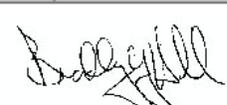


STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER Dillman #3-17-3-2W					
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT WILDCAT					
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME					
6. NAME OF OPERATOR NEWFIELD PRODUCTION COMPANY						7. OPERATOR PHONE 435 646-4825					
8. ADDRESS OF OPERATOR Rt 3 Box 3630 , Myton, UT, 84052						9. OPERATOR E-MAIL mcrozier@newfield.com					
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) Patented			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>					
13. NAME OF SURFACE OWNER (if box 12 = 'fee') Dallas E. & Martha J. Murray						14. SURFACE OWNER PHONE (if box 12 = 'fee') 435-646-3244					
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') P.O. Box 96, Myton, UT 84052						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')					
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>					
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN			
LOCATION AT SURFACE		508 FNL 1799 FWL		NENW	17	3.0 S	2.0 W	U			
Top of Uppermost Producing Zone		508 FNL 1799 FWL		NENW	17	3.0 S	2.0 W	U			
At Total Depth		508 FNL 1799 FWL		NENW	17	3.0 S	2.0 W	U			
21. COUNTY DUCHEсне			22. DISTANCE TO NEAREST LEASE LINE (Feet) 508			23. NUMBER OF ACRES IN DRILLING UNIT 40					
27. ELEVATION - GROUND LEVEL 5183			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 0			26. PROPOSED DEPTH MD: 11000 TVD: 11000					
28. BOND NUMBER B001834			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 437478								
Hole, Casing, and Cement Information											
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight	
COND	17.5	13.375	0 - 60	48.0	H-40 ST&C	0.0	Class G	41	1.17	15.8	
SURF	12.25	9.625	0 - 1000	36.0	J-55 ST&C	0.0	Premium Lite High Strength	51	3.53	11.0	
							Class G	154	1.17	15.8	
I1	8.75	7	0 - 8675	26.0	P-110 LT&C	11.0	Premium Lite High Strength	262	3.53	11.0	
							50/50 Poz	323	1.24	14.3	
PROD	6.125	4.5	8375 - 11000	11.6	P-110 LT&C	11.0	50/50 Poz	229	1.24	14.3	
ATTACHMENTS											
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES											
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Don Hamilton				TITLE Permitting Agent				PHONE 435 719-2018			
SIGNATURE				DATE 08/13/2011				EMAIL starpoint@etv.net			
API NUMBER ASSIGNED 43013509240000				APPROVAL				 Permit Manager			

RECEIVED: October 05, 2011

**Newfield Production Company
Dillman 3-17-3-2W
NE/NW Section 17, T3S, R2W
Duchesne County, UT**

Drilling Program

1. Formation Tops

Uinta	surface
Green River	3,450'
Garden Gulch member	6,355'
Wasatch	8,825'
TD	11,000'

2. Depth to Oil, Gas, Water, or Minerals

Base of moderately saline	635'	(water)
Green River	6,355' - 8,825'	(oil)
Wasatch	8,825' - TD	(oil)

3. Pressure Control

<u>Section</u>	<u>BOP Description</u>
Surface	12-1/4" diverter

Interm/Prod The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 5M system.

A 5M BOP system will consist of 2 ram preventers (double or two singles) and an annular preventer (see attached diagram). A choke manifold rated to at least 5,000 psi will be used.

4. Casing

Description	Interval		Weight (ppf)	Grade	Coup	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Safety Factors		
	Top	Bottom							Burst	Collapse	Tension
Conductor 13 3/8	0'	60'	48	H-40	STC	--	--	--	1,730	770	322,000
									--	--	--
Surface 9 5/8	0'	1,000'	36	J-55	STC	8.33	8.33	12	3,520	2,020	394,000
									6.27	6.35	10.94
Intermediate 7	0'	8,675'	26	P-110	LTC	9	9.5	15	9,960	6,210	693,000
									2.57	1.82	3.07
Production 4 1/2	8,375'	11,000'	11.6	P-110	LTC	10.5	11	--	10,690	7,560	279,000
									2.18	1.46	2.19

Assumptions:

Surface casing MASP = (frac gradient + 1.0 ppg) - (gas gradient)
 Intermediate casing MASP = (reservoir pressure) - (gas gradient)
 Production casing MASP = (reservoir pressure) - (gas gradient)
 All collapse calculations assume fully evacuated casing with a gas gradient
 All tension calculations assume air weight of casing
 Gas gradient = 0.1 psi/ft

All casing shall be new.

All casing strings shall have a minimum of 1 centralizer on each of the bottom 3 joints.

5. Cement

Job	Hole Size	Fill	Slurry Description	ft ³	OH excess	Weight (ppg)	Yield (ft ³ /sk)
				sacks			
Conductor	17 1/2	60'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	48	15%	15.8	1.17
				41			
Surface Lead	12 1/4	500'	Premium Lite II w/ 3% KCl + 10% bentonite	180	15%	11.0	3.53
				51			
Surface Tail	12 1/4	500'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	180	15%	15.8	1.17
				154			
Intermediate Lead	8 3/4	5,355'	Premium Lite II w/ 3% KCl + 10% bentonite	926	15%	11.0	3.53
				262			
Intermediate Tail	8 3/4	2,320'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	401	15%	14.3	1.24
				323			
Production Tail	6 1/8	2,625'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	284	15%	14.3	1.24
				229			

The surface casing will be cemented to surface. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

Actual cement volumes for the intermediate and production casing strings will be calculated from an open hole caliper log, plus 15% excess.

6. Type and Characteristics of Proposed Circulating Medium

Interval Description

Surface - 1,000'

An air and/or fresh water system will be utilized. If an air rig is used, the blooie line discharge may be less than 100' from the wellbore in order to minimize location size. The blooie line is not equipped with an automatic igniter. The air compressor may be located less than 100' from the well bore due to the low possibility of combustion with the air/dust mixture. Water will be on location to be used as kill fluid, if necessary.

1,000' - TD

A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite.

Anticipated maximum mud weight is 11.0 ppg.

7. Logging, Coring, and Testing

Logging: A dual induction, gamma ray, and caliper log will be run from TD to the base of the surface casing. A compensated neutron/formation density log will be run from TD to the top of the Garden Gulch formation. A cement bond log will be run from PBTD to the cement top behind the production casing.

Cores: As deemed necessary.

DST: There are no DST's planned for this well.

8. Anticipated Abnormal Pressure or Temperature

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a 0.55 psi/ft gradient.

$$11,000' \times 0.55 \text{ psi/ft} = 6006 \text{ psi}$$

No abnormal temperature is expected. No H₂S is expected.

9. Other Aspects

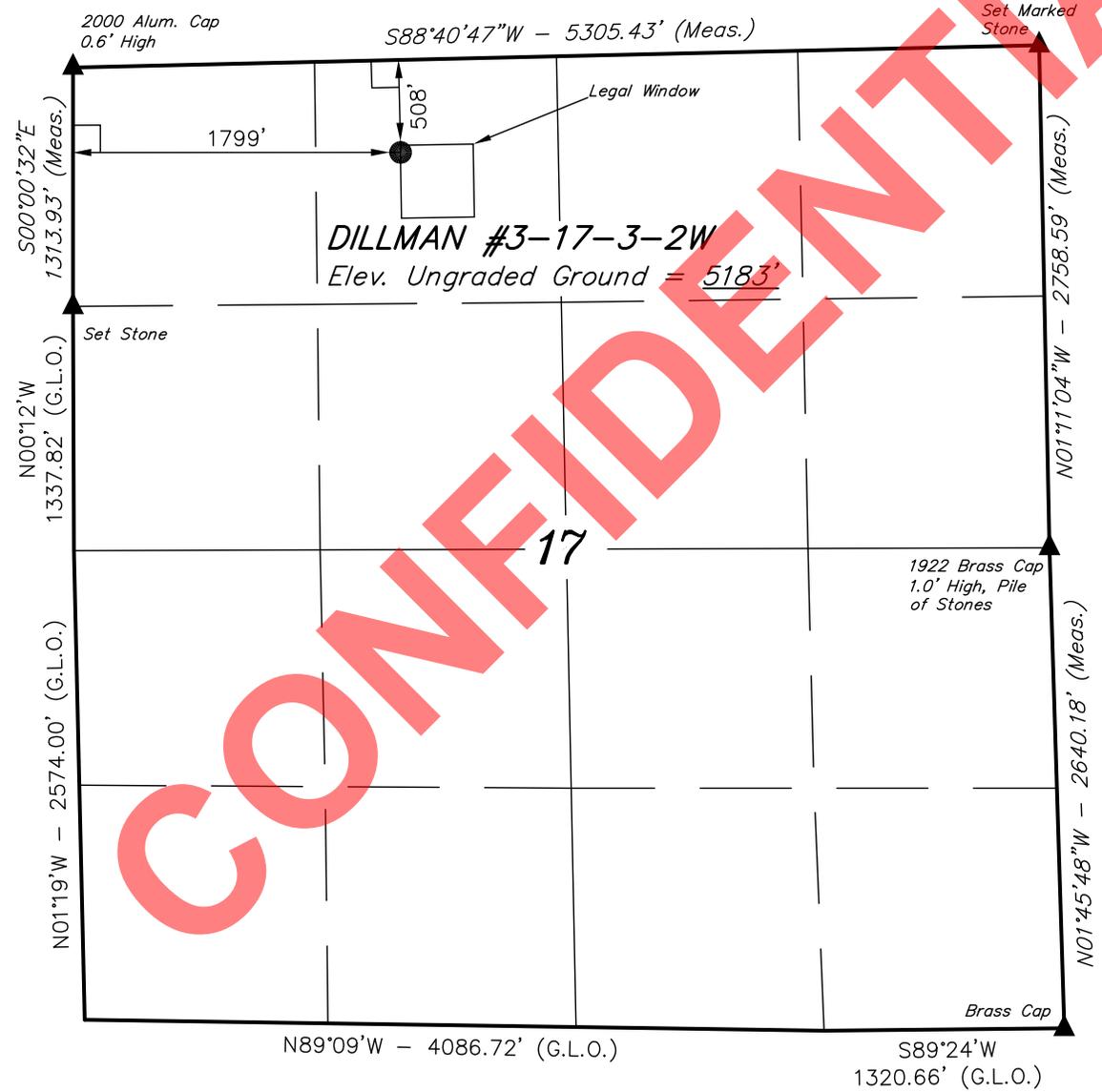
This is planned as a vertical well.

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T3S, R2W, U.S.B.&M.

NEWFIELD EXPLORATION COMPANY

Well location, DILLMAN #3-17-3-2W, located as shown in the NE 1/4 NW 1/4 of Section 17, T3S, R2W, U.S.B.&M., Duchesne County, Utah.

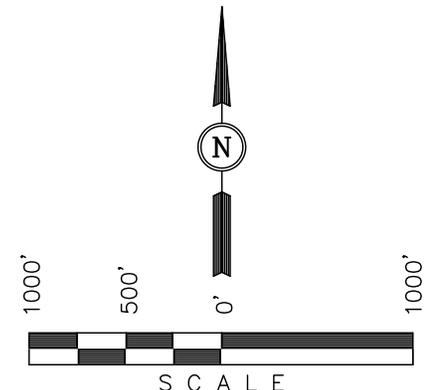


BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE SOUTHEAST CORNER OF SECTION 20, T3S, R2W, U.S.B.&M. TAKEN FROM THE MYTON, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5148 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Robert L. Kay
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH
 08-10-11

REV: 08-10-11 J.J.
 REV: 07-26-11 J.J.
 REV: 07-06-11 J.J.

UINTAH ENGINEERING & LAND SURVEYING
 85 SOUTH 200 EAST - VERNAL, UTAH 84078
 (435) 789-1017

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)
 LATITUDE = 40°13'40.37" (40.227881)
 LONGITUDE = 110°08'11.97" (110.136658)
 (NAD 27)
 LATITUDE = 40°13'40.52" (40.227922)
 LONGITUDE = 110°08'09.42" (110.135681)

RECEIVED: August 13, 2011

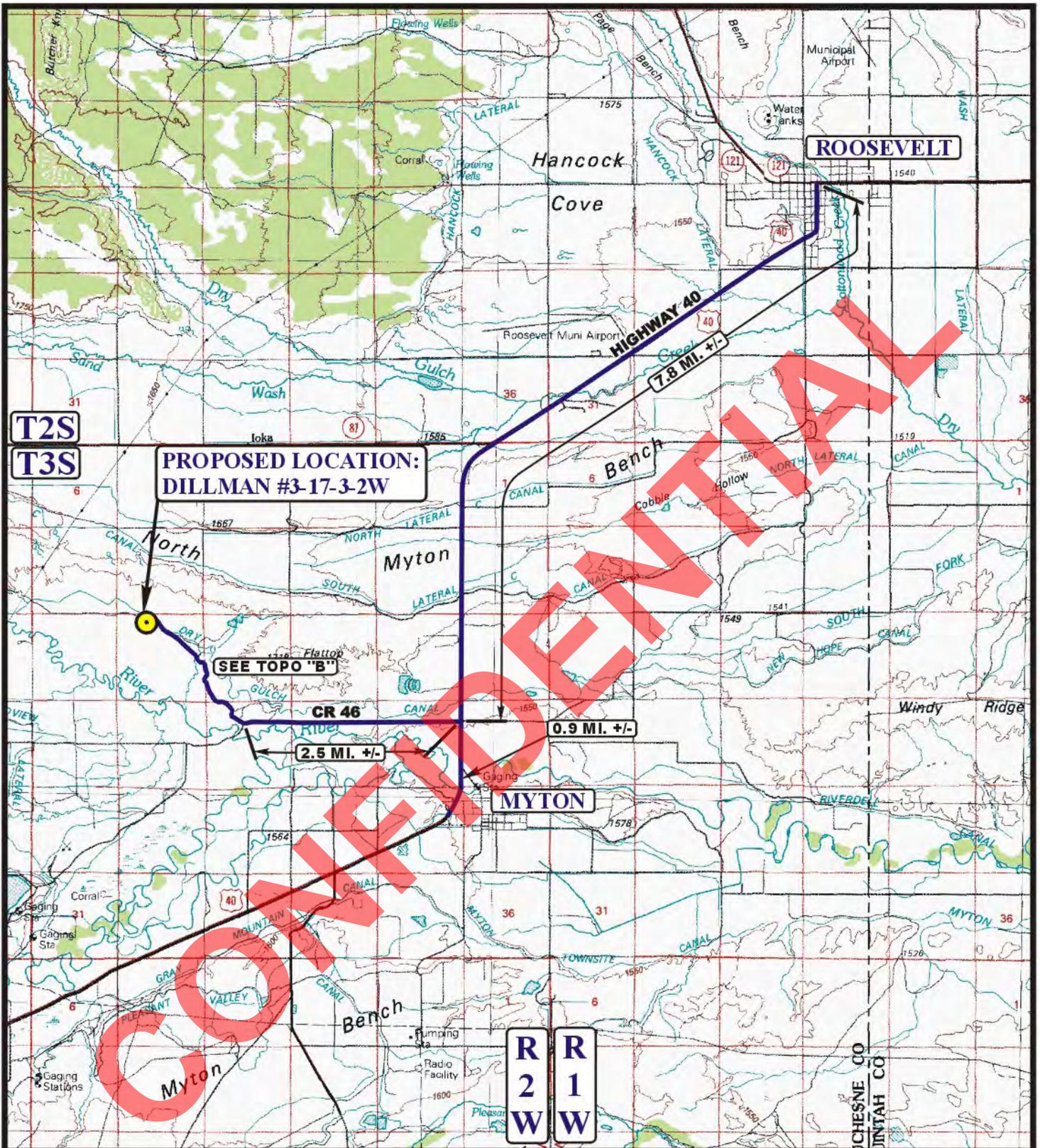
NEWFIELD EXPLORATION COMPANY

DILLMAN #3-17-3-2W SECTION 17, T3S, R2W, U.S.B.&M.

PROCEED IN A NORTHERLY DIRECTION FROM MYTON, UTAH ALONG HIGHWAY 40 APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND COUNTY ROAD 46 TO THE WEST; TURN LEFT AND PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 2.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN RIGHT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 104' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM MYTON, UTAH TO THE PROPOSED LOCATION IS APPROXIMATELY 5.2 MILES.

CONFIDENTIAL



T2S

T3S

**PROPOSED LOCATION:
DILLMAN #3-17-3-2W**

SEE TOPO "B"

2.5 MI. +/-

0.9 MI. +/-

7.8 MI. +/-

HIGHWAY 40

**R
2
W**

**R
1
W**

LEGEND:

PROPOSED LOCATION

NEWFIELD EXPLORATION COMPANY

**DILLMAN #3-17-3-2W
SECTION 17, T3S, R2W, U.S.B.&M.
508' FNL 1799' FWL**



Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813



**ACCESS ROAD
MAP**

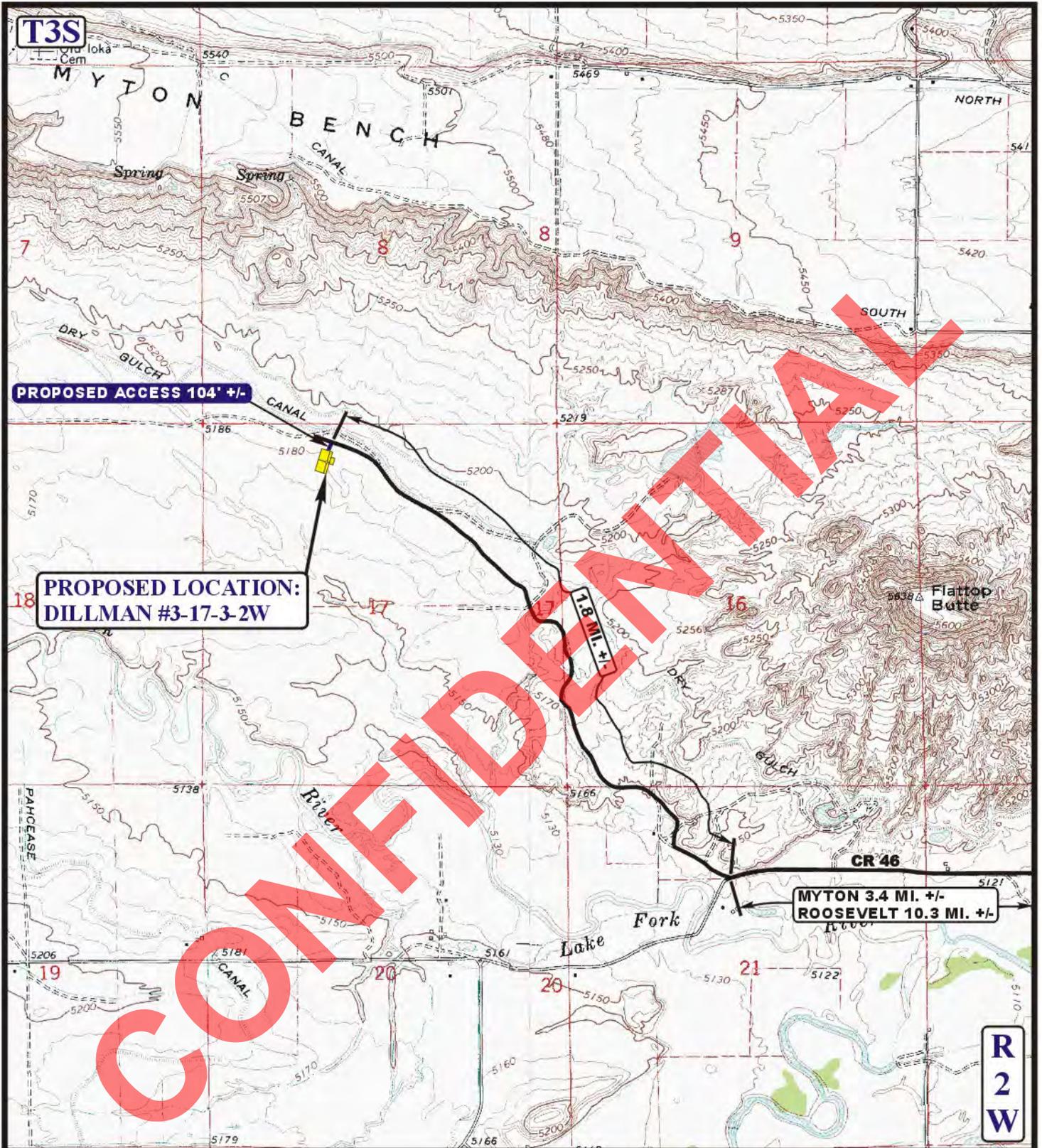
01 10 11
MONTH DAY YEAR

SCALE: 1:100,000

DRAWN BY: J.J.

REV: 08-10-11 C.I.





LEGEND:

-  EXISTING ROAD
-  PROPOSED ACCESS ROAD



NEWFIELD EXPLORATION COMPANY

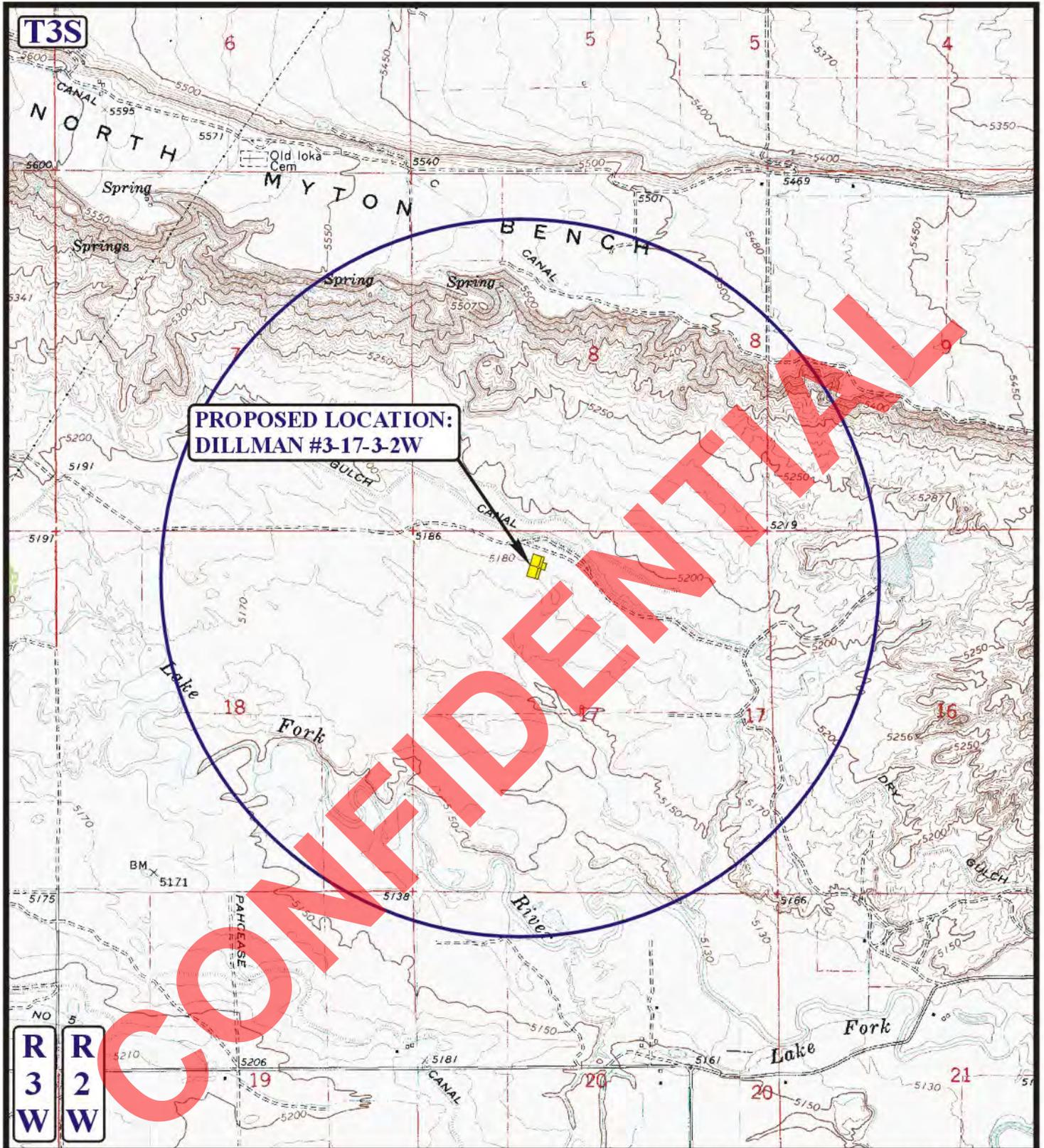
DILLMAN #3-17-3-2W
SECTION 17, T3S, R2W, U.S.B.&M.
508' FNL 1799' FWL



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ACCESS ROAD MAP	01	10	11
	MONTH	DAY	YEAR
SCALE: 1" = 2000'	DRAWN BY: J.J.		REV: 08-10-11 C.I.

B
TOPO



LEGEND:

- ⊗ DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- ⊗ WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

NEWFIELD EXPLORATION COMPANY

DILLMAN #3-17-3-2W
SECTION 17, T3S, R2W, U.S.B.&M.
508' FNL 1799' FWL



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**TOPOGRAPHIC
MAP**

01 10 11
 MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: J.J. REV: 08-10-11 C.I.



AFFIDAVIT OF EASEMENT, RIGHT-OF-WAY AND SURFACE USE AGREEMENT

Shane Gillespie personally appeared before me, being duly sworn, deposes and with respect to State of Utah R649-3-34.7 says:

1. My name is Shane Gillespie. I am a Landman for Newfield Production Company, whose address is 1001 17th Street, Suite 2000, Denver, CO 80202 (“Newfield”).
2. Newfield is the Operator of the proposed Dillman 3-17-3-2W well to be located in the NENW of Section 17, Township 3 South, Range 2 West, Duchesne County, Utah (the “Drillsite Location”). The surface owners of the Drillsite Location are Dallas E. Murray and Martha J. Murray, whose joint address is PO Box 96, Myton, UT 84052 (“Surface Owner”).
3. Newfield and the Surface Owner have agreed upon an Easement, Right-of-Way and Surface Use Agreement dated June 22, 2011 covering the Drillsite Location and access to the Drillsite Location.

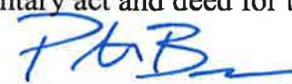
FURTHER AFFIANT SAYETH NOT.



ACKNOWLEDGEMENT

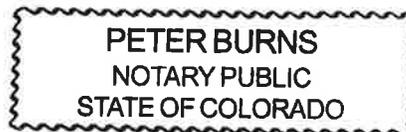
STATE OF COLORADO §
 §
COUNTY OF DENVER §

Before me, a Notary Public, in and for the State, on this 9 day of August, 2011, personally appeared Shane Gillespie, to me known to be the identical person who executed the foregoing instrument, and acknowledged to me that he executed the same as his own free and voluntary act and deed for the uses and purposes therein set forth.



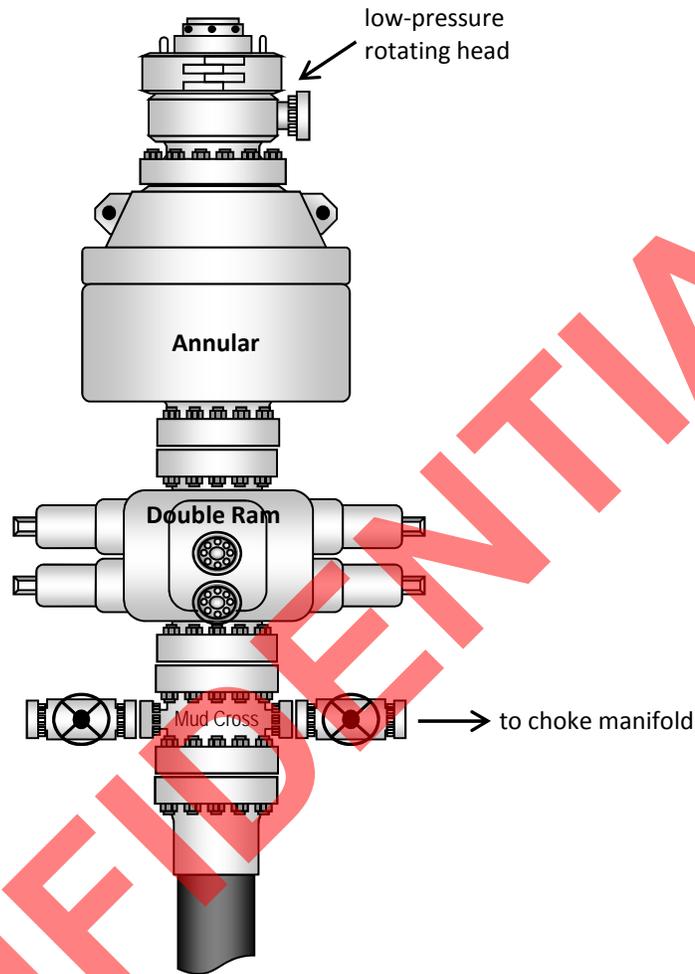
NOTARY PUBLIC

My Commission Expires



My Commission Expires 8/09/2015

Typical 5M BOP stack configuration



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NEWFIELD EXPLORATION COMPANY

LOCATION LAYOUT FOR

DILLMAN #3-17-3-2W
SECTION 17, T3S, R2W, U.S.B.&M.
508' FNL 1799' FWL

FIGURE #1

SCALE: 1" = 50'

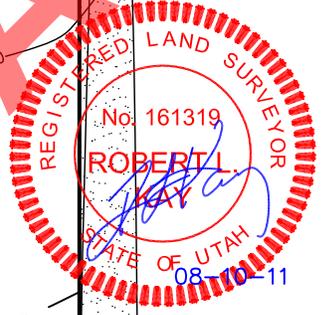
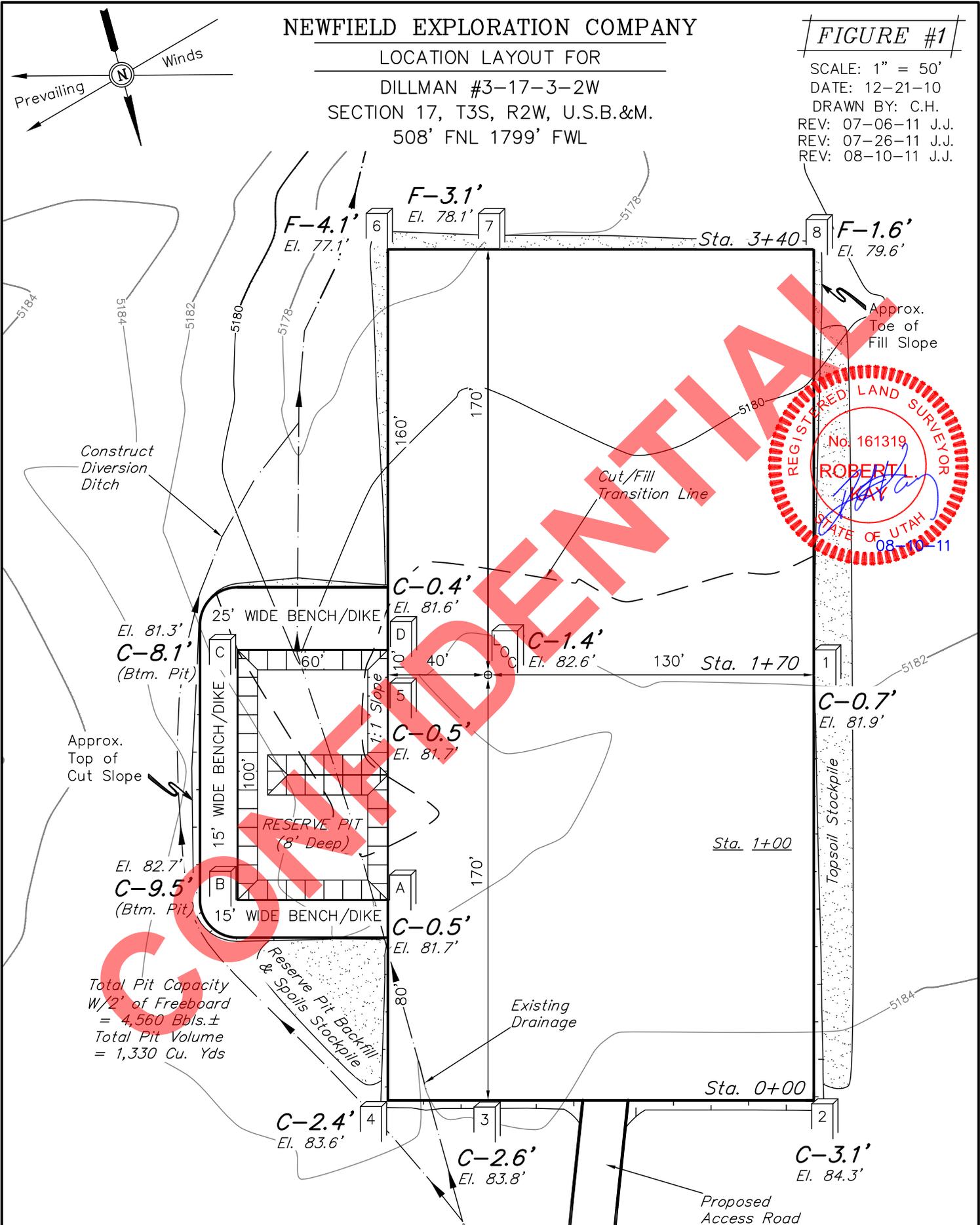
DATE: 12-21-10

DRAWN BY: C.H.

REV: 07-06-11 J.J.

REV: 07-26-11 J.J.

REV: 08-10-11 J.J.



Total Pit Capacity
W/2' of Freeboard
= 4,560 Bbls.±
Total Pit Volume
= 1,330 Cu. Yds

Elev. Ungraded Ground At Loc. Stake = 5182.6'
FINISHED GRADE ELEV. AT LOC. STAKE = 5181.2'

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RECEIVED: August 13, 2011

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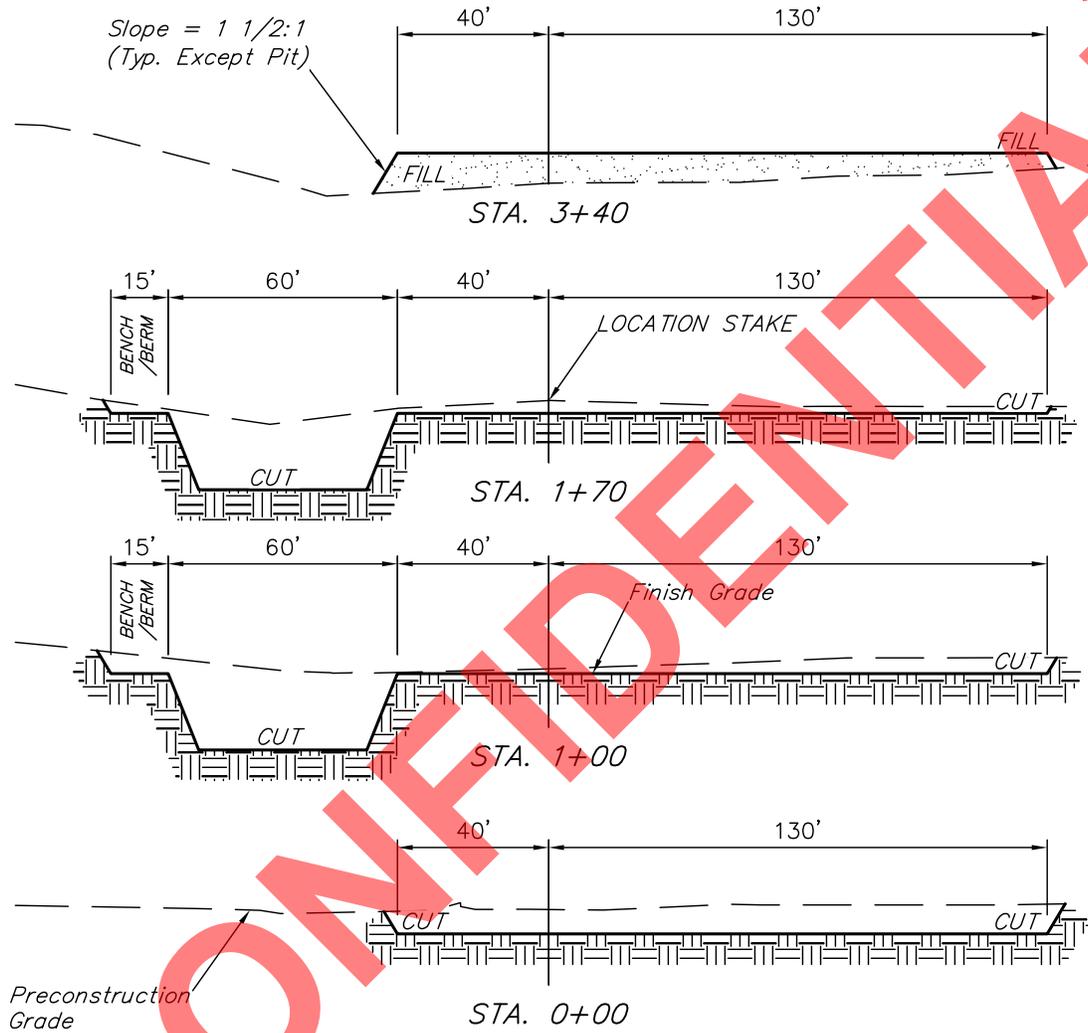
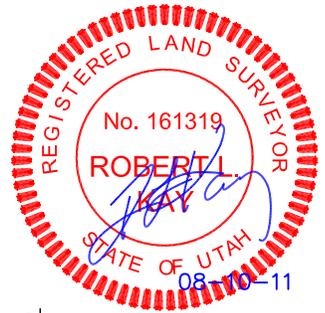
FIGURE #2

TYPICAL CROSS SECTIONS FOR

DILLMAN #3-17-3-2W
SECTION 17, T3S, R2W, U.S.B.&M.
508' FNL 1799' FWL

X-Section Scale
1" = 40'
1" = 100'

DATE: 12-21-10
DRAWN BY: C.H.
REV: 07-06-11 J.J.
REV: 07-26-11 J.J.
REV: 08-10-11 J.J.



NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE ACREAGES
WELL SITE DISTURBANCE = ± 2.507 ACRES
ACCESS ROAD DISTURBANCE = ± 0.120 ACRES
TOTAL = ± 2.627 ACRES

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	1,360 Cu. Yds.
Remaining Location	=	2,560 Cu. Yds.
TOTAL CUT	=	3,920 CU.YDS.
FILL	=	1,890 CU.YDS.

EXCESS MATERIAL	=	2,030 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	2,030 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	0 Cu. Yds.

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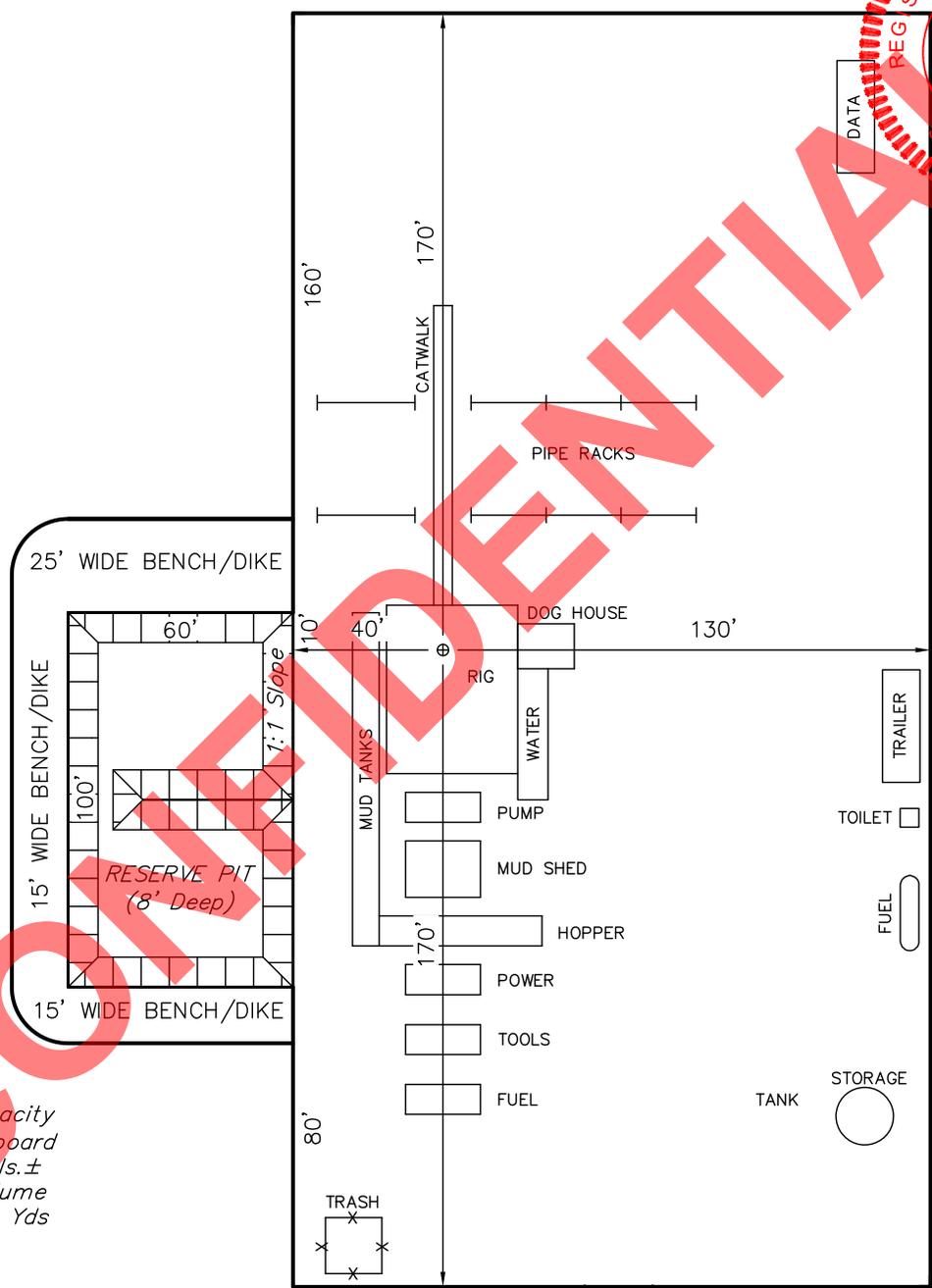
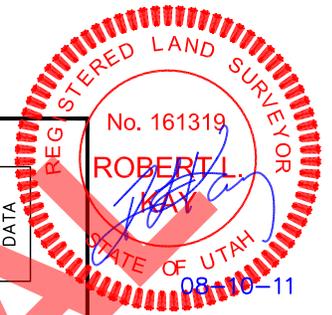
NEWFIELD EXPLORATION COMPANY

TYPICAL RIG LAYOUT FOR

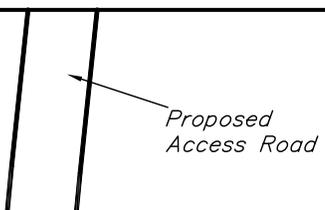
DILLMAN #3-17-3-2W
 SECTION 17, T3S, R2W, U.S.B.&M.
 508' FNL 1799' FWL

FIGURE #3

SCALE: 1" = 60'
 DATE: 12-21-10
 DRAWN BY: C.H.
 REV: 07-06-11 J.J.
 REV: 07-26-11 J.J.
 REV: 08-10-11 J.J.



Total Pit Capacity
 W/2' of Freeboard
 = 4,560 Bbls.±
 Total Pit Volume
 = 1,330 Cu. Yds



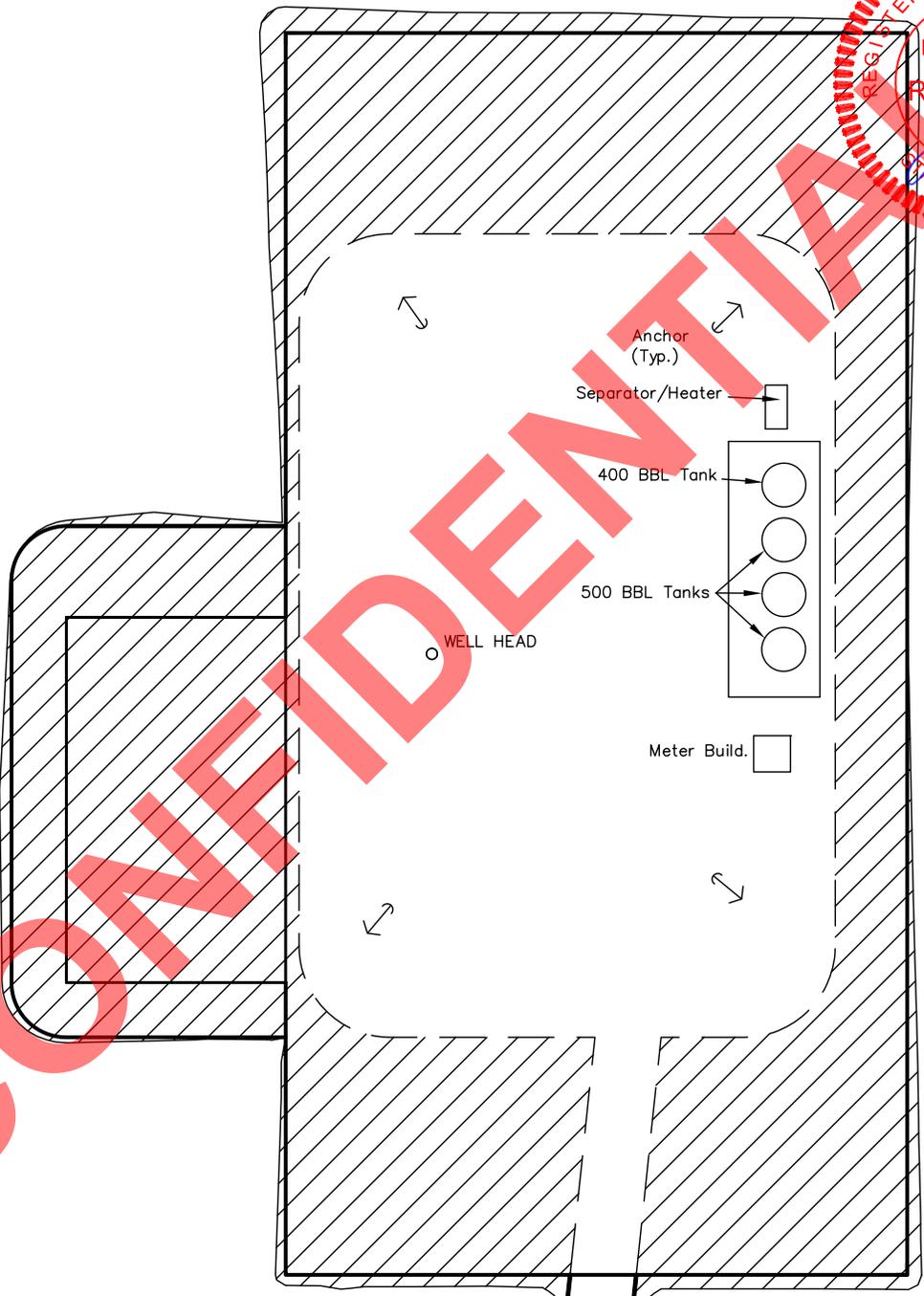
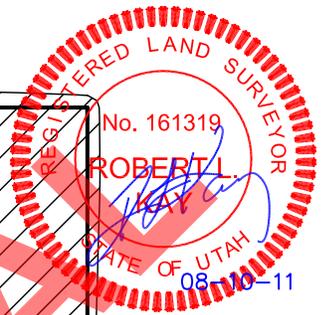
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RECEIVED: August 13, 2011

NEWFIELD EXPLORATION COMPANY
PRODUCTION FACILITY LAYOUT FOR
DILLMAN #3-17-3-2W
SECTION 17, T3S, R2W, U.S.B.&M.
508' FNL 1799' FWL

FIGURE #4

SCALE: 1" = 60'
DATE: 12-21-10
DRAWN BY: C.H.
REV: 07-06-11 J.J.
REV: 07-26-11 J.J.
REV: 08-10-11 J.J.

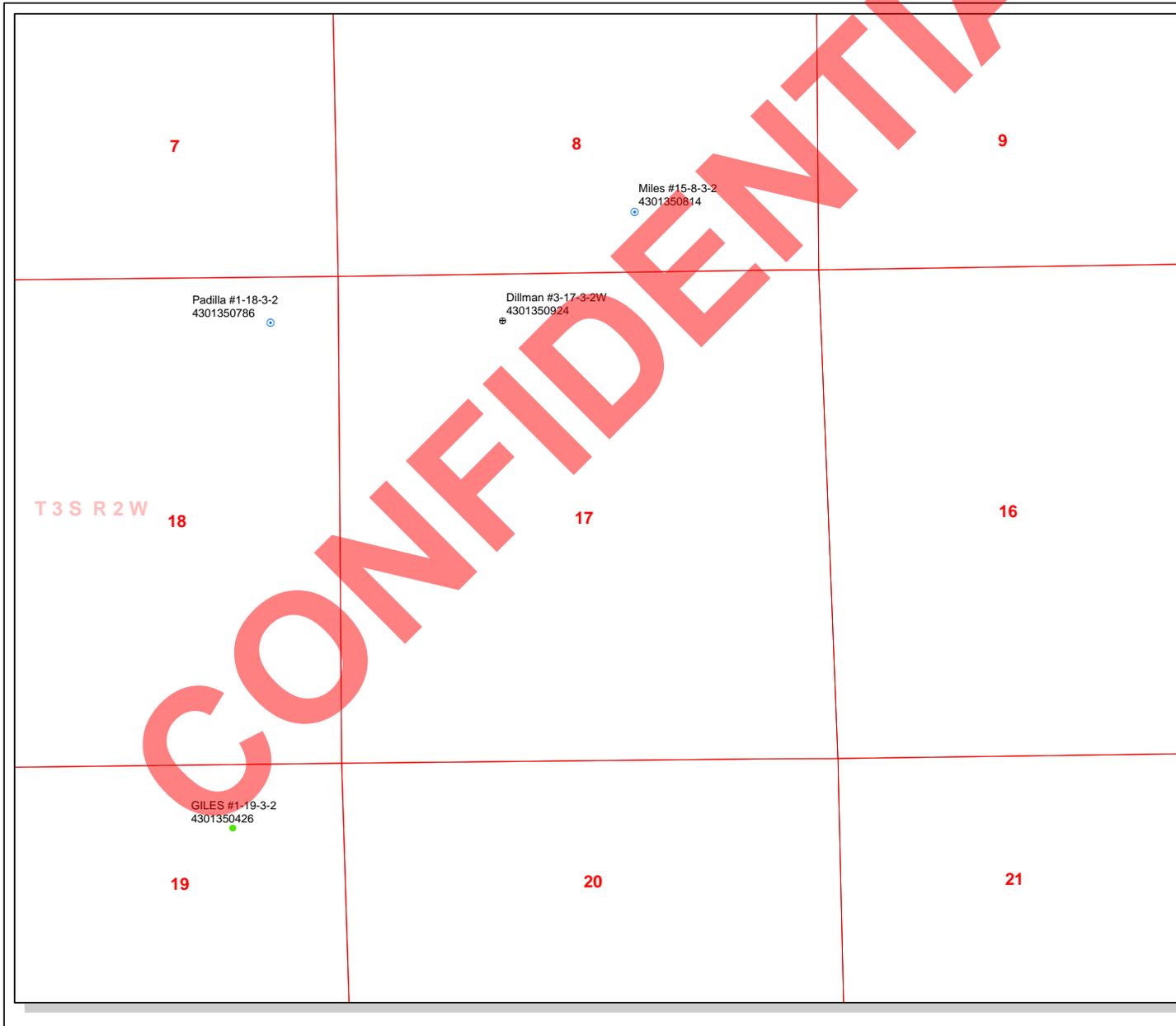


APPROXIMATE ACREAGES
UN-RECLAIMED = ± 0.729

 RECLAIMED AREA

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

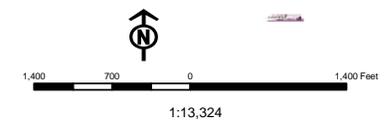
RECEIVED: August 13, 2011



API Number: 4301350924
Well Name: Dillman #3-17-3-2W
 Township T0.3 . Range R0.2 . Section 17
Meridian: UBM
 Operator: NEWFIELD PRODUCTION COMPANY

Map Prepared:
 Map Produced by Diana Mason

- | | |
|---------------|------------------------------------|
| Units | Wells Query |
| STATUS | Status |
| ACTIVE | APD - Approved Permit |
| EXPLORATORY | DRL - Spudded (Drilling Commenced) |
| GAS STORAGE | GIW - Gas Injection |
| NF PP OIL | GS - Gas Storage |
| NF SECONDARY | LA - Location Abandoned |
| PI OIL | LOC - New Location |
| PP GAS | OPS - Operation Suspended |
| PP GEOTHERML | PA - Plugged Abandoned |
| PP OIL | PGW - Producing Gas Well |
| SECONDARY | POW - Producing Oil Well |
| TERMINATED | RET - Returned APD |
| Fields | SGW - Shut-in Gas Well |
| STATUS | SOW - Shut-in Oil Well |
| Unknown | TA - Temp. Abandoned |
| ABANDONED | TW - Test Well |
| ACTIVE | WDW - Water Disposal |
| COMBINED | WIW - Water Injection Well |
| INACTIVE | WSW - Water Supply Well |
| STORAGE | |
| TERMINATED | |
| Sections | |
| Township | |



Well Name	NEWFIELD PRODUCTION COMPANY Dillman #3-17-3-2W 43			
String	COND	SURF	I1	PROD
Casing Size(")	13.375	9.625	7.000	4.500
Setting Depth (TVD)	60	1000	8675	11000
Previous Shoe Setting Depth (TVD)	0	60	1000	8675
Max Mud Weight (ppg)	8.3	8.3	11.0	11.0
BOPE Proposed (psi)	0	500	5000	5000
Casing Internal Yield (psi)	1000	3520	9950	10690
Operators Max Anticipated Pressure (psi)	6006			10.5

Calculations	COND String	13.375	"
Max BHP (psi)	.052*Setting Depth*MW=	26	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	19	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	13	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	13	NO
Required Casing/BOPE Test Pressure=		60	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	SURF String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	432	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	312	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	212	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	225	NO OK
Required Casing/BOPE Test Pressure=		1000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		60	psi *Assumes 1psi/ft frac gradient

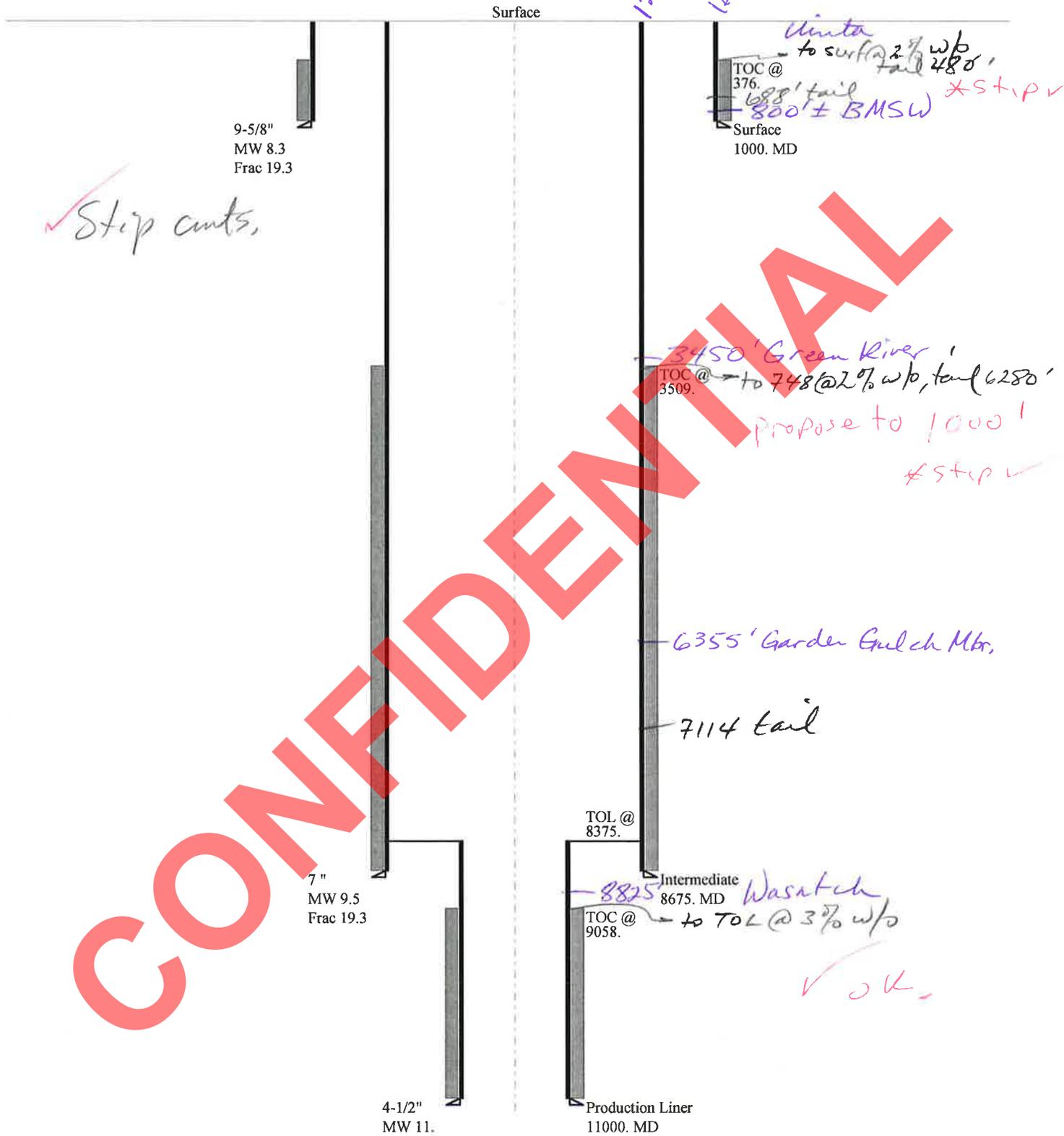
Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	4962	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3921	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3054	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3274	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		1000	psi *Assumes 1psi/ft frac gradient

Calculations	PROD String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	6292	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4972	YES
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3872	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	5781	YES OK
Required Casing/BOPE Test Pressure=		5000	psi

CONFIDENTIAL

43013509240000 Dillman #3-17-3-2W

Casing Schematic



Well name:	43013509240000 Dillman #3-17-3-2W		
Operator:	NEWFIELD PRODUCTION COMPANY		
String type:	Surface	Project ID:	43-013-50924
Location:	DUCHESNE COUNTY		

Design parameters:

Collapse

Mud weight: 8.330 ppg
 Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 880 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP: 1,000 psi

 No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.70 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.50 (B)

Tension is based on air weight.
 Neutral point: 877 ft

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 88 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: 376 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 8,675 ft
 Next mud weight: 9.500 ppg
 Next setting BHP: 4,281 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 1,000 ft
 Injection pressure: 1,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	1000	9.625	36.00	J-55	ST&C	1000	1000	8.796	8691
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	433	2020	4.669	1000	3520	3.52	36	394	10.95 J

Prepared by: Helen Sadik-Macdonald
 Div of Oil, Gas & Mining

Phone: 801 538-5357
 FAX: 801-359-3940

Date: September 21, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1000 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43013509240000 Dillman #3-17-3-2W		
Operator:	NEWFIELD PRODUCTION COMPANY		
String type:	Intermediate	Project ID:	43-013-50924
Location:	DUCHESNE COUNTY		

Design parameters:

Collapse

Mud weight: 9.500 ppg
 Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 4,966 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP: 6,007 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.70 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.50 (B)

Tension is based on air weight.
 Neutral point: 7,432 ft

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 195 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: 3,509 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 11,000 ft
 Next mud weight: 11.000 ppg
 Next setting BHP: 6,286 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 8,675 ft
 Injection pressure: 8,675 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8675	7	26.00	P-110	LT&C	8675	8675	6.151	90177

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	4281	6230	1.455	6007	9950	1.66	225.6	693	3.07 J

Prepared by: Helen Sadik-Macdonald
 Div of Oil, Gas & Mining

Phone: 801 538-5357
 FAX: 801-359-3940

Date: September 21, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8675 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43013509240000 Dillman #3-17-3-2W		
Operator:	NEWFIELD PRODUCTION COMPANY		
String type:	Production Liner	Project ID:	43-013-50924
Location:	DUCHESNE COUNTY		

Design parameters:

Collapse

Mud weight: 11.000 ppg
 Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,866 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP: 6,286 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.80 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.60 (B)

Tension is based on air weight.
 Neutral point: 10,572 ft

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 228 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 1,000 ft

Cement top: 9,058 ft

Liner top: 8,375 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2600	4.5	11.60	P-110	LT&C	11000	11000	3.875	12527
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	6286	7580	1.206	6286	10690	1.70	30.2	279	9.25 J

Prepared by: Helen Sadik-Macdonald
 Div of Oil, Gas & Mining

Phone: 801 538-5357
 FAX: 801-359-3940

Date: September 21, 2011
 Salt Lake City, Utah

Remarks:

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 11000 ft, a mud weight of 11 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator NEWFIELD PRODUCTION COMPANY
Well Name Dillman #3-17-3-2W
API Number 43013509240000 **APD No** 4449 **Field/Unit** WILDCAT
Location: 1/4,1/4 NENW **Sec** 17 **Tw** 3.0S **Rng** 2.0W 508 FNL 1799 FWL
GPS Coord (UTM) **Surface Owner** Dallas E. & Martha J. Murray

Participants

M. Jones (UDOGM), T. Eaton, Z. McKentire (Newfield), Dallas Murray (surface owner).

Regional/Local Setting & Topography

Proposed location is approximately 5 road miles northwest of Myton, Utah. The location is in a greasewood flat. Slightly sloped to the south. Just south of North Myton Bench. South side of the county road. Newfield took the time to dig a test hole for the pit to determine the ground water elevation. Standing water found at approximately 3' deep. This will pose a potential problem to pit excavation and functionality, which has been questioned with several locations that have been looked at in the area. Newfield would like to try to construct a traditional pit and utilize a 16 mil liner. They propose to pump the ground water from behind the liner and place it on top of the liner to hold the liner in place and see if it will hold back the ground water. If this does not work Newfield is under the understanding that the pit will be reclaimed and a closed loop system used to drill the well.

Surface Use Plan

Current Surface Use

Grazing
Wildlife Habitat

New Road Miles

0.02

Well Pad

Width 170 **Length** 340

Src Const Material

Offsite

Surface Formation

Ancillary Facilities

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands Y

High water table - approximately 3'.

Flora / Fauna

greasewood community.

Soil Type and Characteristics

sandy clay

Erosion Issues N

Sedimentation Issues N

Site Stability Issues Y

cut while excavating the location will get into water table or just above it requiring the location to have a pit run base trucked in.

Drainage Diversion Required? Y

Divert drainages around and away from the location and access road.

Berm Required? Y

Berm the location to prevent fluids from entering and/or leaving the location.

Erosion Sedimentation Control Required? N

Paleo Survey Run? N Paleo Potential Observed? N Cultural Survey Run? N Cultural Resources? N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)		20	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)	>1320	0	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)	10 to 20	5	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
Final Score		40	1 Sensitivity Level

Characteristics / Requirements

Dugout earthen (100' x 60' x 8'), exterior to the location dementions.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 16 Pit Underlayment Required? N

Other Observations / Comments

Mark Jones
Evaluator

8/10/2011
Date / Time

Application for Permit to Drill Statement of Basis

10/5/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
4449	43013509240000	LOCKED	OW	P	No
Operator	NEWFIELD PRODUCTION COMPANY		Surface Owner-APD	Dallas E. & Martha J. Murray	
Well Name	Dillman #3-17-3-2W		Unit		
Field	WILDCAT		Type of Work	DRILL	
Location	NENW 17 3S 2W U 508 FNL 1799 FWL GPS Coord (UTM) 573521E 4453204N				

Geologic Statement of Basis

Newfield proposes to set 60' of conductor and 1,000' of surface casing at this location. The base of the moderately saline water at this location is estimated to be at a depth of 800'. A search of Division of Water Rights records shows 9 water wells within a 10,000 foot radius of the center of Section 17. All wells are located over a mile from the proposed location. All wells are privately owned. Depth is listed as ranging from 65 to 150 feet. Average depth is less than 100 feet. Water use is listed as irrigation, stock watering, and domestic use. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed surface casing should adequately protect useable ground water in this area.

Brad Hill
APD Evaluator

9/8/2011
Date / Time

Surface Statement of Basis

Proposed location is approximately 5 road miles northwest of Myton, Utah. The location is in a greasewood flat. Slightly sloped to the south. Just south of North Myton Bench. South side of the county road. Newfield took the time to dig a test hole for the pit to determine the ground water elevation. Standing water found at approximately 3' deep. This will pose a potential problem to pit excavation and functionality, which has been questioned with several locations that have been looked at in the area. Newfield would like to try to construct a traditional pit and utilize a 16 mil liner. They propose to pump the ground water from behind the liner and place it on top of the liner to hold the liner in place and see if it will hold back the ground water. If this does not work Newfield is under the understanding that the pit will be reclaimed and a closed loop system used to drill the well. A pit run base will be needed to stabilize the location after cuts and fills have been established.

Mark Jones
Onsite Evaluator

8/10/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Pits	A closed loop mud circulation system will be required for this location if the traditional pit cannot be constructed and maintained at this location due to the presence of ground water at approximately 3' deep.
Surface	A pit run base will be required to stabilize the location after cuts and fills have been established.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/13/2011

API NO. ASSIGNED: 43013509240000

WELL NAME: Dillman #3-17-3-2W

OPERATOR: NEWFIELD PRODUCTION COMPANY (N2695)

PHONE NUMBER: 435 719-2018

CONTACT: Don Hamilton

PROPOSED LOCATION: NENW 17 030S 020W

Permit Tech Review:

SURFACE: 0508 FNL 1799 FWL

Engineering Review:

BOTTOM: 0508 FNL 1799 FWL

Geology Review:

COUNTY: DUCHESNE

LATITUDE: 40.22794

LONGITUDE: -110.13584

UTM SURF EASTINGS: 573521.00

NORTHINGS: 4453204.00

FIELD NAME: WILDCAT

LEASE TYPE: 4 - Fee

LEASE NUMBER: Patented

PROPOSED PRODUCING FORMATION(S): WASATCH

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
 - Bond: STATE - B001834
 - Potash
 - Oil Shale 190-5
 - Oil Shale 190-3
 - Oil Shale 190-13
 - Water Permit: 437478
 - RDCC Review: 2011-09-29 00:00:00.0
 - Fee Surface Agreement
 - Intent to Commingle
- Commingling Approved**

LOCATION AND SITING:

- R649-2-3.
- Unit:**
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No:** R649-3-2
- Effective Date:**
- Siting:**
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations:
 5 - Statement of Basis - bhill
 12 - Cement Volume (3) - ddoucet
 21 - RDCC - dmason
 23 - Spacing - dmason
 25 - Surface Casing - hmaconnald



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Dillman #3-17-3-2W
API Well Number: 43013509240000
Lease Number: Patented
Surface Owner: FEE (PRIVATE)
Approval Date: 10/5/2011

Issued to:

NEWFIELD PRODUCTION COMPANY , Rt 3 Box 3630 , Myton, UT 84052

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2. The expected producing formation or pool is the WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 1000' MD as indicated in the submitted drilling plan.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

Approved by:

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Water Disposal Well		7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		8. WELL NAME and NUMBER: DILLMAN #3-17-3-2W SWD
3. ADDRESS OF OPERATOR: Rt 3 Box 3630, Myton, UT, 84052		9. API NUMBER: 43013509240000
PHONE NUMBER: 435 646-4825 Ext		9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0508 FNL 1799 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 17 Township: 03.0S Range: 02.0W Meridian: U		COUNTY: DUCHESNE
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 2/21/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Newfield would like to request that the Dillman #3-17-3-2W now be drilled as a Salt Water Disposal Well. The revised drill plan and injection wellbore schematic is attached. We would also like to request that the well name be changed to the Dillman #3-17-3-2W SWD. The remainder of the approved APD will remain the same.

**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: March 05, 2012By: 

NAME (PLEASE PRINT) Mandie Crozier	PHONE NUMBER 435 646-4825	TITLE Regulatory Tech
SIGNATURE N/A	DATE 2/21/2012	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

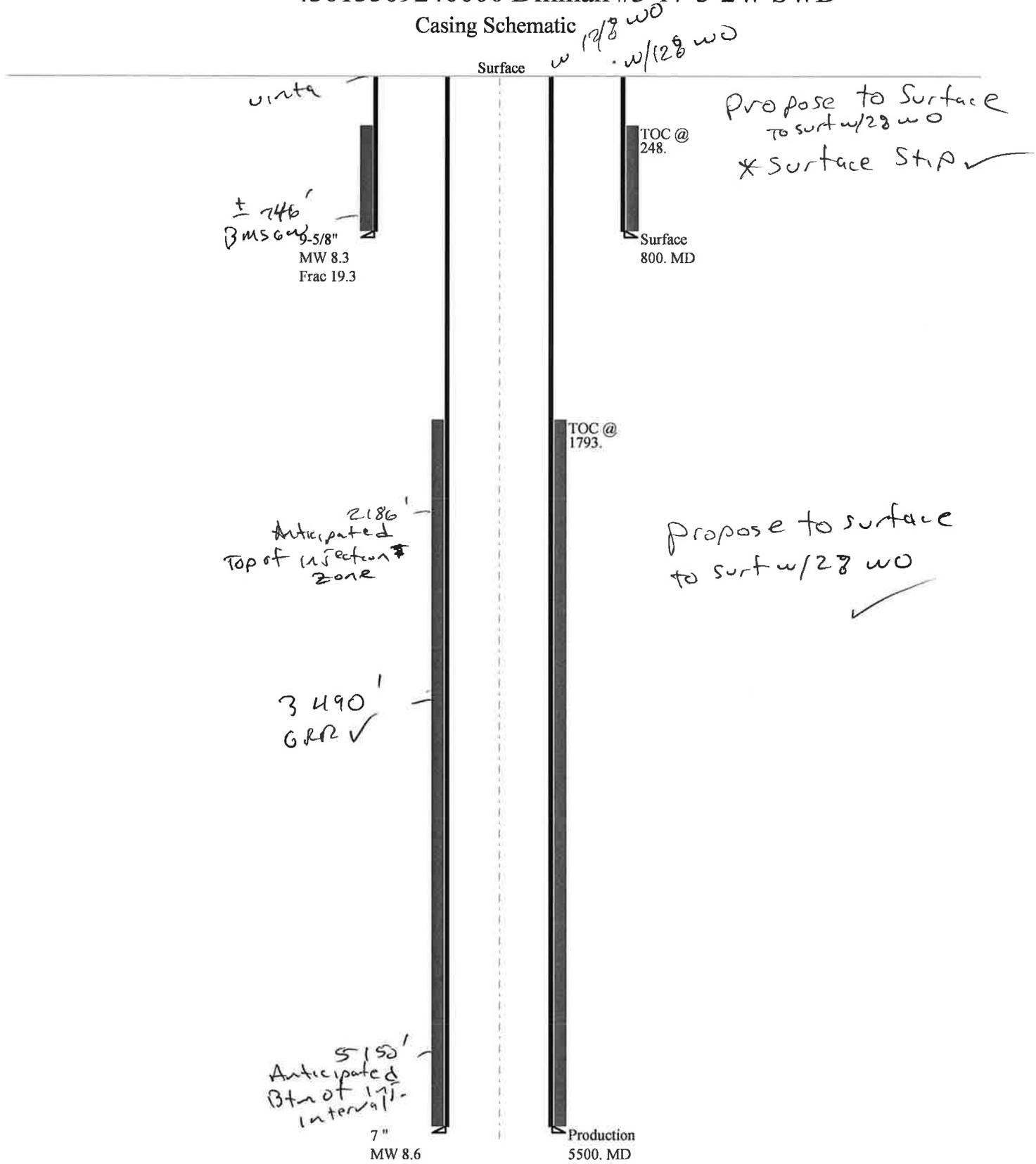
Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43013509240000

Cement volumes for the 9 5/8" and 7 " casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface as indicated in the submitted drilling plan.

43013509240000 Dillman #3-17-3-2W SWD

Casing Schematic



Well name:	43013509240000 Dillman #3-17-3-2W SWD		
Operator:	NEWFIELD PRODUCTION COMPANY		
String type:	Surface	Project ID:	43-013-50924
Location:	DUCHESNE COUNTY		

Design parameters:**Collapse**

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 704 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 800 psi

No backup mud specified.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 701 ft

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 85 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 248 ft

Non-directional string.**Re subsequent strings:**

Next setting depth: 5,500 ft
Next mud weight: 8.600 ppg
Next setting BHP: 2,457 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 800 ft
Injection pressure: 800 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	800	9.625	36.00	J-55	LT&C	800	800	8.796	6542
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	346	2020	5.835	800	3520	4.40	28.8	453	15.73 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: March 5, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 800 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	43013509240000 Dillman #3-17-3-2W SWD		
Operator:	NEWFIELD PRODUCTION COMPANY		
String type:	Production	Project ID:	43-013-50924
Location:	DUCHESNE COUNTY		

Design parameters:

Collapse

Mud weight: 8.600 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 151 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 1,793 ft

Burst

Max anticipated surface pressure:

1,247 psi

2 in ROPE proposed ✓

Internal gradient: 0.220 psi/ft
Calculated BHP 2,457 psi

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Non-directional string.

No backup mud specified.

Tension is based on air weight.

Neutral point: 4,789 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	5500	7	23.00	J-55	LT&C	5500	5500	6.25	28858
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2457	3270	1.331	2457	4360	1.77	126.5	313	2.47 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: March 5, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 5500 ft, a mud weight of 8.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Newfield Production Company
Dillman 3-17-3-2W
NE/NW Section 17, T3S, R2W
Duchesne Co. UT

Drilling Program

1. Formation Tops

Uinta	surface
Green River	3,490'
TD	5,500'
Moderately Saline	746'

2. Depth to Oil, Gas, Water, or Minerals

Top of proposed injection zone	2,186'
Base of proposed inject	5,150'

3. Pressure Control

Section BOP Description

Surface 12-1/4" diverter bowl

Production The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 2M system.

A 2M BOP system will consist of 2 ram preventers (double or two singles) (see attached diagram). A choke manifold rated to at least 2,000 psi will be used.

4. Casing

Description	Interval		Weight (ppf)	Grade	Coup	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Safety Factors		
	Top	Bottom							Burst	Collapse	Tension
Surface 9 5/8	0'	800'	36	J-55	LTC	8.33	8.33	12	3,520	2,020	453,000
									7.84	7.94	15.73
Production 7	0'	5,500'	23	J-55	LTC	8.6	8.6	--	4,360	3,270	313,000
									2.28	1.71	2.47

Assumptions:

Surface casing MASP = (frac gradient + 1.0 ppg) - (gas gradient)

Production casing MASP = (reservoir pressure) - (gas gradient)

All collapse calculations assume fully evacuated casing with a gas gradient

All tension calculations assume air weight of casing

Gas gradient = 0.1 psi/ft

All casing shall be new.

All casing strings shall have a minimum of 1 centralizer on each of the bottom 3 joints.

Up to 20' of conductor drive pipe may be used, minimum diameter 13 3/8"

5. Cement

Job	Hole Size	Fill	Slurry Description	ft ³	OH excess	Weight (ppg)	Yield (ft ³ /sk)
				sacks			
Surface	12 1/4	800'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	288	15%	15.8	1.17
				246			
Production	8 3/4	5,500'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	951	15%	14.3	1.24
				767			

The surface casing will be cemented to surface. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

Actual cement volumes for the production casing string will be calculated from an open hole caliper log, plus 15% excess.

6. Type and Characteristics of Proposed Circulating Medium

<u>Interval</u>	<u>Description</u>
Surface - 800'	An air and/or fresh water system will be utilized. If an air rig is used, the blooie line discharge may be less than 100' from the wellbore in order to minimize location size. The blooie line is not equipped with an automatic igniter. The air compressor may be located less than 100' from the well bore due to the low possibility of combustion with the air/dust mixture. A diverter bowl will be used in place of a rotating head. Water will be on location to be used as kill fluid, if necessary.
800' - TD	A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite. Anticipated maximum mud weight is 8.6 ppg.

7. Logging, Coring, and Testing

Logging: A dual induction, gamma ray, and caliper log will be run from TD to the base of the surface casing. A compensated neutron/formation density log will be run from TD to the top of the Garden Gulch formation. A Gamma Ray log will be run from TD to surface. A cement bond log will be run from PBTD to the cement top behind the production casing.

Cores: As deemed necessary.

DST: There are no DST's planned for this well.

8. Anticipated Abnormal Pressure or Temperature

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a 0.45 psi/ft gradient.

$$5,500' \times 0.45 \text{ psi/ft} = 2460 \text{ psi}$$

No abnormal temperature is expected. No H₂S is expected.

9. Other Aspects

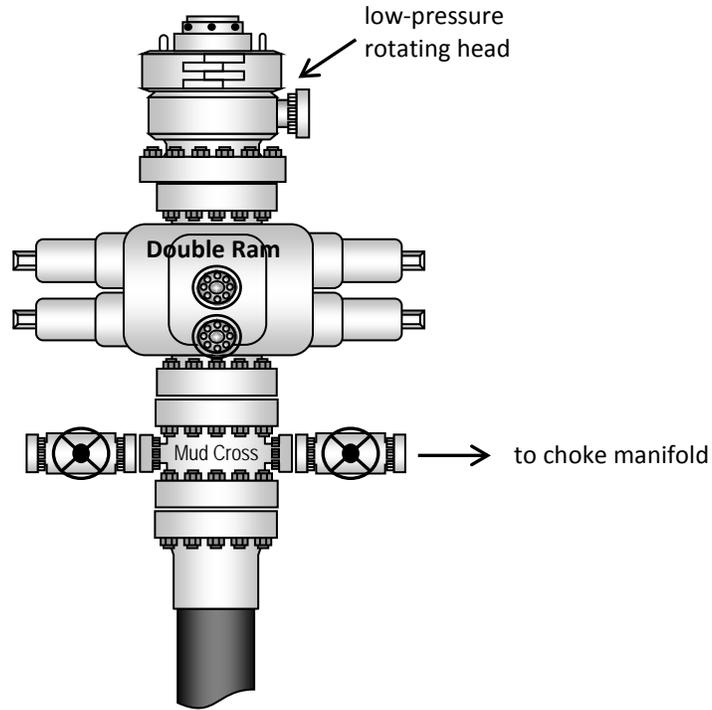
This is planned as a vertical well.

Newfield requests the following Variances from Onshore Order # 2:

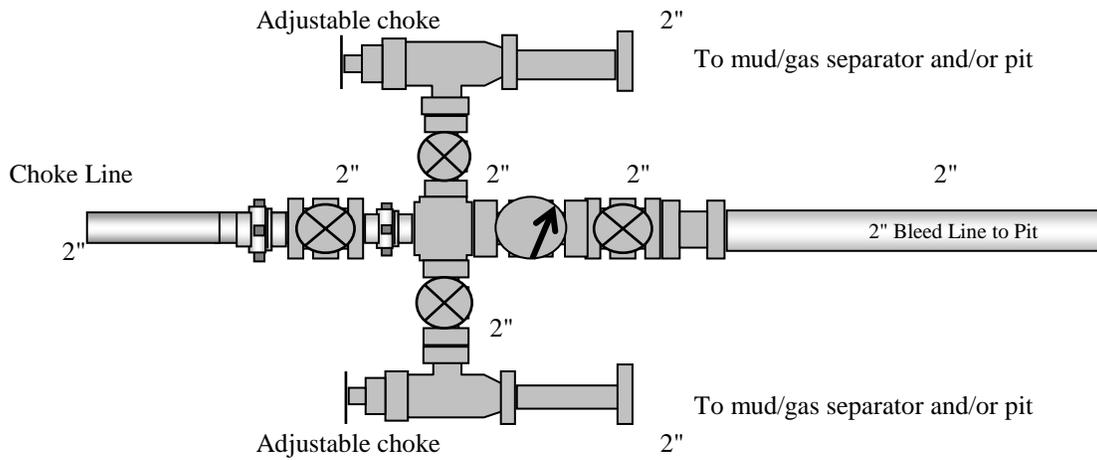
- Variance from Onshore Order 2, III.E.1

Refer to Newfield Production Company Standard Operating Practices "Ute Tribal Green River Development Program" paragraph 9.0

Typical 2M BOP stack configuration



Typical 2M Choke Manifold Configuration





Well: Dillman 3-17-3-2W SWD
Field: Central Basin
Legal: NE/NW Sec 17 T3S R2W Duchesne Co. UT

Engineer:
Rig:

Logging	Formation	Depth		Wellbore Diagram	Hole Size	Casing Specs	Cement	Mud	Directional
		TVD	MD				Temp		
	Uintah	0'	0'						
None	Surface	800'	800'		12-1/4"	9-5/8", 36# J-55, LTC	Cement to surface	Air	Vertical
	Top of proposed injection	2,186'	2,186'						Vertical (vertical control required)
	Green River	3,490'	3,490'					WBM	
	Bottom of proposed injection	5,150'	5,150'		8-3/4"	7", 23# J-55, LTC	Single blend cement to surface		Vertical (vertical control required)
Triple Combo	TD	5,500'	5,500'					8.6 ppg	

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BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross 29 Submitted By
Brent Peeples Phone Number 435-401-8346
Well Name/Number Dillman 3-17-3-2W SWD
Qtr/Qtr NE/NW Section 17 Township 3S Range 2W
Lease Serial Number Patented
API Number 43-013509240000

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 3/12/2012 9:00 AM PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
- Intermediate Casing
- Production Casing
- Liner
- Other

Date/Time 3/12/2012 3:00 AM PM

BOPE

- Initial BOPE test at surface casing point
- BOPE test at intermediate casing point
- 30 day BOPE test
- Other

Date/Time _____ AM PM

Remarks _____

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION				SPUD DATE	EFFECTIVE DATE	
					QQ	SC	TP	RG			COUNTY
A	99999	18467	4301351185	GRACE 3-16-3-3WH	NENW	16	3S	3W	DUCHESNE	3/12/2012	3/21/12
WELL 1 COMMENTS: GRRV BHL Senw											
B	99999	17400	4301350685	GMBU G-7-9-17	SWNW	7	9S	17E	DUCHESNE	3/20/2012	3/21/12
GRRV BHL: nenw											
A	99999	18468	4301350924	DILLMAN 3-17-3-2W	NENW	17	3S	2W	DUCHESNE	3/12/2012	3/21/12
GRRV											
A	99999	18469	4301351161	LH TRUST 3A-30-3-2W^{sup}	NENW	30	3S	2W	DUCHESNE	12/12/2011	3/21/12
WSTC											
A	99999	18472	4301351044	MULLINS 11-14-3-2W	NESW	14	3S	2W	DUCHESNE	2/1/2012	3/21/12
WSTC											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION				SPUD DATE	EFFECTIVE DATE	
					QQ	SC	TP	RG	COUNTY		

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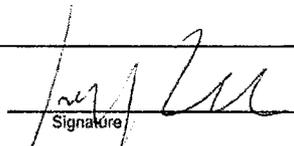
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ACTION CODES (See instructions on back of form)
 A - 1 new entity for new well (single well only)
 B - 1 well to existing entity (group or unit well)
 C - from one existing entity to another existing entity
 D - well from one existing entity to a new entity
 E - other (explain in comments section)

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MAR 21 2012


 Signature _____ **Jentri Park**
 Production Clerk _____ **03/21/12**

NOTE: Use COMMENT section to explain why each Action Code was selected

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:
FEE

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:
UINTA CB - WASATCH DEEP

1. TYPE OF WELL: OIL WELL GAS WELL OTHER

8. WELL NAME and NUMBER:
DILLMAN 3-17-3-2W

2. NAME OF OPERATOR:
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:
4301350924

3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 PHONE NUMBER 435.646.3721

10. FIELD AND POOL, OR WILDCAT:
UINTA CENTRAL BASIN

4. LOCATION OF WELL:
FOOTAGES AT SURFACE:

COUNTY: DUCHESNE

OTR/OTR. SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW, 17, T3S, R2W

STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will 	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 03/14/2012	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Spud Notice
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 3/12/12 MIRU Ross #26. Spud well @11:00 AM. Drill 85' of 17 1/2" hole with air mist. TIH W/ 3 Jt's 14" H-40 36# csgn. Set @ 103. On 3/14/12 cement with 110 sks of class "G" w/ 2% CaCL2 + 0.25#/sk Cello- Flake Mixed @ 15.8ppg w/ 1.17ft3/sk yield. Returned 12 barrels cement to pit. WOC.

NAME (PLEASE PRINT) Branden Arnold

TITLE

SIGNATURE 

DATE 03/20/2012

(This space for State use only)

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APR 03 2012
DIV. OF OIL, GAS & MINING

Casing / Liner Detail

Well Dillman 3-17-3-2W
Prospect Central Basin
Foreman
Run Date:
String Type Surface, 9.625", 36#, J-55, LTC (Generic)

- Detail From Top To Bottom -

Depth	Length	JTS	Description	OD	ID
857.01	1.42		Wellhead		
858.43	-2.00		Cutt off	9.625	
18.00	41.41	1	Shoe Goint	9.625	
59.41	795.10	19	9 5/5 Casing	9.625	
854.51	2.50		FC/Guide shoe	9.625	
856.43			KB		

Cement Detail

Cement Company: BJ					
Slurry	# of Sacks	Weight (ppg)	Yield	Volume (ft ³)	Description - Slurry Class and Additives
Slurry 1	110	15.8	1.17	128.7	Class G+2%kcl+.25#CF
Tab-In-Job?	No		Cement To Surface? Yes		
HT:	0		Est. Top of Cement: 0		
Initial Circulation Pressure:			Plugs Bumped? No		
Initial Circulation Rate:			Pressure Plugs Bumped:		
Final Circulation Pressure:			Floats Holding? No		
Final Circulation Rate:			Casing Stuck On / Off Bottom? No		
Displacement Fluid:	Water		Casing Reciprocated? No		
Displacement Rate:			Casing Rotated? No		
Displacement Volume:	12		CIP: 9:35		
Fluid Returns:			Casing Wt Prior To Cement:		
Centralizer Type And Placement:			Casing Weight Set On Slips:		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL
CRM IMPROVED
C.B. 100403
Expires July 3, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. FEE

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

1a. Type of Well Oil Well Gas Well Dry Other
 b. Type of Completion: New Well Work Over Deepen Plug Back Diff. Resvr.,
 Other: WATER DISPOSAL WELL

2. Name of Operator
NEWFIELD EXPLORATION COMPANY

8. Lease Name and Well No.
DILLMAN 3-17-3-2W

3. Address 1401 17TH ST. SUITE 1000 DENVER, CO 80202 3a. Phone No. (include area code) (435) 646-3721

9. AFI Well No. 43-013-50924

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface 508' FNL & 1799' FWL **NEW** (SWNW) SEC. 17, T3S, R2W
 At top prod. interval reported below

10. Field and Pool or Exploratory
WILDCAT

11. Sec., T., R., M., on Block and Survey or Area
SEC. 17, T3S, R2W

12. County or Parish 13. State
DUCHESNE UT

At total depth

14. Date Spudded 03/12/2012 15. Date T.D. Reached 03/29/2012 16. Date Completed 04/27/2012
 D & A Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
5183' GL 5202' KB

18. Total Depth: MD 5350' TVD 19. Plug Back T.D.: MD 5277' TVD 20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND

22. Was well cored? No Yes (Submit analysis)
 Was DST run? No Yes (Submit report)
 Directional Survey? No Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36#	0	857'		110 CLASS G			
8-3/4"	7" L-80	23#	0	5337'		1067 50/50 POZ		SURFACE	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	EOT@ 4191'	WH-6 @ 4173'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Green River	2126' MD	4800' MD	2126-4800' MD	0.34"	756	
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material

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JAN 29 2013

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
		24	→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→					COMPLETED AS WATER DISPOSAL WELL	

DIV. OF OIL, GAS & MINING

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

N/A

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

GEOLOGICAL MARKERS

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
GREEN RIVER	2126' MD	4800' MD		GREEN RIVER EPA GRRV	3472' 3479'

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)
 Geologic Report
 DST Report
 Directional Survey
 Sundry Notice for plugging and cement verification
 Core Analysis
 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Jennifer Peatross Title Production Technician
 Signature  Date 11/27/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Water Disposal Well	8. WELL NAME and NUMBER: DILLMAN #3-17-3-2W SWD
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. API NUMBER: 4301350924000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0508 FNL 1799 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 17 Township: 03.0S Range: 02.0W Meridian: U	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: DUCHESNE
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

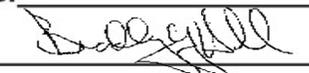
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 1/28/2013	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Commence injection"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The above reference well was put on injection at 3:00 PM on 01/28/2013.

**Accepted by the
Utah Division of
Oil, Gas and Mining**

Date: June 04, 2013

By: 

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 5/16/2013	

Dillman 3-17-3-2W			
Spud Date:		PoP Date:	
Surface Location:	S17, T3S, R2W	NFX Field:	
County/State:	Duchesne/Utah	API:	43-013-50924
Elevation (R):		KB:	
GL:			

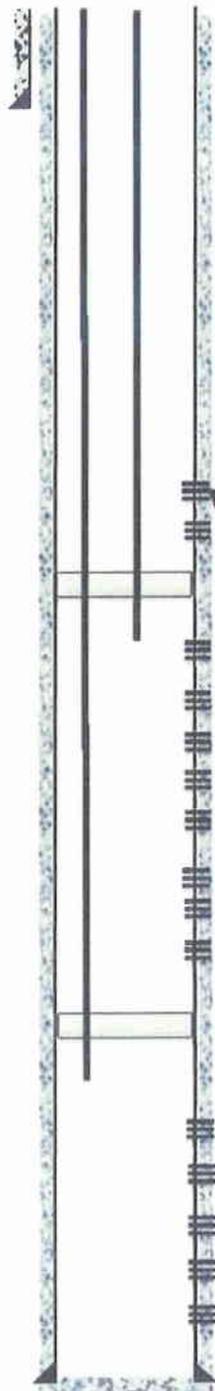


Surface Casing			
Csg Size	5.625	Csg ID	5.921
Grade	J-55 LTC	Drift	8.765
Weight	36.00#	Burst	3,520
Depth Landed KB	537 837.00	Collapse	2,020
Length	857 837.00	bbl/ft	0.0774
Cement Top	Surface		
Cement Data	3/17/12 - BJ Cement w/ 360 sk of Class G + 2% KCl + 0.25# CF mixed at 15.8 ppg (1.17 yield) Returned 7 bbl to pit and bumped plug		

Production Casing			
Csg Size	7.60	Csg ID	6.366
Grade	L-80 LTC	Drift	8.241
Weight	23.00#	Burst	6,340
Depth Landed KB	5337.00	Collapse	3,830
Length	5337	bbl/ft	0.0384
Cement Top	Surface		
Cement Data	Pump 10 bbl dye, 20 bbl mud clean, 20 bbl fresh water, 235 bbl (1.067 sks) of 14.4# cement Drop plug and displace with 206.3 bbl 2% KCl Bumped plug and floats held Full to partial returns throughout with 45 bbl cement returned to surface		

Perforation Record					
Stage	Date	Top	Bottom	spr	Holes
1	4/12/12	4,794.0	4800	3	18
1	4/12/12	4,782.0	4788	3	18
1	4/12/12	4,756.0	4758	3	6
1	4/12/12	4,748.0	4752	3	12
1	4/12/12	4,730.0	4734	3	12
1	4/12/12	4,722.0	4724	3	6
2	4/12/12	4,574.0	4580	3	18
2	4/12/12	4,524.0	4526	3	6
2	4/12/12	4,464.0	4469	3	15
3	4/12/12	4,430.0	4440	3	30
3	4/12/12	4,397.0	4400	3	9
3	4/13/12	4,364.0	4368	3	12
3	4/13/12	4,342.0	4348	3	18
4	4/13/12	4,316.0	4320	3	12
4	4/13/12	4,280.0	4284	3	12
4	4/13/12	4,270.0	4274	3	12
5	4/13/12	3,142.0	3144	3	6
5	4/13/12	3,086.0	3100	3	42
5	4/13/12	3,030.0	3074	3	132
6	4/13/12	3,004.0	3012	3	24
6	4/13/12	2,900.0	2928	3	84
7	4/13/12	2,835.0	2838	3	9
7	4/13/12	2,822.0	2825	3	9
7	4/13/12	2,803.0	2806	3	9
7	4/13/12	2,744.0	2752	3	24
8	4/13/12	2,572.0	2574		
8	4/13/12	2,486.0	2500		
8	4/13/12	2,431.0	2435		
9	4/13/12	2,412.0	2418		
9	4/13/12	2,376.0	2378		
9	4/13/12	2,338.0	2340		
9	4/13/12	2,326.0	2328		
10	4/13/12	2,293.0	2286		
10	4/13/12	2,274.0	2280		
10	4/13/12	2,240.0	2242		
10	4/13/12	2,182.0	2188		
11	4/13/12	2,142.0	2144		
11	4/13/12	2,126.0	2134		

Holes Squeezed
9/27/12



TOC = 0'

2126 - 2574'
All zones squeezed

Top Paker @ 2692'

EOT @ 2705

Top Perf @ 2744'

Ulna Bottom Perf @ 3144'

Bottom Packer @ 4173'

EOT @ 4191'

Top Perf @ 4270

Bottom Perf @ 4800'

Simulation Summary		
Date	Bottom	Top
4/25/2012	4800	4247
Stages 1-4 treated on 4/25 with 28% HCl. Packer set at 4247', plug set at 4800' See DCR and Perf Record more details		
4/26/2012	3202	2700
Stage 5-7 with 15% HCL + add Packer set at 2700', plug set at 3202' See DCR and Perf Record more details		
4/27/2012	2634	2102
Stages 8 - 11 treated with 15% KCL +add + 300 balls Packer set at 2102', plug set at 2634' See DCR and Perf Record more details		
9/27/2012	2574	2126
All perms (2574' - 2126') squeezed with cement See DCR for more details		

*Tubing
2 3/8" 4.7 #
N-80*

PBTD at 5277

Final corrected version 8/22/2013



Mark Reinbold <markreinbold@utah.gov>

Dillman 3-17-3-2W WBD

2 messages

Mark Reinbold <markreinbold@utah.gov>
To: Matt Mientka <mmientka@newfield.com>

Thu, Aug 22, 2013 at 7:22 AM

Matt,

Can you tell me if this is the final correct version of the wellbore diagram? Please note that the well completion report shows 857' for the depth of the surface casing. Which is correct? What are the tubing diameters? Thank you.

--

Mark L. Reinbold, Environmental Scientist
Utah Department of Natural Resources
Division of Oil, Gas & Mining
1594 W North Temple
PO Box 145801
Salt Lake City, UT 84114-5801
Phone 801-538-5333
Fax 801-539-3940

 **20130822071139.pdf**
119K

Matt Mientka <mmientka@newfield.com>
To: Mark Reinbold <markreinbold@utah.gov>

Thu, Aug 22, 2013 at 4:26 PM

Hi Mark,

Yes that is a current wellbore diagram. I think the 857' is correct, it must have been a mistake on the diagram. As far as the tubing, this is what I have,

2-3/8" 4.7#/ft N-80 tubing

plastic lined with ID: 1.995" Drift: 1.901"

Let me know if you have any other question.

Thanks,

~Matt

720.258.5546

From: Mark Reinbold [mailto:markreinbold@utah.gov]
Sent: Thursday, August 22, 2013 7:23 AM
To: Matt Mientka
Subject: Dillman 3-17-3-2W WBD

[Quoted text hidden]

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Water Disposal Well	8. WELL NAME and NUMBER: DILLMAN #3-17-3-2W SWD
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. API NUMBER: 43013509240000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0508 FNL 1799 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 17 Township: 03.0S Range: 02.0W Meridian: U	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: DUCHESNE
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 1/28/2013	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Commence injection"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The above reference well was put on injection at 3:00 PM on 01/28/2013.

Accepted by the Utah Division of Oil, Gas and Mining
Date: June 04, 2013
By: 

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 5/16/2013	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL
FORM 3160-4
Expires July 31, 2013

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. FEE

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No. DILLMAN 3-17-3-2W

9. AFI Well No. 43-013-50924

10. Field and Pool or Exploratory WILDCAT

11. Sec., T., R., M., on Block and Survey or Area SEC. 17, T3S, R2W

12. County or Parish DUCHESNE

13. State UT

14. Date Spudded 03/12/2012

15. Date T.D. Reached 03/29/2012

16. Date Completed 04/27/2012
 D & A Ready to Prod.

17. Elevations (DF, RKB, RT, GL)* 5183' GL 5202' KB

1a. Type of Well Oil Well Gas Well Dry Other

1b. Type of Completion: New Well Work Over Deepen Plug Back Diff. Resrv.,
Other: WATER DISPOSAL WELL

2. Name of Operator NEWFIELD EXPLORATION COMPANY

3. Address 1401 17TH ST. SUITE 1000 DENVER, CO 80202

3a. Phone No. (include area code) (435) 646-3721

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface 508' FNL & 1799' FWL (NEW) SEC. 17, T3S, R2W
At top prod. interval reported below
At total depth

18. Total Depth: MD 5350' TVD

19. Plug Back T.D.: MD 5277' TVD

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each) DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND

22. Was well cored? No Yes (Submit analysis)
Was DST run? No Yes (Submit report)
Directional Survey? No Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36#	0	857'		110 CLASS G			
8-3/4"	7" L-80	23#	0	5337'		1067 50/50 POZ		SURFACE	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	EOT@ 4191'	WH-6 @ 4173'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Green River	2126' MD	4800' MD	2126-4800' MD	0.34"	756	
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
		24	→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→					COMPLETED AS WATER DISPOSAL WELL	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

*(See instructions and spaces for additional data on page 2)

RECEIVED
JAN 29 2013

DIV. OF OIL, GAS & MINING

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

N/A

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

GEOLOGICAL MARKERS

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
GREEN RIVER	2126' MD	4800' MD		GREEN RIVER EPA GRRV	3472' 3479'

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)
 Geologic Report
 DST Report
 Directional Survey
 Sundry Notice for plugging and cement verification
 Core Analysis
 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Jennifer Peatross Title Production Technician
 Signature  Date 11/27/2012

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

UNDERGROUND INJECTION CONTROL PERMIT Cause No. UIC-388.1

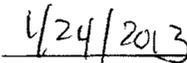
Operator: Newfield Production Company
Well: Dillman 3-17-3-2W SWD
Location: Section 17, Township 3 South, Range 2 West, Uinta Special Meridian
County: Duchesne
API No.: 43-013-50924
Well Type: Saltwater Injection

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on August 29, 2012.
2. Maximum Allowable Injection Pressure: Upper zone (Uinta) 825 psig; Lower zone (Green River) 2,050 psig
3. Maximum Allowable Injection Rates: (restricted by pressure limitation)
4. Injection Intervals: Uinta Formation (2,744' – 3,144'); Green River Formation (4,270' – 4,800')
5. In the event that either injection zone should begin to pressure up, the Division shall be contacted, and a Step Rate Test may be required.
6. Because of questionable quality of light cement in the Miles #15-8-3-2 well (API 43-013-50814), pressure shall be monitored in that well between the surface casing and the production casing on a regular basis. Any pressure changes observed shall be reported to the Division immediately.

Approved by:

(for) 
John Rogers
Associate Director


Date

JR/MLR/js

cc: Bruce Suchomel, Environmental Protection Agency
Ute Tribe
Eric Sundberg, Newfield Production Company, Denver
Newfield Production Company, Myton
Duchesne County
Well File





Mark Reinbold <markreinbold@utah.gov>

Dillman WBD and info

1 message

Matt Mientka <mmientka@newfield.com>

Tue, Jan 15, 2013 at 10:15 AM

To: "dustindoucet@utah.gov" <dustindoucet@utah.gov>, "Mark Reinbold (markreinbold@utah.gov)" <markreinbold@utah.gov>

Hi guys,

Here is an updated wellbore diagram. Sorry, I'm not sure why you guys have an old version. The upper perms are all squeezed now, attached is the cementing post job report.

On the upper perms, we broke them down and swabbed back reservoir fluid. Everything we measured was all moderately salty and we felt we had good geologic barriers above these zones. We acidized all the zones, attached is the report for the top set of perms. We submitted everything with the state, I don't know exactly how this took place or who was involved, I was working for North Dakota team at the time. Either way, we were told the state wanted to stick with the 2500' injection threshold, but we could inject in this well if we didn't inject in the perforations above 2500'. Based on the location of the perms, we had to squeeze everything down to 2567', there wasn't a good location to set a plug above that depth.

Thanks,

Matt Mientka

Completions Engineer

Office: 303.383.4111
Mobile: 720.258.5546
mmientka@newfield.com



3 attachments

 **121205_Dillman 3-17-3-2W SWD WBD.xlsx**
132K

 **Newfield Dillman 3-17-3-2W SWD Foam Squeeze PJR_v1 (1).pdf.pdf**
511K

 **Dillman # 3-17-3-2W Top zone acid.pdf**
34K

Dillman 3-17-3-2W

Spud Date:		PoP Date:	
Surface Location:	S17, T3S, R2W	NFX Field:	
County/State:	Duchesne/Utah	API:	43-013-50924
Elevation (ft):		KB:	
GL:			

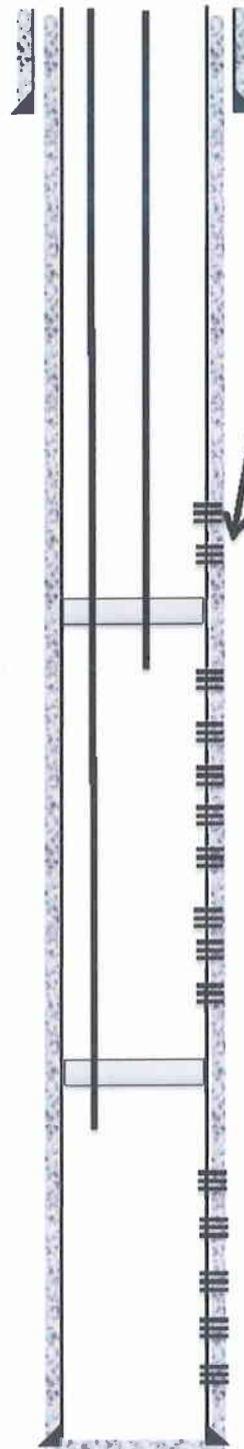


Surface Casing			
Csg Size	9.625	Csg ID	8.921
Grade	J-55 LTC	Drift	8.765
Weight	36.00#	Burst	3,520
Depth Landed KB	857	Collapse	2,020
Length	857	bbl/ft	0.0774
Surface			
Cement Top			
Cement Data	3/17/12 - BJ Cement w/ 360 sk of Class G + 2% KCl + 0.25# CF mixed at 15.8 ppg (1.17 yield). Returned 7 bbl to pit and bumped plug		

Production Casing			
Csg Size	7.00	Csg ID	6.366
Grade	L-80 LTC	Drift	6.241
Weight	23.00#	Burst	6,340
Depth Landed KB	5337.00	Collapse	3,830
Length	5337	bbl/ft	0.0394
Surface			
Cement Top			
Cement Data	Pump 10 bbl dye, 20 bbl mud clean, 20 bbl fresh water, 235 bbl (1,067 sks) of 14 4# cement. Drop plug and displace with 208.3 bbl 2% KCl. Bumped plug and floats held. Full to partial returns throughout with 45 bbl cement returned to surface		

Perforation Record					
Stage	Date	Top	Bottom	spf	Holes
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1	4/12/12	4,748.0	4752	3	12
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1	4/12/12	4,722.0	4724	3	6
2	4/12/12	4,574.0	4580	3	18
2	4/12/12	4,524.0	4526	3	6
2	4/12/12	4,464.0	4469	3	15
3	4/12/12	4,430.0	4440	3	30
3	4/12/12	4,397.0	4400	3	9
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4	4/13/12	4,316.0	4320	3	12
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7	4/13/12	2,803.0	2806	3	9
7	4/13/12	2,744.0	2752	3	24
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8	4/13/12	2,486.0	2500		
9	4/13/12	2,431.0	2435		
9	4/13/12	2,412.0	2416		
9	4/13/12	2,376.0	2378		
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10	4/13/12	2,182.0	2198		
11	4/13/12	2,142.0	2144		
11	4/13/12	2,126.0	2134		

Holes Squeezed
9/27/12



TOC = 0'

2126 - 2574'
All zones squeezed

Top Paker @ 2692'

EOT @ 2705

Top Perf @ 2744'

Uinta
Bottom Perf @ 3144'

Bottom Paker @ 4173'

EOT @ 4191'

Top Perf @ 4270

Bottom Perf @ 4800'

Stimulation Summary		
Date	Bottom	Top
4/25/2012	4800	4247
Stages 1-4 treated on 4/25 with 28% HCl, Packer set at 4247', plug set at 4800' See DCR and Perf Record more details		
4/26/2012	3202	2700
Stage 5-7 with 15% HCL + add. Packer set at 2700', plug set at 3202' See DCR and Perf Record more details		
4/27/2012	2634	2102
Stages 8 - 11 treated with 15% KCL + add + 300 balls. Packer set at 2102', plug set at 2634' See DCR and Perf Record more details		
9/27/2012	2574	2126
All perms (2574' - 2126') squeezed with cement. See DCR for more details.		

*Tubing
2 3/8" 4.7 #
N-80*

PBTD at 5277



Mark Reinbold <markreinbold@utah.gov>

Fwd: Dillman SWD

2 messages

Dustin Doucet <dustindoucet@utah.gov>
To: Mark Reinbold <markreinbold@utah.gov>

Mon, Jan 14, 2013 at 4:29 PM

Recommended approval pressures

Lower Zone 2050 psi - 90% of ISIP of SRT
Upper Zone 825 psi - ISIP of SRT (~95% of Max BHP - Hydrostatic during SRT)

----- Forwarded message -----

From: **Matt Mientka** <mmientka@newfield.com>
Date: Mon, Jan 14, 2013 at 9:38 AM
Subject: RE: Dillman SWD
To: "dustindoucet@utah.gov" <dustindoucet@utah.gov>

Dustin,

Speaking of the details, here is the Post Job from Halliburton. It has a fairly detailed time recap as well.

Hope this helps, but let me know if you have any further questions.

Thanks,

~matt

720.258.5546

From: Matt Mientka
Sent: Monday, January 14, 2013 8:44 AM
To: 'Dustin Doucet'
Subject: RE: Dillman SWD

Hi Dustin,

I have some answers for you, but not necessarily any better charts.

1. I don't have any other plots, I have a note out to the pump company, but I am not sure what they will find. I'll try and track down the full data file.
2. On the lower test, there is really no reason for the stage to start at 20. The Newfield supervisor said they filled and loaded the well at ¼ bpm, after they had it loaded. They shut in and you can see the pressure for ~30min prior to the SRT(injection starts again at 20). So there is probably a little compressed fluid and induced formation pressure, but it is not the result of friction/moving fluid.
3. The pen Charts don't have great pen marks on my copy either. They were attached to the casing (monitoring pressure above top packer) and at 0 the entire time, hence the bad marking. They were just recorded to show that we weren't seeing any pressure spike or communication across the top packer during either test.

That's about all I have for now. Hopefully that answers your questions. I will work on tracking down the full pump charts.

Thanks,

~matt

720.258.5546

From: Dustin Doucet [mailto:dustindoucet@utah.gov]
Sent: Wednesday, January 09, 2013 12:56 PM
To: Matt Mientka
Subject: Re: Dillman SWD

Matt,

Thanks. That's helpful. Couple more questions. Do you have the other graphed intervals for the pump pressures? On the lower you have it starting at event 20, what happened before that point, is the 2245 psi a result of a injection rate? What rate? Also the charts that were submitted didn't show the pen marks, did they come through on the originals? If so, could you get me copies showing the marks. Thanks.

On Wed, Jan 9, 2013 at 11:57 AM, Matt Mientka <mmientka@newfield.com> wrote:

Hi Dustin,

Yes we did the SRTs for both zones with everything in the current setup. Each zone's SRT was down 2-3/8" tubing, and both strings are internally coated with plastic.

~matt

720.258.5546

From: Dustin Doucet [mailto:dustindoucet@utah.gov]
Sent: Wednesday, January 09, 2013 11:45 AM
To: Matt Mientka
Subject: Re: Dillman SWD

Matt,

When you did the actual SRT on the two zones was it the same setup. I know sometimes operators run there SRT with different tubing than what they have for final injection setup. Is the tubing coated or anything special about the tubing used in the tests? Thanks.\

Dustin

On Wed, Jan 9, 2013 at 10:44 AM, Matt Mientka <mmientka@newfield.com> wrote:

Hi Eric / Dustin,

Sorry for any confusion. It is all 2-3/8" tubing. Please let me know if you need anything else.

~matt
720.258.5546

-----Original Message-----

From: Eric Sundberg
Sent: Wednesday, January 09, 2013 10:41 AM
To: J.D. Horrocks; Matt Mientka
Cc: Dustin Doucet
Subject: Dillman SWD

JD or Matt,

Can you confirm what size tubing is installed in the Dillman SWD for Dustin? He said there is some conflicting information as to whether it is 2 3/8 or 2 7/8 in that dual string

Thanks, Eric

Sent from my iPhone

--

Dustin K. Doucet

Petroleum Engineer

Division of Oil, Gas and Mining

1594 West North Temple, Ste 1210

Salt Lake City, Utah 84116

801.538.5281 (ofc)

801.359.3940 (fax)

web: www.ogm.utah.gov

--

Dustin K. Doucet

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 **PJR_Newfield_Dillman 3-17-3-2W SWD_Misc Pump_v1.pdf.pdf**
237K

Dustin Doucet <dustindoucet@utah.gov>
To: Mark Reinbold <markreinbold@utah.gov>

Mon, Jan 14, 2013 at 4:30 PM

FYI

----- Forwarded message -----

From: **Matt Mientka** <mmientka@newfield.com>

Date: Mon, Jan 14, 2013 at 8:43 AM

Subject: RE: Dillman SWD

[Quoted text hidden]

[Quoted text hidden]

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Water Disposal Well	8. WELL NAME and NUMBER: DILLMAN #3-17-3-2W SWD	
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. API NUMBER: 43013509240000	
3. ADDRESS OF OPERATOR: Rt 3 Box 3630, Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0508 FNL 1799 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 17 Township: 03.0S Range: 02.0W Meridian: U	COUNTY: DUCHESNE	
		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

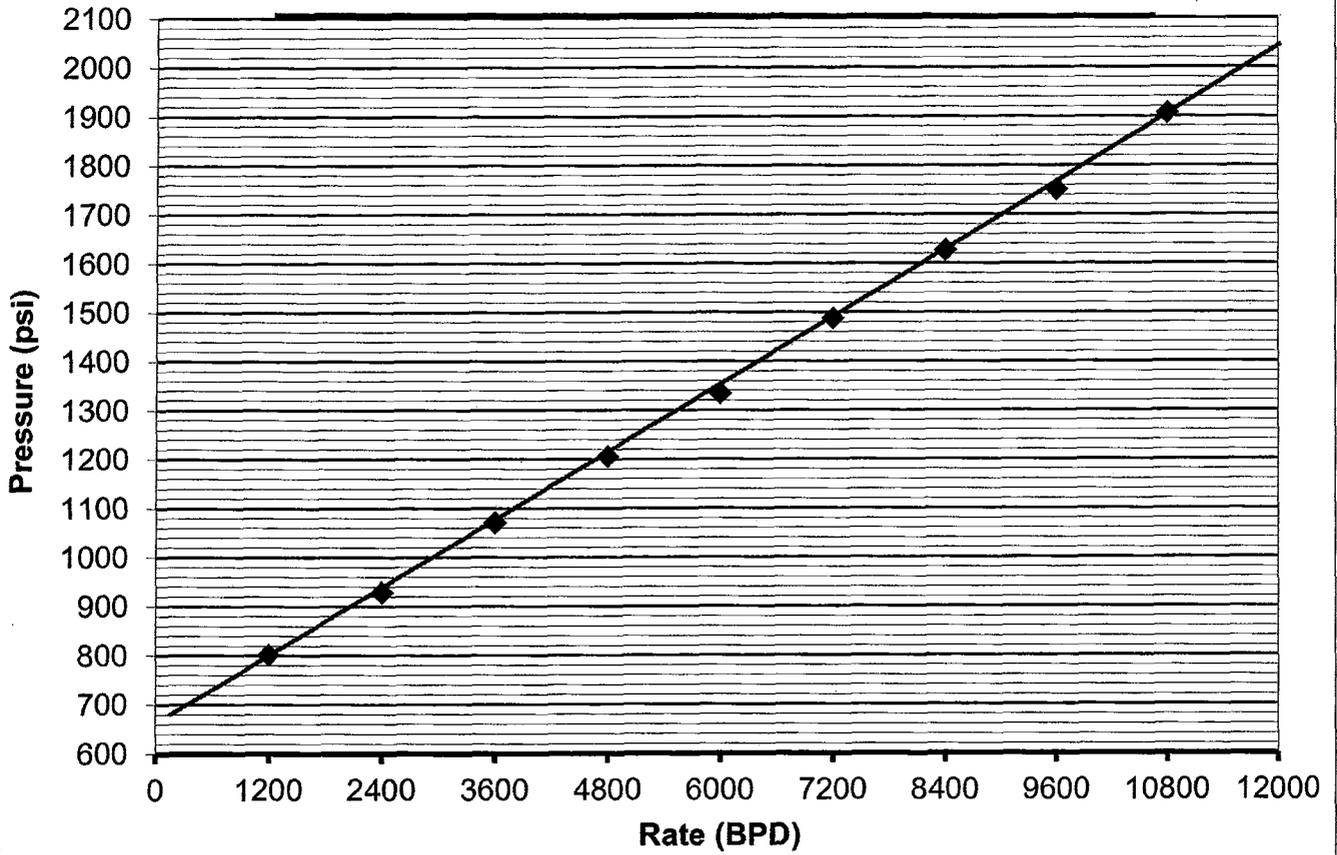
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 12/11/2012 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input checked="" type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Step Rate Tests"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

A step rate test was conducted on the subject well. On December 11, 2012 the results from the test on the upper tubing indicate that the fracture gradient is 1.134 psi/ft. Therefore, Newfield is requesting that the initial maximum allowable injection pressure (MAIP) be set at 1907 psi. On December 10, 2012 the results from the test on the lower tubing indicate that the fracture gradient is 1.287 psi/ft. Therefore, Newfield is requesting that the initial maximum allowable injection pressure (MAIP) be set at 3620 psi.

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 12/17/2012	

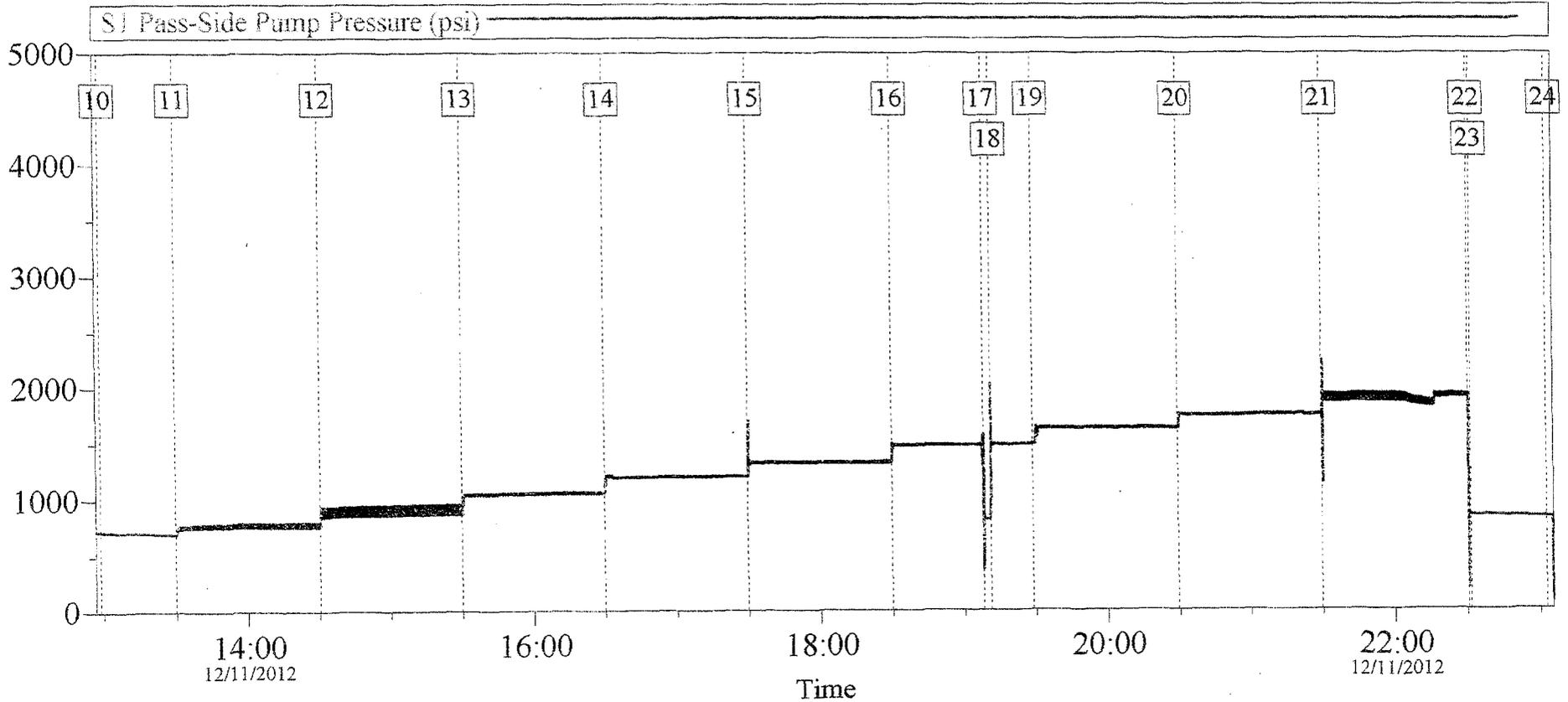
**Dillman 3-17-3-2w SWD Upper Tubing
Central Basin Unit
Step Rate Test
December 11, 2012**



Start Pressure: 704 psi
 Top Perforation: 2744 feet
 Fracture pressure (Pfp): 1907 psi
 FG: 1.134 psi/ft

Step	Rate(bpd)	Pressure(psi)
1	1200	802
2	2400	929
3	3600	1071
4	4800	1206
5	6000	1335
6	7200	1488
7	8400	1627
8	9600	1751
9	10800	1907

**NEWFIELD DILLMAN 3-17-3-2W SWD SRT
UPPER TUBING PRESSURE**



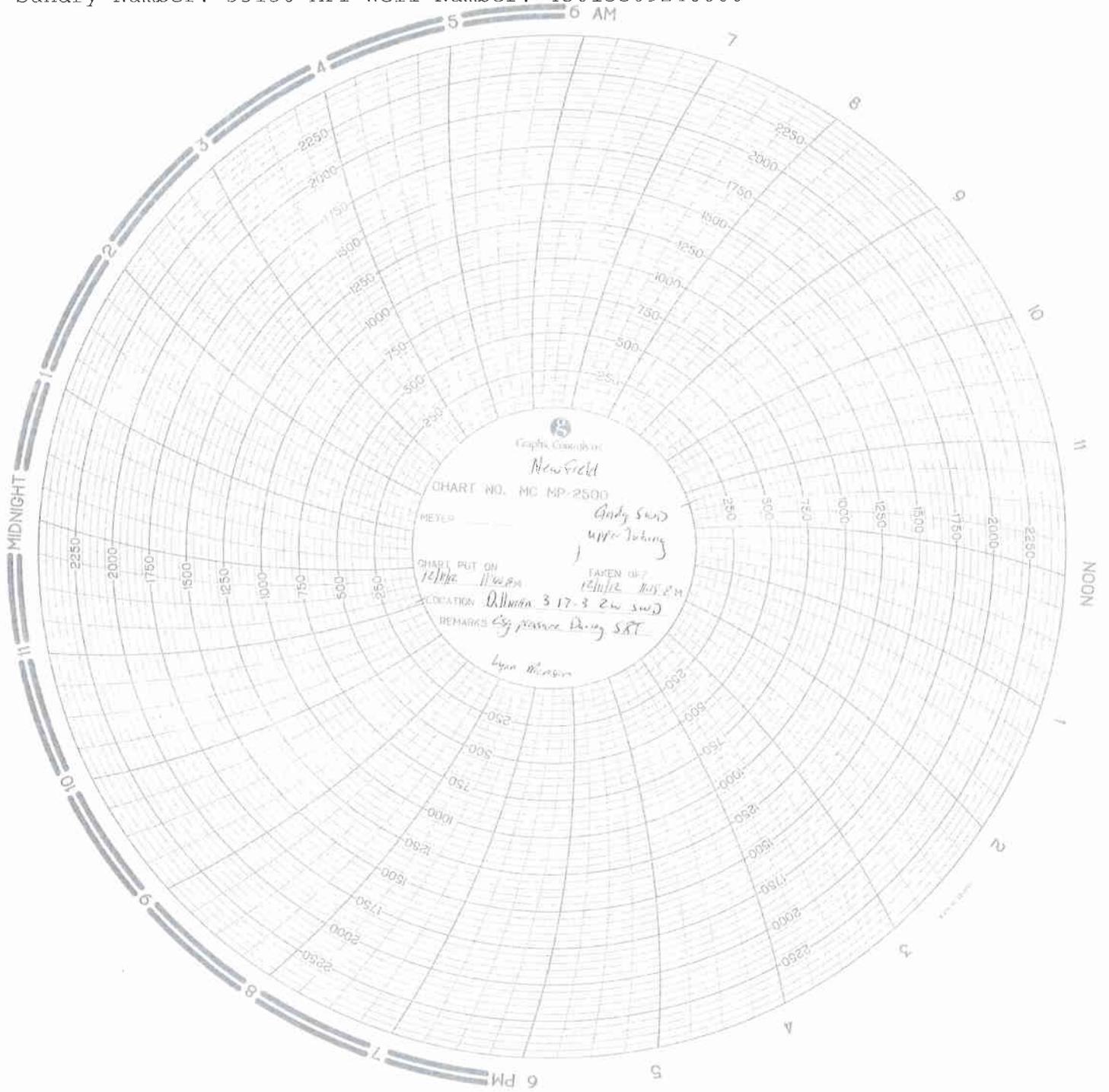
Global Event Log							
Intersection		PSI	Intersection	PSI	Intersection	PSI	
[10]	Pressure Test	12:58:38	724.0	[11]	End Pressure Test	13:29:43	704.0
[12]	Injection Rate	14:30:12	802.1	[13]	Injection Rate	15:29:55	929.1
[14]	Injection Rate	16:29:37	1071.0	[15]	Injection Rate	17:29:45	1206.0
[16]	Injection Rate	18:29:43	1335.0	[17]	Lost Prime	19:08:03	1489.0
[18]	Resume Pumping	19:11:04	1488.0	[19]	Injection Rate	19:28:34	1488.0
[20]	Injection Rate	20:29:18	1627.0	[21]	Injection Rate	21:29:34	1751.0
[22]	Injection Rate	22:30:16	1907.0	[23]	Shutdown	22:31:23	842.0
[24]	End Test	23:02:31	825.0				

Customer: NEWFIELD	Job Date: 11-Dec-2012	Sales Order #: 900065629
Well Description: DILLMAN 3-17-3-2W SWD	UWI:	

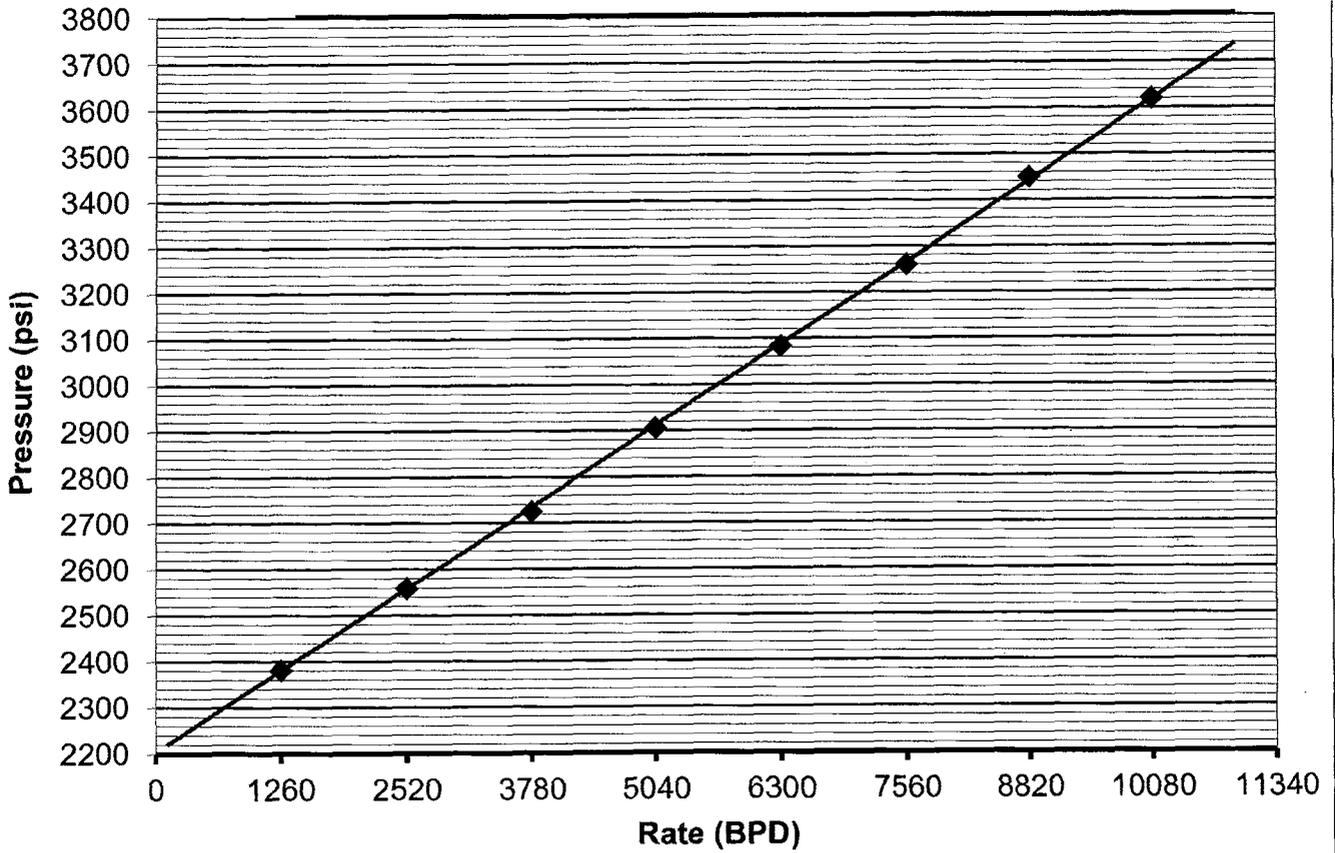
OptiCem v6.4.9
11-Dec-12 23:30

Sundry Number: 33130 API Well Number: 43013509240000

Sundry Number: 33130 API Well Number: 43013509240000



**Dillman 3-17-3-2w SWD Lower Tubing
Central Basin Unit
Step Rate Test
December 10, 2012**



Start Pressure:

2245 psi

Top Perforation:

4270 feet

Fracture pressure (Pfp):

3620 psi

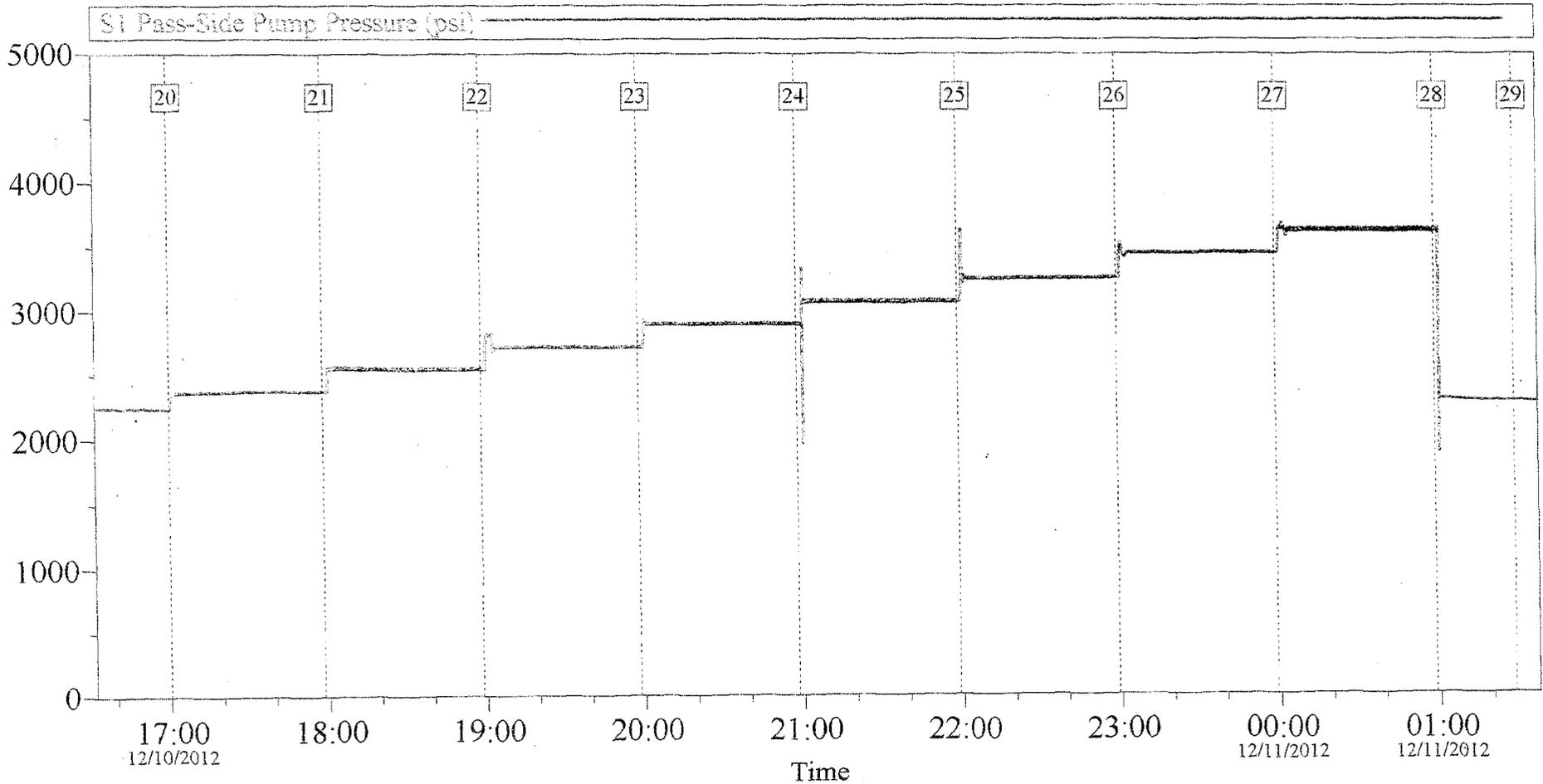
FG:

1.287 psi/ft

Step	Rate(bpd)	Pressure(psi)
1	1260	2381
2	2520	2558
3	3780	2725
4	5040	2906
5	6300	3083
6	7560	3260
7	8820	3450
8	10080	3620

NEWFIELD DILLMAN 3-17-3-2W SWD SRT

LOWER TUBING PRESSURE



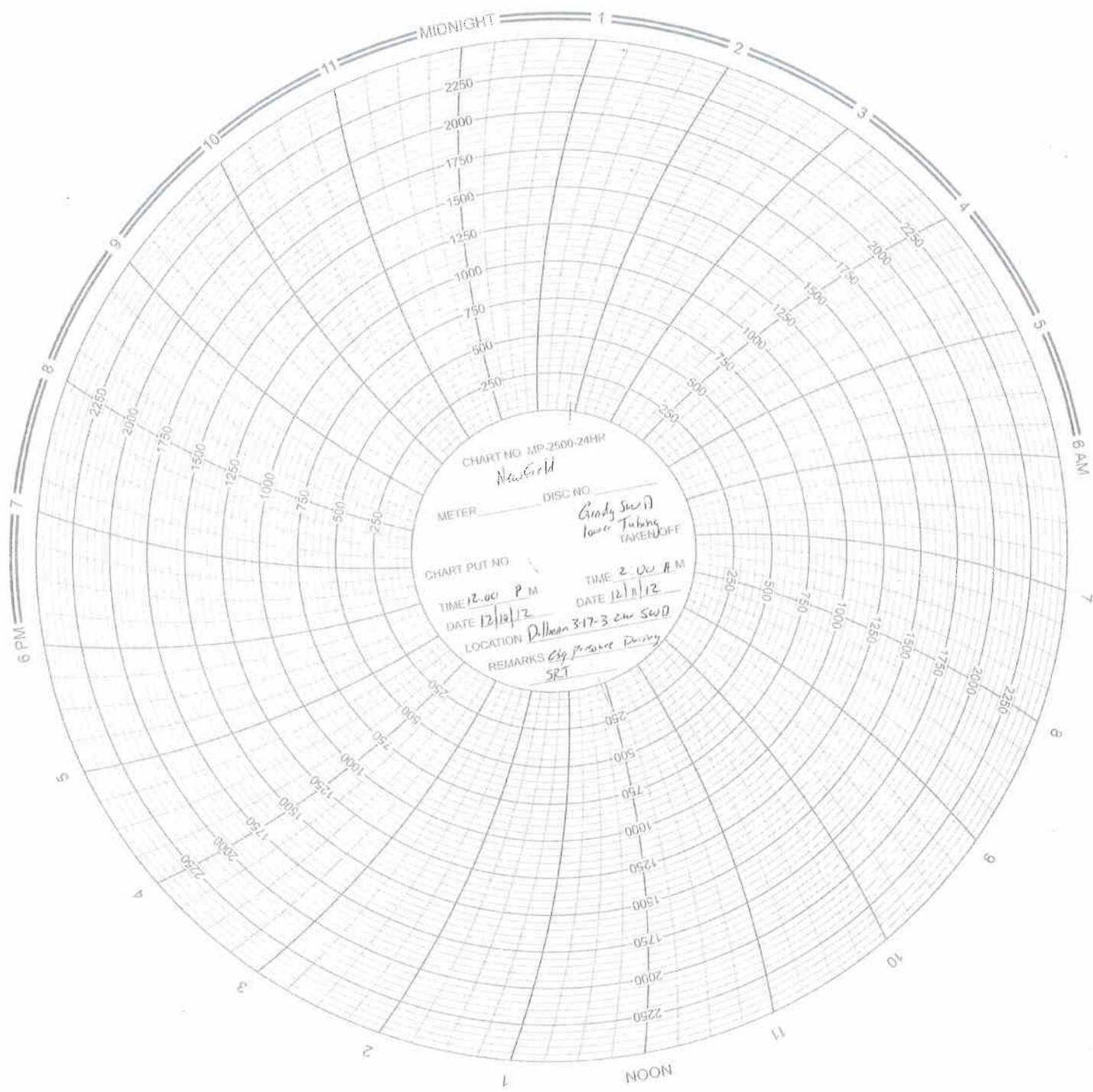
Global Event Log							
Intersection		PSI	Intersection		PSI	Intersection	PSI
[20]	Injection	12/10/2012 16:59:58	2245	[21]	Step up	12/10/2012 17:58:08	2381
[22]	Step up	12/10/2012 18:58:15	2558	[23]	Step up	12/10/2012 19:58:05	2725
[24]	Step up	12/10/2012 20:57:51	2906	[25]	Step up	12/10/2012 21:58:34	3083
[26]	Step up	12/10/2012 22:58:41	3260	[27]	Step up	12/10/2012 23:58:48	3450
[28]	Shut in test	12/11/2012 00:58:34	3620	[29]	Shutdown	12/11/2012 01:28:13	2278

Customer: NEWFIELD	Job Date: 10-Dec-2012	Sales Order #: 900065629
Well Description: DILLMAN 3-17-3-2W SWD	UWI:	

OptiCem v6.4.9
11-Dec-12 23:44

Sundry Number: 33130 API Well Number: 43013509240000

Sundry Number: 33130 API Well Number: 43013509240000



HALLIBURTON

**NEWFIELD PRODUCTION CO EBUS
DO NOT MAIL - 1001 17TH ST STE 2000
DENVER, Colorado**

Dillman 3-17-3-2W SWD

Post Job Summary Miscellaneous Pumping Service

Date Prepared: 12/16/12
Version: 1

Service Supervisor: KELEHER, JASON

Submitted by: Isabelle Sumera

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Stage/Plug # 1	Fluid 4:	Injection Water	Fluid Density: 8.60 lbm/gal Pump Rate: 2.00 bbl/min
Stage/Plug # 1	Fluid 5:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 2.50 bbl/min
Stage/Plug # 1	Fluid 6:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 3.00 bbl/min
Stage/Plug # 1	Fluid 7:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 3.50 bbl/min
Stage/Plug # 1	Fluid 8:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 4.00 bbl/min
Stage/Plug # 1	Fluid 9:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 4.50 bbl/min
Stage/Plug # 1	Fluid 10:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 5.00 bbl/min
Stage/Plug # 1	Fluid 11:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 5.50 bbl/min
Stage/Plug # 1	Fluid 12:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 6.00 bbl/min
Stage/Plug # 1	Fluid 13:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 6.50 bbl/min
Stage/Plug # 1	Fluid 14:	Injection Water	Fluid Density: 8.50 lbm/gal Pump Rate: 7.00 bbl/min
Stage/Plug # 1	Fluid 15:	Injection Water	Fluid Density: 8.58 lbm/gal Pump Rate: 7.50 bbl/min
Stage/Plug # 1	Fluid 16:	Injection Water	Fluid Density: 8.60 lbm/gal Pump Rate: 8.00 bbl/min

HALLIBURTON

Job Summary

Job Information

Job Start Date	12/10/2012 7:45:00 AM
Job MD	5,000.0 ft
Job TVD	5,000.0 ft
Height of Plug Container/Swage Above Rig Floor	3.0 ft
Surface Temperature at Time of Job	20 degF
Actual Mud Density	8 lbm/gal
Annular flow Before Job? (Water/Gas)	Unknown
Annular flow After Job? (Water/Gas)	Yes

Service Supervisor Reports

Job Log

Date/Time	Activity Code	Rate (bpm)	Volume (bbl)	Pressure (psig)	Comments
12/10/2012 05:00	Pre-Convoy Safety Meeting				COVER TOPICS OF FIT TO DRIVE, ROUTE AND POSSIBLE HAZARDS
12/10/2012 05:15	Depart from Service Center or Other Site				
12/10/2012 06:30	Arrive at Location from Service Center				
12/10/2012 06:40	Assessment Of Location Safety Meeting				
12/10/2012 06:45	Pre-Rig Up Safety Meeting				GO OVER PLAN OF RIG UP, ITEMS NEEDED AND ASSIGN ROLES
12/10/2012 06:50	Rig-Up Equipment				
12/10/2012 07:30	Pre-Job Safety Meeting				GO OVER PUMP SCHEDULE, AND RED ZONES
12/10/2012 07:45	Test Lines				PRESSURE TEST TO 5000 PSI
12/10/2012 08:00	Other			.0	SHUT IN TEST
12/10/2012 08:30	Pump Spacer 1	1	40	612.0	STEP RATE ON UPPER SECTION.
12/10/2012 12:14	Shutdown				SWITCH TO LOWER SECTION
12/10/2012 14:15	Other			2249.0	SHUT IN TEST
12/10/2012 14:45	Pump Spacer 1	5	1570	3622.0	STEP RATE LOWER SECTION
12/11/2012 00:58	Other			2278.0	SHUT IN TEST
12/11/2012 01:28	Shutdown				SHUTDOWN FOR NIGHT
12/11/2012 08:00	Pre-Job Safety Meeting				CREW AND COMPANY REP HAVE PRE JOB SAFETY MEETING
12/11/2012 08:48	Pressure Test				PRESSURE TEST LINES TO 5000 PSI
12/11/2012 08:51	Comment	1	200		PUMP INTO WELL
12/11/2012 12:58	Comment			724.0	SHUT IN TEST
12/11/2012 13:30	Injection Test				STEP RATE UPPER SECTION
12/11/2012 18:00	Comment				ACTUAL ADDITIONAL HOURS 29 BUT COORDINATOR INFORMED TO CHARGE 14.

HALLIBURTON

Date/Time	Activity Code	Rate (bpm)	Volume (bbl)	Pressure (psig)	Comments
12/11/2012 23:02	Comment			1920.0	SHUT IN TEST
12/11/2012 23:10	Pre-Rig Down Safety Meeting				CREW HAS PRE RIG DOWN SAFETY MEETING
12/11/2012 23:15	Rig-Down Equipment				CREW RIGS DOWN EQUIPMENT
12/11/2012 23:55	Pre-Convoy Safety Meeting				CREW HAS JOURNEY MANAGEMENT SAFETY MEETING
12/12/2012 00:00	Depart Location for Service Center or Other Site				CREW DEPARTS FROM LOCATION

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 356662		Ship To #: 2917985		Quote #:		Sales Order #: 900065629							
Customer: NEWFIELD PRODUCTION CO EBUS				Customer Rep: MONSEN, LYNN									
Well Name: Dillman		Well #: 3-17-3-2W SWD		API/UWI #: 43-013-50924									
Field: MONUMENT BUTTES		City (SAP): MYTON		County/Parish: Duchesne		State: Utah							
Legal Description: Section 17 Township 3S Range 2W													
Lat: N 40.228 deg. OR N 40 deg. 13 min. 40.404 secs.				Long: W 110.137 deg. OR W -111 deg. 51 min. 48.42 secs.									
Job Purpose: Miscellaneous Pumping Service													
Well Type: Injection Well				Job Type: Miscellaneous Pumping Service									
Sales Person: GANT, RICHARD		Srcv Supervisor: KELEHER, JASON		MBU ID Emp #: 437348									
Job Personnel													
HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #					
CARPENTER, LANCE S	0.0	461737	ELDER, DENNIS R	0.0	505202	KELEHER, JASON	20.0	437348					
Equipment													
HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way						
Job Hours													
Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours					
TOTAL				Total is the sum of each column separately									
Job				Job Times									
Formation Name				Date	Time	Time Zone							
Formation Depth (MD)	Top	Bottom		Called Out	10 - Dec - 2012	04:00	MST						
Form Type	BHST			On Location	10 - Dec - 2012	06:30	MST						
Job depth MD	5000. ft	Job Depth TVD	5000. ft	Job Started	10 - Dec - 2012	07:45	MST						
Water Depth		Wk Ht Above Floor	3. ft	Job Completed	11 - Dec - 2012	23:00	GMT						
Perforation Depth (MD)	From	To		Departed Loc	12 - Dec - 2012	00:00	MST						
Well Data													
Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft		
Production Casing	Unknown		7.	6.276	26.		P-110		5000.				
Tubing	Unknown		2.375	1.995	4.7		N-80		5000.				
Tools and Accessories													
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			
Miscellaneous Materials													
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	
Fluid Data													

HALLIBURTON

Cementing Job Summary

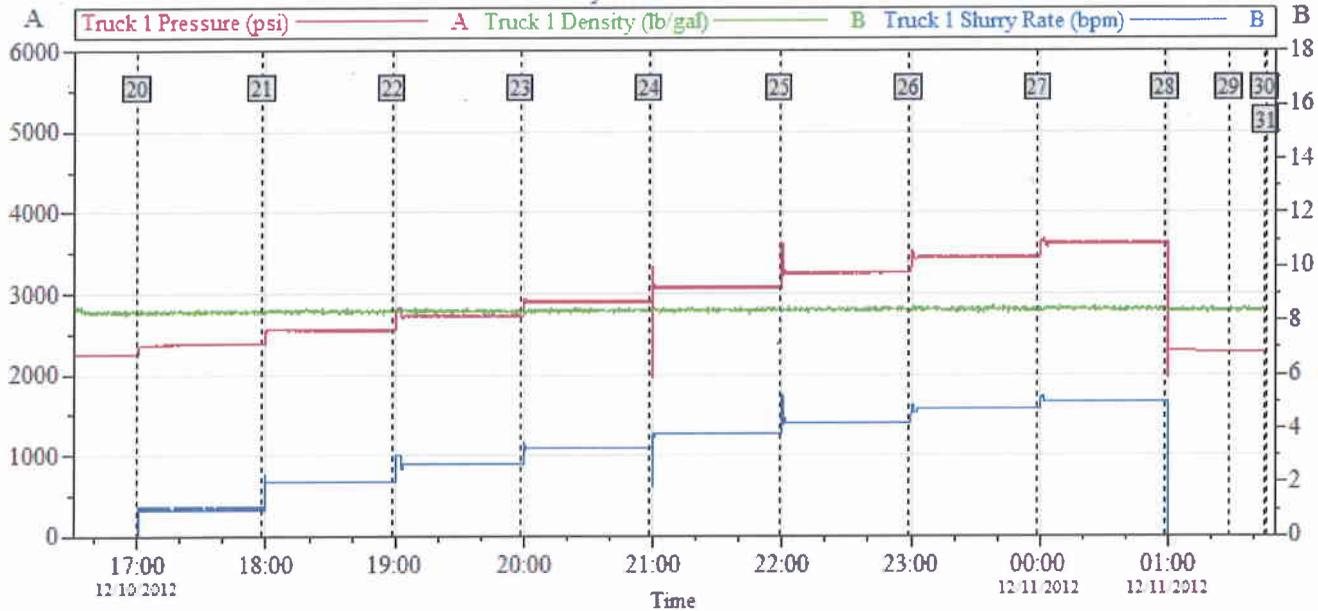
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Injection Water			bbl	8.5	0.0	0.0	0.5	
2	Injection Water			bbl	8.5	0.0	0.0	1.0	
3	Injection Water			bbl	8.5	0.0	0.0	1.5	
4	Injection Water			bbl	8.6	0.0	0.0	2.0	
5	Injection Water			bbl	8.5	0.0	0.0	2.5	
6	Injection Water			bbl	8.5	0.0	0.0	3.0	
7	Injection Water			bbl	8.5	0.0	0.0	3.5	
8	Injection Water			bbl	8.5	0.0	0.0	4.0	
9	Injection Water			bbl	8.5	0.0	0.0	4.5	
10	Injection Water			bbl	8.5	0.0	0.0	5.0	
11	Injection Water			bbl	8.5	0.0	0.0	5.5	
12	Injection Water			bbl	8.5	0.0	0.0	6.0	
13	Injection Water			bbl	8.5	0.0	0.0	6.5	
14	Injection Water			bbl	8.5	0.0	0.0	7.0	
15	Injection Water			bbl	8.58	0.0	0.0	7.5	
16	Injection Water			bbl	8.6	0.0	0.0	8.0	
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	0 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature					

HALLIBURTON

Data Acquisition

NEWFIELD, DILLMAN 3-17-3-2W SWD MISC PUMP

Job Summary Chart-LOWER TUBING



Global Event Log

20	Injection	12/10/2012 16:59:58	21	Step up	12/10/2012 17:58:08	22	Step up	12/10/2012 18:58:15
23	Step up	12/10/2012 19:58:05	24	Step up	12/10/2012 20:57:51	25	Step up	12/10/2012 21:58:34
26	Step up	12/10/2012 22:58:41	27	Step up	12/10/2012 23:58:48	28	Shut in test	12/11/2012 00:58:34
29	Shutdown	12/11/2012 01:28:13	30	Ending Job	12/11/2012 01:44:42	31	End Job	12/11/2012 01:45:25

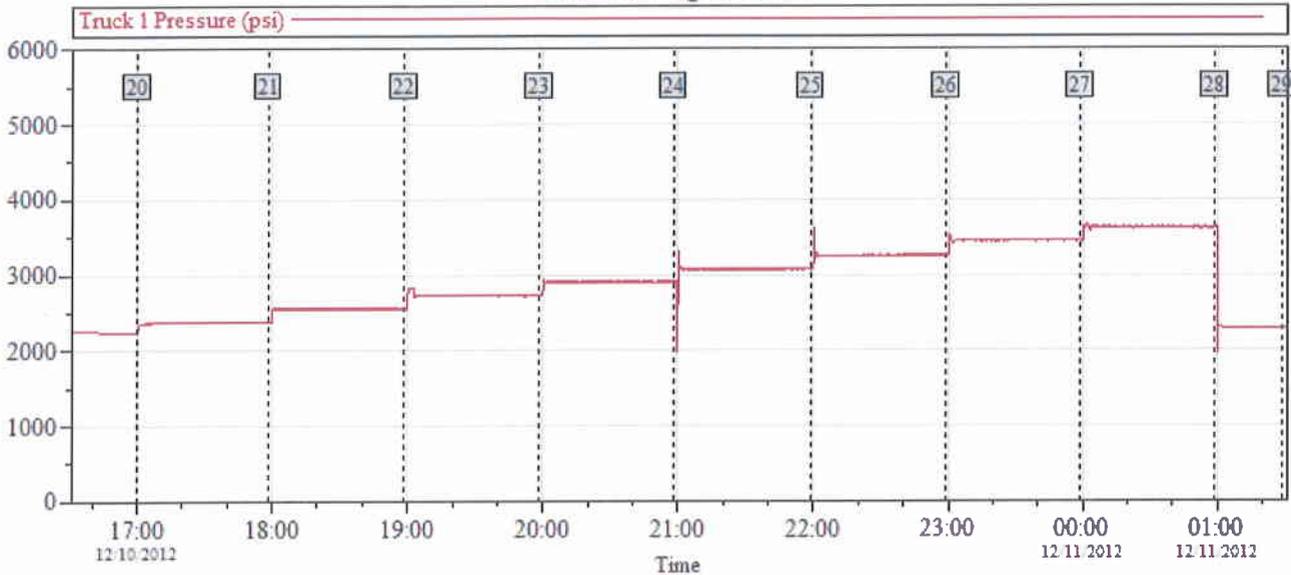
Customer:	NEWFIELD	Job Date:	10-Dec-2012	Sales Order #:	900065629
Job Description:	MISC PUMP	LWI:		Site #:	11501021
Service Supervisor:	JASON KELEHER	Service Operator:	DENY ELDER	Service Leader:	

OptiCem v6.4.10
11-Dec-12 01:52

HALLIBURTON

NEWFIELD DILLMAN 3-17-3-2W SWD MISC PUMP

Lower tubing Pressure



Global Event Log

Intersection	T1P	Intersection	T1P	Intersection	T1P
20 Injection	12/10/2012 16:59:58	2245	21 Step up	12/10/2012 17:58:08	2381
23 Step up	12/10/2012 19:58:05	2726	24 Step up	12/10/2012 20:57:51	2905
26 Step up	12/10/2012 22:58:41	3255	27 Step up	12/10/2012 23:58:48	3449
29 Shutdown	12/11/2012 01:28:13	2278	28 Shut in test	12/11/2012 00:58:34	3617

Customer: NEWFIELD	Job Date: 10-Dec-2012	Sales Order #: 900065629
Job Description: MISC PUMP	LWI:	Est #: 11501021
Service Supervisor: JASON KELEHER	Service Operator: DENY ELDER	Service Leader:

OptiCam v6.4.10
11-Dec-12 01:51



Mark Reinbold <markreinbold@utah.gov>

Fwd: Dillman 3-17-3-2W SWD

1 message

Dustin Doucet <dustindoucet@utah.gov>

Thu, Nov 29, 2012 at 2:02 PM

To: Brad Hill <bradhill@utah.gov>, Mark Reinbold <markreinbold@utah.gov>

Think this is for you guys.

Dustin

----- Forwarded message -----

From: **Matt Mientka** <mmientka@newfield.com>

Date: Wed, Nov 7, 2012 at 10:55 AM

Subject: Dillman 3-17-3-2W SWD

To: "dustindoucet@utah.gov" <dustindoucet@utah.gov>

Hi Dustin,

Eric Sundberg is out of the office on some much needed vacation, but I wanted to get your thoughts on the second of our SWDs.

As a reminder, this is the well that we perforated, acidized, and swabbed perforations for water salinity above the 2500' mark. For injection approval we were required to isolate the upper perms (above 2500' and then move forward with the normal process. We attempted to squeeze the upper perms several times, and thought we had it (see Casing test pre-packer), so we installed our dual packer assembly. We came back to do our MIT and had a bit of a leak (see the MIT 001 chart). We have isolated both string, pressured up above and below the packer and are convinced we have a small/slow leak into the formation. We have injected in the middle zone (below the upper packer) and did not see any pressure above the packer. When we leave the well for a longer period of time the area above the perms builds to ~100-125psi (which is quickly bleed to 0psi). It will hold 900psi and draw a flat line over 30 min or more, which makes me believe it is a very small leak.

We could pull our packers and again try to squeeze it, but I feel we won't have the best of luck. Would the state be willing to let us move forward with the Step Rate Test as we monitor the pressure above the top packer. If we saw any pressure over 125psi we would stop the SRT and contact you on a plan forward.

Please review with your folks and let me know if you have any questions.

Thank you,

Matt Mientka

Completions Engineer

Office: 303.383.4111
Mobile: 720.258.5546
mmientka@newfield.com

NEWFIELD



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Dustin K. Doucet
Petroleum Engineer
Division of Oil, Gas and Mining
1594 West North Temple, Ste 1210
Salt Lake City, Utah 84116
801.538.5281 (ofc)
801.359.3940 (fax)

web: www.ogm.utah.gov

4 attachments



3-17-3-2 MIT_001.pdf
167K



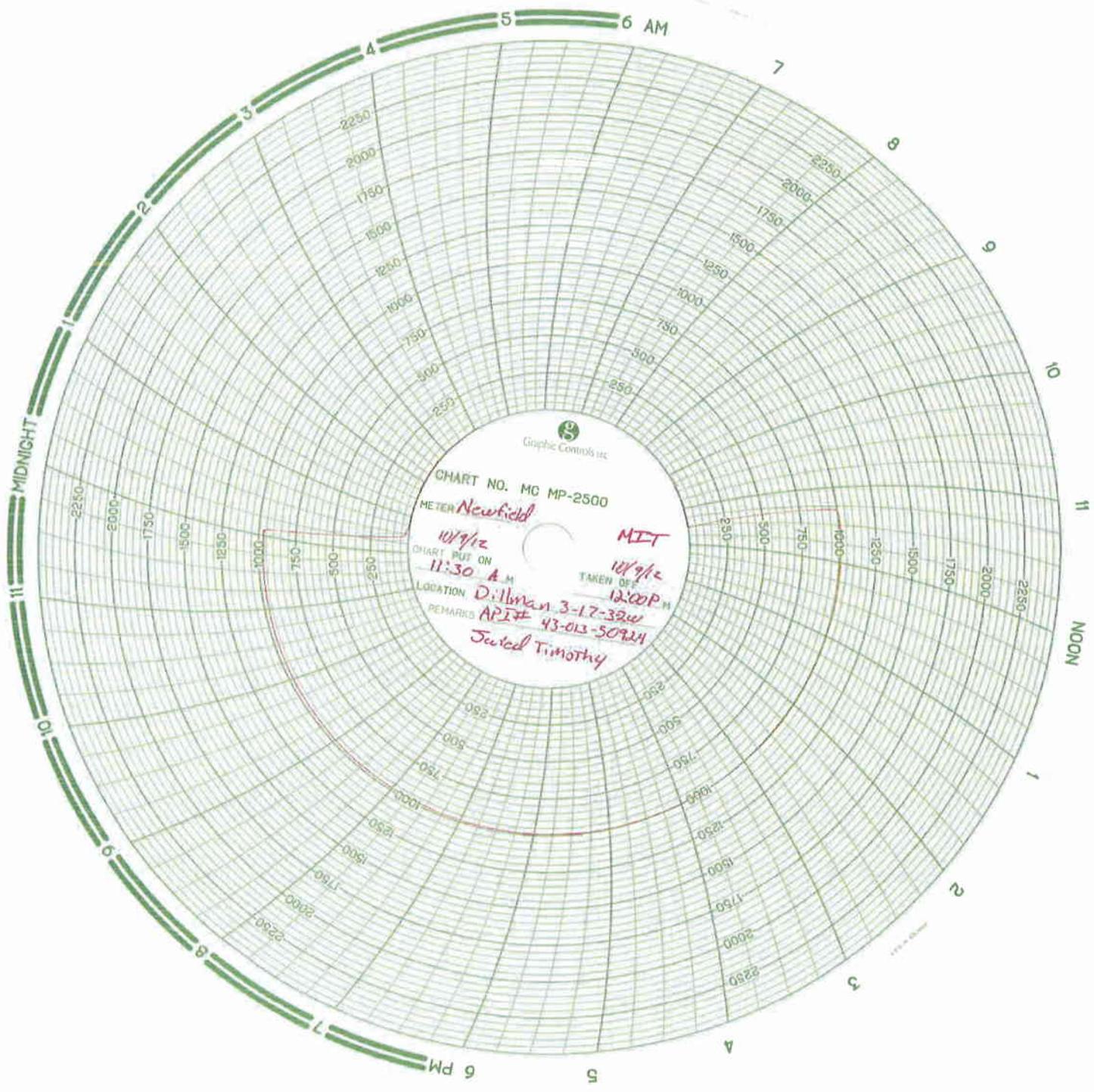
Dillman 3-17-3-2W Casing Test_pre packer set.pdf
1163K



20120829 Dillman 3-17-3-2W SWD Aprvl to Convert.pdf
84K



Dillman 3-17-3-2W SWD WBD.xlsx
131K



Graphic Controls Inc.

CHART NO. MC MP-2500

METER *Newfield*

MIT

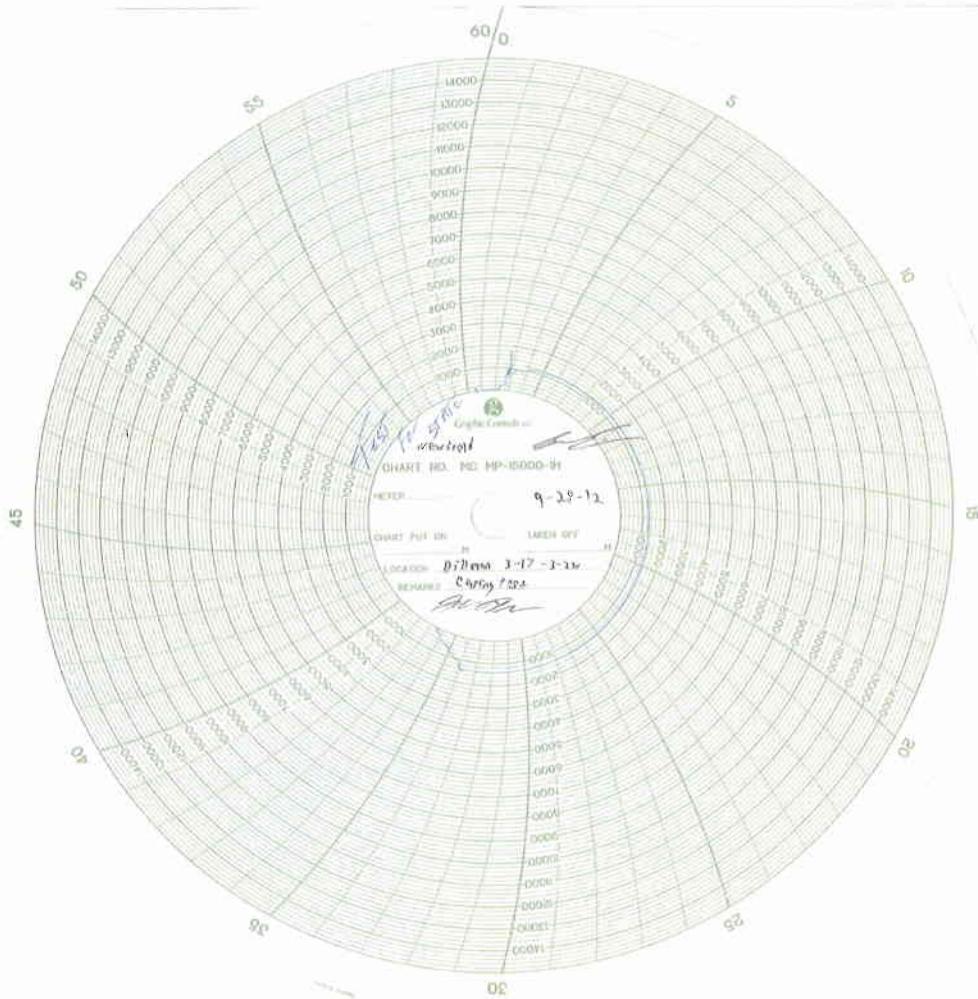
CHART PUT ON
11:30 A.M.

TAKEN OFF
12:00 P.M.

LOCATION *Dillman 3-17-32w*

REMARKS *API# 43-013-50924*

Sealed Timothy





GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 29, 2012

Mr. Eric Sundberg
Newfield Production Company
1001 17th Street, Suite 2000
Denver, CO 80202

Subject: Dillman 3-17-3-2W SWD, Section 17, Township 3 South, Range 2 West, USM, Duchesne County, Utah, API # 43-013-50924

Dear Mr. Sundberg:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

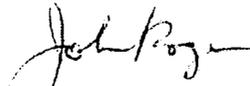
1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Newfield Production Company.
3. A casing/tubing pressure test shall be conducted prior to commencing injection.
4. Because of questionable quality of light cement in the Miles #15-8-3-2 well (API 43-013-50814), pressure shall be monitored in that well between the surface casing and the production casing on a regular basis. Any pressure changes observed shall be reported to the Division immediately.
5. Injection shall be restricted to the lower Uinta and Green River Formations, below a depth of 2,500 feet. It is necessary to establish compatibility between the water samples from the proposed injection intervals and samples of the proposed injection fluids.
6. A step-rate test will be required in each of the two proposed injection intervals (Uinta Formation and Green River Formation) during recompletion in order to determine the fracture parting pressure through that specific proposed injection interval.



Page 2
Dillman 3-17-3-2W SWD
August 29, 2012

A final approval to commence injection will be issued upon satisfactory completion of the listed stipulations. If you have any questions regarding this approval or the necessary requirements, please contact Mark Reinbold at 801-538-5333 or Brad Hill at 801-538-5315.

Sincerely,



John Rogers
Associate Director

JR/MLR/js
cc: Bruce Suchomel, Environmental Protection Agency
Duchesne County
Well File

N:\O&G Permits\Injection Permits\Newfield Production\Dillman 3-17-3-2W SWD Conversion approval

NEWFIELD



ROCKY MOUNTAINS

Dillman 3-17-3-2W	
Spud Date:	POP Date:
Surface Location: S17, T3S, R2W	NFX Field:
County/State: Duchesne/Utah	API: 43-013-50924
Elevation (ft):	KB:
GL:	

Surface Casing			
Csg Size	9.825	Csg ID	8.921
Grade	J-55 LTC	Drift	8.765
Weight	36.00#	Burst	3,520
Depth Landed KB	837.00	Collapse	2,020
Length	837.00	bbl/ft	0.0774
Cement Top	Surface		
Cement Data	3/17/12 - BJ Cement w/ 360 sk of Class G + 2% KCl + 0.25# CF mixed at 15.8 ppg (1.17 yield). Returned 7 bbl to pit and bumped plug.		

Production Casing			
Csg Size	7.00	Csg ID	6.366
Grade	L-80 LTC	Drift	6.241
Weight	23.00#	Burst	6,340
Depth Landed KB	5337.00	Collapse	3,830
Length	5337	bbl/ft	0.0394
Cement Top	Surface		
Cement Data	Pump 10 bbl dye, 20 bbl mud clean, 20 bbl fresh water, 235 bbl (1 067 sks) of 14.4# cement. Drop plug and displace with 208.3 bbl 2% KCl. Bumped plug and floats held. Full to partial returns throughout with 45 bbl cement returned to surface.		

Perforation Record					
Stage	Date	Top	Bottom	spr	Holes
1	4/12/12	4,794.0	4800	3	18
1	4/12/12	4,782.0	4788	3	18
1	4/12/12	4,756.0	4758	3	6
1	4/12/12	4,748.0	4752	3	12
1	4/12/12	4,730.0	4734	3	12
1	4/12/12	4,722.0	4724	3	6
2	4/12/12	4,574.0	4580	3	18
2	4/12/12	4,524.0	4526	3	6
2	4/12/12	4,464.0	4469	3	15
3	4/12/12	4,430.0	4440	3	30
3	4/12/12	4,397.0	4400	3	9
3	4/13/12	4,364.0	4368	3	12
3	4/13/12	4,342.0	4348	3	18
4	4/13/12	4,316.0	4320	3	12
4	4/13/12	4,280.0	4284	3	12
4	4/13/12	4,270.0	4274	3	12
5	4/13/12	3,142.0	3144	3	6
5	4/13/12	3,086.0	3100	3	42
5	4/13/12	3,030.0	3074	3	132
6	4/13/12	3,004.0	3012	3	24
6	4/13/12	2,900.0	2928	3	84
7	4/13/12	2,835.0	2838	3	9
7	4/13/12	2,822.0	2825	3	9
7	4/13/12	2,803.0	2806	3	9
7	4/13/12	2,744.0	2752	3	24
8	4/13/12	2,572.0	2574		
8	4/13/12	2,486.0	2500		
9	4/13/12	2,431.0	2435		
9	4/13/12	2,412.0	2416		
9	4/13/12	2,376.0	2378		
9	4/13/12	2,338.0	2340		
9	4/13/12	2,326.0	2328		
10	4/13/12	2,293.0	2296		
10	4/13/12	2,274.0	2280		
10	4/13/12	2,240.0	2242		
10	4/13/12	2,182.0	2198		
11	4/13/12	2,142.0	2144		
11	4/13/12	2,126.0	2134		

Holes Squeezed
9/27/12



TOC = 0'

Stimulation Summary		
Date	Bottom	Top
4/25/2012	4800	4247
Stages 1-4 treated on 4/25 with 28% HCl. Packer set at 4247', plug set at 4800' See DCR and Perf Record more details		
4/26/2012	3202	2700
Stage 5- 7 with 15% HCL + add. Packer set at 2700', plug set at 3202' See DCR and Perf Record more details		
4/27/2012	2634	2102
Stages 8 - 11 treated with 15% KCL +add + 300 balls. Packer set at 2102', plug set at 2634' See DCR and Perf Record more details.		
9/27/2012	2574	2126
All perms (2574' - 2126') squeezed with cement. See DCR for more details.		

Top Paker
@ 2692'

EOT
@ 2705

Top Perf
@ 2744'

Ulna
Bottom Perf @ 3144'

Bottom Packer
@ 4173'

EOT @ 4191'

Top Perf @ 4270

Bottom Perf @ 4800'

PBDT at 5277

HALLIBURTON

**NEWFIELD PRODUCTION CO EBUS
DO NOT MAIL - 1001 17TH ST STE 2000
DENVER, Colorado**

DILLMAN 3-17-3-2W

Workover

Post Job Summary Squeeze Open Hole

Prepared for: Matt Mientka
Date Prepared:
Version: 1

Service Supervisor: ASHBY, ANDREW

Submitted by: Chris Cicirello

HALLIBURTON

HALLIBURTON

Wellbore Geometry

Job Tubulars					MD		TVD		Excess %	Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft		
Casing	7" Production Casing	7.00	6.184	29.00	0.00	2,600.00				
Tubing	2 3/8" Tubing	2.38	1.995	4.60	0.00	2,066.00				

HALLIBURTON

Service Supervisor Reports

Job Log

Date/Time	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
09/18/2012 02:00	Call Out				Crew Called out for Job.
09/18/2012 04:50	Pre-Convoy Safety Meeting				Met w/crew to discuss safety and hazards of travel to location
09/18/2012 05:00	Depart from Service Center or Other Site				Entered into Journey Management.
09/18/2012 06:00	Arrive At Loc				Ended Journey Management. Rig ready for us to spot equipment & rig up.
09/18/2012 06:10	Assessment Of Location Safety Meeting				Met w/crew to discuss hazards of site, location of materials and safety precautions.
09/18/2012 07:30	Other				Spot Equipment
09/18/2012 07:45	Pre-Rig Up Safety Meeting				Met w/crew to discuss the best way to rig up, safety and hazards involved.
09/18/2012 08:00	Rig-Up Equipment				Rig up Ground & Standpipe
09/18/2012 10:15	Pre-Job Safety Meeting				Met w/Rig Crew, Co. Rep, and our crew to discuss job procedres, contingencies, and safety measures.
09/18/2012 10:37	Other	2	3		Fill Lines
09/18/2012 10:38	Shutdown				Shutdown to fix leak on Swedge to tubing.
09/18/2012 11:13	Other	2	3		Fill Lines
09/18/2012 11:19	Test Lines			5369.0	Pressure Test Iron - hold while N2 tests their iron.
09/18/2012 11:22	Test Lines			5730.0	N2 Pressure Test
09/18/2012 11:24	Injection Test		6	740.0	Establish injection rate - pump job @ 2 bpm.
09/18/2012 11:31	Pump Water	2	4	920.0	Fresh Water Spacer
09/18/2012 11:33	Pump Spacer	2	10	925.0	Pump 10% CaCl Water
09/18/2012 11:39	Pump Water	2	5	936.0	Fresh Water Spacer
09/18/2012 11:41	Pump Spacer	2	10	895.0	Pump SuperFlush 101
09/18/2012 11:48	Pump Water	2	5	874.0	Fresh Water Spacer
09/18/2012 11:51	Pump Foam Cement	2	78	916.0	335 sks Elastiseal Lead: mixed @ 14.3 lb/gal, 1.22 cuft/sk, 5.32 gal/sk - foamed @ 12.5 lb/gal, 1.37 cuft/sk, 5.32 gal/sk
09/18/2012 12:24	Pump Tail Cement	2	8	1360.0	35 sks Elastiseal Tail @ 14.3 lb/gal, 1.22 cuft/sk, 5.32 gal/sk
09/18/2012 12:31	Pump Displacement	2	11	962.0	12 bbls = tubing capacity, Leave 1 bbl in tubing per co. rep.
09/18/2012 12:33	Slow Rate	1		999.0	Slow rate to walk-in squeeze.
09/18/2012 12:39	Shutdown			1254.0	Finished displacement.
09/18/2012 12:40	Other				Sting out of retainer approx 10 ft.
09/18/2012 12:45	Reverse Circ Well	2	20	215.0	Reverse 1.5x tubing capacity = 20 bbls
09/18/2012 12:48	Other	3		400.0	Increase rate.

HALLIBURTON

Date/Time	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
09/18/2012 12:49	Cement Returns to Surface	3			See good cement to surface 2 bbls.
09/18/2012 12:53	Shutdown				Finished reversing out.
09/18/2012 12:55	End Job				Job Complete
09/18/2012 13:00	Post-Job Safety Meeting (Pre Rig-Down)				Met w/crew to discuss rigging down safely.
09/18/2012 13:15	Rig-Down Equipment				Rig everything down.
09/18/2012 14:25	Pre-Convoy Safety Meeting				Met w/crew to discuss fit-for-duty, safety and hazards of travel back.
09/18/2012 14:30	Depart Location for Service Center or Other Site				Entered into Journey Management.
09/18/2012 14:30	Other				Thanks for using Halliburton!!!

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 356662	Ship To #: 2917985	Quote #:	Sales Order #: 9823046
Customer: NEWFIELD PRODUCTION CO EBUS		Customer Rep: Ferrari, Adam	
Well Name: DILLMAN	Well #: 3-17-3-2W	API/UWI #:	
Field:	City (SAP): MYTON	County/Parish: Duchesne	State: Utah
Contractor: WORKOVER		Rig/Platform Name/Num: Workover	
Job Purpose: Squeeze Open Hole			
Well Type: Producing Well		Job Type: Squeeze Open Hole	
Sales Person: FLING, MATTHEW		Srvc Supervisor: ASHBY, ANDREW	MBU ID Emp #: 450544

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ASHBY, ANDREW A	8.5	450544	BOWLES, DONALD Wayne	8.5	121749	CICIRELLO, CHRISTOPHER David	8.5	392902
CLARK, SHAUN Cameron	8.5	527195	EDWARDS, CORY Larell	8.5	499221	ESTEP, KENNETH	8.5	121420
FUCHS, JUSTIN Mark	8.5	509124	GRIDER, JAMES Francis	8.5	524217	HARVEY, CORY Lee	8.5	508253
KAISA, BRADLEY Mike	8.5	528102	KENT, DONALD W	8.5	246232	ROBINSON, DUSTIN Mark	8.5	508399
YOURDON, MARVIN Douglas	8.5	346719						

Equipment

HES Unit #	Distance-1 way						
10829454	60 mile	10948686	60 mile	10991611	60 mile	11024385	60 mile
11071474	60 mile	11077464	60 mile	11127525	60 mile	11189139	60 mile
11304251	60 mile	11338213	60 mile	11398321	60 mile	11526494	60 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
9/18/12	8.5	2.0						
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name	Formation Depth (MD) Top	Bottom	Called Out	Date	Time	Time Zone
Form Type	BHST		On Location	18 - Sep - 2012	06:00	MST
Job depth MD	2600. ft	Job Depth TVD	Job Started	18 - Sep - 2012	11:00	MST
Water Depth	Wk Ht Above Floor		Job Completed	18 - Sep - 2012	13:00	MST
Perforation Depth (MD) From	2066	To	2600	Departed Loc	18 - Sep - 2012	14:30
						MST

Well Data

Description	New / Used	Size in	ID in	Weight lbf/ft	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
7" Production Casing	Unknown	7.	6.366	23.	J-55	.	2600.		
2 3/8" Tubing	Unknown	2.375	1.995	4.6	.	.	2050.		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug	7"	1	HES	2600	Bottom Plug			
Float Collar					Retainer	7"	1	HES	2066	SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

HALLIBURTON

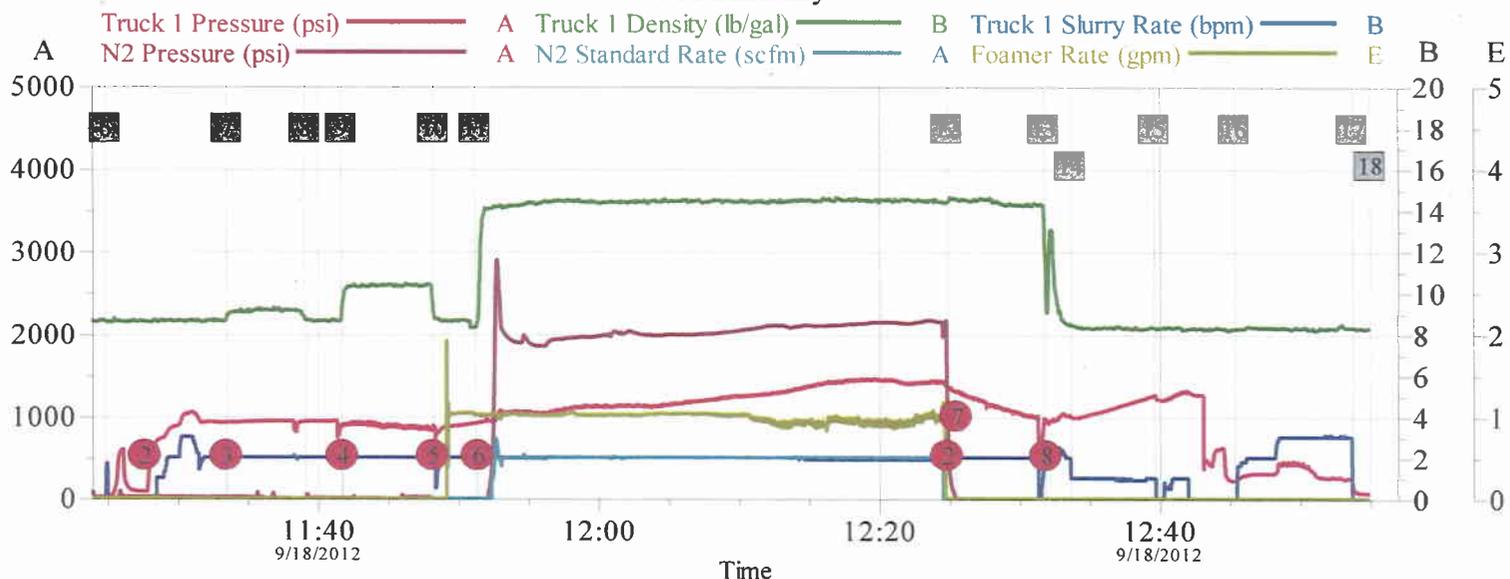
Cementing Job Summary

Miscellaneous Materials													
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	
Fluid Data													
Stage/Plug #: 1													
Fluid #	Stage Type	Fluid Name			Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk		
1	WATER SPACER				10.00	bbl	8.34	.0	.0	.0			
2	10% CALCIUM CHLORIDE				10.00	bbl	9.04	.0	.0	.0			
38.92 lbm/bbl		CALCIUM CHLORIDE - HI TEST PELLETT (100005053)											
3	WATER SPACER				5.00	bbl	8.34	.0	.0	.0			
4	SUPER FLUSH 101	SUPER FLUSH 101 - SBM (12199)			10.00	bbl	10.	.0	.0	.0			
5	WATER SPACER				5.00	bbl	8.34	.0	.0	.0			
6	ELASTISEAL	ELASTISEAL (TM) SYSTEM (450262)			355.0	sacks	14.3	1.22	5.32		5.32		
2 %		CHEM - FOAMER 760, TOTETANK (101664089)											
5.32 Gal		FRESH WATER											
7	ELASTISEAL	ELASTISEAL (TM) SYSTEM (450262)			35.0	sacks	14.3	1.22	5.32		5.32		
2 %		CHEM - FOAMER 760, TOTETANK (101664089)											
5.32 Gal		FRESH WATER											
8	Displacement fluid				11.00	bbl	.	.0	.0	.0			
Calculated Values		Pressures		Volumes									
Displacement	11.8	Shut In: Instant	1296	Lost Returns	0	Cement Slurry	84.7	Pad					
Top Of Cement	2066	5 Min	1250	Cement Returns	2	Actual Displacement	11	Treatment					
Frac Gradient		15 Min		Spacers	40	Load and Breakdown		Total Job	137.7				
Rates													
Circulating	2	Mixing	2	Displacement	1.5	Avg. Job	2						
Cement Left In Pipe	Amount	600 ft	Reason	Under Retainer									
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID						
The Information Stated Herein Is Correct				Customer Representative Signature									

HALLIBURTON

Newfield Exploration Company Dillman 3-17-3-2W SWD Foam Squeeze

Job Summary

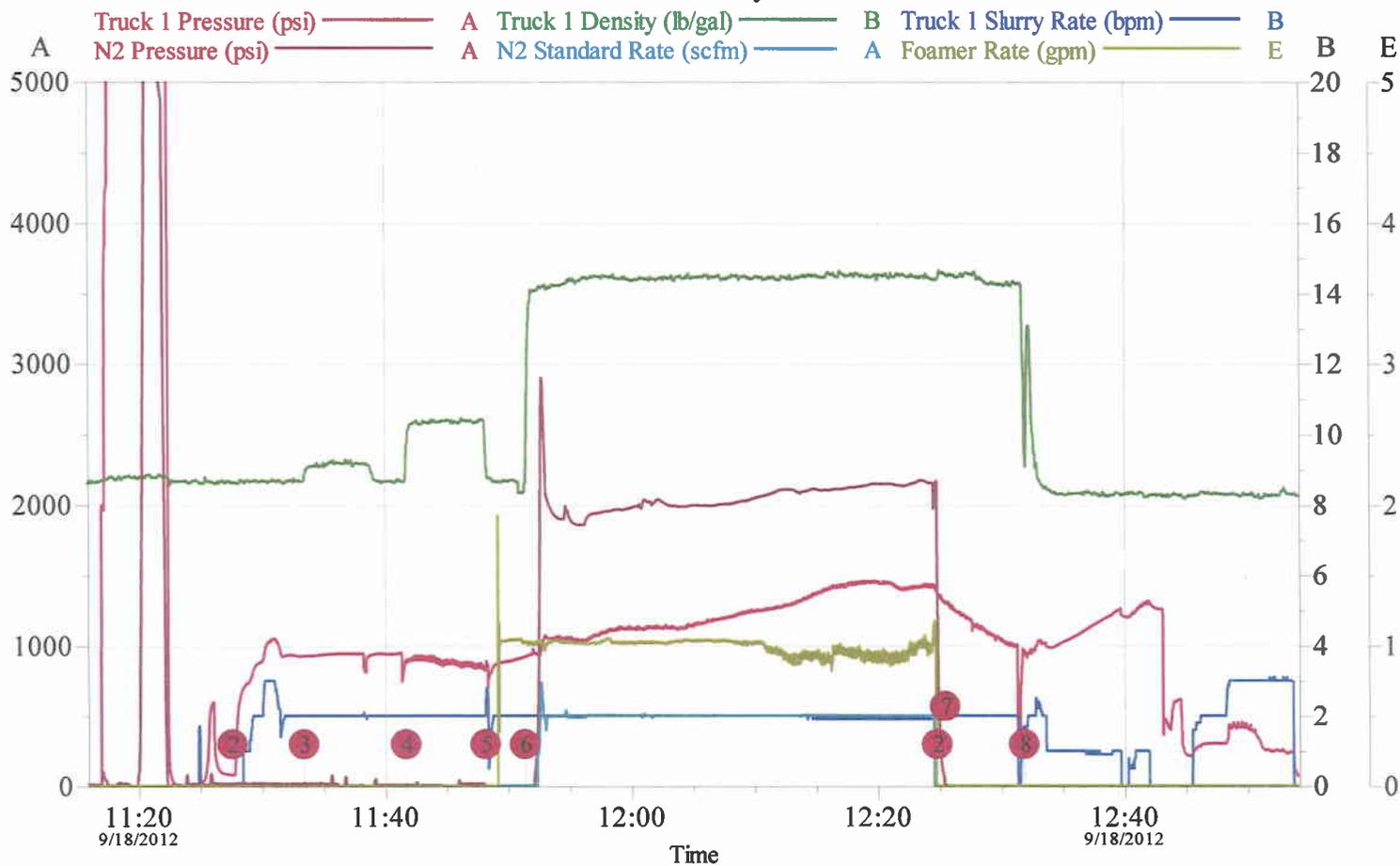


Global Event Log					
Intersection	TIP	Intersection	TIP	Intersection	TIP
Injection Test	11:24:53 3.240	Pump CaCl2 Water	11:33:33 928.0	Pump Water	11:39:07 936.0
Pump Superflush	11:41:44 895.0	Pump Water	11:48:17 850.5	Pump Foam Cement	11:51:16 915.7
Pump Tail Cement	12:24:56 1360	Pump Displacement	12:31:49 973.3	Slow rate to 1 BPM	12:33:44 992.2
Shutdown	12:39:40 1254	Reverse Circ Well	12:45:24 215.0	Shutdown	12:53:47 169.9
Ending Job	12:55:02 63.00				

Customer: NEWFIELD EXPLORATION CO EBUS	Job Date: 18-Sep-2012	Sales Order #: 9823046	HALLIBURTON OptiCem v6.4.10 18-Sep-12 13:25
Well Description: Dillman 3-17-3-2W	UWI:		

Newfield Exploration Company Dillman 3-17-3-2W SWD Foam Squeeze

Job Summary



Customer: NEWFIELD EXPLORATION CO EBUS	Job Date: 18-Sep-2012	Sales Order #: 9823046	HALLIBURTON OptiCem v6.4.10 18-Sep-12 13:08
Well Description: Dillman 3-17-3-2W	UWI:		

HALLIBURTON

Lab Data

HALLIBURTON

HALLIBURTON

Cementing Rockies, Vernal

LAB RESULTS - Lead

Job Information

Request/Slurry	272400/1	Rig Name	Workover	Date	17/SEP/2012
Submitted By	Christopher Cicirello	Job Type	Perforation Squeeze	Bulk Plant	Vernal
Customer	Newfield	Location	Duchesne	Well	Dillman 3-17-3-2W-SWD

Well Information

Casing/Liner Size	2 7/8"	Depth MD	2600 ft	BHST	102 F
Hole Size	7"	Depth TVD	2600 ft	BHCT	82 F

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Type	Sample Date	Lot No.	Cement Properties		
100.00	% BWOC	Cement Blend	Bulk	Sep 18, 2012		Slurry Density	14.30	PPG
5.35	gal/sack	Fresh Water				Slurry Yield	1.23	ft ³ /sk
2.000	% BVOW	Foamer 760	Bulk	Mar 12, 2012	Mar 12, 2012	Water Requirement	5.35	GPS
						Total Mix Fluid	5.35	GPS
						Foam Density	12.501	PPG
						Foam Quality	12.2	%

Operation Test Results Request ID 272400/1

UCA Comp. Strength

End Temp (°F)	Pressure (psi)	50 psi (hh:mm)	500 psi (hh:mm)	12 hr CS (psi)	24 hr CS (psi)
82	3,000	03:35	11:18	535	909

Thickening Time

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
82	1,523	19	6	05:06	05:48	06:02	06:32

Mixability (0 - 5) - 0 is not mixable

Mixability rating (0 - 5)
5

Foam Mix and Stability

Sink (mm)	Time to Foam (Sec)	Foam Density (SG)	Conditioning time (hrs:min)
4	5	12.2	00:00

FYSA Viscosity Profile & Gel Strength

600	300	200	100	60	30	6	3	30 - 3 rpm Decay	60 - 6 rpm Decay	Foam Quality	PV/YP	FYSA Direct YP
61	49	45	42	41	40	40	38	36	37	0	??	?

API Rheology

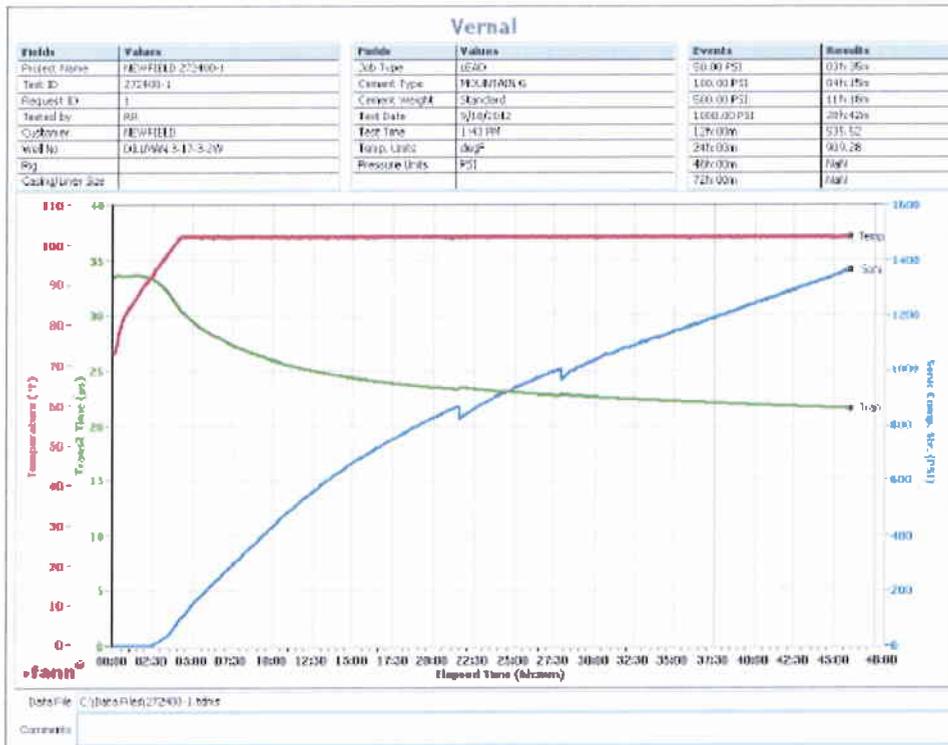
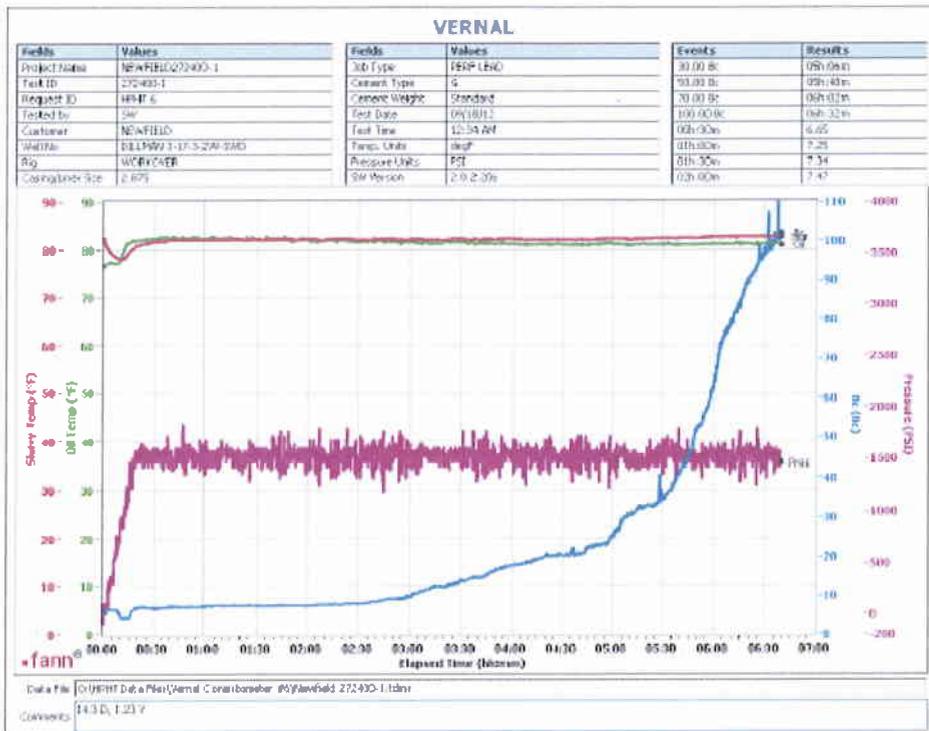
Temp (°F)	600	300	200	100	60	30	6	3	PV/YP
103	131	108	100	90	83	75	35	23	70.6 / 52.9

API Rheology

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	103	77	70	60	54	47	28	17	0	51 / 35.8

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GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 29, 2012

Mr. Eric Sundberg
Newfield Production Company
1001 17th Street, Suite 2000
Denver, CO 80202

Subject: Dillman 3-17-3-2W SWD, Section 17, Township 3 South, Range 2 West, USM, Duchesne County, Utah, API # 43-013-50924

Dear Mr. Sundberg:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Newfield Production Company.
3. A casing\tubing pressure test shall be conducted prior to commencing injection.
4. Because of questionable quality of light cement in the Miles #15-8-3-2 well (API 43-013-50814), pressure shall be monitored in that well between the surface casing and the production casing on a regular basis. Any pressure changes observed shall be reported to the Division immediately.
5. Injection shall be restricted to the lower Uinta and Green River Formations, below a depth of 2,500 feet. It is necessary to establish compatibility between the water samples from the proposed injection intervals and samples of the proposed injection fluids.
6. A step-rate test will be required in each of the two proposed injection intervals (Uinta Formation and Green River Formation) during recompletion in order to determine the fracture parting pressure through that specific proposed injection interval.



Page 2
Dillman 3-17-3-2W SWD
August 29, 2012

A final approval to commence injection will be issued upon satisfactory completion of the listed stipulations. If you have any questions regarding this approval or the necessary requirements, please contact Mark Reinbold at 801-538-5333 or Brad Hill at 801-538-5315.

Sincerely,



John Rogers
Associate Director

JR/MLR/js
cc: Bruce Suchomel, Environmental Protection Agency
Duchesne County
Well File

N:\O&G Permits\Injection Permits\Newfield Production\ Dillman 3-17-3-2W SWD Conversion approval



August 27, 2012

Brad Hill
Oil and Gas Permitting Manager
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Ste. #1210
Salt Lake City, UT 84116

RECEIVED

AUG 28 2012

DIV. OF OIL, GAS & MINING

Brad:

Enclosed for your review and our discussion purposes, please find a Cast-M Advanced Cement Evaluation Log run on the Padilla 1-18-3-2 Duchesne Co UT.

If you recall the Padilla 1-18-3-2 is an offset to the proposed Dillman 3-17-3-2 SWD.

Sincerely,

A handwritten signature in black ink that reads "Mike Jensen". The signature is written in a cursive, flowing style.

Mike Jensen

Mark Reinbold - Halliburton Cast-M advanced Cement Evaluation Log on Padilla 1-18-3-2

From: Mike Jensen <mjensen@newfield.com>
To: "bradhill@utah.gov" <bradhill@utah.gov>, "dustindoucet@utah.gov" <dustin...>
Date: 8/27/2012 2:13 PM
Subject: Halliburton Cast-M advanced Cement Evaluation Log on Padilla 1-18-3-2
CC: Eric Sundberg <esundberg@newfield.com>, Carl Burgman <cburgman@newfield....>
Attachments: NEWFIELD_PADILLA_1_18_3_2_ACE.pdf

Gentleman,

This email is a follow up to our conversation last month concerning the cement bond on the Padilla 1-18-3-2, Duchesne Co UT (offset to the proposed Dillman 3-17-3-2 SWD). As requested from this conversation, please find the attached Halliburton Cast-M Advanced Cement Evaluation log run on the Padilla on 8-22-2012. I also sent a hard copy to Brad Hill via overnight mail. Log data was processed from 5000' (200' below bottom proposed injection interval, 4800', in the Dillman) to surface. We are pleased with the results of this log that show very good cement coverage and bond from 5000' up to 350'.

Eric Sundberg is going to check with you to see when your schedule might allow a phone conversation with Eric, Myself and Matt Mientka to discuss this log and address any questions you may have.

Thank you

Mike Jensen
Newfield
720-412-7392

SUMMARY OF DISCUSSION FROM UDOGM 5/22/12 MEETING

- **Dillman 3-17-3-2W API# 43-013-51256**
 - Current perforations in Uinta formation and recent water sample tests were discussed
 - Perforations above 2500' MD of concern due to depth mapping of moderate saline formation and shallow disposal in relation to upper confining layers
 - TDS of sampled water in perforation 2,094'-2,136' ranged from 25,413 TDS (mg/L) to 46,493.14 TDS (mg/L)
 - Top of injection interval will be set to 2500' in the UIC permit
 - Wellbore has a good confining zone from 2000' – 2400' MD
 - Wellbore will require isolation of top perforations (2,126' – 2,486' MD) from injection zone
 - Discussion of Area of Review (AOR) wells
 - Padilla 1-18-3-2 (API# 43-013-50786)
 - Poor intermediate casing cement (very low TOC)
 - Top of cement and % of bond across confining layer needs to be confirmed
 - Miles 15-8-3-2 (API# 43-013-50814)
 - UDOGM staff confirmed cement across confining layer is sufficient per CBL, surface pressure monitor will be required

- **Yergensen SWD 5-18-3-1W API# 43-013-51256**
 - Discussed proposed injection interval – new top of proposed injection interval is 2500' MD
 - AOR Well – Yergensen 1-18-3-1W (API# 43-013-50428)
 - UDOGM confirmed cement across confining layer is sufficient per CBL, surface pressure monitor will be required for UIC permit
 - Water samples are still needed for UIC permit application
 - Wellbore perforations need to be below 2,500' MD
 - UIC permit work can continue

NEAR TERM TASKS TO BE COMPLETED

- **Dillman 3-17-3-2W API# 43-013-51256**
 - Padilla 1-18-3-2 (API# 43-013-50786) – need to run ultrasonic bond log
 - Need to run log across the full depth of the proposed injection interval up to a point as near the surface as practicably possible
 - A work plan will be developed, if necessary, to address TOC issue
 - A work plan will be developed to address perforations above 2500' MD (2,126' – 2,486' MD) as to isolate from the approved injection interval and pass a Part I MIT
 - MIT test to 1000 psi
 - SRT will be necessary to determine MAIP
 - Working with UDOGM to determine initial MAIP to perform SRT

- **Yergensen SWD 5-18-3-1W API# 43-013-51256**
 - OK to proceed with completions work to obtain water samples
 - Top interval will be 2500' MD
 - Water samples are still needed for UIC permit application
 - Water samples need from 3 intervals of proposed injection zone
 - 3800' – 4100' MD (GR)
 - 3200' – 3400' MD (GR)
 - 2500'-2600' MD (Uinta)

Mark Reinbold - RE: Miles 15-8-3-2 (43-013-50814)

From: Mark Reinbold
To: Eric Sundberg
Date: 5/22/2012 4:08 PM
Subject: RE: Miles 15-8-3-2 (43-013-50814)

Eric,

It is my understanding that you will determine the MAIP based on the SRT. By dual injector do you mean that there will be separate injection intervals with concentric tubing strings? I don't recall seeing that in the application. I do need a proposed injection well diagram for each of the SWD wells.

Dan says you left a message for him about a request for a drilling report. Neither of us is sure what that is about. Could you please clarify? Thanks.

Mark Reinbold
801-538-5333

>>> Eric Sundberg <esundberg@newfield.com> 5/22/2012 3:45 PM >>>

Mark,

Have you determined an initial MAIP yet for the Dillman 3-17-3-2W API# 43-013-51256? I just know we will need to know that to perform the SRT. We will need an initial MAIP for the Unitah and Green River since this will be a dual injector.

Or, should we go ahead and calculate it and submit a request?

Eric Sundberg

Manager.Regulatory
Office: 303-382-4470
Mobile: 303-396-2494

NEWFIELD



From: Mark Reinbold [mailto:markreinbold@utah.gov]
Sent: Tuesday, May 22, 2012 2:33 PM
To: Eric Sundberg
Subject: RE: Miles 15-8-3-2 (43-013-50814)

Thanks. I assume that production casing and liner are synonymous.
Mark

>>> Eric Sundberg <esundberg@newfield.com> 5/22/2012 2:26 PM >>>

Mark,

Attached is the Miles 15-8-3-2W wellbore diagram

Eric Sundberg

Manager.Regulatory

Office: 303-382-4470

Mobile: 303-396-2494

NEWFIELD



From: Mark Reinbold [<mailto:markreinbold@utah.gov>]

Sent: Tuesday, May 22, 2012 2:20 PM

To: Eric Sundberg

Subject: Miles 15-8-3-2 (43-013-50814)

Eric,

I need a wellbore diagram for this well. To the best of my knowledge I haven't received it. I apologize if it has been sent already. Thanks.

Mark Reinbold

801-538-5333

Mark Reinbold - RE: Miles 15-8-3-2 (43-013-50814)

From: Eric Sundberg <esundberg@newfield.com>
To: Mark Reinbold <markreinbold@utah.gov>
Date: 5/22/2012 3:46 PM
Subject: RE: Miles 15-8-3-2 (43-013-50814)

Mark,

Have you determined an initial MAIP yet for the Dillman 3-17-3-2W API# 43-013-51256? I just know we will need to know that to perform the SRT. We will need an initial MAIP for the Unitah and Green River since this will be a dual injector.

Or, should we go ahead and calculate it and submit a request?

Eric Sundberg

Manager.Regulatory

Office: 303-382-4470

Mobile: 303-396-2494

NEWFIELD



From: Mark Reinbold [mailto:markreinbold@utah.gov]
Sent: Tuesday, May 22, 2012 2:33 PM
To: Eric Sundberg
Subject: RE: Miles 15-8-3-2 (43-013-50814)

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Mark

>>> Eric Sundberg <esundberg@newfield.com> 5/22/2012 2:26 PM >>>

Mark,

Attached is the Miles 15-8-3-2W wellbore diagram

Eric Sundberg

Manager.Regulatory

Office: 303-382-4470

Mobile: 303-396-2494

Mark Reinbold - Alatomt/Bluebell SWD Wells

From: Eric Sundberg <esundberg@newfield.com>
To: "Mark Reinbold (markreinbold@utah.gov)" <markreinbold@utah.gov>
Date: 5/18/2012 11:25 AM
Subject: Alatomt/Bluebell SWD Wells

Mark,
 Here are some of the SWDs we found that dispose into the Uinta formation

<u>Well Name</u>	<u>Sec</u>	<u>Tw</u>	<u>Rng</u>	<u>Injection Formation</u>	<u>Top Perf</u>
Hanson 2-4B3 43-013-30337	4	2S	3W	Duchesne River - Uinta	3000
Russell 2-32 B4 43-013-30371	32	2S	4W	Duchesne River - Uinta	2464
Central Bluebell SWD 2-26A2 43-013-30389	26	1S	2W	Duchesne River	2074
Saleratus Waste Water SWD 2-17C5 43-013-30388	17	3S	5W	<i>Not Listed</i>	2017
Water Disposal 1-3A2 43-013-30021	3	1S	2W	Duchesne River	2708

Eric Sundberg
 Manager,Regulatory
 Office: 303-382-4470
 Mobile: 303-396-2494

NEWFIELD



Mark Reinbold - Newfield SWD conference call

From: Eric Sundberg <esundberg@newfield.com>
To: "Mark Reinbold (markreinbold@utah.gov)" <markreinbold@utah.gov>, "bradhi...
Date: 5/18/2012 10:54 AM
Subject: Newfield SWD conference call

Mark, Brad, and Dan

I wanted to see if you were available next Tuesday afternoon (May 22nd) for a conference call with our engineers to discuss the Dillman 3-17-3-2W SWD UIC application? We should have all of the costs worked up for a possible ultrasonic CBL job on the AOR production wells to discuss. The following are a few items for discussion:

- 1) Status of UDOGM review of the water sample results for proposed Uinta formation disposal
- 2) Discussion of current CBLs and cement quality in the AOR wells
- 3) Newfield to present cost of ultrasonic CBL work and UDOGM requirement to perform work in AOR wells in support of proposed injection interval
- 4) Newfield to propose a surface monitoring program for AOR wells (similar to approved EPA monitor plan in GMBU, but with additional SCADA commitments)
- 5) Review of proposed 5-18-3-1W proposed intervals in the Uinta formation
 - a. Requesting UDOGM approval of proposed perforation plan
 - i. Perforations are needed to collect water samples to move UIC permit forward
 - b. What intervals and how many water samples will be required?

Thanks

Eric Sundberg
Manager.Regulatory
Office: 303-382-4470
Mobile: 303-396-2494



Mark Reinbold - Re: Fwd: CBLs for SWD Well Permits

From: Mark Reinbold
To: Eric Sundberg
Date: 5/16/2012 2:11 PM
Subject: Re: Fwd: CBLs for SWD Well Permits

Eric and Justin,

We acknowledge that, in both the Miles and Padilla wells, there is some cement present above the proposed injection interval. However, for UIC wells we hold to a high standard, especially at these shallow depths, in order to ensure protection of groundwater aquifers. We should be able to demonstrate 80% bond. Neither of these CBLs adequately demonstrates cement bond meeting that standard. If you wish to inject at the proposed depths, we ask that in both wells you run the ultrasonic logs across the full depth of the proposed injection interval up to a point as near the surface as practicably possible. If you have any questions, please give us a call.

Mark Reinbold
 Utah DNR/DOGM
 801-538-5333

>>> Eric Sundberg <esundberg@newfield.com> 5/15/2012 5:23 PM >>>

Mark,

Our completion engineer had a couple questions concerning the TOC and ultra-sonic bond request in those two AOR wells. Feel free to contact him directly should you need more information or clarification on what he is asking and/or commenting on.

Please see below, thanks

Eric

Sent from my iPhone

Begin forwarded message:

From: "Justin Britsch, P.E." <jbritsch@newfield.com<mailto:jbritsch@newfield.com>>
 Date: May 15, 2012 4:33:25 PM MDT
 To: Eric Sundberg <esundberg@newfield.com<mailto:esundberg@newfield.com>>
 Subject: CBLs for SWD Well Permits

Eric,

A couple of questions in regard to the CBLs on the Miles 15-8-3-2W and Padilla 1-18-3-2W:

- 1) What exactly is the issue with the Miles CBL? The log looks really good all the way to surface and the drilling report notes that we circulated cement back to surface. TOC should be 0 and I see no reason to run an ultrasonic tool since we already know that we have a good cement job.
- 2) How deep do we need to run the ultrasonic tool in the Padilla? Or, maybe a better question, what interval (top and bottom footage) does UDOGM want to see an ultrasonic log over? It will have a large bearing on what the log will cost.

Justin Britsch, P.E.
 Lead Completions
 Office: 303-685-8036 Ext 4036
 Mobile: 918-439-6103

[Description: Newfield Exploration]
 "Newfield Exploration"

From: Eric Sundberg <esundberg@newfield.com>
To: Mark Reinbold <markreinbold@utah.gov>, "bradhill@utah.gov" <bradhill@uta...>
Date: 5/15/2012 5:23 PM
Subject: Fwd: CBLs for SWD Well Permits
Attachments: image001.png

Mark,

Our completion engineer had a couple questions concerning the TOC and ultra-sonic bond request in those two AOR wells. Feel free to contact him directly should you need more information or clarification on what he is asking and/or commenting on.

Please see below, thanks

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Sent from my iPhone

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From: "Justin Britsch, P.E." <jbritsch@newfield.com<mailto:jbritsch@newfield.com>>
Date: May 15, 2012 4:33:25 PM MDT
To: Eric Sundberg <esundberg@newfield.com<mailto:esundberg@newfield.com>>
Subject: CBLs for SWD Well Permits

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Justin Britsch, P.E.
Lead Completions
Office: 303-685-8036 Ext 4036
Mobile: 918-439-6103

[Description: Newfield Exploration]
"Newfield Exploration"

Mark Reinbold - Re: Newfield SWD Water Samples

From: Mark Reinbold
To: Eric Sundberg
Date: 5/15/2012 4:29 PM
Subject: Re: Newfield SWD Water Samples

Eric,

It would be helpful to send additional water samples for analysis. We would like to see the numbers stabilize. You may send me names of other shallow disposal wells if you like. The two you gave me were permitted in 1975 and 1976, so I can't guarantee that the reasoning hasn't changed since that time.

Mark

>>> Eric Sundberg <esundberg@newfield.com> 5/15/2012 3:03 PM >>>

Mark,

I spoke to our completions engineer and he said they took 4 samples of fluid from each interval they tested, but only sent in a couple for testing (which is why you only have sample A and B). Do you want us to send on another sample for testing from that top interval?

The completion engineering is researching the cost of running an ultra-sonic CBL in those two producing wells and should have some estimates soon.

Let me know if you want the names of the other Uinta formation SWDs wells we researched.

Eric

Sent from my iPhone



Mark Reinbold <markreinbold@utah.gov>

Newfield SWDs

2 messages

Eric Sundberg <esundberg@newfield.com>

Wed, May 9, 2012 at 8:21 AM

To: "Mark Reinbold (markreinbold@utah.gov)" <markreinbold@utah.gov>, "bradhill@utah.gov" <bradhill@utah.gov>

Mark and Brad,

I am inquiring as to whether you have been able to review the information we have submitted to you for the following SWD UIC applications and determined the approved injection interval for both wells? We would like to perforate and get water samples on the SWD 5-18-3-1W. Also, how close are we to a UIC approval on the Dillman 3-17-3-2W SWD so we can set the packer and install the tubing so it will be ready for the MIT?

Dillman 3-17-3-2W SWD API#43-013-50924

SWD 5-18-3-1W SWD API# 43-013-51256

Eric Sundberg

Manager.Regulatory

Office: 303-382-4470

Mobile: 303-396-2494

NEWFIELD



Mark Reinbold <MARKREINBOLD@utah.gov>

Fri, May 11, 2012 at 2:39 PM

To: Eric Sundberg <esundberg@newfield.com>

Eric,

I have been out in the field this week, but I will be back in the office Tuesday, May 15. We will address it next week.

Mark

>>> Eric Sundberg <esundberg@newfield.com> 5/9/2012 8:21 AM >>>

[Quoted text hidden]

Daily Activity Report

Format For Sundry

DILLMAN 3-17-3-2W

2/1/2012 To 6/30/2012

4/10/2012 Day: 1

Completion

Rigless on 4/10/2012 - NU BOP & Frac valve. Ran CBL and Temp log. Pressure test casing, Valves, BOP & Frac valve. - 4-4-2012 Ruston Muir trucking NU 7 1/16" 5K Cameron single blind BOP & 7 1/16" 5K frac valve. 4-10-2012. RU Perforators WLT, crane & 5K lubricator. Run CBL. WLTD was 5277 ' w/ TOC @ surface. LD CBL logging tools. PU & RIH w/ Probe temperature tool. Ran temperature log from 5272 to surface. LD temperature logging tools. RD WL. RU Adler Hot oiler & Four star pressure test unit. Pressure test casing, WH head, Casing valves, Frac valve & BOP to 400 psi low and 4300 psi high. RD Pressure tester & Hot Oiler. SIWFN w/ 208 BWTR.

Daily Cost: \$0

Cumulative Cost: \$13,237

4/13/2012 Day: 3

Completion

Nabors #1450 on 4/13/2012 - Perforate runs 4 - 10 and MIRUSU, test BOPs - MU Lubricator & set 8 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,574 -2,412], see perforation detail for specific perforations. POOH - Spot Rig, Catwalk, Pipe racks. Rig up and NU rig BOPs. Test Kill Line input and double Pipe Rams Low/High [200/4800psig]. - RDMO Wireline Truck and Crane Begin to MIRUSU Nabors #1450 - MU Lubricator & set 10 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,198 - 2,126], see perforation detail for specific perforations. POOH - MU Lubricator & set 9 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,378 - 2,240], see perforation detail for specific perforations. POOH - MU Lubricator & set 8 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,574 -2,412], see perforation detail for specific perforations. POOH - MU Lubricator & set 7 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,907 - 2,744], see perforation detail for specific perforations. POOH - MU Lubricator & set 6 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,012-2,908], see perforation detail for specific perforations. POOH - MU Lubricator & set 5 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,058 - 3,030], see perforation detail for specific perforations. POOH - No Activity - MIRU Crane/WL/Pressure Truck. Hold PJSM. - MU Lubricator & set 1 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,794 - 4,724], see perforation detail for specific perforations. POOH - MU Lubricator & set 2 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,574 -4,400], see perforation detail for specific perforations. POOH - MU Lubricator & set 3 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,364 -3,144], see perforation detail for specific perforations. POOH secure well and SIWFN - No Activity - MU Lubricator & set 4 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,086 -3,059], see perforation detail for specific perforations. POOH - MU Lubricator & set 5 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,058 - 3,030], see perforation detail for specific perforations. POOH - MU Lubricator & set 6 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,012-2,908], see perforation detail for specific perforations. POOH - MU Lubricator & set 7 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,907 - 2,744], see perforation detail for specific perforations. POOH - MU Lubricator & set 9 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,378 - 2,240], see perforation detail for specific perforations. POOH - MU

Lubricator & set 10 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,198 - 2,126], see perforation detail for specific perforations. POOH - RDMO Wireline Truck and Crane Begin to MIRUSU Nabors #1450 - Spot Rig, Catwalk, Pipe racks. Rig up and NU rig BOPs. Test Kill Line input and double Pipe Rams Low/High [200/4800psig]. - No Activity - MIRU Crane/WL/Pressure Truck. Hold PJSM. - MU Lubricator & set 1 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,794 - 4,724], see perforation detail for specific perforations. POOH - MU Lubricator & set 2 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,574 -4,400], see perforation detail for specific perforations. POOH - MU Lubricator & set 3 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,364 -3,144], see perforation detail for specific perforations. POOH secure well and SIWFN - No Activity - MU Lubricator & set 4 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,086 -3,059], see perforation detail for specific perforations. POOH

Daily Cost: \$0

Cumulative Cost: \$66,081

4/17/2012 Day: 4

Completion

Nabors #1450 on 4/17/2012 - PU & RIH w/ plug & pkr. Breakdown 6 set of perms. Swab to get wtr samples. - Set plug @ 4840' & pkr @ 4804'. (Pressure test hot oiler line to 4900 psi every time line is borken). Pressure test tools to 4900 psi. Move & set pkr 2 time to corelate to wireline depth. Good test. Release pkr @ set @ 4780' Breakdown zones @ 4794- 4800' 7 4782- 86'. Broke @ 2800 psi @ .46 BPM. Pumped 5 bbls. Final injection rate 2600 psi @ .46 BPM. ISIP 2450 psi. 1 min 2400 psi, 4 min 2350 psi. Bleed off pressure. Rec 2 BW. Release pkr & move tools. Set plug & pkr in 24' csg blank to confirm wireline correlation. Pressure test to 4000 psi. Release & move tools. - Crew travel. Safety meeting. - RU swab equipment. IFL @ surface. Recovered 7 BW on 1st run. 2nd run FL @ 2300'. Rec 1 BW. 3rd & 4th run pulled from SN @ 4675'. No fluid recovered. SIWFN w/ 24.1 bbls to recover from zone for sample. 209 bbls total to recover. - Set plug @ 4741'. Set pkr @ 4710'. Breakdown zones @ 4730- 34', 4722- 24'. Broke @ 3000 psi @ 0.46 BPM. Injected 5 BW. Final injection rate 2700 psi @ 0.46 BPM. ISIP 2500 psi. 1 min 2475 psi, 4 min 2450 psi. Bleed off pressure, Rec 1.5 BW. Release pkr. Move tools. Set plug @ 4840'. Set pkr @ 4684'. - Set plug @ 4779'. Set pkr @ 4741'. Breakdown zones @ 4756- 58' & 4748- 52'. Broke @ 2850 psi @ 0. BPM. Injected 4 BW. Final injection rate 2700 psi @ 0.54 BPM. ISIP 2500 psi. 1 min 2475 psi, 4 min 2450 psi. Bleed off pressure. Rec 1.5 bbls. Release pkr. Move tools. - Talley, PU & RIH w/ WTF 7" TS plug, HD pkr & 153 jts of 2 7/8" N-80 tbg. 60 jts in circulate well w/ 30 BW. - RU tbg handling equipment.

Daily Cost: \$0

Cumulative Cost: \$75,395

4/18/2012 Day: 5

Completion

Nabors #1450 on 4/18/2012 - 0 psi on well. Ru swab equipment. IFL @ 1600'. Made 8 hourly swab runs. Rec. 14.5 total bbls of fluid. FFL @ 4650'. SIWFN w/ 9.6 bbls of wtr to recover for sample. 194.5 BWTR. - 0 psi on well. Ru swab equipment. IFL @ 1600'. Made 8 hourly swab runs. Rec. 14.5 total bbls of fluid. FFL @ 4650'. SIWFN w/ 9.6 bbls of wtr to recover for sample. 194.5 BWTR. - Crew travel & hold safety meeting.

Daily Cost: \$0

Cumulative Cost: \$82,871

4/19/2012 Day: 7

Completion

Nabors #1450 on 4/19/2012 - Do breakdown and swab test. - Set plug @ 4308'. Pkr @ 4241'. Breakdown perfs @ 4280- 84', 4270- 74'. Broke @ 2950 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2390 psi. Bleed off pressure. RU swab equipment. IFL @ surface. Made 8 swab runs. Rec 32 BTF. FFL @ 4230'. Release pkr. Move tools. - Rig broke down. Wait for new fan belts. Repair rig. - Set plug @ 3202'. Set pkr @ 3166'. Pressure test tools to 4000 psi. Release pkr & reset @ 3125'. Breakdown perfs @ 3142- 44'. Broke @ 3600 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2000 psi @ 0.72 BPM. ISIP 1450 psi. 1 min 1350 psi. 4 min 1300 psi. Release pkr. Try to release plug. Would not release. Ru circulating jt. Circulate down on to plug. Release plug. Move tools. - Nabor releif pusher was injured when swab T fell off floor and hit him. - Set plug @ 3131'. Set pkr @ 3019'. Breakdown perfs @ 3030- 3100'. Broke @ 1900 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 1000 psi @ 0.72 BPM. ISIP 900 psi. 1 min 875 psi. 4 min 850 psi. Bleed off pressure. Rec 2 bbls. RU swab equipment. IFL @ surface. Made 3 swab runs. Rec 11 bbls of fluid. FFL @ 3000'. SIWFN. - Crew travel & safety meeting. - 0 psi on tbg, 5 psi on csg. RU swab. Made 1 swab run. IFL @ 4650'. Rec 4 gals of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Retrieve plug. Move tools up hole. Set plug @ 4598'. Set pkr @ 4557'. RU hot oiler. Pressure test line to 4900 psi. Break down perfs @ 4574- 80'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2390 psi, 4 min 2390 psi. Bleed of pressure, Rec 1 bbl of fluid. - Set plug @ 4550' & pkr @ 4484'. Breakdown perfs @ 4524- 26'. Broke @ 2750 psi @ 0.54 BPM. Inject 5 BW. Final injection @ 3300 psi @ 0.72 BPM. ISIP 2400 psi. 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure. Rec 1 bbl of fluid. Release pkr. - Try to release plug. Worked tbg to release plug. - Set plug @ 4498', Set pkr @ 4451'. Breakdown perfs @ 4464- 69'. Broke @ 2800 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2500 psi @ 0.72 psi. ISIP 2375 psi, 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure. Rec 1 bbl of fluid. - RU swab equipment. Made 7 swab runs. Rec 24 bbls of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Work on plug for 45 min to get plug to release. - Move & set tools. Set plug @ 4454'. Set pkr @ 4413'. Breakdown perfs @ 4430- 40'. Broke @ 2700 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Rec 1 bbl of fluid. Release pkr. - Work on plug to get released. POOH w/ 2 jts of tbg. Left tools hanging. SIWFN w/ 191 BWTR. - Crew travel. Safety meetin. - 0 psi on well. Recipercate tools up & down. Set plug @4420'. Set pkr @ 4377'. Pressure test hot oil line to 4900 psi. Breakdown perfs @ 4397- 4400'. Broke @ 2550 psi @ 0.54 BPM. Injected 5 bbls. Final injection pressure 2550 psi @ 0.72 BPM. ISIP @ 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Release pkr & move tools. - Set plug @ 4376'. Pkr @ 4354'. Breakdown perfs @ 4364- 68'. Broke @ 2800 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2600 psi @ 0.72 BPM. ISIP 2450 psi. 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure. Rec 1 bbl. Release pkr & move tools. - Set plug @ 4357'. Set pkr @ 4324'. Breakdown perfs @ 4342- 48'. Broke @ 2600 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure rec 1 bbl. Release pkr & move tools. - Set plug @ 4334'. Set pkr @ 4304'. Breakdown perfs @ 4316- 20'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure, Rec 4 bbl. Release pkr & move tools. - Set plug @ 4308'. Pkr @ 4241'. Breakdown perfs @ 4280- 84', 4270- 74'. Broke @ 2950 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2390 psi. Bleed off pressure. RU swab equipment. IFL @ surface. Made 8 swab runs. Rec 32 BTF. FFL @ 4230'. Release pkr. Move tools. - Rig broke down. Wait for new fan belts. Repair rig. - Set plug @ 3202'. Set pkr @ 3166'. Pressure test tools to 4000 psi. Release pkr & reset @ 3125'. Breakdown perfs @ 3142- 44'. Broke @ 3600 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2000 psi @ 0.72 BPM. ISIP 1450 psi. 1 min 1350 psi. 4 min 1300 psi. Release pkr. Try to release plug. Would not release. Ru circulating jt. Circulate down on to plug. Release plug. Move tools. - Nabor releif pusher was injured when swab T fell off floor and hit him. - Set plug @ 3131'. Set pkr @ 3019'. Breakdown perfs @ 3030- 3100'. Broke @ 1900 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 1000 psi @ 0.72 BPM. ISIP

900 psi. 1 min 875 psi. 4 min 850 psi. Bleed off pressure. Rec 2 bbls. RU swab equipment. IFL @ surface. Made 3 swab runs. Rec 11 bbls of fluid. FFL @ 3000'. SIWFN. - Crew travel & safety meeting. - 0 psi on tbg, 5 psi on csg. RU swab. Made 1 swab run. IFL @ 4650'. Rec 4 gals of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Retrieve plug. Move tools up hole. Set plug @ 4598'. Set pkr @ 4557'. RU hot oiler. Pressure test line to 4900 psi. Break down perfs @ 4574- 80'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2390 psi, 4 min 2390 psi. Bleed off pressure, Rec 1 bbl of fluid. - Set plug @ 4550' & pkr @ 4484'. Breakdown perfs @ 4524- 26'. Broke @ 2750 psi @ 0.54 BPM. Inject 5 BW. Final injection @ 3300 psi @ 0.72 BPM. ISIP 2400 psi. 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure. Rec 1 bbl of fluid. Release pkr. - Try to release plug. Worked tbg to release plug. - Set plug @ 4498', Set pkr @ 4451'. Breakdown perfs @ 4464- 69'. Broke @ 2800 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2500 psi @ 0.72 psi. ISIP 2375 psi, 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure. Rec 1 bbl of fluid. - RU swab equipment. Made 7 swab runs. Rec 24 bbls of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Work on plug for 45 min to get plug to release. - Move & set tools. Set plug @ 4454'. Set pkr @ 4413'. Breakdown perfs @ 4430- 40'. Broke @ 2700 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Rec 1 bbl of fluid. Release pkr. - Work on plug to get released. POOH w/ 2 jts of tbg. Left tools hanging. SIWFN w/ 191 BWTR. - Crew travel. Safety meetin. - 0 psi on well. Recipercate tools up & down. Set plug @4420'. Set pkr @ 4377'. Pressure test hot oil line to 4900 psi. Breakdown perfs @ 4397- 4400'. Broke @ 2550 psi @ 0.54 BPM. Injected 5 bbls. Final injection pressure 2550 psi @ 0.72 BPM. ISIP @ 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Release pkr & move tools. - Set plug @ 4376'. Pkr @ 4354'. Breakdown perfs @ 4364- 68'. Broke @ 2800 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2600 psi @ 0.72 BPM. ISIP 2450 psi. 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure. Rec 1 bbl. Release pkr & move tools. - Set plug @ 4357'. Set pkr @ 4324'. Breakdown perfs @ 4342- 48'. Broke @ 2600 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure rec 1 bbl. Release pkr & move tools. - Set plug @ 4334'. Set pkr @ 4304'. Breakdown perfs @ 4316- 20'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure, Rec 4 bbl. Release pkr & move tools.

Daily Cost: \$0

Cumulative Cost: \$109,119

4/20/2012 Day: 8

Completion

Nabors #1450 on 4/20/2012 - Swab test and get samples from perfs @ 3030- 3100'. Release pkr. Release plug. Shear input shaft on main drum. Rig down for repair. - Crew travel & Safety meeting. - Shear input shaft on main drum. SIWFN . Rig removed driveline and input shaft. Have to get parts out of Casper WY. Repair rig in AM. - Make hourly swab runs. Made 3 runs. Rec 2.7 BTF (1.2 bbls over). Got sample off last run. FFL @ 2950'. RD swab equipment. RU hot oiler. Fill tbg w/ 18 BW. Release pkr. TIH w/ tbg. Latched onto plug. Release plug. - 0 psi on well. RU swab equipment. IFL @ 1500'. Made 3 swab runs. Rec 8.5 BTF. FFL @ 3000'.

Daily Cost: \$0

Cumulative Cost: \$114,341

4/21/2012 Day: 9

Completion

Nabors #1450 on 4/21/2012 - Continue with breakdown and swab test. Broke down 7 sets of perfs. Swab tested 3 sets. - Crew travel. Safety meeting. - Set plug @ 3021'. Set pkr @ 2979'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 3004- 12'. Broke @ 2750 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1575 psi @ 1.58 BPM.

ISIP 975 psi, 1 min 925 psi, 4 min 875 psi. Bleed off pressure. Rec 2 BW. Release pkr. Move tools. - Set plug @ 2950'. Set pkr @ 2884'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2900- 28'. Broke @ 2200 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1050 psi @ 1.58 BPM. ISIP 900 psi, 1 min 875 psi, 4 min 850 psi. Bleed off pressure. Rec 3 bbls of fluid. - RU swab equipment. IFL @ surface. Made 6 runs (last run hourly run). Rec 20.3 bbls of 20.4 bbls of fluid need to recover. Got samples off last run (5A,5B,5C,5D). FFL @ 2870'. RD swab equipment. RU hot oiler and fill tbg w/ 20 bbls of wtr. Release pkr & move tools. - Set plug @ 2855'. Set pkr @ 2813'. Breakdown perfs @ 2822- 25', 2835- 38'. Broke @ 3150 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1700 psi @ 1.58 BPM. ISIP 900 psi, 1 min 925 psi, 4 min 900 psi. Bleed off pressure. Rec 2 bbls. Release pkr & move tools. - RU swab equipment. IFL @ surface. Made 3 runs (last run was dry). Rec 18 of 18.4 need to get capacity back. FFL @ 2470'. SIWFN. - Set plug @ 2778'. Set pkr @ 2725'. Breakdown perfs @ 2744- 52'. Broke @ 2500 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1450 psi @ 1.58 BPM. ISIP 950 psi, 1 min 900 psi, 4 min 900 psi. Bleed off pressure. Rec 2 bbls. - RU swab equipment. IFL @ surface. Made 4 runs (last run was dry). Rec 18.9 of 19.9 need to get capacity back. FFL @ 2775'. RD swab equipment. Hot oiler filled tbg w/ 18 bbls of wtr. Release pkr and move tools. - Set & test tools to 4000 psi in blank csg. Set plug @ 2634'. Set pkr @ 2536'. Breakdown perfs @ 2572- 74'. Broke @ 4600 psi @ 0.32 BPM. Inject 5 BW. Final injection pressure 3700 psi @ 0.72 BPM. ISIP 2500 psi, 1 min 1350 psi, 4 min 1050 psi. Bleed off pressure. Rec 1 bbls. Release pkr & move tools. - Set plug @ 2539'. Set pkr @ 2473'. Breakdown perfs @ 2486- 2500'. Broke @ 2200 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2200 psi @ 1.58 BPM. ISIP 950 psi, 1 min 900 psi, 4 min 875 psi. Bleed off pressure. Rec 2 bbls. - Set plug @ 2814'. Set pkr @ 2789'. Breakdown perfs @ 2803- 06'. Broke @ 2950 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1600 psi @ 1.58 BPM. ISIP 900 psi, 1 min 900 psi, 4 min 850 psi. Bleed off pressure. Rec 1.5 bbls. Release pkr & move tools.

Daily Cost: \$0

Cumulative Cost: \$121,541

4/22/2012 Day: 10

Completion

Nabors #1450 on 4/22/2012 - Continue with breakdown and swab test. Broke down 9 sets of perfs. Swab tested 2 sets. 11 swab total - Crew travel. Safety meeting. - RU swab equipment. Made 5 swab runs. Rec 21.7 bbls of 21.0 bbls of fluid need to recover. Collect & label sample to be taken to Multi- chem. (7A,7B,7C,7D) . RD swab equipment. Release pkr & move tools - Set plug @ 2466'. Set pkr @ 2424'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2431- 2435'. Broke @ 2900 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1550 psi @ 1 BPM. ISIP 1500 psi, 1 min 1450 psi, 4 min 1175 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2416'. Set pkr @ 2388'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2412- 2416'. Broke @ 2700 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1700 psi @ 1 .5 BPM. ISIP 1700 psi, 1 min 1600 psi, 4 min 1450 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2388'. Set pkr @ 2357'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2376- 2378'. Broke @ 4600 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2050 psi @ 1 .5 BPM. ISIP 1400 psi, 1 min 1300 psi, 4 min 1150 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2366'. Set pkr @ 2315'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2340- 2326'. Broke @ 1700 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1500 psi @ 1 .5 BPM. ISIP 1000 psi, 1 min 900 psi, 4 min 750 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - RU swab equipment. IFL @ surface. Made 3 runs (last run was dry). FFL @ 2126'. SIWFN . Release all vendors from location - Set plug @ 2311'. Set pkr @ 2287'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2293- 2296'. Broke @ 2350 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2000 psi @ 1 .5 BPM. ISIP 1450 psi, 1 min 1300 psi, 4 min 1275 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2286. Set pkr @ 2252'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown

perfs @ 2274- 2280'. Broke @ 2400 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2100 psi @ 1 .5 BPM. ISIP 1500 psi, 1 min 1350 psi, 4 min 1275 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools.. - Set plug @ 2258. Set pkr @ 2220'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2240- 2242'. Broke @ 2300 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1750 psi @ 1 .5 BPM. ISIP 1350 psi, 1 min 1300 psi, 4 min 1100 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools - Set plug @ 2200. Set pkr @ 2157'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2182- 2198'. Broke @ 1700 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1700 psi @ 1 .5 BPM. ISIP 1500 psi, 1 min 1100 psi, 4 min 850 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2126. Set pkr @ 2094'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2126- 2144'. Broke @ 2050 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1900 psi @ 1 .5 BPM. ISIP 1300 psi, 1 min 1300 psi, 4 min 1000 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools.. - RU swab equipment. Made 5 swab runs. Rec 18.5 bbls of 19.5 bbls of fluid need to recover. Short 1 BBL , proceed 3 hrs well not flowing as per Gary Dietz .Collect & label sample to be taken to Multi- chem. (8A,8 B,8C,8D) . RD swab equipment. Release pkr & move tools

Daily Cost: \$0

Cumulative Cost: \$143,264

4/23/2012 Day: 11

Completion

Nabors #1450 on 4/23/2012 - Finish Collection/delivery of 9 Samples. POOH with PKR/PLG tools and change out PKR/PLG. Test PLG/PKR, secure well - Collect & label sample to be taken to Multi- chem. (8B, 9C, 9D, 9E) . RD swab equipment. Release pkr & POOH with tbg. LD tools and MU new PLG/PKR tools. RIH with PLG/PKR. TEST tools to 2500 psig with PLG set at 4,845' and PKR set at 4,805'. Release PKR and waiting on Sample Testing and authorization from State. - No Activity

Daily Cost: \$0

Cumulative Cost: \$155,124

4/25/2012 Day: 12

Completion

Nabors #1450 on 4/25/2012 - Acidized Stages 1-4, with pump issues on Stage 3/4 - No Activity wait on authorization to acidize - MIRU Baker Hughes pump truck and acid trucks. Set PLG @ 4,845' and PKR @ 4,690', EOT of 4,700'. - Released PKR and rolled 60 bbls, secured well and SDFN - Move PLG/PKR to [4,595 & 4,451], EOT @ 4,461'. Begin Acid Stage 2. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 2 with 23.8 bbls of 28% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). Shut down pump with 13.5 bbls of flush pumped, as seen communication with above zone and flow from csg. Rolled hole with 85 bbls - Move PLG/PKR to [4,452 & 4,247], EOT @ 4,257'. Begin Acid Stage 3/4. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 3/4 with 71.4 bbls of 28% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900).and with 45 bbls of flush pumped. Pump complications inhibited to pump majority of job at 2.5 bbls/min @ 1,900 psig. - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 1 Job. Pressure test pump lines to 6000 psig with no leaks. Begin pumping Stage 1 with 47.2 bbls of 28% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush. After pumping flowed back 5 bbls to pit.

Daily Cost: \$0

Cumulative Cost: \$210,554

4/27/2012 Day: 14

Completion

Nabors #1450 on 4/27/2012 - Acidize Stages 8-11, land kill string - No Activity - N/D BOPs, N/U 3K B1 adapter flange and 5K 2 9/16 gate valve, secure well - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 5 Job. Pressure test pump lines to 6000 psig with no leaks. Begin pumping Stage 5 with 107.1 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush. After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Move PLG/PKR to [2,961 & 2,860], EOT @ 2,870'. Begin Acid Stage 6 Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6 with 47.6 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). Shut down pump with 30 bbls of acid pumped, as seen communication with above zone and flow from csg. Flowed tbg back for 30 min, then released PKR and rolled CSG for 45 mins - Move PLG/PKR to [2,981 & 2,700], EOT @ 2,710'. Begin Acid Stage 6/7. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6/7 with 40 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Release Baker Hughes, and set PLG/PKR @ [2,634 & 2,600] test tools to 2,000 psig. Release PKR and secure well, SDFN - No Activity - POOH with 10 jts and set PLG/PKR @ [2,634 & 2,102'], EOT of 2,112'. R/U Baker Hughes equipment with 2 (200 ball droppers) and 300 (7/8") BioBalls. - Repair pump issues on Baker Pumping Equipment, isolated bad pump - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 8/11 Job. Pressure test pump lines to 6000 psig. Begin pumping Stage 8/11 with 119 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush, Dropped 300 BioBalls during Acid. After pumping flowed back for 10 min to pit. Release paker and roll CSG with 60 bbls. - TIH with 17 jts of tbg, circulate Bioballs off plug with 100 bbls of water. Release PLG - TOOH with TBG. LD PLG/PKR. - POOH w/ 83 jts, LD PLG/PKR - RIH w/ collar, S/N, 101 jt - Land tbg, Pumped 150 bbls of frest wtr w/pkr fluid, rig down tongs, R/U floor - N/D BOPs, N/U 3K B1 adapter flange and 5K 2 9/16 gate valve, secure well - No Activity - Move and set PLG/PKR @ [3,202 & 2,997'], EOT @ 3,007'. Baker Huges rebuild both triplex pump seals on pump truck. - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 5 Job. Pressure test pump lines to 6000 psig with no leaks. Begin pumping Stage 5 with 107.1 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush. After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Move PLG/PKR to [2,961 & 2,860], EOT @ 2,870'. Begin Acid Stage 6 Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6 with 47.6 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). Shut down pump with 30 bbls of acid pumped, as seen communication with above zone and flow from csg. Flowed tbg back for 30 min, then released PKR and rolled CSG for 45 mins - Move PLG/PKR to [2,981 & 2,700], EOT @ 2,710'. Begin Acid Stage 6/7. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6/7 with 40 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Release Baker Hughes, and set PLG/PKR @ [2,634 & 2,600] test tools to 2,000 psig. Release PKR and secure well, SDFN - No Activity - POOH with 10 jts and set PLG/PKR @ [2,634 & 2,102'], EOT of 2,112'. R/U Baker Hughes equipment with 2 (200 ball droppers) and 300 (7/8") BioBalls. - Repair pump issues on Baker Pumping Equipment, isolated bad pump - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 8/11 Job. Pressure test pump lines to 6000 psig. Begin pumping Stage 8/11 with 119 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush, Dropped 300 BioBalls during Acid. After pumping flowed back for 10 min to pit. Release paker and roll CSG with 60 bbls. - TIH with 17 jts of tbg, circulate Bioballs off plug with 100 bbls of water. Release PLG - TOOH with TBG. LD PLG/PKR. - POOH w/ 83 jts, LD PLG/PKR - RIH w/ collar, S/N, 101 jt - Land tbg, Pumped 150 bbls of frest wtr w/pkr fluid, rig down tongs, R/U floor - Move and set PLG/PKR @ [3,202 & 2,997'], EOT @ 3,007'. Baker Huges rebuild both triplex pump seals on pump truck.

Daily Cost: \$0

Cumulative Cost: \$234,992

Pertinent Files: Go to File List



To: Brad Hill; UDOGM

From: Nate Gilbertson; Newfield Production Co.

CC: Eric Sundberg; Newfield Production Co., Mark Reinbold; UDOGM

Date: 5/1/2012

Re: Dillman 3-17-3-2W – Proposed Salt Water Disposal Well

Newfield Production Company proposes using the Eocene Lower Uinta and Upper Green River Formations as salt water disposal zones in the Dillman 3-17-3-2W wellbore. The Dillman 3-17-3-2W was spud on 3/12/2012 and a total depth of 5,350' was reached on 3/28/2012. Halliburton ran open-hole wireline logs from TD to the surface casing at 860'.

Uinta Formation

At this location, the Upper Uinta Formation outcrops at the surface. The base of the Uinta Formation is picked at 3,472' (MD) on the open-hole logs. The base of the Uinta Formation is the top of the Green River formation. The Uinta Formation was deposited in lacustrine and fluvial settings during the last stages of Lake Uinta (Bruhn, et al., 1986). Newfield proposes to dispose of salt water in the fluvial facies of the Lower Uinta. The fluvial facies is composed of medium- to coarse-grained, sandstones, likely deposited as part of a wide, meandering river system (Bruhn, et al., 1986). These sands have a log-porosity of 15-20% on a sandstone (2.68 g/cc) matrix. Cross-sections A-A' and B-B' show the Dillman 3-17-3-2W and offsetting wells. Separating the fluvial sandstones vertically are laterally-continuous lacustrine shales. These shales were formed during periods of high lake-level and range in thickness from 5 to 20' thick. These low porosity/low permeability shales form an effective confining zone to protect overlying ground water resources.

The Base of Moderately Saline Ground Water in the Dillman 3-17-3-2W is 749' (MD) as defined by USGS Open-File Report 87-394, Base of Moderately Saline Ground Water in the Uinta Basin, Utah (also Technical Publication No. 92, State of Utah Department of Natural Resources). The top of proposed injection in the Dillman 3-17-3-2W is 2125' MD. There is 1,376' of Lower Uinta Formation separating the top of proposed injection and the base of Moderately Saline Ground Water. For illustrative purposes, 10 laterally – continuous shales in the 400' above the top proposed injection zone were correlated to the offset wells. These are shown in Cross Sections A-A' and B-B'. These series of laterally continuous shales are present in

the entire interval between the top of proposed injection and the base of moderately saline ground water. It is the opinion of Newfield Production Company that these shales provide an effective confining zone to protect overlying ground water resources.

Newfield has perforated and swab-tested the Uinta Formation in the Dillman 3-17-3-2W. Perforated intervals are noted on the open-hole log in Cross Sections A-A' and B-B'. 10 formation water samples were collected over 5 zones. TDS concentrations range from 22,000 ppm to 80,000 ppm with an average of 46,000 ppm.

Green River

Newfield also proposes to dispose of salt water in the Eocene Upper Green River Formation. The proposed injection zones are inter-bedded lacustrine carbonates and sandstones. These units have log porosities of 15-25%, on a limestone (2.71 g/cc) matrix. The lower-confining zones are inter-bedded lacustrine shales. Newfield has perforated and swab-tested the Upper Green River Formation in the Dillman 3-17-3-2W. Perforated intervals are noted on Cross-Sections A-A' and B-B'. 2 formation water samples were collected in one zone. The two TDS values were 35,637 ppm and 23,014 ppm. A second zone was perforated, but insufficient fluid was swabbed to recover formation fluid.

If you have any questions or concerns, please do not hesitate to contact me.

Nate Gilbertson

Geologist

(303) 382-4473

ngilbertson@newfield.com

Reference Cited:

Bruhn, R.L., Picard, M.D., and Isby, J.S., 1986, Tectonics and Sedimentology of Uinta Arch, Western Uinta Mountains, and Uinta Basin, in M41 Paleotectonics and Sedimentation in the Rocky Mountain Region, United States, AAPG Memoir, p. 333-352.

STIMULATION TREATMENT REPORT



Date 27-APR-12 District Vernal F.Receipt 1001904687 Customer NEWFIELD EXPLORATION
 Lease DILLMAN #3-17-3-2W Well Name DILLMAN #3-17-3-2W
 Field WILDCAT Location 17-3S-2W
 County Duchesne State Utah Stage No 8 Well API - API 43013509240000

WELL DATA		Well Type:	Well Class:			Depth TD/PB:		Formation:			
Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom	GREEN RIVER			
TUBULAR	CSG	5.5	15.5	4.95	J-55	0	2650	Perf Intervals			
TUBULAR	TBG	2.875	6.5	2.441		0	2460	Top	Bottom	SPF	Diameter
								2486	2500	3	.36
								2572	2574	3	.36

Packer Type _____ Packer Depth 2458 FT

TREATMENT DATA					LIQUID PUMPED AND CAPACITIES IN BBLs.			
Fluid Type	Fluid Desc	Pumped Volume(Gals)	Prop. Description	Volume Pumped(Lbs)	Tubing Cap.	Casing Cap.	Annular Cap.	Open Hole Cap.
TREATMENT FLUID	acid	5,000			0	0	0	0
Total Prop Qty: _____					Fluid to Load	0	0	0
Previous Treatment _____ Previous Production _____					Pad Volume	0	0	0
Hole Loaded With <u>WATER</u> Treat Via: Tubing <input checked="" type="checkbox"/> Casing <input type="checkbox"/> Anul. <input type="checkbox"/> Tubing & Anul. <input type="checkbox"/>					Treating Fluid	119		
Ball Sealers: <u>300</u> In <u>1</u> Stages Type <u>BIOSEALERS MR</u>					Flush	45		
Auxiliary Materials <u>TECHNI HIB 767W, INFLO 250W</u>					Overflush	0		
					Fluid to Recover	0		

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLs. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
06:40						ARRIVE ON LOCATION
06:50						RIG UP BALL GUNS
08:00						SAFETY MEETING
08:15						LOAD BALL GUNS
08:38	6000					PRESSURE TEST
08:50						FIX LEAKS ON PUMP
09:07	6000					RETEST LINES
09:23	1377		6	0	4.5	TECHNIHIB 767 SPACER
09:26	1371		10	6	4.5	INFLO 250W SPACE
09:28	1107		5	16	2.3	START ACID
09:32	1158		20	36	3.5	15% ACID WITH BIO BALLS
09:38	1240		20	56	4.8	15% ACID WITH BIO BALLS
09:43	1285		20	76	4.8	15% ACID WITH BIO BALLS
09:51	1180		20	96	3.9	15% ACID WITH BIO BALLS
10:00	1252		20	116	3.7	15% ACID WITH BIO BALLS
10:05	1178		19	136	3.7	15% ACID WITH BIO BALLS
10:06	1135		20	156	3.3	FLUSH
10:12	1511		20	176	4.8	FLUSH
10:17	1351		5	196	3.3	FLUSH
00:00						
10:18	458		0	201	0	SHUTDOWN

Treating Pressure	Injection Rates	Shut In Pressures	Customer Rep.
Minimum 849	Treating Fluid 4	ISDP 458	BJ Rep.
Maximum 1561	Flush 5	5 Min. 0	Job Number 1001904703
Average 1176	Average 4	10 Min. 0	Rec. ID No. 1001904703 Z
Operators Max. Pressure 5000		15 Min. 0	Distribution
		Final 0 In 10 Min.	
		Flush Dens. lb./gal. 8.34	

From: Eric Sundberg <esundberg@newfield.com>
To: "Mark Reinbold (markreinbold@utah.gov)" <markreinbold@utah.gov>, "bradhi...
Date: 4/25/2012 5:28 PM
Subject: Dillman 3-17-3-2W SWD
Attachments: NFX - DILLMAN 3-17-3-2W SWD Samples.pdf

Mark and Brad,

Attached are the test results for the water samples obtained from the Uintah and Green River formations in the Dillman 3-17-3-2W (API# 43-013-50924). We were able to obtain a few samples after days of swabbing on the well.

Eric Sundberg
Manager.Regulatory
Office: 303-382-4470
Mobile: 303-396-2494

[Description: Newfield Exploration]
"Newfield Exploration"

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Wellhead 9C** *2126-2144 Uinta Fm*
Sample Date: **4/23/2012**
Sample ID: **WA-213585**

Sales Rep: **Michael McBride**
Lab Tech: **Gary Peterson**

Scaling potential predicted using ScaleSoftPitzer from
Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	5/16/2012	Sodium (Na):	16902.90	Chloride (Cl):	24800.00
System Temperature 1 (°F):	175.00	Potassium (K):	1092.00	Sulfate (SO4):	905.00
System Pressure 1 (psig):	2000.0000	Magnesium (Mg):	6.60	Bicarbonate (HCO3):	2781.60
System Temperature 2 (°F):	70.00	Calcium (Ca):	4.30	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO):	0.00
Calculated Density (g/ml):	1.029	Barium (Ba):	0.07	Propionic Acid (C2H5COO):	0.00
pH:	8.00	Iron (Fe):	0.60	Butanoic Acid (C3H7COO):	0.00
Calculated TDS (mg/L):	46493.14	Zinc (Zn):	0.03	Isobutyric Acid ((CH3)2CHCOO):	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	0.04	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:

perfs (2126-2144); tbg vol; 18.9 bbls; inj vol; 3 bbls; return vol; 22.3 bbls

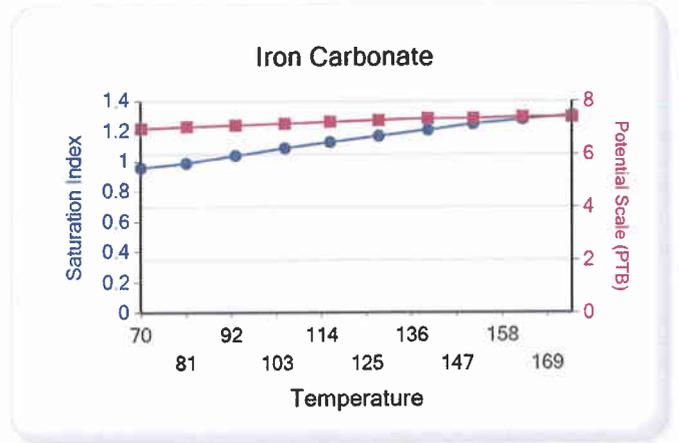
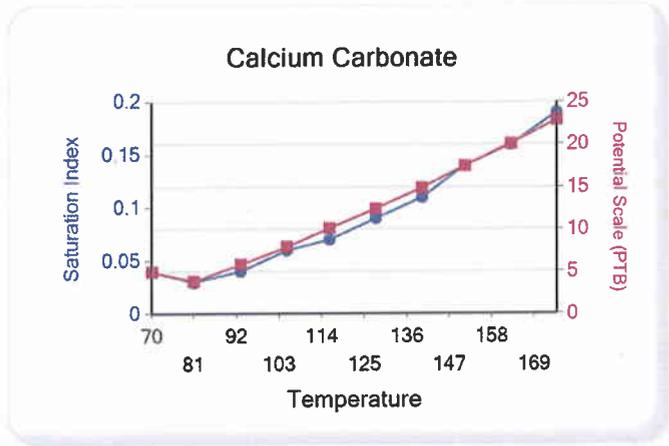
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.04	0.28	0.00	0.00	0.00	0.00	0.96	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	235.00	0.03	0.22	0.00	0.00	0.00	0.00	0.99	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	455.00	0.04	0.33	0.00	0.00	0.00	0.00	1.04	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	676.00	0.06	0.44	0.00	0.00	0.00	0.00	1.09	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116.00	897.00	0.07	0.56	0.00	0.00	0.00	0.00	1.13	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128.00	1117.00	0.09	0.69	0.00	0.00	0.00	0.00	1.17	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	1338.00	0.11	0.83	0.00	0.00	0.00	0.00	1.21	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151.00	1558.00	0.14	0.97	0.00	0.00	0.00	0.00	1.25	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	1779.00	0.16	1.12	0.00	0.00	0.00	0.00	1.28	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	2000.00	0.19	1.28	0.00	0.00	0.00	0.00	1.31	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	235.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	455.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	676.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116.00	897.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128.00	1117.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	1338.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151.00	1558.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	1779.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate



Multi-Chem Analytical Laboratory

1553 East Highway 40
Vernal, UT 84078



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Wellhead 9D 2126-2144 Uinta Fm.**
Sample Date: **4/23/2012**
Sample ID: **WA-213586**

Sales Rep: **Michael McBride**
Lab Tech: **Gary Peterson**

Scaling potential predicted using ScaleSoftPitzer from
Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	5/16/2012	Sodium (Na):	16988.92	Chloride (Cl):	26600.00
System Temperature 1 (°F):	175.00	Potassium (K):	1171.00	Sulfate (SO4):	836.00
System Pressure 1 (psig):	2000.0000	Magnesium (Mg):	6.30	Bicarbonate (HCO3):	133.38
System Temperature 2 (°F):	70.00	Calcium (Ca):	4.60	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO)	0.00
Calculated Density (g/ml):	1.028	Barium (Ba):	0.10	Propionic Acid (C2H5COO)	0.00
pH:	8.20	Iron (Fe):	5.60	Butanoic Acid (C3H7COO)	0.00
Calculated TDS (mg/L):	45746.01	Zinc (Zn):	0.01	Isobutyric Acid ((CH3)2CHCOO)	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	0.10	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:
perfs(2126-2144); tbg vol; 18.9 bbls; inj vol ; 3 bbls; return vol; 22.3 bbls

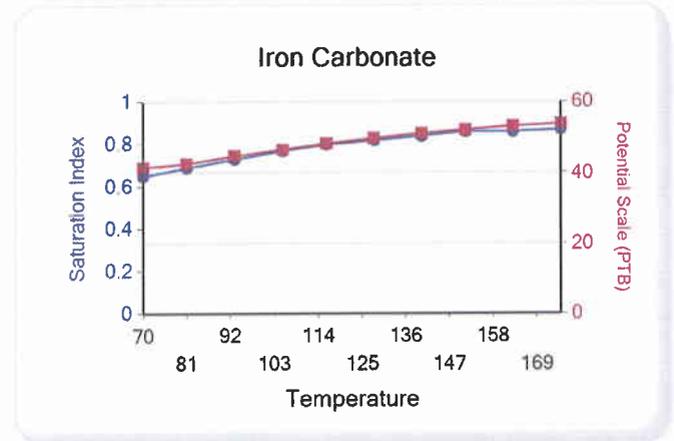
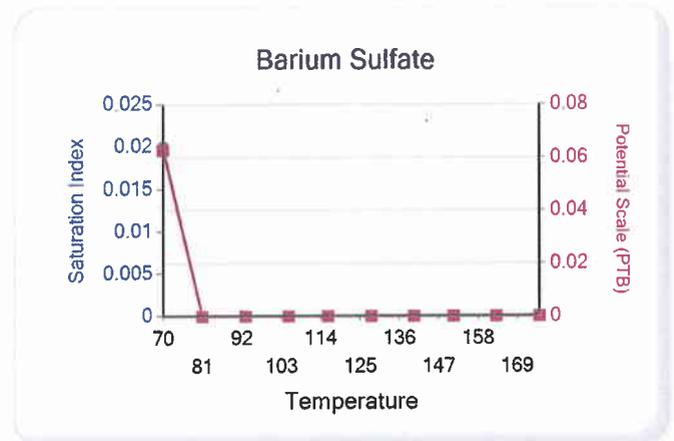
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.00	0.00	0.02	0.00	0.00	0.00	0.65	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	235.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	455.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	676.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116.00	897.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128.00	1117.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82	2.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	1338.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151.00	1558.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	1779.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	2.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	235.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	455.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	676.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116.00	897.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128.00	1117.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	1338.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151.00	1558.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	1779.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Barium Sulfate Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Iron Carbonate



Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2126 2144 9A**
Sample Date: **4/23/2012**
Sample ID: **WA-211996**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Uinta fm.

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	15703.46	Chloride (Cl):	23400.00
System Temperature 1 (°F):	60.00	Potassium (K):	944.00	Sulfate (SO4):	600.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	8.80	Bicarbonate (HCO3):	2732.80
System Temperature 2 (°F):	60.00	Calcium (Ca):	42.30	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO)	0.00
Calculated Density (g/ml):	1.03	Barium (Ba):	0.00	Propionic Acid (C2H5COO)	0.00
pH:	9.60	Iron (Fe):	198.00	Butanoic Acid (C3H7COO)	0.00
Calculated TDS (mg/L):	43634.21	Zinc (Zn):	0.12	Isobutyric Acid ((CH3)2CHCOO)	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	4.73	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:

tbg vol=18.9 bbls; inj vol =3 bbls ; return vol= 22.3 bbls

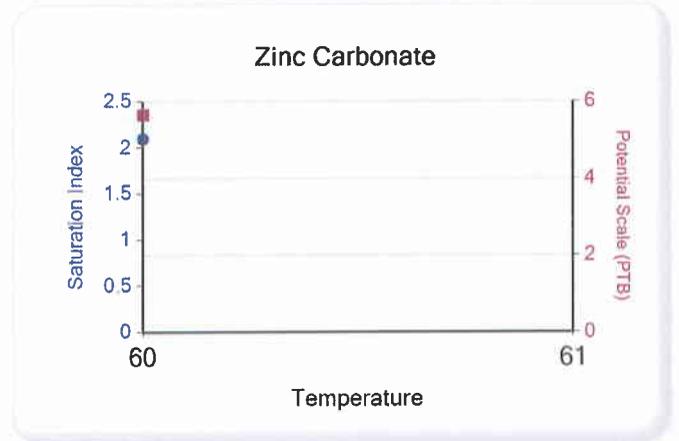
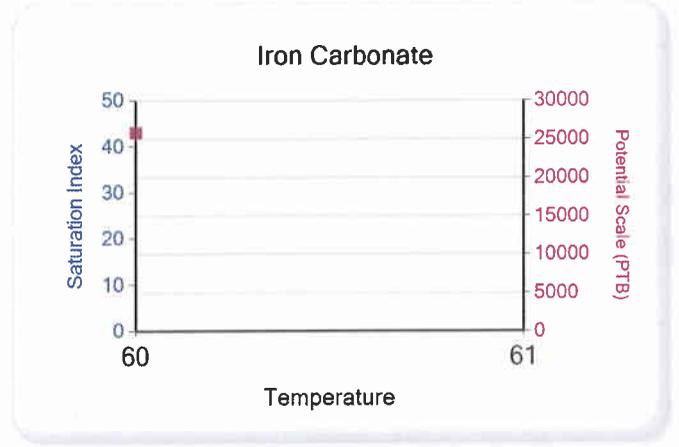
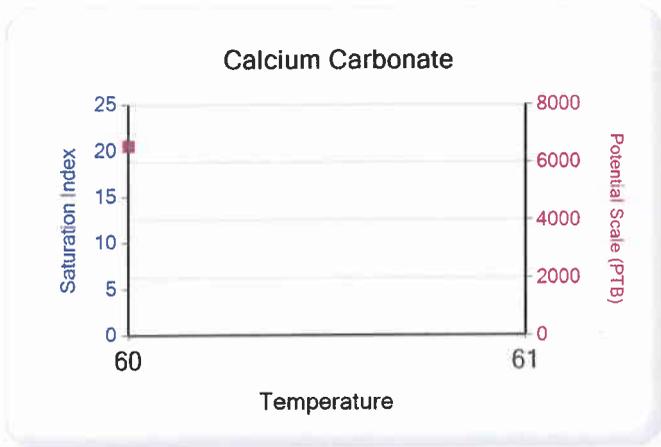
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate



Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2126 2144 9B**
Sample Date: **4/23/2012**
Sample ID: **WA-211989**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Uinta Fm.

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	8280.76	Chloride (Cl):	12200.00
System Temperature 1 (°F):	60.00	Potassium (K):	1206.00	Sulfate (SO4):	620.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	10.90	Bicarbonate (HCO3):	2806.00
System Temperature 2 (°F):	60.00	Calcium (Ca):	51.20	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO)	0.00
Calculated Density (g/ml):	1.01	Barium (Ba):	0.12	Propionic Acid (C2H5COO)	0.00
pH:	9.70	Iron (Fe):	232.00	Butanoic Acid (C3H7COO)	0.00
Calculated TDS (mg/L):	25412.99	Zinc (Zn):	0.14	Isobutyric Acid ((CH3)2CHCOO)	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.20	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	5.67	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:

tbg vol=18.9 bbls; inj vol= 3 bbls; return vol=22.3 bbls

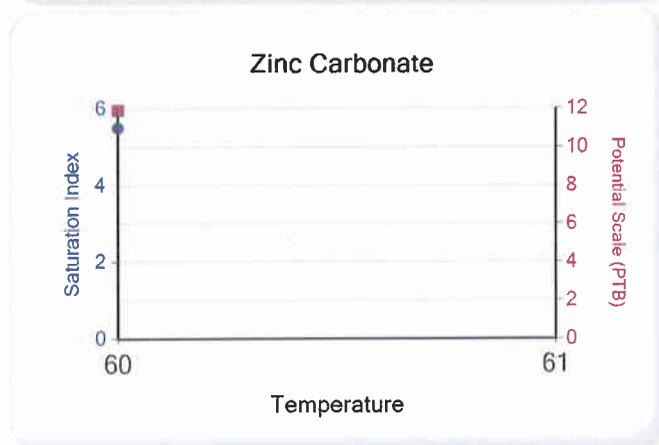
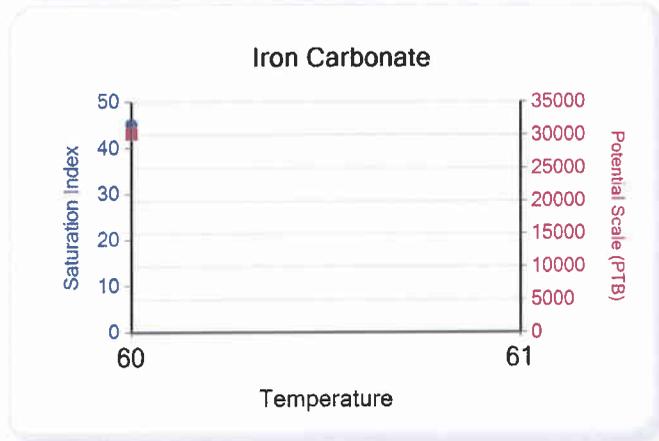
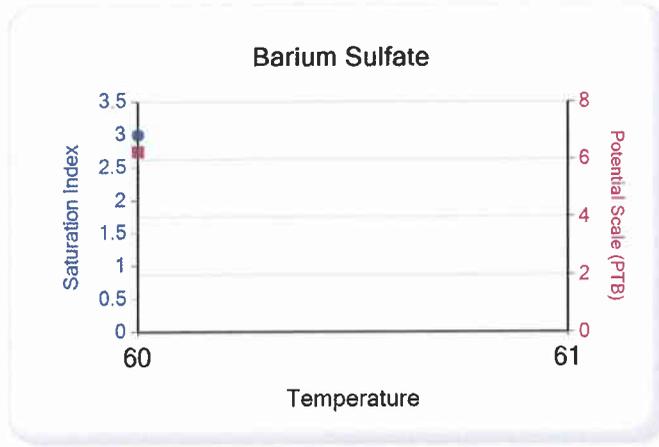
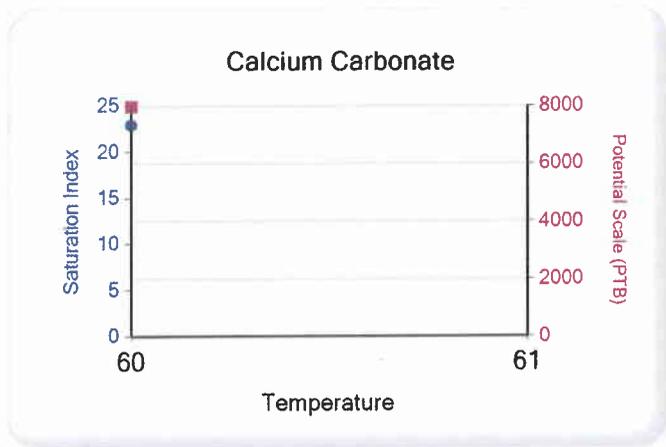
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	44.57	0.30	0.04	0.00	0.00	4.52	168.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**

Sales Rep: **Darren Betts**

Well Name: **DILLMAN 3-17-3-2W**

Lab Tech: **Gary Peterson**

Sample Point: **Perfs 2744 2752 6A** *Uinta fm.*

Sample Date: **4/23/2012**

Sample ID: **WA-211995**

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	7411.73	Chloride (Cl):	10600.00
System Temperature 1 (°F):	60.00	Potassium (K):	924.00	Sulfate (SO4):	200.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	4.22	Bicarbonate (HCO3):	3172.00
System Temperature 2 (°F):	60.00	Calcium (Ca):	31.20	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO)	0.00
Calculated Density (g/ml):	1.01	Barium (Ba):	1.00	Propionic Acid (C2H5COO)	0.00
pH:	9.20	Iron (Fe):	197.00	Butanoic Acid (C3H7COO)	0.00
Calculated TDS (mg/L):	22544.97	Zinc (Zn):	0.17	Isobutyric Acid ((CH3)2CHCOO)	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	3.65	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:

19.9 bbls capacity; 18,9 bbls recovered

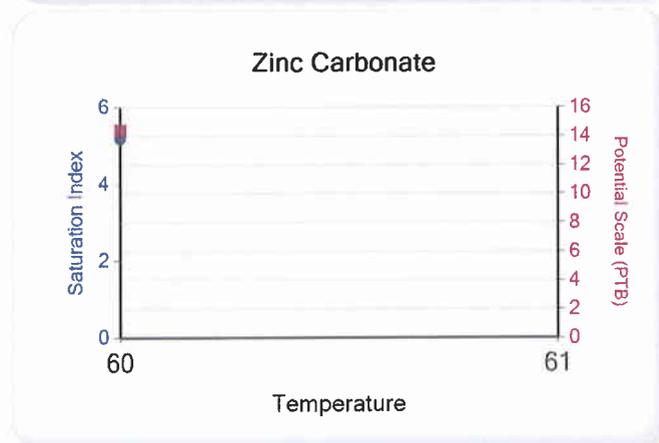
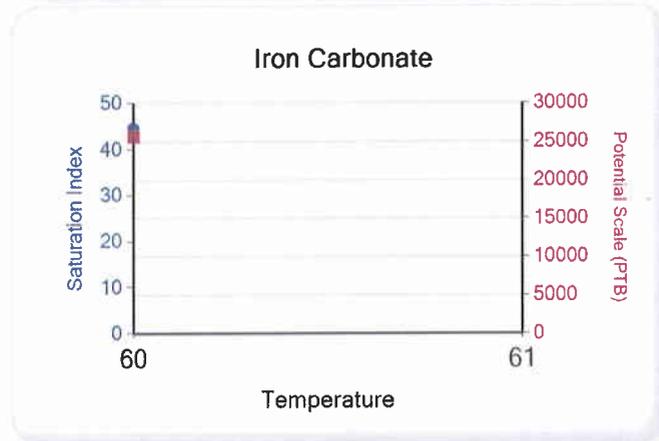
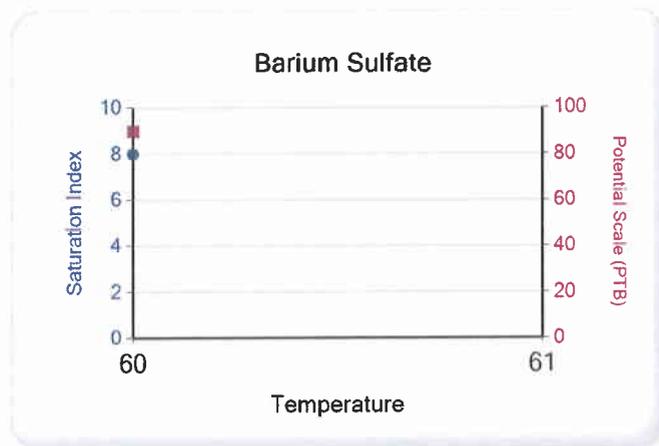
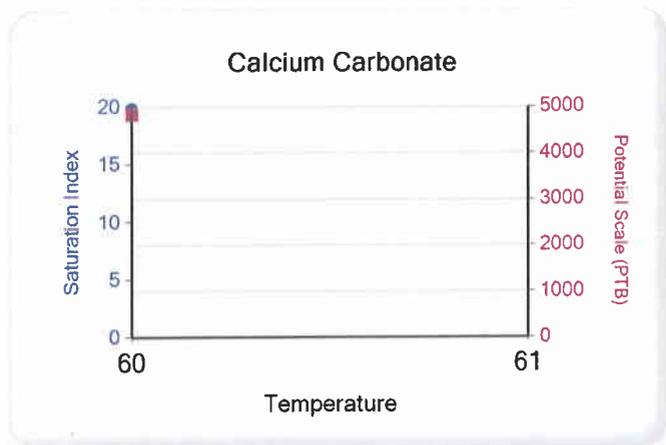
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



Multi-Chem Analytical Laboratory

1122 S. FM1788
Midland, TX 76706



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2744 2752 6B Uinta Fm.**
Sample Date: **4/23/2012**
Sample ID: **WA-211987**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Scaling potential predicted using ScaleSoftPitzer from
Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	7098.33	Chloride (Cl):	10400.00
System Temperature 1 (°F):	60.00	Potassium (K):	1152.00	Sulfate (SO4):	150.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	11.50	Bicarbonate (HCO3):	3269.60
System Temperature 2 (°F):	60.00	Calcium (Ca):	54.60	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO)	0.00
Calculated Density (g/ml):	1.01	Barium (Ba):	0.20	Propionic Acid (C2H5COO)	0.00
pH:	9.20	Iron (Fe):	222.00	Butanoic Acid (C3H7COO)	0.00
Calculated TDS (mg/L):	22363.98	Zinc (Zn):	0.15	Isobutyric Acid ((CH3)2CHCOO)	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.10	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	5.50	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:

19.9 bbls capacity; 18.9 bbls recovered

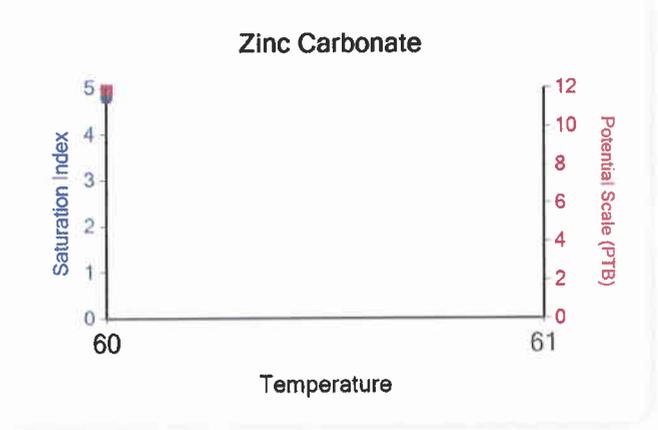
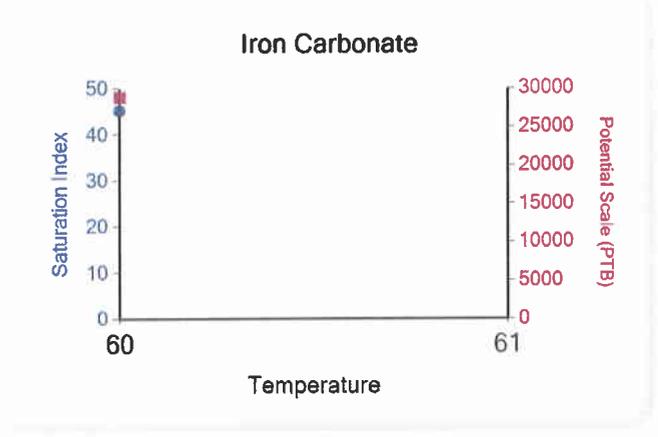
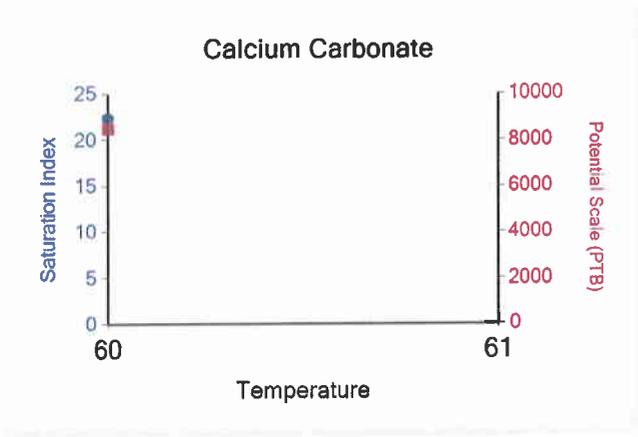
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate



Multi-Chem Analytical Laboratory

1122 S. FM1788
Midland, TX 76706



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2900 2928 5A**
Sample Date: **4/23/2012**
Sample ID: **WA-211991**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

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Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics							
Test Date:	4/24/2012	Cations		mg/L		Anions		mg/L	
System Temperature 1 (°F):	60.00	Sodium (Na):	11346.02	Chloride (Cl):	19600.00				
System Pressure 1 (psig):	14.7000	Potassium (K):	3027.00	Sulfate (SO4):	160.00				
System Temperature 2 (°F):	60.00	Magnesium (Mg):	7.50	Bicarbonate (HCO3):	2269.20				
System Pressure 2 (psig):	14.7000	Calcium (Ca):	62.00	Carbonate (CO3):	0.00				
Calculated Density (g/ml):	1.02	Strontium (Sr):	0.00	Acetic Acid (CH3COO)	0.00				
pH:	9.80	Barium (Ba):	4.00	Propionic Acid (C2H5COO)	0.00				
Calculated TDS (mg/L):	36997.38	Iron (Fe):	507.00	Butanoic Acid (C3H7COO)	0.00				
CO2 in Gas (%):	0.00	Zinc (Zn):	0.75	Isobutyric Acid ((CH3)2CHCOO)	0.00				
Dissolved CO2 (mg/L):	0.00	Lead (Pb):	1.30	Fluoride (F):	0.00				
H2S in Gas (%):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00				
H2S in Water (mg/L):	0.00	Manganese (Mn):	12.60	Silica (SiO2):	0.00				

Notes:

20.4 bbls capacity; 20.3 bbls recovered

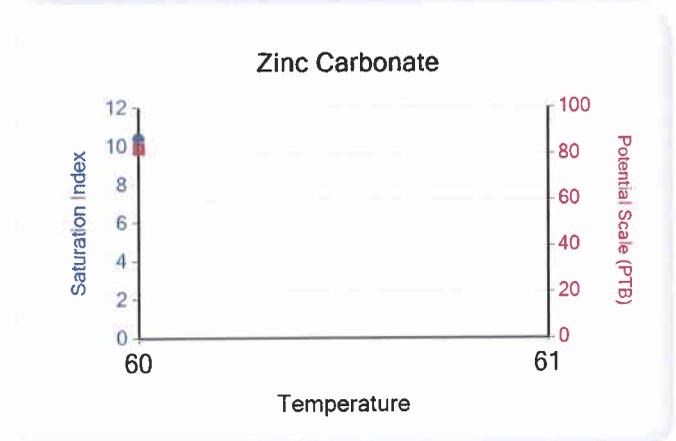
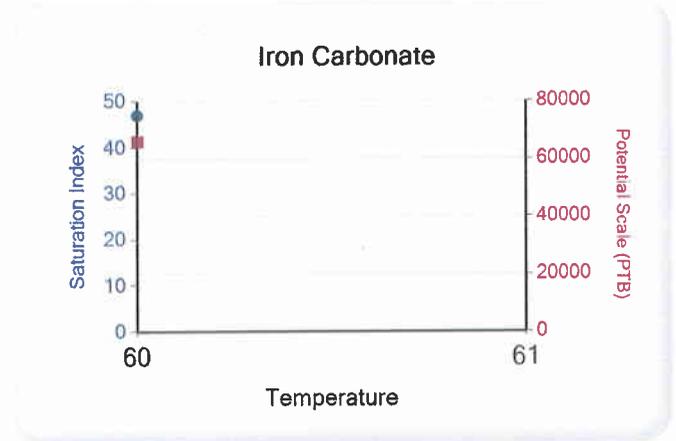
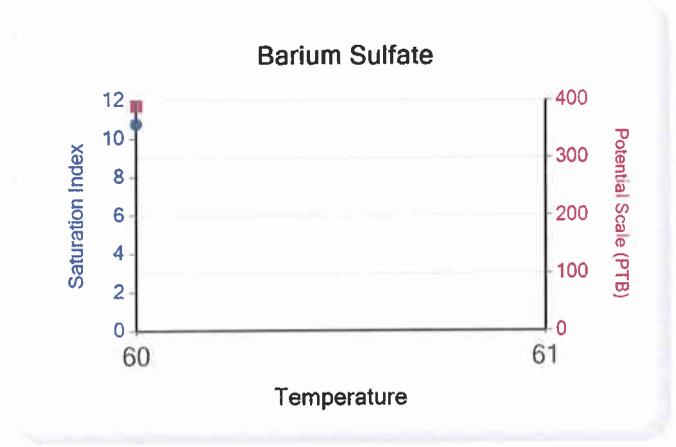
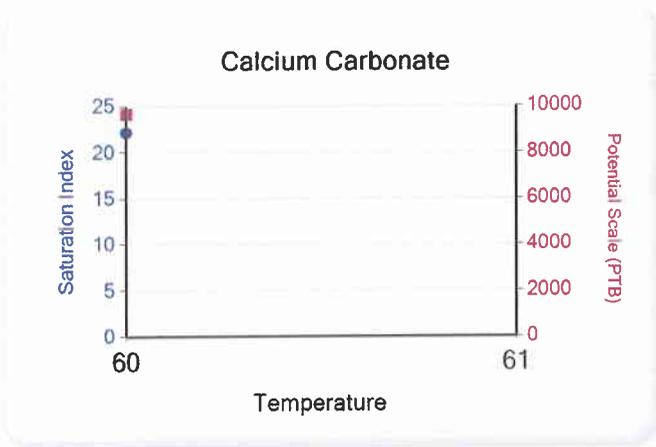
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2900 2928 5B**
Sample Date: **4/23/2012**
Sample ID: **WA-211988**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

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Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	11262.98	Chloride (Cl):	19800.00
System Temperature 1 (°F):	60.00	Potassium (K):	3057.00	Sulfate (SO ₄):	200.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	9.20	Bicarbonate (HCO ₃):	2147.20
System Temperature 2 (°F):	60.00	Calcium (Ca):	79.20	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO)	0.00
Calculated Density (g/ml):	1.02	Barium (Ba):	5.20	Propionic Acid (C ₂ H ₅ COO)	0.00
pH:	9.90	Iron (Fe):	679.00	Butanoic Acid (C ₃ H ₇ COO)	0.00
Calculated TDS (mg/L):	37259.29	Zinc (Zn):	0.91	Isobutyric Acid ((CH ₃) ₂ CHCOO)	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	2.50	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	16.10	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

Notes:
20.4 bbls capacity; 20.3 bbls recovered

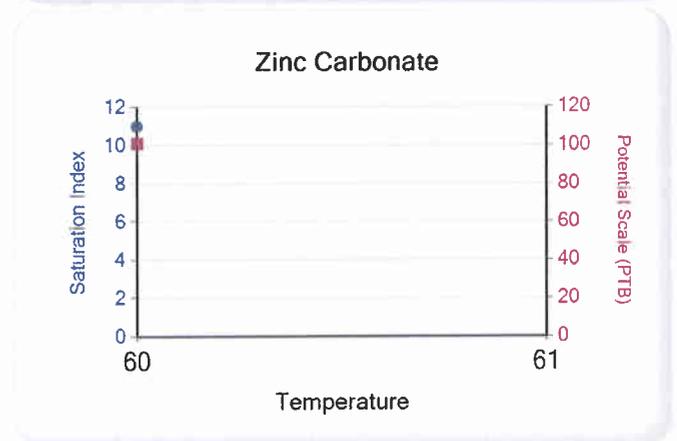
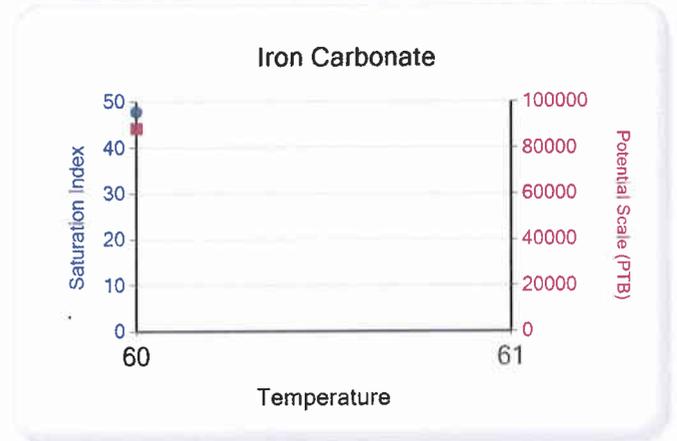
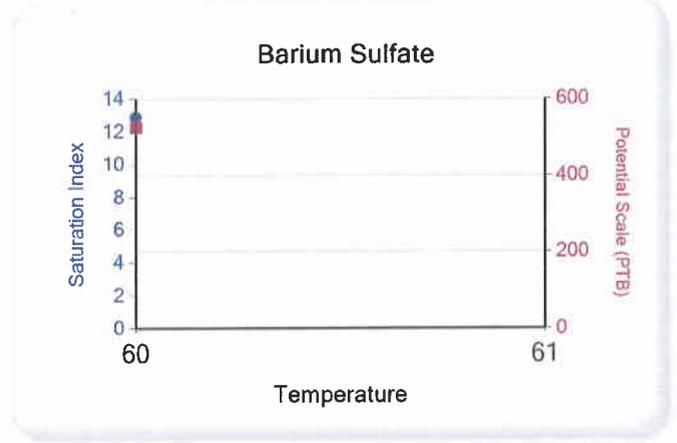
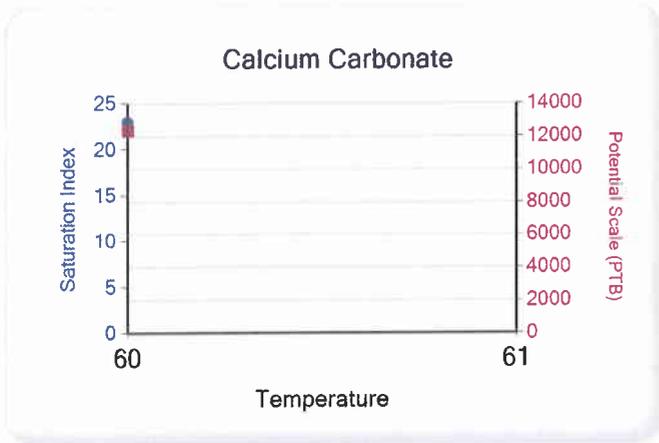
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.30	68.93	1.29	2.94	0.00	0.00	4.79	493.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



Multi-Chem Analytical Laboratory

1553 East Highway 40
Vernal, UT 84078



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD**
Well Name: **Dilman 3-17-3-2W**
Sample Point: **Perfs 4722 to 4800 1A**
Sample Date: **4/18/2012**
Sample ID: **WA-211691**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Green R. Fr.

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/19/2012	Sodium (Na):	4307.41	Chloride (Cl):	16000.00
System Temperature 1 (°F):	100.00	Potassium (K):	12238.00	Sulfate (SO4):	16.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	0.30	Bicarbonate (HCO3):	3050.00
System Temperature 2 (°F):	100.00	Calcium (Ca):	23.00	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO)	0.00
Calculated Density (g/ml):	1.02	Barium (Ba):	0.12	Propionic Acid (C2H5COO)	0.00
pH:	9.80	Iron (Fe):	2.20	Butanoic Acid (C3H7COO)	0.00
Calculated TDS (mg/L):	35637.04	Zinc (Zn):	0.00	Isobutyric Acid ((CH3)2CHCOO)	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	0.01	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:

TBG vol= 41bbls; inj vol = 4bbls; return vol = 31.5 bbls

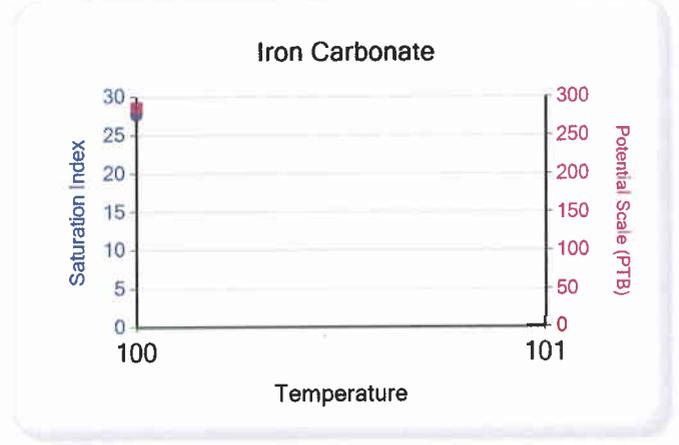
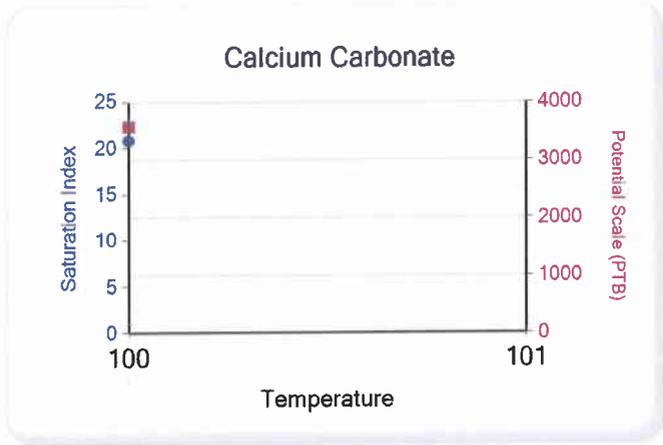
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate



Multi-Chem Analytical Laboratory

1553 East Highway 40
Vernal, UT 84078



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD**
Well Name: **Dilman 3-17-3-2W**
Sample Point: **Perfs 4722 to 4800 1B**
Sample Date: **4/18/2012**
Sample ID: **WA-211692**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Green R. Fm.

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/18/2012	Sodium (Na):	8430.41	Chloride (Cl):	11500.00
System Temperature 1 (°F):	100.00	Potassium (K):	31.60	Sulfate (SO4):	24.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	22.50	Bicarbonate (HCO3):	2928.00
System Temperature 2 (°F):	70.00	Calcium (Ca):	64.90	Carbonate (CO3):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH3COO):	0.00
Calculated Density (g/ml):	1.01	Barium (Ba):	10.40	Propionic Acid (C2H5COO):	0.00
pH:	10.02	Iron (Fe):	2.50	Butanoic Acid (C3H7COO):	0.00
Calculated TDS (mg/L):	23014.81	Zinc (Zn):	0.00	Isobutyric Acid ((CH3)2CHCOO):	0.00
CO2 in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO2 (mg/L):	0.00	Ammonia NH3:	0.00	Bromine (Br):	0.00
H2S in Gas (%):	0.00	Manganese (Mn):	0.50	Silica (SiO2):	0.00
H2S in Water (mg/L):	0.00				

Notes:

Tbg vol =41 bbls; inj vol=4 bbls; return vol=31.5 bbls

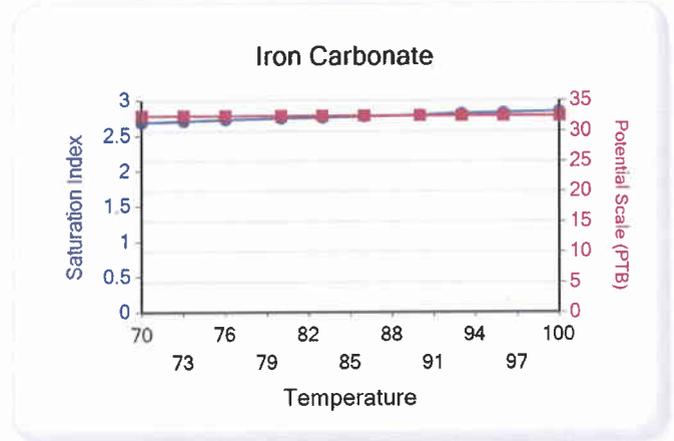
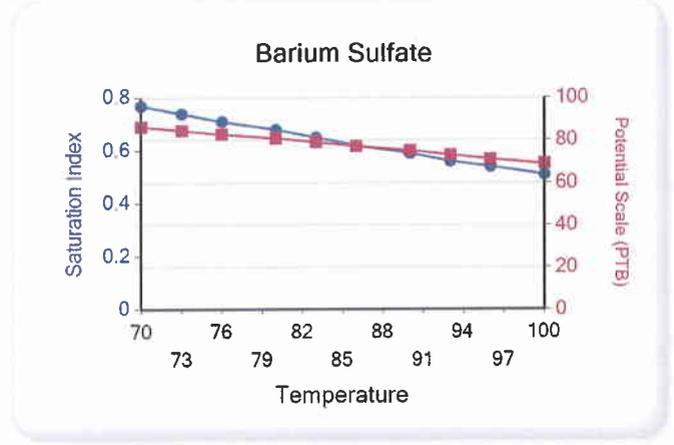
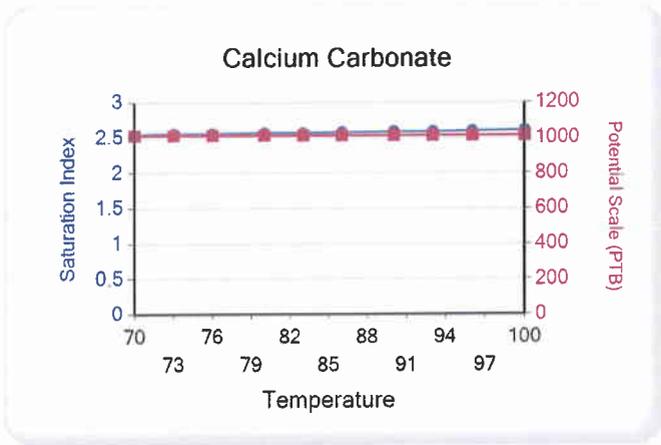
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	2.55	56.64	0.77	4.82	0.00	0.00	2.69	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	14.00	2.56	56.64	0.74	4.72	0.00	0.00	2.71	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.00	14.00	2.56	56.64	0.71	4.62	0.00	0.00	2.73	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.00	14.00	2.57	56.64	0.68	4.52	0.00	0.00	2.75	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.00	14.00	2.57	56.64	0.65	4.41	0.00	0.00	2.76	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	14.00	2.58	56.65	0.62	4.30	0.00	0.00	2.78	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.00	14.00	2.59	56.65	0.59	4.19	0.00	0.00	2.80	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	14.00	2.59	56.65	0.56	4.08	0.00	0.00	2.82	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.00	14.00	2.60	56.65	0.54	3.96	0.00	0.00	2.83	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.61	56.66	0.51	3.85	0.00	0.00	2.85	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate



Daily Activity Report

Format For Sundry

DILLMAN 3-17-3-2W

2/1/2012 To 6/30/2012

4/10/2012 Day: 1

Completion

Rigless on 4/10/2012 - NU BOP & Frac valve. Ran CBL and Temp log. Pressure test casing, Valves, BOP & Frac valve. - 4-4-2012 Ruston Muir trucking NU 7 1/16" 5K Cameron single blind BOP & 7 1/16" 5K frac valve. 4-10-2012. RU Perforators WLT, crane & 5K lubricator. Run CBL. WLTD was 5277' w/ TOC @ surface. LD CBL logging tools. PU & RIH w/ Probe temperature tool. Ran temperature log from 5272 to surface. LD temperature logging tools. RD WL. RU Adler Hot oiler & Four star pressure test unit. Pressure test casing, WH head, Casing valves, Frac valve & BOP to 400 psi low and 4300 psi high. RD Pressure tester & Hot Oiler. SIWFN w/ 208 BWTR.

Daily Cost: \$0

Cumulative Cost: \$13,237

4/13/2012 Day: 3

Completion

Nabors #1450 on 4/13/2012 - Perforate runs 4 - 10 and MIRUSU, test BOPs - MU Lubricator & set 8 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,574 -2,412], see perforation detail for specific perforations. POOH - Spot Rig, Catwalk, Pipe racks. Rig up and NU rig BOPs. Test Kill Line input and double Pipe Rams Low/High [200/4800psig]. - RDMO Wireline Truck and Crane Begin to MIRUSU Nabors #1450 - MU Lubricator & set 10 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,198 - 2,126], see perforation detail for specific perforations. POOH - MU Lubricator & set 9 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,378 - 2,240], see perforation detail for specific perforations. POOH - MU Lubricator & set 8 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,574 -2,412], see perforation detail for specific perforations. POOH - MU Lubricator & set 7 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,907 - 2,744], see perforation detail for specific perforations. POOH - MU Lubricator & set 6 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,012-2,908], see perforation detail for specific perforations. POOH - MU Lubricator & set 5 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,058 - 3,030], see perforation detail for specific perforations. POOH - No Activity - MIRU Crane/WL/Pressure Truck. Hold PJSM. - MU Lubricator & set 1 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,794 - 4,724], see perforation detail for specific perforations. POOH - MU Lubricator & set 2 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,574 -4,400], see perforation detail for specific perforations. POOH - MU Lubricator & set 3 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,364 -3,144], see perforation detail for specific perforations. POOH secure well and SIWFN - No Activity - MU Lubricator & set 4 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,086 -3,059], see perforation detail for specific perforations. POOH - MU Lubricator & set 5 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,058 - 3,030], see perforation detail for specific perforations. POOH - MU Lubricator & set 6 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,012-2,908], see perforation detail for specific perforations. POOH - MU Lubricator & set 7 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,907 - 2,744], see perforation detail for specific perforations. POOH - MU Lubricator & set 9 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,378 - 2,240], see perforation detail for specific perforations. POOH - MU

Lubricator & set 10 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [2,198 - 2,126], see perforation detail for specific perforations. POOH - RDMO Wireline Truck and Crane Begin to MIRUSU Nabors #1450 - Spot Rig, Catwalk, Pipe racks. Rig up and NU rig BOPs. Test Kill Line input and double Pipe Rams Low/High [200/4800psig]. - No Activity - MIRU Crane/WL/Pressure Truck. Hold PJSM. - MU Lubricator & set 1 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,794 - 4,724], see perforation detail for specific perforations. POOH - MU Lubricator & set 2 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,574 -4,400], see perforation detail for specific perforations. POOH - MU Lubricator & set 3 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [4,364 -3,144], see perforation detail for specific perforations. POOH secure well and SIWFN - No Activity - MU Lubricator & set 4 of 10 perf run. Pressure test Lubricator to 4800 psig, good test. RIH and perforate interval [3,086 -3,059], see perforation detail for specific perforations. POOH

Daily Cost: \$0

Cumulative Cost: \$66,081

4/17/2012 Day: 4

Completion

Nabors #1450 on 4/17/2012 - PU & RIH w/ plug & pkr. Breakdown 6 set of perfs. Swab to get wtr samples. - Set plug @ 4840' & pkr @ 4804'. (Pressure test hot oiler line to 4900 psi every time line is borken). Pressure test tools to 4900 psi. Move & set pkr 2 time to corelate to wireline depth. Good test. Release pkr @ set @ 4780' Breakdown zones @ 4794- 4800' 7 4782- 86'. Broke @ 2800 psi @ .46 BPM. Pumped 5 bbls. Final injection rate 2600 psi @ .46 BPM. ISIP 2450 psi. 1 min 2400 psi, 4 min 2350 psi. Bleed off pressure. Rec 2 BW. Release pkr & move tools. Set plug & pkr in 24' csg blank to confirm wireline correlation. Pressure test to 4000 psi. Release & move tools. - Crew travel. Safety meeting. - RU swab equipment. IFL @ surface. Recovered 7 BW on 1st run. 2nd run FL @ 2300'. Rec 1 BW. 3rd & 4th run pulled from SN @ 4675'. No fluid recovered. SIWFN w/ 24.1 bbls to recover from zone for sample. 209 bbls total to recover. - Set plug @ 4741'. Set pkr @ 4710'. Breakdown zones @ 4730- 34', 4722- 24'. Broke @ 3000 psi @ 0.46 BPM. Injected 5 BW. Final injection rate 2700 psi @ 0.46 BPM. ISIP 2500 psi. 1 min 2475 psi, 4 min 2450 psi. Bleed off pressure, Rec 1.5 BW. Release pkr. Move tools. Set plug @ 4840'. Set pkr @ 4684'. - Set plug @ 4779'. Set pkr @ 4741'. Breakdown zones @ 4756- 58' & 4748- 52'. Broke @ 2850 psi @ 0. BPM. Injected 4 BW. Final injection rate 2700 psi @ 0.54 BPM. ISIP 2500 psi. 1 min 2475 psi, 4 min 2450 psi. Bleed off pressure. Rec 1.5 bbls. Release pkr. Move tools. - Talley, PU & RIH w/ WTF 7" TS plug, HD pkr & 153 jts of 2 7/8" N-80 tbg. 60 jts in circulate well w/ 30 BW. - RU tbg handling equipment.

Daily Cost: \$0

Cumulative Cost: \$75,395

4/18/2012 Day: 5

Completion

Nabors #1450 on 4/18/2012 - 0 psi on well. Ru swab equipment. IFL @ 1600'. Made 8 hourly swab runs. Rec. 14.5 total bbls of fluid. FFL @ 4650'. SIWFN w/ 9.6 bbls of wtr to recover for sample. 194.5 BWTR. - 0 psi on well. Ru swab equipment. IFL @ 1600'. Made 8 hourly swab runs. Rec. 14.5 total bbls of fluid. FFL @ 4650'. SIWFN w/ 9.6 bbls of wtr to recover for sample. 194.5 BWTR. - Crew travel & hold safety meeting.

Daily Cost: \$0

Cumulative Cost: \$82,871

4/19/2012 Day: 7

Completion

Nabors #1450 on 4/19/2012 - Do breakdown and swab test. - Set plug @ 4308'. Pkr @ 4241'. Breakdown perfs @ 4280- 84', 4270- 74'. Broke @ 2950 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2390 psi. Bleed off pressure. RU swab equipment. IFL @ surface. Made 8 swab runs. Rec 32 BTF. FFL @ 4230'. Release pkr. Move tools. - Rig broke down. Wait for new fan belts. Repair rig. - Set plug @ 3202'. Set pkr @ 3166'. Pressure test tools to 4000 psi. Release pkr & reset @ 3125'. Breakdown perfs @ 3142- 44'. Broke @ 3600 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2000 psi @ 0.72 BPM. ISIP 1450 psi. 1 min 1350 psi. 4 min 1300 psi. Release pkr. Try to release plug. Would not release. Ru circulating jt. Circulate down on to plug. Release plug. Move tools. - Nabor releif pusher was injured when swab T fell off floor and hit him. - Set plug @ 3131'. Set pkr @ 3019'. Breakdown perfs @ 3030- 3100'. Broke @ 1900 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 1000 psi @ 0.72 BPM. ISIP 900 psi. 1 min 875 psi. 4 min 850 psi. Bleed off pressure. Rec 2 bbls. RU swab equipment. IFL @ surface. Made 3 swab runs. Rec 11 bbls of fluid. FFL @ 3000'. SIWFN. - Crew travel & safety meeting. - 0 psi on tbg, 5 psi on csg. RU swab. Made 1 swab run. IFL @ 4650'. Rec 4 gals of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Retrieve plug. Move tools up hole. Set plug @ 4598'. Set pkr @ 4557'. RU hot oiler. Pressure test line to 4900 psi. Break down perfs @ 4574- 80'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2390 psi, 4 min 2390 psi. Bleed of pressure, Rec 1 bbl of fluid. - Set plug @ 4550' & pkr @ 4484'. Breakdown perfs @ 4524- 26'. Broke @ 2750 psi @ 0.54 BPM. Inject 5 BW. Final injection @ 3300 psi @ 0.72 BPM. ISIP 2400 psi. 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure . Rec 1 bbl of fluid. Release pkr. - Try to release plug. Worked tbg to release plug. - Set plug @ 4498', Set pkr @ 4451'. Breakdown perfs @ 4464- 69'. Broke @ 2800 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2500 psi @ 0.72 psi. ISIP 2375 psi, 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure. Rec 1 bbl of fluid. - RU swab equipment. Made 7 swab runs. Rec 24 bbls of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Work on plug for 45 min to get plug to release. - Move & set tools. Set plug @ 4454'. Set pkr @ 4413'. Breakdown perfs @ 4430- 40'. Broke @ 2700 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Rec 1 bbl of fluid. Release pkr. - Work on plug to get released. POOH w/ 2 jts of tbg. Left tools hanging. SIWFN w/ 191 BWTR. - Crew travel. Safety meetin. - 0 psi on well. Recipercate tools up & down. Set plug @4420'. Set pkr @ 4377'. Pressure test hot oil line to 4900 psi. Breakdown perfs @ 4397- 4400'. Broke @ 2550 psi @ 0.54 BPM. Injected 5 bbls. Final injection pressure 2550 psi @ 0.72 BPM. ISIP @ 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Release pkr & move tools. - Set plug @ 4376'. Pkr @ 4354'. Breakdown perfs @ 4364- 68'. Broke @ 2800 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2600 psi @ 0.72 BPM. ISIP 2450 psi. 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure. Rec 1 bbl. Release pkr & move tools. - Set plug @ 4357'. Set pkr @ 4324'. Breakdown perfs @ 4342- 48'. Broke @ 2600 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure rec 1 bbl. Release pkr & move tools. - Set plug @ 4334'. Set pkr @ 4304'. Breakdown perfs @ 4316- 20'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure, Rec 4 bbl. Release pkr & move tools. - Set plug @ 4308'. Pkr @ 4241'. Breakdown perfs @ 4280- 84', 4270- 74'. Broke @ 2950 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2390 psi. Bleed off pressure. RU swab equipment. IFL @ surface. Made 8 swab runs. Rec 32 BTF. FFL @ 4230'. Release pkr. Move tools. - Rig broke down. Wait for new fan belts. Repair rig. - Set plug @ 3202'. Set pkr @ 3166'. Pressure test tools to 4000 psi. Release pkr & reset @ 3125'. Breakdown perfs @ 3142- 44'. Broke @ 3600 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2000 psi @ 0.72 BPM. ISIP 1450 psi. 1 min 1350 psi. 4 min 1300 psi. Release pkr. Try to release plug. Would not release. Ru circulating jt. Circulate down on to plug. Release plug. Move tools. - Nabor releif pusher was injured when swab T fell off floor and hit him. - Set plug @ 3131'. Set pkr @ 3019'. Breakdown perfs @ 3030- 3100'. Broke @ 1900 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 1000 psi @ 0.72 BPM. ISIP

900 psi. 1 min 875 psi. 4 min 850 psi. Bleed off pressure. Rec 2 bbls. RU swab equipment. IFL @ surface. Made 3 swab runs. Rec 11 bbls of fluid. FFL @ 3000'. SIWFN. - Crew travel & safety meeting. - 0 psi on tbg, 5 psi on csg. RU swab. Made 1 swab run. IFL @ 4650'. Rec 4 gals of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Retrieve plug. Move tools up hole. Set plug @ 4598'. Set pkr @ 4557'. RU hot oiler. Pressure test line to 4900 psi. Break down perfs @ 4574- 80'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls of wtr. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2390 psi, 4 min 2390 psi. Bleed off pressure, Rec 1 bbl of fluid. - Set plug @ 4550' & pkr @ 4484'. Breakdown perfs @ 4524- 26'. Broke @ 2750 psi @ 0.54 BPM. Inject 5 BW. Final injection @ 3300 psi @ 0.72 BPM. ISIP 2400 psi. 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure. Rec 1 bbl of fluid. Release pkr. - Try to release plug. Worked tbg to release plug. - Set plug @ 4498', Set pkr @ 4451'. Breakdown perfs @ 4464- 69'. Broke @ 2800 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2500 psi @ 0.72 psi. ISIP 2375 psi, 1 min 2375 psi, 4 min 2375 psi. Bleed off pressure. Rec 1 bbl of fluid. - RU swab equipment. Made 7 swab runs. Rec 24 bbls of fluid. Collect & label sample to be taken to Multi- chem. RD swab equipment. - Release pkr. Work on plug for 45 min to get plug to release. - Move & set tools. Set plug @ 4454'. Set pkr @ 4413'. Breakdown perfs @ 4430- 40'. Broke @ 2700 psi @ 0.54 BPM. Inject 5 bbls of fluid. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Rec 1 bbl of fluid. Release pkr. - Work on plug to get released. POOH w/ 2 jts of tbg. Left tools hanging. SIWFN w/ 191 BWTR. - Crew travel. Safety meetin. - 0 psi on well. Recipercate tools up & down. Set plug @4420'. Set pkr @ 4377'. Pressure test hot oil line to 4900 psi. Breakdown perfs @ 4397- 4400'. Broke @ 2550 psi @ 0.54 BPM. Injected 5 bbls. Final injection pressure 2550 psi @ 0.72 BPM. ISIP @ 2350 psi, 1 min 2350 psi, 4 min 2350 psi. Bleed off pressure. Release pkr & move tools. - Set plug @ 4376'. Pkr @ 4354'. Breakdown perfs @ 4364- 68'. Broke @ 2800 psi @ 0.54 BPM. Injected 5 bbls of wtr. Final injection pressure 2600 psi @ 0.72 BPM. ISIP 2450 psi. 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure. Rec 1 bbl. Release pkr & move tools. - Set plug @ 4357'. Set pkr @ 4324'. Breakdown perfs @ 4342- 48'. Broke @ 2600 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2475 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure rec 1 bbl. Release pkr & move tools. - Set plug @ 4334'. Set pkr @ 4304'. Breakdown perfs @ 4316- 20'. Broke @ 2650 psi @ 0.54 BPM. Inject 5 bbls. Final injection pressure 2500 psi @ 0.72 BPM. ISIP 2400 psi, 1 min 2400 psi, 4 min 2400 psi. Bleed off pressure, Rec 4 bbl. Release pkr & move tools.

Daily Cost: \$0

Cumulative Cost: \$109,119

4/20/2012 Day: 8

Completion

Nabors #1450 on 4/20/2012 - Swab test and get samples from perfs @ 3030- 3100'. Release pkr. Release plug. Shear input shaft on main drum. Rig down for repair. - Crew travel & Safety meeting. - Shear input shaft on main drum. SIWFN. Rig removed driveline and input shaft. Have to get parts out of Casper WY. Repair rig in AM. - Make hourly swab runs. Made 3 runs. Rec 2.7 BTF (1.2 bbls over). Got sample off last run. FFL @ 2950'. RD swab equipment. RU hot oiler. Fill tbg w/ 18 BW. Release pkr. TIH w/ tbg. Latched onto plug. Release plug. - 0 psi on well. RU swab equipment. IFL @ 1500'. Made 3 swab runs. Rec 8.5 BTF. FFL @ 3000'.

Daily Cost: \$0

Cumulative Cost: \$114,341

4/21/2012 Day: 9

Completion

Nabors #1450 on 4/21/2012 - Continue with breakdown and swab test. Broke down 7 sets of perfs. Swab tested 3 sets. - Crew travel. Safety meeting. - Set plug @ 3021'. Set pkr @ 2979'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 3004- 12'. Broke @ 2750 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1575 psi @ 1.58 BPM.

ISIP 975 psi, 1 min 925 psi, 4 min 875 psi. Bleed off pressure. Rec 2 BW. Release pkr. Move tools. - Set plug @ 2950'. Set pkr @ 2884'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2900- 28'. Broke @ 2200 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1050 psi @ 1.58 BPM. ISIP 900 psi, 1 min 875 psi, 4 min 850 psi. Bleed off pressure. Rec 3 bbls of fluid. - RU swab equipment. IFL @ surface. Made 6 runs (last run hourly run). Rec 20.3 bbls of 20.4 bbls of fluid need to recover. Got samples off last run (5A,5B,5C,5D). FFL @ 2870'. RD swab equipment. RU hot oiler and fill tbg w/ 20 bbls of wtr. Release pkr & move tools. - Set plug @ 2855'. Set pkr @ 2813'. Breakdown perfs @ 2822- 25', 2835- 38'. Broke @ 3150 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1700 psi @ 1.58 BPM. ISIP 900 psi, 1 min 925 psi, 4 min 900 psi. Bleed off pressure. Rec 2 bbls. Release pkr & move tools. - RU swab equipment. IFL @ surface. Made 3 runs (last run was dry). Rec 18 of 18.4 need to get capacity back. FFL @ 2470'. SIWFN. - Set plug @ 2778'. Set pkr @ 2725'. Breakdown perfs @ 2744- 52'. Broke @ 2500 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1450 psi @ 1.58 BPM. ISIP 950 psi, 1 min 900 psi, 4 min 900 psi. Bleed off pressure. Rec 2 bbls. - RU swab equipment. IFL @ surface. Made 4 runs (last run was dry). Rec 18.9 of 19.9 need to get capacity back. FFL @ 2775'. RD swab equipment. Hot oiler filled tbg w/ 18 bbls of wtr. Release pkr and move tools. - Set & test tools to 4000 psi in blank csg. Set plug @ 2634'. Set pkr @ 2536'. Breakdown perfs @ 2572- 74'. Broke @ 4600 psi @ 0.32 BPM. Inject 5 BW. Final injection pressure 3700 psi @ 0.72 BPM. ISIP 2500 psi, 1 min 1350 psi, 4 min 1050 psi. Bleed off pressure. Rec 1 bbls. Release pkr & move tools. - Set plug @ 2539'. Set pkr @ 2473'. Breakdown perfs @ 2486- 2500'. Broke @ 2200 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2200 psi @ 1.58 BPM. ISIP 950 psi, 1 min 900 psi, 4 min 875 psi. Bleed off pressure. Rec 2 bbls. - Set plug @ 2814'. Set pkr @ 2789'. Breakdown perfs @ 2803- 06'. Broke @ 2950 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1600 psi @ 1.58 BPM. ISIP 900 psi, 1 min 900 psi, 4 min 850 psi. Bleed off pressure. Rec 1.5 bbls. Release pkr & move tools.

Daily Cost: \$0

Cumulative Cost: \$121,541

4/22/2012 Day: 10

Completion

Nabors #1450 on 4/22/2012 - Continue with breakdown and swab test. Broke down 9 sets of perfs. Swab tested 2 sets. 11 swab total - Crew travel. Safety meeting. - RU swab equipment. Made 5 swab runs. Rec 21.7 bbls of 21.0 bbls of fluid need to recover. Collect & label sample to be taken to Multi- chem. (7A,7B,7C,7D) . RD swab equipment. Release pkr & move tools - Set plug @ 2466'. Set pkr @ 2424'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2431- 2435'. Broke @ 2900 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1550 psi @ 1 BPM. ISIP 1500 psi, 1 min 1450 psi, 4 min 1175 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2416'. Set pkr @ 2388'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2412- 2416'. Broke @ 2700 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1700 psi @ 1 .5 BPM. ISIP 1700 psi, 1 min 1600 psi, 4 min 1450 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2388'. Set pkr @ 2357'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2376- 2378'. Broke @ 4600 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2050 psi @ 1 .5 BPM. ISIP 1400 psi, 1 min 1300 psi, 4 min 1150 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2366'. Set pkr @ 2315'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2340- 2326'. Broke @ 1700 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1500 psi @ 1 .5 BPM. ISIP 1000 psi, 1 min 900 psi, 4 min 750 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - RU swab equipment. IFL @ surface. Made 3 runs (last run was dry). FFL @ 2126'. SIWFN . Release all vendors from location - Set plug @ 2311'. Set pkr @ 2287'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2293- 2296'. Broke @ 2350 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2000 psi @ 1 .5 BPM. ISIP 1450 psi, 1 min 1300 psi, 4 min 1275 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2286. Set pkr @ 2252'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown

perfs @ 2274- 2280'. Broke @ 2400 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 2100 psi @ 1 .5 BPM. ISIP 1500 psi, 1 min 1350 psi, 4 min 1275 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools.. - Set plug @ 2258. Set pkr @ 2220'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2240- 2242'. Broke @ 2300 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1750 psi @ 1 .5 BPM. ISIP 1350 psi, 1 min 1300 psi, 4 min 1100 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools - Set plug @ 2200. Set pkr @ 2157'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2182- 2198'. Broke @ 1700 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1700 psi @ 1 .5 BPM. ISIP 1500 psi, 1 min 1100 psi, 4 min 850 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools. - Set plug @ 2126. Set pkr @ 2094'. RU Advantage hot oiler. Pressure test lines to 4900 psi. Breakdown perfs @ 2126- 2144'. Broke @ 2050 psi @ 0.54 BPM. Inject 5 BW. Final injection pressure 1900 psi @ 1 .5 BPM. ISIP 1300 psi, 1 min 1300 psi, 4 min 1000 psi. Bleed off pressure. Rec .1 BW. Release pkr. Move tools.. - RU swab equipment. Made 5 swab runs. Rec 18.5 bbls of 19.5 bbls of fluid need to recover. Short 1 BBL , proceed 3 hrs well not flowing as per Gary Dietz .Collect & label sample to be taken to Multi- chem. (8A,8 B,8C,8D) . RD swab equipment. Release pkr & move tools

Daily Cost: \$0

Cumulative Cost: \$143,264

4/23/2012 Day: 11

Completion

Nabors #1450 on 4/23/2012 - Finish Collection/delivery of 9 Samples. POOH with PKR/PLG tools and change out PKR/PLG. Test PLG/PKR, secure well - Collect & label sample to be taken to Multi- chem. (9A,9B, 9C, 9D, 9E) . RD swab equipment. Release pkr & POOH with tbg. LD tools and MU new PLG/PKR tools. RIH with PLG/PKR. TEST tools to 2500 psig with PLG set at 4,845' and PKR set at 4,805'. Release PKR and waiting on Sample Testing and authorization from State. - No Activity

Daily Cost: \$0

Cumulative Cost: \$155,124

4/25/2012 Day: 12

Completion

Nabors #1450 on 4/25/2012 - Acidized Stages 1-4, with pump issues on Stage 3/4 - No Activity wait on authorization to acidize - MIRU Baker Hughes pump truck and acid trucks. Set PLG @ 4,845' and PKR @ 4,690', EOT of 4,700'. - Released PKR and rolled 60 bbls, secured well and SDFN - Move PLG/PKR to [4,595 & 4,451], EOT @ 4,461'. Begin Acid Stage 2. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 2 with 23.8 bbls of 28% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). Shut down pump with 13.5 bbls of flush pumped, as seen communication with above zone and flow from csg. Rolled hole with 85 bbls - Move PLG/PKR to [4,452 & 4,247], EOT @ 4,257'. Begin Acid Stage 3/4. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 3/4 with 71.4 bbls of 28% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900).and with 45 bbls of flush pumped. Pump complications inhibited to pump majority of job at 2.5 bbls/min @ 1,900 psig. - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 1 Job. Pressure test pump lines to 6000 psig with no leaks. Begin pumping Stage 1 with 47.2 bbls of 28% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush. After pumping flowed back 5 bbls to pit.

Daily Cost: \$0

Cumulative Cost: \$210,554

4/27/2012 Day: 14

Completion

Nabors #1450 on 4/27/2012 - Acidize Stages 8-11, land kill string - No Activity - N/D BOPs, N/U 3K B1 adapter flange and 5K 2 9/16 gate valve, secure well - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 5 Job. Pressure test pump lines to 6000 psig with no leaks. Begin pumping Stage 5 with 107.1 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush. After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Move PLG/PKR to [2,961 & 2,860], EOT @ 2,870'. Begin Acid Stage 6 Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6 with 47.6 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). Shut down pump with 30 bbls of acid pumped, as seen communication with above zone and flow from csg. Flowed tbg back for 30 min, then released PKR and rolled CSG for 45 mins - Move PLG/PKR to [2,981 & 2,700], EOT @ 2,710'. Begin Acid Stage 6/7. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6/7 with 40 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Release Baker Hughes, and set PLG/PKR @ [2,634 & 2,600] test tools to 2,000 psig. Release PKR and secure well, SDFN - No Activity - POOH with 10 jts and set PLG/PKR @ [2,634 & 2,102'], EOT of 2,112'. R/U Baker Hughes equipment with 2 (200 ball droppers) and 300 (7/8") BioBalls. - Repair pump issues on Baker Pumping Equipment, isolated bad pump - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 8/11 Job. Pressure test pump lines to 6000 psig. Begin pumping Stage 8/11 with 119 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush, Dropped 300 BioBalls during Acid. After pumping flowed back for 10 min to pit. Release paker and roll CSG with 60 bbls. - TIH with 17 jts of tbg, circulate Bioballs off plug with 100 bbls of water. Release PLG - TOO H with TBG. LD PLG/PKR. - POOH w/ 83 jts, LD PLG/PKR - RIH w/ collar, S/N, 101 jt - Land tbg, Pumped 150 bbls of fresh wtr w/pkr fluid, rig down tongs, R/U floor - N/D BOPs, N/U 3K B1 adapter flange and 5K 2 9/16 gate valve, secure well - No Activity - Move and set PLG/PKR @ [3,202 & 2,997'], EOT @ 3,007'. Baker Huges rebuild both triplex pump seals on pump truck. - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 5 Job. Pressure test pump lines to 6000 psig with no leaks. Begin pumping Stage 5 with 107.1 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush. After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Move PLG/PKR to [2,961 & 2,860], EOT @ 2,870'. Begin Acid Stage 6 Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6 with 47.6 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). Shut down pump with 30 bbls of acid pumped, as seen communication with above zone and flow from csg. Flowed tbg back for 30 min, then released PKR and rolled CSG for 45 mins - Move PLG/PKR to [2,981 & 2,700], EOT @ 2,710'. Begin Acid Stage 6/7. Pressure test pump line to 6000 psig with no leaks. Begin Pumping Stage 6/7 with 40 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900). After pumping flowed back for 45 min to pit. Release paker and roll CSG for 45 mins to flush tbg. - Release Baker Hughes, and set PLG/PKR @ [2,634 & 2,600] test tools to 2,000 psig. Release PKR and secure well, SDFN - No Activity - POOH with 10 jts and set PLG/PKR @ [2,634 & 2,102'], EOT of 2,112'. R/U Baker Hughes equipment with 2 (200 ball droppers) and 300 (7/8") BioBalls. - Repair pump issues on Baker Pumping Equipment, isolated bad pump - PJSM with Nabors 1450 crew and BJ crew. Begin Acid Stage 8/11 Job. Pressure test pump lines to 6000 psig. Begin pumping Stage 8/11 with 119 bbls of 15% HCl with additives (Techni-Hib 767W, InFlow 250W, Ferrotrol 300L, Paravan 25, Cl-14, & NE-900) and 45 bbls flush, Dropped 300 BioBalls during Acid. After pumping flowed back for 10 min to pit. Release paker and roll CSG with 60 bbls. - TIH with 17 jts of tbg, circulate Bioballs off plug with 100 bbls of water. Release PLG - TOO H with TBG. LD PLG/PKR. - POOH w/ 83 jts, LD PLG/PKR - RIH w/ collar, S/N, 101 jt - Land tbg, Pumped 150 bbls of fresh wtr w/pkr fluid, rig down tongs, R/U floor - Move and set PLG/PKR @ [3,202 & 2,997'], EOT @ 3,007'. Baker Huges rebuild both triplex pump seals on pump truck.

Daily Cost: \$0

Cumulative Cost: \$234,992

Pertinent Files: Go to File List

Multi-Chem Analytical Laboratory

1553 East Highway 40
Vernal, UT 84078



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Wellhead 9E**
Sample Date: **4/23/2012**
Sample ID: **WA-213584**

Sales Rep: **Michael McBride**
Lab Tech: **Gary Peterson**

2126-2144 Mista Em.

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	5/16/2012	Sodium (Na):	15946.70	Chloride (Cl):	23400.00
System Temperature 1 (°F):	175.00	Potassium (K):	1138.00	Sulfate (SO ₄):	851.00
System Pressure 1 (psig):	2000.0000	Magnesium (Mg):	6.90	Bicarbonate (HCO ₃):	2806.00
System Temperature 2 (°F):	70.00	Calcium (Ca):	4.80	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO):	0.00
Calculated Density (g/ml):	1.027	Barium (Ba):	0.07	Propionic Acid (C ₂ H ₅ COO):	0.00
pH:	7.60	Iron (Fe):	4.80	Butanoic Acid (C ₃ H ₇ COO):	0.00
Calculated TDS (mg/L):	44158.48	Zinc (Zn):	0.01	Isobutyric Acid ((CH ₃) ₂ CHCOO):	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	0.10	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	0.10	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

Notes:

perfs (2126-2144); tbg vol; 18.9 bbls; inj vol; 3 bbls; return vol; 22.3 bbls

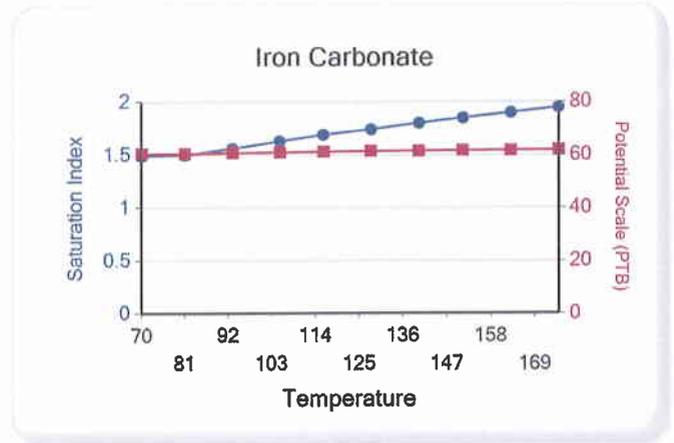
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	235.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	3.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	455.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	676.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116.00	897.00	0.00	0.00	0.00	0.00	0.00	0.00	1.69	3.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128.00	1117.00	0.00	0.00	0.00	0.00	0.00	0.00	1.74	3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	1338.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151.00	1558.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	3.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	1779.00	0.00	0.00	0.00	0.00	0.00	0.00	1.90	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	235.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	455.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	676.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116.00	897.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128.00	1117.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	1338.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
151.00	1558.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	1779.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Iron Carbonate



Multi-Chem Analytical Laboratory

1553 East Highway 40

Vernal, UT 84078



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD**
 Well Name: **Dilman 3-17-3-2W**
 Sample Point: **Perfs 4722 to 4800 1A**
 Sample Date: **4/18/2012**
 Sample ID: **WA-211691**

Sales Rep: **Darren Betts**
 Lab Tech: **Gary Peterson**

Green R. Fm.

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/19/2012	Sodium (Na):	4307.41	Chloride (Cl):	16000.00
System Temperature 1 (°F):	100.00	Potassium (K):	12238.00	Sulfate (SO ₄):	16.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	0.30	Bicarbonate (HCO ₃):	3050.00
System Temperature 2 (°F):	100.00	Calcium (Ca):	23.00	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO):	0.00
Calculated Density (g/ml):	1.02	Barium (Ba):	0.12	Propionic Acid (C ₂ H ₅ COO):	0.00
pH:	9.80	Iron (Fe):	2.20	Butanoic Acid (C ₃ H ₇ COO):	0.00
Calculated TDS (mg/L):	35637.04	Zinc (Zn):	0.00	Isobutyric Acid ((CH ₃) ₂ CHCOO):	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	0.01	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

Notes:

TBG vol= 41bbbls; inj vol = 4bbbls; return vol = 31.5 bbls

(PTB = Pounds per Thousand Barrels)

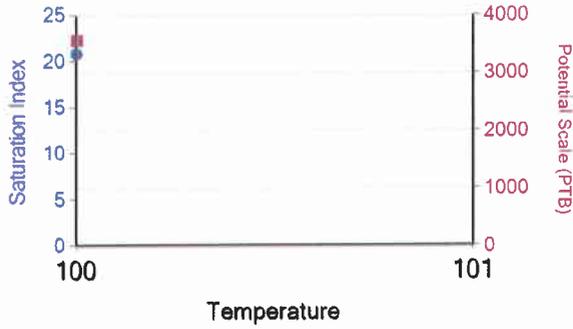
Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.09	19.96	0.00	0.00	0.00	0.00	2.77	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

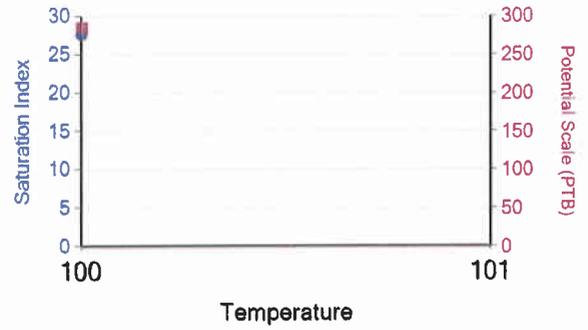
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate

Calcium Carbonate



Iron Carbonate



Multi-Chem Analytical Laboratory

1553 East Highway 40
Vernal, UT 84078



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD**
Well Name: **Dilman 3-17-3-2W**
Sample Point: **Perfs 4722 to 4800 1B Green R. Fm.**
Sample Date: **4/18/2012**
Sample ID: **WA-211692**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Scaling potential predicted using ScaleSoftPitzer from
Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/18/2012	Sodium (Na):	8430.41	Chloride (Cl):	11500.00
System Temperature 1 (°F):	100.00	Potassium (K):	31.60	Sulfate (SO ₄):	24.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	22.50	Bicarbonate (HCO ₃):	2928.00
System Temperature 2 (°F):	70.00	Calcium (Ca):	64.90	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO):	0.00
Calculated Density (g/ml):	1.01	Barium (Ba):	10.40	Propionic Acid (C ₂ H ₅ COO):	0.00
pH:	10.02	Iron (Fe):	2.50	Butanoic Acid (C ₃ H ₇ COO):	0.00
Calculated TDS (mg/L):	23014.81	Zinc (Zn):	0.00	Isobutyric Acid ((CH ₃) ₂ CHCOO):	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	0.50	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

Notes:

Tbg vol =41 bbls; inj vol=4 bbls; return vol=31.5 bbls

(PTB = Pounds per Thousand Barrels)

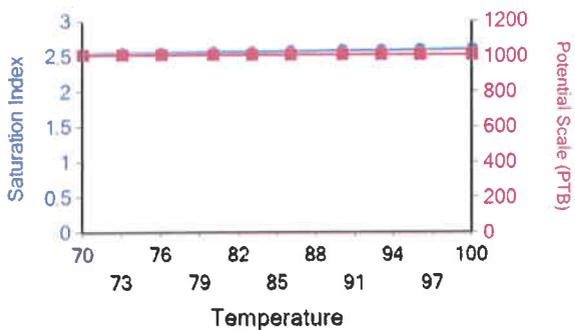
Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	2.55	56.64	0.77	4.82	0.00	0.00	2.69	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	14.00	2.56	56.64	0.74	4.72	0.00	0.00	2.71	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.00	14.00	2.56	56.64	0.71	4.62	0.00	0.00	2.73	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.00	14.00	2.57	56.64	0.68	4.52	0.00	0.00	2.75	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.00	14.00	2.57	56.64	0.65	4.41	0.00	0.00	2.76	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	14.00	2.58	56.65	0.62	4.30	0.00	0.00	2.78	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.00	14.00	2.59	56.65	0.59	4.19	0.00	0.00	2.80	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	14.00	2.59	56.65	0.56	4.08	0.00	0.00	2.82	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.00	14.00	2.60	56.65	0.54	3.96	0.00	0.00	2.83	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	2.61	56.66	0.51	3.85	0.00	0.00	2.85	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
70.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

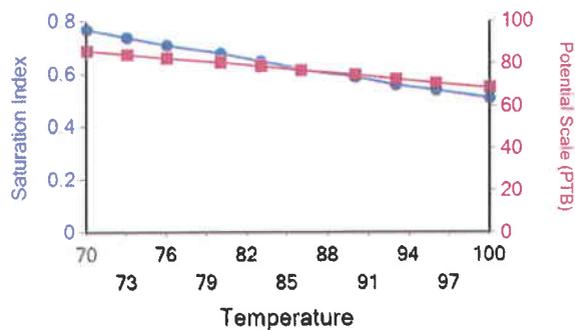
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate

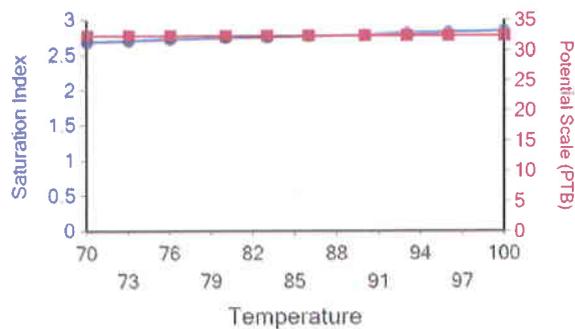
Calcium Carbonate



Barium Sulfate

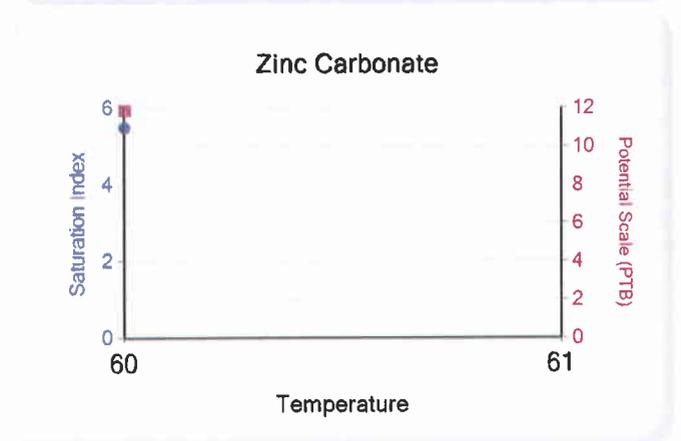
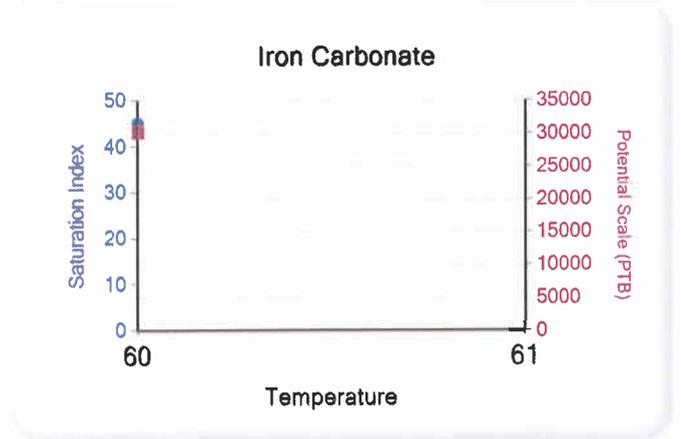
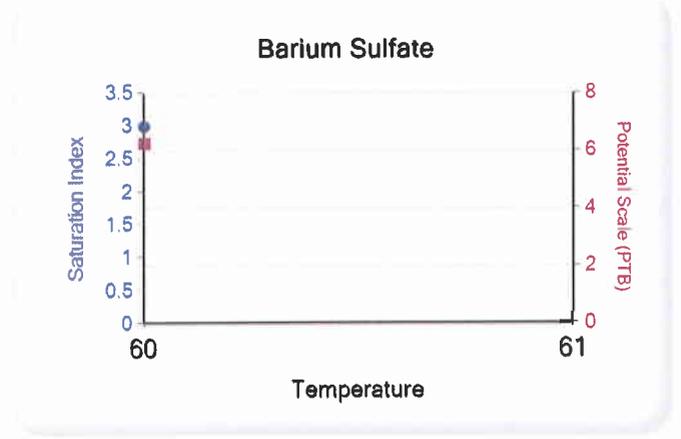
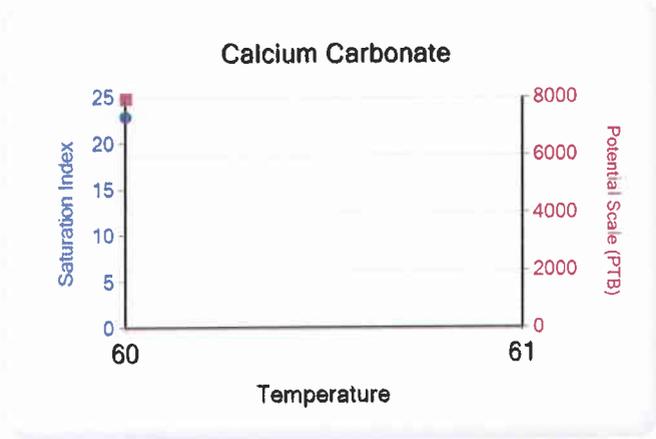


Iron Carbonate



These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



Multi-Chem Analytical Laboratory

1122 S. FM1788
Midland, TX 76706



A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2744 2752 6A**
Sample Date: **4/23/2012**
Sample ID: **WA-211995**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Uinta Tm

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties In Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	7411.73	Chloride (Cl):	10600.00
System Temperature 1 (°F):	60.00	Potassium (K):	924.00	Sulfate (SO ₄):	200.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	4.22	Bicarbonate (HCO ₃):	3172.00
System Temperature 2 (°F):	60.00	Calcium (Ca):	31.20	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO):	0.00
Calculated Density (g/ml):	1.01	Barium (Ba):	1.00	Propionic Acid (C ₂ H ₅ COO):	0.00
pH:	9.20	Iron (Fe):	197.00	Butanoic Acid (C ₃ H ₇ COO):	0.00
Calculated TDS (mg/L):	22544.97	Zinc (Zn):	0.17	Isobutyric Acid ((CH ₃) ₂ CHCOO):	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	3.65	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

Notes:

19.9 bbls capacity; 18,9 bbls recovered

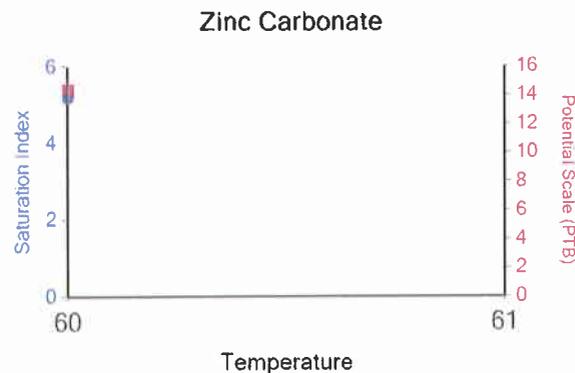
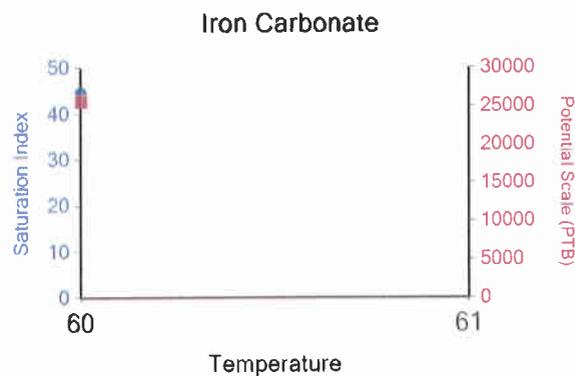
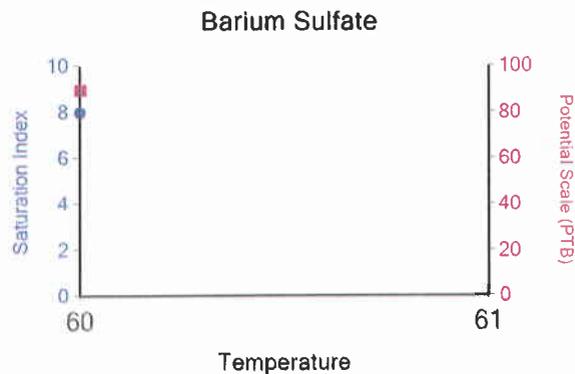
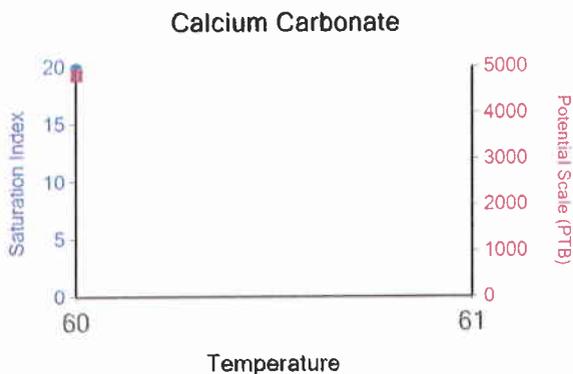
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	1.99	27.01	0.80	0.50	0.00	0.00	4.46	143.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2126 2144 9A** *Uinta Fm.*
Sample Date: **4/23/2012**
Sample ID: **WA-211996**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Scaling potential predicted using ScaleSoftPitzer from
Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	15703.46	Chloride (Cl):	23400.00
System Temperature 1 (°F):	60.00	Potassium (K):	944.00	Sulfate (SO ₄):	600.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	8.80	Bicarbonate (HCO ₃):	2732.80
System Temperature 2 (°F):	60.00	Calcium (Ca):	42.30	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO):	0.00
Calculated Density (g/ml):	1.03	Barium (Ba):	0.00	Propionic Acid (C ₂ H ₅ COO):	0.00
pH:	9.60	Iron (Fe):	198.00	Butanoic Acid (C ₃ H ₇ COO):	0.00
Calculated TDS (mg/L):	43634.21	Zinc (Zn):	0.12	Isobutyric Acid ((CH ₃) ₂ CHCOO):	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	0.00	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	4.73	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

Notes:

tbq vol=18.9 bbls; inj vol =3 bbls ; return vol= 22.3 bbls

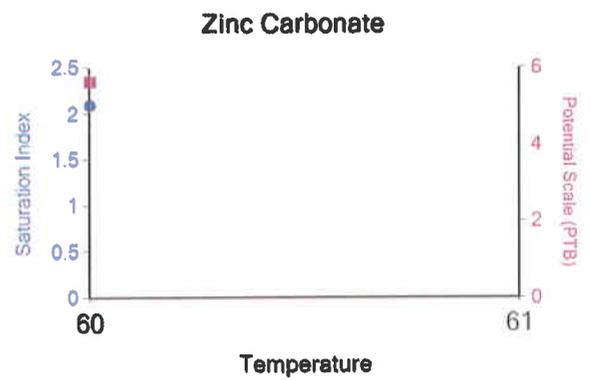
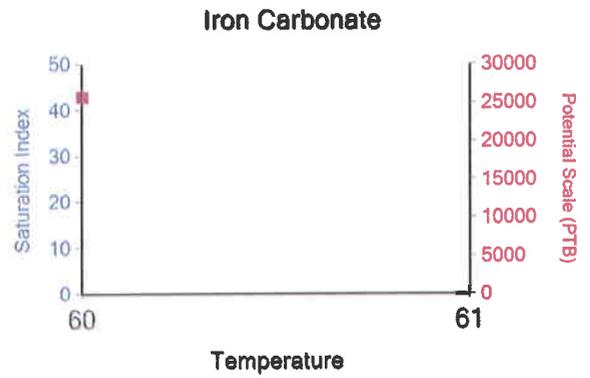
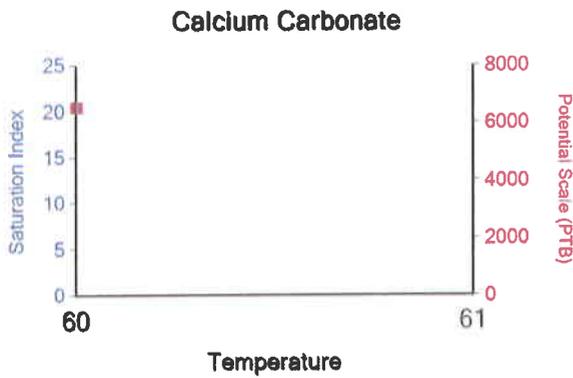
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.07	36.69	0.00	0.00	0.00	0.00	4.32	143.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

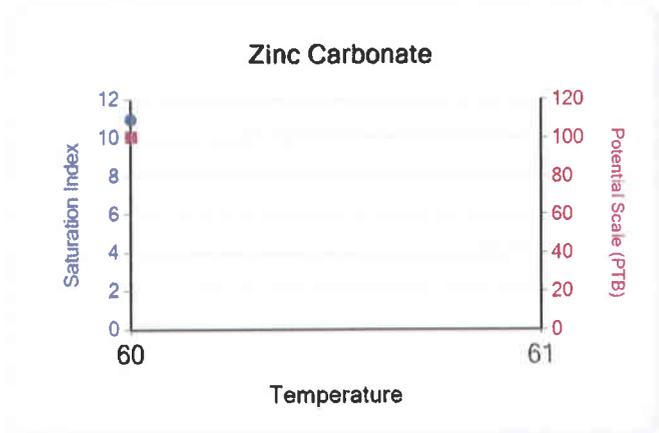
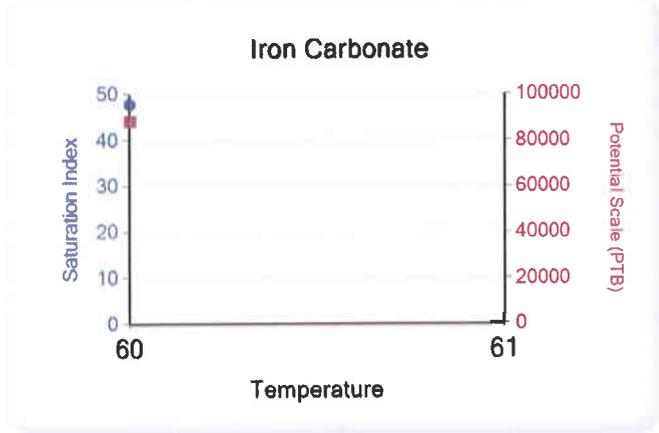
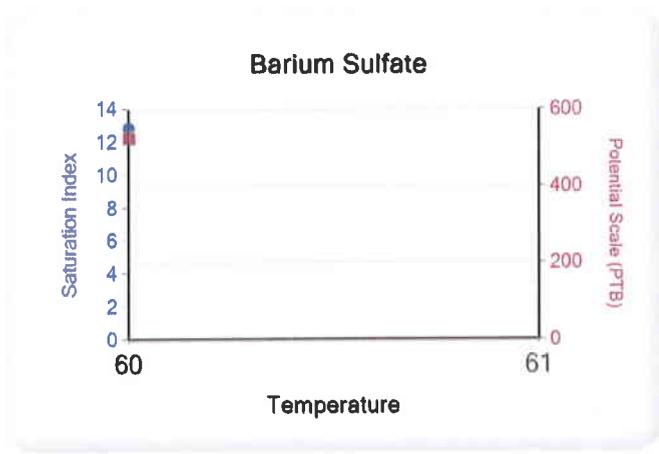
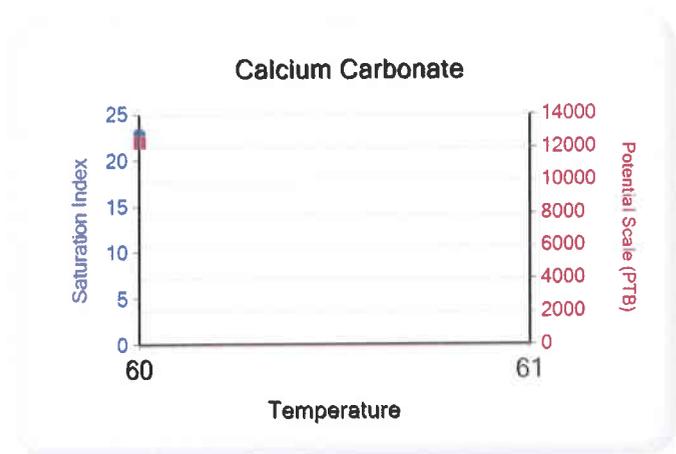
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate



These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2744 2752 6B**
Sample Date: **4/23/2012**
Sample ID: **WA-211987**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Uinta fm

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	7098.33	Chloride (Cl):	10400.00
System Temperature 1 (°F):	60.00	Potassium (K):	1152.00	Sulfate (SO ₄):	150.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	11.50	Bicarbonate (HCO ₃):	3269.60
System Temperature 2 (°F):	60.00	Calcium (Ca):	54.60	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO)	0.00
Calculated Density (g/ml):	1.01	Barium (Ba):	0.20	Propionic Acid (C ₂ H ₅ COO)	0.00
pH:	9.20	Iron (Fe):	222.00	Butanoic Acid (C ₃ H ₇ COO)	0.00
Calculated TDS (mg/L):	22363.98	Zinc (Zn):	0.15	Isobutyric Acid ((CH ₃) ₂ CHCOO)	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	0.10	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	5.50	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

Notes:
19.9 bbls capacity; 18.9 bbls recovered

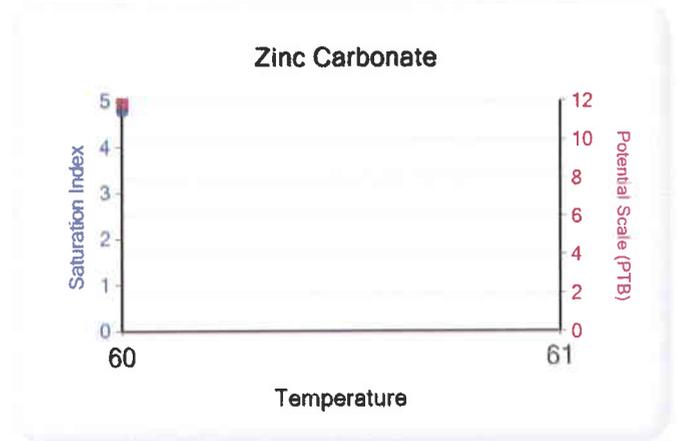
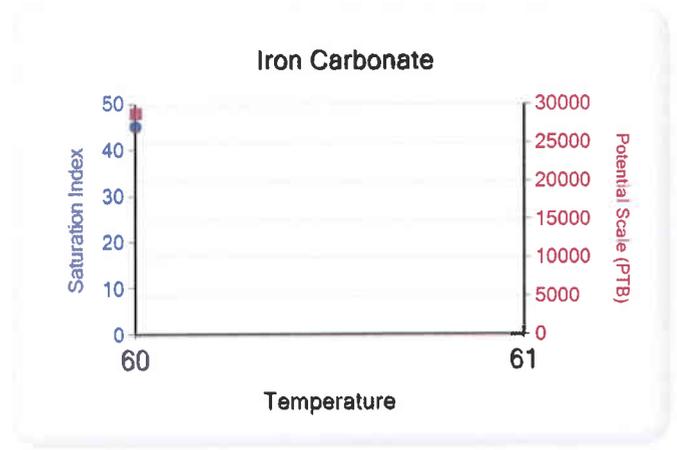
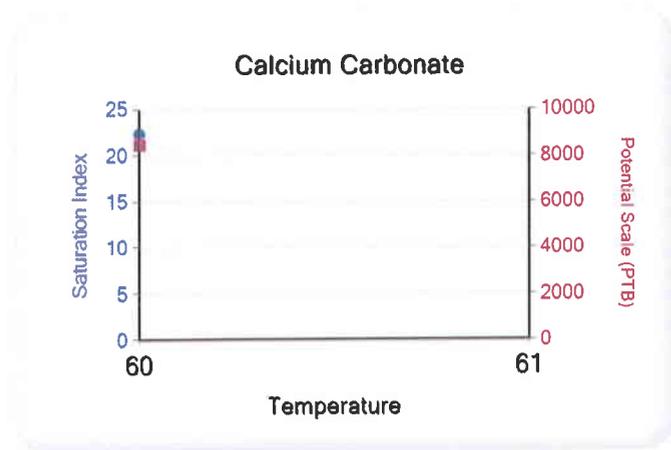
(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.24	47.48	0.00	0.00	0.00	0.00	4.53	161.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate



Units of Measurement: **Standard**

Water Analysis Report

Production Company: **NEWFIELD PRODUCTION**
Well Name: **DILLMAN 3-17-3-2W**
Sample Point: **Perfs 2900 2928 5A**
Sample Date: **4/23/2012**
Sample ID: **WA-211991**

Sales Rep: **Darren Betts**
Lab Tech: **Gary Peterson**

Uinta Fm.

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations		Anions	
		mg/L		mg/L	
Test Date:	4/24/2012	Sodium (Na):	11346.02	Chloride (Cl):	19600.00
System Temperature 1 (°F):	60.00	Potassium (K):	3027.00	Sulfate (SO ₄):	160.00
System Pressure 1 (psig):	14.7000	Magnesium (Mg):	7.50	Bicarbonate (HCO ₃):	2269.20
System Temperature 2 (°F):	60.00	Calcium (Ca):	62.00	Carbonate (CO ₃):	0.00
System Pressure 2 (psig):	14.7000	Strontium (Sr):	0.00	Acetic Acid (CH ₃ COO)	0.00
Calculated Density (g/ml):	1.02	Barium (Ba):	4.00	Propionic Acid (C ₂ H ₅ COO)	0.00
pH:	9.80	Iron (Fe):	507.00	Butanoic Acid (C ₃ H ₇ COO)	0.00
Calculated TDS (mg/L):	36997.38	Zinc (Zn):	0.75	Isobutyric Acid ((CH ₃) ₂ CHCOO)	0.00
CO ₂ in Gas (%):	0.00	Lead (Pb):	1.30	Fluoride (F):	0.00
Dissolved CO ₂ (mg/L):	0.00	Ammonia NH ₃ :	0.00	Bromine (Br):	0.00
H ₂ S in Gas (%):	0.00	Manganese (Mn):	12.60	Silica (SiO ₂):	0.00
H ₂ S in Water (mg/L):	0.00				

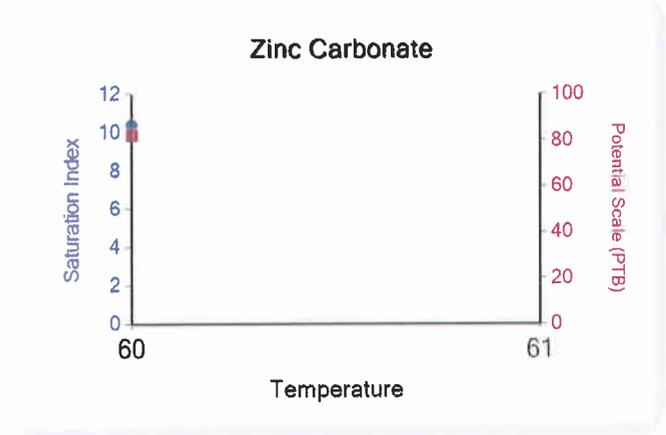
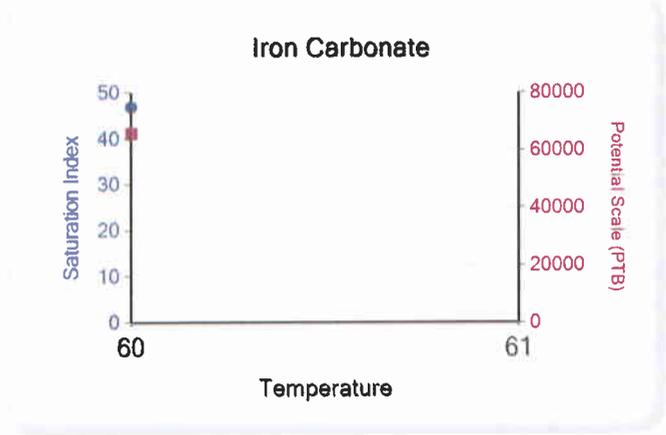
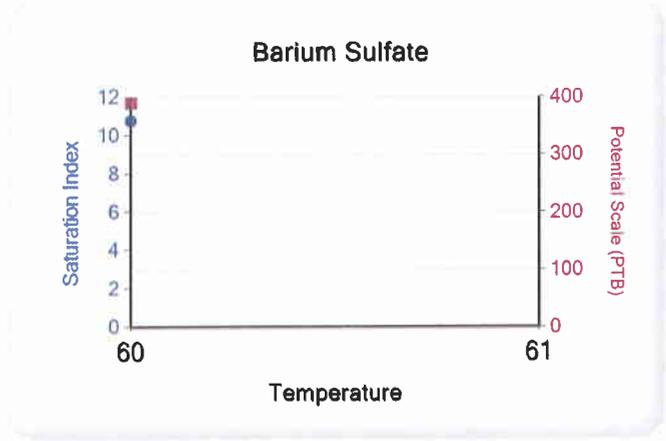
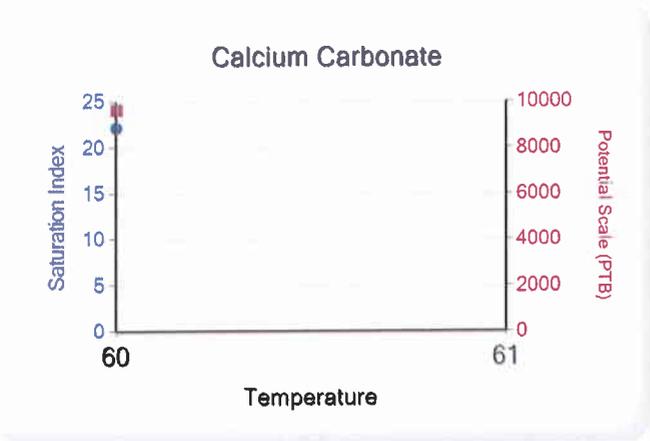
Notes:
20.4 bbls capacity; 20.3 bbls recovered

(PTB = Pounds per Thousand Barrels)

Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	2.22	53.91	1.08	2.18	0.00	0.00	4.70	368.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate



4770 S. 5600 W.
 P.O. BOX 704005
 WEST VALLEY CITY, UTAH 84170
 FED.TAX I.D.# 87-0217663

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PROOF OF PUBLICATION

CUSTOMER'S COPY

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL-GAS & MINING, 1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114	9001402352	3/19/2012

RECEIVED
 MAR 27 2012

ACCOUNT NAME	
DIV OF OIL-GAS & MINING,	
TELEPHONE	ADORDER# / INVOICE NUMBER
8015385340	0000776063 /
SCHEDULE	
Start 03/17/2012	End 03/17/2012
CUST. REF. NO.	
20120313	
CAPTION	
BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURA	
SIZE	
52 Lines	2.00 COLUMN
TIMES	RATE
4	
MISC. CHARGES	AD CHARGES
TOTAL COST	
179.72	

BEFORE THE DIVISION OF OIL, GAS AND MINING
 DEPARTMENT OF NATURAL RESOURCES
 STATE OF UTAH
 NOTICE OF AGENCY ACTION
 CAUSE NO. UIC-388

IN THE MATTER OF THE APPLICATION OF NEWFIELD PRODUCTION COMPANY FOR ADMINISTRATIVE APPROVAL OF CERTAIN WELLS TO BE DRILLED IN SECTION 18, TOWNSHIP 3 SOUTH, RANGE 1 WEST, AND SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST, DUCHESNE COUNTY, UTAH, AS CLASS II INJECTION WELLS.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Newfield Production Company for administrative approval of the following proposed wells in Duchesne County, Utah, to be drilled and completed as Class II injection wells:

SWD 5-18-3-1W well located in SW/4 NW/4, Section 18, Township 3 South, Range 1 West
 API 43-013-51256

Dillman 3-17-3-2W SWD well located in NE/4 NW/4, Section 17, Township 3 South, Range 2 West
 API 43-013-50924

The proceeding will be conducted in accordance with Utah Admin. R649-10, Administrative Procedures. Selected zones in the Green River and Uinta Formations are targeted for water injection. The maximum requested injection pressures and rates will be determined based on fracture gradient information submitted by Newfield Production Company.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, UT 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedural rules. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 13th day of March, 2012.
 STATE OF UTAH
 DIVISION OF OIL, GAS & MINING
 /s/
 Brad Hill
 Permitting Manager

UPAXLP

AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY COMPANY, LLC dba MEDIAONE OF UTAH LEGAL BOOKER, I CERTIFY THAT THE ATTACHED ADVERTISEMENT OF BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES STATE OF UTAH NOTICE OF AGENCY ACTION CAUSE NO. UIC-388 IN THE MATTER OF THE APPLICA FOR DIV OF OIL-GAS & MINING, WAS PUBLISHED BY THE NEWSPAPER AGENCY COMPANY, I.L.C dba MEDIAONE OF UTAH, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINATELY.

PUBLISHED ON Start 03/17/2012 End 03/17/2012

SIGNATURE [Signature]

3/19/2012

VIRGINIA CRAFT
 Notary Public, State of Utah
 Commission # 581469
 My Commission Expires
 January 12, 2014

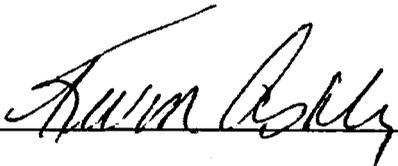
[Signature]

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"
 PLEASE PAY FROM BILLING STATEMENT
 2250/REG/C.G.MEDIAONE/UTAH 3/19/2012

AFFIDAVIT OF PUBLICATION

County of Duchesne,
STATE OF UTAH

I, Kevin Ashby on oath, say that I am the PUBLISHER of the Uintah Basin Standard, a weekly newspaper of general circulation, published at Roosevelt, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue such newspaper for 1 consecutive issues, and that the first publication was on the 20 day of March, 2012, and that the last publication of such notice was in the issue of such newspaper dated the 30 day of March, 2012, and that said notice was published on Utahlegals.com on the same day as the first newspaper publication and the notice remained on Utahlegals.com until the end of the scheduled run.

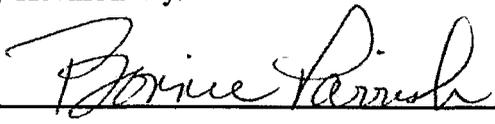


Publisher

Subscribed and sworn to before me on this

26 day of March, 2012

by Kevin Ashby.



Notary Public



NOTICE OF AGENCY ACTION CAUSE NO. UIC-388

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH.

IN THE MATTER OF THE APPLICATION OF NEWFIELD PRODUCTION COMPANY FOR ADMINISTRATIVE APPROVAL OF CERTAIN WELLS TO BE DRILLED IN SECTION 18, TOWNSHIP 3 SOUTH, RANGE 1 WEST, AND SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST, DUCHESNE COUNTY, UTAH, AS CLASS II INJECTION WELLS.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, UT 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedural rules. Protestants and/or interven-

ers should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 13th day of March, 2012.

STATE OF UTAH
DIVISION OF OIL,
GAS & MINING

/s/

Brad Hill
Permitting Manager
Published in the
Uintah Basin Standard
March 20, 2012.

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC-388

IN THE MATTER OF THE APPLICATION OF NEWFIELD PRODUCTION COMPANY FOR ADMINISTRATIVE APPROVAL OF CERTAIN WELLS TO BE DRILLED IN SECTION 18, TOWNSHIP 3 SOUTH, RANGE 1 WEST, AND SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST, DUCHESNE COUNTY, UTAH, AS CLASS II INJECTION WELLS.

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SWD 5-18-3-1W well located in SW/4 NW/4, Section 18, Township 3 South, Range 1 West
API 43-013-51256

Dillman 3-17-3-2W SWD well located in NE/4 NW/4, Section 17, Township 3 South, Range 2 West
API 43-013-50924

The proceeding will be conducted in accordance with Utah Admin. R649-10, Administrative Procedures.

Selected zones in the Green River and Uinta Formations are targeted for water injection. The maximum requested injection pressures and rates will be determined based on fracture gradient information submitted by Newfield Production Company.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, UT 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedural rules. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 13th day of March, 2012.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING



Brad Hill
Permitting Manager

Newfield Production Company

SWD 5-18-3-1W, DILLMAN 3-17-3-2W SWD

Cause No. UIC-388

Publication Notices were sent to the following:

Eric Sundberg
Newfield Production Company
1001 17th Street, Suite 2000
Denver, CO 80202

Uintah Basin Standard
268 South 200 East
Roosevelt, UT 84066
via e-mail: legals@ubstandard.com

Salt Lake Tribune
P O Box 45838
Salt Lake City, UT 84145
via e-mail naclegal@mediaoneutah.com

Vernal Field Office
Bureau of Land Management
170 S 5 East
Vernal, UT 84078

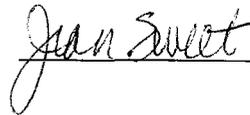
Duchesne County Planning
P O Box 317
Duchesne, UT 84021-0317

Bruce Suchomel
US EPA Region 8
MS 8P-W-GW
1595 Wynkoop Street
Denver, CO 80202-1129

Newfield Production Company
Rt 3 Box 3630
Myton, UT 84052

SITLA
675 E 500 S Ste 500
Salt Lake City, UT 84102-2818

Ute Tribe
PO Box 190
Ft Duchesne, UT 84026



Jean Sweet - Re: Notice of Agency Action – Newfield Production Company Cause No. UIC-388

From: Cindy Kleinfelter <classifieds@ubstandard.com>
To: Jean Sweet <jsweet@utah.gov>
Date: 3/14/2012 12:59 PM
Subject: Re: Notice of Agency Action – Newfield Production Company Cause No. UIC-388

On 3/14/2012 9:59 AM, Jean Sweet wrote:

To whom it may concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov.

Please send proof of publication and billing to:

Division of Oil, Gas and Mining
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet, Executive Secretary
Utah Div. of Oil, Gas & Mining
1594 West Temple, Suite 1210
Salt Lake City, UT
801-538-5329
jsweet@utah.gov

Received. Thank you. It will publish March 20.
Cindy



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

March 14, 2012

Via e-mail: legals@ubstandard.com

Uintah Basin Standard
268 South 200 East
Roosevelt, UT 84066

Subject: Notice of Agency Action – Newfield Production Company Cause No. UIC-388

To whom it may concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov.

Please send proof of publication and billing to:

Division of Oil, Gas and Mining
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet
Executive Secretary

Enclosure

From: "Fultz, Mark" <naclegal@mediaoneutah.com>
To: <jsweet@utah.gov>
Date: 3/14/2012 11:43 AM
Subject: Legal Notice - 20120313
Attachments: OrderConf.pdf

AD# 776063
Run Trib/DNews - 3/17
Cost \$179.72
Thank you
Mark

Order Confirmation for Ad #0000776063-01

Client	DIV OF OIL-GAS & MINING	Payor Customer	DIV OF OIL-GAS & MINING
Client Phone	801-538-5340	Payor Phone	801-538-5340
Account#	9001402352	Payor Account	9001402352
Address	1594 W NORTH TEMP #1210,P.O. BOX 145801 SALT LAKE CITY, UT 84114 USA	Payor Address	1594 W NORTH TEMP #1210,P.O. BO) SALT LAKE CITY, UT 84114
Fax	801-359-3940	Ordered By	Acct. Exec
E-Mail	earlenerussell@utah.gov	Jean	mfultz

Total Amount	\$179.72			
Payment Amt	\$0.00			
Amount Due	\$179.72	Tear Sheets	Proofs	Affidavits
		0	0	1
Payment Method		PO Number	20120313	

Confirmation Notes:

Text: Jean

Ad Type	Ad Size	Color
Legal Liner	2.0 X 52 Li	<NONE>

Product	Placement	Position
Salt Lake Tribune::	Legal Liner Notice - 0998	Public Meeting/Hearing Notices
Scheduled Date(s):	03/17/2012	
Product	Placement	Position
Deseret News::	Legal Liner Notice - 0998	Public Meeting/Hearing Notices
Scheduled Date(s):	03/17/2012	
Product	Placement	Position
sltrib.com::	Legal Liner Notice - 0998	Public Meeting/Hear-ing Notices
Scheduled Date(s):	03/17/2012	
Product	Placement	Position
utahlegals.com::	utahlegals.com	utahlegals.com
Scheduled Date(s):	03/17/2012	

Ad Content Proof Actual Size

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH
NOTICE OF AGENCY ACTION
CAUSE NO. UIC-388

IN THE MATTER OF THE APPLICATION OF NEWFIELD PRODUCTION COMPANY FOR ADMINISTRATIVE APPROVAL OF CERTAIN WELLS TO BE DRILLED IN SECTION 18, TOWNSHIP 3 SOUTH, RANGE 1 WEST, AND SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST, DUCHESE COUNTY, UTAH, AS CLASS II INJECTION WELLS.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Newfield Production Company for administrative approval of the following proposed wells in Duchesne County, Utah, to be drilled and completed as Class II injection wells:

SWD 5-18-3-1W well located in SW/4 NW/4, Section 18, Township 3 South, Range 1 West
API 43-013-51256
Dillmor 3-17-3-2W SWD well located in NE/4 NW/4, Section 17, Township 3 South, Range 2 West
API 43-013-50924

The proceeding will be conducted in accordance with Utah Admin. R649-10, Administrative Procedures.

Selected zones in the Green River and Uinta Formations are targeted for water injection. The maximum requested injection pressures and rates will be determined based on fracture gradient information submitted by Newfield Production Company.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. The Division's Presiding Officer for the proceeding is Brad Hill, Permitting Manager, at P.O. Box 145801, Salt Lake City, UT 84114-5801, phone number (801) 538-5340. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedural rules. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 13th day of March, 2012.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING
/s/
Brad Hill
Permitting Manager
776063

UPAXLP



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

March 14, 2012

VIA E-MAIL naclegal@mediaoneutah.com

Salt Lake Tribune
P. O. Box 45838
Salt Lake City, UT 84145

Subject: Notice of Agency Action – Newfield Production Company Cause No. UIC-388

To whom it may concern:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please notify me via e-mail of the date it will be published. My e-mail address is: jsweet@utah.gov.

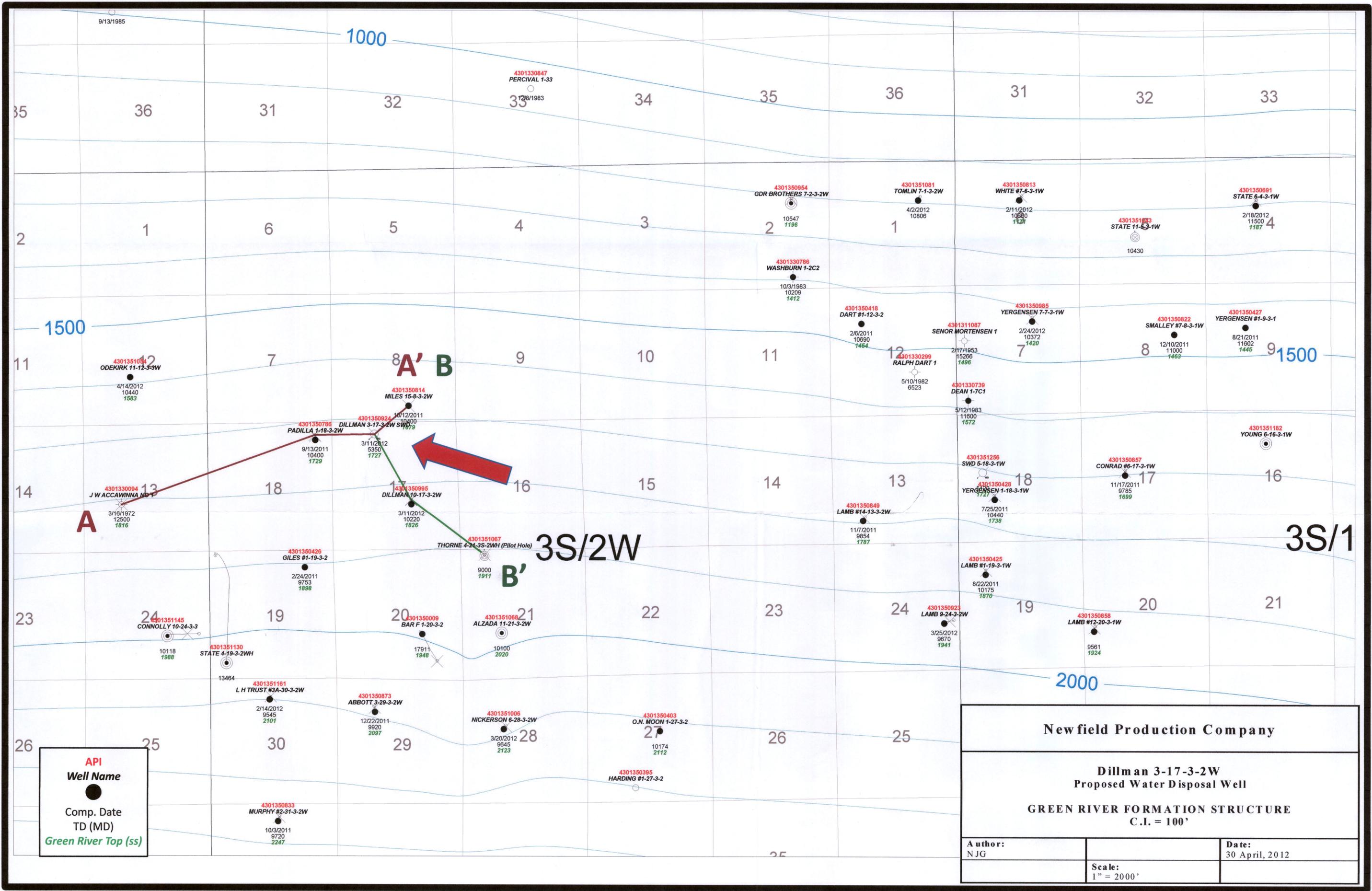
Please send proof of publication and billing for **account #9001402352** to:

Division of Oil, Gas and Mining
PO Box 145801
Salt Lake City, UT 84114-5801

Sincerely,

Jean Sweet
Executive Secretary

Enclosure



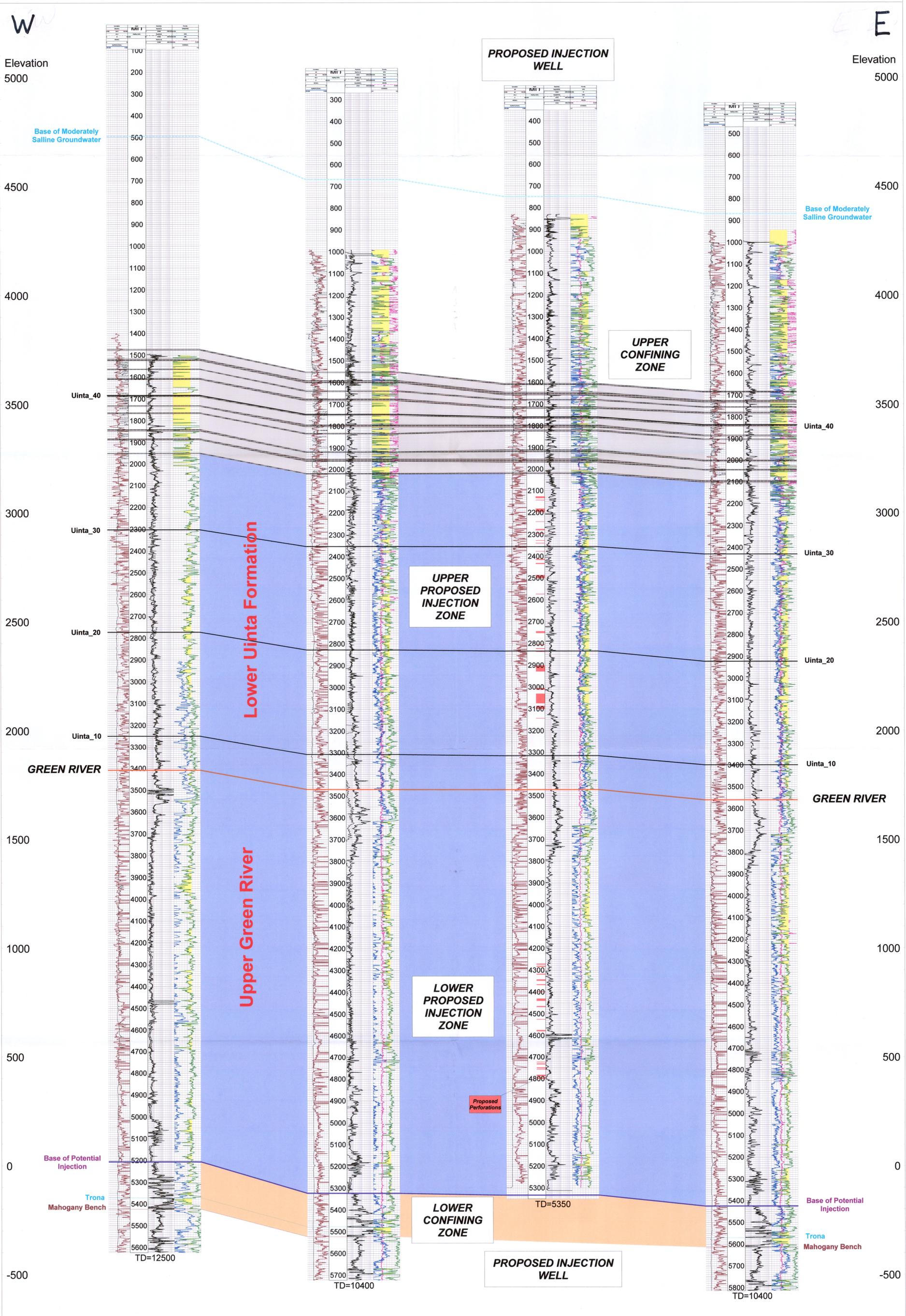
API
 Well Name
 ●
 Comp. Date
 TD (MD)
 Green River Top (ss)

Newfield Production Company		
Dillman 3-17-3-2W Proposed Water Disposal Well GREEN RIVER FORMATION STRUCTURE C.I. = 100'		
Author: NJG	Scale: 1" = 2000'	Date: 30 April, 2012

Dillman 3-17-3-2W East-West Structural Cross Section

4301330094 J W ACCAWINNA NO 1 1 4301350786 PADILLA 1-18-3-2W 1-18 4301350924 DILLMAN 3-17-3-2W SWD 3-17 4301350814 MILES 15-8-3-2W 15-8
 8642 ft 2531 ft 1860 ft

A SUN EXPLOR & PRODUCT NEWFIELD PRODUCTION NEWFIELD PRODUCTION NEWFIELD PRODUCTION **A'**
 TWP: 3 S - Range: 3 W - Sec. 13 TWP: 3 S - Range: 2 W - Sec. 18 TWP: 3 S - Range: 2 W - Sec. 17 TWP: 3 S - Range: 2 W - Sec. 8
 1986FSL 1587FWL 507 FNL 729 FEL 508 FNL 1799 FWL 659 FSL 1990 FEL
 Status=DRY Status=POW Status=WDW Status=POW
 Comp Date=3/16/1972 Comp Date=9/13/2011 Comp Date=3/11/2012 Comp Date=10/12/2011



Dillman 3-17-3-2W North-South Structural Cross Section

4301350814
MILES 15-8-3-2W 15-8

1860 ft

4301350924
DILLMAN 3-17-3-2W SWD 3-17

3119 ft

4301350995
DILLMAN 10-17-3-2W 10-17

3871 ft

4301351067
THORNE 4-21-3S-2WH (Pilot Hole) 4-21 PH

B

NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 8
659 FSL 1990 FEL
Status=POW
Comp Date=10/12/2011

NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 17
508 FNL 1799 FWL
Status=WDW
Comp Date=3/11/2012

NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 17
2105 FSL 2014 FEL
Status=POW
Comp Date=3/11/2012

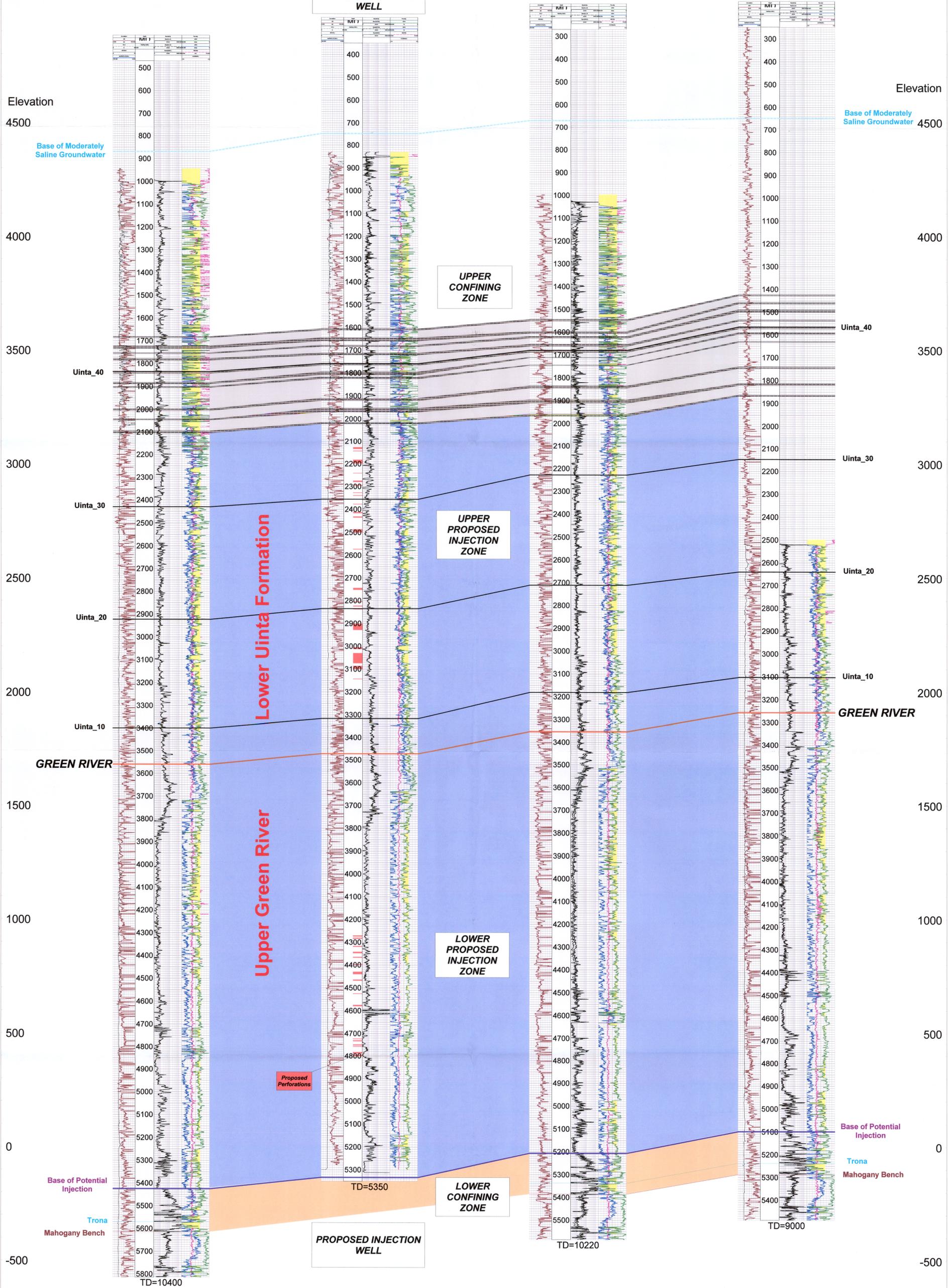
NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 21
223 FNL 1008 FWL
Status=WOC

B'

N

PROPOSED INJECTION WELL

S



Dillman 3-17-3-2W East-West Stratigraphic Cross Section

4301330094
J W ACCAWINNA NO 1 1

4301350786
PADILLA 1-18-3-2W 1-18

4301350924
DILLMAN 3-17-3-2W SWD 3-17

4301350814
MILES 15-8-3-2W 15-8

8640 ft

2514 ft

1860 ft

A

SUN EXPLOR & PRODUCT
TWP: 3 S - Range: 3 W - Sec. 13
1986FSL 1587FWL
Status=DRY
Comp Date=3/16/1972

NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 18
507 FNL 1799 FEL
Status=POW
Comp Date=9/13/2011

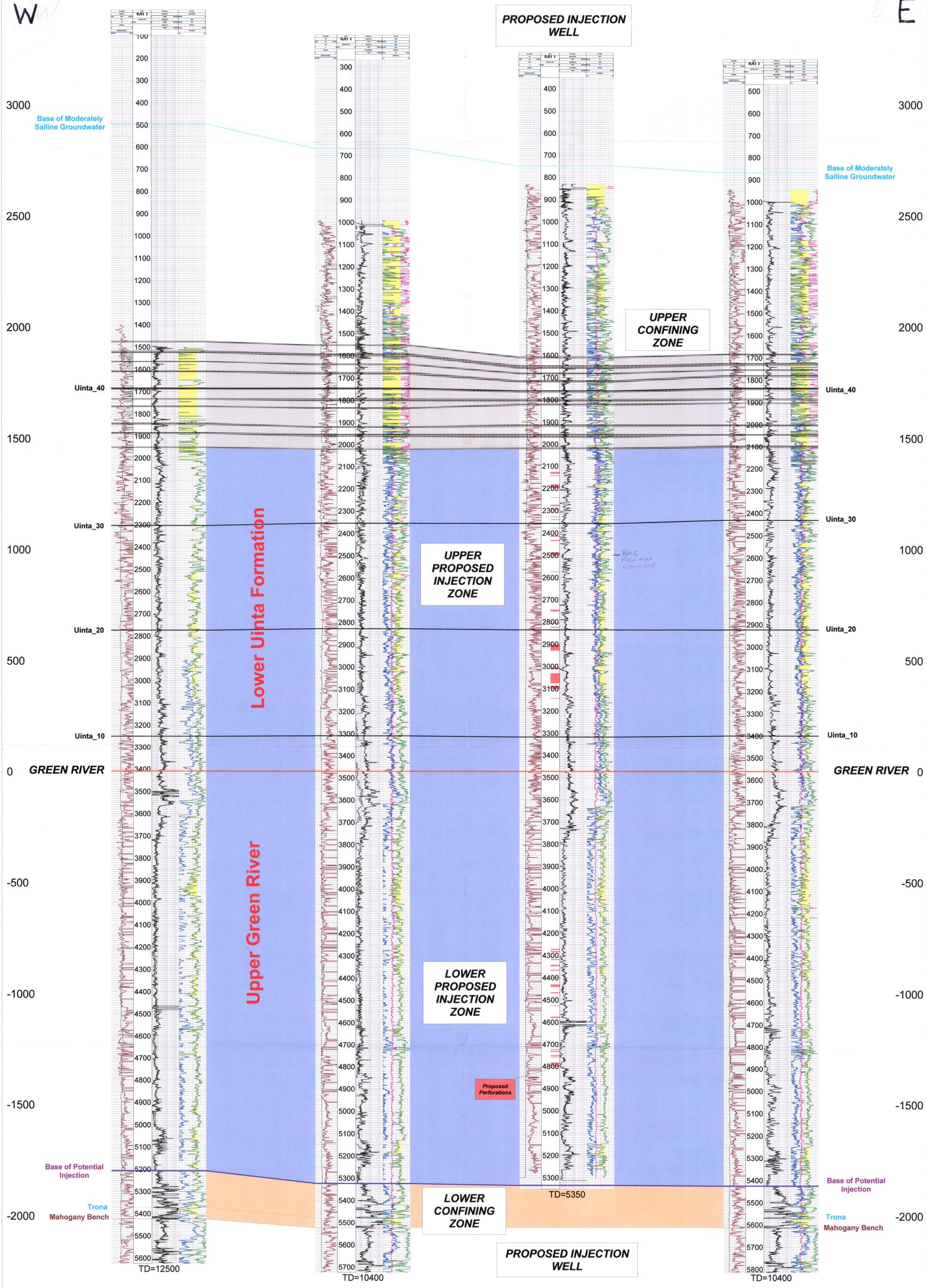
NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 17
508 FNL 1799 FWL
Status=WDW
Comp Date=3/11/2012

NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 8
659 FSL 1990 FEL
Status=POW
Comp Date=10/12/2011

A'

W

E



Dillman 3-17-3-2W North-South Stratigraphic Cross Section

4301350814
MILES 15-8-3-2W 15-8
4301350924
DILLMAN 3-17-3-2W SWD 3-17
4301350995
DILLMAN 10-17-3-2W 10-17
4301351067
THORNE 4-21-3S-2WH (Pilot Hole) 4-21 PH

1860 ft
3136 ft
3857 ft

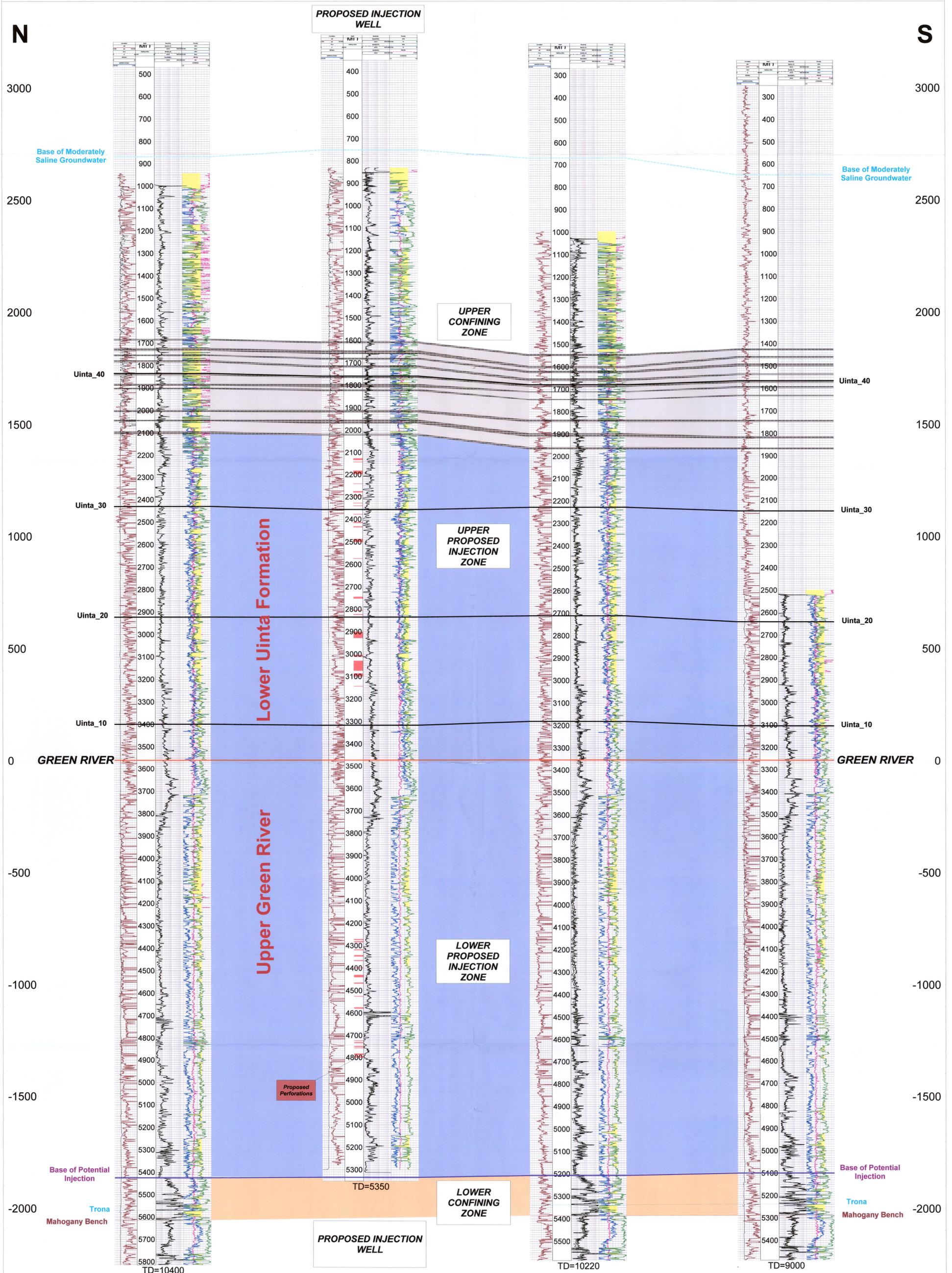
NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 8
659 FSL 1990 FEL
Status=POW
Comp Date=10/12/2011
NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 17
508 FNL 1799 FWL
Status=WDW
Comp Date=3/11/2012
NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 17
2105 FSL 2014 FEL
Status=POW
Comp Date=3/11/2012
NEWFIELD PRODUCTION
TWP: 3 S - Range: 2 W - Sec. 21
223 FNL 1008 FWL
Status=WOC

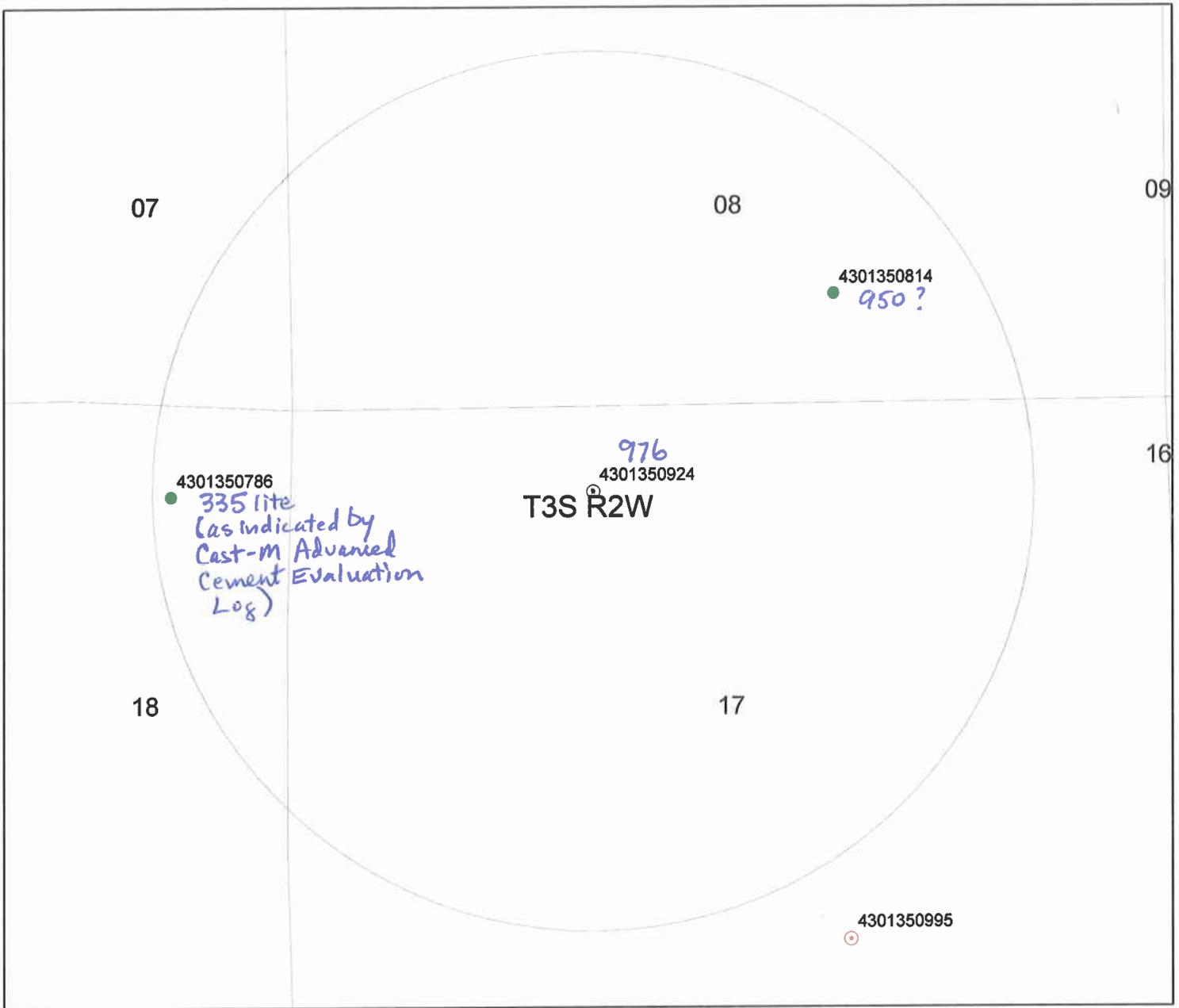
B

B'

N

S





Cement Bond Tops
 DILLMAN 3-17-3-2W SWD
 API #43-013-50924
 UIC 388.1

Legend

- | | |
|--|---|
| Buffer_of_SGID93_ENERGY_DNROilGasWells_169 | PGW |
| SGID93_ENERGY_DNROilGasWells | POW |
| SGID93.ENERGY.DNROilGasWells | RET |
| GIS_STAT_TYPE | SGW |
| APD | SOW |
| DRL | TA |
| GIW | TW |
| GSW | WDW |
| LA | WW |
| LOC | WSW |
| OPS | SGID93 BOUNDARIES Counties |
| PA | • SGID93.ENERGY.DNROilGasWells_HDBottom |
| | — SGID93.ENERGY.DNROilGasWells_HDPath |
| | • Wells-CbltopsMaster08_14_12 |



1870calc = approx cement top calculated from well completion report

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT STATEMENT OF BASIS

Applicant: Newfield Production Company Well: Dillman 3-17-3-2W SWD

Location: Sec 17, T3S, R2W, Duchesne Co., UT API: 43-013-50924

Ownership Issues:

The proposed well is located on land surface privately owned by Dallas E. Murray. Mineral rights are owned by the Dillman Family, LLC. An affidavit of notification of operators, mineral owners, and surface owners located within a one-half (1/2) mile radius has been provided.

Well Integrity:

Description of the Casings and Cement:

CASING PROGRAM

<u>String Type</u>	<u>Hole Size</u>	<u>Depth</u>	<u>Feet</u>	<u>Casing Diameter</u>	<u>Weight</u>	<u>Grade</u>
Surface	12.25"	857'	857'	9.625"	36#	J-55 LTC
Production	8.75"	5,337'	5,337'	7"	23#	L-80 LTC

CEMENT PROGRAM

<u>String Type</u>	<u>DV Depth</u>	<u>Stage Lead/Tail</u>	<u>Cement Bottom</u>	<u>Cement Top</u>	<u>Number Sacks</u>	<u>Cement Type</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
Surface			857'	Surface	360	Class G	1.17	15.8
Production			5,337'	Surface	1067	50/50 POZ	1.24	14.4

Newfield Production Company proposes to inject produced water from oil and gas production from the Wasatch and Green River Formations in the Uinta Basin. A current list of sources, consisting of five wells, is included with the UIC Permit Application. Newfield will submit an annual list of sources for the prior year with the annual fluid injection report and fluid analyses.

A cement bond log (4/10/2012) demonstrates generally adequate cement bond in this well up to about 976 feet depth, but there is much questionable cement below that depth. The initially proposed injection interval was 2186 to 5500 feet, in the lower Uinta Formation and upper Green River Formation. As interpreted from the Utah Geological Survey' s DOE Project-Uinta Basin Water Draft Map (Paul B. Anderson, December 2, 2011), the base of moderately saline groundwater (BMSGW) (3000-10,000 mg/l TDS) is at a depth of approximately 1800 feet. However, in order to provide a substantial interval between the top of injection and the BMSGW, DOGM decided to permit the injection top at 2500 depth. Approval for conversion was issued August 29, 2012.

There are two producing oil wells within the AOR. The Miles 15-8-3-2 (43-013-50814) is located about 1/3 mile northeast of the Dillman 3-17. Its CBL (9/14/2011) indicates light cement of variable quality, but it shows generally adequate cement bond up to about 950 feet depth or perhaps higher. The Padilla 1-18-3-2 (43-013-50786) is located nearly ½ mile east of the Dillman 3-17. Its CBL (9/6/2011) appears to indicate light cement of dubious quality. For this reason it was agreed in a 5/22/2012 meeting between DOGM and Newfield personnel that an ultrasonic bond

log should be run in order to confirm adequate bond within the light cement. On 8/23/2012 Halliburton ran a Cast-M Advanced Cement Evaluation Log. This log appears to indicate adequate bond in the light cement up to about 335 feet depth. Therefore, it is concluded that all of the wells have evidence of adequate casing and cement for the proposed injection interval.

A mechanical integrity test, with advance notification to DOGM, will be run on the well prior to injection. At the time of the UIC application, there are two producing oil wells within the (0.5 mile radius) AOR. They are the Padilla 1-18-3-2 (43-013-50786) and the Miles 15-8-3-2 (43-013-50814).

Update (11/07/2012): A Mechanical Integrity Test (MIT) was performed on 10/09/2012 but was not witnessed by DOGM personnel. The well has a dual packer assembly with an upper packer at 2692 feet and a lower packer at 4173 feet. The two tubing strings are 2-3/8" 4.7# N-80 tubing. The test was conducted for 30 minutes, with an initial annulus pressure of 1000 psi and final pressure of about 960 psi. The result seems to indicate a very small leak into the formation. Newfield requested permission to move forward with the Step Rate test (SRT) while monitoring the pressure above the top packer. If a pressure more than 125 psi were observed, Newfield would stop the SRT and contact DOGM regarding a plan to move forward.

In the UIC application Newfield proposed an average injection rate of 5000 barrels per day and a maximum injection rate of 8000 BPD at a maximum injection pressure of 2250 psig. However, the maximum allowed injection pressure will limit the maximum injection rate.

Ground Water Protection:

In the Area of Review (0.5 mile radius), no water rights, either surface or subsurface, are indicated by the Utah Division of Water Rights. However, there are numerous surface water rights and nine wells within 10,000 feet, all privately owned. Most are north and northeast of the Dillman well. Wells are drilled primarily into the shallow alluvium. Although depths are not specified for all wells, those which are specified generally range in depth between 65 feet and 150 feet, averaging less than 100 feet. The water is mostly used for domestic purposes, stock water, and irrigation.

As interpreted from the Utah Geological Survey's DOE Project-Uinta Basin Water Draft Map (Paul B. Anderson, December 2, 2011), the base of moderately saline groundwater (BMSGW) (3000-10,000 mg/l TDS) is at a depth of approximately 1800 feet. This is about 900 feet above the top (2744 feet) of the approved injection interval in the lower Uinta Formation. The approved injection interval extends to a depth of 4800 feet in the Green River Formation.

Step-rate tests will be performed during recompletion to determine the fracture parting pressures of the Uinta Formation (upper injection interval) and the Green River Formation (lower injection interval). Based on the results of the step-rate tests, final maximum pressures, which are below the fracture parting pressures, will be requested. This will ensure that injection will not initiate any new fractures or propagate existing fractures through the overlying strata or confining interval, which could enable the injected fluid or formation fluid to enter into fresh water formations. Any groundwater present should be adequately protected. See Update (1/28/2013) below.

The application submitted by Newfield Production includes standard laboratory

water analyses of produced water from five nearby wells in Duchesne County. All five wells, which are operated by Newfield, generate produced water associated with oil production from the Green River and Wasatch Formations. This produced water will be disposed in the Dillman 3-17-3-2W SWD. The water analyses show an average TDS of 17,393 mg/l (with a full range of 10,592 mg/l to 33,342 mg/l, but four of the five range from 10,592 mg/l to 16,507 mg/l), and an average pH of 7.93 (with a range of 6.95 to 8.28). See Update (5/16/2012) below.

Newfield proposes to dispose produced water in the Lower Uinta Formation and Upper Green River Formation. Disposal will be in the fluvial facies of the Lower Uinta. This consists of medium to coarse-grained sandstones with porosities of 15-20%. Separating the fluvial sandstones are laterally continuous lacustrine shales of low permeability, forming an effective confining layer to protect overlying groundwater resources. Newfield will also dispose produced water in the Upper Green River Formation. The proposed injection zones consist of interbedded lacustrine carbonates and sandstones with porosities of 15-25%. The lower confining zones consist of lacustrine shales.

As a supplement to the application, Newfield includes a local structure contour map of the North Myton Bench Field. The mapped structural horizon is the top of the Green River Formation. This map indicates that the Dillman 3-17-3-2W SWD well is located on a relatively gentle structural slope. The dip direction is generally northward to north-northeastward. In the vicinity of the Dillman SWD well, the dip is northward at about 200 feet per mile. In the northeastern part of the field, about six miles east-northeast of the Dillman SWD well, the dip is slightly steeper, northward at as much as 300 feet per mile. No faults are indicated in the area.

Newfield proposes the injection of produced waters from the Green River and

Wasatch Formations in the Uinta Basin into the proposed injection interval in the lower Uinta Formation and upper Green River Formation in the Dillman 3-17-3-2W SWD well. Pursuant to review of the application and documentation submitted by Newfield, it appears that the injection should cause no diminution of the quality of the already generally poor quality water in the injection zone. After injection ceases, increased pressure around the wellbore will abate over time. No long term negative impacts to surface or ground water are anticipated as a result of the proposed injection operation.

Oil/Gas & Other Mineral Resources Protection:

The Dillman 3-17-3-2W SWD is located in the North Myton Bench Field. The field was discovered by Newfield in 2009 and has been developed rapidly since then. Production has expanded rapidly from 77,274 barrels in 2010, to 364,100 barrels in 2011, to 1,365,966 barrels in 2012. In 2012 it was the 7th largest producing oil field in Utah. Production is primarily from the Wasatch Formation (Paleocene-Eocene), and to a lesser extent, the overlying Green River Formation (Eocene). There is also some production from the Mesaverde Formation (Late Cretaceous). Depths of production are generally 8,000 to 10,000 feet in the Green River and Wasatch, with tests as deep as 17,000 feet in the Mesaverde.

No other known potentially producible mineral or hydrocarbon zones are reported in the area. The well records of the Division document that there are two producing oil wells within the 0.5 mile radius of the AOR.

Bonding:

Newfield Production Company has a \$120,000 blanket surety bond in place with Hartford Fire Insurance Company, which ensures plugging of this well.

Information and Corrective Actions Needed:

1. Water samples are needed from the proposed injection intervals in the Uinta Formation and Green River Formation in the Dillman 3-17-3-2W SWD. At that time it will be necessary to establish compatibility between the water sample from the proposed injection interval and samples of the proposed injection fluids.

Update (5/16/2012): Per DOGM' s request, water samples were collected from the proposed injection intervals in the Dillman 3-17-3-2W well. Within the Uinta Formation, nine formation water samples collected at depths between 2126 and 2928 feet, indicate a range of TDS from 22,363 to 46,493 mg/l (average 36,067 mg/l) and pH ranging from 8.0 to 9.9. Subsequently, all perforations between 2126 and 2574 feet were squeezed with cement, leaving only the perforations between 2724 and 3144 feet available for injection into the Uinta Formation. Four water samples from that interval indicate a range of TDS from 22,363 to 37,259 mg/l (average 29,790 mg/l) and pH ranging from 9.2 to 9.9. Within the Green River Formation, two formation water samples from the same perforated zone (4722-4800 feet) indicate TDS values of 23,014 and 35,637 mg/l and pH values of 9.8 and 10.02. The proposed injectate waters are considered to be suitably compatible with the formation waters in the injection zones.

2. Because of the questionable quality of light cement as shown by the existing Cement Bond Log (CBL) for the Padilla 1-18-3-2 (43-013-50786) well, it will be required to run an ultrasonic CBL to determine if there is suitable cement bond to prevent upward migration of injected fluids around the well casing.

Update (8/28/2012): A Cast-M Advanced Cement Evaluation Log was run by Halliburton on 8/22/2012. The processed log interval extends from a depth of 5 feet to a depth of 5000 feet. The new log indicates generally acceptable light cement up to about 335 feet.

3. During completion, a step-rate test will be required in each of the two proposed injection intervals in order to determine the fracture parting pressure through the proposed injection interval.

Update (1/28/2013): A dual step-rate test (SRT) was conducted by Halliburton on 12/10/2012 and 12/11/2012. The injection tests were pumped down 2-3/8" 4.7# tubing with a top packer set at 2692 and a bottom packer at 4173'. The SRT for the lower interval (perforations 4270' - 4800') was run 12/10/2012. During the test, a maximum injection pressure of 3620 psi was reached, with a maximum injection rate of 10,080 BPD. There was no clear break over point but, based on the maximum pressure, Newfield suggested a fracture gradient of 1.287 psi/ft and requested a maximum allowable injection pressure (MAIP) of 3620 psi for the interval. The SRT for the upper interval (perforations 2744' - 3144') was run 12/11/2012. During the test, a maximum injection pressure of 1907 psi was reached, with a maximum injection rate of 10,080 BPD. There was no clear break over point but, based on the maximum pressure, Newfield suggested a fracture gradient of 1.134 psi/ft and requested a maximum allowable injection pressure (MAIP) of 1907 psi for the interval. Pursuant to discussions between DOGM engineer Dustin Doucet and Newfield engineer Matt Mientka, it was concluded that the SRTs did not indicate parting pressures. Due to friction in the tubing, they were either not reached or were masked. Dustin Doucet recommended approval of injection pressures as follows: Lower zone (Green River Fm) 2050 psi - 90% of Initial Shut-in Pressure (ISP) of SRT; Upper zone (Uinta Fm) 825 psi - ISIP of

SRT (approximately 95% of max Bottom Hole Pressure (BHP) – hydrostatic during SRT. The Injection Control Permit for the Dillman 3-17-3-2W SWD was issued 1/24/2013 allowing these pressures. The well began injection on 1/28/2013.

Actions Taken and Further Approvals Needed:

Notice of this application was published in the Salt Lake Tribune and the Uintah Basin Standard. In addition, copies of the notice were provided to the Environmental Protection Agency (EPA), Region VIII, Duchesne County Planning, and the Operator.

A properly designed and constructed water disposal well, combined with periodic mechanical integrity tests, poses no threat to fresh or useable groundwater supplies.

The Division staff recommends approval of this application contingent upon no additional or unforeseen information being presented that is relevant to this analysis or modifies the data presented herein.

Reviewer(s): Mark L. Reinbold

Date: 3/9/2012 (with subsequent updates)

UIC INJECTION PERMIT APPLICATION ANALYSIS FORM
WELL NAME: Dillman 3-17-3-2W SWD, North Myton Bench API #: 43-013-50924

R649-5-2. Requirements For Class II Injection Wells Including Water Disposal, Storage And Enhanced Recovery Wells.	Completed Items, Needed Items, & Comments
<p>1. Injection wells shall be completed, equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.</p> <p>2. The application for an injection well shall include a properly completed UIC Form 1 and the following:</p> <p>2.1. A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.</p> <p>2.2. Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper, and porosity.</p> <p>2.3. A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.</p> <p>2.4. Copies of logs already on file with the division should be referenced, but need not be refiled.</p> <p>2.5. A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.</p> <p>2.6. A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.</p> <p>2.7. Standard laboratory analyses of (1) the fluid to be injected, (2) the fluid in the formation into which the fluid is being injected, and (3) the compatibility of the fluids.</p>	<p>1. OK</p> <p>2. OK</p> <p>2.1 OK, two producing oil wells located within one-half mile radius of proposed injection well.</p> <p>2.2 OK.</p> <p>2.3 CBL rec'd via e-mail 4/13/2012.</p> <p>2.4 OK</p> <p>2.5 OK</p> <p>2.6 OK, produced water, est. ave. 6000 BOPD, est. max. 8000 BOPD</p> <p>2.7 (1) Analyses of proposed injection fluids submitted with application. (2) Water samples taken from injection intervals during completion and submitted to DOGM. (3) The water samples taken from injection intervals during completion were found to be suitably compatible with proposed injection fluids.</p>
<p>2.8. The proposed average and maximum injection pressures.</p> <p>2.9. Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.</p> <p>2.10. Appropriate geological data on the injection interval and confining beds, and nearby Underground Sources of Drinking Water, including the geologic name, lithologic description, thickness, depth, water quality, and lateral extent; also information relative to geologic structure near the proposed well which may affect the conveyance and/or storage of the injected fluids.</p> <p>2.11. A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals.</p> <p>2.12. An affidavit certifying that a copy of the application has been provided to all operators, owners and surface owners within a one-half mile radius of the proposed injection well.</p> <p>2.13. Any other additional information that the board or division may determine is necessary to adequately review the application.</p>	<p>2.8 Will be based on step-rate tests (SRT).</p> <p>2.9 SRTs were performed during completion to determine fracture parting pressures Uinta Formation and Green River Formation through proposed injection intervals. Appropriate adjustments have been made to MAIPs based on SRT results in order to ensure there will be no fracturing. Further adjustments may be made based on future SRTs.</p> <p>2.10 OK</p> <p>2.11 Two producing oil wells within the half-mile radius Area of Review, wellbore diagrams received from Newfield.</p> <p>2.12 OK, included with application.</p> <p>2.13 OK</p>

*Dillman 3-17-3-2W SWD
43-013-50924*



Search all of Utah gov »

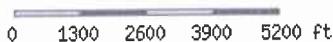
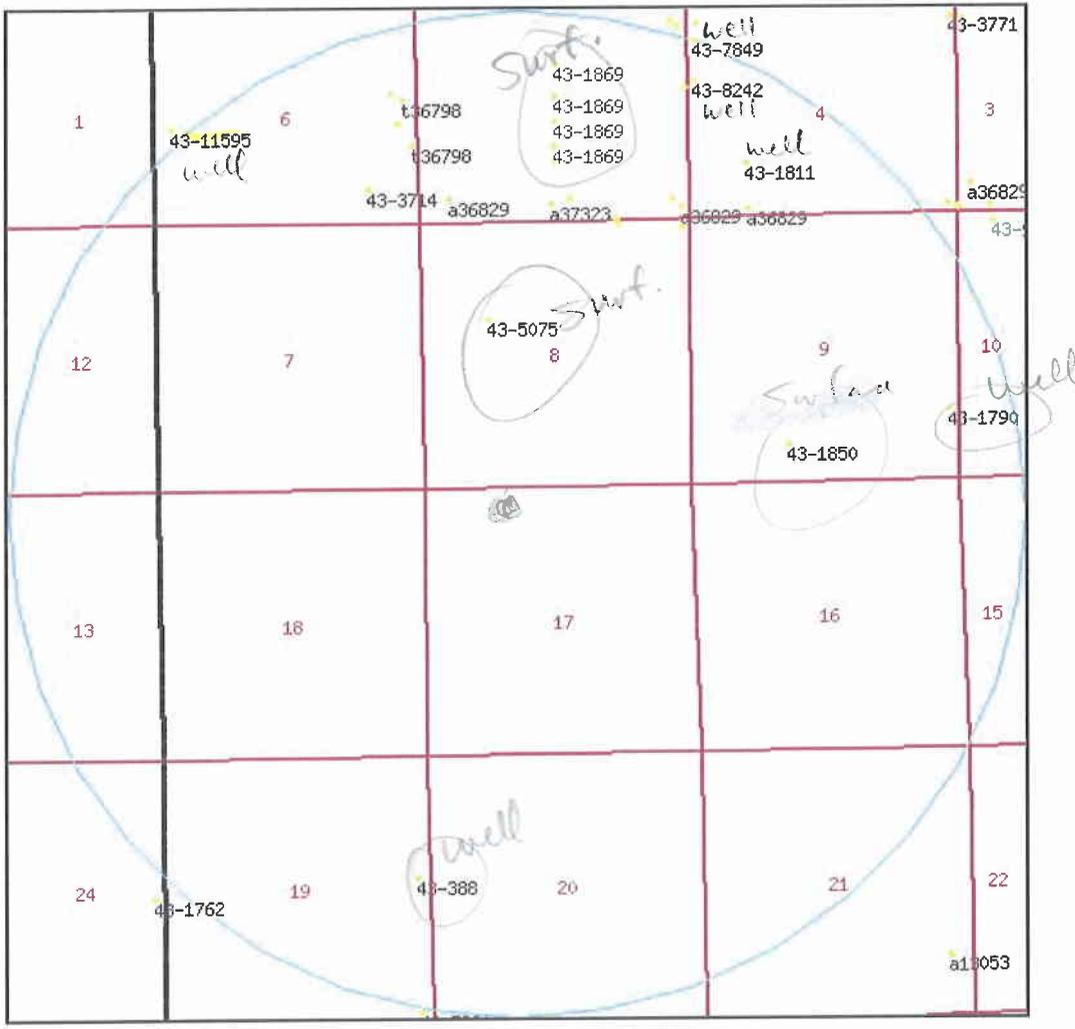


Utah Division of Water Rights

Output Listing

Version: 2009.05.06.00 Rundate: 03/07/2012 01:56 PM

Radius search of 10000 feet from a point S508 E1799 from the NW corner, section 17, Township 3S, Range 2W, US
b&m Criteria:wrtypes=W,C,E podtypes=S,U,D,Sp,P,R,T status=U,A,P usetypes=all



Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
43-10095	Surface S86 W1386 NE 08 3S 2W US		P	19881215	S	0.015	0.000	MYRIN RANCH INC. HC 65 BOX 30
43-10166	Underground		P	19890811	DIS	0.015	2.850	FLOYD AMES

	S1322 W334 NE 05 3S 2W US					ROUTE 2 BOX 2142
<u>43-10167</u>	Underground	P	19890811 DIS	0.015	2.850	FLOYD AMES
	S1322 W334 NE 05 3S 2W US					ROUTE 2 BOX 2142
<u>43-10218</u>	Surface	P	19900427 S	0.015	0.840	RALPH LEE AMES C/O ROSE ANN TURBIN (POWER OF ATTORNEY)
	N72 E1190 S4 05 3S 2W US					
<u>43-10522</u>	Underground	<u>well info</u> P	19950508 DI	0.000	1.450	EDDIE RAY AND SANDY AMES
	S1421 W170 NE 05 3S 2W US					ROUTE 1 BOX 1571
<u>43-11587</u>	Surface	A	20041109 S	0.500	0.000	GARY AND CHARILYN SCHOLES PO BOX 247
	S2650 W30 NE 05 3S 2W US					
<u>43-11588</u>	Surface	A	20110103 S	0.500	0.000	PAUL L. AND KAREN R. PERCIVAL ROUTE 2 BOX 2046
	S2650 W30 NE 05 3S 2W US					
<u>43-11595</u>	Underground	<u>well info</u> P	20041223 DIS	0.000	0.913	LEON E. SPROUSE P.O. BOX 315
	S710 E364 W4 06 3S 2W US					
<u>43-1201</u>	Surface	P	19050703 M	12.000	0.000	USA INDIAN IRRIGATION SERVICE FT. DUCHESNE UT 84026
	N1159 W474 SE 21 3S 2W US					
<u>43-1204</u>	Surface	P	19050710 I	15.000	0.000	USA INDIAN IRRIGATION SERVICE FORT DUCHESNE UT 84026
	N1180 W500 SE 21 3S 2W US					
<u>43-1418</u>	Underground	<u>well info</u> P	19600401 DI	0.015	0.000	BERTHA B. ANGUS R.F.D. #1
	S1386 E102 NW 03 3S 2W US					
<u>43-1704</u>	Surface	P	19130507 I	0.800	0.000	JAMES MCAFEE MYTON UT 84052
	N152 W461 S4 20 3S 2W US					
<u>43-1708</u>	Surface	P	19141112 I	0.570	0.000	THE IRRIGATED FARMS MORTGAGE COMPANY DENVER CO
	N144 W458 S4 20 3S 2W US					
<u>43-1762</u>	Underground	P	19461213 DIOS	0.016	0.000	STANLEY AND BARBARA KELLER ACADIA UT 84005
	S88 W189 E4 24 3S 3W US					
<u>43-1790</u>	Underground	P	19481008 DOS	0.015	0.000	VERNE H. ELIASON 4793 BRON BECK DRIVE
	N1403 W198 SE 09 3S 2W US					
<u>43-1811</u>	Underground	P	19501111 DIOS	0.015	0.000	L. L. REAY MYTON UT 84052
	N1095 E1100 SW 04 3S 2W US					
<u>43-1850</u>	Surface	P	19580707 I	2.500	0.000	CLARENCE JAMES MURRAY N740 W740 S4 09 3S
	N740 W740 S4 09 3S					

<u>43-1869</u>	2W US Surface N1230 W0 S4 05 3S 2W US	P	19601110 IS	2.000	0.000	MYTON UT 84052 CLINTON AND GAIL CROWLEY RT. 2 BOX 2144	
<u>43-1869</u>	Surface N1490 W0 S4 05 3S 2W US	P	19601110 IS	2.000	0.000	CLINTON AND GAIL CROWLEY RT. 2 BOX 2144	
<u>43-1869</u>	Surface N1980 W0 S4 05 3S 2W US	P	19601110 IS	2.000	0.000	CLINTON AND GAIL CROWLEY RT. 2 BOX 2144	
<u>43-1869</u>	Surface N2490 W0 S4 05 3S 2W US	P	19601110 IS	2.000	0.000	CLINTON AND GAIL CROWLEY RT. 2 BOX 2144	
<u>43-1869</u>	Surface N3125 W0 S4 05 3S 2W US	P	19601110 IS	2.000	0.000	CLINTON AND GAIL CROWLEY RT. 2 BOX 2144	
<u>43-1904</u>	Underground S174 W165 NE 08 3S 2W US	<u>well info</u>	P	19531104 DIS	0.015	0.000	GARRETT STONE MYTON UT 84052
<u>43-3714</u>	Surface N723 W1042 SE 06 3S 2W US	P	19630629 IOS	0.500	0.000	ROBERT G. AND REA A. TAYLOR ROUTE 2 BOX 2166	
<u>43-3771</u>	Underground S1364 W134 NE 04 3S 2W US	P	19640911 DIS	0.015	0.000	JOHN D. JORGENSEN ROUTE #2 BOX 49	
<u>43-388</u>	Underground N268 W288 E4 19 3S 2W US	P	19461226 D <i>domestic</i>	0.015	0.000	D. LAVAR & DAISY M. HEUGLY 3800 HILLSIDE LANE	
<u>43-452</u>	Surface N1180 W500 SE 21 3S 2W US	P	19050619 I	50.000	0.000	USA INDIAN IRRIGATION SERVICE FORT DUCHESNE UT 84026	
<u>43-453</u>	Surface N1180 W500 SE 21 3S 2W US	P	19050703 I	19.850	0.000	USA INDIAN IRRIGATION SERVICE FORT DUCHESNE UT 84026	
<u>43-454</u>	Surface N1180 W500 SE 21 3S 2W US	P	19210906 I	0.880	0.000	USA INDIAN IRRIGATION SERVICE FORT DUCHESNE UT 84026	
<u>43-5057</u>	Underground S1384 E176 NW 04 3S 2W US	P	19660307 IS	0.000	0.890	JERRY L. KETTLE AND SARAH LEE KETTLE RR 2 BOX 2140	
<u>43-5075</u>	Surface S1900 E1320 NW 08 3S 2W US	P	19660610 IS	0.100	0.000	J. PAUL MILES 6322 SOUTH 13TH WEST	
<u>43-7583</u>	Underground S347 E990 NW 10 3S 2W US	<u>well info</u>	P	19740822 DI	0.015	0.000	DAVID & PEGGY LEMON ROUTE 2, BOX 52
<u>43-7614</u>	Surface	P	19740930 DS	0.014	0.000	THOMAS B. & EDITH GENTRY	

	N100 0 SE 04 3S 2W US						RT. 2, BOX 2098
<u>43-7828</u>	Underground	well info	P	19760309 I	0.015	0.600	GLORIA TAYLOR
	N165 E630 SW 03 3S 2W US						1011 WEST 290 SOUTH (511-9)
<u>43-7830</u>	Underground		P	DS	0.250	0.000	ELMER O. & ELLEN DULEN
	N250 W320 SE 19 3S 2W US						ROOSEVELT UT 84066
<u>43-7848</u>	Surface		P	19760405 DIS	0.014	0.000	THOMAS B. AND EDITH GENTRY
	N150 0 SE 04 3S 2W US						ROUTE 2 BOX 40
<u>43-7849</u>	Underground	well info	P	19760409 DIS	0.015	0.000	NED AND DEVONA ROSS
	N900 E100 W4 04 3S 2W US						ARCADIA UT 84005
<u>43-8242</u>	Underground	well info	P	19780327 IS	0.015	0.000	NED D. & DEVONNA ROSS
	N100 E100 W4 04 3S 2W US						ROUTE 2 BOX 43-A
<u>43-8247</u>	Underground	well info	P	19780403 DI	0.015	0.000	THOMAS D. AND EDNA L. WASHBURN
	S160 E719 NW 10 3S 2W US						ROUTE 2 BOX 53-D
<u>43-9277</u>	Underground	well info	P	19821006 DI	0.015	1.200	JAMES LEMON
	S160 E719 NW 10 3S 2W US						ROUTE 2, BOX 2171
<u>a11461</u>	Surface		A	19800924 I	0.015	0.730	USA BUREAU OF RECLAMATION
	N1180 W500 SE 21 3S 2W US						ATTN: JONATHAN JONES
<u>a13053</u>	Surface		A	19831202 I	2.200	0.000	JAMES G. IVIE
	N1180 W500 SE 21 3S 2W US						DUCHESNE UT 84021
<u>a36829</u>	Surface		U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	S2700 W500 NE 06 3S 2W US						P. O. BOX 265
<u>a36829</u>	Surface		U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N500 E550 SW 05 3S 2W US						P. O. BOX 265
<u>a36829</u>	Surface		U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N400 E2550 SW 05 3S 2W US						P. O. BOX 265
<u>a36829</u>	Surface		U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N400 W2350 SE 05 3S 2W US						P. O. BOX 265
<u>a36829</u>	Surface		U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N400 W350 SE 05 3S 2W US						P. O. BOX 265

<u>a36829</u>	Surface	U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N250 W150 SE 05 3S 2W US					P. O. BOX 265
<u>a36829</u>	Surface	U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N200 E1150 SW 04 3S 2W US					P. O. BOX 265
<u>a36829</u>	Surface	U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N200 W200 SE 04 3S 2W US					P. O. BOX 265
<u>a36829</u>	Surface	U	20100908 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	N600 E250 SW 03 3S 2W US					P. O. BOX 265
<u>a37323</u>	Surface	U	20110411 IS	2.000	0.000	CLINTON AND GAIL CROWLEY
	N400 E2550 SW 05 3S 2W US					RT. 2 BOX 2144
<u>t36798</u>	Surface	U	20100831 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	S3300 W350 NE 06 3S 2W US					P. O. BOX 265
<u>t36798</u>	Surface	U	20100831 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	S2850 W250 NE 06 3S 2W US					P. O. BOX 265
<u>t36798</u>	Surface	U	20100831 I	5.000	0.000	DRY GULCH IRRIGATION COMPANY
	S3750 W50 NE 06 3S 2W US					P. O. BOX 265

Utah Online Services Agency List Business

Search

Utah Division of Water Rights

Select Related Information

(WARNING: Water Rights makes NO claims as to the accuracy of this data.) RUN DATE: 01/02/2013

WATER RIGHT: 43-11595 APPLICATION/CLAIM NO.: A75656 CERT. NO.: CERTIFICAT

OWNERSHIP*****

NAME: Leon E. Sprouse
ADDR: P.O. Box 315
Neola, UT 84053

DATES, ETC.*****

LAND OWNED BY APPLICANT? Yes COUNTY TAX ID#:
FILED: 12/23/2004|PRIORITY: 12/23/2004|PUB BEGAN: 01/11/2005|PUB ENDED: 01/18/2005|NEWSPAPER: Uintah Basin Standard
ProtestEnd:02/07/2005|PROTESTED: [No]|HEARNG HLD: |SE ACTION: [Approved]|ActionDate:03/04/2005|PROOF DUE: 03/31/2010
EXTENSION: |ELEC/PROOF:[Proof]|ELEC/PROOF:03/16/2010|CERT/WUC: 07/13/2010|LAP, ETC: |LAPS LETTER:
RUSH LETTR: |RENOVATE: |RECON REQ: |TYPE: []
PD BOOK: [43-]|MAP: []|PUB DATE:

TYPE -- DOCUMENT -- STATUS-----
Type of Right: Application to Appropriate Source of Info: Certificate Status: Certificate

LOCATION OF WATER RIGHT**(Points of Diversion: Click on Location to access PLAT Program.)*****MAP VIEWER**GOOGLE VIEW*

FLOW: 0.9133 acre-feet SOURCE: Underground Water Well
COUNTY: Duchesne COMMON DESCRIPTION: 5 miles SW of Roosevelt

POINT OF DIVERSION -- UNDERGROUND: (Click Well ID# link for more well data.)
(1) S 710 ft E 364 ft from W4 cor, Sec 06, T 3S, R 2W, USBM
DIAMETER OF WELL: 4 ins. DEPTH: 204 to ft. YEAR DRILLED: 2005 WELL LOG? Yes WELL ID#: 34006

USES OF WATER RIGHT***** ELU -- Equivalent Livestock Unit (cow, horse, etc.) ***** EDU -- Equivalent Domestic Unit or 1 Family

SUPPLEMENTAL GROUP NO.: 214528.

IRRIGATION: 0.1 acres Div Limit: 0.0 acft. PERIOD OF USE: 04/01 TO 10/31
STOCKWATER: 10.0000 Stock Units Div Limit: PERIOD OF USE: 05/01 TO 10/31
DOMESTIC: 1.0000 EDUs Div Limit: PERIOD OF USE: 01/01 TO 12/31

Table with 4 columns: NORTH WEST QUARTER, NORTH EAST QUARTER, SOUTH WEST QUARTER, SOUTH EAST. Rows include PLACE OF USE and Sec 06 T 3S R 2W USBM with acreage values.

*****END OF DATA*****

WELL DRILLER'S REPORT

State of Utah

Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

Well Identification

Water Right: 43-11595

WIN: 34006

Owner

Note any changes
 Leon E. Sprouse
 P.O. Box 315
 Neola, UT 84053

Contact Person/Engineer: _____

Well Location

Note any changes

N 2000 E 250 from the SW corner of section 06, Township 3S, Range 2W, US B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation, local well #)

Drillers Activity

Start Date: 3-28 2005 Completion Date: 3-31, 2005

Check all that apply: New Repair Deepen Clean Replace Public Nature of Use: _____

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

DEPTH (feet) FROM TO	BOREHOLE DIAMETER (in)	DRILLING METHOD	DRILLING FLUID
0 40	1 1/4	Air Rotary	NA
0 205	6 1/2	"	

Well Log		WATER	DEPTH (feet) FROM TO	UNCONSOLIDATED					CONSOLIDATED		DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistency, water bearing, order, fracturing, mineralogy, texture, degree of weathering, hardness, water quality, etc.)
				CLAY	SAND	GRAVEL	COBBLES	Boulder	ROCK TYPE	COLOR	
			0 16	X	XXX				Mixed	Red.	50 Gpm 16'
			16 31	X	XXX				"	"	
			31 35	Y					Clay	Bluish	57' 4 Gpm
			35 172	X					Clay	Gray	153' 8 Gpm
			172 204	X					Clay	Gray	

RECEIVED

APR 29 2005

MB

WATER RIGHTS
SALT LAKE

Static Water Level

Date 3-30-2005 Water Level 40 feet Flowing? Yes No
 Method of Water Level Measurement Tripe If Flowing, Capped Pressure NA PSI
 Point to Which Water Level Measurement was Referenced Ground Level Elevation _____
 Height of Water Level reference point above ground surface NA feet Temperature 60 degrees C F


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Utah Division of Water Rights

Select Related Information

(WARNING: Water Rights makes NO claims as to the accuracy of this data.) RUN DATE: 01/02/2013

WATER RIGHT: **43-388** APPLICATION/CLAIM NO.: **A18332** CERT. NO.:

=====

OWNERSHIP*****

=====

NAME: D. Lavar & Daisy M. Heugly
 ADDR: 3800 Hillside Lane
 Salt Lake City UT
 INTEREST: 100%

=====

DATES, ETC.*****

=====

LAND OWNED BY APPLICANT?	COUNTY TAX ID#:
FILED: 12/26/1946 PRIORITY: 12/26/1946 PUB BEGAN: 06/20/1947 PUB ENDED:	NEWSPAPER:
ProtestEnd: PROTESTED: [No] HEARNG HLD:	SE ACTION: [Approved] ActionDate:11/05/1947 PROOF DUE:
EXTENSION: ELEC/PROOF:[] ELEC/PROOF:	CERT/WUC: 07/17/1961 LAP, ETC: LAPS LETTER:
RUSH LETTR: RENOVATE: RECON REQ:	TYPE: []
PD BOOK: [43-] MAP: [231a] PUB DATE:	

TYPE -- DOCUMENT -- STATUS-----

Type of Right: Application to Appropriate Source of Info: Water User's Claim Status: No Prf Req

=====

LOCATION OF WATER RIGHT* (Points of Diversion: Click on Location to access PLAT Program.)*****MAP VIEWER***GOOGLE VIEW***

=====

FLOW: 0.015 cfs SOURCE: Underground Water Well
 COUNTY: Duchesne COMMON DESCRIPTION:

POINT OF DIVERSION -- UNDERGROUND: (Click Well ID# link for more well data.)
 (1) N 268 ft W 288 ft from E4 cor, Sec 19, T 3S, R 2W, USBM
 DIAMETER OF WELL: 6 ins. DEPTH: 80 to ft. YEAR DRILLED: WELL LOG? No WELL ID#:

=====

USES OF WATER RIGHT*** ELU -- Equivalent Livestock Unit (cow, horse, etc.) ***** EDU -- Equivalent Domestic Unit or 1 Family**

=====

SUPPLEMENTAL GROUP NO.: **216883.**

.....

DOMESTIC: 1.0000 EDUs Div Limit: PERIOD OF USE: 01/01 TO 12/31

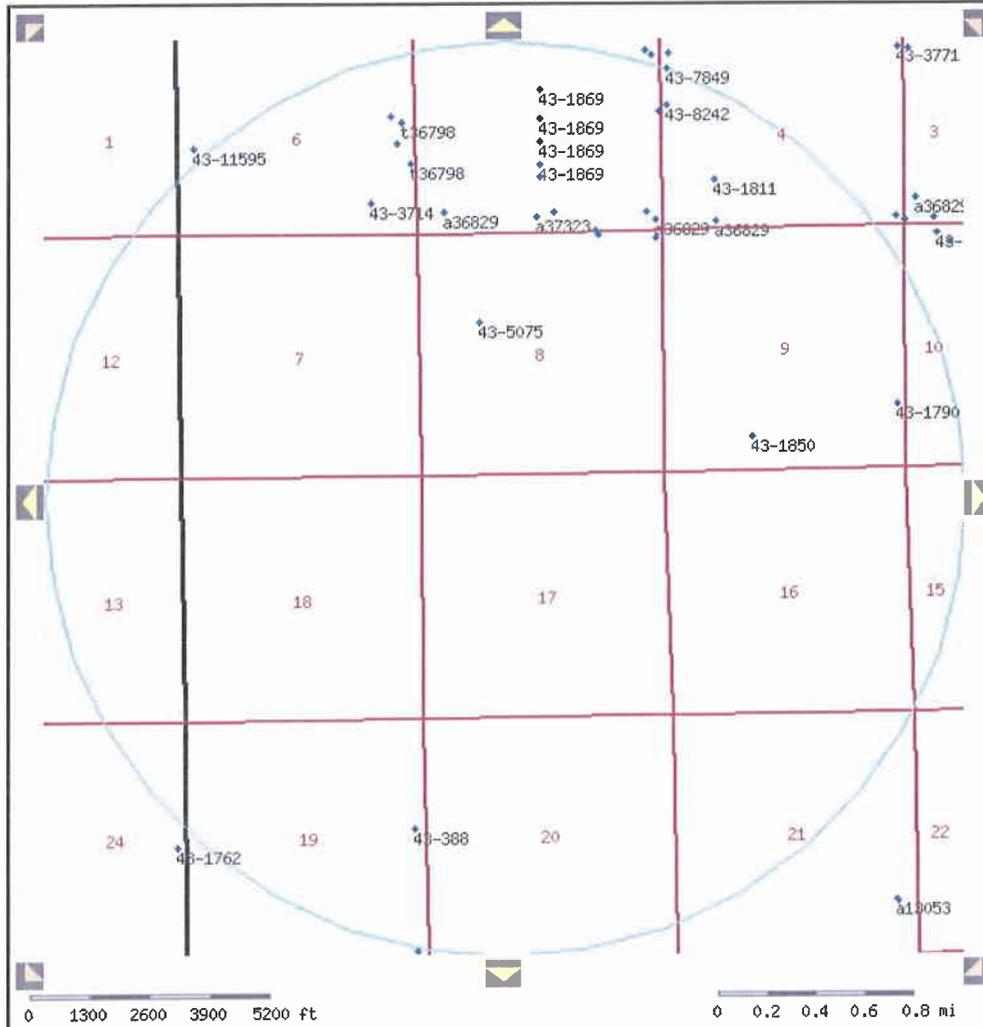
Used also for incidental stockwatering and irrigation.

*****END OF DATA*****



Search all of Utah gov »

Utah Division of Water Rights



Zoom In Mode

Map Tools

Display

No Base Image

Layer Name

- Book
- Boundary
- Counties
- Water Quality
- County Parcels (As Available)
- County Parcel Labels
- National Historic Sites
- National Historic Sites Labels
- Public Land Survey System
- Rivers and Streams
- Roads
- Digitized Polygons
- Digitized Polygons Labels
- Water Right Areas

Base Map

Legend

- Location
- Search Boundary
- Townships
- Sections



Utah Division of Water Rights | 1594 West North Temple Suite 220, P.O. Box 146300, Salt Lake City, Utah 84114-6300 | 801-538-7240
[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#) | [Emergency Evacuation Plan](#)

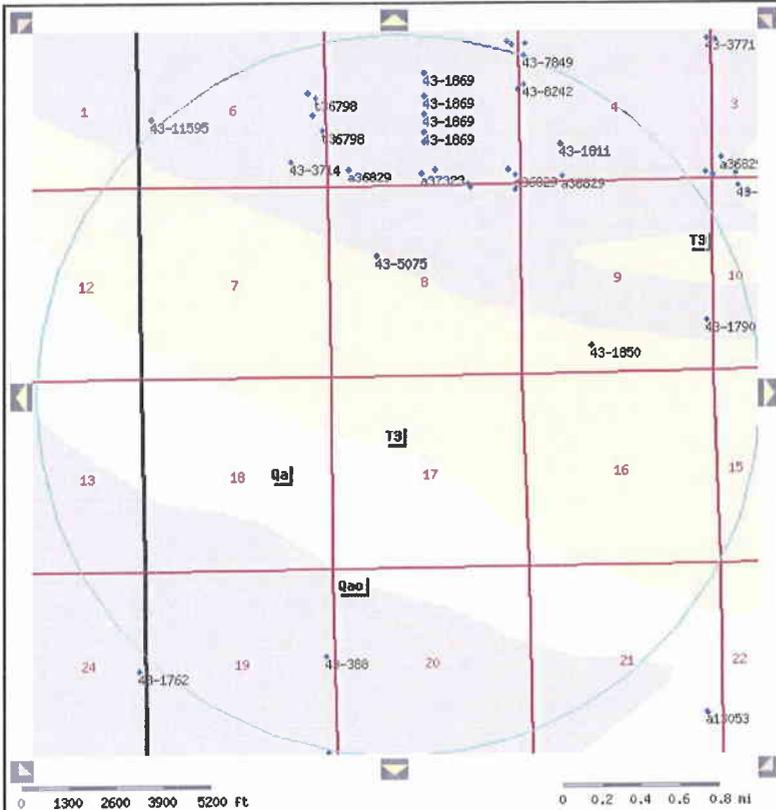


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Utah Division of Water Rights



Zoom In Mode

Map Tools

Display

- Book Boundary
- Counties
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- County Parcels (As Available)
- County Parcel Labels
- National Historic Sites
- National Historic Sites Labels
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- Rivers and Streams
- Roads
- Digitized Polygons
- Digitized Polygons Labels
- Water Right Areas

Layer Name

Geology

Base Map

Legend

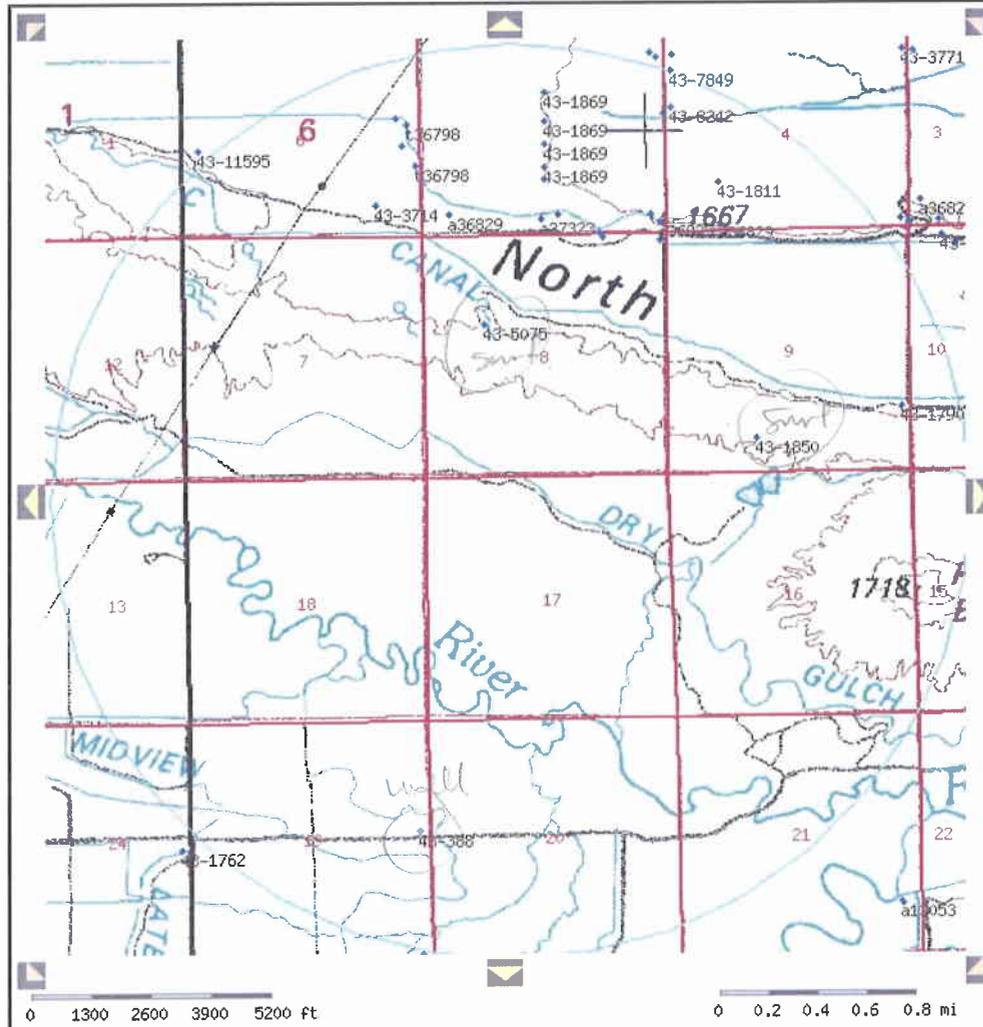
- Location
- Search Boundary
- Townships
- Sections
- Faults
- water
- playa
- Qa-Quaternary Surficial Alluvium & Colluvium
- Qao-Quaternary Surficial Older Alluvium & Colluvium
- Qe-Quaternary Surficial Eolian Deposits
- Qg-Quaternary Surficial Glacial Deposits
- Ql-Quaternary Surficial Lake Bonneville Deposits
- Qm-Quaternary Surficial Marsh Deposits
- Qs-Quaternary Surficial Mud & Salt Flat Deposits
- Qls-Quaternary Surficial Landslide Deposits
- Qb-Quaternary Volcanic Rocks, Mostly Basalt
- Qr-Pliocene Volcanic Rocks, Rhyolite
- Q7-Miocene-Pleistocene High-Level Alluvial Deposits
- Q5-Miocene-Pleistocene Sevier River, Castle Valley Fms
- Q4-Oligocene-Pliocene Valley-Filling Alluvial, Lacustrine
- Q3-Eocene-Oligocene Duchesne River, Uinta, Bridger, Crazy Holes
- Q2-Eocene Green River, Fowkes
- Q1-Cretaceous-Eocene Macatch, Cotton, Claron, White Sage
- Ipb-Pliocene Volcanic Rocks-Mostly Basalt
- Irb-Miocene Basalt, Rhyolite, Andesite, Tuffaceous
- Ipr-Pliocene Volcanic Rocks, Rhyolite
- Ibr-Miocene Volcanic Rocks, Rhyolite
- Ira-Miocene Volcanic Rocks, Andesite
- Irv-Miocene Volcanic Rocks
- Iov-Oligocene Volcanic Rocks
- Ivt-Tertiary Volcanic Rocks, Tertiary
- Ii-Tertiary Intrusive Rocks
- TK-Paleocene-Cretaceous Evanston, Currant Creek, Canaan Peak
- K3-Cretaceous Mesaverde Group, Price River, Kaiparowits, Echo
- K2-Cretaceous Indianola, Mancos, Frontier, Iron Springs
- K1-Cretaceous Dakota Cedar Mtn, Kelvin
- J2-Jurassic Morrison Fm
- J1-Jurassic Summerville, Entrada, Carnal Arapien, Twin Creeks
- Jg-Jurassic Navajo, Kayenta, Wingate, Moenave Fms
- Ji-Jurassic Intrusive Rocks
- Tr2-Triassic Chinle, Ankareh Fm
- Tr1-Triassic Moenkopi, Dinwoody, Woodside, Hognes
- P2-Permian Kaibab, Toroweap, Park City
- P1-Permian Cedar Mesa, Diamond Creek, Arcturus
- PP-Penn-Permian Oquirrh Group, Wells, Weber, Ely, Callville
- P-Pennsylvanian Morgan, Round Valley, Honaker Trail, Paradox
- M3-Mississippian Chainman, Manning Canyon, Doughnut
- M2-Mississippian Great Blue, Humbug, Desert
- M1-Mississippian Redwall, Madison, Garrison, Lodgepole
- D-Devonian Formations
- S-Silurianaketown, Bluebell Dolomite
- O-Ordovician Fish Haven
- C3-Upper Cambrian Fms
- C2-Middle Cambrian Fms
- C1-Cambrian
- PCs-Proterozoic Sedimentary & Metasedimentary Fms
- PCn-Precambrian Metamorphic Rocks
- PCI-Precambrian Intrusive Rocks





Search all of Utah gov »

Utah Division of Water Rights



Zoom In Mode

Map Tools

Display

Layer Name

- Book
- Boundary
- Counties
- Water Quality
- County Parcels (As Available)
- County Parcel Labels
- National Historic Sites
- National Historic Sites Labels
- Public Land Survey System
- Rivers and Streams
- Roads
- Digitized Polygons
- Digitized Polygons Labels
- Water Right Areas

Topographic Maps

Base Map

Legend

- Location
- Search Boundary
- Townships
- Sections



Utah Division of Water Rights | 1594 West North Temple Suite 220, P.O. Box 146300, Salt Lake City, Utah 84114-6300 | 801-538-7240
[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#) | [Emergency Evacuation Plan](#)

Mark Reinbold - SWD wells

From: Mark Reinbold
To: esundberg@newfield.com
Date: 3/7/2012 9:21 AM
Subject: SWD wells

Eric,

Well completion reports are needed for Padilla 1-18-3-2 (43-013-50786) and Miles 15-8-3-2 (43-013-50814). Both wells were completed in October 2011.

Has a cement bond log been run for Yergensen 1-18-3-1 (43-013-50428)? I can't find one. It would be really nice to have.

Mark L. Reinbold, Environmental Scientist
Utah Department of Natural Resources
Division of Oil, Gas & Mining
1594 W North Temple
PO Box 145801
Salt Lake City, UT 84114-5801
Phone 801-538-5333
Fax 801-539-3940

Mark Reinbold - RE: FW: Mon Butte State 14-36-8-16

From: Eric Sundberg <esundberg@newfield.com>
To: Mark Reinbold <markreinbold@utah.gov>
Date: 3/6/2012 7:34 AM
Subject: RE: FW: Mon Butte State 14-36-8-16

Thanks Mark

When is the targeted date for the public notice to be published for the two salt water disposal well applications I submitted (Dillman 3-17-3-2W & SWD 5-18-3-1W) ? I just want to note when the 15 day comment period will be up. These two UIC permits are a top priority for us and our Central Uintah Basin exploration program.

Eric Sundberg

Manager.Regulatory
Office: 303-382-4470
Mobile: 303-396-2494

NEWFIELD

From: Mark Reinbold [mailto:markreinbold@utah.gov]
Sent: Tuesday, March 06, 2012 7:30 AM
To: Eric Sundberg
Subject: Re: FW: Mon Butte State 14-36-8-16

Eric,

Yes, it is OK. I indicated that in an e-mail to Jill Loyle on February 15. I told her that we needed a Sundry Report explaining the departure from the permitted interval. The sundry has been received and was approved by Brad Hill on February 28. I am attaching a copy. Please send me a copy of the completed injection well diagram.

Mark L. Reinbold, Environmental Scientist
Utah Department of Natural Resources
Division of Oil, Gas & Mining
1594 W North Temple
PO Box 145801
Salt Lake City, UT 84114-5801
Phone 801-538-5333
Fax 801-539-3940

>>> Eric Sundberg <esundberg@newfield.com> 3/5/2012 11:05 AM >>>



February 23, 2012

Mr. Brad Hill
State of Utah
Division of Oil, Gas and Mining
1594 W North Temple
Salt Lake City, Utah 84114-5801

RE: Permit Application for Water Disposal Well
Dillman 3-17-3-2W SWD
Lease: Fee
Section 17-Township 3S-Range 2W
Duchesne County, Utah

Dear Mr. Hill:

Newfield Production Company herein requests approval to drill the Dillman 3-17-3-2W SWD for the purposes of salt water disposal.

I hope you find this application complete; however, if you have any questions or require additional information, please contact me at (303) 893-0102.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Sundberg", with a long horizontal flourish extending to the right.

Eric Sundberg
Regulatory Manager

RECEIVED
FEB 29 2012
DIV. OF OIL, GAS & MINING

NEWFIELD PRODUCTION COMPANY
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
DILLMAN 3-17-3-2W SWD
WILDCAT FIELD
FEE LEASE
FEBRUARY 27, 2012

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Well: Dillman 3-17-3-2W SWD
 Field: Central Basin
 Legal: NE/NW Sec 17 T3S R2W Duchesne Co. UT

Engineer:
 Rig:

Logging	Formation	Depth		Wellbore Diagram	Hole Size	Casing Specs	Cement	Mud	Directional
		TVD	MD				Temp		
	Uintah	0'	0'		12-1/4"	9-5/8", 36# J-55, LTC	Cement to surface	Air	Vertical
None	Surface	800'	800'						
	Top of proposed injection	2,186'	2,186'					WBM	Vertical (vertical control required)
	Green River	3,490'	3,490'		8-3/4"	7", 23# J-55, LTC	Single blend cement to surface		Vertical (vertical control required)
	Bottom of proposed injection	5,150'	5,150'						
Triple Combo	TD	5,500'	5,500'					8.6 ppg	

Newfield Production Company
Dillman 3-17-3-2W
NE/NW Section 17, T3S, R2W
Duchesne Co. UT

Drilling Program

1. Formation Tops

Uinta	surface
Green River	3,490'
TD	5,500'
Moderately Saline	746'

2. Depth to Oil, Gas, Water, or Minerals

Top of proposed injection zone	2,186'
Base of proposed inject	5,150'

3. Pressure Control

Section BOP Description

Surface 12-1/4" diverter bowl

Production The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 2M system.

A 2M BOP system will consist of 2 ram preventers (double or two singles) (see attached diagram). A choke manifold rated to at least 2,000 psi will be used.

4. Casing

Description	Interval		Weight (ppf)	Grade	Coup	Pore Press @ Shoe	MW @ Shoe	Frac Grad @ Shoe	Safety Factors		
	Top	Bottom							Burst	Collapse	Tension
Surface	0'	800'	36	J-55	LTC	8.33	8.33	12	3,520	2,020	453,000
9 5/8									7.84	7.94	15.73
Production	0'	5,500'	23	J-55	LTC	8.6	8.6	--	4,360	3,270	313,000
7									2.28	1.71	2.47

Assumptions:

Surface casing MASP = (frac gradient + 1.0 ppg) - (gas gradient)

Production casing MASP = (reservoir pressure) - (gas gradient)

All collapse calculations assume fully evacuated casing with a gas gradient

All tension calculations assume air weight of casing

Gas gradient = 0.1 psi/ft

All casing shall be new.

All casing strings shall have a minimum of 1 centralizer on each of the bottom 3 joints.

Up to 20' of conductor drive pipe may be used, minimum diameter 13 3/8"

5. Cement

Job	Hole Size	Fill	Slurry Description	ft ³	OH excess	Weight (ppg)	Yield (ft ³ /sk)
				sacks			
Surface	12 1/4	800'	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	288	15%	15.8	1.17
				246			
Production	8 3/4	5,500'	50/50 Poz/Class G w/ 3% KCl + 2% bentonite	951	15%	14.3	1.24
				767			

The surface casing will be cemented to surface. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

Actual cement volumes for the production casing string will be calculated from an open hole caliper log, plus 15% excess.

6. Type and Characteristics of Proposed Circulating Medium

<u>Interval</u>	<u>Description</u>
Surface - 800'	An air and/or fresh water system will be utilized. If an air rig is used, the blooie line discharge may be less than 100' from the wellbore in order to minimize location size. The blooie line is not equipped with an automatic igniter. The air compressor may be located less than 100' from the well bore due to the low possibility of combustion with the air/dust mixture. A diverter bowl will be used in place of a rotating head. Water will be on location to be used as kill fluid, if necessary.
800' - TD	A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite. Anticipated maximum mud weight is 8.6 ppg.

7. Logging, Coring, and Testing

Logging: A dual induction, gamma ray, and caliper log will be run from TD to the base of the surface casing. A compensated neutron/formation density log will be run from TD to the top of the Garden Gulch formation. A Gamma Ray log will be run from TD to surface. A cement bond log will be run from PBTD to the cement top behind the production casing.

Cores: As deemed necessary.

DST: There are no DST's planned for this well.

8. Anticipated Abnormal Pressure or Temperature

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a 0.45 psi/ft gradient.

$$5,500' \times 0.45 \text{ psi/ft} = 2460 \text{ psi}$$

No abnormal temperature is expected. No H₂S is expected.

9. Other Aspects

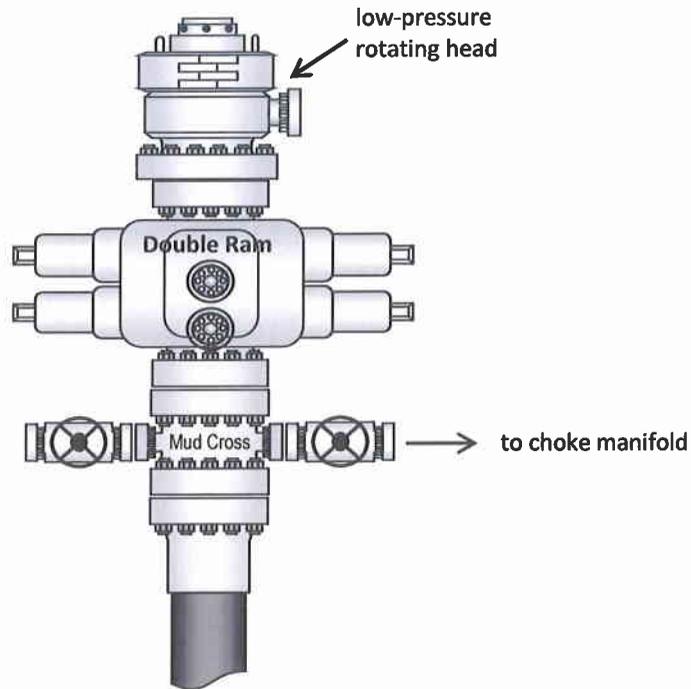
This is planned as a vertical well.

Newfield requests the following Variances from Onshore Order # 2:

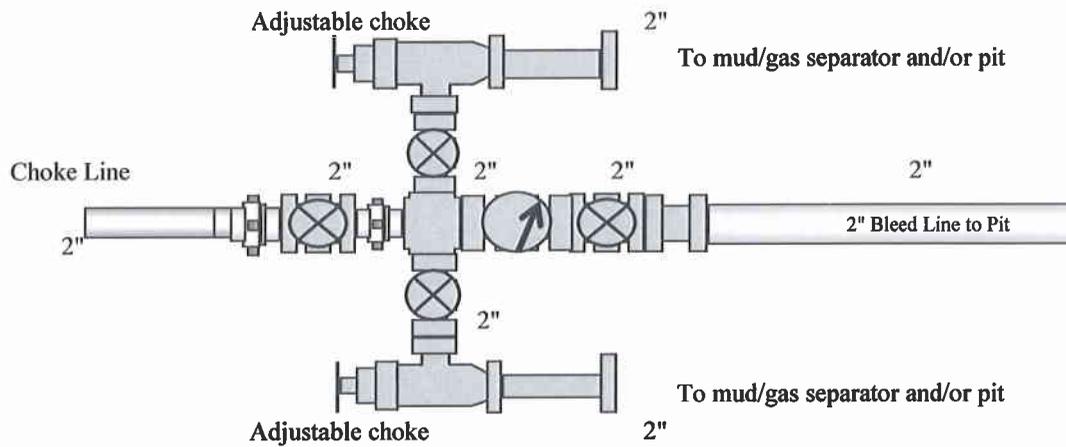
- Variance from Onshore Order 2, III.E.1

Refer to Newfield Production Company Standard Operating Practices "Ute Tribal Green River Development Program" paragraph 9.0

Typical 2M BOP stack configuration



Typical 2M Choke Manifold Configuration



**REQUIREMENTS FOR INJECTION OF FLUIDS INTO RESERVOIRS
RULE R615-5-1**

1. **Operations to increase ultimate recovery, such as cycling of gas, the maintenance of pressure, the introduction of gas, water or other substances into a reservoir for the purpose of secondary or other enhanced recovery or for storage and the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Board after notice and hearing.**
2. **A request for agency action for authority for the injection of gas, liquified petroleum gas, air, water or any other medium into any formation for any reason, including but not necessarily limited to the establishment of or the expansion of waterflood projects, enhanced recovery projects, and pressure maintenance projects shall contain:**

2.1 The name and address of the operator of the project.

Newfield Production Company
1001 17th Street, Suite 2000
Denver, Colorado 80202

2.2 A plat showing the area involved and identifying all wells, including all proposed injection wells, in the project area and within one-half mile of the project area.

See Attachment A.

2.3 A full description of the particular operation for approval is requested.

Approval is requested to drill the Dillman 3-17-3-2W SWD as a class II water disposal well.

2.4 A description of the pools from which the identified wells are producing or have produced.

The proposed injection well will inject into the Green River Formation.

2.5 The names, description and depth of the pool or pools to be affected.

The injection zone is in the Green River Formation. For the Dillman 3-17-3-2W SWD well, the proposed injection zone is from Upper Green River Formation to Lower Green River (2186' - 5550'). The confining strata directly above and below the injection zones are the shales of the Uinta Formation and the top of the Mahogeny Bench or TD, whichever is shallower. The proposed TD is at 5500'.

2.6 A copy of a log of a representative well completed in the pool.

The referenced log for the Miles 15-8-3-2W API#43-013-50814 is on file with the Utah Division of Oil, Gas and Mining. See Attachment H

2.7 A statement as to the type of fluid to be used for injection, its source and the estimated amounts to be injected daily.

The primary type and source of fluid to be used for injection will produced water from the Green River and Wasatch formations. The average estimated injection of fluids will be at a rate of 5000 BPD, and the estimated maximum injection will be at a rate of 8000 BPD.

2.8 A list of all operators and surface owners within one-half mile radius of the proposed project.

See Attachment B.

2.9 An affidavit certifying that said operators or owners and surface owners within a one-half mile radius have been provided a copy of the petition for injection.

See Attachment C.

2.10 Any additional information the Board may determine is necessary to adequately review the petition.

Newfield Production Company will supply any additional information requested by the Utah Division of Oil, Gas and Mining.

4.0 Establish recovery projects may be expanded and additional wells placed on injection only upon authority from the Board after notice and hearing or by administrative approval.

This proposed injection well is on a Fee lease in a wildcat field, and this request is for administrative approval.

**REQUIREMENTS FOR CLASS II INJECTION WELLS INCLUDING WATER DISPOSAL,
STORAGE AND ENHANCED RECOVERY WELLS
SECTION V – RULE R615-5-2**

- 1. Injection well shall be completed, equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.**
- 2. The application for an injection well shall include a properly completed Form DOGM-UIC-1 and the following:**

- 2.1 A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed wells, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.**

See Attachments A and B.

- 2.2 Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper and porosity.**

All logs will be submitted to the Utah Division of Oil, Gas and Mining.

- 2.3 A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.**

A copy of the cement bond log will be submitted to the Utah Division of Oil, Gas and Mining.

- 2.4 Copies of logs already on file with the Division should be referenced, but need not be refiled.**

All copies of logs are on file with the Utah Division of Oil, Gas and Mining.

- 2.5 A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.**

The casing program is 9-5/8", 36# surface casing run to 800' KB, and 7", 23# casing run from surface to 5500' KB. A casing integrity test will be conducted. See Attachment E.

- 2.6 A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.**

The primary type and source of fluid to be used for injection will be produced water. The estimated average rate of injection will be 6000 BPD, and the estimated maximum rate of injection will be 8000 BPD.

- 2.7 Standard laboratory analysis of the fluid to be injected, the fluid in the formation into which the fluid is being injected, and the compatibility of the fluids.**

See Attachment D.

2.8 The proposed average and maximum injection pressures.

This will be determined based on well completion information

2.9 Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.

A step rate test will be performed periodically to ensure we are below parting pressure. The proposed maximum injection pressure is TBD.

2.10 Appropriate geological data on the injection interval and confining beds, including the geologic name, lithologic description, thickness, depth, and lateral extent.

In the Dillman 3-17-3-2W SWD, the proposed injection zone (2186' - 5500') is in the Upper Green River to the Lower Green River Formation. The reservoir is a very fine-grained sandstone with minor imbedded shale streaks. The members are composed of porous and permeable lenticular calcareous sandstone and low porosity carbonates and calcareous shale. The stratum confining the injection zone is composed of tight, moderately calcareous, sandy lacustrine shale. All of the confining strata are impermeable, and will effectively seal off the oil, gas, and water of the injection zone from any strata directly above or below it.

2.11 A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter the improper intervals.

Additionally, the injection system will be equipped with high and low pressure shut down devices that will automatically shut in injection waters if a system blockage or leakage occurs. One way check valves will also ensure proper flow management. Relief valves will also be utilized for high-pressure relief.

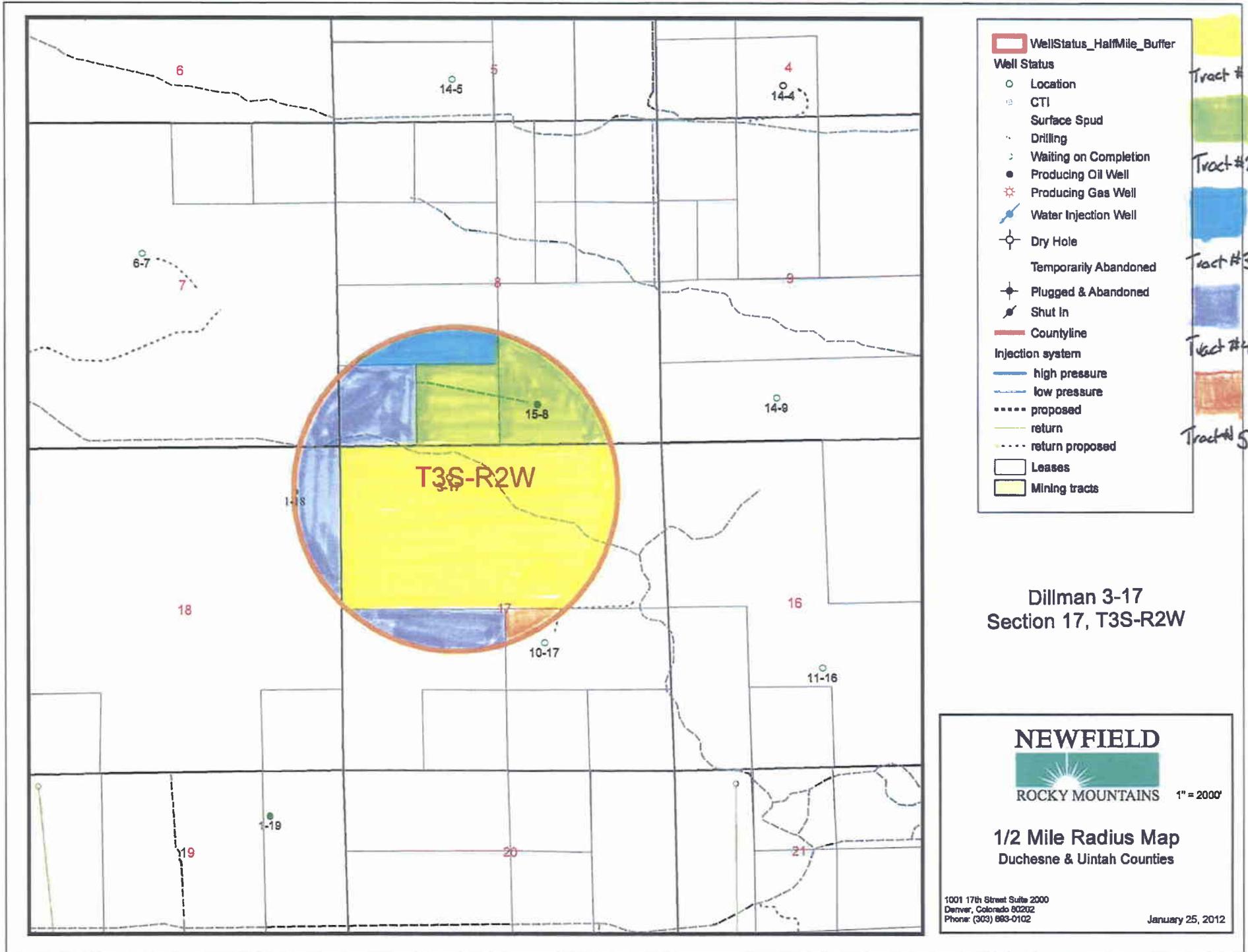
2.12 An affidavit certifying that a copy of the application has been provided to all operators or owners, and surface owners within a one-half mile radius of the proposed injection well.

See Attachment C.

2.13 Any other information that the Board or Division may determine is necessary to adequately review the application.

Newfield Production Company will supply any requested information to the Board or Division.

ATTACHMENT A



- WellStatus_HalfMile_Buffer
- Well Status**
- Location
- CTI
- Surface Spud
- Drilling
- Waiting on Completion
- Producing Oil Well
- Producing Gas Well
- Water Injection Well
- Dry Hole
- Temporarily Abandoned
- Plugged & Abandoned
- Shut In
- Countyline
- Injection system**
- high pressure
- low pressure
- proposed
- return
- return proposed
- Leases
- Mining tracts

Tract #1
Tract #2
Tract #3
Tract #4
Tract #5

Dillman 3-17
Section 17, T3S-R2W

NEWFIELD



1" = 2000'

1/2 Mile Radius Map
Duchesne & Uintah Counties

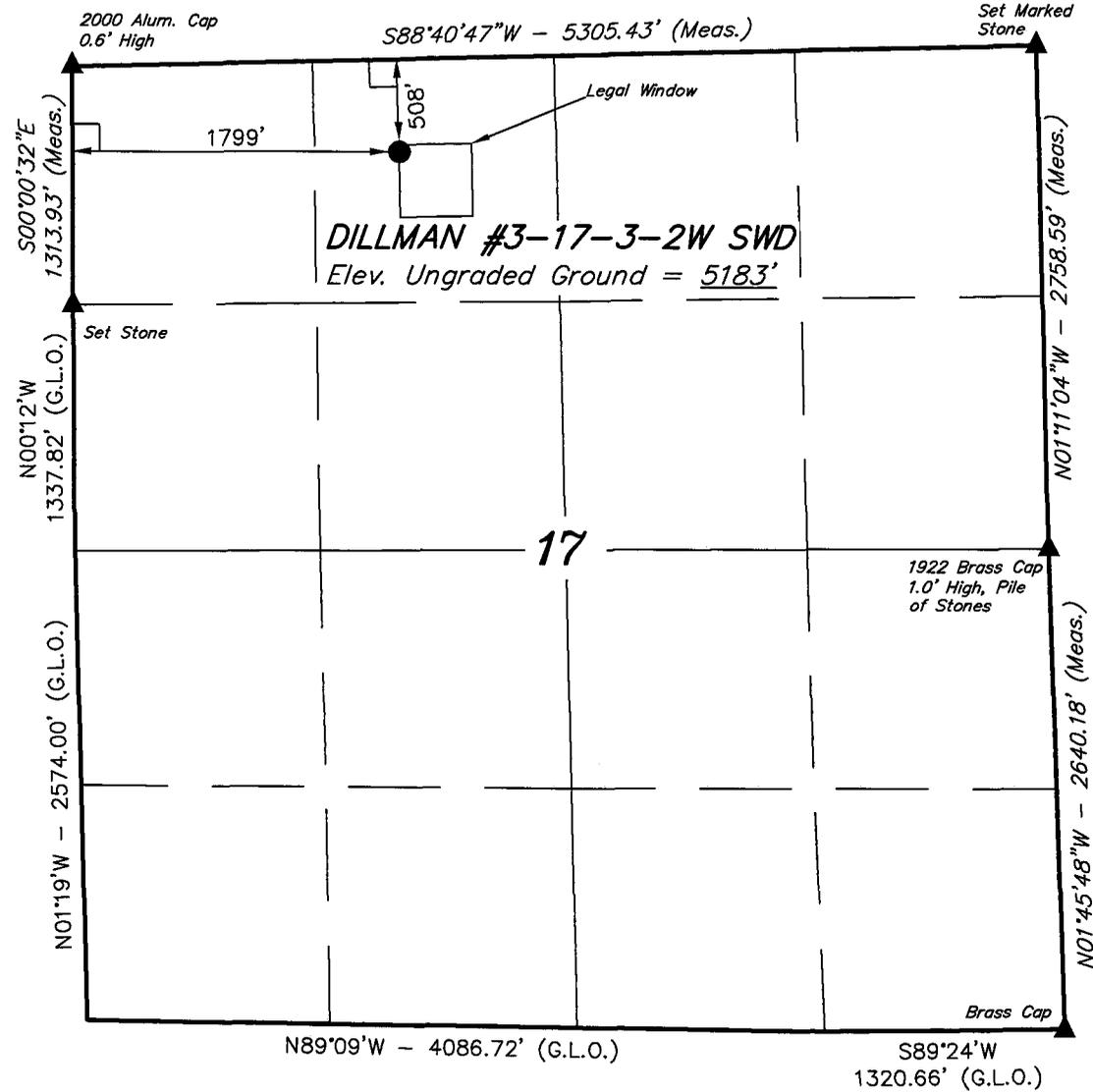
1001 17th Street Suite 2000
Denver, Colorado 80202
Phone: (303) 883-0102

January 25, 2012

T3S, R2W, U.S.B.&M.

NEWFIELD EXPLORATION COMPANY

Well location, DILLMAN #3-17-3-2W SWD, located as shown in the NE 1/4 NW 1/4 of Section 17, T3S, R2W, U.S.B.&M., Duchesne County, Utah.

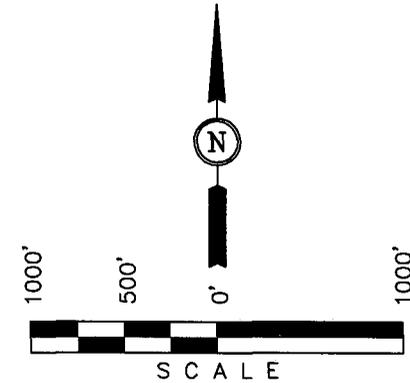


BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE SOUTHEAST CORNER OF SECTION 20, T3S, R2W, U.S.B.&M. TAKEN FROM THE MYTON, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5148 FEET.

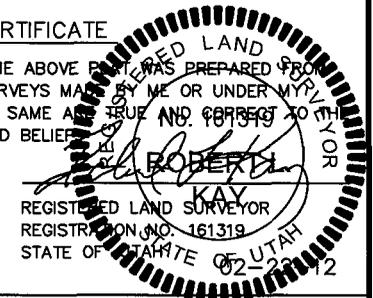
BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



REV: 02-22-12 S.F.
 REV: 08-10-11 J.J.
 REV: 07-26-11 J.J.
 REV: 07-06-11 J.J.

UINTAH ENGINEERING & LAND SURVEYING
 85 SOUTH 200 EAST - VERNAL, UTAH 84078
 (435) 789-1017

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)
 LATITUDE = 40°13'40.37" (40.227881)
 LONGITUDE = 110°08'11.97" (110.136658)
 (NAD 27)
 LATITUDE = 40°13'40.52" (40.227922)
 LONGITUDE = 110°08'09.42" (110.135681)

SCALE 1" = 1000'	DATE SURVEYED: 12-13-10	DATE DRAWN: 12-21-10
PARTY M.A. C.K. C.H.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE NEWFIELD EXPLORATION COMPANY	

EXHIBIT B

#	Legal Description	Lessor & Expiration	Lessee & Operating Rights	Surface Owner
1	<u>T3S-R2W</u> Sec. 17: N2	Dillman Family, LLC		Dallas E. Murray NE, E2NW Leon Sprouse W2NW

EXHIBIT B

#	Legal Description	Lessor & Expiration	Lessee & Operating Rights	Surface Owner
2	T3S-R2W Section 8: SE, SESW	Paul & Lorna Miles, Trustees HBP	Newfield Production Company	Paul & Lorna Miles, Trustees All
3	T3S-R2W Section 8: W2W2NE, NENW, S2NW, N2S'	Mary A. Sipes HBP	Newfield Production Company	Myrin Ranch, Inc. All
		Ann MacDonald HBP	Newfield Production Company	
4	T3S-R2W Section 8: SWSW	Ute Indian Tribe HBP	Newfield Production Company	Leon Sprouse All
	Section 18: E2NE	Ute Indian Tribe HBP	Newfield Production Company	Joe R. Padilla NENE Ute Indian Tribe SENE
	Section 17: N2SW	Ute Indian Tribe HBP	Newfield Production Company	Ute Indian Tribe All
	Section 7: SESE	Ute Indian Tribe HBP	Newfield Production Company	Leon Sprouse All

EXHIBIT B

#	Legal Description	Lessor & Expiration	Lessee & Operating Rights	Surface Owner
5	<u>T3S-R2W</u> Section 17: N2SE	Estate of Leda H. Thorne	Susan F. Earnest	Dallas E. Murray All

ATTACHMENT C

CERTIFICATION FOR SURFACE OWNER NOTIFICATION

RE: Application for Approval of Class II Injection Well
Dillman 3-17-3-2W SWD

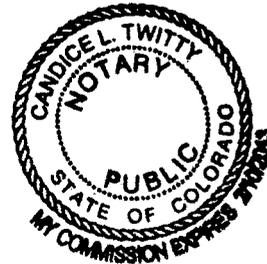
I hereby certify that a copy of the injection application has been provided to all surface owners within a one-half mile radius of the proposed injection well.

Signed: 
Newfield Production Company
Eric Sundberg
Regulatory Manager

Sworn to and subscribed before me this 27th day of February, 2012.

Notary Public in and for the State of Colorado: Candice L. Twitty

My Commission Expires 02/10/2013





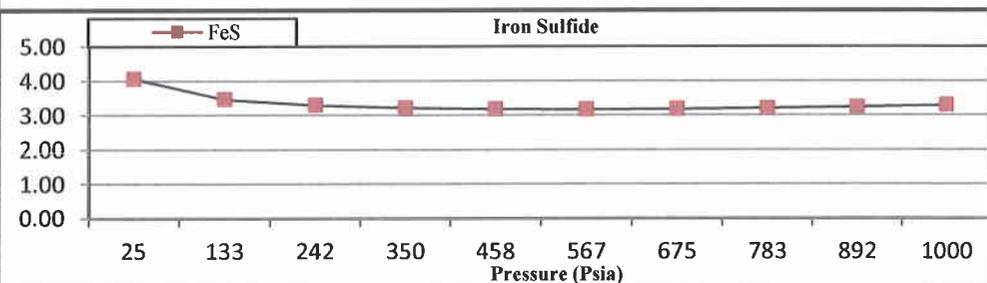
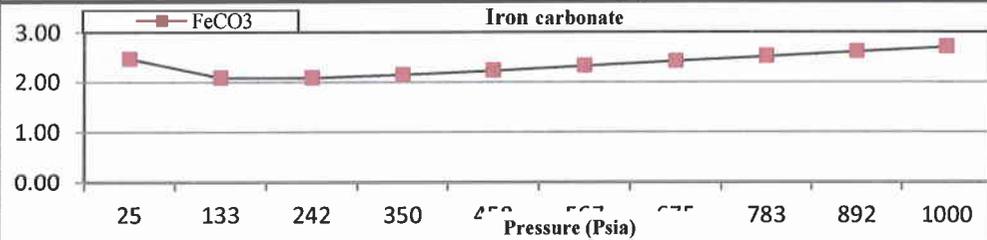
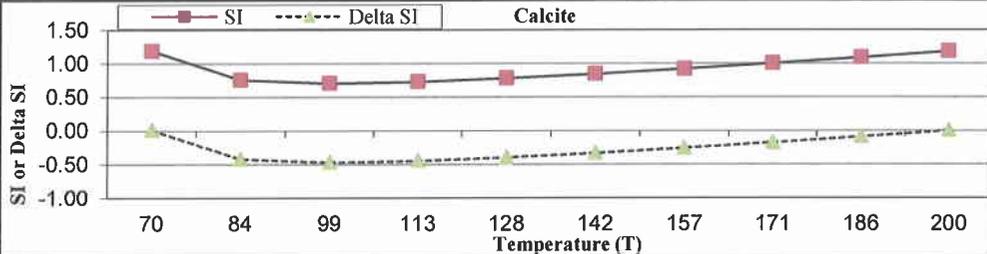
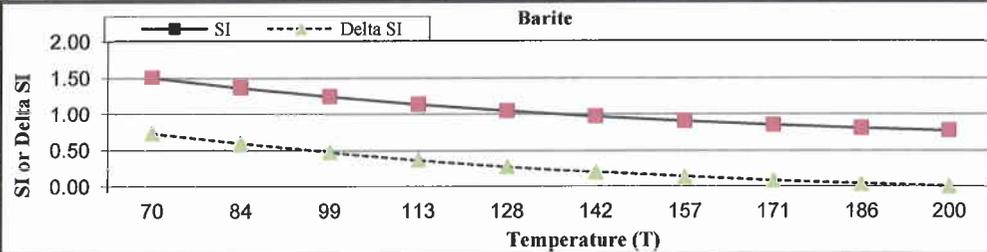
1465 East 1650 south Vernal UT 84078 (435) 789-2069 www.nalco.com

Water Analysis Report

Field :	Newfield Route H-3	Sample Date :	2/2/2012
County :		Formation :	
Location :	Giles 1-19-3-2	Rock Type :	
Lab ID :		Depth :	Analysed Date: 2/13/2012
Comments :			

CATIONS	mg/l	Measured	Calculated	ANIONS	mg/l
Potassium	65.5	15349.88	0.00	Sulfate	80.0
Sodium	5,333.2		354.54	Chloride	9,200.0
Calcium	120.4	PH	8.16	Carbonate	0.0
Magnesium	13.0	Total H2S aq	6.00	Bicarbonate	1,220.0
Iron	38.9	Manganese	0.37	Bromide	0.0
Barium	10.8	PO4 Residual	207.20	Organic Acids	0.0
Strontium	16.3	SRB Vials Turned	0.00	Hydroxide	0.0
SUM +	5,598.1	APB Vials Turned	0.00	SUM -	10,500.0

Initial(BH)	Final(WH)
Saturation Index values	
Calcite (CaCO3)	
1.18	1.19
Barite (BaSO4)	
0.77	1.50
Halite (NaCl)	
-3.14	-3.08
Gypsum	
-2.15	-2.22
Hemihydrate	
-2.43	-3.00
Anhydrite	
-1.83	-2.50
Celestite	
-1.29	-1.43
Iron Sulfide	
3.28	4.05
Zinc Sulfide	
0.00	0.00
Calcium fluoride	
0.00	0.00
Iron Carbonate	
2.70	2.46
Inhibitor needed (mg/L)	
Calcite	NTMP
0.27	0.00
Barite	BHPMP
0.34	0.11



Lab Manager: Andrea Craig
Analysis by:



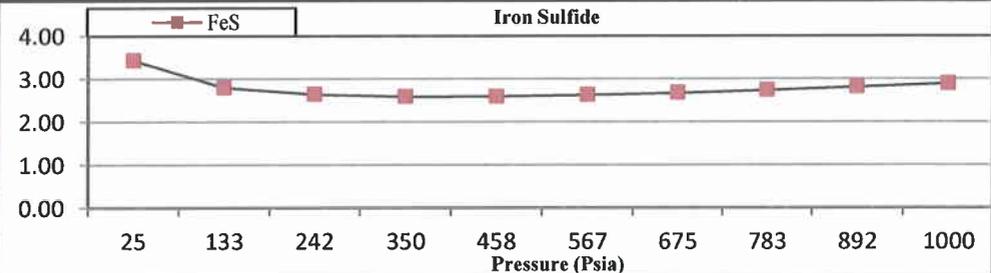
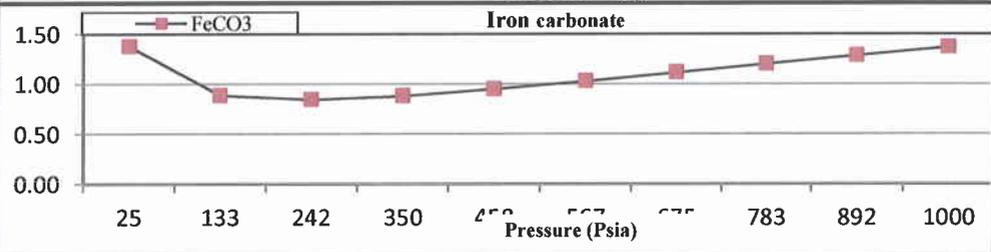
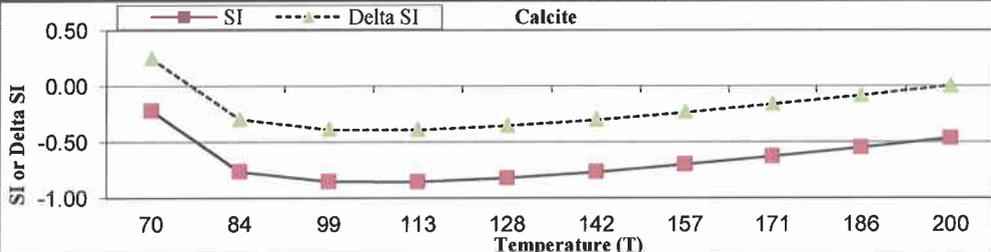
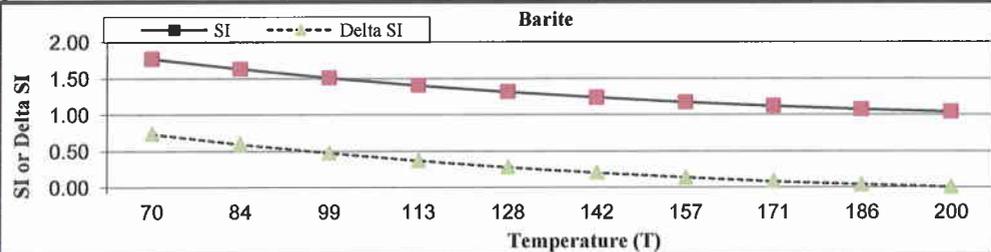
1465 East 1650 south Vernal UT 84078 (435) 789-2069 www.nalco.com

Water Analysis Report

Field :	Newfield Route H-3	Sample Date :	2/2/2012
County :		Formation :	
Location :	Kettle 1-10-3-1	Rock Type :	
Lab ID :		Depth :	Analysed Date: 2/13/2012
Comments :			

CATIONS	mg/l	Measured	Calculated	ANIONS	mg/l
Potassium	205.5	16507.19	0.00	Sulfate	110.0
Sodium	5,588.3		328.77	Chloride	10,000.0
Calcium	103.8	6.95	0.00	Carbonate	0.0
Magnesium	16.9	Total H2S aq	25.00	Bicarbonate	988.2
Iron	72.1	Manganese	0.71	Bromide	0.0
Barium	15.3	PO4 Residual	171.30	Organic Acids	0.0
Strontium	21.1	SRB Vials Turned	0.00	Hydroxide	0.0
SUM +	6,023.0	APB Vials Turned	0.00	SUM -	11,098.2

Initial(BH)	Final(WH)
Saturation Index values	
Calcite (CaCO3)	
-0.47	-0.22
Barite (BaSO4)	
1.04	1.77
Halite (NaCl)	
-3.09	-3.03
Gypsum	
-2.11	-2.17
Hemihydrate	
-2.38	-2.95
Anhydrite	
-1.78	-2.45
Celestite	
-1.06	-1.20
Iron Sulfide	
2.89	3.43
Zinc Sulfide	
0.00	0.00
Calcium fluoride	
0.00	0.00
Iron Carbonate	
1.37	1.37
Inhibitor needed (mg/L)	
Calcite	NTMP
0.00	0.00
Barite	BHPMP
2.34	0.62



Lab Manager: Andrea Craig
Analysis by:



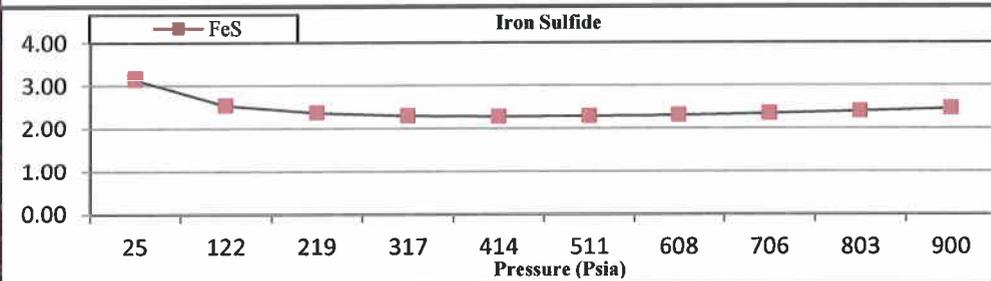
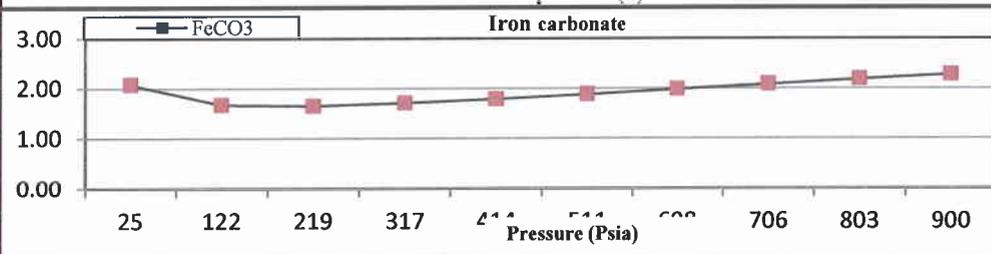
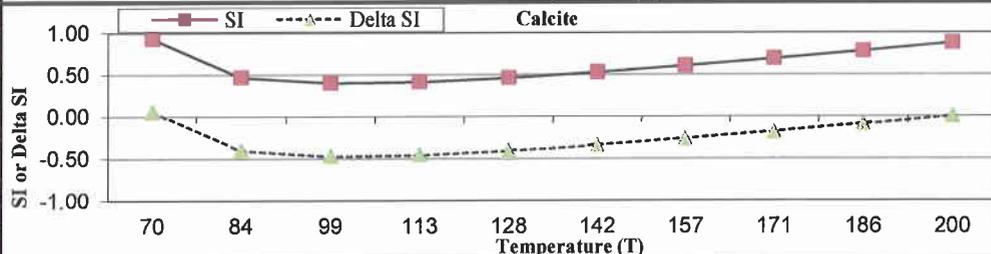
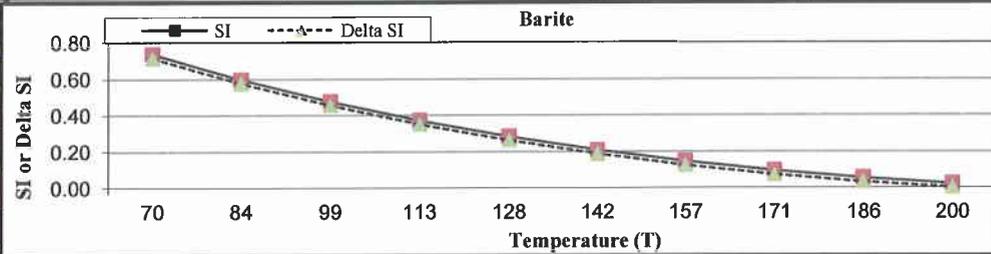
1465 East 1650 south Vernal UT 84078 (435) 789-2069 www.nalco.com

Water Analysis Report

Field :	Newfield Route H-3	Sample Date :	2/2/2012
County :		Formation :	
Location :	O N MOON 1-27-3-2	Rock Type :	
Lab ID :		Depth :	Analysed Date: 2/13/2012
Comments :			

CATIONS	mg/l	Measured	Calculated	ANIONS	mg/l
Potassium	38.5	10592.10	0.00	Sulfate	40.0
Sodium	3,616.5	Total Hardness	130.31	Chloride	6,300.0
Calcium	42.0	PH	8.28	Carbonate	0.0
Magnesium	6.1	Total H2S aq	2.00	Bicarbonate	1,342.0
Iron	9.5	Manganese	0.33	Bromide	0.0
Barium	2.6	PO4 Residual	101.60	Organic Acids	0.0
Strontium	6.0	SRB Vials Turned	0.00	Hydroxide	0.0
SUM +	3,721.3	APB Vials Turned	0.00	SUM -	7,682.0

Initial(BH)	Final(WH)
Saturation Index values	
Calcite (CaCO3)	
0.87	0.93
Barite (BaSO4)	
0.02	0.74
Halite (NaCl)	
-3.45	-3.38
Gypsum	
-2.75	-2.84
Hemihydrate	
-3.03	-3.62
Anhydrite	
-2.43	-3.12
Celestite	
-1.85	-2.03
Iron Sulfide	
2.46	3.13
Zinc Sulfide	
0.00	0.00
Calcium fluoride	
0.00	0.00
Iron Carbonate	
2.28	2.08
Inhibitor needed (mg/L)	
Calcite	NTMP
0.05	0.00
Barite	BHPMP
0.00	0.00



Lab Manager: Andrea Craig
Analysis by:



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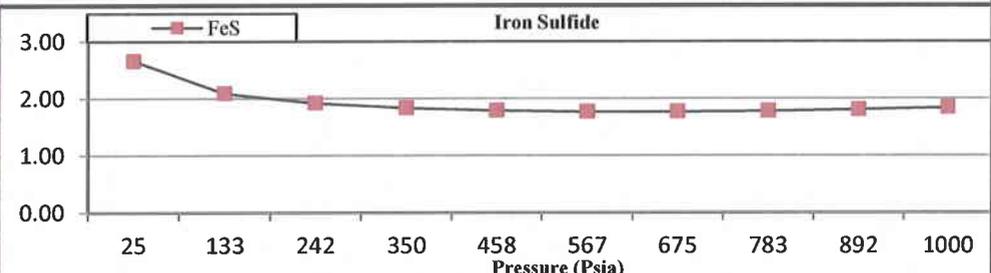
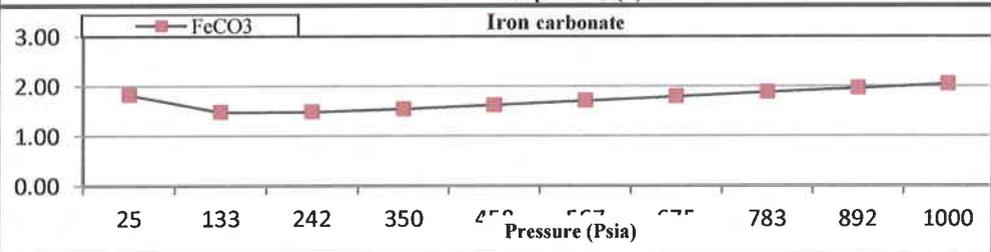
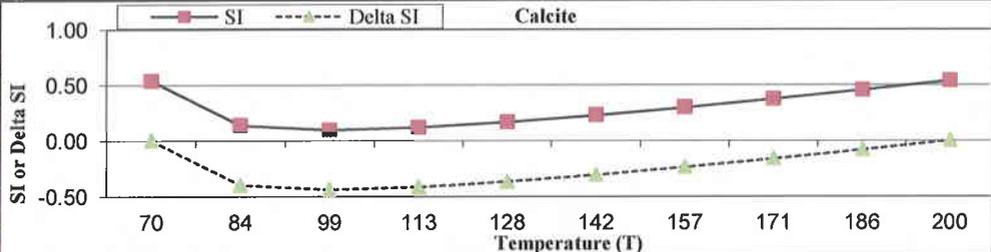
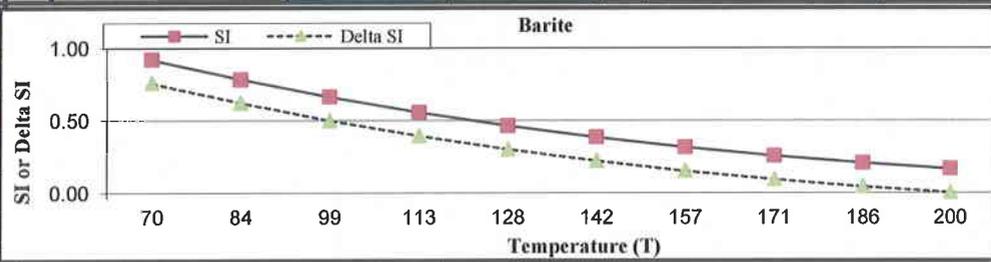
Water Analysis Report

Field : **Newfield Route H-3** Sample Date : **2/2/2012**
 County : Formation :
 Location : Yergy 1-9-3-1 Rock Type :
 Lab ID : Depth : Analysed Date: **2/13/2012**

Comments :

CATIONS	mg/l	Measured	Calculated	ANIONS	mg/l
Potassium	85.3	Total Dissolve Solid	33341.75	Sulfate	670.0
Sodium	12,320.3	Total Hardness	26.05	Chloride	18,200.0
Calcium	7.4	PH	8.15	Carbonate	0.0
Magnesium	1.9	Total H2S aq	4.00	Bicarbonate	5,136.2
Iron	1.7	Manganese	0.11	Bromide	0.0
Barium	0.8	PO4 Residual	285.90	Organic Acids	0.0
Strontium	3.7	SRB Vials Turned	0.00	Hydroxide	0.0
SUM +	12,421.0	APB Vials Turned	0.00	SUM -	24,006.2

Initial(BH)	Final(WH)
Saturation Index values	
Calcite (CaCO₃)	
0.54	0.54
Barite (BaSO₄)	
0.16	0.92
Halite (NaCl)	
-2.54	-2.47
Gypsum	
-2.73	-2.77
Hemihydrate	
-3.00	-3.55
Anhydrite	
-2.40	-3.05
Celestite	
-1.39	-1.48
Iron Sulfide	
1.84	2.65
Zinc Sulfide	
0.00	0.00
Calcium fluoride	
0.00	0.00
Iron Carbonate	
2.04	1.82
Inhibitor needed (mg/L)	
Calcite	NTMP
0.00	0.00
Barite	BHPMP
0.00	0.00



Lab Manager: Andrea Craig
 Analysis by:



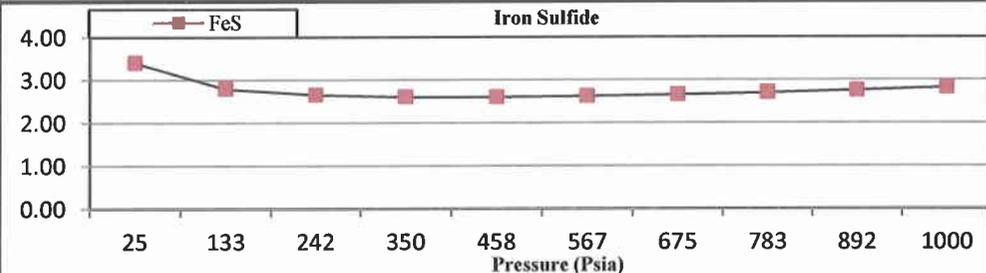
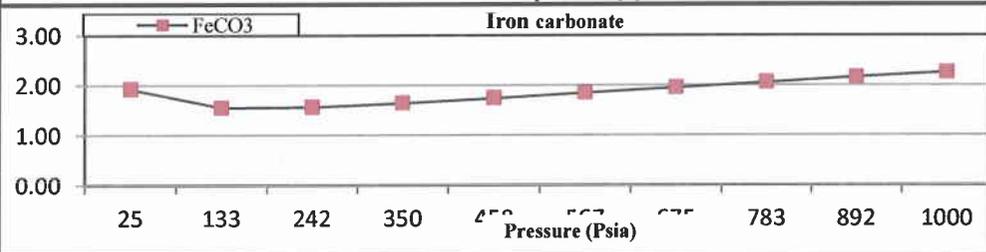
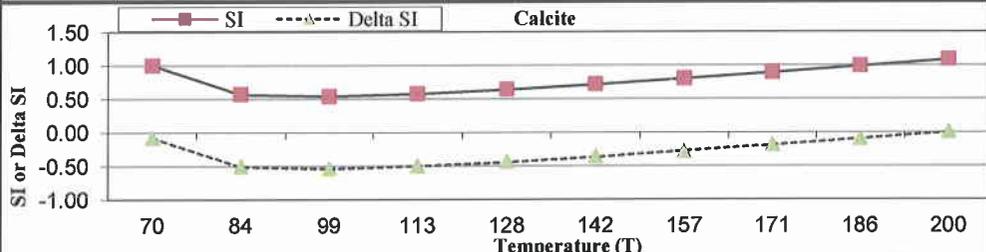
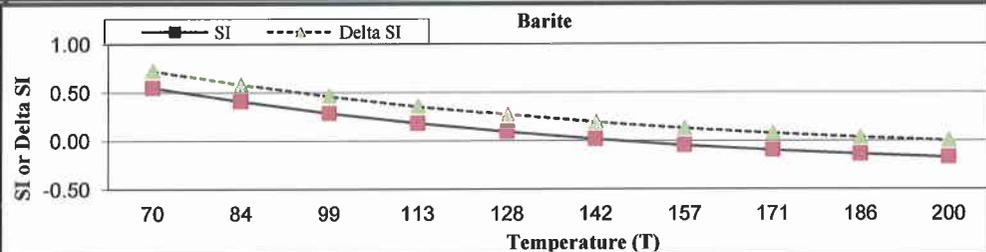
1465 East 1650 south Vernal UT 84078 (435) 789-2069 www.nalco.com

Water Analysis Report

Field :	Newfield Route H-3	Sample Date :	2/2/2012
County :		Formation :	
Location :	Conrad 6-17-3-1	Rock Type :	
Lab ID :		Depth :	Analysed Date: 2/13/2012
Comments :			

CATIONS	mg/l	Measured	Calculated	ANIONS	mg/l
Potassium	39.0	11173.70	0.00	Sulfate	10.0
Sodium	3,825.3	Total Hardness	235.79	Chloride	6,700.0
Calcium	79.5	PH	8.11	Carbonate	0.0
Magnesium	9.1	Total H2S aq	5.00	Bicarbonate	1,232.2
Iron	10.9	Manganese	0.26	Bromide	0.0
Barium	7.1	PO4 Residual	111.20	Organic Acids	0.0
Strontium	11.7	SRB Vials Turned	0.00	Hydroxide	0.0
SUM +	3,982.5	APB Vials Turned	0.00	SUM -	7,942.2

Initial(BH)	Final(WH)
Saturation Index values	
Calcite (CaCO3)	
1.08	1.00
Barite (BaSO4)	
-0.17	0.55
Halite (NaCl)	
-3.40	-3.34
Gypsum	
-3.11	-3.19
Hemihydrate	
-3.38	-3.97
Anhydrite	
-2.78	-3.47
Celestite	
-2.20	-2.36
Iron Sulfide	
2.82	3.39
Zinc Sulfide	
8.32	10.31
Calcium fluoride	
0.00	0.00
Iron Carbonate	
2.26	1.92
Inhibitor needed (mg/L)	
Calcite	NTMP
0.17	0.00
Barite	BHPMP
0.00	0.00



Lab Manager: Andrea Craig
Analysis by:

Padilla 1-18-3-2

Spud Date: 7/7/2011
 Put on Production: 10/13/2011
 GL: 5181' KB: 5199'

Wellbore Diagram

SURFACE CASING

CSG SIZE 9-5/8"
 GRADE J-55
 WEIGHT 36#
 LENGTH 27 jts (1012.65')
 DEPTH LANDED 1014' KB
 HOLE SIZE 12-1/4"
 CEMENT DATA 344 sxs Prem Lite II mixed cmt

INTERMEDIATE CASING

CSG SIZE 7"
 GRADE P-110
 WEIGHT 26#
 LENGTH: 181 jts (8649.44') - Includes Two Marker Joints
 HOLE SIZE 8-7/8"
 DEPTH LANDED 8672.9' KB
 CEMENT DATA 370 sxs Prem Lite II mixed & 350 sxs 50/50 POZ.
 CEMENT TOP AT: 310'

PRODUCTION CASING

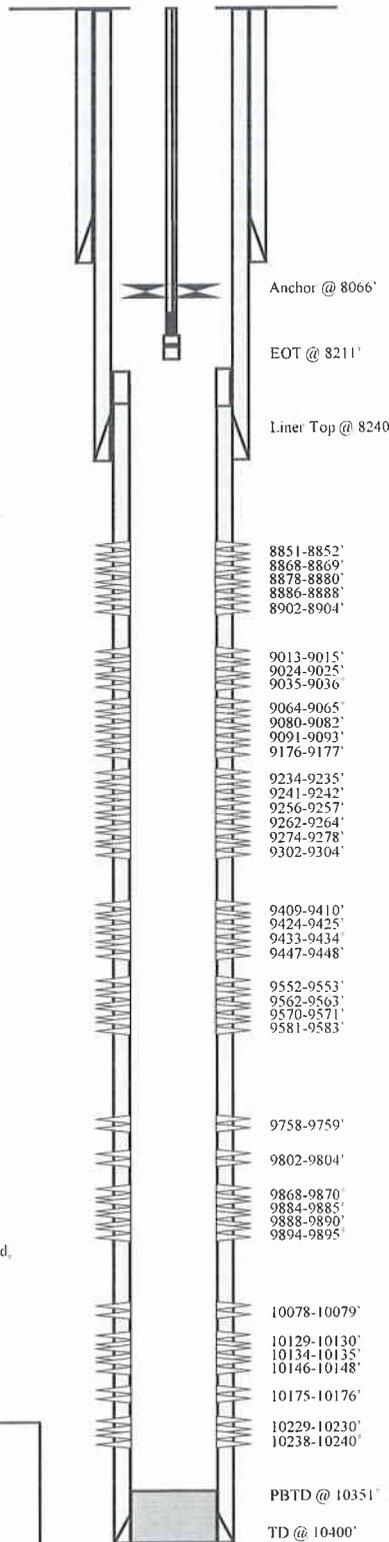
CSG SIZE 4-1/2"
 GRADE P-110
 WEIGHT 11.6#
 LENGTH 50 jts (2084.75') - Includes Two Flag Joints
 HOLE SIZE 6-1/8"
 DEPTH LANDED 10395.84' KB
 CEMENT DATA 210 sxs 50/50 POZ.

TUBING

SIZE/GRADE/WT: 2-7/8" / L-80 / 6.5#
 NO OF JOINTS 257 jts (8056.9')
 TUBING ANCHOR 8055.9' KB
 NO. OF JOINTS 1 jt (31.2')
 SEATING NIPPLE 2-7/8" (1.1')
 SN LANDED AT: 8091.6' KB
 TUBING SUB 6.2'
 DESANDER 18.2'
 NO. OF JOINTS 3 jts (92.9')
 NOGO @ 8208.9' KB
 TOTAL STRING LENGTH EOT @ 8211' KB

SUCKER RODS

POLISHED ROD 1 1/2" x 40' Polished Rod
 SUCKER RODS 2 - 7/8" x 2' Pony Rod (4'), 1 - 7/8" x 4' Pony Rod,
 1 - 7/8" x 6' Pony Rod, 1 - 7/8" x 8' Pony Rod, 111 - 7/8" 4per
 Guided Rods (2775'), 202 - 3/4" 4per Guided Rods (5050'), 5 - 1 1/2"
 Weight Bars (125'), 5 - 1" x 4' Stabilizer Pony (20')
 PUMP SIZE Weatherford 2 1/2 x 2 1/2 x 36' RHBC
 STROKE LENGTH 288
 PUMP SPEED 3.6 SPM



FRAC JOB

9/6/2011	10078-10240'	Frac Wasatch 30 and Red Beds, sands as follows: Frac with 4567# 100 mesh, 27488# 20/40 white sand and 3667# 20/40 TLC, in 1558 bbls Slickwater fluid, 2365 total bbls fluid to recover.
9/12/2011	9758-9895'	Frac Wasatch 28 and Wasatch 30, sands as follows: Frac with 12227# 20/40 white sand and 5040# 20/40 TLC, in 1715 bbls Lightning 17 fluid, 2054 total bbls fluid to recover.
9/12/2011	9409-9583'	Frac Wasatch 20, 25 and 28, sands as follows: Frac with 199802# 20/40 white sand and 8991# 20/40 TLC, in 2905 bbls Lightning 17 fluid, 3238 total bbls fluid to recover.
9/27/2011	9176-9304'	Frac Wasatch 10 and 15, sands as follows: Frac with 180000# 20/40 white sand and 20161# 20/40 TLC, in 4293 bbls Lightning 17 fluid; 4622 total bbls fluid to recover.
9/28/2011	9013-9093'	Frac Wasatch, sands as follows: Frac with 126000# 20/40 white sand and 14082# 20/40 TLC, in 2949 bbls Lightning 17 fluid; 3707 total bbls fluid to recover.
9/28/2011	8851-8904'	Frac Wasatch, sands as follows: Frac with 77450# 20/40 white sand and 18463# 20/40 TLC, in 2292 bbls Lightning 17 fluid, 2617 total bbls fluid to recover.

PERFORATION RECORD

8851-8852'	3 JSPF	3 holes
8868-8869'	3 JSPF	3 holes
8878-8880'	3 JSPF	6 holes
8886-8888'	3 JSPF	6 holes
8902-8904'	3 JSPF	6 holes
9013-9015'	3 JSPF	6 holes
9024-9025'	3 JSPF	3 holes
9035-9036'	3 JSPF	3 holes
9064-9065'	3 JSPF	3 holes
9080-9082'	3 JSPF	6 holes
9091-9093'	3 JSPF	6 holes
9176-9177'	3 JSPF	3 holes
9234-9235'	3 JSPF	3 holes
9241-9242'	3 JSPF	3 holes
9256-9257'	3 JSPF	3 holes
9262-9264'	3 JSPF	6 holes
9274-9278'	3 JSPF	12 holes
9302-9304'	3 JSPF	6 holes
9409-9410'	3 JSPF	3 holes
9424-9425'	3 JSPF	3 holes
9433-9434'	3 JSPF	3 holes
9447-9448'	3 JSPF	3 holes
9552-9553'	3 JSPF	3 holes
9562-9563'	3 JSPF	3 holes
9570-9571'	3 JSPF	3 holes
9581-9583'	3 JSPF	6 holes
9758-9759'	3 JSPF	3 holes
9802-9804'	3 JSPF	6 holes
9868-9870'	3 JSPF	6 holes
9884-9885'	3 JSPF	3 holes
9888-9890'	3 JSPF	3 holes
9894-9895'	3 JSPF	3 holes
10078-10079'	3 JSPF	3 holes
10129-10130'	3 JSPF	3 holes
10134-10135'	3 JSPF	3 holes
10146-10148'	3 JSPF	6 holes
10175-10176'	3 JSPF	3 holes
10229-10230'	3 JSPF	3 holes
10238-10240'	3 JSPF	6 holes

NEWFIELD

Padilla 1-18-3-2
 507' FNL & 729' FEL (NE/NE)
 Section 18, T3S, R2W
 Duchesne County, Utah
 API # 43-013-50786; Lease #14-20-H62-6269

MILES 15-8-3-2

Spud Date: 8/11/2011
 Put on Production: 10/12/2011
 PWOP: 12/16/2011

GL: 5223' KB: 5240'

SURFACE CASING

CSG SIZE: 9-5/8"
 GRADE: J-55
 WEIGHT: 36#
 LENGTH: 25 jts (1000.95') Includes Shoe Joint (43.7')
 DEPTH LANDED: 1000.00' KB
 HOLE SIZE: 12-1/4"
 CEMENT DATA: 344 sxs Prem Lite 2 cmt

INTERMEDIATE CASING

CSG SIZE: 7"
 GRADE: P-110
 WEIGHT: 26#
 LENGTH: 192 jt (8724.70') Includes Marker Jt (22.63')
 DEPTH LANDED: 8750.83' KB
 HOLE SIZE: 8 1/2"
 CEMENT DATA: 596 Prem Lite II & 291 50/50 POZ

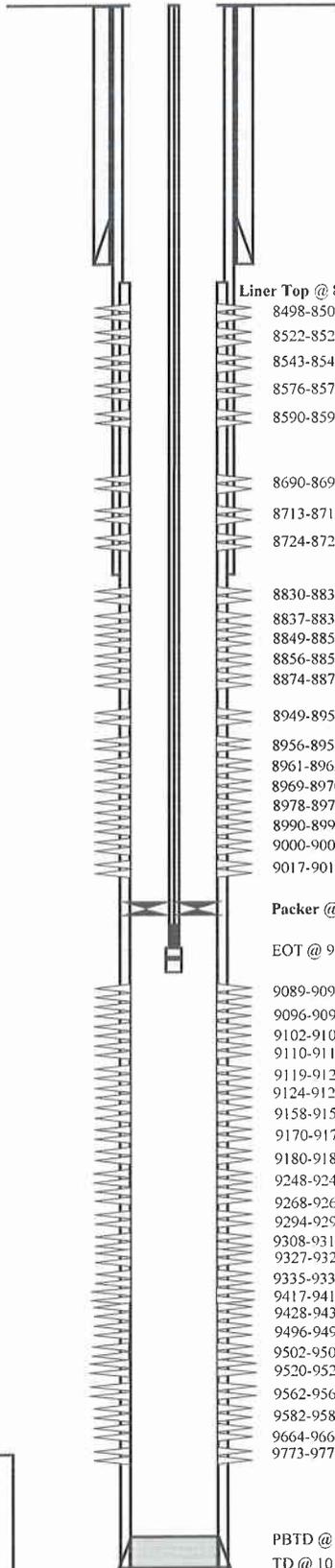
PRODUCTION CASING

CSG SIZE: 4 1/2"
 GRADE: P-110
 WEIGHT: 11.6#
 LENGTH: 42 jts (1767.91')
 HOLE SIZE: 6 1/8"
 DEPTH LANDED: 10108.00' KB
 CEMENT DATA: 195 SXS 50/50 POZ
 CEMENT TOP @ 16'

TUBING

SIZE/GRADE/WT: 2-7/8" / L-80 / 6.5#
 NO OF JOINTS: 60 jts (1949.80')
 GL Mandral 1 @ 2007.83'
 NO OF JOINTS: 43 jt (1396.89')
 GL Mandral 2 @ 3408.72'
 NO OF JOINTS: 29 jt (943.33')
 GL Mandral 3 @ 4356.05'
 NO OF JOINTS: 17 jt (552.80')
 GL Mandral 4 @ 4912.85'
 NO OF JOINTS: 15 jt (487.96')
 GL Mandral 5 @ 5404.81'
 NO OF JOINTS: 15 jt (487.87')
 GL Mandral 6 @ 5896.68'
 NO OF JOINTS: 15 jt (486.71')
 GL Mandral 7 @ 6387.39'
 NO OF JOINTS: 16 jt (520.31')
 GL Mandral 8 @ 6911.70'
 NO OF JOINTS: 15 jt (487.86')
 GL Mandral 9 @ 7405.56'
 NO OF JOINTS: 15 jt (487.73')
 GL Mandral 10 @ 7899.29'
 NO OF JOINTS: 10 jt (323.88')
 1 - 2 3/8" x 2 7/8" XO (.51')
 NO OF JOINTS: 7 jt (219.35')
 GL Mandral 11 @ 8443.03'
 NO OF JOINTS: 17 jt (530.32')
 GL Mandral 12 @ 8977.35'
 NO OF JOINTS: 1 jt (31.45')
 X NIPPLE: 1 jt (1.15') Top @ 9012.80'
 NO OF JOINTS: 1 jt (31.41')
 NO OFF TOOL: 1 jt (1.38') Top @ 9045.34'
 4 1/2" PACKER: 1 jt (6.59') Top @ 9046.72'
 TBG PUP: 1 jt (3.90') Top @ 9053.31'
 X NIPPLE: 1 jt (1.22') Top @ 9057.21'
 TBG PUP: 1 jt (4.10') Top @ 9058.43'
 PUMP OUT SUB: 1 jt (32') Top @ 9062.53'
 TOTAL STRING LENGTH: EOT @ 9063.05'

Wellbore Diagram



FRAC JOB

Date	Job ID	Description
10/05/2011	9664-9773'	Frac Wasatch 28 & 30 sands as follows: Frac with 55200# 20/40 white sand and 5988# 20/40 TLC in 839 bbls lightning 20 Slickwater fluid, 1844 bbls total fluid to recover.
10/05/2011	9417-9583'	Frac Wasatch 20, 23 & 25 sands as follows: Frac with 10120# 20/40 white sand, and 9202# 20/40 TLC in 1524 bbls lightning 20 Slickwater fluid, 2883 bbls total fluid to recover
10/05/2011	9248-9338'	Frac Wasatch 10 & 15 sands as follows: Frac with 111039# 20/40 white sand and 9600# 20/40 TLC in 1658 bbls lightning 20 Slickwater fluid; 3063 bbls total fluid to recover
10/06/2011	9089-9181'	Frac Wasatch 10, sands as follows: Frac with 101727# 20/40 white sand and 8800# 20/40 TLC in 1515 bbls lightning 20 Slickwater fluid, 2930 bbls total fluid to recover
10/06/2011	8949-9018'	Frac Wasatch sands as follows: Frac with 87777# 20/40 white sand and 7600# 20/40 TLC in 1308 bbls Slickwater fluid, 2614 bbls total fluid to recover
10/06/2011	8690-8876'	Frac CP Limes & Bs Carb sands as follows: Frac with 14500# 100 mesh & 45760# 20/40 white sand in 1418 bbls Slickwater fluid, 2694 bbls total fluid to recover
10/06/2011	8498-8592'	Frac CP Sand & CP Limes sands as follows: Frac with 190048# 20/40 white sand and 33062# 20/40 TLC in 4383 bbls lightning 20 Slickwater fluid, 4814 bbls total fluid to recover

PERFORATION RECORD

Depth	Tool	Holes
9773-9778'	3 JSFP	15 holes
9664-9668'	3 JSFP	12 holes
9582-9583'	3 JSFP	3 holes
9562-9563'	3 JSFP	3 holes
9520-9522'	3 JSFP	6 holes
9502-9503'	3 JSFP	3 holes
9496-9497'	3 JSFP	3 holes
9428-9430'	3 JSFP	6 holes
9417-9418'	3 JSFP	3 holes
9335-9338'	3 JSFP	9 holes
9327-9328'	3 JSFP	3 holes
9308-9310'	3 JSFP	6 holes
9294-9295'	3 JSFP	3 holes
9268-9269'	3 JSFP	3 holes
9248-9249'	3 JSFP	3 holes
9180-9181'	3 JSFP	3 holes
9170-9172'	3 JSFP	6 holes
9158-9159'	3 JSFP	3 holes
9124-9125'	3 JSFP	3 holes
9119-9120'	3 JSFP	3 holes
9110-9111'	3 JSFP	3 holes
9102-9103'	3 JSFP	3 holes
9096-9097'	3 JSFP	3 holes
9089-9090'	3 JSFP	3 holes
9017-9018'	3 JSFP	3 holes
9000-9002'	3 JSFP	6 holes
8990-8991'	3 JSFP	3 holes
8978-8979'	3 JSFP	3 holes
8969-8970'	3 JSFP	3 holes
8961-8962'	3 JSFP	3 holes
8956-8957'	3 JSFP	3 holes
8949-8950'	3 JSFP	3 holes
8874-8876'	3 JSFP	6 holes
8856-8857'	3 JSFP	3 holes
8849-8850'	3 JSFP	3 holes
8837-8838'	3 JSFP	3 holes
8830-8831'	3 JSFP	3 holes
8724-8725'	3 JSFP	3 holes
8713-8714'	3 JSFP	3 holes
8690-8691'	3 JSFP	3 holes
8590-8592'	3 JSFP	6 holes
8576-8577'	3 JSFP	3 holes
8543-8545'	3 JSFP	6 holes
8522-8524'	3 JSFP	6 holes
8498-8500'	3 JSFP	6 holes

NEWFIELD



MILES 15-8-3-2

659' FSL & 1990' FEL (SW/SE)
 Section 8, T3S, R2W
 Duchesne County, Utah
 API #43-013-50814; Lease # FEE

ATTACHMENT G

WORK PROCEDURE FOR PLUGGING AND ABANDONMENT

1. Set CIBP @ 3550'
2. Plug #1 Set 120' plug on top of CIBP using 23 sx Class "G" cement 60' above Green River and extending 60' below
3. Plug #2 Set CIBP @ 2136'
Set 100' plug using 19 sx Class "G" cement 50' above the Green River
5. Plug #4 Pump 286 sx Class "G" cement down 7" casing to 850'

The approximate cost to plug and abandon this well is \$42,000.



Well: Dillman 3-17-3-2W SWD
 Field: Central Basin
 Legal: NE/NW Sec 17 T3S R2W Duchesne Co. UT

Engineer:
 Rig:

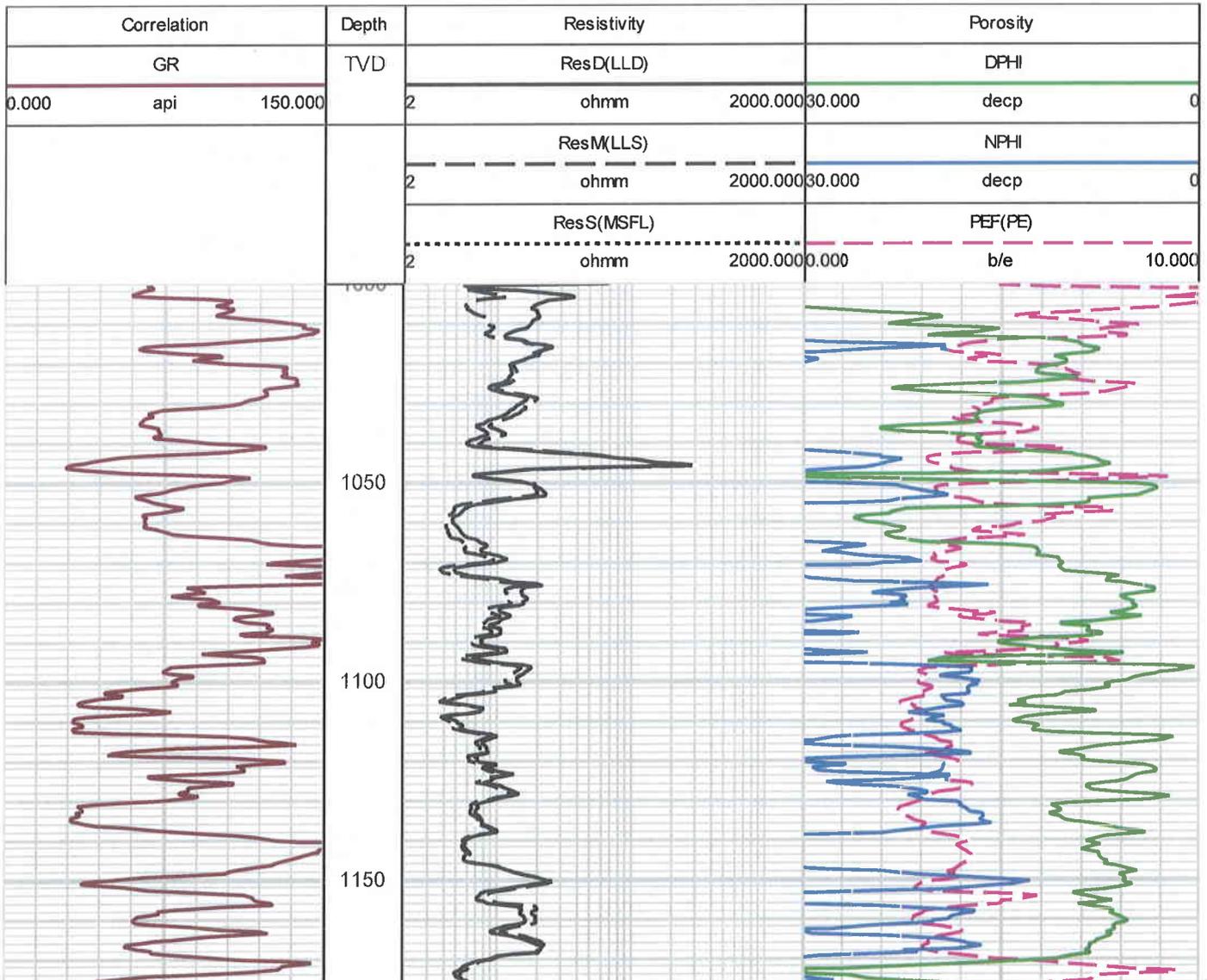
Logging	Formation	Depth		Wellbore Diagram	Hole Size	Casing Specs	Cement	Mud	Directional	
		TVD	MD				Temp			
	Uintah	0'	0'		12-1/4"	9-5/8", 36# J-55, LTC	Cement to surface	Air	Vertical	
					Circulate 286 sx Class G Cement down 7" casing and up the 7" x 9-5/8"					
None	Surface	800'	800'							
					Perforate 4 JSPF @ 850'					
	Top of proposed injection	2,186'	2,186'		100' (19 sx) Class G Cement plug on top of CIBP					
					CIBP @ 2136'					
					8-3/4"	7", 23# J-55, LTC		WBM	Vertical (vertical control required)	
	Green River	3,490'	3,490'	120' (23 sx) Class G Cement plug 60' above Green River and extending 60' below (3430'-3550')						
				CIBP @ 3550'						
	Bottom of proposed injection	5,150'	5,150'	Single blend cement to surface						
Triple Combo	TD	5,500'	5,500'					8.6 ppg		

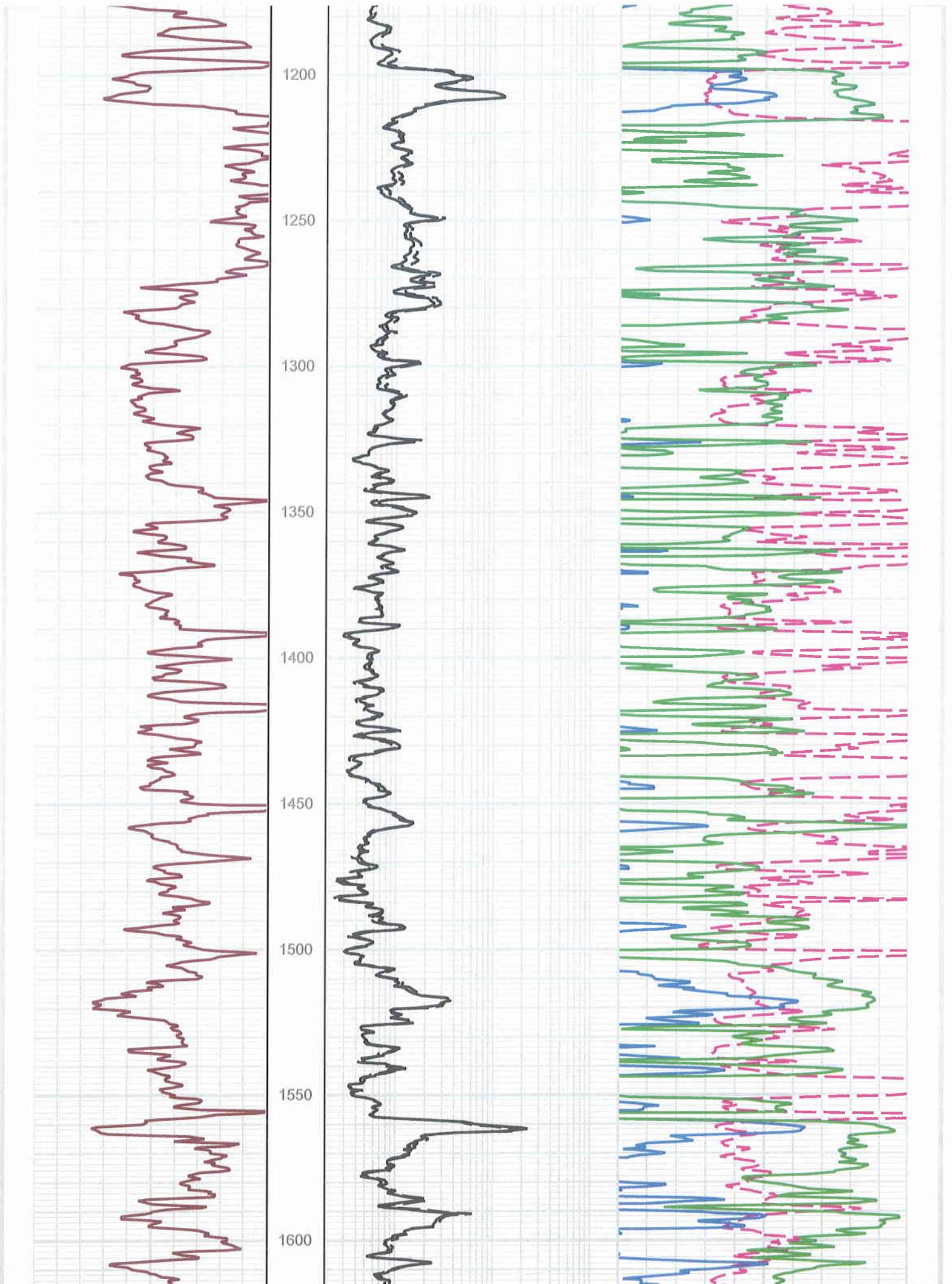
4301350814
 MILES 15-8-3-2W 15-8

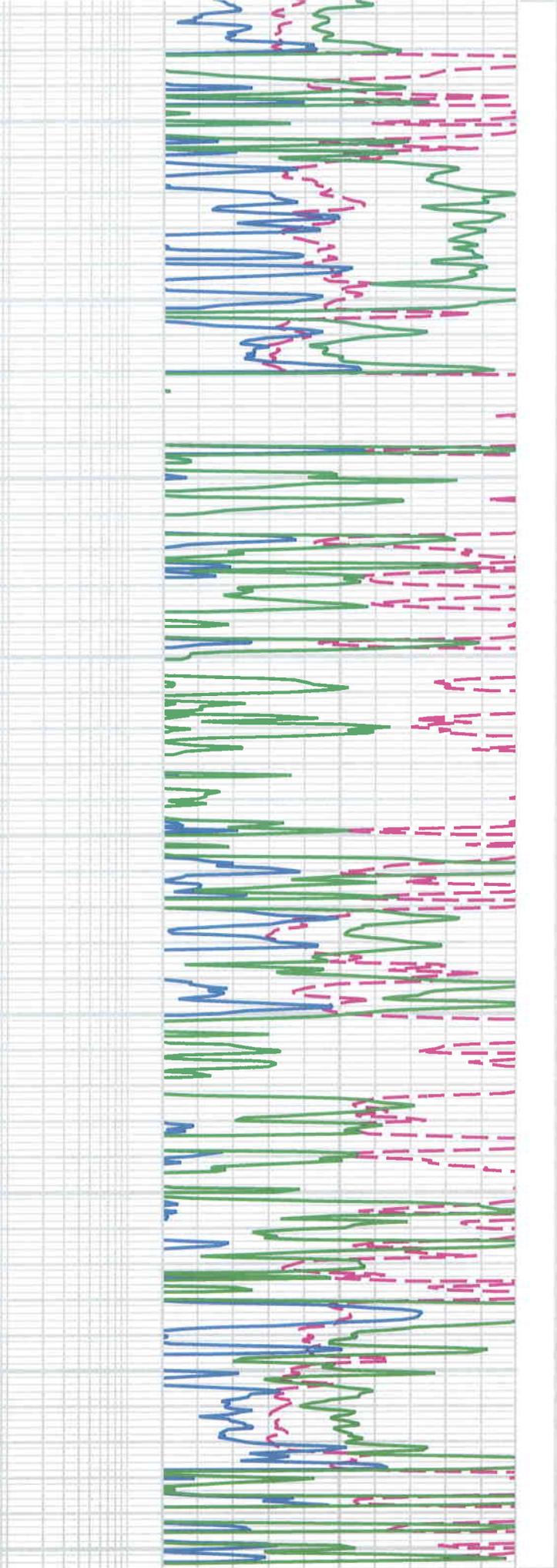
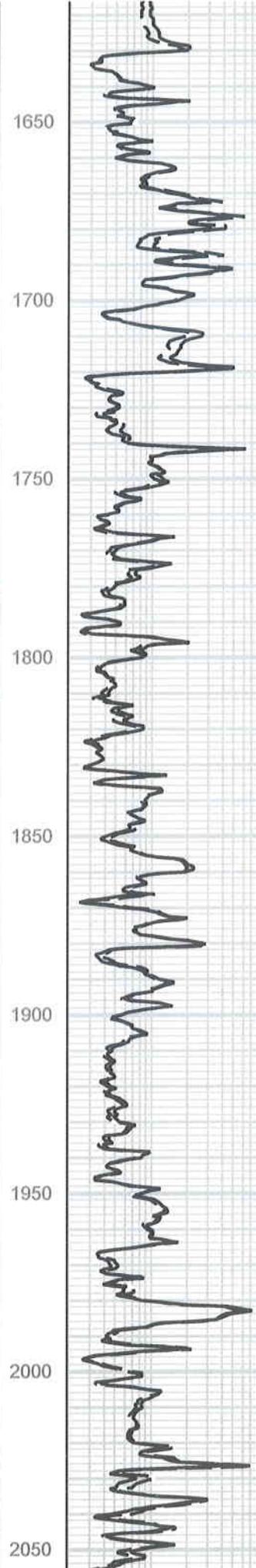
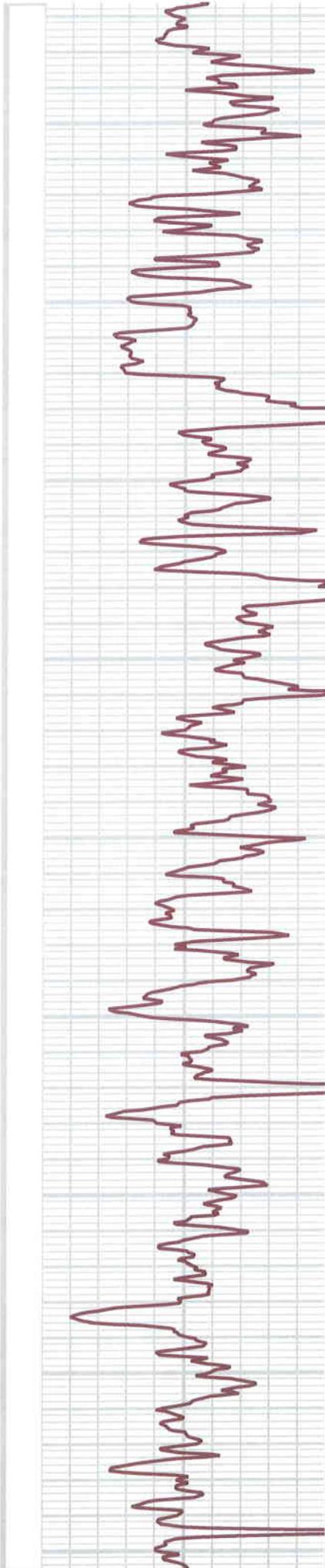


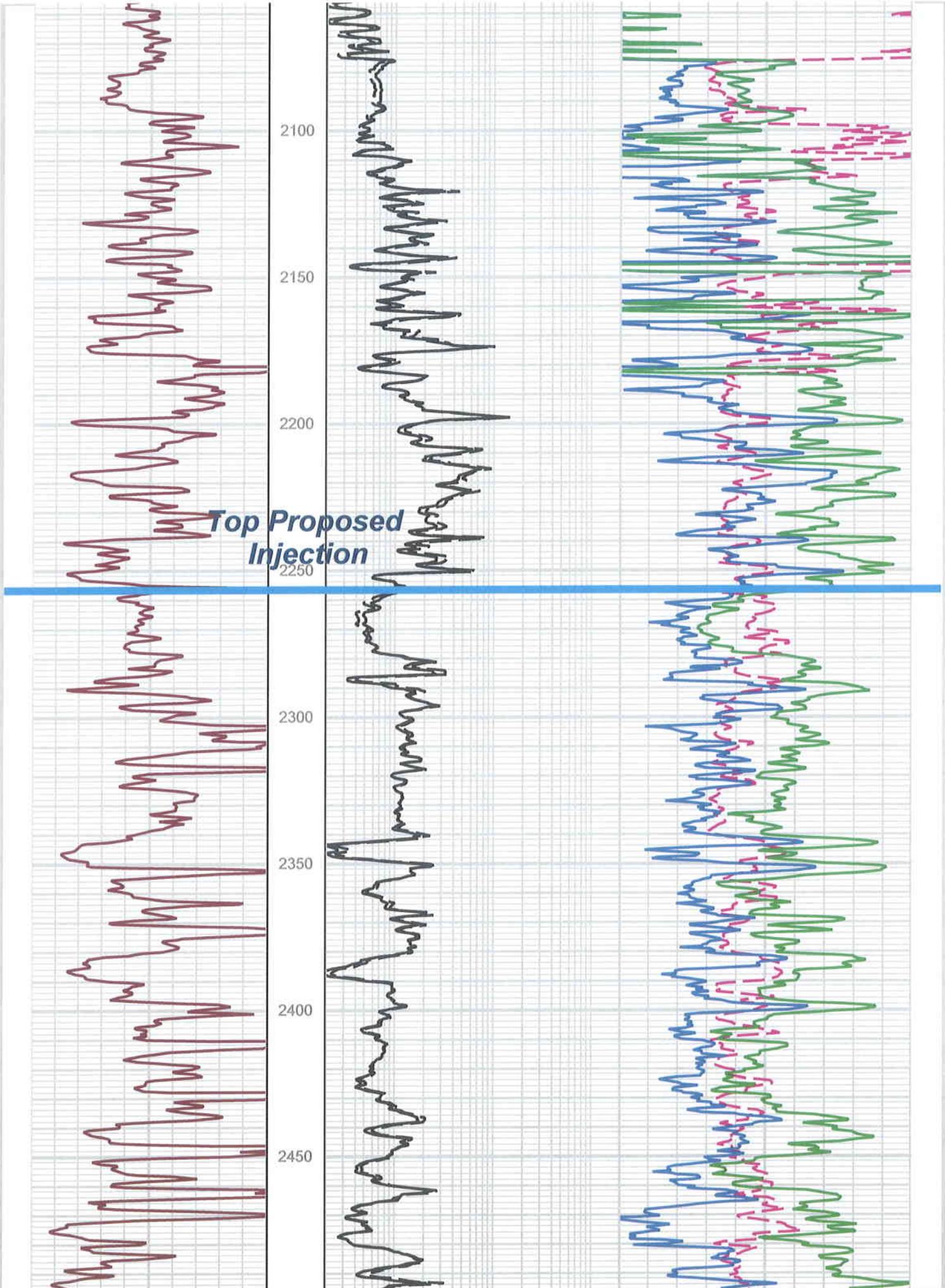
NEWFIELD PRODUCTION
 TWP: 3 S - Range: 2 W - Sec. 8
 659 FSL 1990 FEL
 Status=POW
 Comp Date=10/12/2011

Base of Moderately
 Saline Groundwater:
 869'









**Top Proposed
Injection**

2100

2150

2200

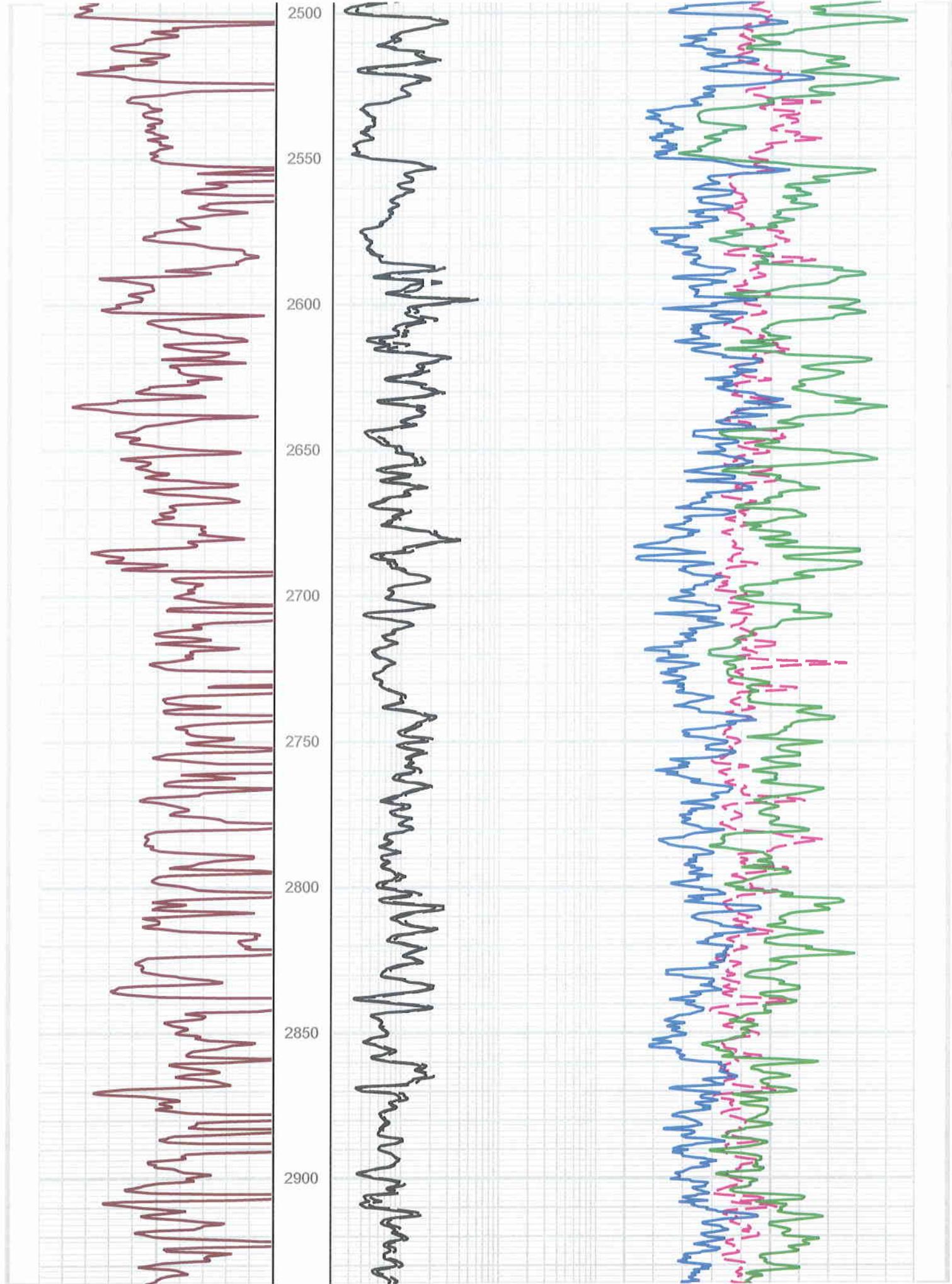
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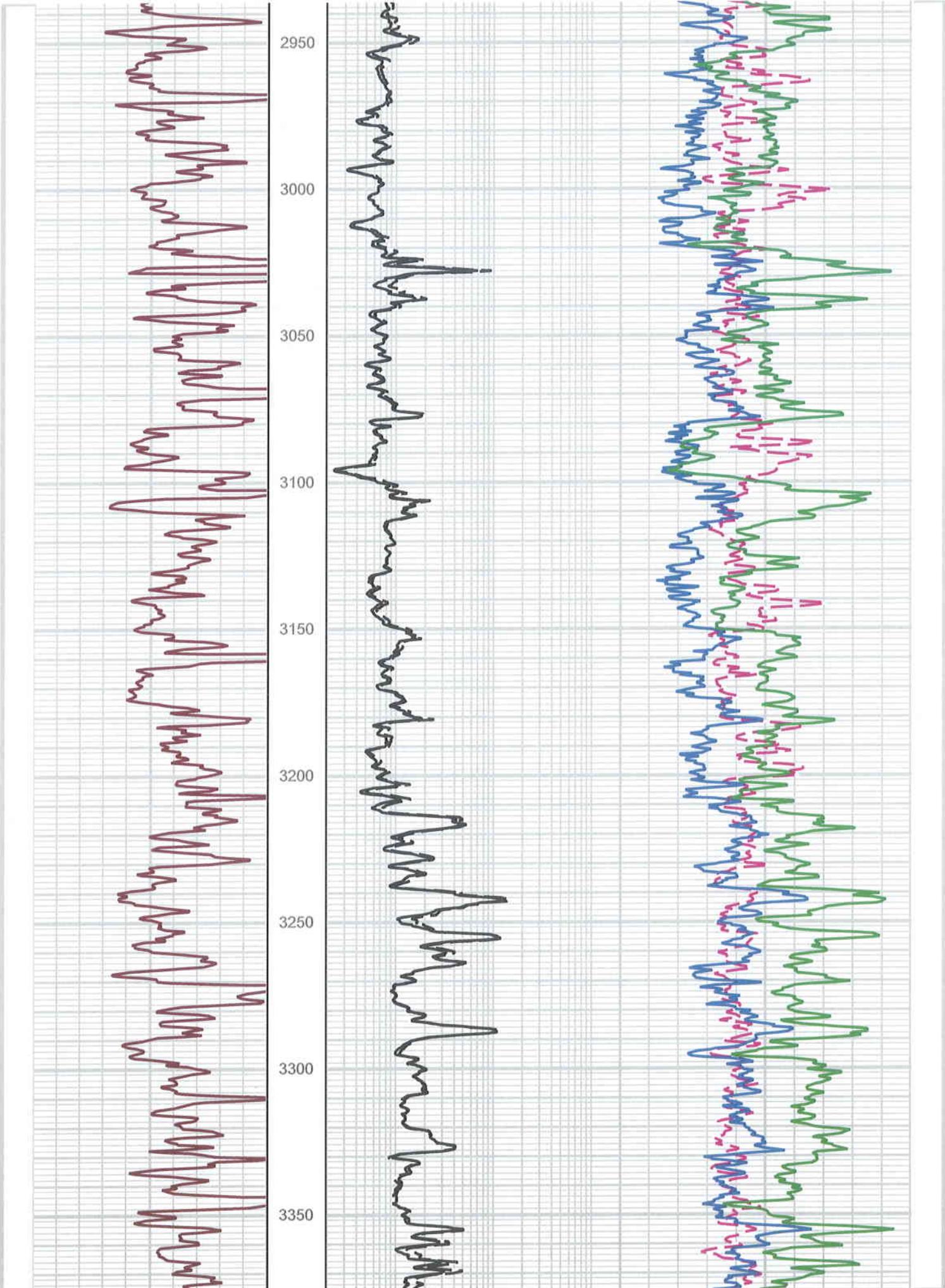
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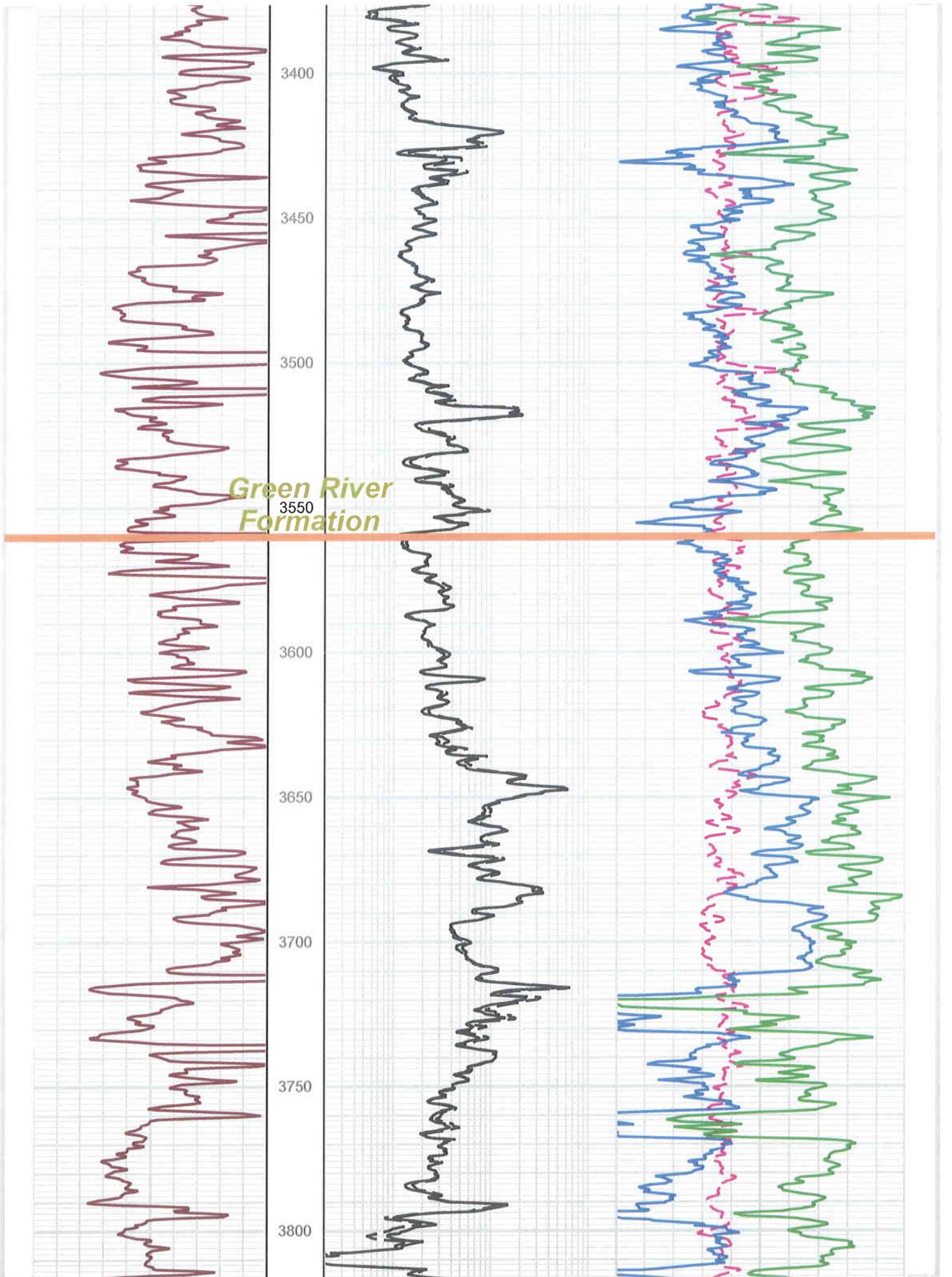
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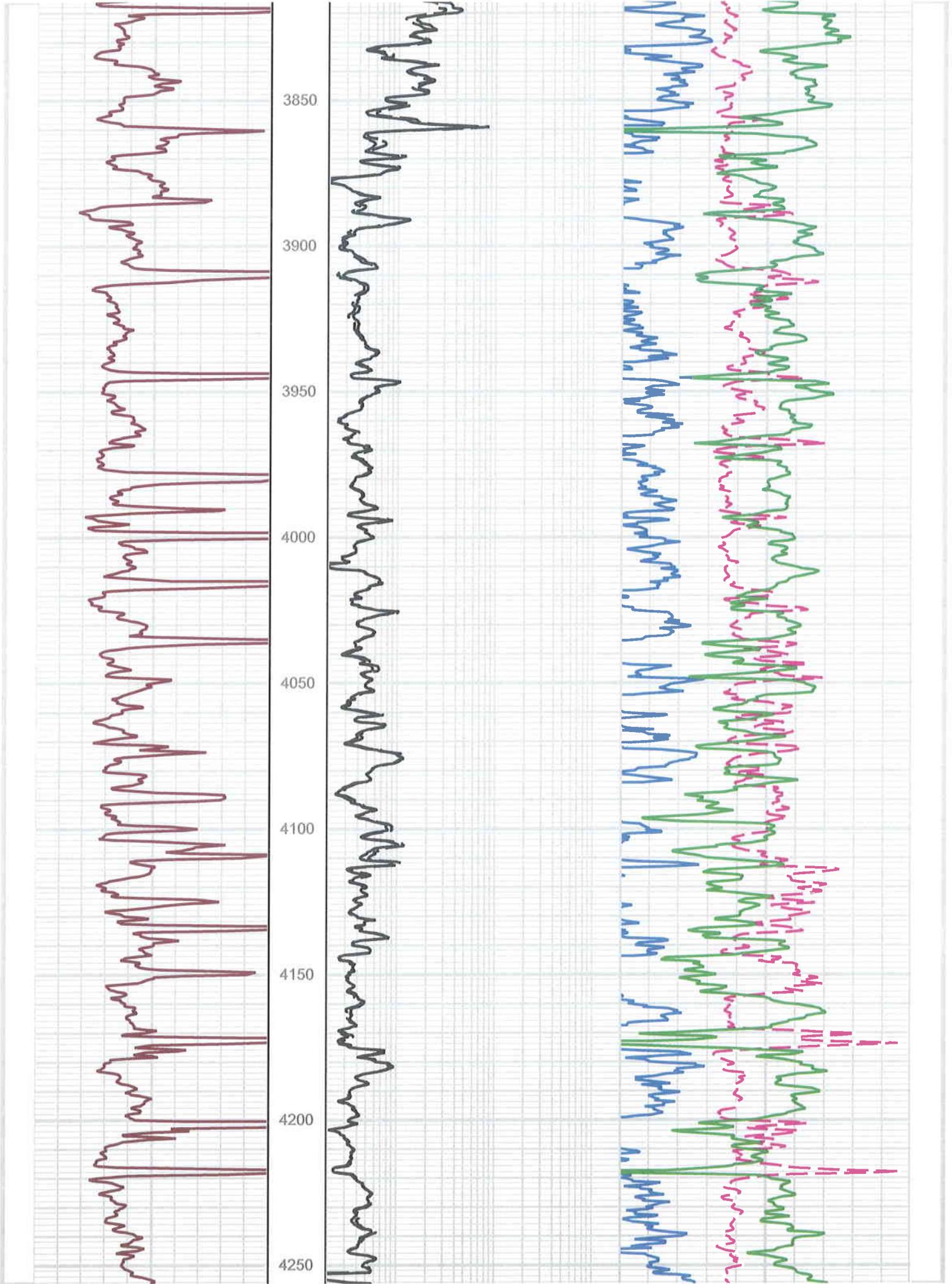
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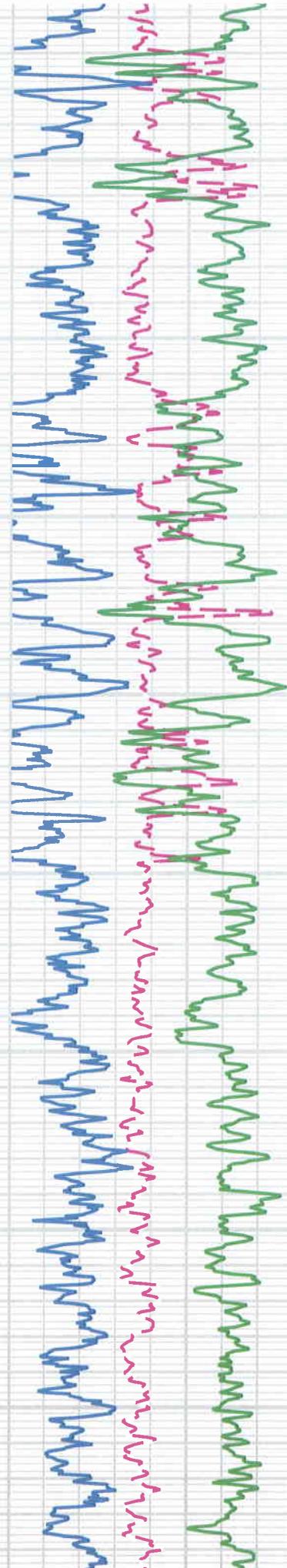
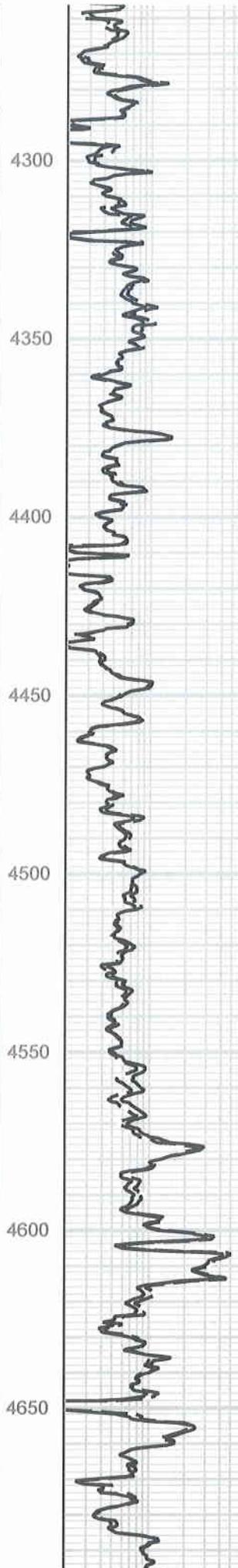
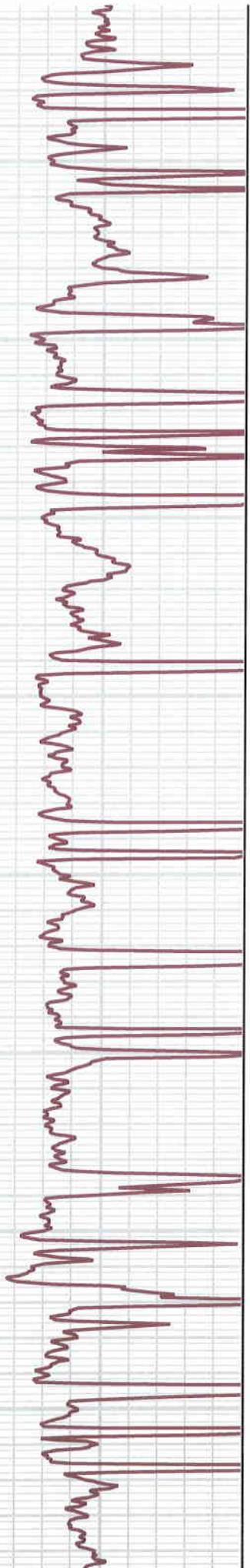
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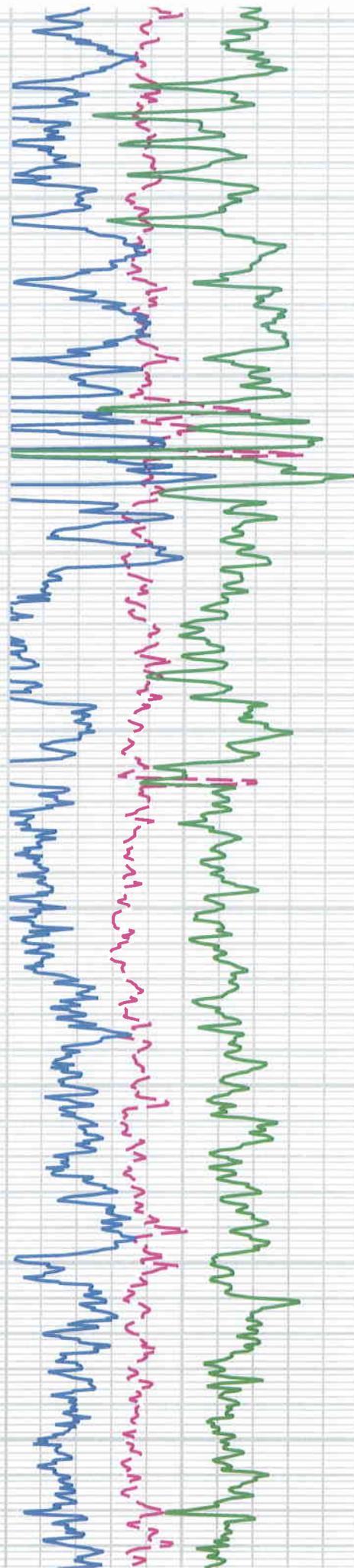
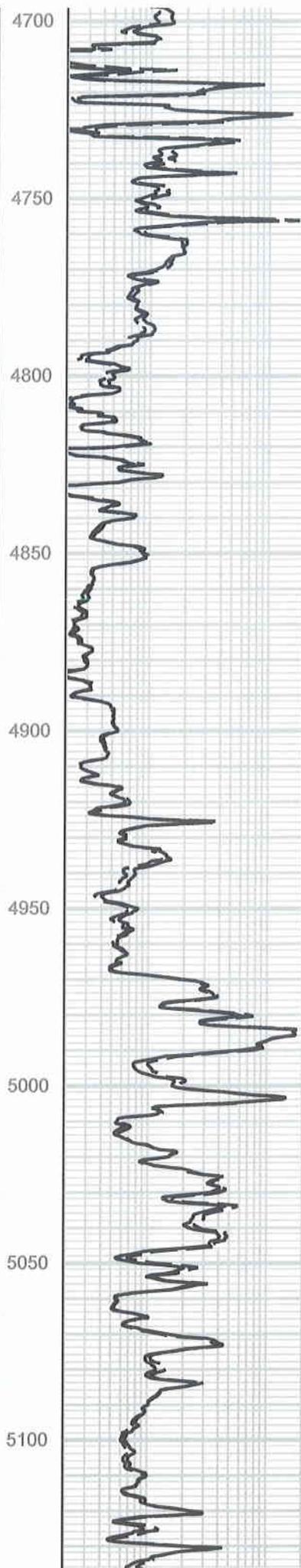


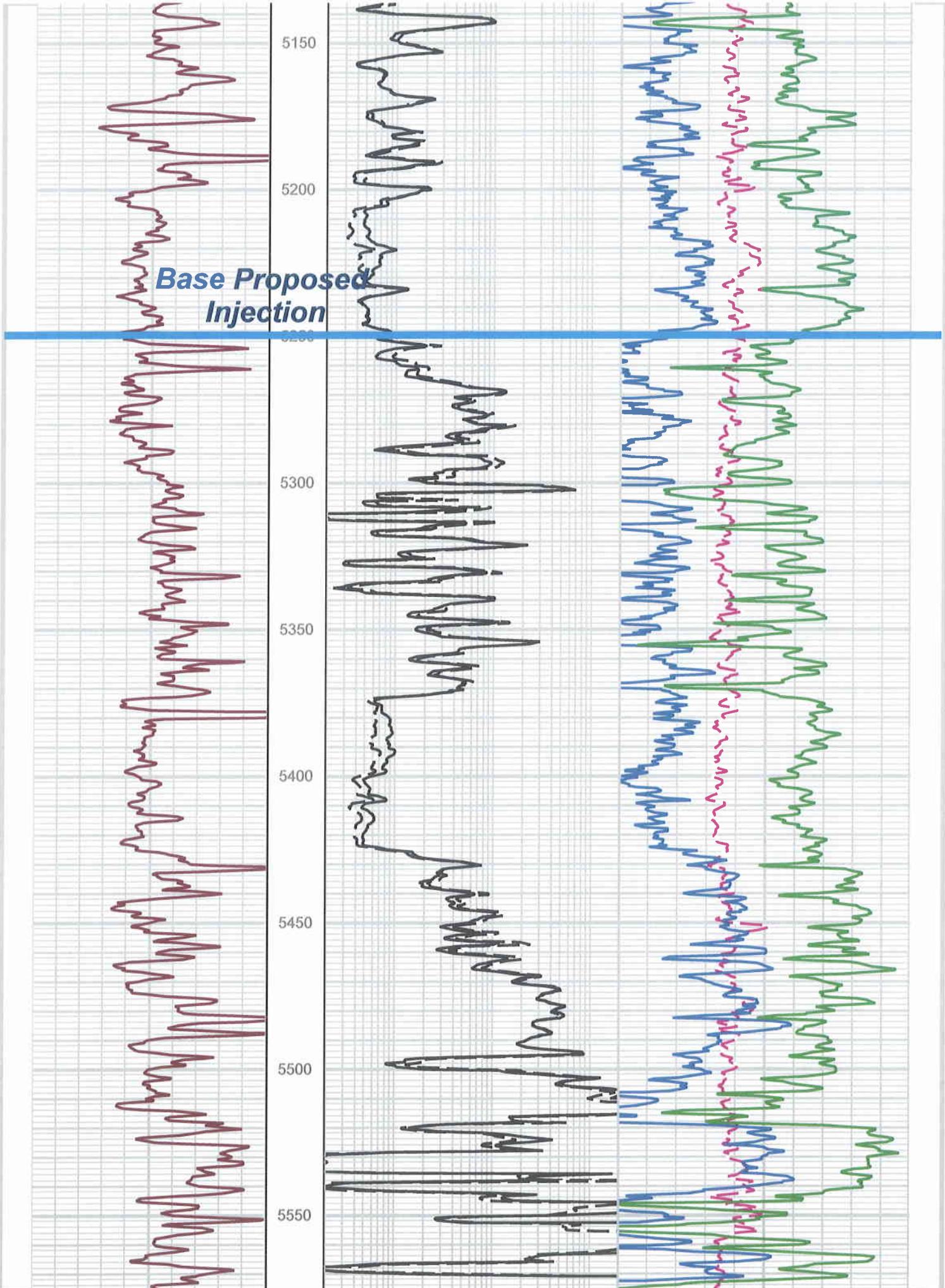


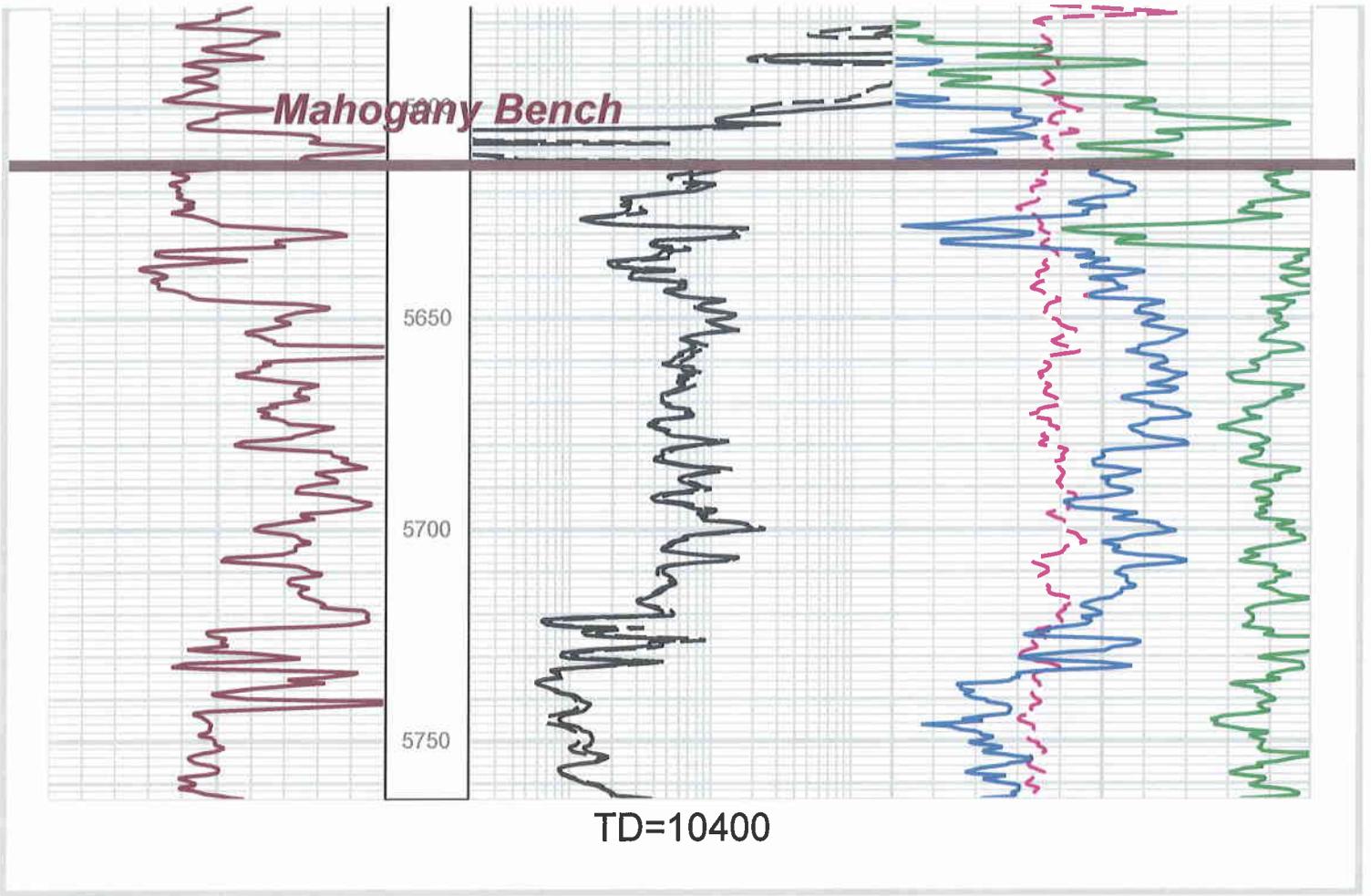












STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Water Disposal Well	8. WELL NAME and NUMBER: DILLMAN #3-17-3-2W SWD
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. API NUMBER: 43013509240000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630, Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0508 FNL 1799 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 17 Township: 03.0S Range: 02.0W Meridian: U	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: DUCHESNE
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

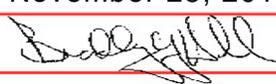
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/28/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Re-Acidize and Step Rate Te"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Newfield Production Company requests the approval to Re-Acidize existing perforations and perform a Step Rate Test on the above listed well.

Approved by the Utah Division of Oil, Gas and Mining

Date: November 25, 2013

By: 

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 10/28/2013	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Water Disposal Well	8. WELL NAME and NUMBER: DILLMAN #3-17-3-2W SWD	
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. API NUMBER: 4301350924000	
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0508 FNL 1799 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 17 Township: 03.0S Range: 02.0W Meridian: U	COUNTY: DUCHESNE	
	STATE: UTAH	

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

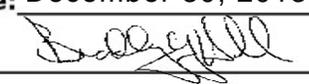
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 12/17/2013	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Acid treatment / MIT"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The above subject well had workover procedures performed (Acid treatment), attached is a daily status report. On 12/16/2013 Chris Jensen with the State of Utah was contacted concerning the MIT on the above listed well. On 12/17/2013 the csg was pressured up to 1386 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 220 psig during the test. There was not a State representative available to witness the test.

**Accepted by the
Utah Division of
Oil, Gas and Mining**

Date: December 30, 2013

By: 

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 12/18/2013	

Mechanical Integrity Test Casing or Annulus Pressure Test

Newfield Production Company

Rt. 3 Box 3630

Myton, UT 84052

435-646-3721

Witness: _____ Date 12/17/13 Time 3:40 am pm

Test Conducted by: Brendan Curry

Others Present: Mark Montoya

Well: <u>Dillman 3-17-3-2w</u>	Field: <u>Central Basin</u>
Well Location: <u>3-17-3-2w</u>	API No: <u>43-013-50924</u>

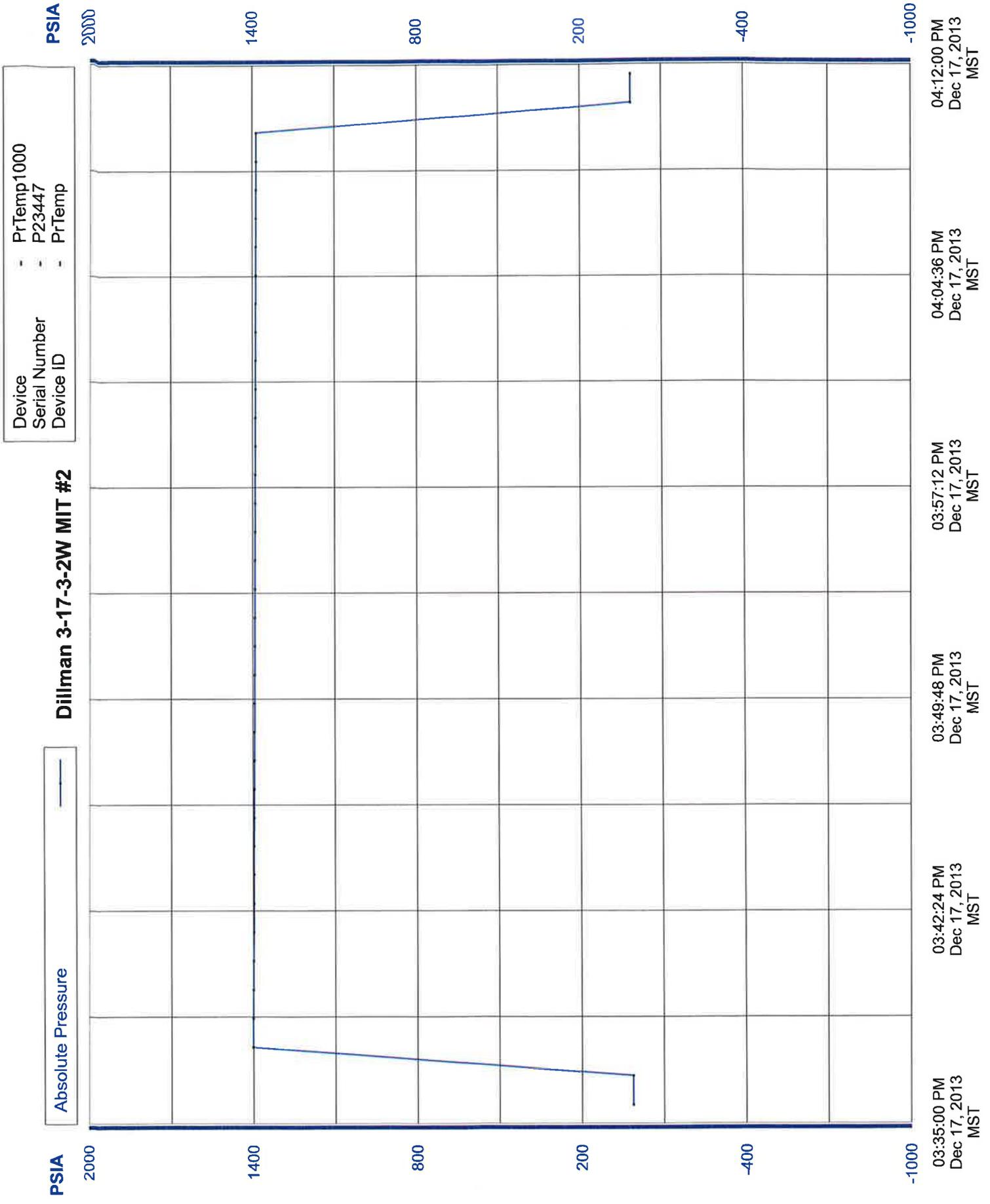
<u>Time</u>	<u>Casing Pressure</u>	
0 min	<u>1401</u>	psig
5	<u>1397</u>	psig
10	<u>1394</u>	psig
15	<u>1392</u>	psig
20	<u>1390</u>	psig
25	<u>1387</u>	psig
30 min	<u>1386</u>	psig
35	_____	psig
40	_____	psig
45	_____	psig
50	_____	psig
55	_____	psig
60 min	_____	psig

Tubing pressure: 220 psig

Result: Pass Fail

Signature of Witness: _____

Signature of Person Conducting Test: Brendan Curry





Summary Rig Activity

Well Name: Dillman 3-17-3-2W SWD

Job Category		Job Start Date	Job End Date
Daily Operations			
Report Start Date	Report End Date	24hr Activity Summary	
12/6/2013	12/6/2013	MIRUSU, Open well to tanks & bleed off, ND wellhead, J-Off short string from Hydro II PKR, NU BOPs, SWI	
Start Time	End Time	End Time	Comment
06:00	07:00	07:00	Crew Travel
Start Time	End Time	End Time	Comment
07:00	08:00	08:00	Load out & move from UT 16-4-4-4 to Dillman 3-17-3-2w
Start Time	End Time	End Time	Comment
08:00	11:00	11:00	RU Adler Hotoil truck & steam off wellhead, Check press on well, Long string 1200 psi, Bleed off well, Long string died & short string flowing approx. 10-gal per min, Wait on Benco to set to 2 dead men.
Start Time	End Time	End Time	Comment
11:00	12:00	12:00	RU rig & stretch guy wires.
Start Time	End Time	End Time	Comment
12:00	13:00	13:00	ND dual string wellhead.
Start Time	End Time	End Time	Comment
13:00	14:00	14:00	PU on short string & J-Off seal unit for Hydro II PKR, LD 6' tbg sub from string, Re-land hanger in wellhead, Install 2 way checks in both tbg hangers.
Start Time	End Time	End Time	Comment
14:00	16:00	16:00	NU single blinds & double pipe BOPs w/ 2 3/8" off set pipe rams, RU work floor. SWI
Start Time	End Time	End Time	Comment
16:00	17:00	17:00	Crew Travel
Report Start Date	Report End Date	24hr Activity Summary	
12/9/2013	12/9/2013	Test BOPs, TOOH w/ short & long strings, PU 7" PKR & start in hole w/ 3 1/2" tbg.	
Start Time	End Time	End Time	Comment
06:00	07:00	07:00	Crew Travel
Start Time	End Time	End Time	Comment
07:00	09:00	09:00	RU B&C & test hyd chambers, Test 2 3/8" double off-set pipes & single blinds & all components.
Start Time	End Time	End Time	Comment
09:00	11:00	11:00	SICP 460 psi, TOOH W/ 85 JTS 2 3/8" TBG (Short String), LD stinger, PU on long string & unset 7" PKRs, Change out double offset 2 3/8 rams to normal 2 3/8 center rams.
Start Time	End Time	End Time	Comment
11:00	12:00	12:00	RU B&C & test 2 3/8" double pipe rams.
Start Time	End Time	End Time	Comment
12:00	14:30	14:30	TOOH W/ 85 JTS 2 3/8 TBG (Long String), LD 7" HYD Set PKR, Continue out of hole LD 47 JTS 2 3/8" TBG on trailer, LD lower 7" PKR
Start Time	End Time	End Time	Comment
14:30	15:45	15:45	Change pipe rams from 2 3/8" to 3 1/2", RU B&C & test 3 1/2" rams.
Start Time	End Time	End Time	Comment
15:45	17:30	17:30	PU 7" ASIX PKR, Tally & PU 29-JTS 3 1/2 P-110 TBG, EOT 915', Wrap well head, SWI @ 5:30
Start Time	End Time	End Time	Comment
17:30	18:30	18:30	Crew Travel
Report Start Date	Report End Date	24hr Activity Summary	
12/10/2013	12/11/2013	Continue PU 3 1/2" tbg, Set PKR @ 2693', RU Nabors & pump 8000 gal 15% HCL, Flowback well.	
Start Time	End Time	End Time	Comment
00:00	06:00	06:00	SDFN
Start Time	End Time	End Time	Comment
06:00	07:00	07:00	Crew Travel
Start Time	End Time	End Time	Comment
07:00	10:00	10:00	SICP 420 psi, Continue PU 3 1/2" tbg, PU ttl of 86-jts tbg, PU 8' tbg sub & set PKR @ 2693' C.E.,



Well Name: Dillman 3-17-3-2W SWD

Summary Rig Activity

Start Time	10:00	End Time	11:00	Comment
Start Time	11:00	End Time	12:00	Wait on Nabors acid pump to show up on location.
Start Time	12:00	End Time	15:30	RU Nabors acid pump & lines.
Start Time	15:30	End Time	17:00	Pressure test lines to 2000 psi. Good. Start job, initial rate 1 bpm at 800 psi. Pumped 15 bbl pad then started acid. Pumps wouldn't pull acid and fresh at the same time. Tried pumping slugs of each to get 15% acid ratio but ended up pumping 28% acid. Ending rate 4 bpm at 800 psi. Pumped 35 bbl flush at 1.6 bpm 800 psi. 5-800 psi, 10-785psi, 15-780 psi. Pump til of 4,000 gal 28% HCL
Start Time	17:00	End Time	18:00	Flushed with 80 bbl to get acid to bottom perf to shut down for night. Flush away @ 845 psi @ 1.5 bpm, SWI, Tarp wellhead & put heater on it.
Start Time	18:00	End Time	00:00	Crew Travel
Start Time	18:00	End Time	00:00	SDFN
Report Start Date	12/11/2013	Report End Date	12/12/2013	24hr Activity Summary
Start Time	00:00	End Time	06:00	RU Nabors pumping equip. Attempt to pump SRT & all data was inconclusive. Csg communicated @ end of SRT
Start Time	06:00	End Time	07:00	SDFN
Start Time	07:00	End Time	10:00	Crew Travel
Start Time	10:00	End Time	11:30	RU Nabors press pumping equipment.
Start Time	11:30	End Time	13:00	Went to prime up pump trucks & lines froze up when fluid hit iron.
Start Time	13:00	End Time	15:00	Press test lines to 5,500 psi. Open well w/ 592 psi. Monitor press for 30-min to record stable press, Start SRT test @ 1.2 bpm & press climbed to 840 psi which was 15 psi over MAIP causing failure of the SRT because it is not allowed on the first step. (Job was designed to use cement truck for lower rates but equipment was not delivered to location and frac pump could not achieve rates below 1.2 bpm.)
Start Time	15:00	End Time	17:15	Due to failure of initial SRT attempted to tie in rig pump to achieve lower pump rates. Rig pump caused pressure surges causing test to be invalid.
Start Time	17:15	End Time	17:45	Wait on cement pump truck to pump lower rates on SRT
Start Time	17:45	End Time	20:00	RU cement pump truck
Start Time	20:00	End Time	00:00	Re-start SRT, Open well w/ 445 psi & monitor for 30-min to record stable pressure. Used cement pump to bring rate up to 0.6 bpm and held for 30 min. Step 1 initial pressure of 445 psi and final pressure of 643 psi. Increased rate to 1.1 bpm for Step 2 for a final pressure of 753 psi. Switched over to frac pump to bring rate up to 2.2 bpm for 30 min with an ending pressure for Step 3 of 834 psi. Increased rate to 4.4 bpm for Step 4. Pressures and rates for SRT were inconclusive with further investigation necessary. Csg started communicating @ end of SRT.
Start Time	00:00	End Time	06:00	SDFN
Report Start Date	12/11/2013	Report End Date	12/13/2013	24hr Activity Summary
Start Time	00:00	End Time	06:00	RU rig pump & pump down tbg to see if it would communicate. No communication, Test seg & no leak off.



Summary Rig Activity

Well Name: Dillman 3-17-3-2W SWD

Start Time	06:00	End Time	07:00	Comment
				Crew Travel
Start Time	07:00	End Time	10:00	Comment
				SITP 500 psi, CICO 0 psi, RU rig pump to tbg (Pump froze up), Pump down tbg @ 4 bpm @ 900 psi for 30-min (120 bbbls). Could not get csg to communicate.
Start Time	10:00	End Time	11:30	Comment
				Bleed off tbg to tank, RU pump to cgs & press test to 300 psi, Loas 0 psi in first 20-min & gained 100 psi in final 10-min, Bleed off csg.
Start Time	11:30	End Time	12:30	Comment
				Wlat to see if we could get pump trucks for SRT, Not till AM, SWI,
Start Time	12:30	End Time	13:30	Comment
				Crew travel
Start Time	13:30	End Time	00:00	Comment
				SDFN
Report Start Date	12/13/2013	Report End Date	12/14/2013	24hr Activity Summary
Start Time	00:00	End Time	06:00	Comment
				SDFN
Start Time	06:00	End Time	07:00	Comment
				CrewTravel
Start Time	07:00	End Time	09:00	Comment
				Wait on frac pumps, Truck dying due to cold weather.
Start Time	09:00	End Time	11:00	Comment
				RU HES pumping equipment & press test line to 6000 psi, Went to start job & charge pump motor died.
Start Time	11:00	End Time	16:00	Comment
				Try to get charge pump motor running, No success, Wait on new chare pump from vernal.
Start Time	16:00	End Time	20:00	Comment
				RU new charge pump, Start SRT, Open well w/ 496 psi & monitor for 30-min, Start 1st step @ .6 bpm, w/ ending press @ 706 psi, 2nd step @ 1.1 bpm w/ endind press 2 771 psi, 3rd step @ 2.2 bpm w/ ending press @ 864 psi, 4th step @ 4.4 bpm w/ ending press @ 980 psi, 5th step @ 6.7 bpm w/ ending press @ 1148 psi, 6th step @ 8.8 bpm w/ ending press @ 1356 psi, Kick out pumps, ISIP 888 psi, Monitor & record press for 30-min, (5-min 863 psi, 10-min 857 psi, 15-min 853 psi), SWI, (Press on csg climbed to 1400 psi during job due to temp. affect, Bleed down csg & continue to monitor & press stopped climbing, No communication)
Start Time	20:00	End Time	21:00	Comment
				RD HES pumping equipment
Start Time	21:00	End Time	22:00	Comment
				Crew Travel
Start Time	22:00	End Time	00:00	Comment
				SDFN
Report Start Date	12/14/2013	Report End Date	12/15/2013	24hr Activity Summary
Start Time	00:00	End Time	06:00	Comment
				Bleed off well, Release PKR & LD 3 1/2" tbg.
Start Time	06:00	End Time	07:00	Comment
				SDFN
Start Time	07:00	End Time	09:30	Comment
				Crew Travel
Start Time	09:30	End Time	11:00	Comment
				RU B&C Quick test & test csg to 800 psi for 1hr, Lost 40 psi during test, Open tbg w/ 600 psi & flowback 80 bbbls to tank, Release PKR & let equalize.
				LD 86-jts 3 1/2" tbg on pipe racks.



Well Name: Dillman 3-17-3-2W SWD

Summary Rig Activity

Start Time	11:00	End Time	13:00	Comment
Start Time	13:00	End Time	14:00	Change out 3 1/2" pipe rams to 2 3/8" pipe rams, RU B&C & test double pipe rams, RD B&C, SWI
Start Time	14:00	End Time	00:00	Crew Travel
Report Start Date	12/16/2013	Report End Date	12/17/2013	24hr Activity Summary
Start Time	00:00	End Time	06:00	TIH w/ main injection string & set Hydro II PKR & test tbg, good, TIH w/ side string & space out,
Start Time	06:00	End Time	07:00	SDFN
Start Time	07:00	End Time	10:30	Crew Travel
Start Time	10:30	End Time	12:00	Wait on decision from Denver
Start Time	12:00	End Time	14:15	Comment
Start Time	14:15	End Time	14:45	MU & TIH w/ dual injection string (Main string) as follows: 2 3/8" ball drop pump off sub, 1.81 "R" nipple (Nickel coated), 2 3/8" x 4' tbg sub (Nickel coated), 7" Hydro II dual string PKR (Nickel coated), 1-jt 2 3/8" tbg (Plastic lined), 1.81 "F" nipple (Nickel coated), 85-jts 2 3/8" tbg (Plastic lined), Land tbg on split hanger on west side of wellhead, (Note! tbg has 2.910 special clearance collars)
Start Time	14:45	End Time	15:30	Comment
Start Time	15:30	End Time	16:00	Drop ball to set Hydro II PKR, Wait for 10-min for ball to land on sub, RU B&C & press up on tbg, PKR set @ 1300 psi, Bring press up to 2500 psi to pack off PKR & test tbg for 30-min, Good test, Continue to bring up press & pump out pump off sub & 4300 psi. Change over to 2 3/8" off set rams. Press test pipe rams.
Start Time	16:00	End Time	18:00	Comment
Start Time	18:00	End Time	19:00	MU & TIH w/ side string (J-Latch side) as follows: 2 3/8" J-Latch seal unit w/ 2.688 seals (RH Release), 1-jt 2 3/8" tbg (Plastic lined), 1.81 "F" nipple (Nickel coated), 85-jts 2 3/8" tbg (Plastic lined), (Note! tbg has 2.910 special clearance collars)
Start Time	19:00	End Time	00:00	Comment
Report Start Date	12/17/2013	Report End Date	12/18/2013	24hr Activity Summary
Start Time	00:00	End Time	06:00	RU rig pump & pump 80 bbls fresh water mixed w/ PKR fluid.
Start Time	06:00	End Time	07:00	Crew Travel
Start Time	07:00	End Time	08:30	Space out well to land side string, Spacing came out on odd number & could not land tbg due to shallow depth had to locate shorter jt @ pipe yard.
Start Time	08:30	End Time	10:30	Comment
Start Time	10:30	End Time	11:30	Wait on jt of tbg from pipe yard, Lost day light, SWI, Wrap wellhead & put heater on it.
Report Start Date	12/17/2013	Report End Date	12/18/2013	24hr Activity Summary
Start Time	00:00	End Time	06:00	Space out & land side string, ND BOPs, NU wellhead, Perform MIT, RDMO
Start Time	06:00	End Time	07:00	SDFN
Start Time	07:00	End Time	08:30	Crew Travel
Start Time	08:30	End Time	10:30	Comment
Start Time	10:30	End Time	11:30	SICP 420 psi, Open well to tank & bleed off, Space out well & land on split hanger w/ 2k compression.
Start Time	11:30	End Time		RU B&C & test tbg to 2500 psi for 30-min, Good test, Bring press up to 4300 psi & pump out test plug, RD work floor & tbg equip, ND BOPs, NU well head
Start Time	10:30	End Time		RU B&C, Pressure up csg to 865 psi, Monitor for 30-min, Lost 21 psi, Bleed off pressure.



Summary Rig Activity

Well Name: Dillman 3-17-3-2W SWD

Start Time	End Time	Comment
11:30	13:00	Rig down rig & load out equipment, RDMO
13:00	14:00	On 12/16/13 Chris Jensen with the UDOGm was contacted concerning the MIT on the above listed well. On 12/17/13 the casing was pressured up to 1386 psig and charred for 30 minutes with no pressure loss. The well was not injecting. The tbg pressure was 220 psig during the test. There was not a State rep available to witness the test.

Well Name: Dillman 3-17-3-2W SWD

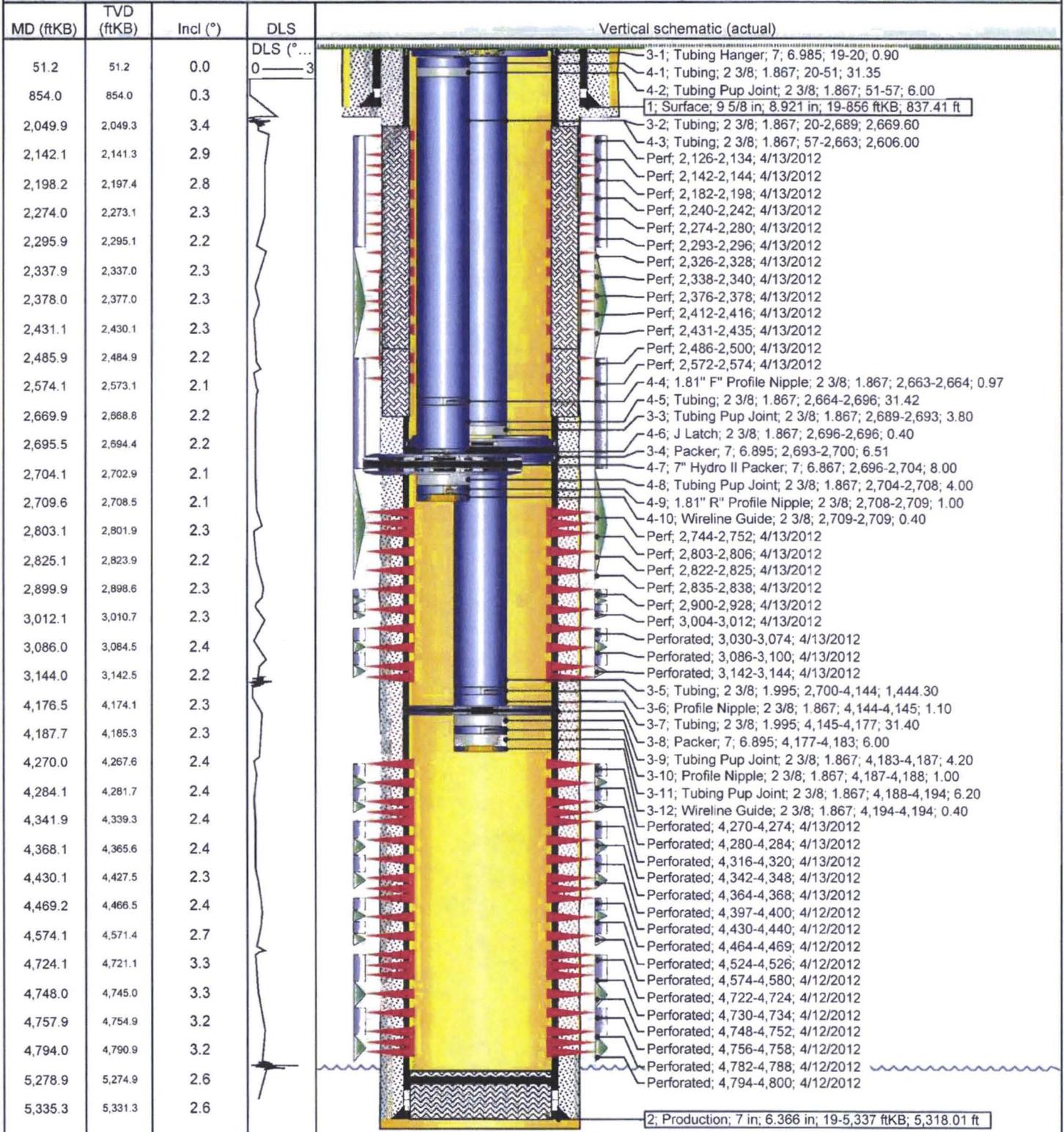
Surface Legal Location 17-3S-2W		API/UWI 43013509240000	Well RC 500298991	Lease	State/Province Utah	Field Name GRMS -GR WATER DISP	County DUCHESNE
Spud Date 3/17/2012	Rig Release Date 3/29/2012	On Production Date	Original KB Elevation (ft) 5,202	Ground Elevation (ft) 5,183	Total Depth All (TVD) (ftKB)	PBDT (All) (ftKB) Original Hole - 5,279.0	

Most Recent Job

Job Category Recompletion	Primary Job Type Acid Treatment	Secondary Job Type N/A	Job Start Date 12/7/2013	Job End Date 12/17/2013
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TD: 5,350.0

Vertical - Original Hole, 11/30/2015 2:16:02 PM





Newfield Wellbore Diagram Data Dillman 3-17-3-2W SWD

Surface Legal Location 17-3S-2W		API/UWI 43013509240000		Lease	
County DUCHESNE		State/Province Utah		Basin Uintah Basin	
Well Start Date 3/19/2012		Spud Date 3/17/2012		Final Rig Release Date 3/29/2012	
Original KB Elevation (ft) 5,202		Ground Elevation (ft) 5,183		Total Depth (ftKB) 5,350.0	
				Total Depth All (TVD) (ftKB) Original Hole - 5,279.0	

Casing Strings

Csg Des	Run Date	OD (in)	ID (in)	Wt/Len (lb/ft)	Grade	Set Depth (ftKB)
Surface	3/17/2012	9 5/8	8.921	36.00	J-55	856
Production	3/29/2012	7	6.366	23.00	L-80	5,337

Cement

String: Surface, 856ftKB 3/12/2012

Cementing Company	Top Depth (ftKB) 19.0	Bottom Depth (ftKB) 856.4	Full Return?	Vol Cement Ret (bbl)
Fluid Description 2%kcl+ .25#CF	Fluid Type Lead	Amount (sacks) 350	Class G	Estimated Top (ftKB)

String: Production, 5,337ftKB 3/29/2012

Cementing Company	Top Depth (ftKB) 19.0	Bottom Depth (ftKB) 5,337.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description	Fluid Type Lead	Amount (sacks) 1,067	Class 50/50	Estimated Top (ftKB)

String: <String?> 9/18/2012

Cementing Company	Top Depth (ftKB) 2,050.0	Bottom Depth (ftKB) 2,574.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description	Fluid Type Squeeze	Amount (sacks) 355	Class Elastisel	Estimated Top (ftKB)
Fluid Description	Fluid Type	Amount (sacks) 35	Class Elastisel	Estimated Top (ftKB)

String: <String?> 9/27/2012

Cementing Company	Top Depth (ftKB) 2,470.0	Bottom Depth (ftKB) 2,670.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description	Fluid Type Squeeze	Amount (sacks) 100	Class G	Estimated Top (ftKB)

Tubing Strings

Tubing Description Tubing - Production	Run Date 12/17/2013	Set Depth (ftKB) 4,194.4
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Item Des	Jts	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btn (ftKB)
Tubing Hanger	1	7	6.985			0.90	19.0	19.9
Tubing	85	2 3/8	1.867	4.70	N-80	2,669.60	19.9	2,689.5
Tubing Pup Joint	1	2 3/8	1.867	4.70	N-80	3.80	2,689.5	2,693.3
Packer	1	7	6.895	23.00		6.51	2,693.3	2,699.8
Tubing	46	2 3/8	1.995	4.70	N-80	1,444.30	2,699.8	4,144.1
Profile Nipple	1	2 3/8	1.867			1.10	4,144.1	4,145.2
Tubing	1	2 3/8	1.995	4.70	N-80	31.40	4,145.2	4,176.6
Packer	1	7	6.895	23.00		6.00	4,176.6	4,182.6
Tubing Pup Joint	1	2 3/8	1.867	4.70	N-80	4.20	4,182.6	4,186.8
Profile Nipple	1	2 3/8	1.867			1.00	4,186.8	4,187.8
Tubing Pup Joint	1	2 3/8	1.867			6.20	4,187.8	4,194.0
Wireline Guide	1	2 3/8	1.867			0.40	4,194.0	4,194.4

Tubing Description Tubing - Secondary Production	Run Date 12/17/2013	Set Depth (ftKB) 2,709.5
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Item Des	Jts	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btn (ftKB)
Tubing	1	2 3/8	1.867	4.70	N-80	31.35	20.0	51.3
Tubing Pup Joint	1	2 3/8	1.867	4.70	N-80	6.00	51.3	57.3
Tubing	83	2 3/8	1.867	4.70	N-80	2,606.00	57.3	2,663.3
1.81" F" Profile Nipple	1	2 3/8	1.867			0.97	2,663.3	2,664.3
Tubing	1	2 3/8	1.867	4.70	N-80	31.42	2,664.3	2,695.7
J Latch	1	2 3/8	1.867			0.40	2,695.7	2,696.1
7" Hydro II Packer	1	7	6.867			8.00	2,696.1	2,704.1
Tubing Pup Joint	1	2 3/8	1.867	4.70	N-80	4.00	2,704.1	2,708.1
1.81" R" Profile Nipple	1	2 3/8			N-80	1.00	2,708.1	2,709.1
Wireline Guide	1	2 3/8			N-80	0.40	2,709.1	2,709.5

Rod Strings

Rod Description	Run Date	Set Depth (ftKB)
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Newfield Wellbore Diagram Data Dillman 3-17-3-2W SWD

Item Des	Jts	OD (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Blm (ftKB)
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Perforation Intervals

Stage#	Zone	Top (ftKB)	Blm (ftKB)	Shot Dens (shots/ft)	Phasing (°)	Nom Hole Dia (in)	Date
11	Uintah, Original Hole	2,126	2,134	3	120		4/13/2012
11	Uintah, Original Hole	2,142	2,144	3	120		4/13/2012
10	Uintah, Original Hole	2,182	2,198	3	120		4/13/2012
10	Uintah, Original Hole	2,240	2,242	3	120		4/13/2012
10	Uintah, Original Hole	2,274	2,280	3	120		4/13/2012
10	Uintah, Original Hole	2,293	2,296	3	120		4/13/2012
9	Uintah, Original Hole	2,326	2,328	3	120		4/13/2012
9	Uintah, Original Hole	2,338	2,340	3	120		4/13/2012
9	Uintah, Original Hole	2,376	2,378	3	120		4/13/2012
9	Uintah, Original Hole	2,412	2,416	3	120		4/18/2012
9	Uintah, Original Hole	2,431	2,435	3	120		4/13/2012
8	Uintah, Original Hole	2,486	2,500	3	120		4/13/2012
8	Uintah, Original Hole	2,572	2,574	3	120		4/13/2012
7	Uintah, Original Hole	2,744	2,752	3	120		4/13/2012
7	Uintah, Original Hole	2,803	2,806	3	120		4/13/2012
7	Uintah, Original Hole	2,822	2,825	3	120		4/13/2012
7	Uintah, Original Hole	2,835	2,838	3	120		4/13/2012
6	Uintah, Original Hole	2,900	2,928	3	120		4/13/2012
6	Uintah, Original Hole	3,004	3,012	3	120		4/13/2012
5	Uintah, Original Hole	3,030	3,074	3	120		4/13/2012
5	Uintah, Original Hole	3,086	3,100	3	120		4/13/2012
5	Uintah, Original Hole	3,142	3,144	3	120		4/13/2012
4	Green River, Original Hole	4,270	4,274	3	120		4/13/2012
4	Green River, Original Hole	4,280	4,284	3	120		4/13/2012
4	Green River, Original Hole	4,316	4,320	3	120		4/13/2012
3	Green River, Original Hole	4,342	4,348	3	120		4/13/2012
3	Green River, Original Hole	4,364	4,368	3	120		4/13/2012
3	Green River, Original Hole	4,397	4,400	3	120		4/12/2012
3	Green River, Original Hole	4,430	4,440	3	120		4/12/2012
2	Green River, Original Hole	4,464	4,469	3	120		4/12/2012
2	Green River, Original Hole	4,524	4,526	3	120		4/12/2012
2	Green River, Original Hole	4,574	4,580	3	120		4/12/2012
1	Green River, Original Hole	4,722	4,724	3	120		4/12/2012
1	Green River, Original Hole	4,730	4,734	3	120		4/12/2012
1	Green River, Original Hole	4,748	4,752	3	120		4/12/2012
1	Green River, Original Hole	4,756	4,758	3	120		4/12/2012
1	Green River, Original Hole	4,782	4,788	3	120		4/12/2012
1	Green River, Original Hole	4,794	4,800	3	120		4/12/2012

Stimulations & Treatments

Stage#	ISIP (psi)	Frac Gradient (psi/ft)	Max Rate (bbl/min)	Max PSI (psi)	Total Clean Vol (bbl)	Total Slurry Vol (bbl)	Vol Recov (bbl)
1			7.0	3,339			
2			8.0	2,825			
3			4.0	2,000			
4			7.0	1,350			
5			6.0	1,289			
6			7.0	1,215			
7		458.0	5.0	1,561			

Proppant

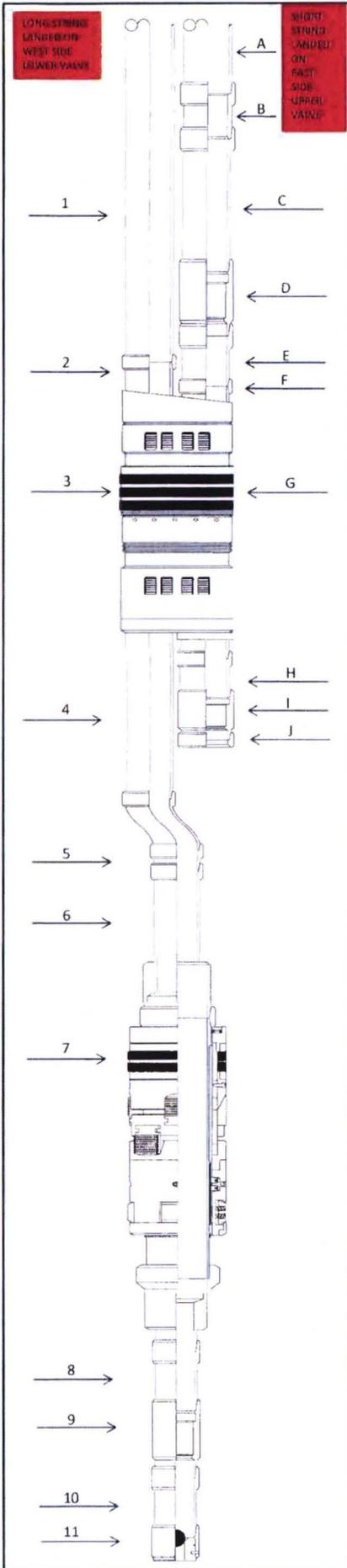
Stage#	Total Prop Vol Pumped (lb)	Total Add Amount
1		
2		
3		
4		
5		
6		



Proppant

Stage#	Total Prop Vol Pumped (lb)	Total Add Amount
7		

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CUSTOMER: NEWFIELD
WELL NAME: DILLMAN 3-17-3-2
FIELD: CENTRAL BASIN
COUNTY: DUCHESNE
STATE: UTAH
DATE: 10-3-12

TBG #1 2 3/8
TBG #2 2 3/8
CSG 7"

SIZE: 2 3/8 2 3/8 7"
WEIGHT: 4.70 4.70 23
GRADE: L-80 L-80
THREAD: 8 RD 8 RD LTC
DEPTH: 3747 2467 5152

ITEM	TOOL DESCRIPTION	LENGTH	OD	ID	DEPTH
	K.B.	16.00			
	SPLIT HANGER 2 3/8" EUE X 2 3/8" EUE	0.70			16.00
1	85-JTS 2 3/8" 4.7# L-80 TBG W/SLIM HOLE COLLARS (2.910 O.D.)	2669.55	2.375	1.980	16.70
2	2 3/8" LIFT SUB ON PKR W/ SLIM HOLE COLLAR (2.910" O.D.)	3.82	2.375	1.995	2686.25
3	7" HYDRO II PKR DUAL STRING PKR (25,500 K SHEAR RELEASE)	6.51	6.000	1.933	2690.07
4	46-JTS 2 3/8" 4.7# L-80 TBG W/SLIM HOLE COLLARS (2.910 O.D.)	1444.30	2.375	1.980	2696.58
5	2 3/8" 1.81 F PROFILE NIPPLE (NICKEL COATED)	0.97	3.062	1.810	4140.88
6	1-JTS 2 3/8" 4.7# L-80 TBG W/SLIM HOLE COLLARS (2.910 O.D.)	31.38	2.375	1.980	4141.85
7	7" WH-6 HYD SET PKR (30,000 K SHEAR RELEASE)	5.99	6.000	2.998	4173.23
8	2 3/8" N-80 PUP JT (NICKEL COATED)	4.22	2.375	1.995	4179.22
9	2 3/8" 1.81 R PROFILE NIPPLE (NICKEL COATED)	0.97	3.000	1.760	4183.44
10	2 3/8" N-80 PUP JT (NICKEL COATED)	6.22	2.375	1.995	4184.41
11	2 3/8" PUMP OUT SUB & WIRELINE RE-ENTRY GUIDE	0.42	3.062	1.995	4190.63
				FOI	4191.05

NOTES !!!!!!!
 7" HYDRO II DUAL STRING PKR @ 2692.7 C.F.
 7" WH-6 PKR @ 4174.88 C.F.
 ALL PACKERS, NIPPLES, SUBS ARE NICKEL COATED.
 ALL 2 3/8" TBG IS PLASTIC LINED INTERNALLY (1.980 I.D.)

SHORT STRING TBG. DETAIL

		LENGTH	O.D.	I.D.	DEPTH
	K.B.	16.00			
	SPLIT HANGER 2 3/8" EUE X 2 3/8" EUE	0.70			16.00
A	1-JTS 2 3/8" 4.7# L-80 TBG W/SLIM HOLE COLLARS (2.910 O.D.)	31.24	2.375	1.980	16.70
B	2 3/8" L-80 PUP JTS, PLASTIC LINED	6.00	2.375	1.980	47.94
C	83- JTS 2 3/8" 4.7# L-80 TBG W/SLIM HOLE COLLARS (2.910 O.D.)	2605.45	2.375	1.980	53.94
D	2 3/8" 1.81 F PROFILE NIPPLE (NICKEL COATED)	0.97	2.875	1.810	2659.39
E	1-JTS 2 3/8" 4.7# L-80 TBG W/SLIM HOLE COLLARS (2.910 O.D.)	31.42	2.375	1.980	2660.36
F	STINGER FOR HYDRO II PKR W/2.688 SEALS (R-H RELEASE) (1.48)	0.40	2.875	1.995	2691.78
G	7" HYDRO II DUAL STRING PKR W 2.688 J-LATCH SEAL BORE	7.57	6.000	1.922	2692.18
H	2 3/8" N-80 PUP JT (NICKEL COATED)	4.05	2.375	1.995	2669.75
I	2 3/8" 1.81 R PROFILE NIPPLE (NICKEL COATED)	0.97	3.000	1.760	2703.79
J	2 3/8" WIRELINE RE-ENTRY GUIDE	0.40	3.062	1.995	2704.76
				FOI	2705.16

LANDED W/ 2K COMPRESSION

PREPARED BY:
DUSTY TOMAINO WEATHERFORD COMPLETIONS (435) 828-7908

PREPARED FOR: BRUNO TOMAINO
OFFICE: DONNIE HATCH