

IPL-585

PTG-W

DATE IN <u>11.5.10</u>	SUSPENSE	ENGINEER <u>TW</u>	LOGGED IN <u>11.5.10</u>	TYPE <u>IPT</u>	APP NO. <u>1030928799</u>
------------------------	----------	--------------------	--------------------------	-----------------	---------------------------

ABOVE THIS LINE FOR DMSION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



Cheso peake
 147179
 3 wells

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

QQU-3,12914

20-025-26221

" " - 22841

" " - 25493

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication
 NSL NSP SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

[D] Other: Specify _____

2010 NOV -4 P 12:47

RECEIVED OOD

Lea

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

IPI 358

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Shannon Glancy		Production Engineer	11/02/2010
Print or Type Name	Signature	Title	Date
		shannon.glancy@chk.com	
		e-mail Address	



11/1/2010

Terry Warnell (NMOCD)
1220 South St. Francis Drive
Santa Fe, NM 87505
(505) 476-3466

RE: Quail Queen Unit Injector Pressure Increases

Mr. Terry Warnell,

Chesapeake Energy respectfully requests to increase the injection pressure on three wells in the Quail Queen Unit (QQU) waterflood. Step rate tests have been performed, and the results are summarized in the table below. More detailed information in regards to the tests and wellbores is enclosed.

Well	API	Current Limit	Fracture Pressure	Requested Inj. Pressure Limit	SRT Date
QQU #3	3002526221	1333 psi	1854 psi	1804 psi	10/22/10
QQU #12	3002522841	1162 psi	2148 psi	2098 psi	10/28/10
QQU #14	3002525493	1210 psi	2002 psi	1952 psi	10/27/10

Note: All pressures are surface pressures

Feel free to contact me if you have any questions or need any other information. Thank you for your time, I appreciate it.

Regards,

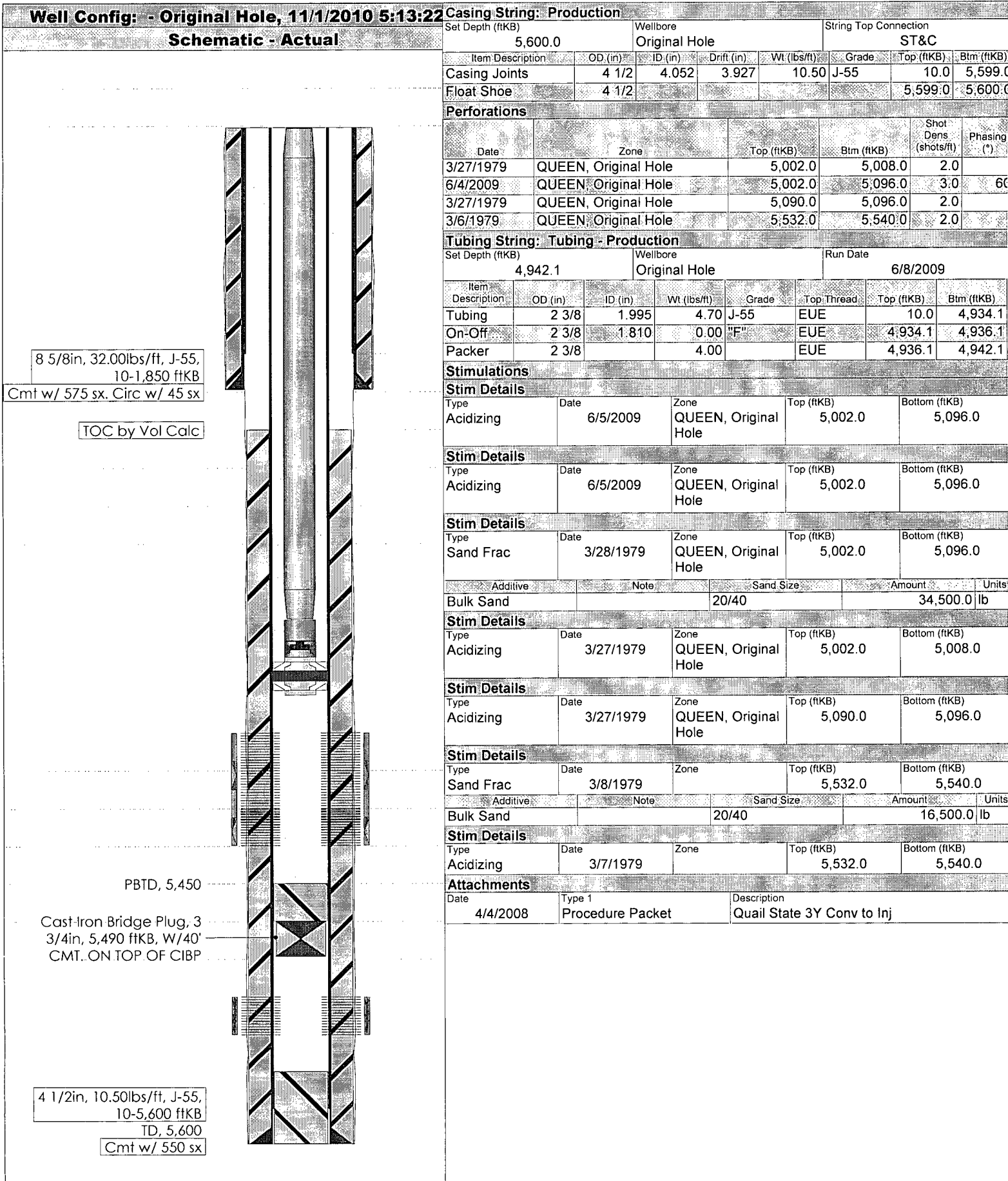
Mr. Shannon Glancy
Production Engineer (Permian)
Chesapeake Energy Corporation
Office: (405) 935-8109
Cell: (405) 415-5299
Fax: (405) 849-8109

CURRENT WELLBORE SCHEMATIC



WELL: QUAIL QUEEN UNIT 3
FIELD: QUAIL QUEEN
COUNTY: LEA STATE: NEW MEXICO
LOCATION: 1,841.0 FSL & 759.0 FEL SEC 11, BLK ,
ELEVATION: 3,960.0 GR -- 3,970.0 RKB
TD: 5,600.0 PBD: Original Hole - 5450.0

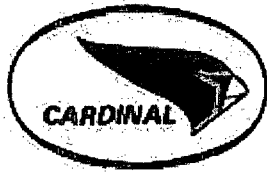
PROP #: 891045
API: 3002526221
SPUD DATE: 2/14/1979
RIG RELEASE:
FIRST SALES:
WELLBORE TYPE:



Well History

Date	Event
3/6/1979	PERF Grayburg @ 5532'-40' w/ 2 jspf, 16 holes.
3/7/1979	ACDZ w/ 1000 gal 15% NeFe.
3/8/1979	FRAC w/ 25,700 gal gld wtr & 16,500# 20/40 sd.
3/27/1979	PERF Penrose @ 5002'-08' w/ 2 jspf, 12 holes. PERF Penrose 5090'-96' w/ 2 jspf, 12 holes. ACDZ 5002'-5008' w/ 750 gal 15% NeFe. ACDZ 5090'-96' w/ 750 gal 15% NeFe. FRAC 5002'-96' w/ 30000 gal gld wtr & 34500# 20/40 sd.
5/6/1992	Packer depth unknown.
6/4/2009	CIBP @ 5490'. PERF Queen @ 5002-08, 5012-34, 42-50, 58-60, 70-80, & 5090-96 w/ 3 jspf, 162 holes. Dump 3 sx cmt on CIBP.
6/5/2009	ACDZ 5002-5096 w/ 5000 gal 15% NeFe.
6/29/2009	Well name change from Quail State 3Y.

Step Rate Test



Cardinal Surveys Company

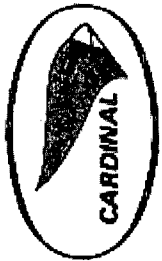
October 22, 2010

Chesapeake Energy
Well: Quail Queen # 3
Field:
Lea County, New Mexico
SC 59381a
File # 20031

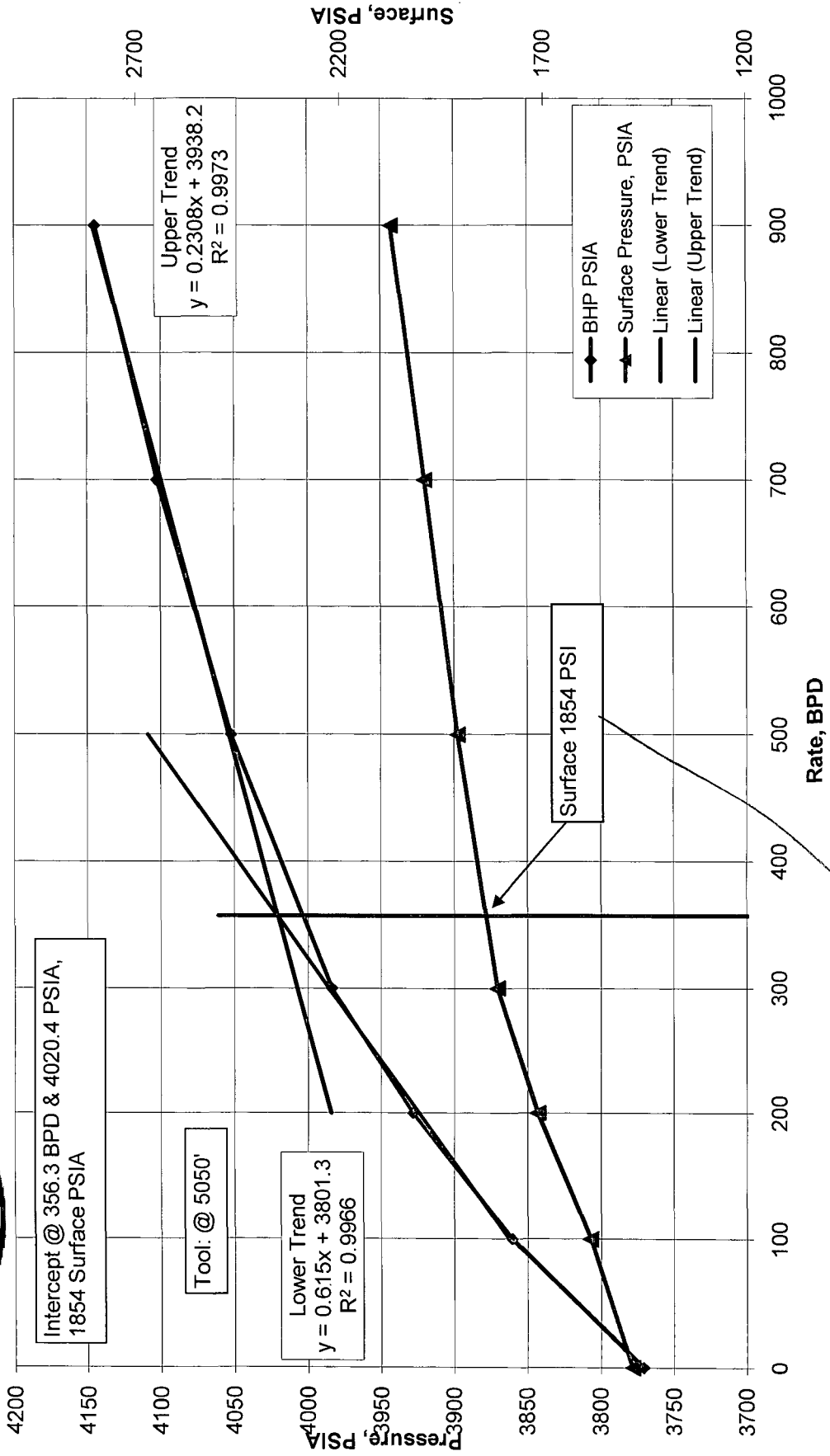
Intercept @ 356.3
BPD & 4020.4 PSIA,
1854 Surface PSIA

Downhole PSI Tool Ser. No.
Surface PSI Gauge Ser. No.
Tool @ 5050'

	Start Time	End Time	Rate BPD	Comments
1	7:54 AM	9:00 AM		0 On Bottom
2	9:00 AM	10:00 AM	100	
3	10:00 AM	11:00 AM	200	
4	11:00 AM	12:00 PM	300	
5	12:00 PM	1:00 PM	500	
6	1:00 PM	2:00 PM	700	
7	2:00 PM	3:00 PM	900	
8	3:00 PM	3:15 PM		0 Fall Off

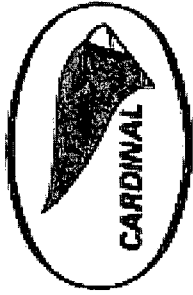


Chesapeake Energy Quail Queen # 3
Step Rate Test 10-22-2010



$\frac{-50}{1804} \approx 1800$

Step Rate Test

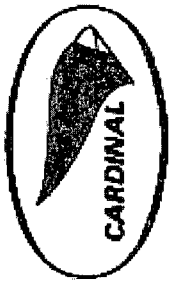


Chesapeake Energy
 Quail Queen # 3
 Field:
 Lea County, New Mexico

	S Time	E Time	D Time		Last Rate	Step 3. H. Pressure		Surf	Cum	Delta	Avg.	Lower	Upper
			Min	BPD		BPD	PSIA						
1	7:54 AM	9:00 AM	66	0	0	3771	1481.9	0	0.00	0			
2	9:00 AM	10:00 AM	60	100	100	3860.7	1585.3	4.2	4.20	101	3860.7		
3	10:00 AM	11:00 AM	60	200	100	3928.4	1714.8	12.4	8.20	197	3928.4		
4	11:00 AM	12:00 PM	60	300	100	3983.7	1814.2	25.2	12.80	307	3983.7		
5	12:00 PM	1:00 PM	60	500	200	4052.2	1911.6	45.7	20.50	370		4052.2	
6	10/22/2010	2:00 PM	-58280280	700	200	4102.5	1991.8	74.6	28.90	403		4102.5	
7	2:00 PM	3:00 PM	60	900	200	4144.5	2074.7	112.9	38.30	919		4144.5	
8	3:00 PM	3:15 PM	15	0	-900	4068.1	1915.1	112.9	0.00	0			

0.615 3801.3
 0.2308 3938.2

int point: 356.32483 BPD
 4020.4398 Psia



Chesapeake Energy Quail Queen # 3
Step Rate Test 10-22-2010



Time

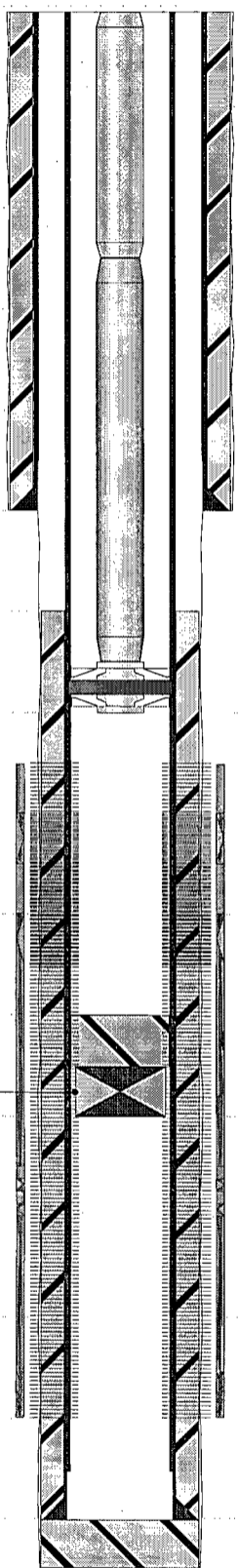
CURRENT WELLBORE SCHEMATIC



WELL: QUAIL QUEEN UNIT 12
FIELD: QUAIL QUEEN
COUNTY: LEA STATE: NEW MEXICO
LOCATION: 1,980.0 FNL & 1,980.0 FEL SEC 11, BLK ,
ELEVATION: 3,973.0 GR -- 3,983.0 RKB
TD: 5,300.0 PBD: Original Hole - 5297.0

PROP #: 891040
API: 3002522841
SPUD DATE: 11/22/1968
RIG RELEASE:
FIRST SALES:
WELLBORE TYPE:

Well Config: - Original Hole, 11/1/2010 5:13:22		Casing String: Production	
Schematic - Actual		Set Depth (ftKB) 5,297.0	Wellbore Original Hole
		String Top Connection LT&C	
Item Description	OD (in)	ID (in)	Drift (in)
Casing Joints	5 1/2	4.892	4.767
Float Shoe	5 1/2		
Wt (lbs/ft)	17.00		
Grade	J-55		
Top (ftKB)	10.0		
Btm (ftKB)	5,296.0		
Perforations			
Date	Zone	Top (ftKB)	Btm (ftKB)
5/26/2009	QUEEN, Original Hole	4,991.0	5,084.0
12/9/1968		4,992.5	5,234.5
Shot Dens (shots/ft)		3.0	2.0
Phasing (°)		60	
Tubing String: Tubing - Production			
Set Depth (ftKB)	4,925.0	Wellbore	Original Hole
		Run Date 5/29/2009	
Item Description	OD (in)	ID (in)	Wt (lbs/ft)
Tubing ...	2 3/8	1.995	4.70
Tubing	2 3/8	1.995	4.70
Packer	2 3/8		5.00
Grade	J-55		A-SET
Top Thread	EUE		EUE
Top (ftKB)	10.0		4,916.0
Btm (ftKB)	20.0		4,925.0
Stimulations			
Stim Details			
Type	Date	Zone	Top (ftKB)
Acidizing	5/26/2009	QUEEN, Original Hole	4,991.0
Bottom (ftKB)			5,084.0
Stim Details			
Type	Date	Zone	Top (ftKB)
Sand Frac	12/13/1968		4,992.5
Bottom (ftKB)			5,004.5
Additive	Note	Sand Size	Amount
		20/40	20,000.0 lb
Stim Details			
Type	Date	Zone	Top (ftKB)
Acidizing	12/13/1968		5,183.0
Bottom (ftKB)			5,185.0
Stim Details			
Type	Date	Zone	Top (ftKB)
Sand Frac	12/13/1968		5,054.0
Bottom (ftKB)			5,054.0
Additive	Note	Sand Size	Amount
		20/40	10,000.0 lb
Stim Details			
Type	Date	Zone	Top (ftKB)
Acidizing	12/13/1968		5,054.0
Bottom (ftKB)			5,054.0
Stim Details			
Type	Date	Zone	Top (ftKB)
Acidizing	12/13/1968		4,992.5
Bottom (ftKB)			5,004.5
Stim Details			
Type	Date	Zone	Top (ftKB)
Sand Frac	12/13/1968		5,183.0
Bottom (ftKB)			5,185.0
Additive	Note	Sand Size	Amount
		20/40	10,000.0 lb
Stim Details			
Type	Date	Zone	Top (ftKB)
Acidizing	12/12/1968		4,992.5
Bottom (ftKB)			5,234.5
Stim Details			
Type	Date	Zone	Top (ftKB)
Acidizing	12/12/1968		5,231.0
Bottom (ftKB)			5,234.5
Stim Details			
Type	Date	Zone	Top (ftKB)
Sand Frac	12/12/1968		4,992.5
Bottom (ftKB)			5,234.5
Additive	Note	Sand Size	Amount
		20/40	10,000.0 lb
Attachments			
Date	Type 1	Description	
4/4/2008	Procedure Packet	Pennzoil State 1 Conv to Inj	



8 5/8in, 24.00lbs/ft, J-55,
10-397 ftKB
Cmt w/ 150 sx

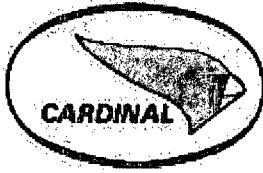
Cast Iron Bridge Plug, 4
1/2in, 5,170 ftKB, W/35'
CMT. ON TOP

Cmt w/ 250 sx
PBD, 5,297
5 1/2in, 17.00lbs/ft, J-55,
10-5,297 ftKB
TD, 5,300

Well History

Date	Event
12/9/1968	PERF @ 4992.5', 94', 5000', 02.5', 04.5' w/ 2 1/2 jspf & 54', 183', 185', 231', 234.5' w/ 2 jspf.
12/12/1968	ACDZ & FRAC 5231'-234.5' w/ 500 gal acid w/ 10,000 gal mod brine, 10,000# 20/40 sd. ACDZ & FRAC 5183'-5185' w/ 500 gal acid, 10,000 gal brine, & 10,000# 20/40 sd. ACDZ & FRAC 5054' w/ 500 gal acid, 10,000 gal mod birne & 10,000# 20/40 sd. ACDZ & FRAC 4992.5'-5004.5' w/ 500 gal acid, 20,000 gal mod brine & 20,000# 20/40 sd.
11/13/1995	No other tbg info except it is 2 3/8".
5/22/2009	CIBP @ 5170' w/ 4 sx cmt.
5/26/2009	PERF Queen @ 4991-5006, 5014-28, 5046-58, 5076-84 w/ 3 jspf, 159 holes. ACDZ 4991-5084 w/ 5000 gal 15% NeFe.

Step Rate Test



Cardinal Surveys Company

October 28, 2010

Chesapeake Energy
Well: Quail Queen # 12
Field:
Lea County, New Mexico
SC 59384
File # 20039

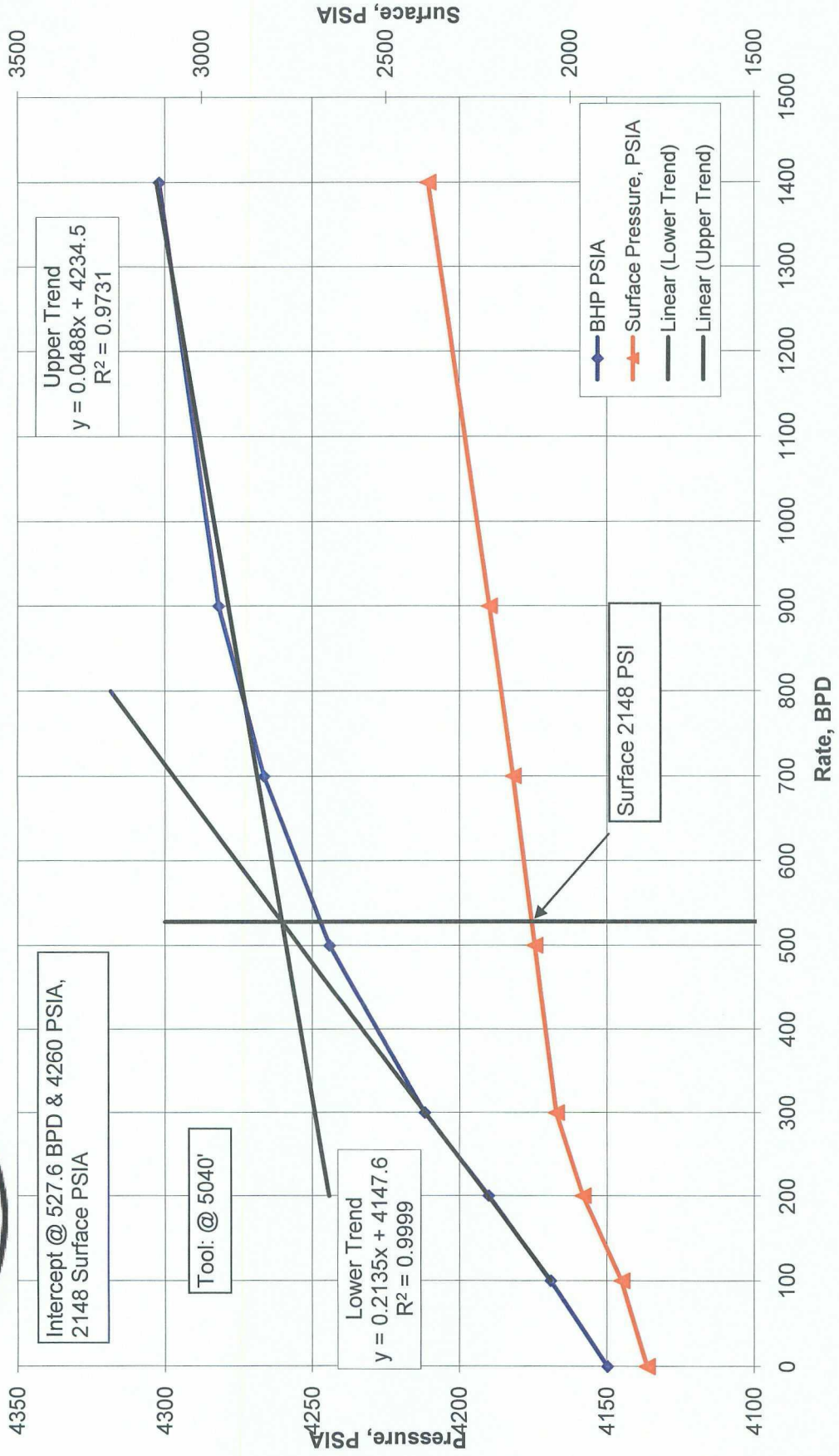
Intercept @ 527.6
BPD & 4260 PSIA,
2148 Surface PSIA

Downhole PSI Tool Ser. No.
Surface PSI Gauge Ser. No.
Tool @ 5040'

	Start Time	End Time	Rate BPD	Comments
1	8:11 AM	8:30 AM		0 On Bottom
2	8:30 AM	9:30 AM	100	
3	9:30 AM	10:30 AM	200	
4	10:30 AM	11:30 AM	300	
5	11:30 AM	12:30 PM	500	
6	12:30 PM	1:30 PM	700	
7	1:30 PM	2:30 PM	900	
8	2:30 PM	3:30 PM	1400	
9	3:30 PM	3:45 PM		0 Fall Off



Chesapeake Energy Quail Queen # 12
Step Rate Test 10-28-2010



Step Rate Test

Chesapeake Energy
 Quail Queen # 12
 Field:
 Lea County, New Mexico



	S Time	E Time	D Time Min	Last Rate		Step 3. H. Pressure		Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
				BPD	PSIA	BPD	PSIA						
1	8:11 AM	8:30 AM	19	0	0	4149.8	1790.8	0	0.00	0			
2	8:30 AM	9:30 AM	60	100	100	4169.1	1860.2	4.3	4.30	103	4169.1		
3	9:30 AM	10:30 AM	60	200	100	4190.1	1965.8	12.5	8.20	197	4190.1		
4	10:30 AM	11:30 AM	60	300	100	4211.8	2037.9	24.8	12.30	295	4211.8		
5	11:30 AM	12:30 PM	60	500	200	4244	2095.3	45.1	20.30	384		4266.3	
6	1/0/1900	1:30 PM	60	700	200	4266.3	2153.7	74.3	29.20	427		4281.7	
7	1:30 PM	2:30 PM	60	900	200	4281.7	2218.2	112.4	38.10	914		4301.9	
8	2:30 PM	3:30 PM	60	1400	500	4301.9	2384.4	171.7	59.30	1423		4301.9	
9	3:30 PM	3:45 PM	15	0	-1400	4206.9	2077.2	171.7	0.00	0			

0.2135 4147.6
 0.0488 4234.5

int point: 527.62599 BPD
 4260.2481 Psia

CURRENT WELLBORE SCHEMATIC



WELL: QUAIL QUEEN UNIT 14
FIELD: QUAIL QUEEN
COUNTY: LEA STATE: NEW MEXICO
LOCATION: 1,980.0 FNL & 1,680.0 FEL SEC 14, BLK ,
ELEVATION: 3,957.4 GR -- 3,967.0 RKB
TD: 5,570.0 PBD: Original Hole - 5531.0

PROP #: 891056
API: 3002525493
SPUD DATE: 3/28/1977
RIG RELEASE:
FIRST SALES:
WELLBORE TYPE:

Well Config: - Original Hole, 11/1/2010 5:13:22		Casing String: Production							
Schematic - Actual		Set Depth (ftKB)				Wellbore		String Top Connection	
		5,570.0				Original Hole		ST&C	
		Item/Description	OD (in)	ID (in)	Drift (in)	Wt (lbs/ft)	Grade	Top (ftKB)	Btm (ftKB)
		Casing Joints	4 1/2	4.052	3.927	10.50	J-55	9.6	1,936.0
		DV Tool	4 1/2						1,937.0
		Casing Joints	4 1/2	4.052	3.927	10.50	J-55	1,937.0	5,569.0
Float Shoe	4 1/2						5,569.0		
		Perforations							
Date	Zone	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Phasing (%)				
6/24/2009	QUEEN, Original Hole	5,124.0	5,226.0	2.0	120				
4/30/1977	QUEEN, Original Hole	5,178.0	5,186.0	2.0					
		Tubing String: Tubing - Production						Run Date	
		Set Depth (ftKB)				Wellbore		6/26/2009	
		5,068.6				Original Hole			
Item/Description	OD (in)	ID (in)	Wt (lbs/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)		
Tubing	2 3/8	1.995	4.70	J-55	EUE	9.6	5,060.6		
On-Off	2 3/8		4.50		EUE	5,060.6	5,061.6		
Profile N...	2 3/8	1.810			EUE	5,061.6	5,062.6		
Packer	2 3/8		4.50		EUE	5,062.6	5,068.6		
Stimulations									
Stim Details									
Type	Date	Zone	Top (ftKB)	Bottom (ftKB)					
Acidizing	6/25/2009	QUEEN, Original Hole	5,124.0	5,226.0					
Additive	Note	Sand Size	Amount	Units					
Rock Salt			1,300.0	lb					
Stim Details									
Type	Date	Zone	Top (ftKB)	Bottom (ftKB)					
Sand Frac	5/2/1977	QUEEN, Original Hole	5,178.0	5,186.0					
Additive	Note	Sand Size	Amount	Units					
Bulk Sand		20/40	15,000.0	lb					
Bulk Sand		10/20	21,000.0	lb					
Stim Details									
Type	Date	Zone	Top (ftKB)	Bottom (ftKB)					
Acidizing	4/30/1977	QUEEN, Original Hole	5,178.0	5,186.0					
Attachments									
Date	Type 1	Description							
4/4/2008	Procedure Packet	State BG 2 Conv to Inj							

Well History	
Date	Event
4/30/1977	PERF @ 5178'-86' w/ 2 jspf, 16 holes. ACDZ w/ 1000 gal 15% NeFe.
5/2/1977	FRAC w/ 20000 gal gld wtr, 15000# 20/40 sd & 21000# 10/20 sd.
6/24/2009	Convert to Inj; PERF Queen @ 5124-36, 41-54, 59-69, 78-86, 5204-06, 14-26 w/ 2 jspf, 114 holes.
6/25/2009	ACDZ perfs from 5124-5226 w/ 5000 gal 15% NeFe in 4 stages.
6/29/2009	Well name change from State BG 2.

Step Rate Test

Quail Queen # 14



Cardinal Surveys Company

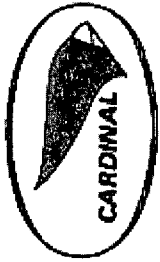
October 27, 2010

Chesapeake Energy
Well: Quail Queen # 14
Field:
Lea County, New Mexico
SC 59381a
File # 20038

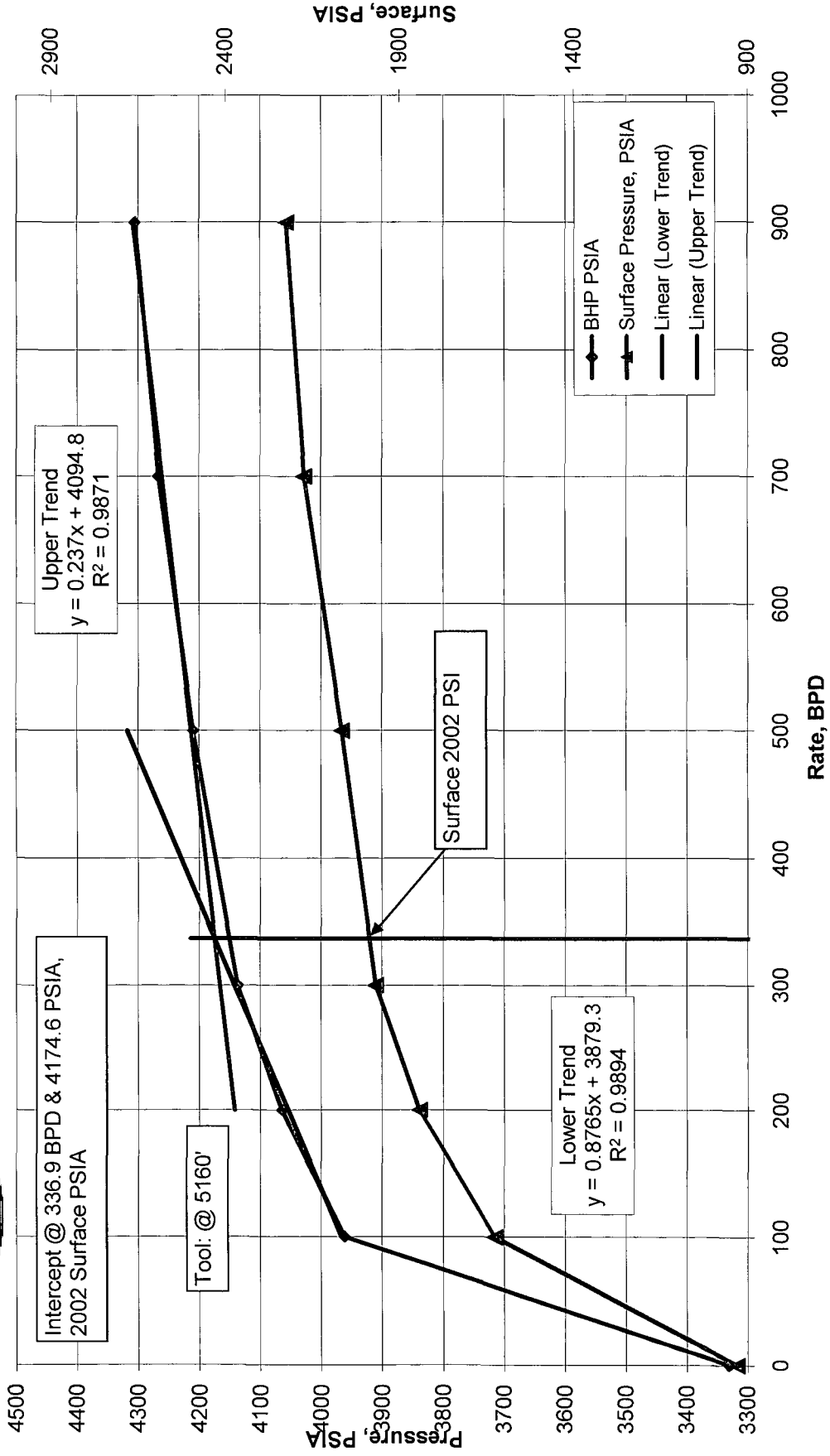
Intercept @ 336.9
BPD & 4174.6 PSIA,
2002 Surface PSIA

Downhole PSI Tool Ser. No.
Surface PSI Gauge Ser. No.
Tool @ 5160'

Start Time	End Time	Rate BPD	Comments
1	8:31 AM 8:45 AM		0 On Bottom
2	8:45 AM 9:45 AM	100	
3	9:45 AM 10:45 AM	200	
4	10:45 AM 11:45 AM	300	
5	11:45 AM 12:45 PM	500	
6	12:45 PM 1:45 PM	700	
7	1:45 PM 2:45 PM	900	
8	2:45 PM 3:00 PM		0 Fall Off

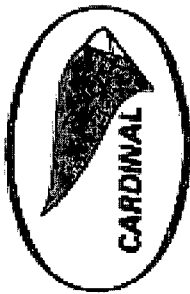


**Chesapeake Energy Quail Queen # 14
Step Rate Test 10-22-2010**



Step Rate Test

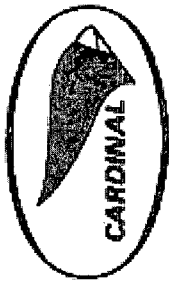
Chesapeake Energy
 Quail Queen # 14
 Field:
 Lea County, New Mexico



	S Time	E Time	D Time		Last Rate	Step 3. H. Pressure		Surf	Cum	Delta	Avg.	Lower	Upper
			Min	BPD		BPD	PSIA						
1	8:31 AM	8:45 AM	14	0	0	3331	930.8	0	0.00	0			
2	8:45 AM	9:45 AM	60	100	100	3961.7	1626.2	4.2	4.20	101	3961.7		
3	9:45 AM	10:45 AM	60	200	100	4065.1	1843.5	12.7	8.50	204	4065.1		
4	10:45 AM	11:45 AM	60	300	100	4137	1968.1	24.3	11.60	278	4137		
5	11:45 AM	12:45 PM	60	500	200	4210.2	2065.9	45.4	21.10	456		4210.2	
6	12:45 PM	1:45 PM	60	700	200	4267	2174.1	74.9	29.50	403		4267	
7	1:45 PM	2:45 PM	60	900	200	4305	2225	112.9	38.00	912		4305	
8	2:45 PM	3:00 PM	15	0	-900	4148.7	1912.9	112.9	0.00	0			

0.8765 3879.3
 0.237 4094.8

int point: 336.98202 BPD
 4174.6647 Psia



Chesapeake Energy Quail Queen # 14 Step Rate Test 10-22-2010

