

# State of Colorado Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY

## MECHANICAL INTEGRITY TEST

Fill out Part II of this form if well tested is a permitted or pending injection well. Send original plus one copy.

1. Duration of the pressure test must be a minimum of 15 minutes.
2. A pressure chart must accompany this report if this test was not witnessed by a OGCC representative.
3. For production wells, test pressures must be at a minimum of 300 psig.
4. For injection wells, test pressures must be at 300 psig or minimum injection pressure, whichever is greater.
5. A minimum 300 psi differential pressure must be maintained between the tubing and tubing/casing annulus pressure.
6. Do not use this form if submitting under provisions of Rule 326 a. (1) B. or C.
7. OGCC notification must be provided prior to the test.
8. Packers or bridge plugs, etc., must be set within 250 feet of the perforated interval to be considered a valid test.

Complete the Attachment Checklist

OGCC Operator Number: 69175		Contact Name and Telephone	
Name of Operator: PDC Energy Inc.		Travis Yenne	
Address: 3801 Carson Ave.		No: 970-506-9272	
City: Evans State: CO Zip: 80620		Fax: 970-506-9276	
API Number: 05-123-20750		Field Name: Wadsworth	
Well Name: Wacker		Field Number: 90750	
Location (Qtr, Sec, Twp, Rng, Meridian): NE/NE Sec. 10 T5N R64W		Number: 41-10	

	Open	OGCC
Pressure Chart		
Cement Bond Log		
Tracer Survey		
Temperature Survey		

SHUT-IN PRODUCTION WELL       INJECTION WELL      Facility No.: \_\_\_\_\_

### Part I Pressure Test

- 5-Year UIC Test       Test to Maintain SITA Status       Reset Packer  
 Verification of Repairs       Tubing/Packer Leak       Casing Leak       Other (Describe): \_\_\_\_\_

Describe Repairs: \_\_\_\_\_

NA - Not Applicable		Wellbore Data at Time Test		Casing Test <input type="checkbox"/> NA	
Injection/Producing Zone(s) Code 11		Perforated Interval: <input type="checkbox"/> NA      Open Hole Interval: <input checked="" type="checkbox"/> NA 6744'-6754'		Use when perforations or open hole is isolated by bridge plug or cement plug Bridge Plug or Cement Plug Depth RBP set J 6710.29' KB	
Tubing Casing/Annulus Test <input type="checkbox"/> NA					
Tubing Size: 2 3/8"	Tubing Depth: 6695'	Top Packer Depth:	Multiple Packers? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Test Data					
Test Date 10-29-15	Well Status During Test SI	Date of Last Approved MIT NOT Available	Casing Pressure Before Test 0	Initial Tubing Pressure 0	Final Tubing Pressure 0
Starting Casing Test Pressure 550	Casing Pressure - 5 Min. 547	Casing Pressure - 10 Min. 547	Final Casing Test Pressure 547	Pressure Loss or Gain During Test Lost 3 Psi	
Test Witnessed by State Representative? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			OGCC Field Representative:		

### Part II Wellbore Channel Test

Complete only if well is or will be an injection well.

Indicate method used for cement integrity test, attach appropriate records, charts, or logs unless previously submitted.

- Tracer Survey      Run Date: \_\_\_\_\_       CBL or Equivalent      Run Date: \_\_\_\_\_       Temperature Survey      Run Date: \_\_\_\_\_

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Bud Holman  
 Signed: Bud Holman      Title: \_\_\_\_\_      Date: 10-29-15  
 OGCC Approval: \_\_\_\_\_      Title: \_\_\_\_\_      Date: \_\_\_\_\_  
 Conditions of Approval, if any: \_\_\_\_\_

**Pick Testers  
Sterling,CO 80751**

**Aaron Pickering  
970-520-0279**

PDC Energy  
Wacker 41-10  
API 05-123-20750  
Loc NENE-SEC10-T5N-R64W

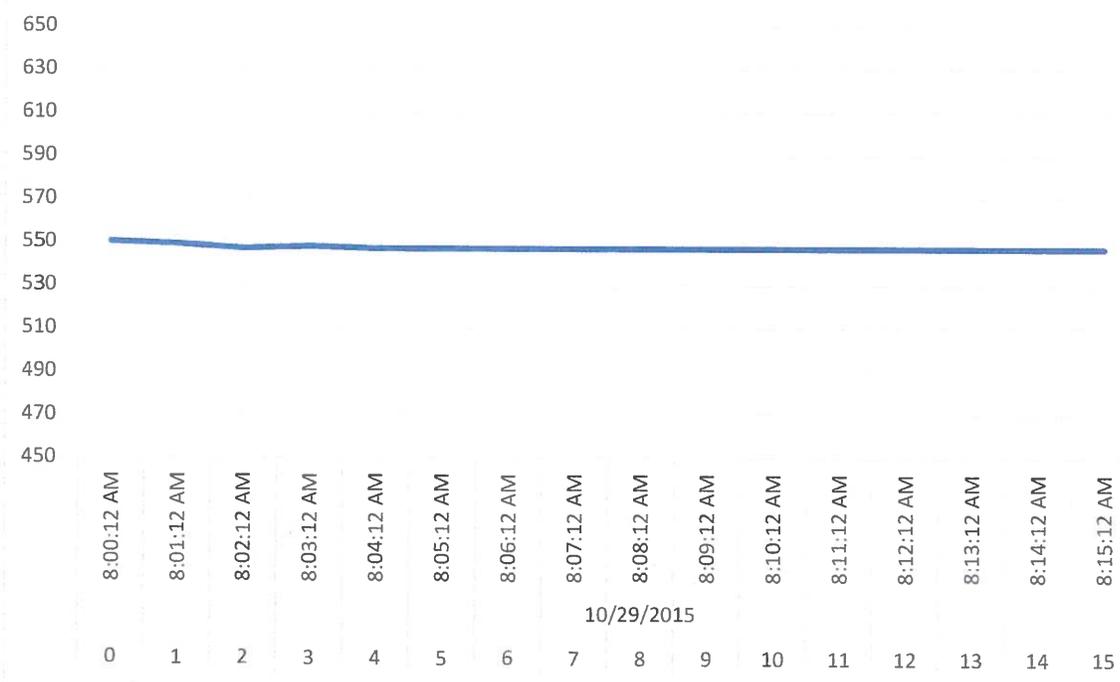
Bud Holman  
MIT 500#

Interval:

60 Seconds

DataPoint	LogDate	LogTime	1-P PSI
0		8:00:12 AM	550
1		8:01:12 AM	549
2		8:02:12 AM	547
3		8:03:12 AM	548
4		8:04:12 AM	547
5		8:05:12 AM	547
6		8:06:12 AM	547
7		8:07:12 AM	547
8	10/29/2015	8:08:12 AM	547
9		8:09:12 AM	547
10		8:10:12 AM	547
11		8:11:12 AM	547
12		8:12:12 AM	547
13		8:13:12 AM	547
14		8:14:12 AM	547
15		8:15:12 AM	547

Chart Title





## Well History

**Well Name: Wacker 41-10**

API 05123207500000	Surface Legal Location NENE 10 5N 64W	Field Name Wattenberg	State CO	Well Configuration Type Vertical
Ground Elevation (ft) 4,605.00	Original KB Elevation (ft) 4,615.00	KB-Ground Distance (ft) 10.00	Spud Date 2/26/2002 00:00	Rig Release Date 3/1/2007 00:00
On Production Date 5/1/2002				

**Job**

**Drilling - original, 2/26/2002 00:00**

Job Category Drilling	Primary Job Type Drilling - original	Start Date 2/25/2002	End Date 2/26/2002	Objective Drill a Codell Well
--------------------------	---	-------------------------	-----------------------	----------------------------------

**Daily Operations**

Start Date	Summary	End Date
2/25/2002	Fort Drilling Rig #2: Move in and rig up.	
2/26/2002	Fort Drilling Rig #2: TD 12 1/4" hole at 390' at 6:30 AM. Clean hole and trip out. Ran 8 joints of new, 24#, J-55, 8 5/8" casing to 348'. Set at 360'. Rigged up Cementer's Well Service and pumped 260 sacks of Neat cement + 3% CaCl + 1/4# flake per sack. Plug down at 11:15 AM. Wait on cement, nipple up BOP, and trip in hole with 7 7/8" bit. Began drilling 7 7/8" hole at 7:30 PM.	
2/26/2002	Fort Drilling Rig #2: Drill rat and mouse holes from 12:30 AM to 2 AM and spud 12 1/4" hole at 2 AM. At 390' at 6:30 AM with drilling 12 1/4" hole.	
2/27/2002	Fort Drilling Rig #2: At 2213' and drilling 7 7/8" hole. Last survey: 1/2 degree at 1903'.	
2/28/2002	Fort Drilling Rig #2: TD 7 7/8" hole at 6987' at 6:30 PM. Short trip 7 stands. Condition mud, circulate, and survey (1.25 degrees at 6991'). Began tripping out and laying down drill string at 9 PM.	
2/28/2002	Fort Drilling Rig #2: At 6100' and drilling 7 7/8" hole.	
3/1/2002	Fort Rig # 2: TD 7 7/8" hole @ 6991' KB. MIRU PSI and ran Comp Density/Comp Neutron/Dual Induction Log. LTD @ 6991' KB. RU casing crew. Ran Topco Auto Fill Guide Shoe, 15' shoe joint, 162 joints of 10.5 #/ft, M-65, 4 1/2" casing and 1 joint of 11.6 #/ft, N-80 on top of string. Casing set @ 6972' KB. RU Halliburton and pumped 12 bbl mud flush, 12 bbl spacer, 7 bbl Premium G (20 sx), 145 bbl HLC III (200 sx) and 42 bbl Premium G + additives (140 sx). Released wiper plug and displaced with 108 bbl treated water. Plug down OK @ 4:15 pm. ECT @ 3100' KB. Released rig @ 5:30 pm.	
3/1/2002	Fort Drilling Rig #2: Finished laying down drill string and rigged up Phoenix at 3:45 AM - logging hole at 7 AM.	

**Initial Completion, 2/27/2002 00:00**

Job Category Completion/Workover	Primary Job Type Initial Completion	Start Date 2/27/2002	End Date 3/20/2002	Objective Complete a Codell Well
-------------------------------------	--	-------------------------	-----------------------	-------------------------------------

**Daily Operations**

Start Date	Summary	End Date
3/18/2002	MIRU Nuex Wireline. Ran GR/VDL/CBL Log finding a PBTD of 6941' KB and a CT @ 3000' KB. Perforated the Codell from 6744' to 6754' KB with 30, .34 diameter holes, 3 spf, 120 deg phasing.	
3/20/2002	MIRU BJ Services. Frac'd the Codell with 2784 bbl Vistar 20/18# fluid system, 215000# 20/40 mesh white sand and 8000# 20/40 mesh white sand with 12% MSE FlexSand. MTP - 3877 psig; ATP - 3579 psig; AIR - 16.2 bpm; 4 ppa sand; ISIP - 3480 psig; Flushed with 106 bbl. Open well to tank on 12/64 choke.	

**Workover, 10/14/2002 00:00**

Job Category Completion/Workover	Primary Job Type Workover	Start Date 10/14/2002	End Date 10/19/2002	Objective
-------------------------------------	------------------------------	--------------------------	------------------------	-----------

**Daily Operations**

Start Date	Summary	End Date
10/14/2002	MIRU comp rig to run 2 3/8 tubing for siphon string. Spot circ pump & tank. SDFN.	
10/15/2002	Kill well with 75 bbls of 2% KCL. NU BOPs & RIH with 2 3/8 tubing, tag sand fill @ 6760. Circ hole and clean out to 6941. Roll hole clean and lay down 7 jts. Drain pump & SIWFN.	
10/16/2002	Landed 2 3/8 tubing string @ 6733 KB with 203 jts + 10' sub. (Codell perms 6744-54) Broach tubing string to SN. Made 6 swab runs, LR 49 bbls. RDMO comp rig. SIWFN.	
10/17/2002	MIRU swab rig & swab well. IFL 1400. LR 55. Tubing kicked off flowing. Flowed to tank for 1 hour and SI well with 200 casing and blow on tubing. SIWFN.	
10/18/2002	Gauged well SI pressures, ICP 820 and ITP 650. Flowed well, tubing quit flowing. Made 3 swab runs to kick off tubing string. Flowed 1 hour, turned to all gas. SI well with 450# casing, 300# tubing pressure. SIWFN.	
10/19/2002	Gauged well SI pressures, ICP 650 and ITP 600. RDMO swab rig.	

**Swab, 8/13/2003 00:00**

Job Category Completion/Workover	Primary Job Type Swab	Start Date 8/13/2003	End Date 8/13/2003	Objective
-------------------------------------	--------------------------	-------------------------	-----------------------	-----------

**Daily Operations**

Start Date	Summary	End Date
8/13/2003	Road rig to loc. MIRV. CKWP. 180/425. On cycle. Catch twin "L" plunger. By-pass sep. Blow down well. RIH w/long multi broach, work thru tight spots at 1577', 2319', and 2950'. Swab well. FL scat., Rec 3 BBLs. FP blow/180. SI Well. RDMO. Road rig to Greeley yard.	

**Abandon Well, 8/22/2013 07:00**

Job Category Abandon	Primary Job Type Abandon Well	Start Date 8/22/2013	End Date	Objective Plug and abandon
-------------------------	----------------------------------	-------------------------	----------	-------------------------------



## Well History

**Well Name: Wacker 41-10**

API 05123207500000	Surface Legal Location NENE 10 5N 64W	Field Name Wattenberg	State CO	Well Configuration Type Vertical
Ground Elevation (ft) 4,605.00	Original KB Elevation (ft) 4,615.00	KB-Ground Distance (ft) 10.00	Spud Date 2/26/2002 00:00	Rig Release Date 3/1/2007 00:00
On Production Date 5/1/2002				

Daily Operations		
Start Date	Summary	End Date
8/21/2013	STP 1400 psi, SCP 1700 psi, SSCP 0 psi, MIRU Bayou 008, blew well down to rig tank, control well w/60 bbls Claytreat/Biocide water, ND WH, NU BOP, PU tag jts, TIH w/ 4 jts, tagged @ 6,827.67' (73.67' of rat hole below Codell) w/4, LD tag jts, POOH w/production tbg to derrick w/ 203 jts 2 3/8" J-55 EUE 8rd tbg, no subs, sn/nc, tbg was landed at 6,717.67' KB, RU Pick Testers, PU RMOR's 3 7/8" blade git - 4 1/2" csg scraper, TIH w/production tbg from derrick testing to 6000 psi, all jts tested good, RD tester, circulated down to 6,827.67' KB and tools w/207 jts, rolled hole clean, POOH w/tbg to derrick, LD tools, SI and isolated well, drained lines, prepared for next day operations. SDFN.	8/21/2013
8/22/2013	STP 0 psi, SCP 0 psi, SSCP 0 psi, MIRU Nabors Wireline, TIH w/ wireline set cast iron plug, correlated with logs, set cast iron plug @ 6,680' (64' above Codell), TOOH LD setting tool, TIH w/ dump bailer and two sacks of cement, spotted cement on top of plug, TOOH w/wireline, RD moved wireline off of location, PU RMOR's 4 1/2" WLTC RBP, TIH w/production tbg, set RBP at 6,640.15' KB and tools w/201 jts 10' out, LD 1 jt, circulated oil and gas out, pressure tested csg/RBP to 2000 psi, test good, POOH LD w/4 jts, spotted 2 sks sand across RBP, LD 5 more jts, LD a total of 12 jts, ATP Roustabouts picked tubing up and hauled to Wacker 41-10/42-10 tank battery and placed inside berm, installed 5K WH, Landed well w/ 191 jts 2 3/8" tubing @ 6,322.54'. SI and isolate well, drained lines, racked pump and tank, RDMOL.	8/22/2013
10/23/2013	No pressures @ the well head. Held safety meeting. MIRU Bayou Rig 004. Function tested BOPE. ND well head and NU BOP. PU 10 jts. and tag sand @ 6,630'. RU tubing swivel and circulation equipment. Tested lines and pipe rams to 2,500 psi. Good test. Broke circulation. Washed down to and latch onto RBP. Rolled hole clean of sand. RD circulation equipment. Released RBP and the well went on vacuum. POOH tallying to the derrick 201 jts. PU 3 7/8" tri-cone bit, and bit sub. MIRU Pick Tester. TIH hydro testing to 6,000 psi. 201 jts. from the derrick and 2 jts. on the ground. All jts. tested good. RD tester. Drain lines, shut in and secured the well for the night.	10/23/2013
10/24/2013	No pressures @ the well head. PU 1 jt. and RU power swivel. Broke circulation. Tagged cement on top of CIBP @ 6,665' w/202 jts. Drilled out cement and CIBP and pushed to bottom @ 6,820' w/207 jts. Rolled hole clean. RD circulation equipment and power swivel. LD tag jts. and POOH 203 jts. to the derrick. LD bit and bit sub. PU new notch collar and seat nipple from WB Supply. TIH from the derrick and landed tubing 13.89' above Codell perms @ 6,730.11' w/203 jts.-6,714.51', 1-10' sub, NC/SN-1.6', and 8' adj. KB. All tubing used is 2 3/8" 4.7# J-55 EUE. ND BOP and NU 3K well head. RU sand line, lubricator, and pack off to master valve. RIH w/1.901" broach and broached to seat nipple. POOH and RD sand line, lubricator, and pack off. RDMOL.	10/24/2013
10/24/2013		10/25/2013

Mechanical Integrity Test, 10/27/2015 08:00				
Job Category Completion/Workover	Primary Job Type Mechanical Integrity Test	Start Date 10/27/2015	End Date	Objective Test tbg and casing and perform MIT

Daily Operations		
Start Date	Summary	End Date
10/27/2015	ITP: 50 ICP: 50 ISCP: 0  MIRU Ensign rig 313. Held pre-job safety meeting. Rigged up pump and tank. Tested lines to 2000 psi. Blew well down to rig tank. Controlled well with 60 bbls of Claytreat/Biocide water. ND wellhead. Function tested and NU BOPs. PU 3 tag jnts and tagged with 84'. LD tag jnts. TOOH with 1-6' x 2-3/8" sub, 203 jnts of 2-3/8" 4.7# J-55 8rd eue tbg, SN/NC. Tbg was landed at 6732.39' kb w/8' adjusted kb and tag was at 6816.39' kb. MIRU Pick Testers. PU STS 3-7/8" blade bit and 4-1/2" 10.5# casing scraper and tested 203 jnts of 2-3/8" tbg in hole to 6000 psi. All tbg tested good. RDMO tester. Rolled oil and gas out of hole. SB 15 stands. Secured well. SDFD	10/27/2015
10/28/2015	TP: 0 CP: 0 SCP: 0 Held safety meeting. Continued to POOH with tbg, bit and scraper. PU STS 4-1/2" 10.5# WLTC RBP and RIH with 203 jnts of 2-3/8" tbg. Set RBP at 6710.29'. (33.71' above top Codell Perf). Released from RBP and LD 1 jnt. Rolled hole clean. Tested casing to 600 psi for 15 minutes with rig pump. Held good. Bled off pressure. Rolled hole for 1 hour. Secured well. SDFD	10/28/2015



# Well History

**Well Name: Wacker 41-10**

API 05123207500000	Surface Legal Location NENE 10 5N 64W	Field Name Wattenberg	State CO	Well Configuration Type Vertical
Ground Elevation (ft) 4,605.00	Original KB Elevation (ft) 4,615.00	KB-Ground Distance (ft) 10.00	Spud Date 2/26/2002 00:00	Rig Release Date 3/1/2007 00:00
On Production Date 5/1/2002				

**Daily Operations**

Start Date	Summary	End Date												
10/29/2015	<p>TP 0 psi, CP 0 psi, SCP 0 psi, Held safety meeting, opened well to rig tank, MIRU Pick Testers, pressured casing to 550 psi. Held and charted pressure for 15 mins. 3 psi pressure loss, Good test, RDMO hydrotester. State Representative was not location to witness test. Released pressure, Released RBP, TOOH standing back to derrick, LD tools, PU NC/SN, TIH with production tubing, ND BOP. Land tbng in WH 6730.39' KB (13.61' above the Codell) w/203 jts and 1-4' sub, NU WH, Did not drop new PCS full port standing valve. Broached to seatnipple w/1.901" broach, RU swab equipment. Swabbed well.</p> <p style="margin-left: 20px;">ITP- 0 psi                      ICP- 0 psi IFL- 1200'                      FFL- 5100'</p> <p>Swabbed back 50 bbls water</p> <p style="margin-left: 20px;">FTP-0                              FCP-0</p> <p>Secured well, drained lines and pump, racked pump and tank, RDMO</p> <p style="margin-left: 20px;">Tbg detail:</p> <table style="margin-left: 40px; border: none;"> <tr> <td style="padding-right: 20px;">1- 4' x 2-3/8" 4.7# J-55 8rd eue sub</td> <td style="padding-right: 20px;">8' Adj. KB</td> <td style="padding-right: 20px;">8.00'</td> </tr> <tr> <td style="padding-right: 20px;">203 jnts 2-3/8" 4.7# J-55 8rd eue tbng</td> <td style="padding-right: 20px;">4.00'</td> <td style="padding-right: 20px;">12.00'</td> </tr> <tr> <td style="padding-right: 20px;">Seat Nipple/Notched collar</td> <td style="padding-right: 20px;">6716.79'</td> <td style="padding-right: 20px;">6728.79'</td> </tr> <tr> <td></td> <td style="padding-right: 20px;">1.6'</td> <td style="padding-right: 20px;">6730.39' KB</td> </tr> </table> <p>6' x 2-3/8" tbng sub exchanged for 4' x 2-3/8" tbng sub from PDC yard inventory</p> <p>FINAL REPORT</p>	1- 4' x 2-3/8" 4.7# J-55 8rd eue sub	8' Adj. KB	8.00'	203 jnts 2-3/8" 4.7# J-55 8rd eue tbng	4.00'	12.00'	Seat Nipple/Notched collar	6716.79'	6728.79'		1.6'	6730.39' KB	10/29/2015
1- 4' x 2-3/8" 4.7# J-55 8rd eue sub	8' Adj. KB	8.00'												
203 jnts 2-3/8" 4.7# J-55 8rd eue tbng	4.00'	12.00'												
Seat Nipple/Notched collar	6716.79'	6728.79'												
	1.6'	6730.39' KB												

**Wellbore Integrity, <dtmstart>**

Job Category Completion/Workover	Primary Job Type Wellbore Integrity	Start Date	End Date	Objective Pull Tubing, Set RBP, 5K Wellhead
-------------------------------------	--	------------	----------	--

**Daily Operations**

Start Date	Summary	End Date

Start Date	Summary	End Date