

DATE IN 8/7/12	SUSPENSE	ENGINEER Ezeanyim	LOGGED IN 8/10/12	TYPE IPI 421	APP NO. PKVR1227345040
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



*Cameron oil & Gas Company
 Gulf State #1*

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]**

[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 _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or X 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

[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.

Ben Stone

 Print or Type Name

[Signature]

 Signature

Agent for Cameron O&G
 Title
 ben@sosconsulting.us
 e-mail Address

8/03/12

 Date

*30-025-24318
 SWD-138-A*

swamy @ Cameron Oil & Gas

2012 AUG - 7 10:45
 RECEIVED OGD



August 3, 2012

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attn: Ms. Jami Bailey, Director

*Re: Request of Cameron Oil and Gas Company for an injection pressure increase
in its Gulf State No.1 well located in Section 2, Township 23 South, Range 37
East, NMPM, Lea County, New Mexico.*

Dear Ms. Bailey,

Please find enclosed a recent step rate test conducted on the subject well. The test was conducted by Cardinal Surveys Company and includes all original data in support of this request.

Cameron Oil and Gas seeks to optimize efficiency, both economically and operationally, of its operations. Approval of this request will allow for an injection pressure of 1426 psi which, is 50 psi below the fracture pressure of 1476 psi, indicated clearly by the test.

I respectfully request that the approval of this injection pressure increase proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

Ben Stone, Partner
SOS Consulting, LLC
Agent for Cameron Oil and Gas Company

Cc: Application attachment and file

RECEIVED OGD
2012 AUG - 7 AM 11:45

Step Rate Test



Cardinal Surveys Company

July 30, 2012

Cameron Oil & Gas
Gulf State SWD # 1
Field:
Lea County, New Mexico
SC 59518
File # 20909

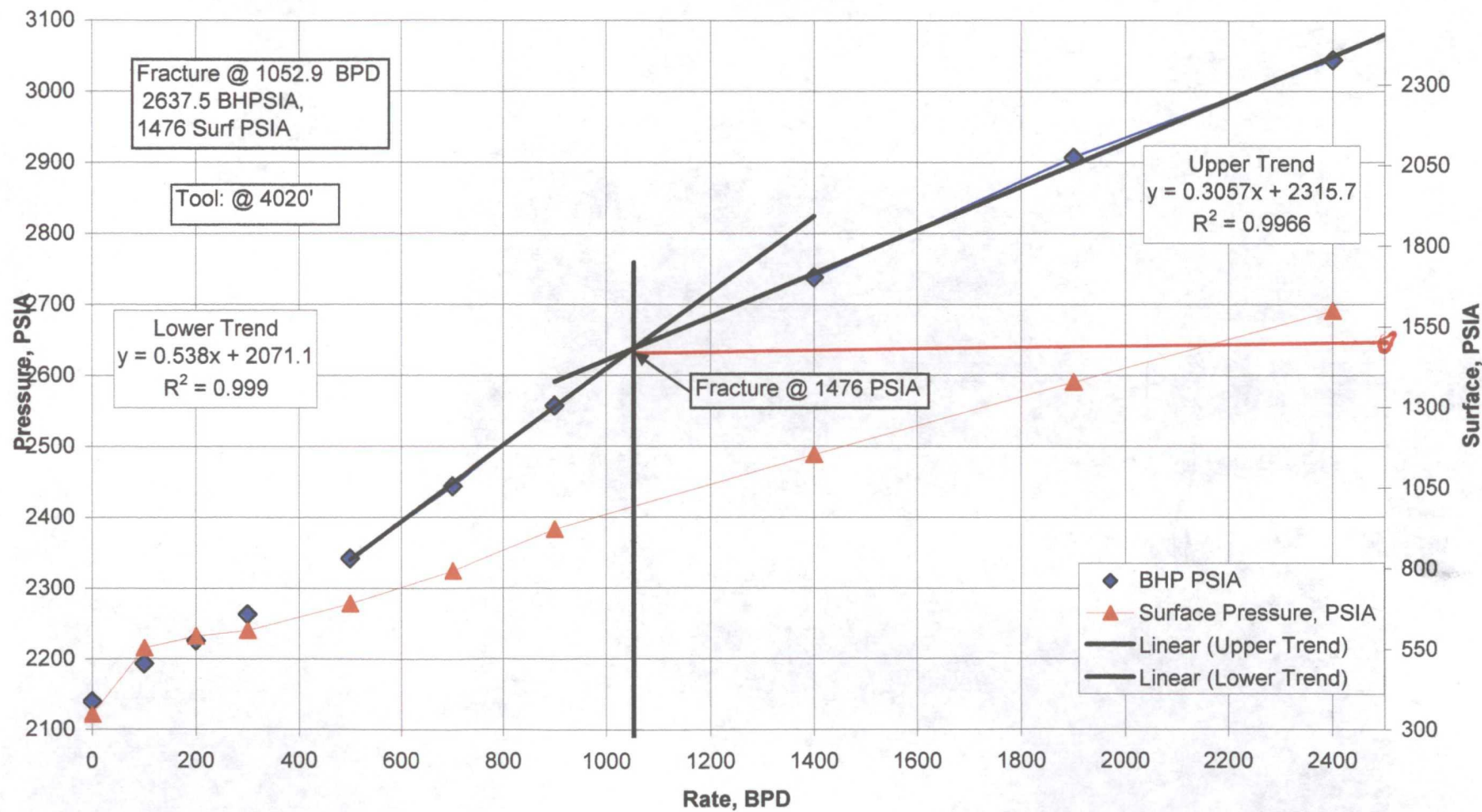
Fracture @ 1052.9 BPD 2637.5 BHPSIA, 1476 Surf PSIA

Downhole PSI Tool Ser. No.
Surface PSI Gauge Ser. No.
Tool @ 4020

	Start Time	End Time	Rate BPD	Comments
1	8:44 AM	9:15 AM		0 On Bottom
2	12:30 PM	1:00 PM	100	
3	1:00 PM	1:30 PM	200	
4	1:30 PM	2:00 PM	300	
5	2:00 PM	2:30 PM	500	
6	2:30 PM	3:00 PM	700	
7	3:00 PM	3:30 PM	900	
8	3:30 PM	4:00 PM	1400	
9	4:00 PM	4:30 PM	1900	
10	4:30 PM	5:00 PM	2400	
11	5:00 PM	5:15 PM		0 Fall Off



Cameron Oil & Gas Gulf State SWD # 1
Step Rate Test 07-30-2012



Step Rate Test

Cameron Oil & Gas
Gulf State # 1
Field:
Lea County, New Mexico



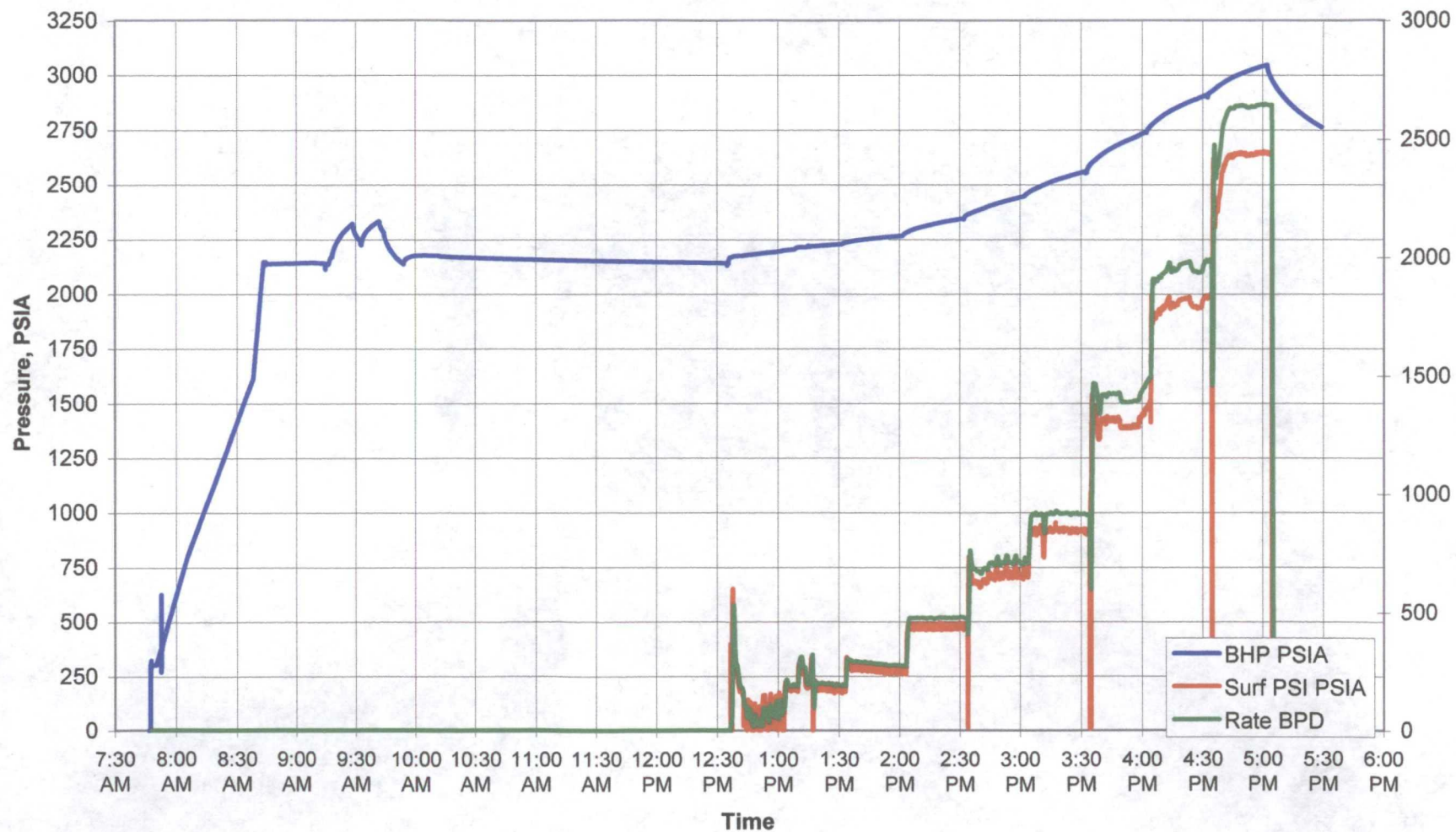
	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	B. H. Pressure PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
1	8:44 AM	9:15 AM	31	0	0	2139.7	345.7	0	0.00	0		
2	12:30 PM	1:00 PM	30	100	100	2193.1	552.3	2.9	2.90	139		
3	1:00 PM	1:30 PM	30	200	100	2225.9	589.8	7.4	4.50	216		
4	1:30 PM	2:00 PM	30	300	100	2263.3	607	13.4	6.00	288	2263.3	
5	2:00 PM	2:30 PM	30	500	200	2342.1	690.4	23.7	10.30	206	2342.1	
6	2:30 PM	3:00 PM	30	700	200	2443.7	792.4	38.5	14.80	216	2443.7	
7	3:00 PM	3:30 PM	30	900	200	2557.3	921.1	58	19.50	936	2557.3	
8	3:30 PM	4:00 PM	30	1400	500	2738.5	1153.1	87.7	29.70	1426		2738.5
9	4:00 PM	4:30 PM	30	1900	500	2906.8	1376.8	129	41.30	1982		2906.8
10	4:30 PM	5:00 PM	30	2400	500	3044.2	1598	183.5	54.50	2616		3044.2
11	5:00 PM	5:15 PM	15	0	-2400	2838.4	1166.7	0	-183.50	-17616		

0.538 2071.1
0.3057 2315.7

int point: 1052.9488 BPD
2637.5864 Psia



Cameron Oil & Gas Gulf State SWD # 1
Step Rate Test 07-30-2012



Jones, William V., EMNRD

From: Ezeanyim, Richard, EMNRD
Sent: Tuesday, August 21, 2012 3:18 PM
To: Jones, William V., EMNRD
Subject: FW: Cameron Oil and Gas Company IPI
Attachments: Cameron GulfStSWD138A_20110810.tif

Will:

FYI, from Ben Stone.

Richard

From: Ben Stone [<mailto:ben@sosconsulting.us>]
Sent: Tuesday, August 21, 2012 1:34 PM
To: Ezeanyim, Richard, EMNRD
Subject: RE: Cameron Oil and Gas Company IPI

Hello Richard,

I've attached a copy of SWD-138-A which reinstated this well to SWD in August 2011. The authorized pressure by this permit is 814 psi through perms located from 4072' to 4144' and an openhole interval from 4484' to 4500'.

Please let me know if you have any other questions.

Thanks,

Ben



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From: Ezeanyim, Richard, EMNRD [<mailto:richard.ezeanyim@state.mn.us>]
Sent: Tuesday, August 21, 2012 11:11 AM
To: ben@sosconsulting.us
Subject: Cameron Oil and Gas Company IPI

Ben:

Please provide the initial SWD order number to determine the current injection pressure, depths and perforations.
Thank you.

Richard

New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John H. Bemis
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division



Administrative Order SWD-138-A
August 7, 2011

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of 19.15.26.8B NMAC, CAMERON OIL & GAS COMPANY seeks an administrative order to utilize its Gulf State Well No. 1 (API 30-025-24318) located 660 feet from the South line and 660 feet from the West line, Unit Letter M of Section 2, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of 19.15.26.8B NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, CAMERON OIL & GAS COMPANY, is hereby authorized to utilize its Gulf State Well No. 1 (API 30-025-24318) located 660 feet from the South line and 660 feet from the West line, Unit Letter M of Section 2, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, for disposal of oil field produced water (UIC Class II only) into the San Andres formation through perforations from 4072 to 4144 feet and an open hole interval from 4484 to 4500 feet through lined tubing and a packer set within 100 feet of the permitted disposal interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the proposed disposal interval and is not permitted to escape to other formations or onto the surface.



After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC.

The wellhead injection pressure on the well shall be limited to **no more than 814 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written

request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



JAMI BAILEY
Director

JB/wvjj

cc: Oil Conservation Division – Hobbs
State Land Office – Oil, Gas, and Minerals Division