siltstone and lithic fragments. Approximately 30% of this interval is medium to coarse grained sand matrix, reddish brown, orange, clear, occasionally arkosic, angular to rounded, poorly sorted, calcareous cemented; porosity visually estimated at 2-5%. Throughout the whole interval there is oil bubbling and weeping out of matrix and around clasts boundaries in contact with the sandstone, but especially abundant at 311.5m, 316m, 319.3m, 327.4m and 329.7m.**Core Boxes (58-64). 100% recovery. Core intervals waxed for detailed analyses: 312.0 to 312.4m, 315.6 to 316.0m, 316.1m to 316.4m, 319.6m-319.9m, 324.3m-324.7m, 327.4m-327.8m, 329.7m-330.0m.**			Good oil shows throughout, but abundant at 311.5m, 316m, 319.3m, 327.4m and 329.7m, oil weeping from matrix and around clasts boundaries in pebble cgl.	Consolidated
329.7	349	19.3	Conglomerate: Cobble - pebble conglomerate with clasts mainly sized (3-16cm), sub-rounded to rounded, occasional sub-angular, point to matrix supported, clasts mainly limestone, red quartzite, dolomite, red granite and lithic fragments. Approximately 15% of this interval is coarse to very coarse grained sand matrix, frequent red arkosic, quartzitic, angular to rounded, very poorly sorted and calcareous cemented. Minor oil weeping and bubbling out at matrix and around clasts boundaries. At 344.4m to 345.9m sandstone matrix, medium to coarse grained, sub-rounded, moderately sorted, showing an increase in oil shows. Porosity visually estimated at 1-3%. **Core Boxes (65-70). 100% recovery. Core intervals waxed for detailed analyses: 333.6 - 333.9m, 334.2 - 334.6m, 339.2 - 339.6m, 340.7 - 340.9m, 344.9 - 345.2m, 345.6 - 345.9m, 346.0 - 346.4m.Final Total Depth = 349m.**			Some oil weeping from mainly around clasts boundaries and minor from sandstone matrix.	Consolidated

Appendix VIII
Legal Survey

GRID NORTH
NAD27
NTM ZONE 21

▲ C.M. 84G4148

FBTH5
N 5360934.748
E 383173.511

FBTH9
N 5360176.766
E 383666.632

FBTH8
N 5360379.149
E 385040.549

FBTH4
N 5359905.747
E 383431.320

FBTH6
N 5358293.931
E 384555.284

FBTH7
N 5357590.861
E 384810.480

Surveyor's Report
Drill Hole locations
Flat Bay area

#	Northing	Easting	Elev	Description
120	5360176.766	383666.632	16.390	FBTH9
122	5359905.747	383431.320	20.414	FBTH4
124	5360379.149	385040.549	18.464	FBTH8
126	5358293.931	384555.284	65.992	FBTH6
128	5357590.861	384810.480	80.448	FBTH7
130	5360934.748	383173.511	7.369	FBTH5

R. Davis Surveys Ltd.
November 15, 2011

Appendix IX
Core Photos

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

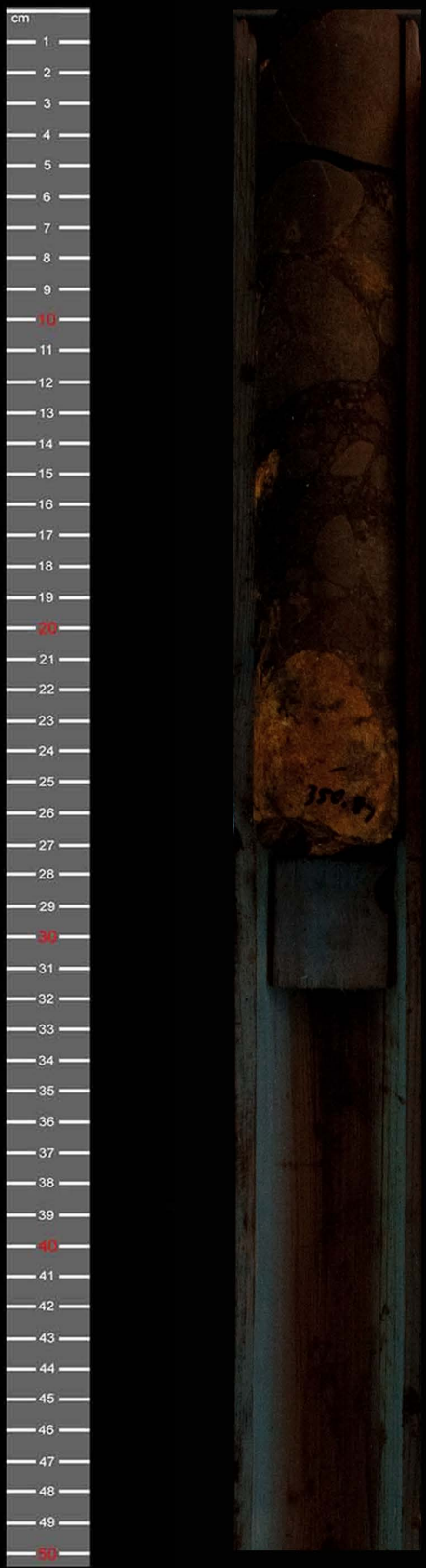
350.60 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

350.60 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

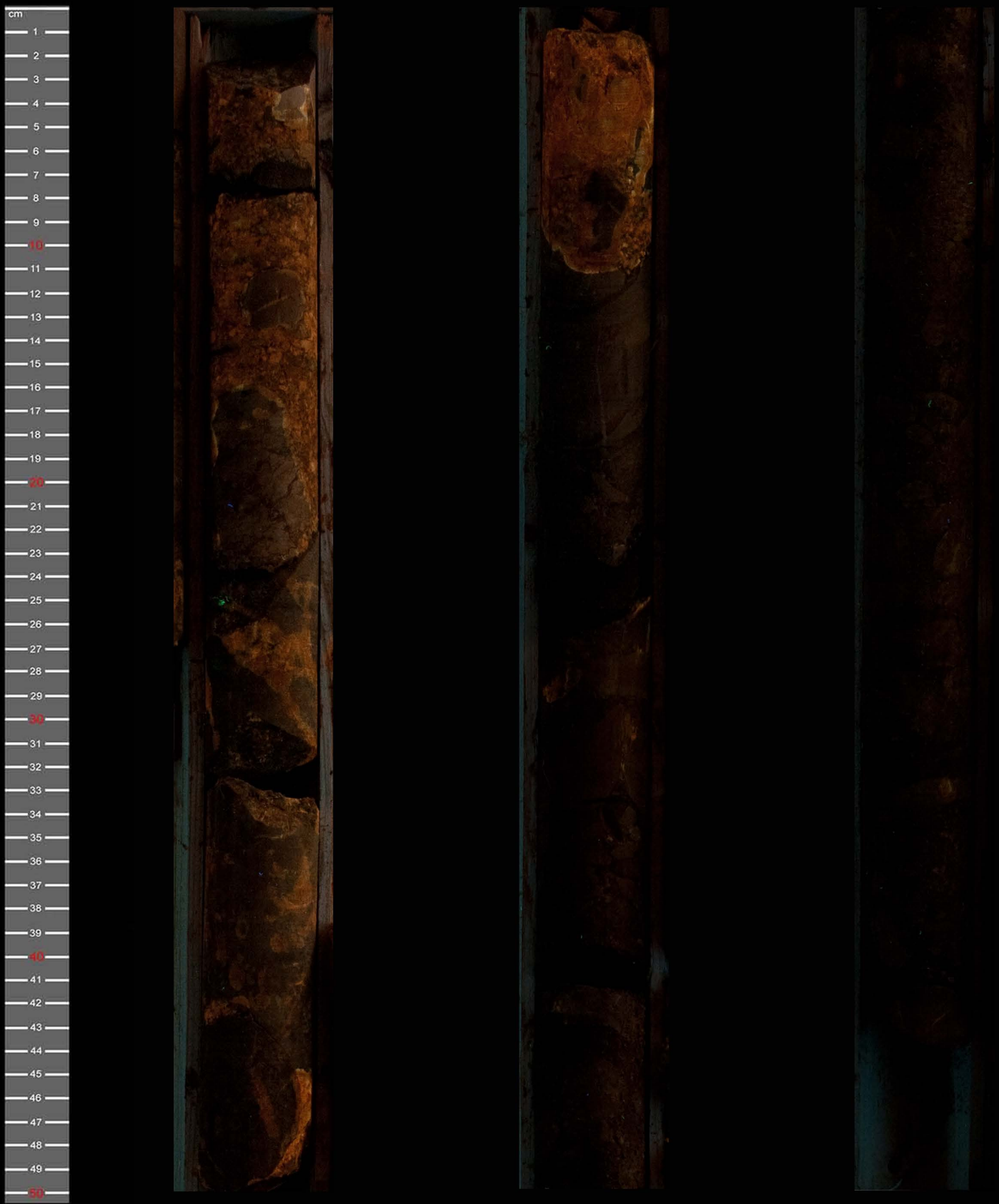
349.15 m | **349.65 m** | **350.15 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

349.15 m | **349.65 m** | **350.15 m**

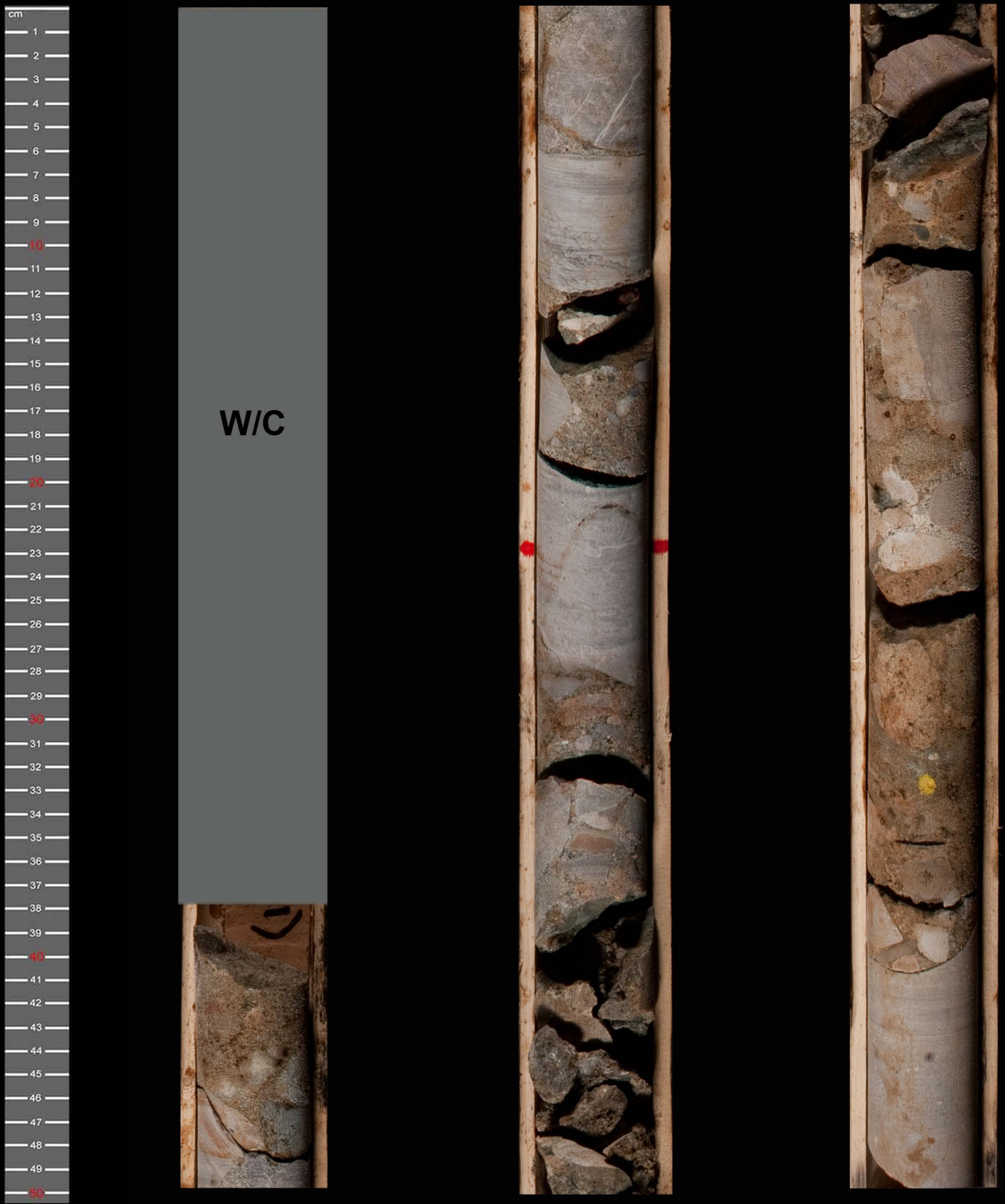


Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

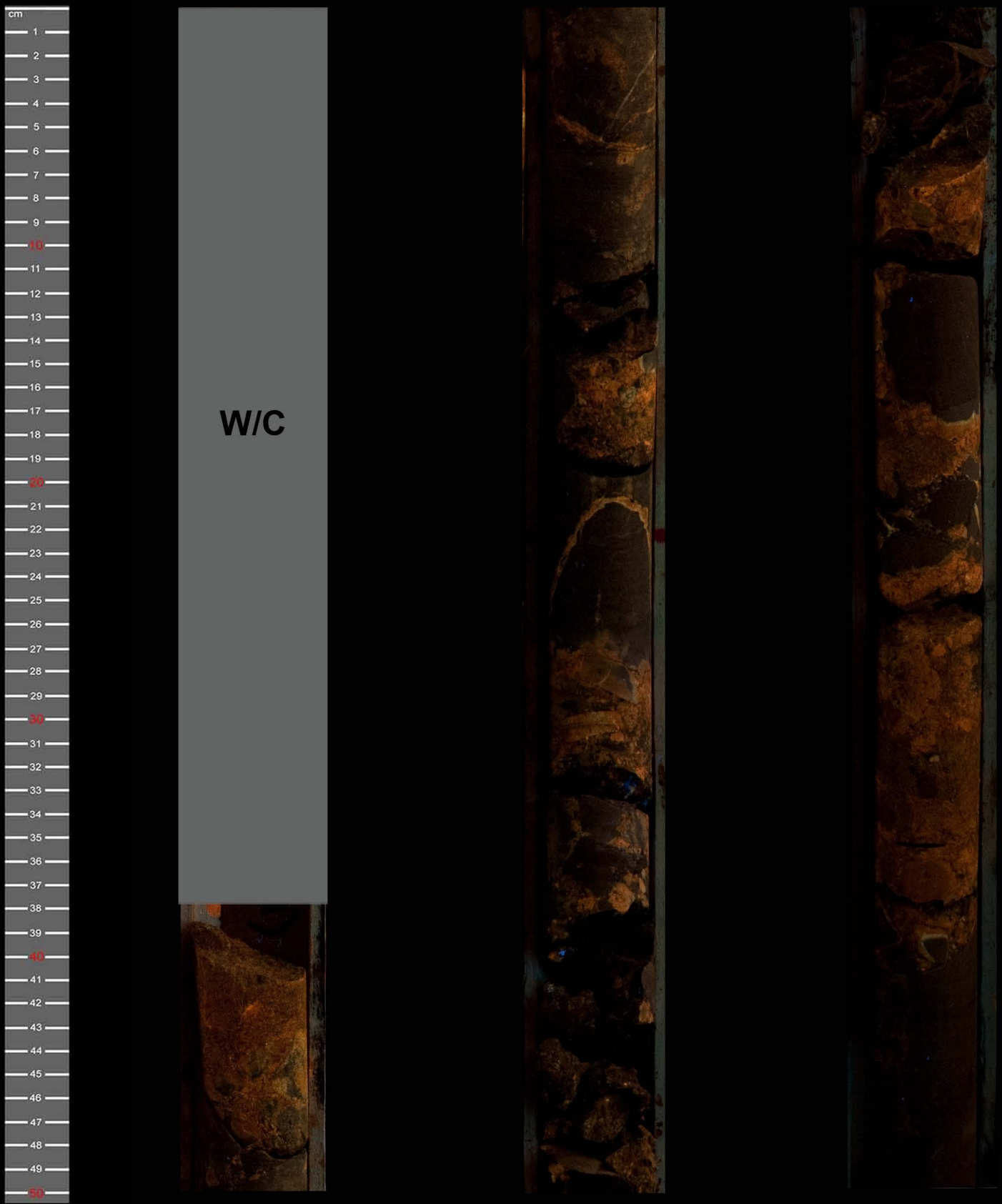
347.63 m | **348.13 m** | **348.63 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

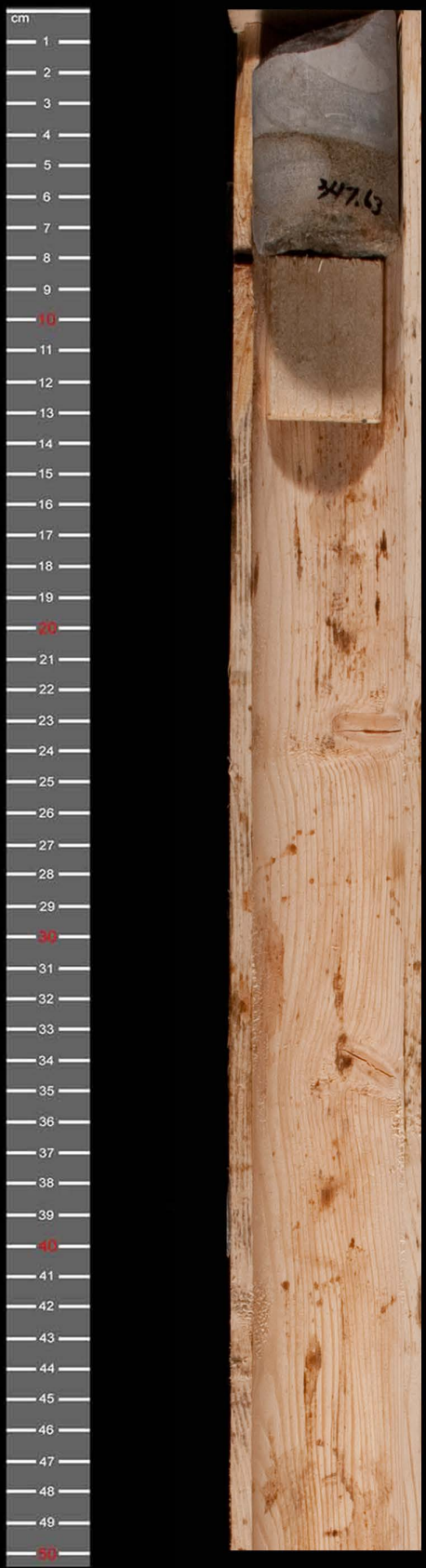


Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

347.55 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

347.55 m

Weatherford LABORATORIES

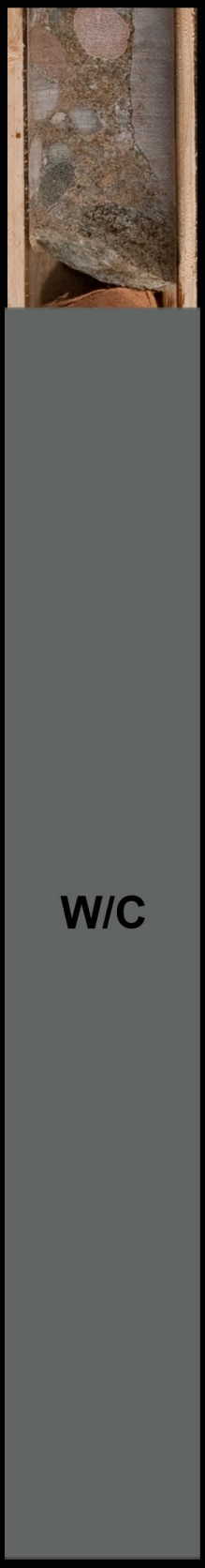
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

346.04 m

346.54 m

347.04 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

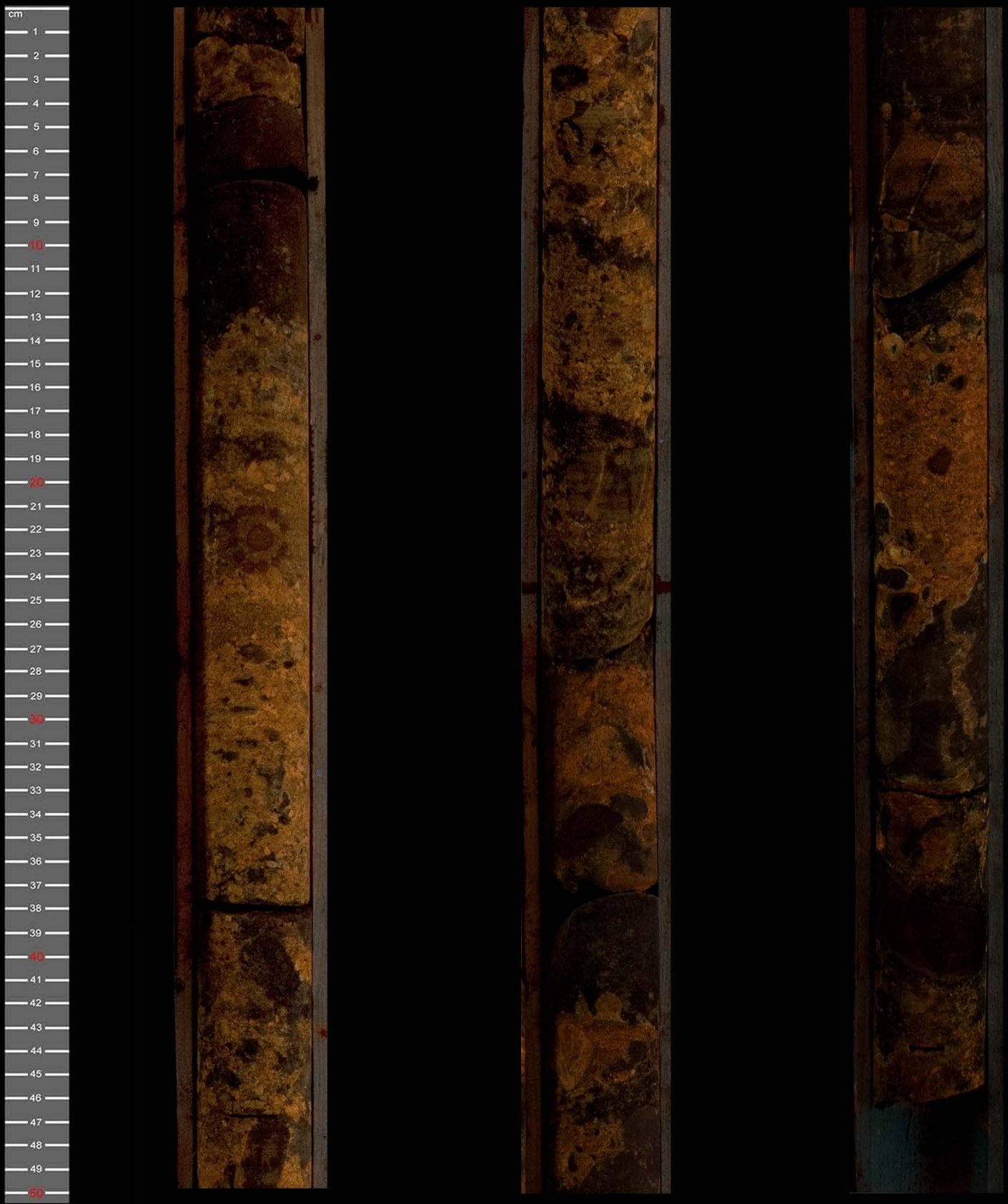
344.54 m | **345.04 m** | **345.54 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

344.54 m | **345.04 m** | **345.54 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

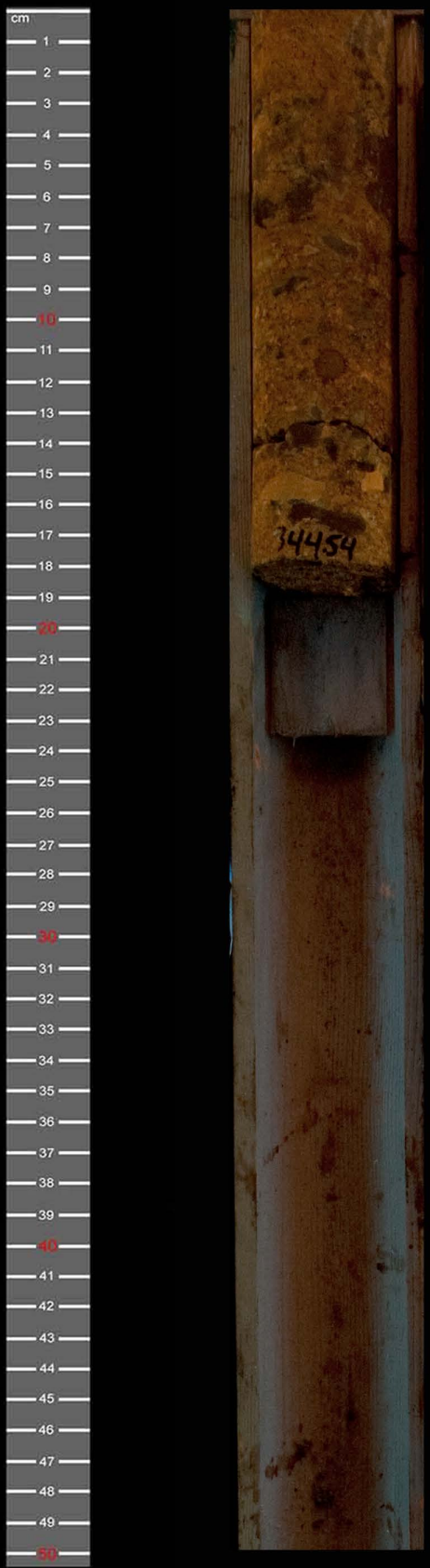
344.35 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

344.35 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

342.98 m

343.48 m

343.98 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

342.98 m | **343.48 m** | **343.98 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

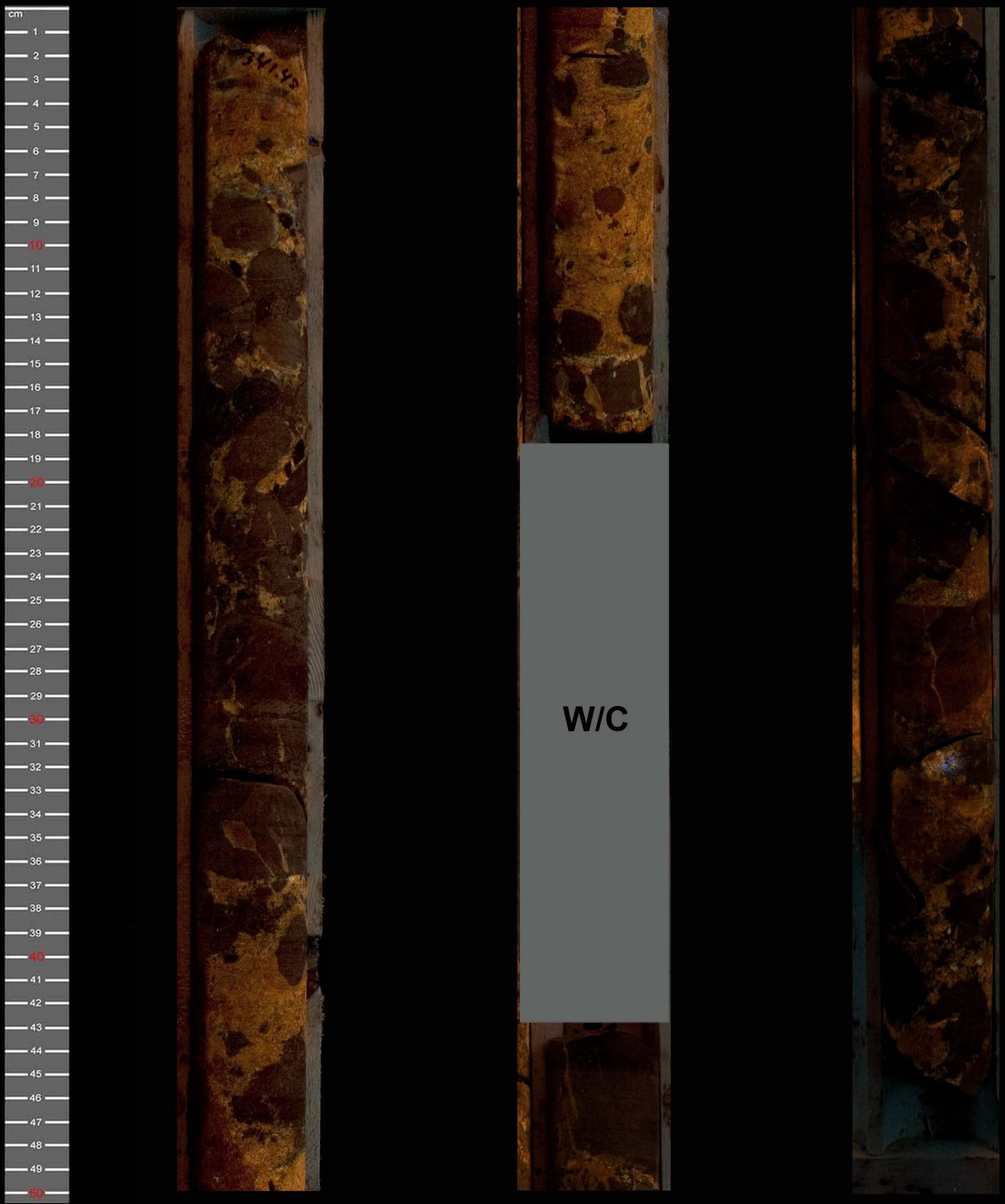
NF-54356
Dec 20, 2011

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

341.48 m | **341.98 m** | **342.48 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

341.33 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

341.33 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

339.81 m

340.31 m

340.81 m

Weatherford LABORATORIES

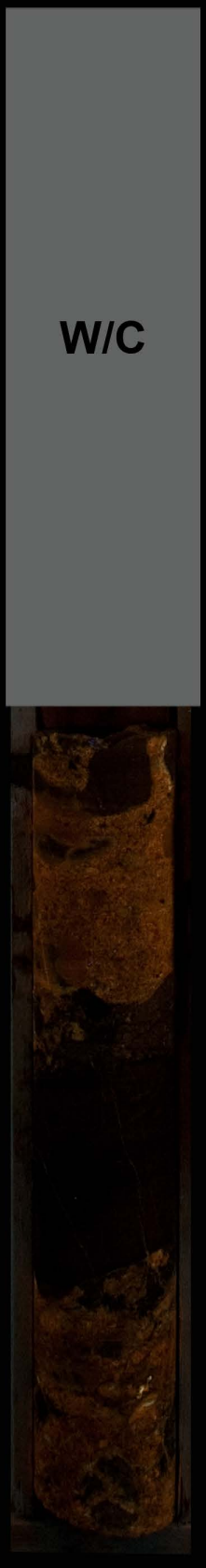
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

339.81 m

340.31 m

340.81 m



Weatherford®
LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

338.40 m

338.90 m

339.40 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

338.40 m

338.90 m

339.40 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

338.08 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

338.08 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

336.68 m

337.18 m

337.68 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

336.68 m | **337.18 m** | **337.68 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

335.18 m

335.68 m

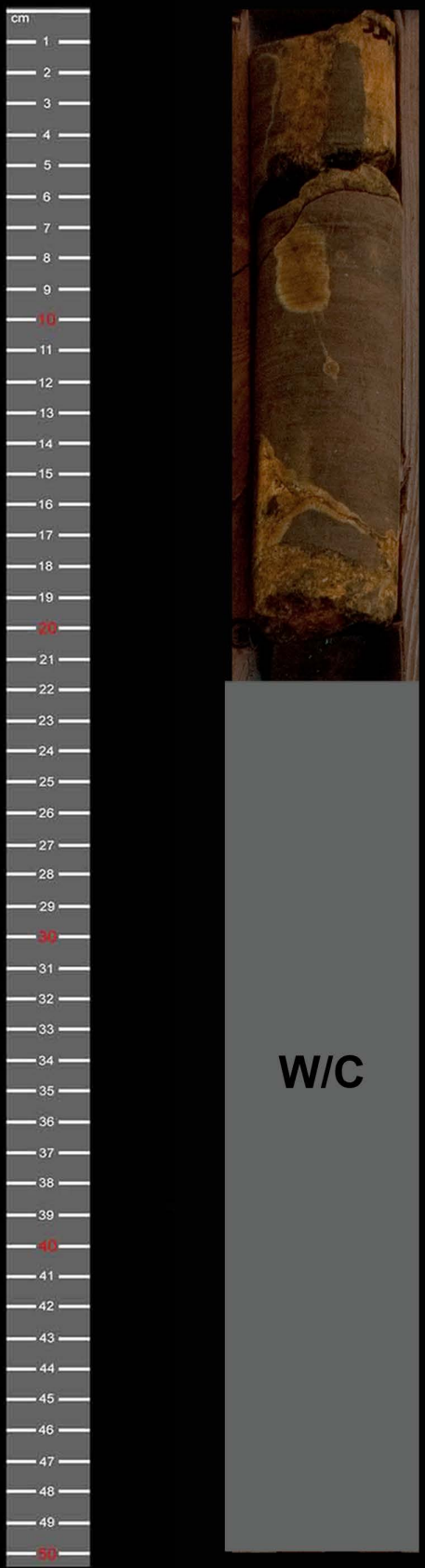
336.18 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

335.18 m



335.68 m

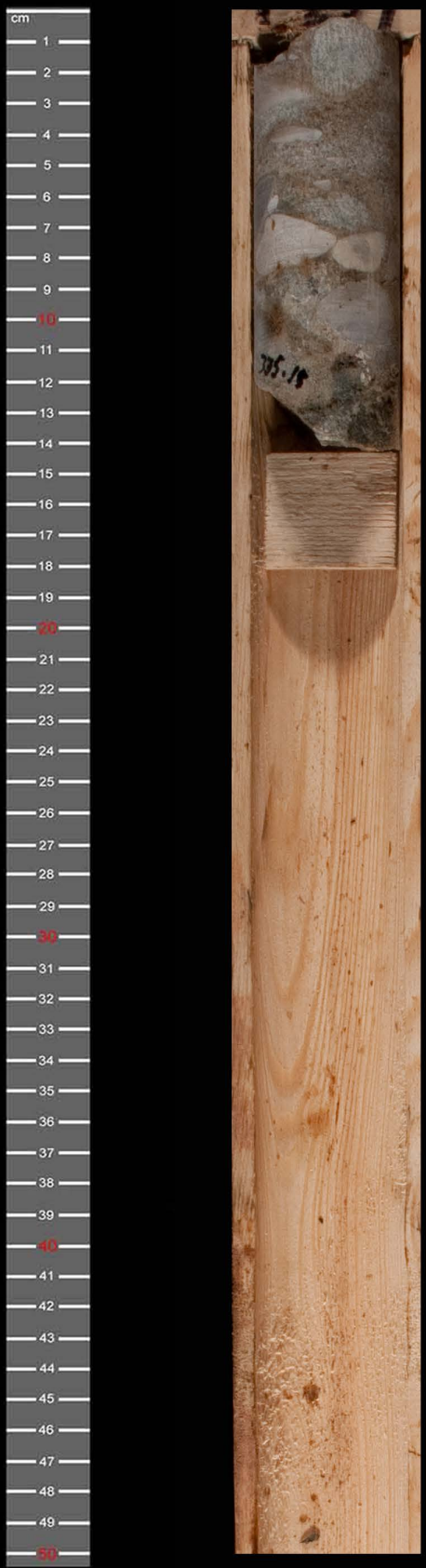
336.18 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

335.05 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

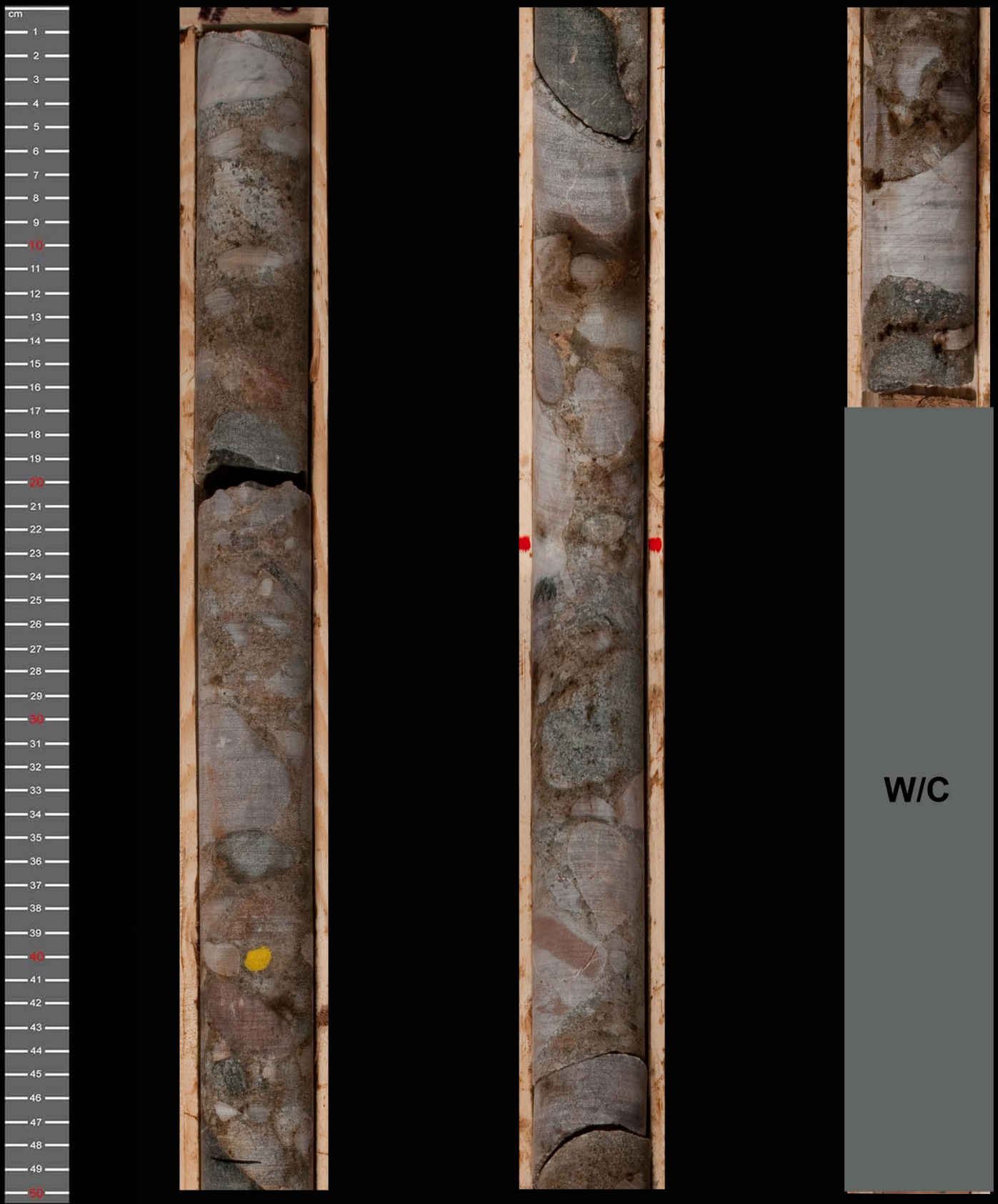
335.05 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

333.52 m | **334.02 m** | **334.52 m**

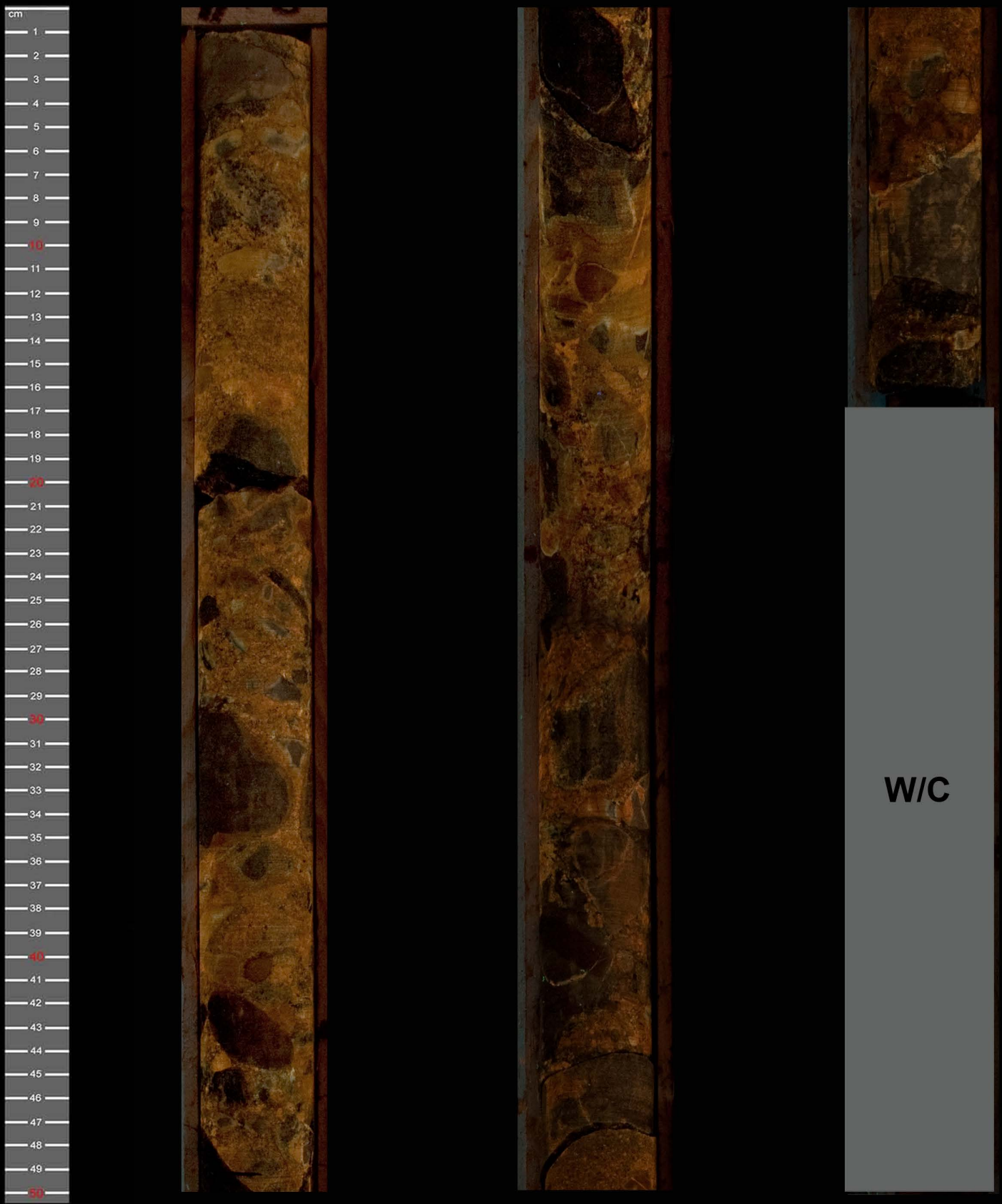


Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

333.52 m | **334.02 m** | **334.52 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

332.02 m **332.52 m** **333.02 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

332.02 m | **332.52 m** | **333.02 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

331.75 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

331.75 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

330.30 m

330.80 m

331.30 m

Weatherford LABORATORIES

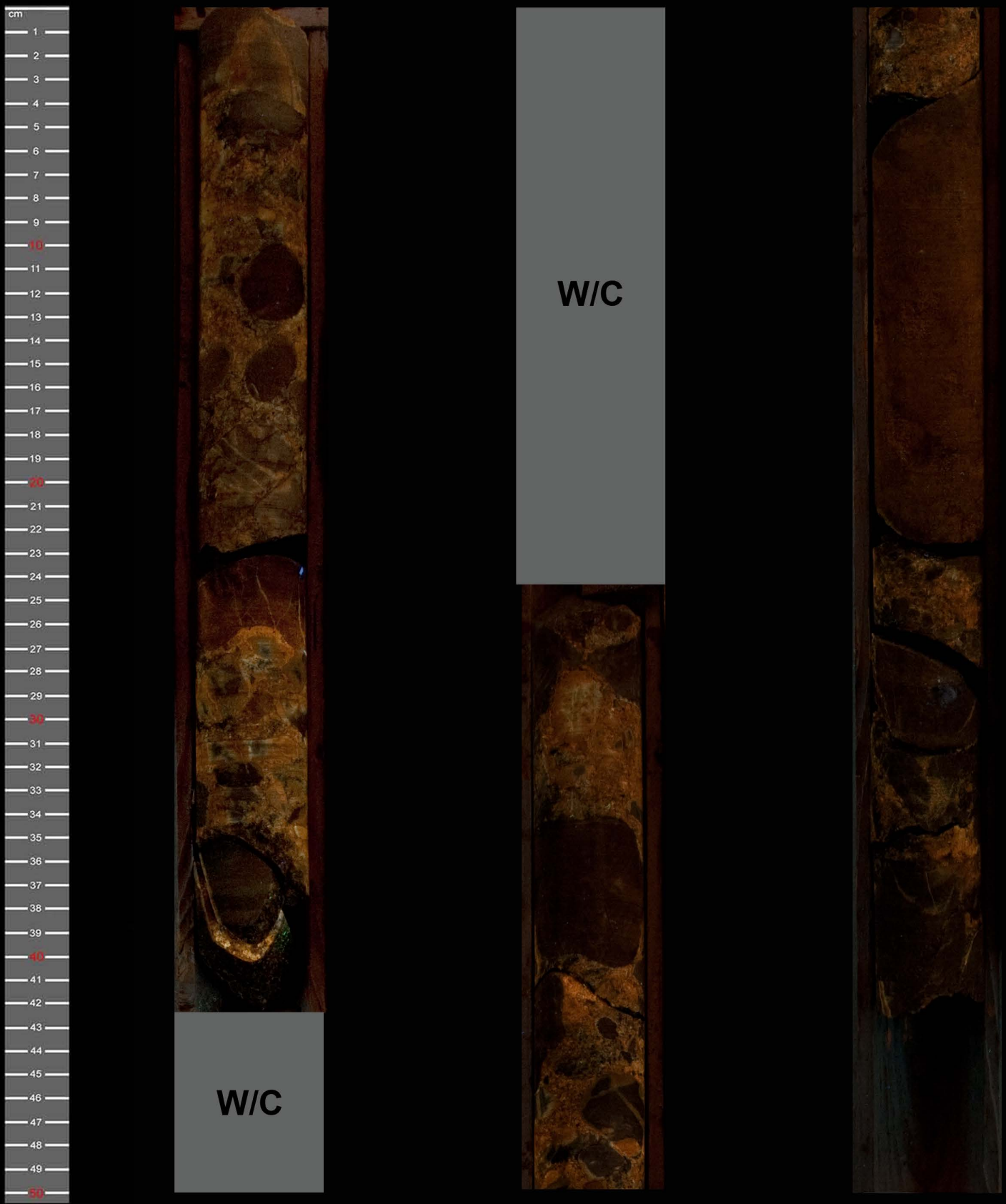
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

330.30 m

330.80 m

331.30 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

328.90 m

329.40 m

329.90 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

328.90 m | **329.40 m** | **329.90 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

328.67 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

328.67 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

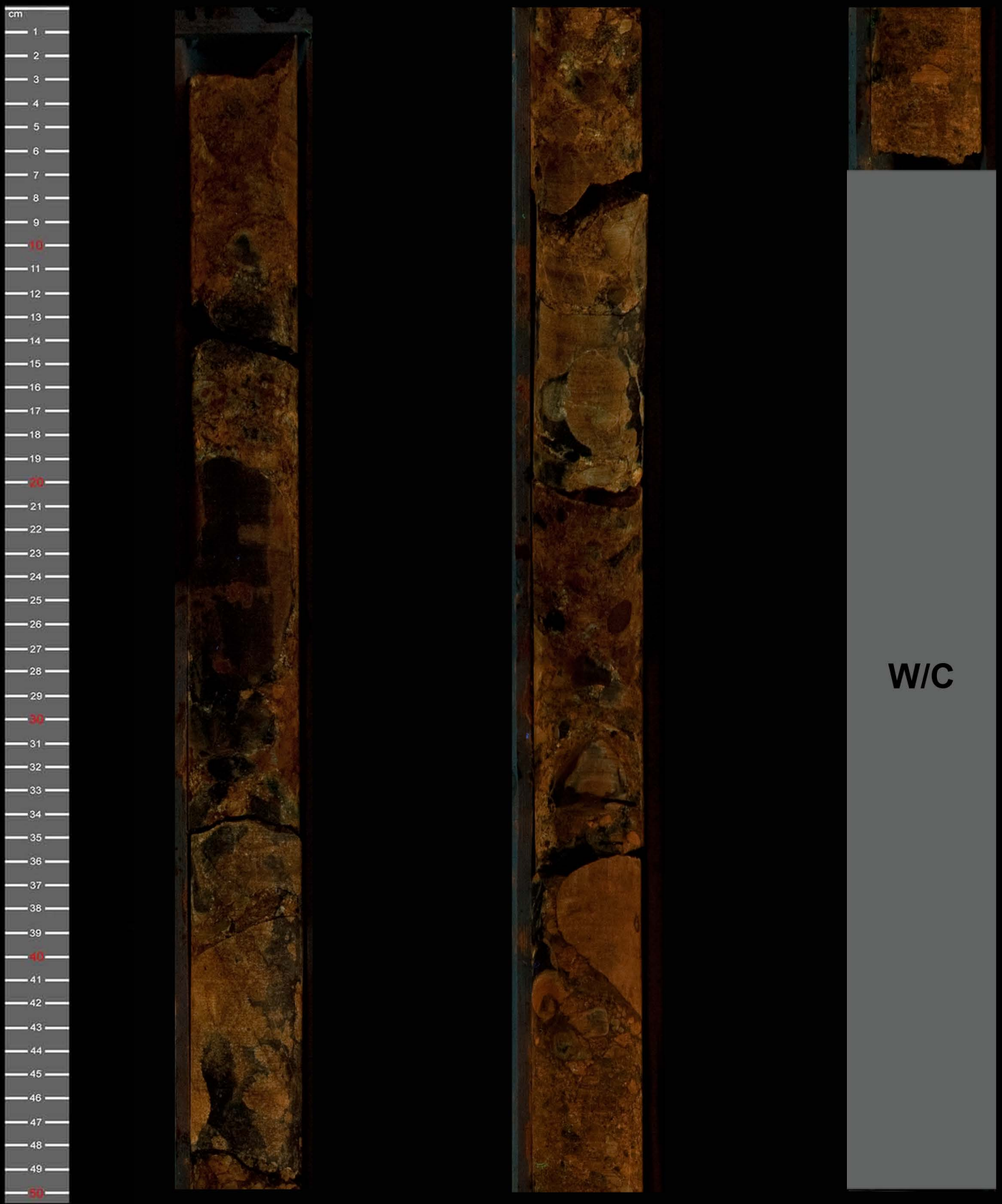
327.18 m | **327.68 m** | **328.18 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

327.18 m **327.68 m** **328.18 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

325.71 m | **326.21 m** | **326.71 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

325.71 m

326.21 m

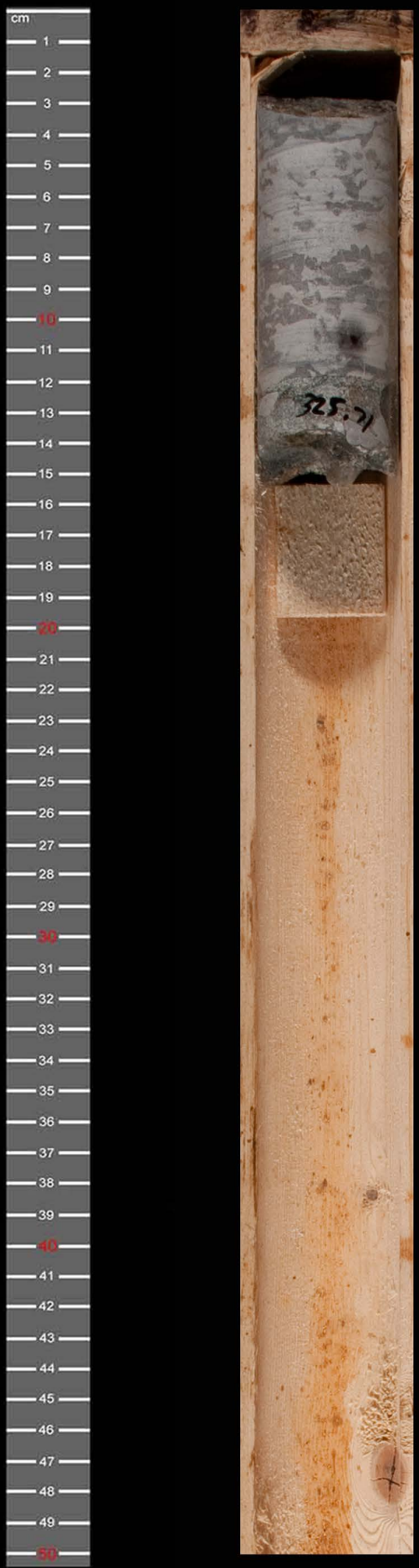
326.71 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

325.58 m

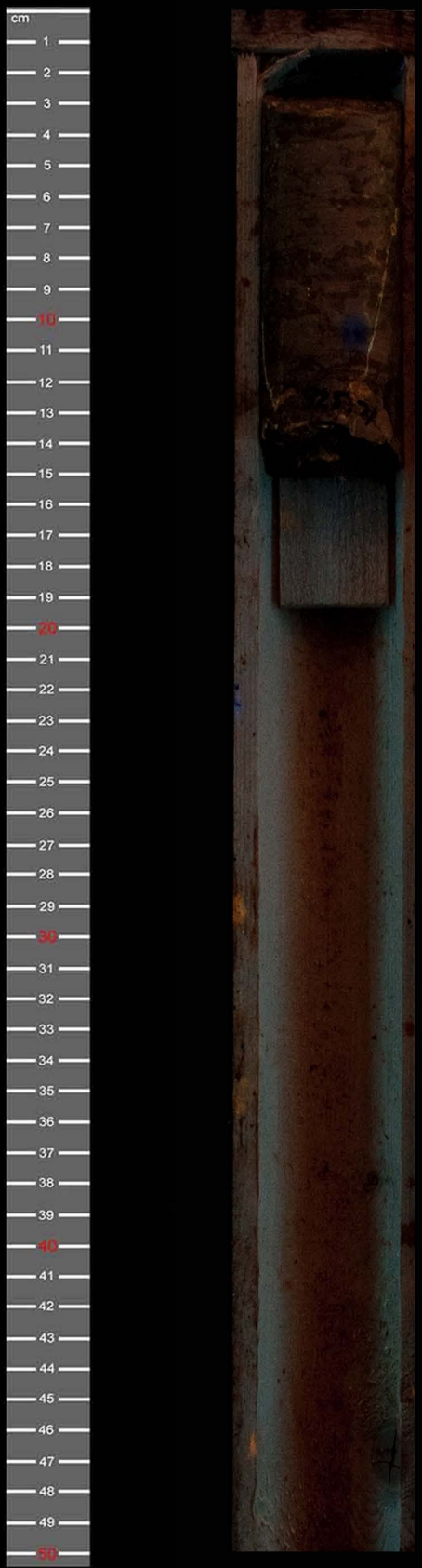


Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

325.58 m



Weatherford LABORATORIES

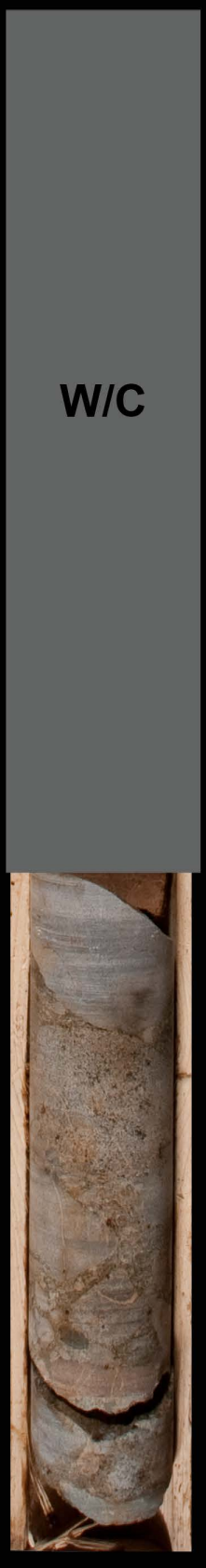
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

324.05 m

324.55 m

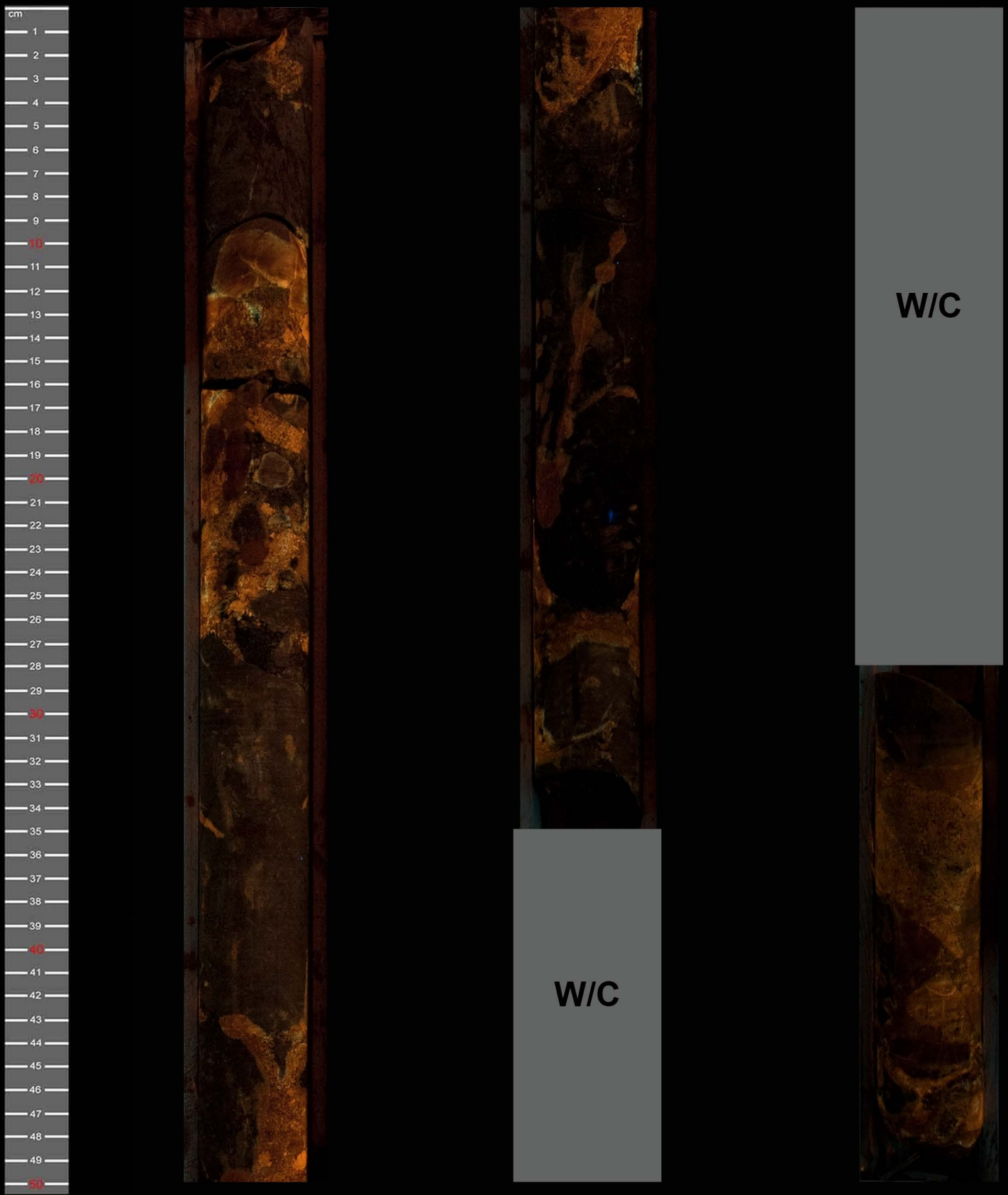
325.05 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

322.61 m

323.11 m

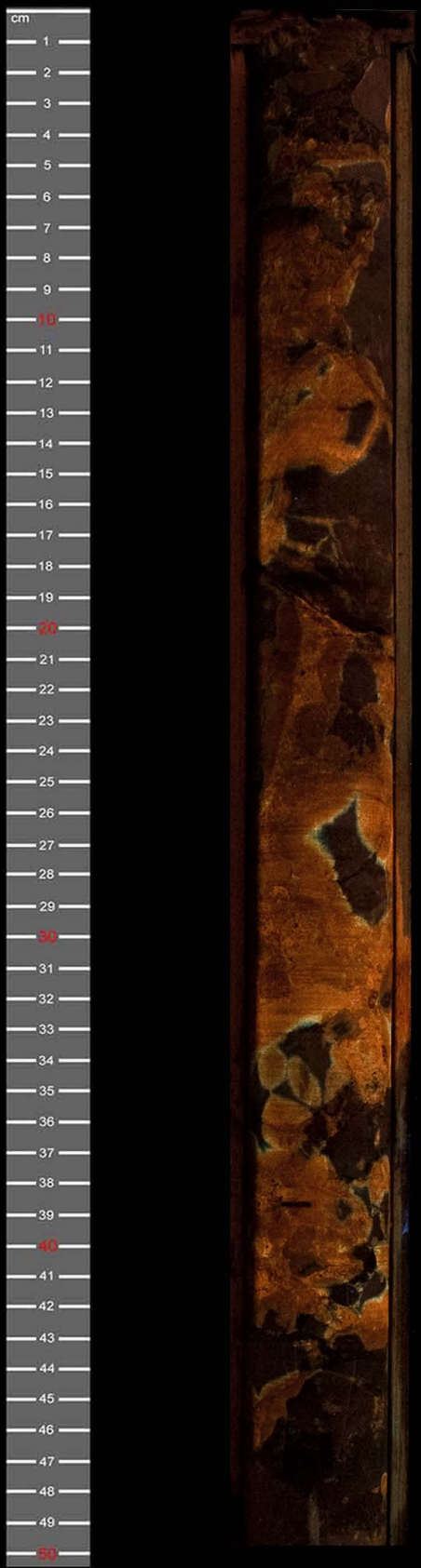
323.61 m

Weatherford LABORATORIES

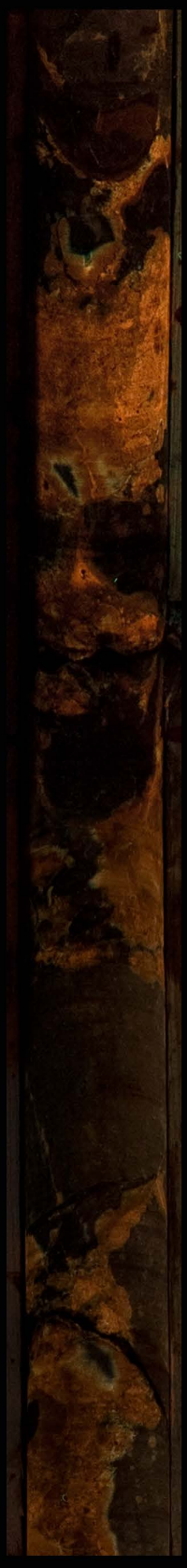
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

322.61 m



323.11 m



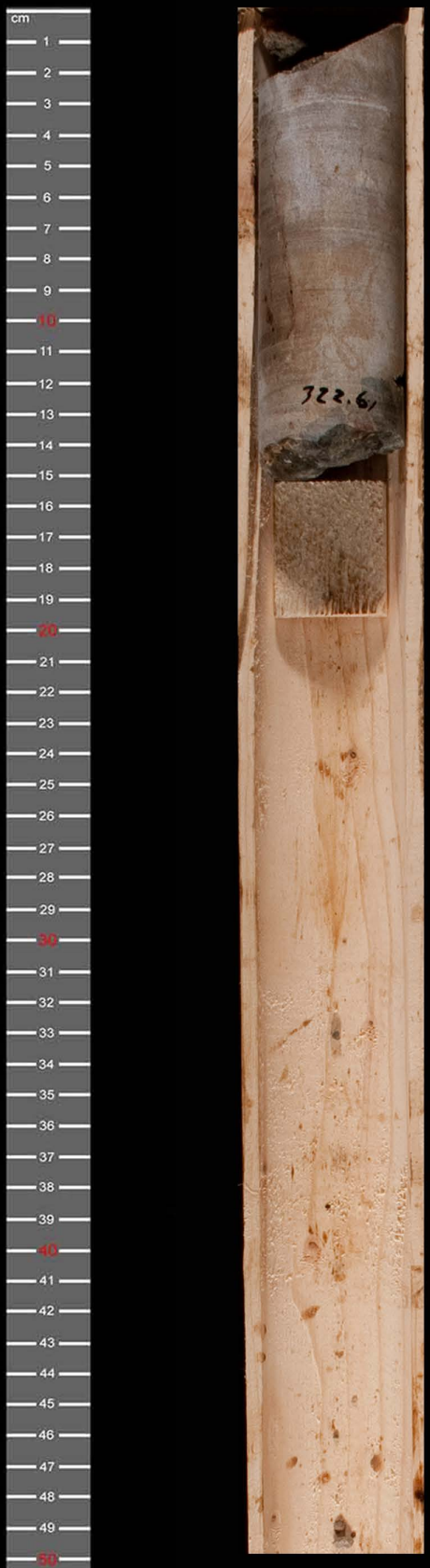
323.61 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

322.45 m

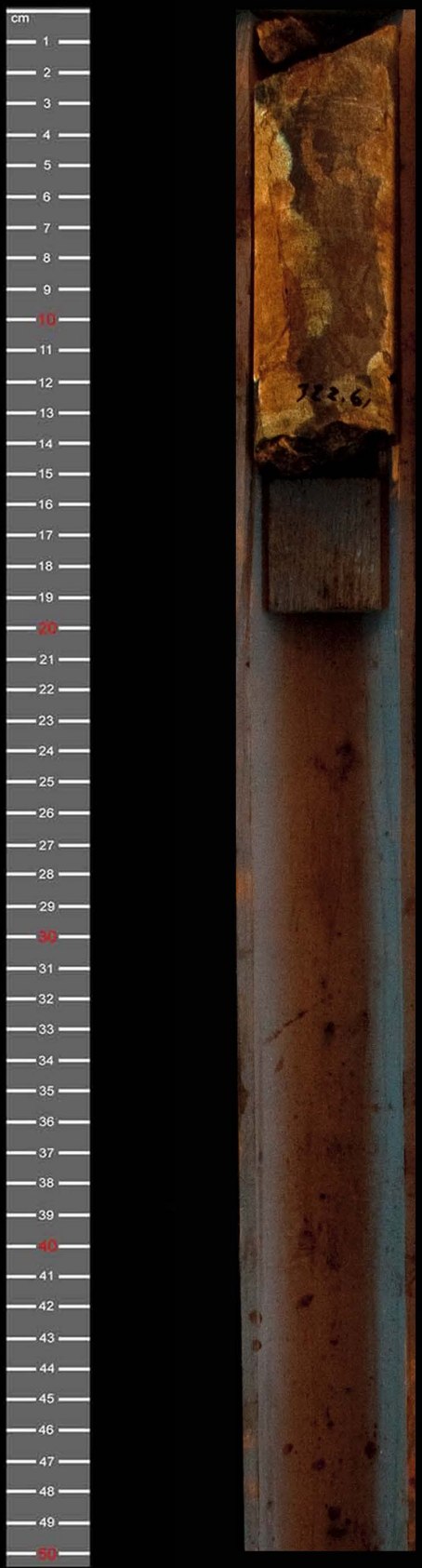


Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

322.45 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

321.04 m

321.54 m

322.04

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

321.04 m

321.54 m

322.04

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

319.55 m

320.05 m

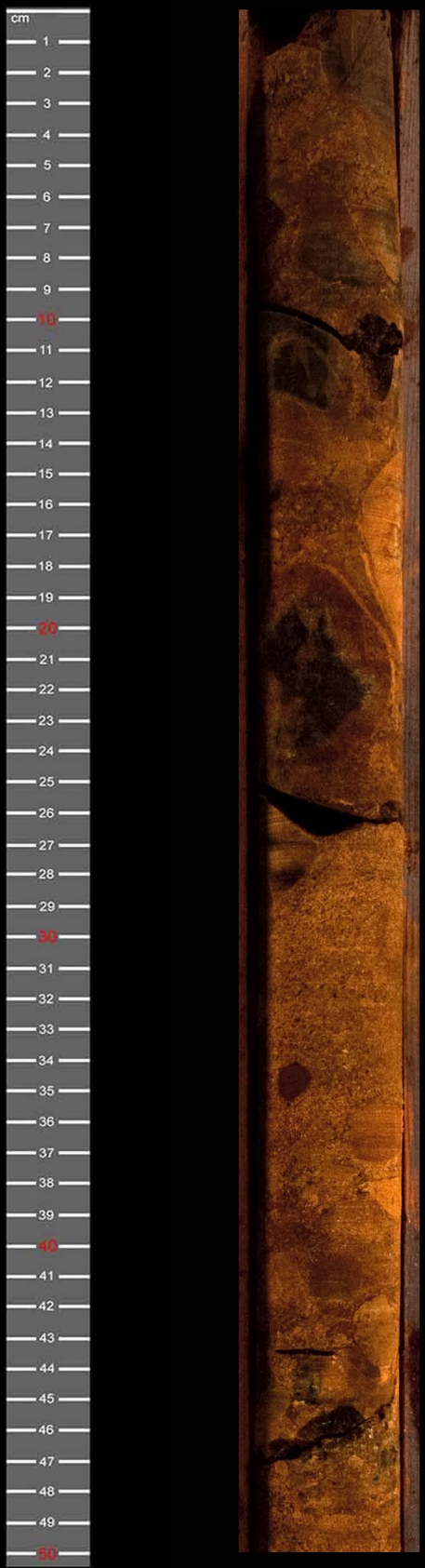
320.55 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

319.55 m



320.05 m

320.55 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

319.30 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

319.30 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

317.89 m

318.39 m

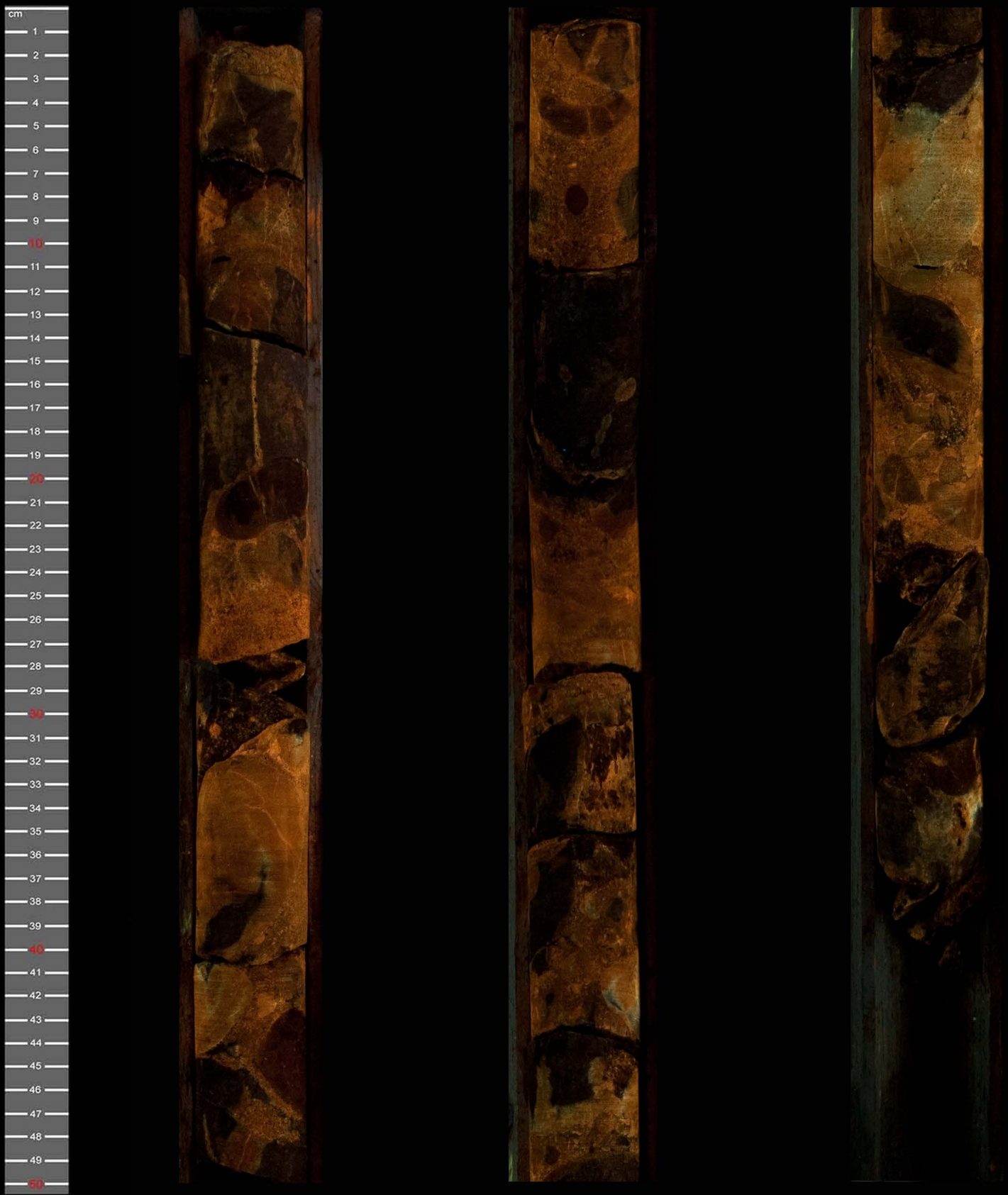
318.89 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

317.89 m | **318.39 m** | **318.89 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

316.40 m

316.90 m

317.40 m

Weatherford LABORATORIES

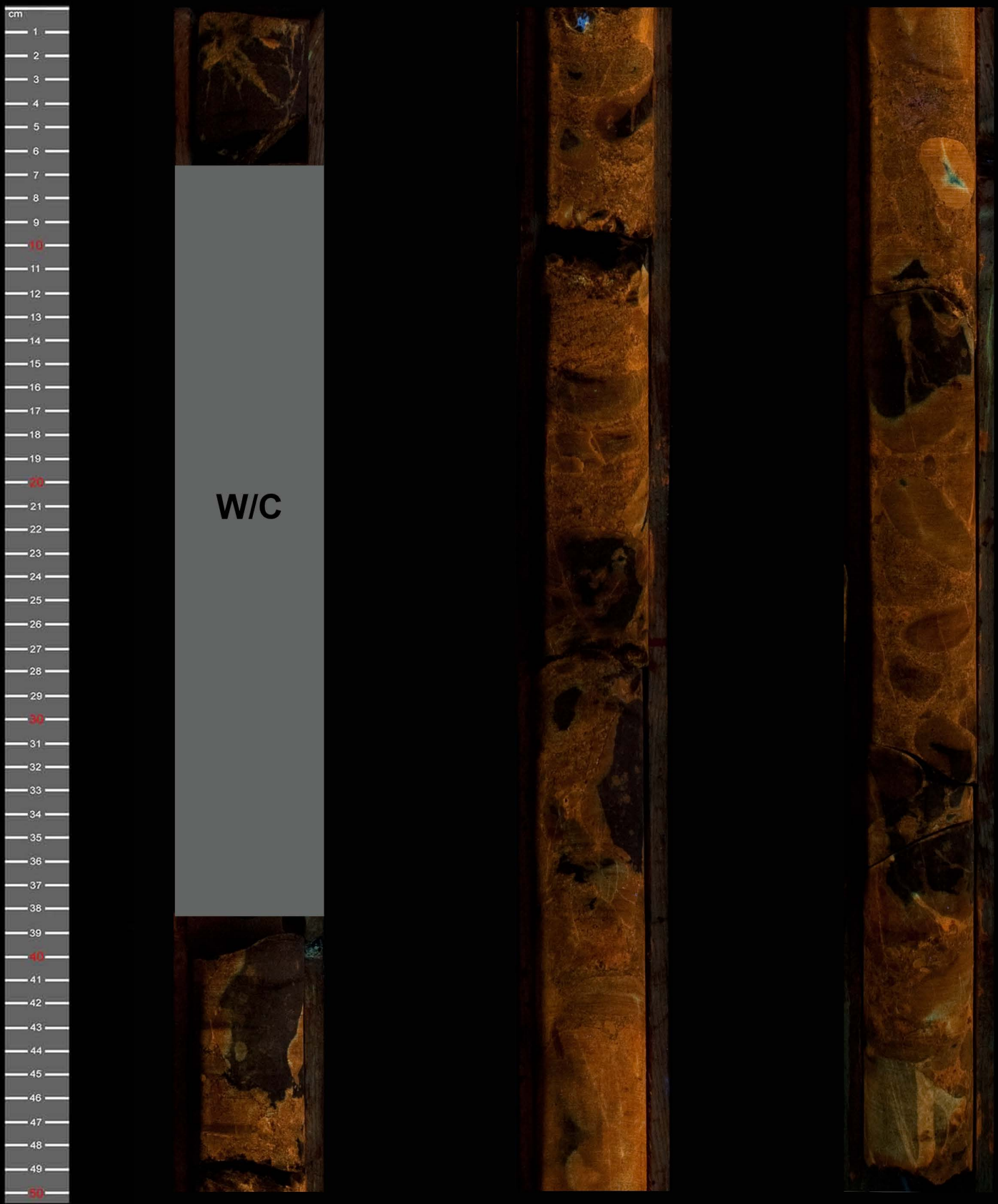
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

316.40 m

316.90 m

317.40 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

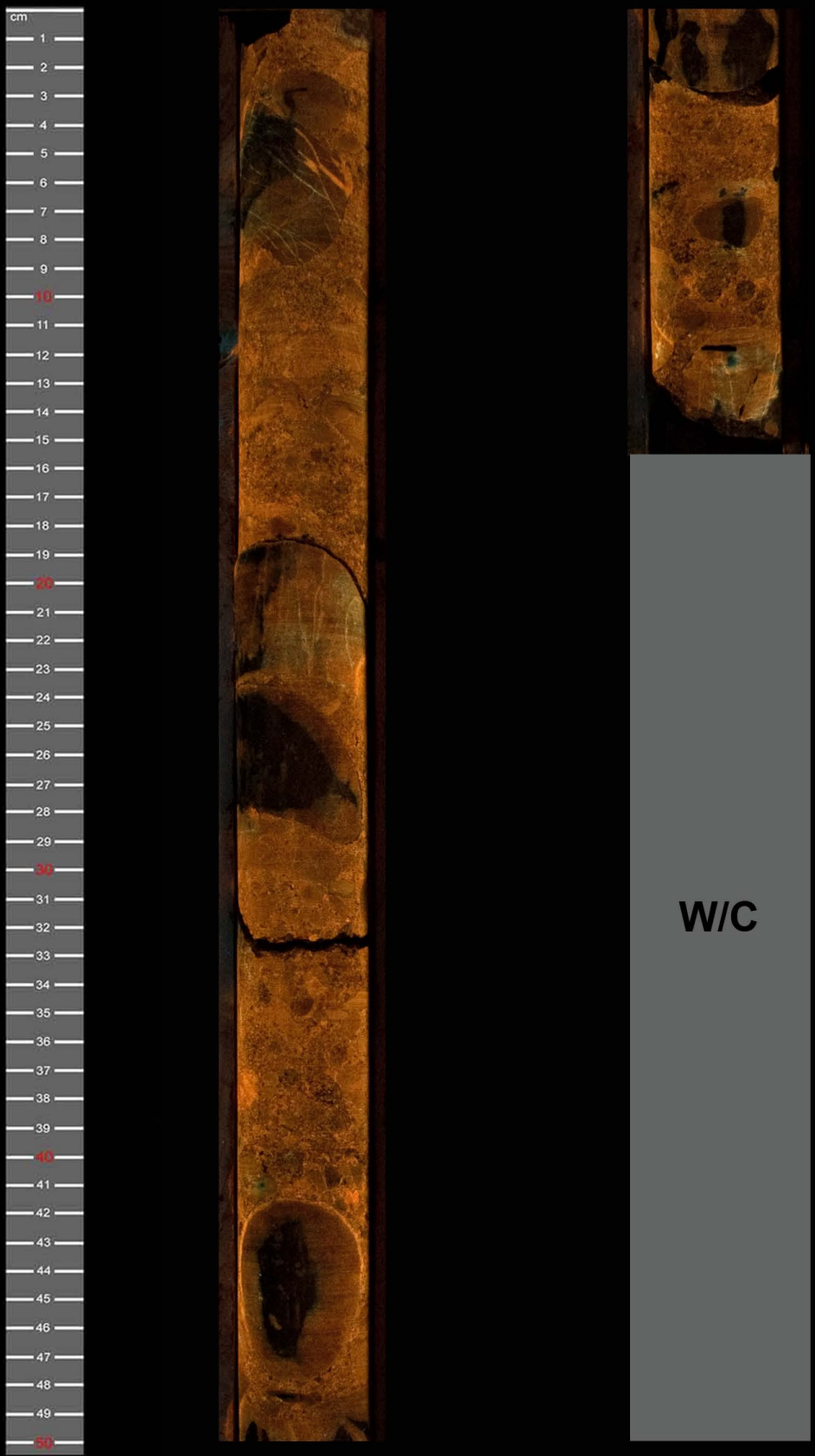
315.37 m | 315.87 m | 316.37 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

315.37 m | 315.87 m | 316.37 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

313.90 m

314.40 m

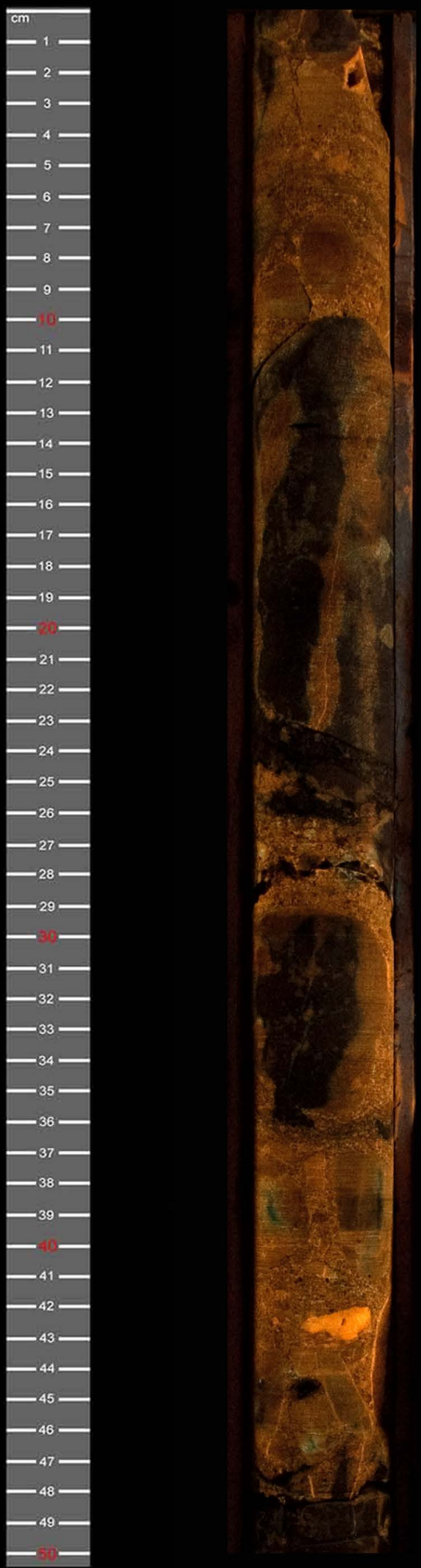
314.90 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

313.90 m



314.40 m

314.90 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

312.40 m

312.90 m

313.40 m

Weatherford LABORATORIES

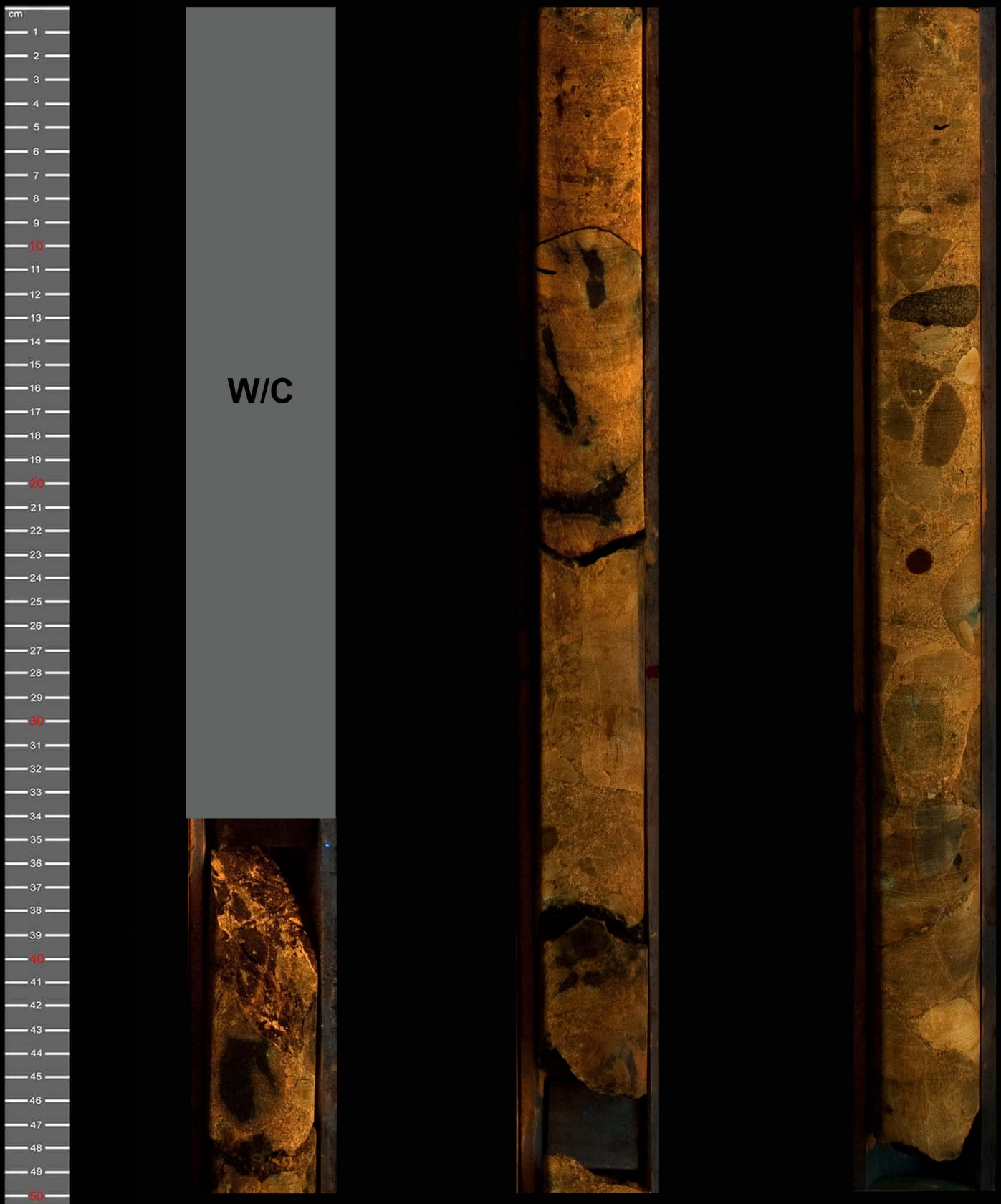
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

312.40 m

312.90 m

313.40 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

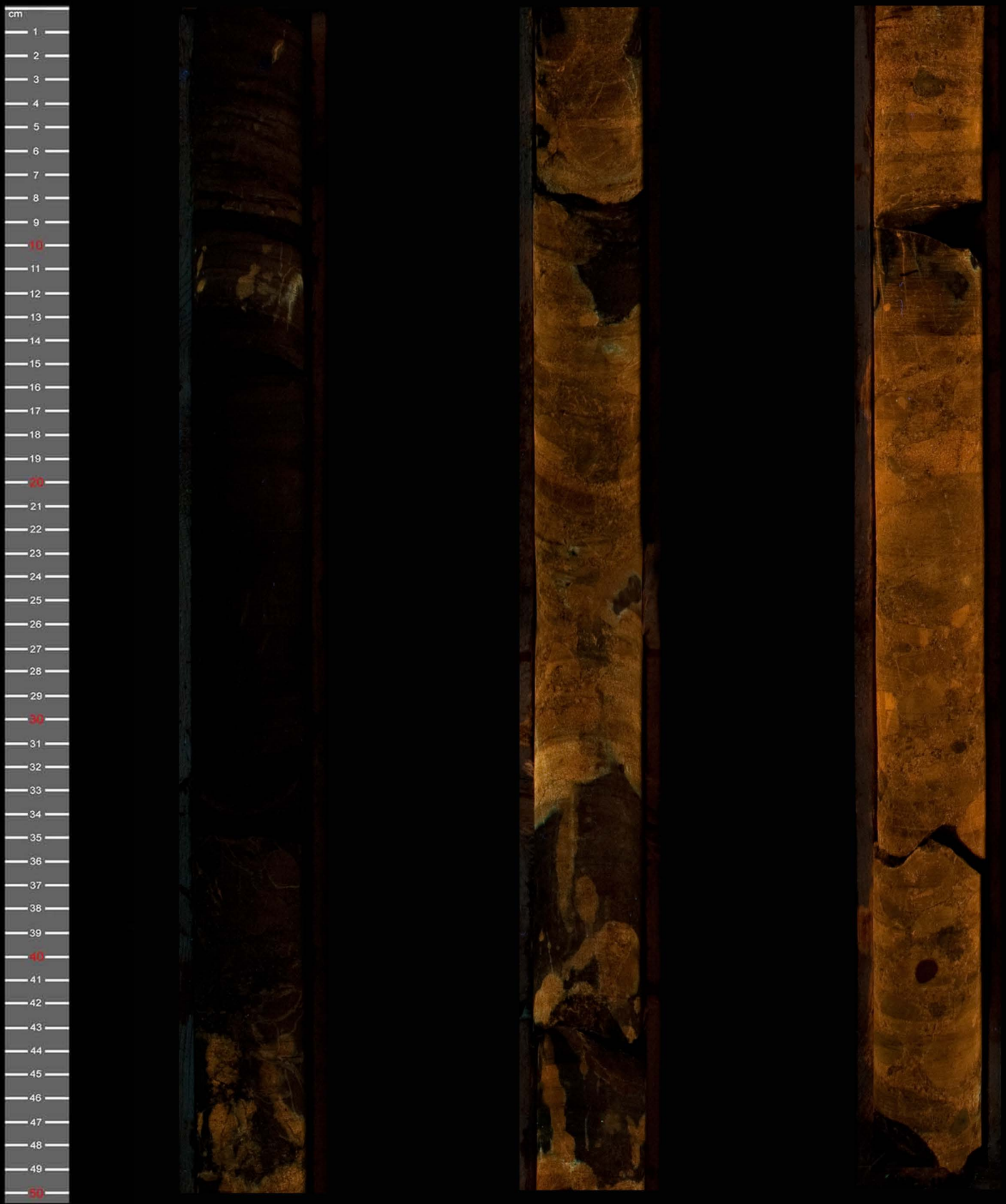
310.90 m | **311.40 m** | **311.90 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

310.90 m **311.40 m** **311.90 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

309.44 m

309.94 m

310.44 m

Weatherford LABORATORIES

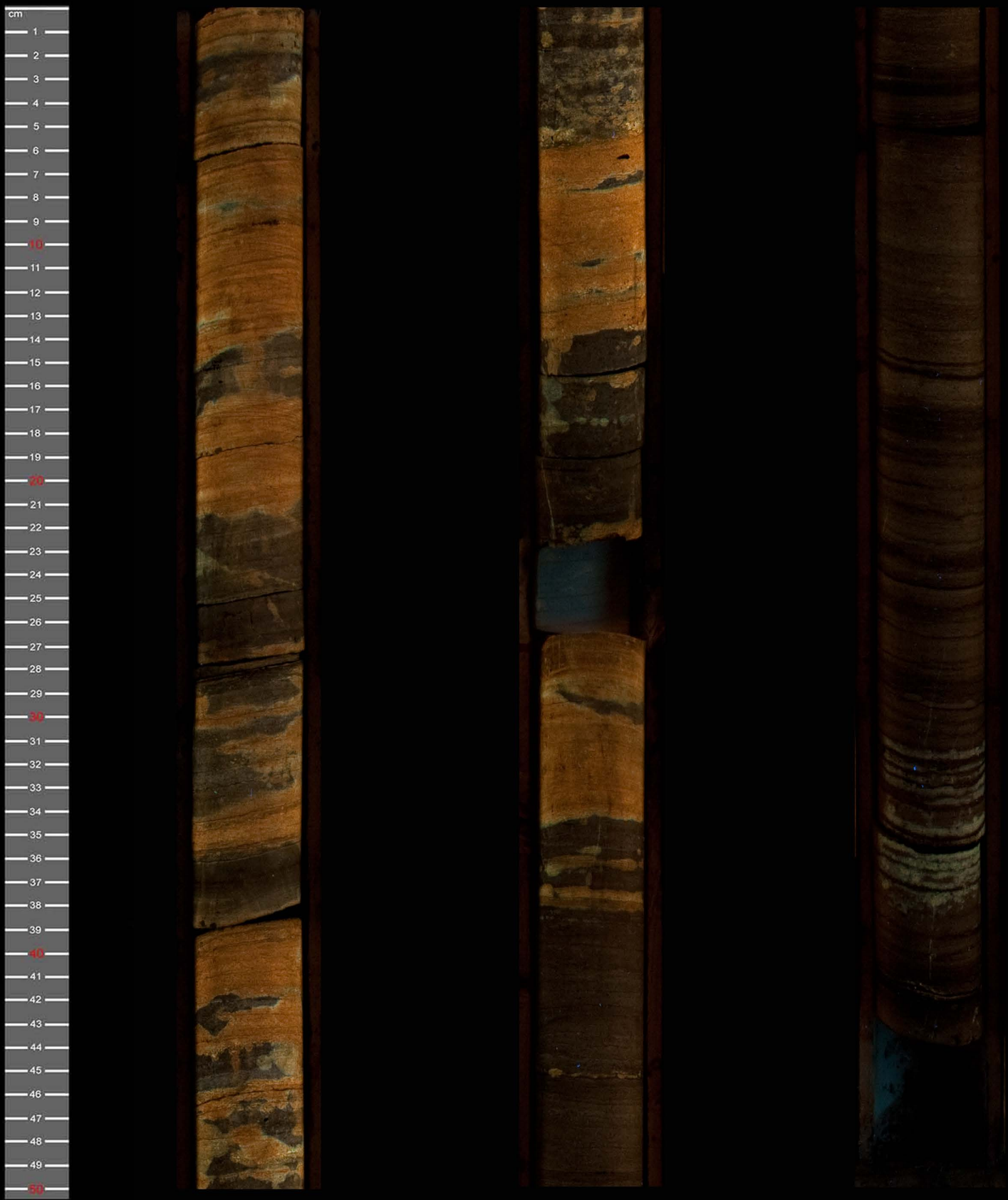
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

309.44 m

309.94 m

310.44 m



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

307.92 m

308.42 m

308.92 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

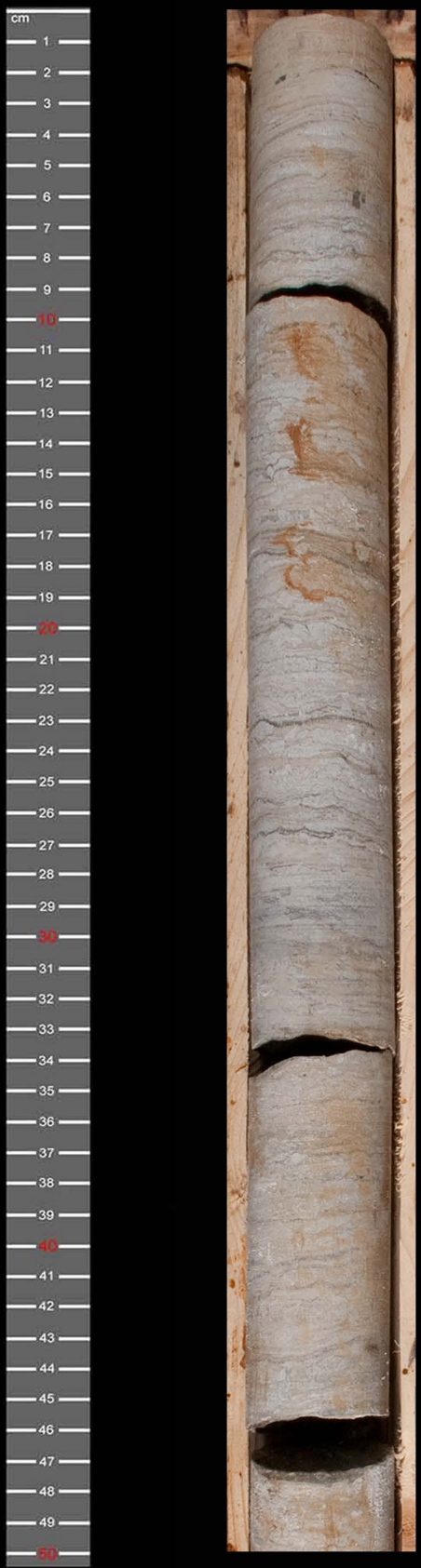
307.92 m | **308.42 m** | **308.92 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

306.45 m



306.95 m

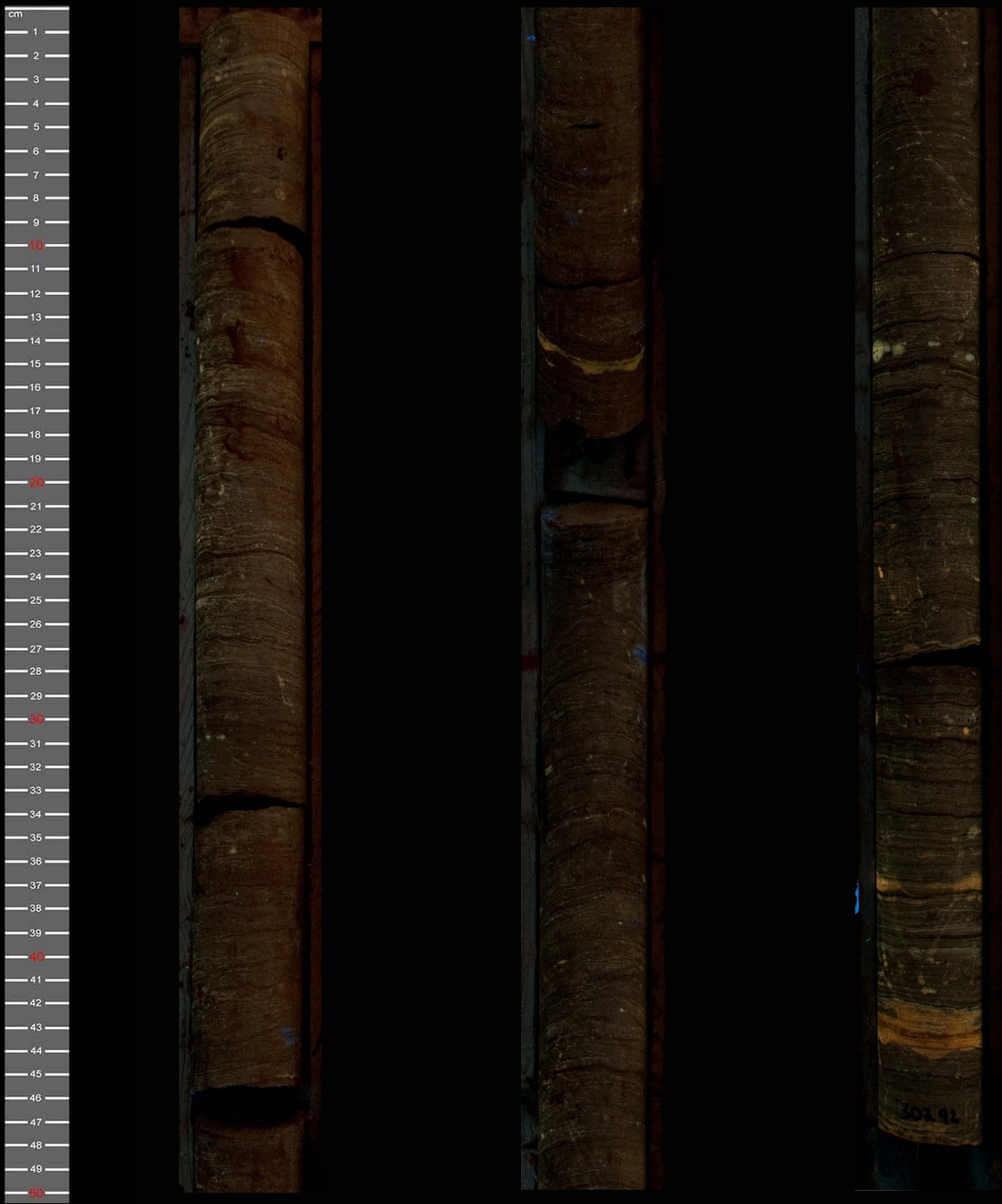
307.45 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

306.45 m **306.95 m** **307.45 m**

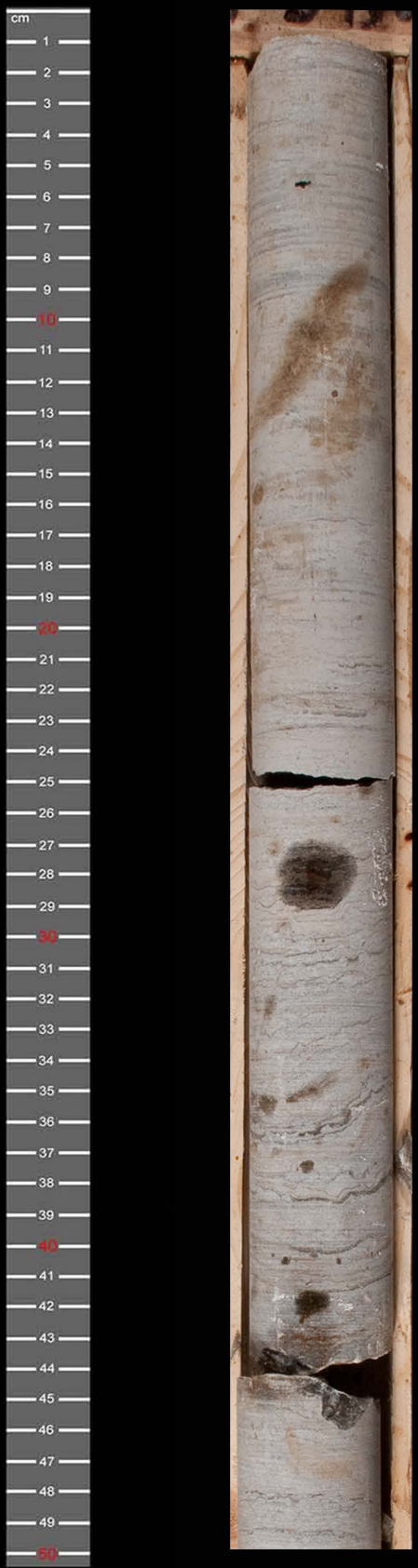


Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

304.95 m



305.45 m

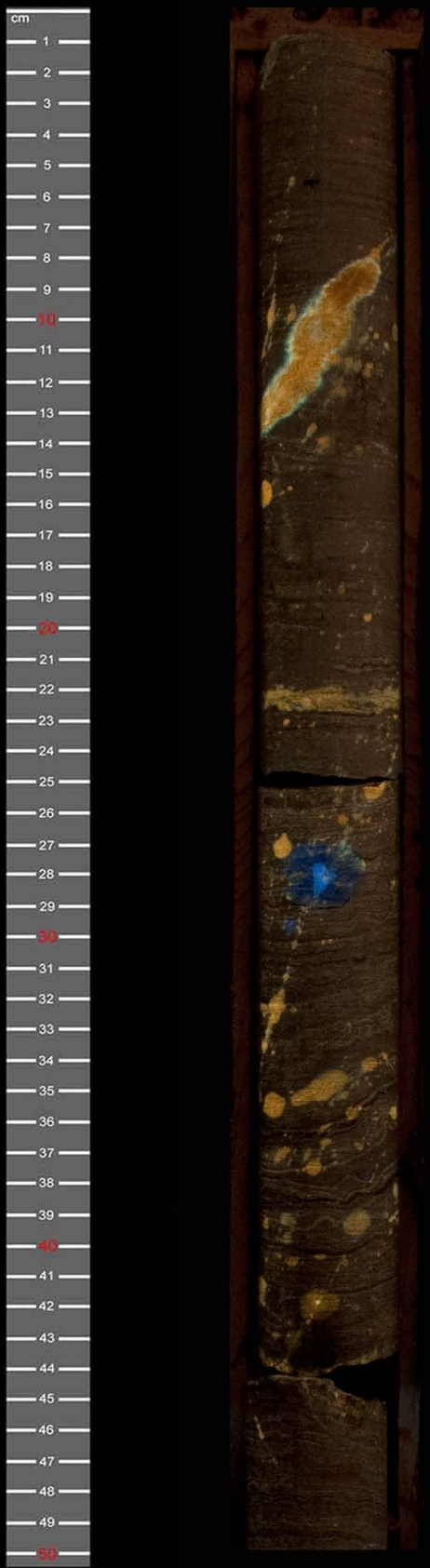
305.95 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

304.95 m



305.45 m

305.95 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

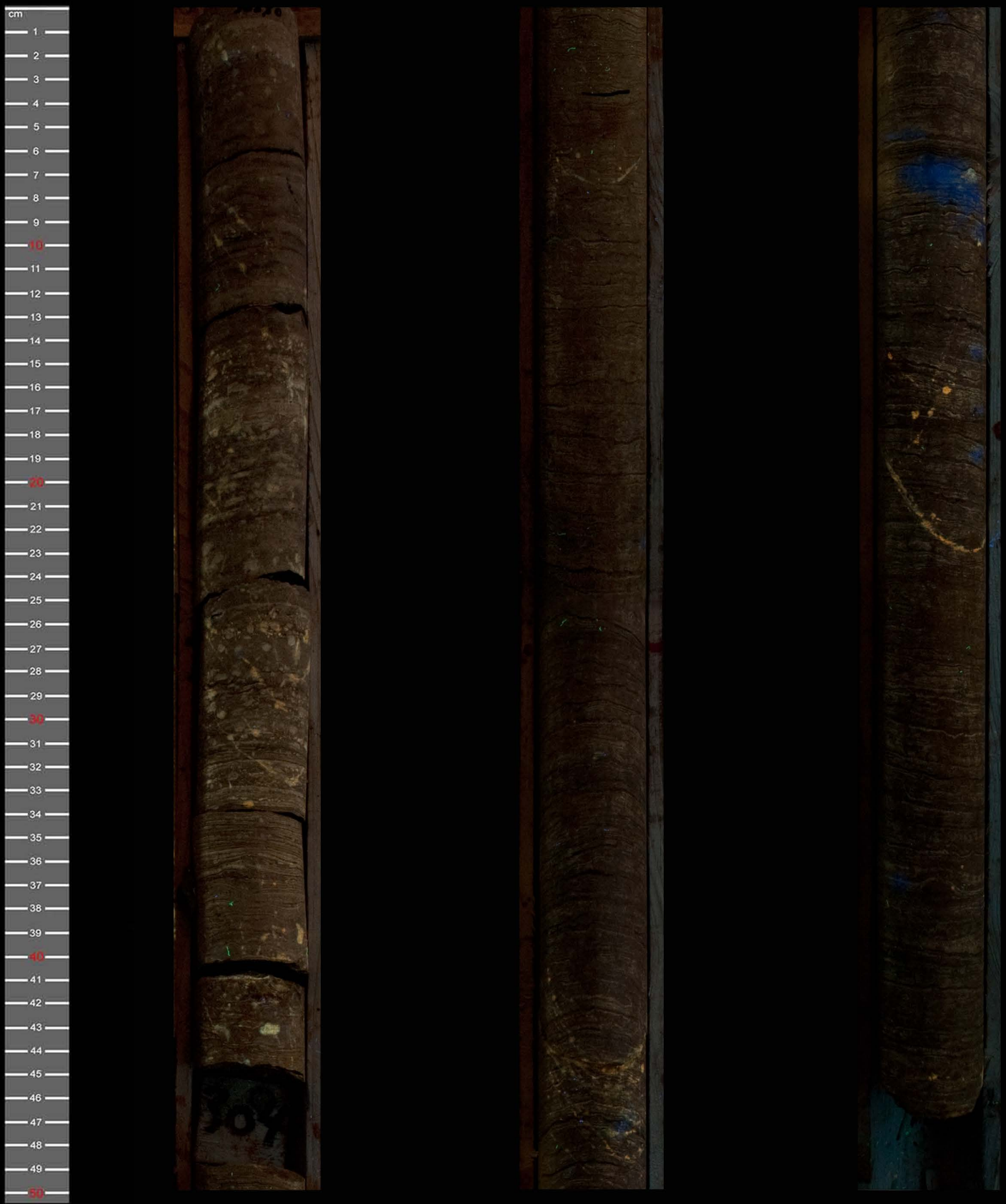
303.50 m **304.00 m** **404.50 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

303.50 m **304.00 m** **404.50 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

301.96 m

302.46 m

302.96 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

301.96 m

302.46 m

302.96 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

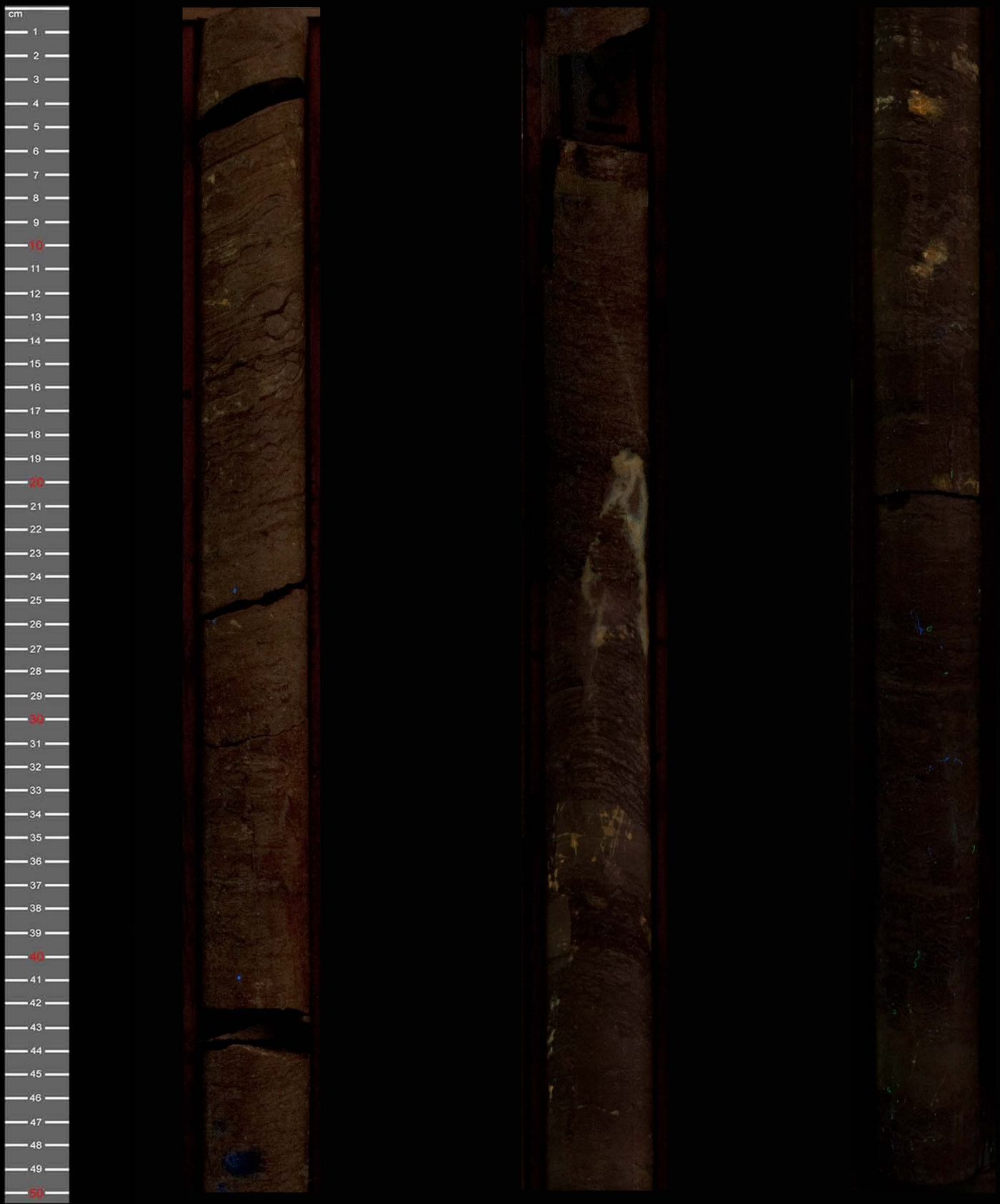
300.47 m | **300.97 m** | **301.47 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

300.47 m | **300.97 m** | **301.47 m**



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Western Newfoundland

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298.98 m **299.48 m** **299.98 m**

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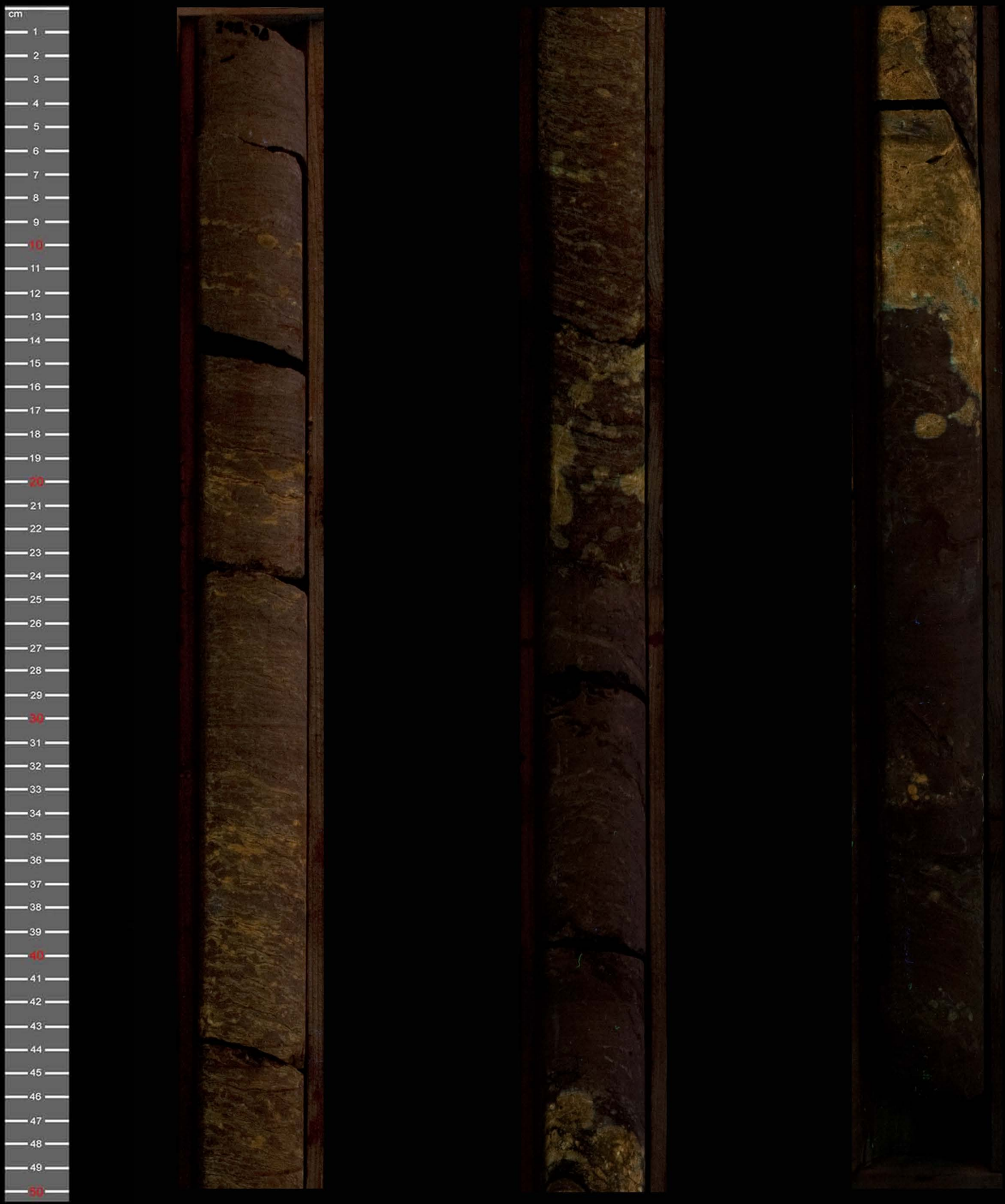
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

298.98 m **299.48 m** **299.98 m**



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Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

259.00 m

259.50 m

260.00 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

259.00 m | 259.50 m | 260.00 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

257.55 m

258.05 m

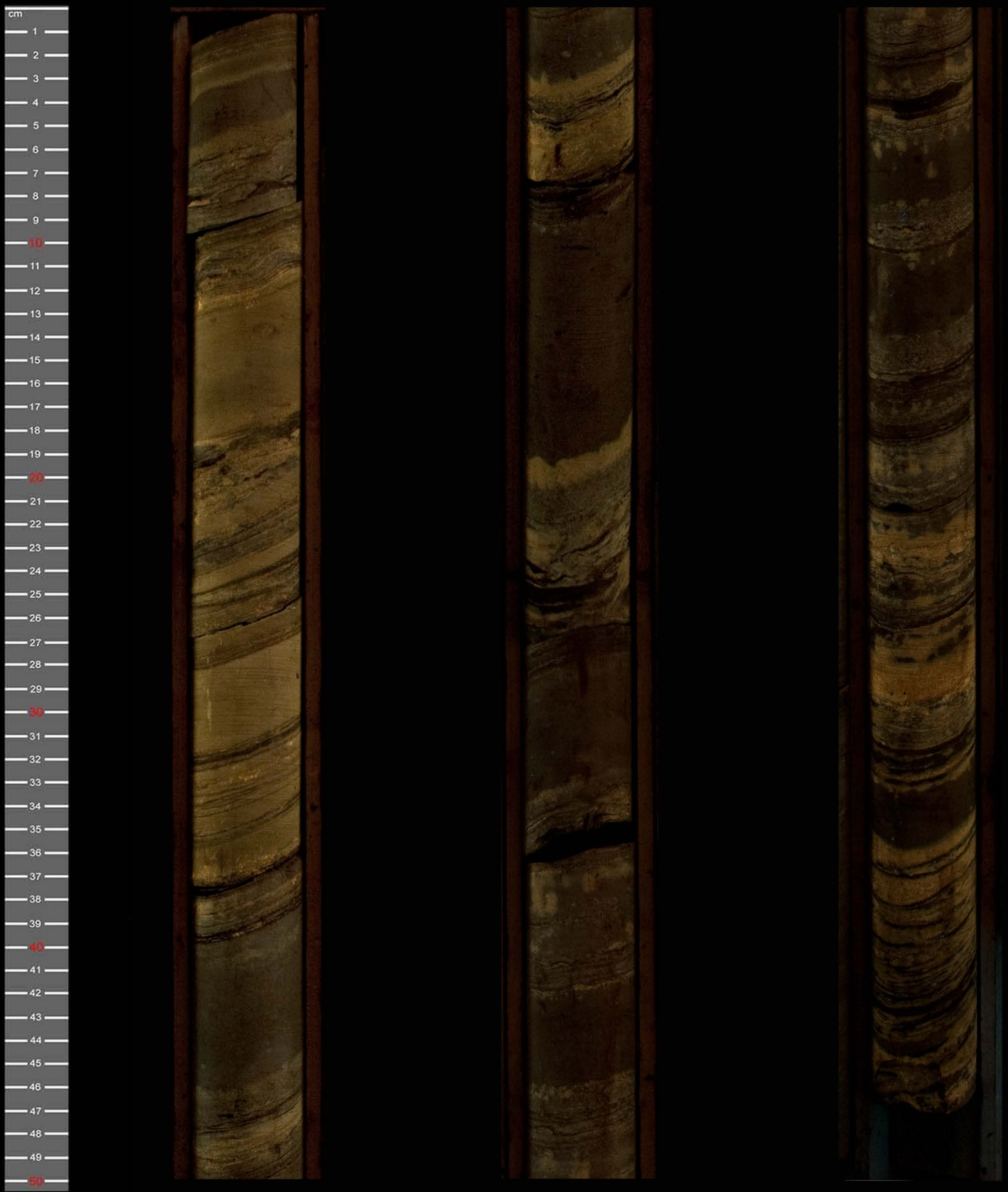
258.55 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

257.55 m | **258.05 m** | **258.55 m**



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Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

256.12 m

256.62 m

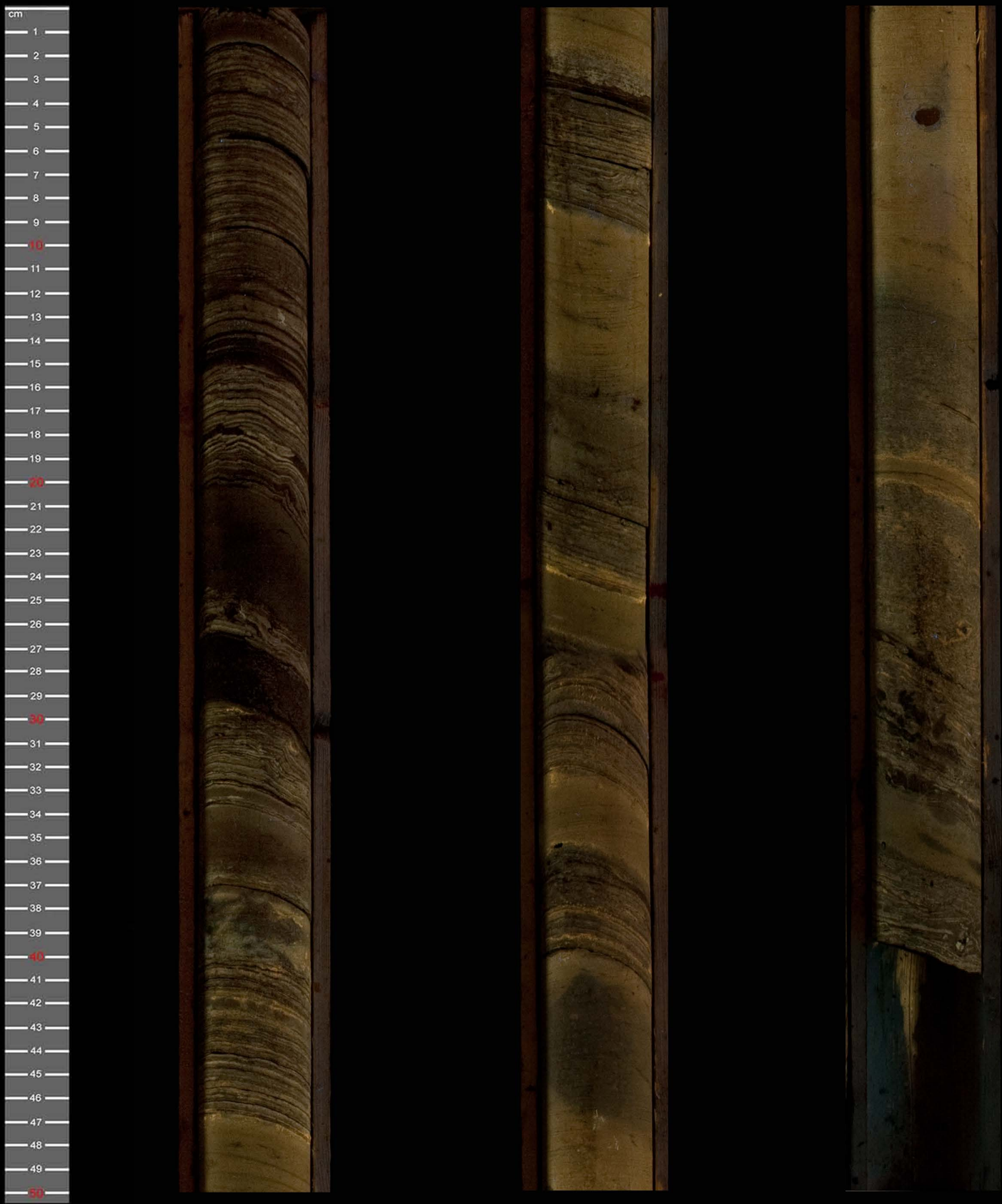
257.12 m

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

256.12 m **256.62 m** **257.12 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

254.75 m **255.25 m** **255.75 m**

Weatherford LABORATORIES

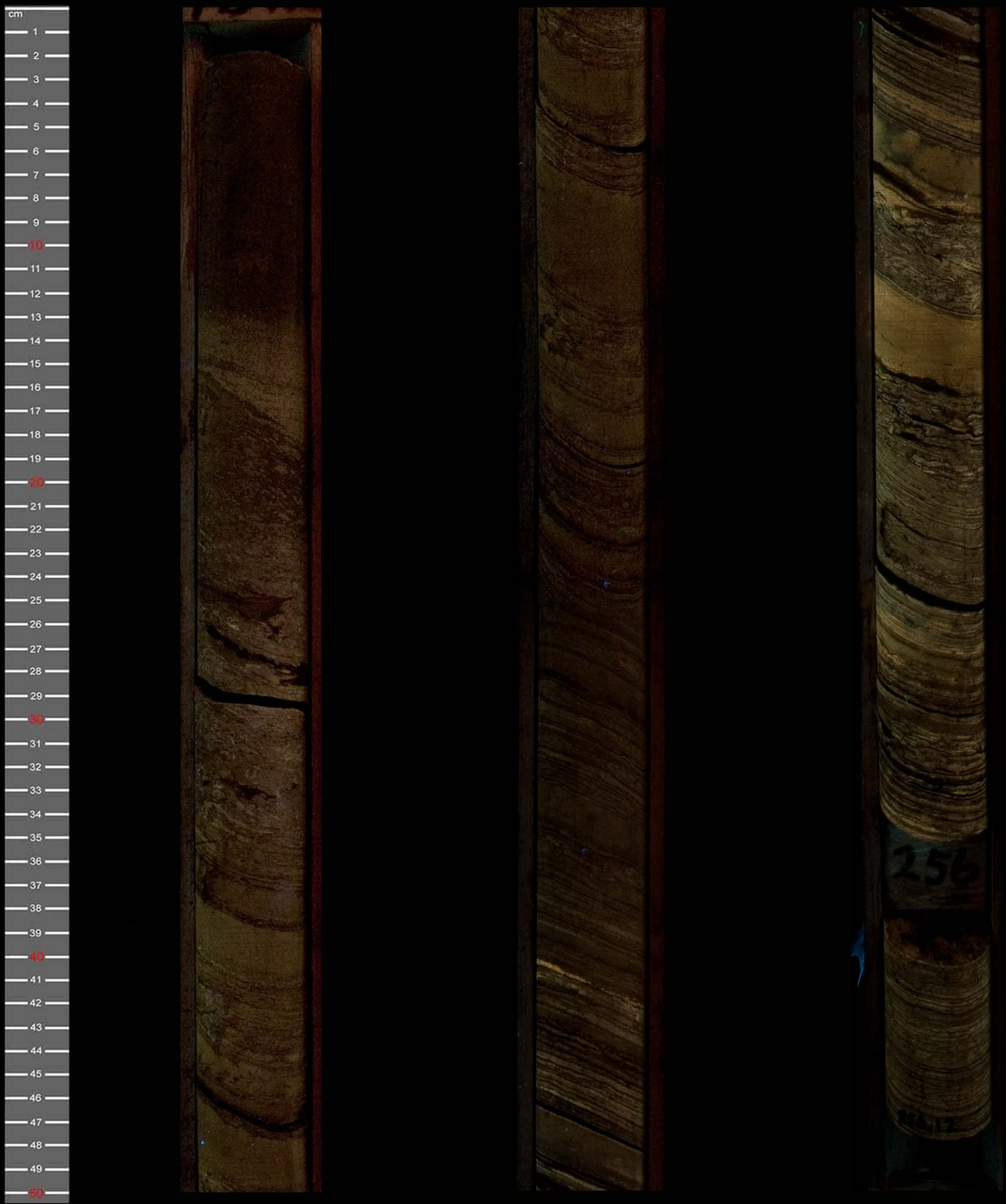
Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

254.75 m

255.25 m

255.75 m



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LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

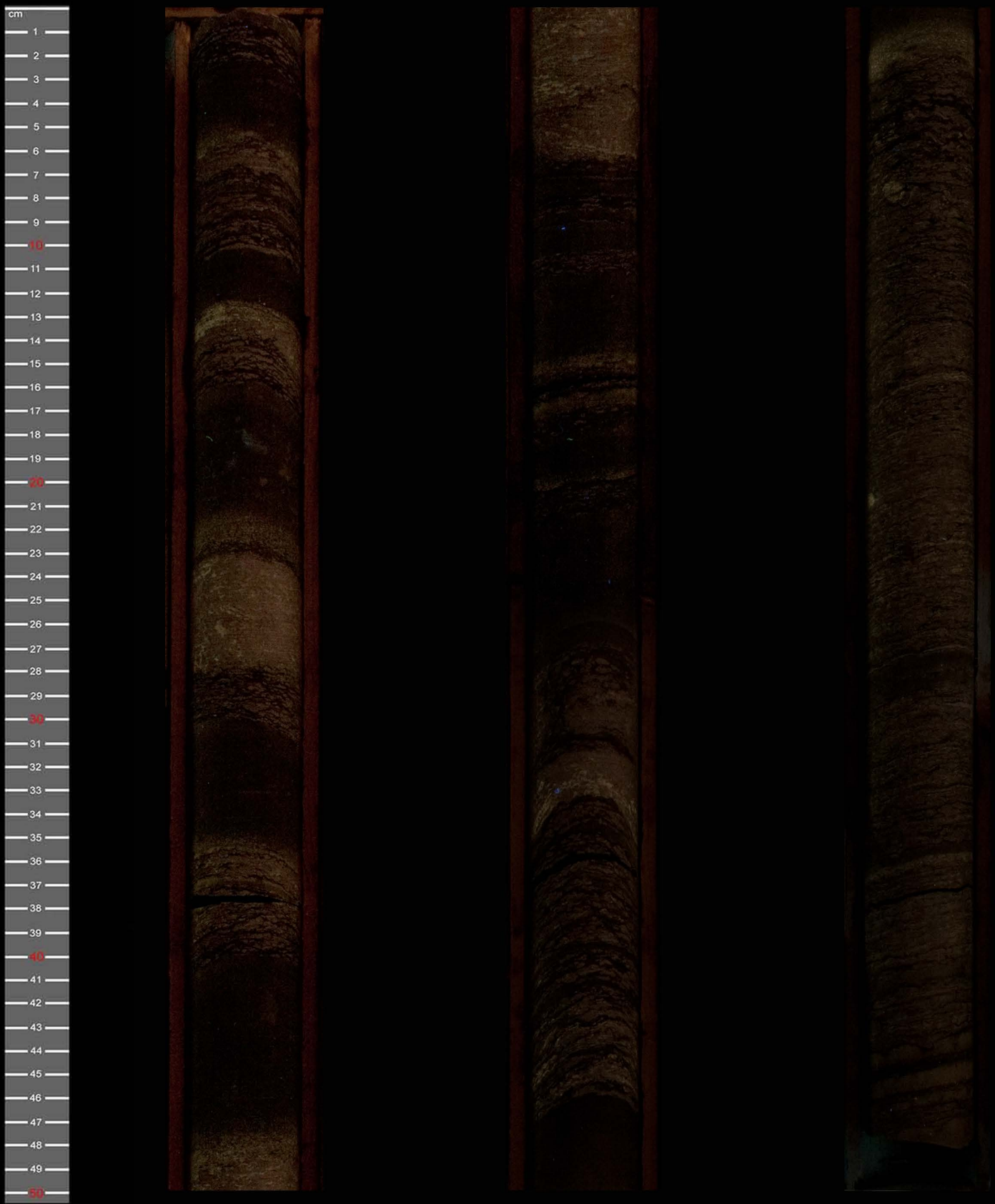
253.25 m | **253.75 m** | **254.25 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

253.25 m **253.75 m** **254.25 m**



Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

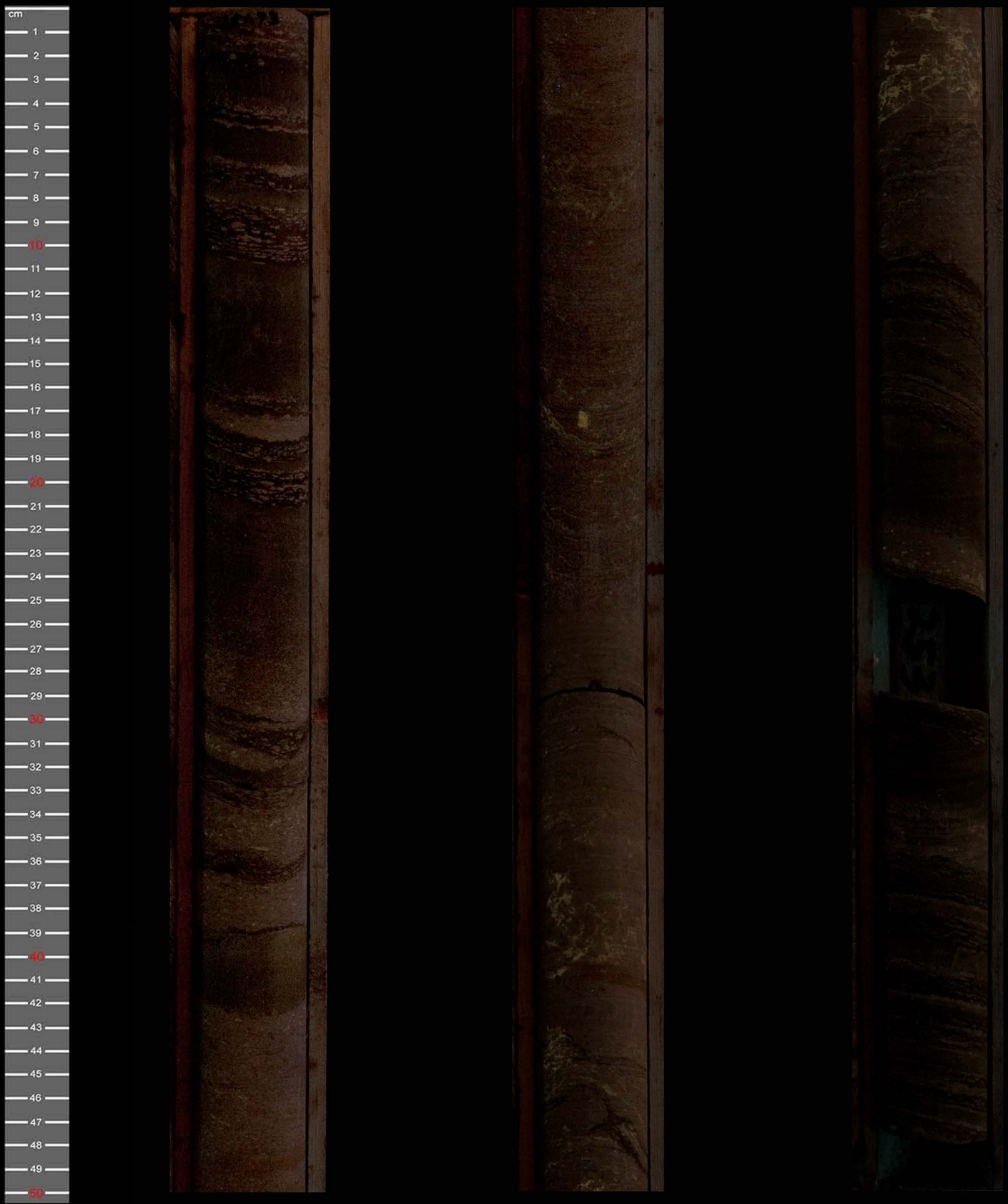
251.73 m **252.23 m** **252.73 m**

Weatherford LABORATORIES

Vulcan Minerals Inc.
Flat Bay Test Hole no.8
Western Newfoundland

NF-54356
Dec 20, 2011

251.73 m | **252.23 m** | **252.73 m**



Appendix X
Core Analysis Report

Weatherford LABORATORIES

SUMMARY OF CONVENTIONAL CORE ANALYSES RESULTS

Conventional Oven Dried at 95°C

Vulcan Mineral
FBTH #8
Flat Bay

Newfoundland
File: NF-54356

Sample Number	Sample Depth, m	Permeability to air	Porosity, fraction	Grain Density, kg/m³	Residual Fliud Saturations fraction		Lithological Description
					Oil	Water	
8_1	257.20	0.0381	0.088	2730	0.358	0.100	ss vf gr, calc, pyr
8_2	303.08	+	0.022	2750	0.398	0.138	ss vf gr, calc, pyr
8_3	307.50	0.0005	0.016	2790	0.534	0.164	conglomerate
8_4	308.90	0.0193	0.055	2720	0.249	0.048	conglomerate
8_5	312.30	0.0887	0.026	2690	0.453	0.106	conglomerate
8_6	313.65	0.0011	0.010	2730	0.294	0.264	conglomerate
8_7	315.10	0.0608	0.031	2690	0.446	0.094	conglomerate
8_8	318.50	0.0080	0.022	2780	0.336	0.137	conglomerate
8_9	319.90	0.0593	0.061	2690	0.328	0.183	conglomerate
8_10	321.60	0.1501	0.039	2680	0.426	0.199	conglomerate
8_11	322.40	0.3253	0.040	2700	0.424	0.138	conglomerate
8_12	323.70	0.0951	0.044	2720	0.134	0.330	conglomerate
8_13	324.25	0.0254	0.030	2860	0.277	0.281	conglomerate
8_14	326.65	0.3551	0.045	2700	0.441	0.216	conglomerate
8_15	327.93	0.2511	0.071	2680	0.255	0.304	conglomerate
8_16	329.15	0.2392	0.041	2690	0.147	0.400	conglomerate
8_17	331.30	0.0024	0.017	2700	0.305	0.152	conglomerate
8_18	332.95	0.3339	0.053	2710	0.170	0.548	conglomerate
8_19	333.95	0.0751	0.045	2650	0.309	0.217	conglomerate
8_20	337.26	0.0586	0.047	2690	0.045	0.474	conglomerate
8_21	339.16	0.4528	0.056	2680	0.228	0.332	conglomerate
8_22	340.61	0.8078	0.064	2700	0.121	0.418	conglomerate
8_23	342.08	0.6001	0.051	2690	0.443	0.105	conglomerate
8_24	344.5	0.2313	0.102	2700	0.172	0.392	conglomerate
8_25	344.74	0.2815	0.081	2670	0.164	0.288	conglomerate
8_26	345.75	0.1806	0.064	2680	0.314	0.209	conglomerate
8_27	346.35	0.2090	0.094	2820	0.285	0.189	conglomerate

Weatherford LABORATORIES

SUMMARY OF CONVENTIONAL CORE ANALYSES RESULTS

Conventional Oven Dried at 95°C

Vulcan Mineral
FBTH #8
Flat Bay

Newfoundland
File: NF-54356

Sample Number	Sample Depth, m	Permeability to air	Porosity, fraction	Grain Density, kg/m³	Residual Fliud Saturations fraction		Lithological Description
					Oil	Water	

\+ indicates unsuitable for this testing

Appendix XI
Well Termination Record

Government of Newfoundland and Labrador
Department of Natural Resources
Energy Branch

WELL TERMINATION RECORD

WELL DATA

Well Name:	Flat Bay Test Hole 8	**CO-ORDINATES**			
Operator:	Vulcan Minerals Inc	**Long :**		**UTM** *(NAD 27)*	
Drilling Rig :	Duralite 800	**Lat. :**		**Northing:**	5360379.149
Rig Type :	Core Drill			**Easting :**	385040.549
Drilling Contractor :	Logan Drilling Limited	**ELEVATION**		**DEPTH**	
		☐ RT ☐ KB ☐ RF	m	**M.D. :**	349
		G.L. :	18.464	**T.V.D. :**	349

FOR INTERNAL USE ONLY

Spud Date:	October 11, 2011
T.D. Date:	October 31, 2011
Rig Release Date:	November 4, 2011
Well Termination Date:	November 22, 2011

For the purpose of interpreting subsection 154 (5) of the Petroleum Drilling Regulations, the rig release date is deemed to be:

Purpose of Termination: ☐ Suspension ☒ Abandonment ☐ Completion Other:

CASING AND CEMENTING PROGRAM

O.D. (mm)	WEIGHT (kg/m)	GRADE	SETTING DEPTH (m)	CEMENTING DETAILS
88.9	12.8		58	Cemented hole from EOH (349m) to surface.

PLUGGING PROGRAM

Approval of the following program was obtained by (person) Patrick Laracy

from (person) Keith Hynes of the Department of Natural Resources by means of

Drilling Program Approval and Authority to Drill Well dated August 19, 2011

Type of Plug	Interval	Felt/Pressure Tested	Cement and Additives
Cement	0-349m	Observed at Surface	1820 kg-m3, type A

Lost Circulation/Overpressure Zones:

Downhole Completion/Suspension Equipment (Describe Below and Attach Sketch of Wellbore)

Cement from surface to EOH - See attached sketch.
Casing cut off 1m below grade.

DECLARATION

The undersigned **OPERATOR'S REPRESENTATIVE** hereby declares that on the basis of personal knowledge of operations undertaken at the above named well, the above information is true, accurate and complete.

Name Elliott M. Stuckless **Title** Geologist

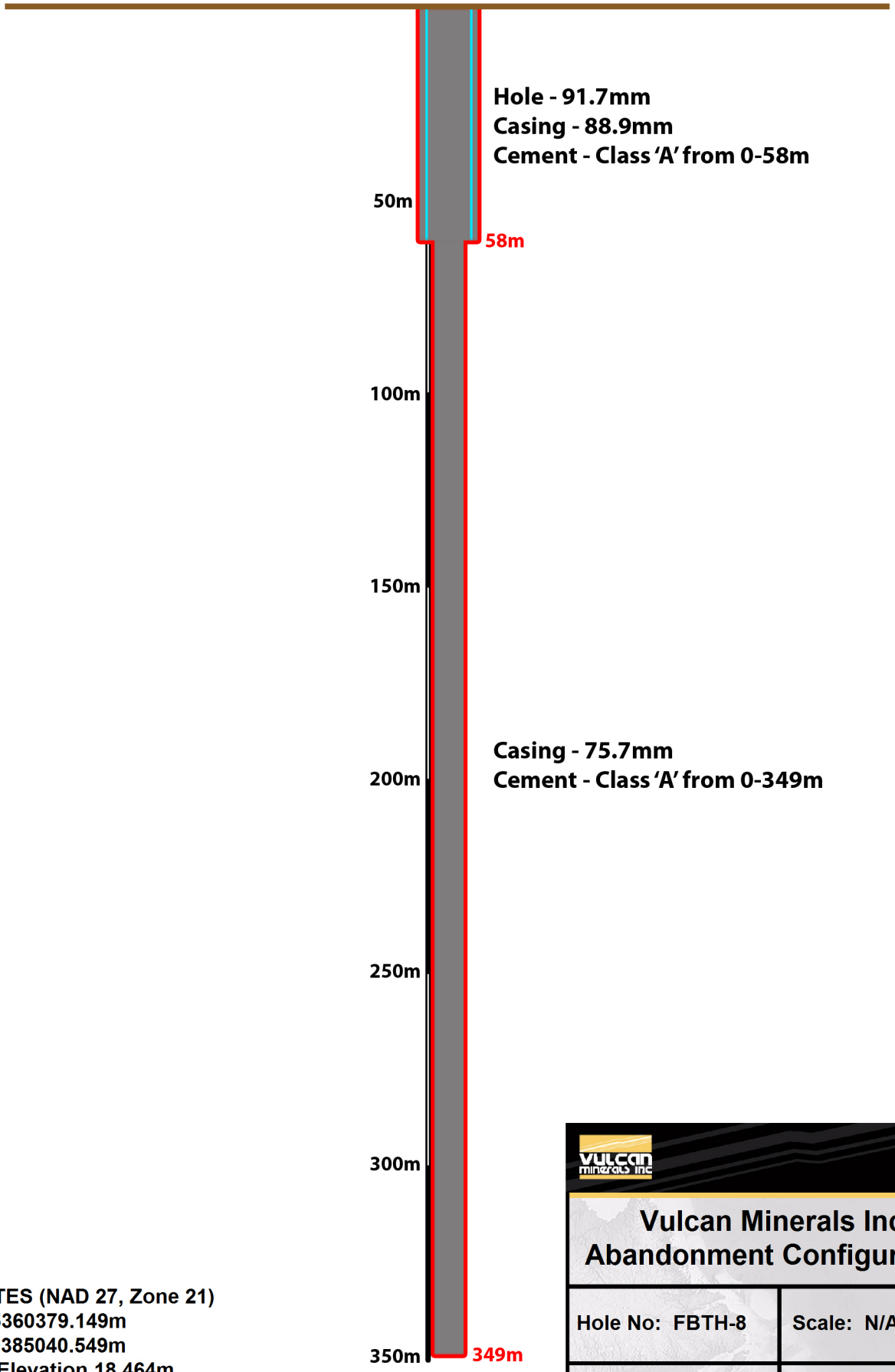
Signed **Date** November 22, 2011

ACKNOWLEDGEMENT

Acknowledged by: _____ Date: _____

Director

FBTH-8



COORDINATES (NAD 27, Zone 21)
N 5360379.149m
E 0385040.549m
Casing Elevation 18.464m
Azimuth 0 degrees
Dip -90 degrees

TSX V:VUL

Vulcan Minerals Inc.
Abandonment Configuration

Hole No: FBTH-8	Scale: N/A
Date: 22-11-2011	Drawn By: EMS