



State of Colorado Oil and Gas Conservation Commission



1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109

FOR OGCC USE ONLY RECEIVED JUL 11 2011 COGCC

WELL CONTROL REPORT

As Required by Rule 327

1. OGCC Operator Number: 100185
2. Name of Operator: EnCana Oil & Gas
3. Address: 370 17th Street, Denver, CO 80202
4. Contact Name & Phone: Gage Soehner, 720 951 0732
Report taken by: DAVE ANDREWS

WELL LOCATION INFORMATION

5. API Number: 05-077-10146
6. County: Mesa
7. Well Name: Orchard Unit
8. Well Number: 15-12H (D1400)
9. Unit Name (if appl.): Orchard Unit
10. Unit No: COC066496
11. QtrQtr: NWNW Sec: 14 Twn: 8S Rng: 96W Meridian: 6
12. Footage From Exterior Section Lines: 610 FNL 414 FWL
13. Field Name: Grand Valley
14. Field Number: 31290

CASING INFORMATION

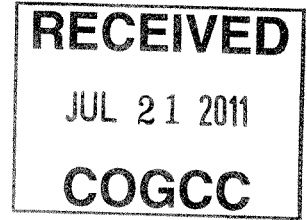
15. Surface Casing Size: 10-3/4" Weight per Foot: 40.5 Grade: J55 True Vertical Setting Depth: 1500
16. Intermed. Casing Size: 7-5/8" Weight per Foot: 26.4 Grade: P110 True Vertical Setting Depth: 7510

KICK INFORMATION

17. True Vertical Depth at Kick: 9090 ft
18. Formation at Kick: Mancos
19. Formation Code: MNCS
20. Shut-in Drill Pipe Pressure (SIDPP): 2010 psi
21. Shut-in Casing Pressure (SICP): 2000 psi
22. Mud weight at Time of Kick: 11.3 ppg
23. Pit Gain: 60 bbls
24. Time and Date Shut In: 9 AM 7/9/11
25. Mud Weight Required to Control Well: 15.2 ppg
26. Type of Kick: [X] Gas [] Oil [] Water
27. Comments (describe actions to control in detail): While drilling at 12940' MD, Patterson 330 drilled across a fault (as indicated by our seismic data after the fact), and took a 60 bbls gain. The well was shut in and pressures allowed to stabilize at approximately 2000 psi for both the shut in drillpipe pressure and casing pressure. Through several circulations through the choke, while bringing up the mud weight in one ppg increments, we have reached a stabilized well at 2 PM on 7/11/11. A 15.2 ppg mud is our current mud weight

Andrews, David

From: Soehner, Gage A. [Gage.Soehner@encana.com]
Sent: Thursday, July 21, 2011 11:30 AM
To: Andrews, David
Subject: RE: Well Influx Notification -- Orchard Unit 15-12H
Attachments: 12.5 ppg FIT @7556', 15-12H, P-330.pdf



David,

The 12.5 ppg FIT test was applied below the intermediate casing shoe. The 2000 psi SICP was indeed intermediate casing pressure. No bradenhead pressure was witnessed during the kill operations, and there is no bradenhead pressure on the well currently.

Eventually, we increased mud weight to 15.2 ppg. When circulating at 200 gpm +, we induced losses and in total lost 800 bbls of mud via partial returns. We treated those losses, and lowered the mud weight to 14.5 ppg throughout several circulations. We have been drilling with no losses since. Loss zone is believed to be at approx 10,400' MD, in the lateral.

Here is a copy of the BLM FIT test at the intermediate shoe.

Thanks,

Gage Soehner
Encana Oil & Gas
Drilling Engineer
South Piceance
720.876.3097
720.951.0732 Cell

From: Andrews, David [<mailto:David.Andrews@state.co.us>]
Sent: Wednesday, July 20, 2011 9:24 AM
To: Soehner, Gage A.; King, Kevin
Subject: RE: Well Influx Notification -- Orchard Unit 15-12H

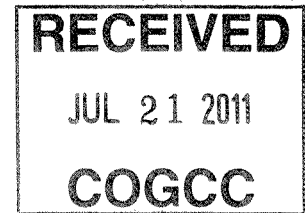
Gage,

Thanks for your report. Was the 12.7 ppg FIT below the surface casing shoe or below the intermediate casing shoe? The 2000 psi SICP was the intermediate casing pressure, correct? Was any pressure observed on the intermediate casing – surface casing annulus during well control operations?

David D. Andrews, P.E., P.G.
Engineering Supervisor - Western Colorado

State of Colorado
Oil and Gas Conservation Commission
707 Wapiti Court, Suite 204
Rifle, Colorado 81650
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Cell Phone: (970) 456-5262
Fax: (970) 625-5682
E-mail: David.Andrews@state.co.us
Website: <http://www.colorado.gov/cogcc>

From: Soehner, Gage A. [mailto:Gage.Soehner@encana.com]
Sent: Monday, July 11, 2011 5:58 PM
To: Andrews, David; King, Kevin
Subject: Well Influx Notification -- Orchard Unit 15-12H



David and Kevin,

Patterson 330 took a very large kick on 7/9/11 and over the weekend we have circulated out the influx while bringing up the mud weight in increments. Please find the attached the OU 15-12H kick form 23 and the rig report for the kick that day. We only performed a FIT test to 12. ppg and crossed a pressured fault (as confirmed by seismic data) and now appear to be stable at a 15.2 ppg mud.

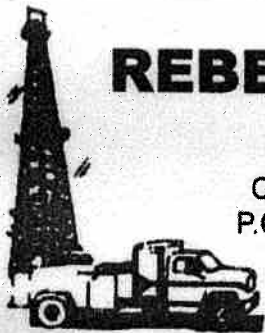
Call with any questions

Thanks,

Gage Soehner
Encana Oil & Gas
Drilling Engineer
South Piceance
720.876.3097
720.951.0732 Cell

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<http://www.encana.com>



REBEL TESTING, INC.

5993

B.O.P. TESTING

Colorado Office • 970-319-8874
P.O. Box 296 • Gillette, WY 82717
(307) 682-9625

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JUL 21 2011
COGCC

6/29/11
15-124
D1405
1013 7210
8715 366
750
Annul Norm
Attn: JOHN BROSIK

Date: 6/29/11

Charge to:

Contractor: Patterson 330

Operator: Encana oil & Gas

Well Name/No: <u>Orchard unit 15-124</u>				Lease # <u>05 077-10146</u>	
Sec. <u>14</u>	Twp. <u>85</u>	R. <u>96W</u>	Co. <u>Mesa</u>	State <u>CO</u>	
Casing Size & Weight:		Casing Depth:		Plug Name & Company:	
Date of Test: <u>6/29/11</u>		Tester: <u>Scott Dayhoff</u>		Company Representative: <u>Arvid Mosnes</u>	

ARRIVAL TIME: 6:30 A.M. 6:30 P.M. DATE: 6/29/11 DEPART. TIME: 7:30 A.M. 7:30 P.M. DATE: 6/29/11

B.O.P. JOB DESCRIPTION

ACCUMULATOR JOB DESCRIPTION

Type of Test	No.	Pressure	Min.	Type of Test	Pressure	Min.
Hydrill				Accumulator		
Blind Rams				Manifold		
Pipe Rams				Annular		
H.C.R. Valve				Power Sources # _____	Primary _____	
Choke Manifold					Secondary _____	
Upper Kelly					Other _____	
Floor Valve				Nitrogen Pres.		
Kill Line				Useable Fluid		
Kill Line Check				Time: Min. To Regain Precharge Pressure: _____		
Outside Choke Line Valve				<u>Formation Integrity Test</u>		
Inside Choke Line Valve				<u>975 PSI Equi TO 12.5 mud WT</u>		
Primary Valves						
Secondary Valves						

Base Charge on Test Unit: 500.00 first 4 hours Price: \$ 500.00

Extra Hour Charge: \$ _____ Per Hour _____

Rentals: _____

Methanol: _____

MWT 10.0ppg
TVD 7473'

GRAPHIC CONTROLS CORPORATION
SUFFOLK, NEW YORK

Encana oil & gas
CHART NO. MO MP-2000
Patterson 330
mega
CO

METER Orchard unit
15-12 H

CHART PUT ON

TAKEN OFF

LOCATION

REMARKS
5-cc 14 TSS R96w
05077-10146
6/29/11

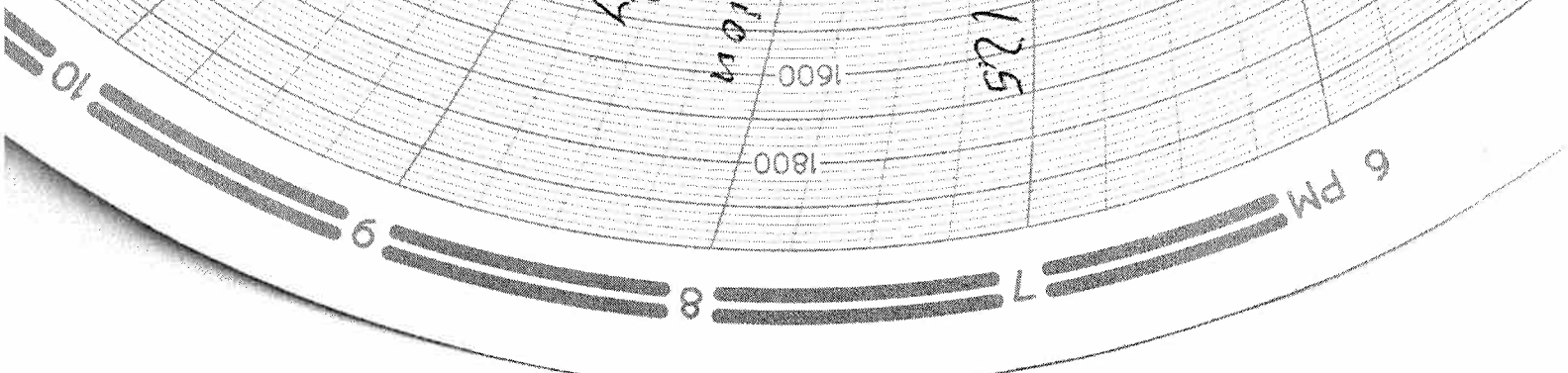
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Integrity
Test

Formation

Equl TO 125

975 PSI



Daily Drilling Report

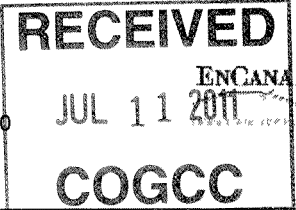
Well : Orchard Unit 15-12H (D140U)

Area : Orchard

AFE # : 10137210

API # : 05077101460000

Formation :



24hr. Summary : Shut well in @ 50 bbls gain, Monitor pressures while repairing leak in manifold shack. Stabilized DPP Am Ops : Finish circ 13.5 ppg Mud Wt throughout well bore. Ops Forecast : Shut well in, monitor well bore pressures, Increase Mud wt of surface system to 14.0ppg, Circ through														Ops. Date : 07/10/2011 Report # : 44 Surf.Sec.Spud: 05/30/2011 Days f.S.Spud : 41 Resumed Drill : 06/29/2011 Days f.Resume: 11 total Drilling Days : 5.3 Rig On Loc. : 44 Est. TD : 14909 MD at 6AM : 12939 TVD at 6AM : 9023 Progress : 0 Day : \$82,792 To Date : \$3,212,533 AFE : \$4,066,964			
Mud Record																	
<u>Gels</u>																	
<u>Depth</u>	<u>MW</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>10 Sec</u>	<u>10 Min</u>	<u>WL</u>	<u>pH</u>	<u>Solids</u>	<u>Liquid</u>	<u>Sand</u>	<u>CL</u>	<u>Ca</u>	<u>Pf</u>	<u>Mf</u>		
12939	11.2	45	20	18	10	17	5.0	9.9	14	84	0.02	900	160	0.2	0.7		
12939	13.5	64															
Mud Additives				Deviation Record				BHA				BHA Length : 9075.15					
<u>Mud Item</u>	<u>Used</u>	<u>Rec.</u>	<u>Depth</u>	<u>Angle</u>	<u>Dir.</u>	<u># Of</u>	<u>Item</u>	<u>O.D.</u>	<u>Length</u>								
Coastal Lube	1		12845.00	91.96	241.8	1	PDC Bit	6.750	1.00								
EZ Slide	3		12754.00	91.99	242.0	1	Power Drive	4.750	21.75								
Caustic	7		12663.00	92.16	241.7	1	IM Pulse	4.810	33.39								
Barite	280	640	12572.00	92.13	241.6	1	Sonic-Scope	4.810	30.00								
Plex	7		12482.00	91.89	241.4	1	Flex NMDC	4.563	30.10								
Aquabloc HT	2		12391.00	92.00	241.2	1	Filter Sub	4.750	3.03								
Defoamer ESF	3		12300.00	92.13	241.6	1	X/Over	5.049	2.03								
Drispac LV	5		12209.00	92.13	241.8	1	X/Over	5.049	3.01								
			12119.00	92.17	242.3	130	4" TSDS DP	4.000	5898.84								
			12028.00	92.10	242.9	1	X/Over	5.250	2.97								
						19	4" XT39 DP	4.000	605.89								
						80	4" XT39 HWDI	4.000	2440.13								
						1	X/Over	5.049	3.01								
Daily Mud Cost (\$): \$16,179								DC OD : 8.000 Total BHA Hours : 325.0									
								DP OD : 5.000 Drill Jar Hours :									
Hook Loads														Up : 220 Down : 150 Rotating : 170			
Torque														Torque(ft lbs) : 12000.000 Torque(Amps) :			
Bit Record																	
<u>#</u>	<u>Size</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Serial #</u>	<u>Made</u>	<u>Hours</u>	<u>ROP</u>	<u>Made</u>	<u>Hours</u>	<u>ROP</u>	<u>Depth</u>	<u>Out</u>	<u>WOB</u>	<u>Condition</u>			
10RF	6.750	Hughes	HCD406Z	7027466			0.0	3153	47.50	66.4				-----			
Mud Motor																	
<u>#</u>	<u>Mud Motor</u>	<u>Motor</u>	<u>Table</u>	<u>Manufacturer</u>	<u>Serial Num</u>												
10RF	PowerDrive475x6			Sib	1247												
Hydraulics																	
<u>#</u>	<u>Nozzles</u>	<u>Model</u>	<u>Stroke</u>	<u>Liner</u>	<u>Spm</u>	<u>Model</u>	<u>Stroke</u>	<u>Liner</u>	<u>Spm</u>	<u>Press.</u>	<u>Rate</u>	<u>Flow</u>	<u>AV</u>	<u>Mud</u>	<u>HSI</u>		
10RR	16,16,16	FD-1600	12.0	6.00	40	FD-1600	12.0	6.00	79	2150	451	-599	538	13.5	7.2		
Last Casing														Section : Intermediate Hole Depth : 7550 Casing Size : 7.625 Casing Set At : 7529			
Time Breakdown														Start Time : 6:00 AM Total Hours : 24.00 Rotating Hours : 0.00 Total Rotating Hours : 317.00			
<u>Start Time</u>	<u>End</u>	<u>Code</u>	<u>Description</u>	<u>Activity</u>	<u>Sub Code</u>	<u>Trouble</u>	<u>Sub Code</u>										
6:00 AM	9:00 AM	21	Well Shut in due to Pit Gain (50bbls), increased flow and pumop pressure deviation. Attempted to open well to closed choke and had the flange into the first 4-way block of the Manifold shack incur a leak. Shut in HCR and monitor well, float not holding, monitor Drill Pipe Pressure build up to 2050 psi max, stabilized at ~ 2010 psi. Investigate and tighten flange in manifold and retighten all flanges back to HCR Valves on Choke Line.			Downhole	Well control										
9:00 AM	11:00 AM	15	R/U rebel Well testers and Test Manifold Shack Valves back to closed manual valve on HCR line at BOP stack. All manifold lines tested to Low: 250 psi f/ 5 mins and HIGH: 5000 psi for 15 mins. had slight bleed in oute valves on shell test, Test one inner valve on eah line:OK. Work and Re-Test each outside section after working valves, all Valves and flanges held to 5000 psi: OK.			Downhole	Well control										
11:00 AM	11:30 AM	21	Held Pre-Job Safety Mtg on Well control with all personnel on location, explained all Well control plans and periphal equipment monitoring required. Remove all non essential from location and have guard placed at location entrance to control lease traffic. Perform necessary rig equipments checks and functioning prior to initial well kill operations w/ Encana Supv's, Patterson Rig Mgr & Bladestone personnel on location.			Downhole	Well control										
11:30 AM	10:00 PM	21															

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JUL 11 2011

ENCLANA

COGCC

Daily Drilling Report

Well : Orchard Unit 15-12H (D14OU)

Area : Orchard

AFE # : 10137210

Start Time	End	Code	Description	Activity	Sub-Code	Trouble	Sub Code
11:30 AM	10:00 PM	21	Initiate well control operations, Open choke slowly through remote choke to initiate flow, increase pump rates in controlled manner to 30spm at DPP 2030 psi and CP 1970 psi. cont to circ for one full surface to surface. Final pressures were DPP @ 1770 pis and CP @ 2340 psi. Decision made to increase Mud Wt to 12.5 ppg and circ well bore. Max Flare was 40' medium strehgth decreasing to 1'-3' lazy flare. Pressures decreased as mud Wt circulated well to DPP @ 1720 psi and CP @ 900 psi.			Downhole	Well control
10:00 PM	10:30 PM	21	Shut well in and monitor pressures, Initail Shut in of DPP @ 850 psi & CP @ 700 psi. Check for trapped pressure and bled down to DPP at 0 and CP at), Monitor flow at degasser return line: No Flow. Change valves and line up to return down flowline to large Degasser.			Downhole	Well control
10:30 PM	12:00 AM	21	Closed annular, open pipe rams, then opened annular with open choke, closed HCR and remote choke, Broke circ and increased pump rate down flowline to 70spm, monitoring pressures and Pit gain. Had a Gas bubble come to surface at 1450 strokes and blow out mud leg of degasser (15 bbls spill on ground around shaker tank). reduced pump rate and controlled flow from degasser, gas to surface was intermittent w/ no flare to puffs of 15'. Started to have steady increase in volume and flare strength to 20' medium. Shut well in after 116 bbl increase.			Downhole	Well control
12:00 AM	6:00 AM	21	Monitor pressures on Shut-in. DPP at 0 (float holding) and Initial CP @ 570 psi steadily increasing. Initiate pump to get SIDP, fill pipe with 7 bbls prior to any pressure with CP @ 1458 pis. Shut down pipe and continue to monitor CP, increased to 2100 pis steadily. Inititae Pump and increase to 30 spm to circulate through choke at DPP: 1970 psi and CP : 1460 psi. Start increasing mud wt to 13.5ppg and circulate surface to surface with DPP to 2150 psi and CP decreased to 0 with increased pump rate to 40 spm.			Downhole	Well control

Comments

181 Days without LTA
 181 Days without Medical Aid or Restricted Work Incident
 0 Days without Recordable Spill
 0 Days without Reportable Quantity Spill

- 1) Diesel Fuel: Rec: 0 gals, Used: 1680 gals, On Location: 9890 gals.
- 2) Gov't Notification: 15 bbl spill due to gas blowing out the Mud Leg off large degasser.
- 3) Bradenhead Pressures: 23-10HM = 0, 15-12H = 0
- 4) BOP Functions: N/A
- 5) SPR's: 12700' @ 11.2 ppg: #1 Pump: 30spm: 1150 psi, 40spm: 1340 psi, 50spm: 1850 psi
 #2 Pump: 30spm: 1180 psi, 40spm: 1430 psi, 50spm: 1850 psi.

Mud Log	Formation : Niobrara	Background :	2280	Connection :	5377	Trip :	Flare Length : 30-40
Rig(s) for today : Patterson 330	Superintendent : John Grubich	Supervisor : Terry Dunn		Phone # : 970-379-6735		Phone # : 303-353-5312	