WR-37
(REV. 9/94)

Date: January 14 2010
Operator's
Well No. Jones A-2, GW-478
API No. 47 - 039 - 00798
UIC # 2D0390798

STATE OF WEST VIRGINIA
BUREAU OF ENVIRONMENT, OFFICE OF OIL AND GAS
PRE-OPERATION CERTIFICATE
FOR LIQUID INJECTION OR WASTE DISPOSAL WELL

WELL OPERATOR Base Petroleum, Inc. **DESIGNATED AGENT** John B. Wilcox
Address RT. 7 Box 407 1/2 Address RT 7 Box 407 1/2
S. Charleston WV 25309 S. Charleston WV 25309

GEOLOGICAL TARGET FORMATION Big Lime Depth 1531 feet(top) to 1613 feet(bottom)
Virgin reservoir pressure in target formation 570 psig
Source of information on virgin reservoir pressure: Treatment Report
Perforation intervals NA Open-hole intervals 1591-1615

MAXIMUM PERMITTED INJECTION OPERATIONS
Well head injection pressure: 150 psig Bottom hole pressure: 650 psig
Volume per hour: 30 gal/hr

DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED
Liquids to be injected for oil recovery: Produced Fluids - Brine
Wastes to be disposed of: Produced Fluids - Brine

Additives (Slurry mediums, inhibitors, solvents, oxidizers, deoxidizers, etc.) Iron inhibitors. Acid treatment when necessary

SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL NA

ADDITIONAL DRILLING AS PART OF THE CONVERSION (Complete form WR-35) NA

DETAILS ON NEW CASING AND TUBING PROGRAM AS PART OF THE CONVERSION (To be completed below unless the new casing and tubing program is described on a form WR-35, submitted in connection with the permit to which this form WR-37 relates.)

CASING OR TUBING TYPE	SIZE	GRADE	WEIGHT PER FT.	NEW	USED	FOOTAGE USED IN DRILLING	FOOTAGE LEFT IN WELL	CEMENT USED	PACKERS (KIND, SIZE & DEPTH SET)
CONDUCTOR	16		55			44	44		
FRESH WATER	13 3/8		48			569	569		
COAL									Anchor
INTERMEDIATE	10 3/4		35.75			1563	1563		Packer
PRODUCTION									Set @ 1591
TUBING	3 1/2		8.7			1615	1615		
LINERS									

FORM-WR37
(REVERSE)

MECHANICAL INTEGRITY TEST

Test Method: See attachment

The undersigned certifies that the test was performed on 12/15, 2009 and demonstrated the mechanical integrity of the well. The test was witnessed by James Petterson representing the Office of Oil and Gas.

Base Petroleum, Inc. — Well Operator

1-14-2010 — Date

THIS WELL IS AUTHORIZED FOR INJECTION.

Signed _____ UIC PROGRAM DIRECTOR

Date 1/21/10

[NOTE: That the mechanical integrity of this well must be demonstrated again within ninety (90) days of five years from this date in order for injection to continue. Please notify the state inspector 24 hours in advance of the test].

Base Petroleum, Inc.
Well Operator

By: _____

Its 1-14-2010 Agent

Left message - Richard Hadley
1. w - 981-9[illegible]
2. w - 572-4276

Kermit Tyree – Base Petroleum Disposal Well Test

- no pressure change between readings
- o.k.

Date – 12/15/09

39 - 00798

Jones Well – 47-039-00798

8:23 a.m.	-	Shot fluid level down annulus prior to injecting fluid down 3" tubing
	-	Shot indicated fluid level @ **638.56'** from surface
	-	Noted flow meter @ 39951 bbls
	✓ -	Injected fluid down tubing for 1 hour
9:23 a.m.	-	Noted flow meter @ 39953 bbls (total metered fluid @ 2 bbl)
	-	Closed valves on tubing, Shot second fluid level down annulus
	-	Shot indicated fluid level @ **641.35'** from surface
	-	Open tubing valve to Inject fluid
1:30 p.m.	-	Arrived on location, fluid was being injecting down tubing
	-	Closed valves on tubing
	-	Noted flow meter @ 39957 bbls (total metered fluid @ 4 bbl)
	-	Shot third fluid level down annulus
	-	Shot indicated fluid level @ **642.02'** from surface

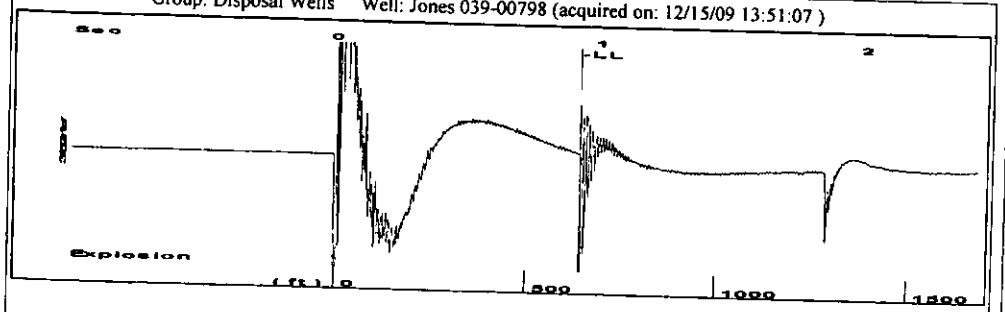
Note: Used Acoustic Velocity method of fluid depth determination on each shot with a common gas gravity of 0.600.

Test Summary:

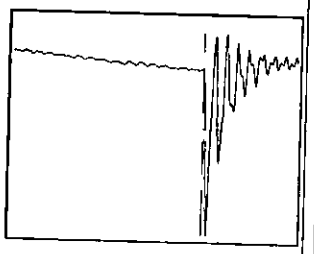
A total of three fluid levels were taken during the Injection test. The total amount of fluid injected during the test was 6 bbls based on the in line flow meter. The first fluid level taken, indicated the fluid level @ 638.56' from surface. After one hour of fluid injection (2 bbl) the second fluid level indicated the fluid level @ 641.35' from surface, a change of 2.79'. The last fluid level was taken after four hours of fluid injection (4 bbls) which indicated the fluid level @ 642.02' from surface, a change of 0.67'. Also during the test, the annulus pressure remained at less than one psi.

39 - 00798

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 13:51:07)



Time 0.925 sec
Joints 20.2531 Jts
Depth 642.02 ft

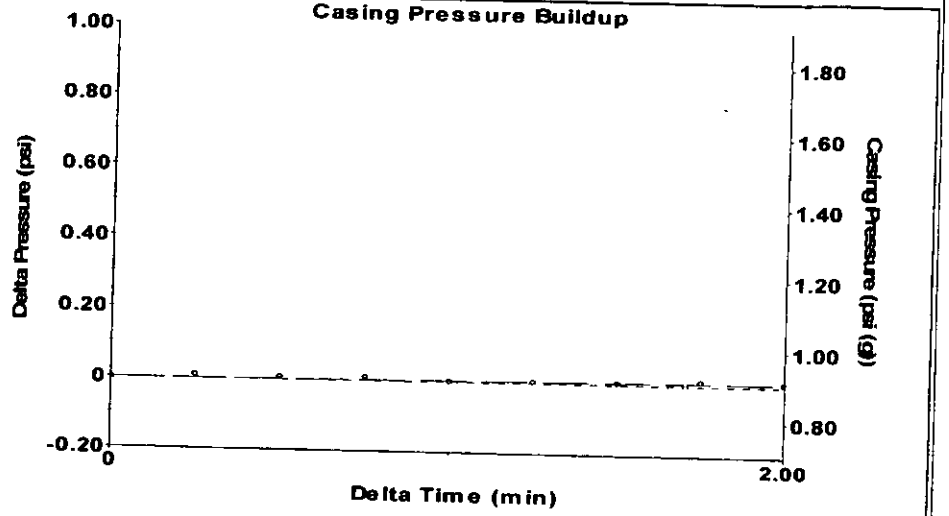


Liquid level calculated with
user supplied Acoustic Velocity

Acoustic Velocity 1388.16 ft/s

Analysis Method: Acoustic Velocity

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 13:51:07)



Change in Pressure 0.01 psi
Change in Time 2.00 min

PT 6591
Range 0 - ? psi

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 13:51:07)

Production

	Current	Potential
Oil	- * -	- * - BBL/D
Water	- * -	- * - BBL/D
Gas	- * -	- * - Mscf/D

IPR Method Vogel
PBHP/SBHP - * -
Production Efficiency 0.0

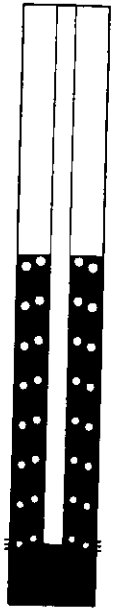
Oil 40 deg.API
Water 1.05 Sp.Gr.H2O
Gas 0.60 Sp.Gr.AIR

Acoustic Velocity 1388.16 ft/s

Casing Pressure
0.9 psi (g)
Casing Pressure Buildup
0.008 psi
2.00 min
Gas/Liquid Interface Pressure
1.1 psi (g)

Liquid Level Depth
642.02 ft

Tubing Intake Depth
1615.00 ft
Formation Depth
1615.00 ft



Producing

Annular
Gas Flow
0 Mscf/D
% Liquid
100 %

Tubing Intake
341.7 psi (g)
Producing BHP
341.7 psi (g)
Static BHP
- * - psi (g)

Formation Submergence
Total Gaseous Liquid Column HT (TVD) 973 ft
Equivalent Gas Free Liquid HT (TVD) 973 ft

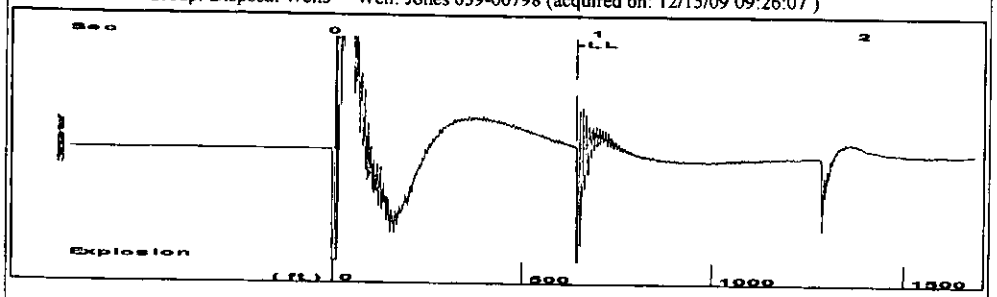
Acoustic Test

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 13:51:07)

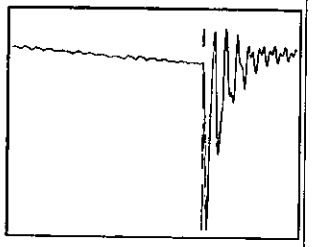
Entered Acoustic Velocity for Liquid Level depth determination

39-00798

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 09:26:07)



Time 0.924 sec
Joints 20.2317 Jts
Depth 641.35 ft

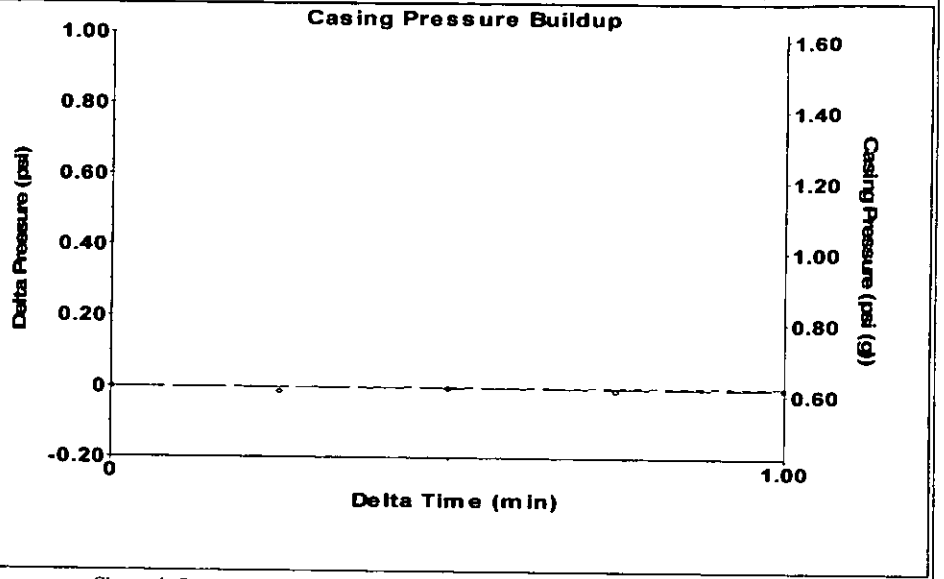


Liquid level calculated with
user supplied Acoustic Velocity

Acoustic Velocity 1388.19 ft/s

Analysis Method: Acoustic Velocity

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 09:26:07)



Change in Pressure -0.01 psi
Change in Time 1.00 min

PT 6591
Range 0 - ? psi

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 09:26:07)

Production

	Current	Potential	
Oil	- * -	- * -	BBL/D
Water	- * -	- * -	BBL/D
Gas	- * -	- * -	Mscf/D

IPR Method Vogel
PBHP/SBHP - * -
Production Efficiency 0.0

Oil 40 deg.API
Water 1.05 Sp.Gr.H2O
Gas 0.60 Sp.Gr.AIR

Acoustic Velocity 1388.19 ft/s

Casing Pressure
0.6 psi (g)
Casing Pressure Buildup
-0.006 psi
1.00 min
Gas/Liquid Interface Pressure
0.8 psi (g)

Liquid Level Depth
641.35 ft

Tubing Intake Depth
1615.00 ft
Formation Depth
1615.00 ft

Producing

Annular
Gas Flow
0 Mscf/D
% Liquid
100 %

Tubing Intake
341.7 psi (g)
Producing BHP
341.7 psi (g)
Static BHP
- * - psi (g)

Formation Submergence
Total Gaseous Liquid Column HT (TVD) 974 ft
Equivalent Gas Free Liquid HT (TVD) 974 ft

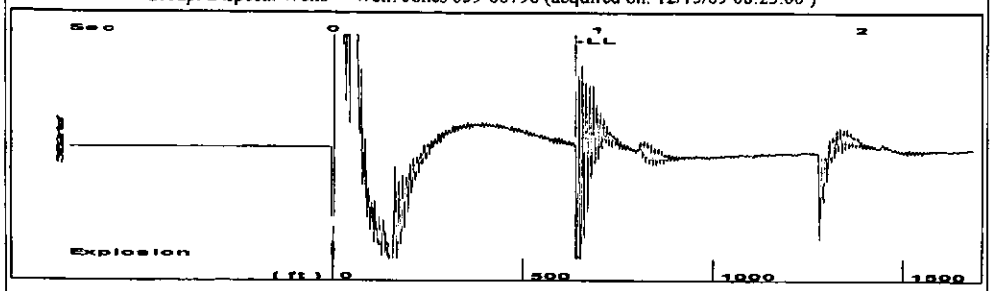
Acoustic Test

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 09:26:07)

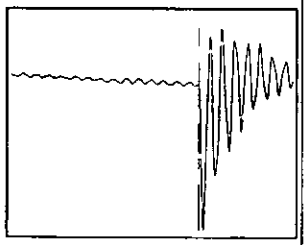
Entered Acoustic Velocity for Liquid Level depth determination

39-00798

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 08:23:00)



Time 0.92 sec
Joints 20.1438 Jts
Depth 638.56 ft

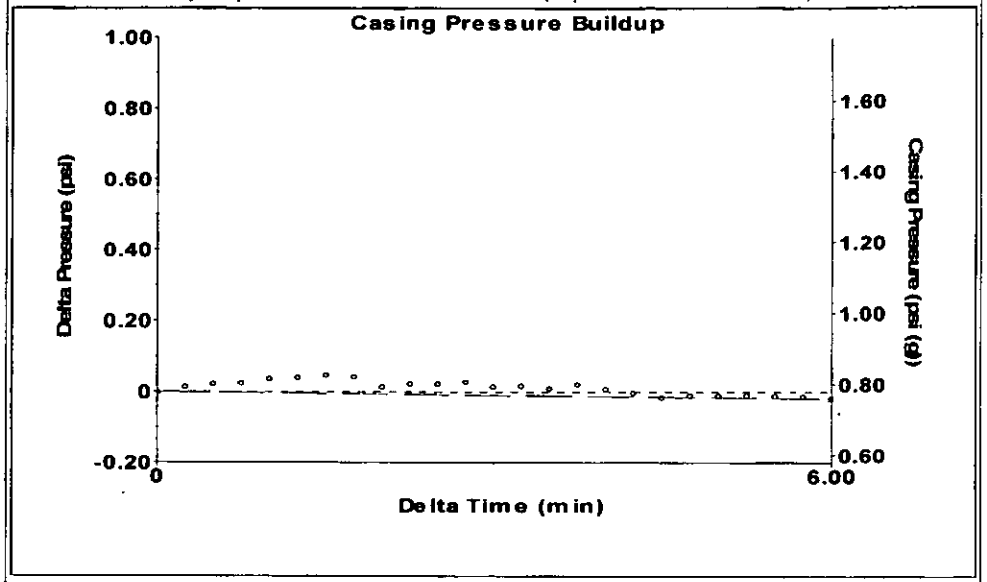


Liquid level calculated with
user supplied Acoustic Velocity

Acoustic Velocity 1388.17 ft/s

Analysis Method: Acoustic Velocity

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 08:23:00)



Change in Pressure -0.02 psi
Change in Time 6.00 min

PT 6591
Range 0 - ? psi

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 08:23:00)

Production	Current	Potential	
Oil	- * -	- * -	BBL/D
Water	- * -	- * -	BBL/D
Gas	- * -	- * -	Mscf/D

IPR Method Vogel
PBHP/SBHP - * -
Production Efficiency 0.0

Oil 40 deg.API
Water 1.05 Sp.Gr.H2O
Gas 0.60 Sp.Gr.AIR

Acoustic Velocity 1388.17 ft/s

Casing Pressure
0.8 psi (g)
Casing Pressure Buildup
-0.019 psi
6.00 min
Gas/Liquid Interface Pressure
1.0 psi (g)
Liquid Level Depth
638.56 ft
Tubing Intake Depth
1615.00 ft
Formation Depth
1615.00 ft

Formation Submergence
Total Gaseous Liquid Column HT (TVD) 976 ft
Equivalent Gas Free Liquid HT (TVD) 976 ft

Acoustic Test

Producing

Annular
Gas Flow
0 Mscf/D
% Liquid
100 %

Tubing Intake
342.8 psi (g)
Producing BHP
342.8 psi (g)
Static BHP
- * - psi (g)

Group: Disposal Wells Well: Jones 039-00798 (acquired on: 12/15/09 08:23:00)

Entered Acoustic Velocity for Liquid Level depth determination