



New Source Permits

AIR NSR P 055

Air #: 106098866 95251

File Type: Permits

Volume: 001

Date: 1/1/2011 -

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Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

May 10, 2011

MS JENNIFER SINOPOLI
ENVIRONMENTAL ENGINEER
EOG RESOURCES INC
PO BOX 592929
SAN ANTONIO TX 78259-0196

Permit by Rule Registration Number:	95251
Location/City/County:	From Encinal, west on Hwy 44, 11 miles to Hwy 83, turn right on Hwy 83, go 3 miles to gate on right, Encinal, Webb County
Project Description/Unit:	Cactus Jack Production Facility
Regulated Entity Number:	RN106098866
Customer Reference Number:	CN600564520
New or Existing Site:	Existing
Affected Permit (if applicable):	None
Renewal Date (if applicable):	None

RECEIVED

JUN 02 2011

**TCEQ
CENTRAL FILE ROOM**

EOG Resources, Inc. has registered the emissions associated with the Cactus Jack Production Facility under Title 30 Texas Administrative Code § 106.352 (effective 9/4/2000). For rule information see:

www.tceq.texas.gov/permitting/air/nav/numerical_index.html

No planned MSS emissions have been represented or reviewed for this registration. The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements. In addition, please be aware that the Commission is considering repeal and amendments to the permit by rule under which your facilities are registered and these changes may affect your authorization. Under the General Requirements for all Permit by Rules, § 106.2 states that particular requirements only apply "where construction is commenced on or after the effective date of the relevant permit by rule." For more information regarding the proposed rule changes, please see the following Web site:

www.tceq.texas.gov/rules/prop.html

All analytical data generated by a mobile or stationary laboratory to support the compliance with an air permit must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory. For additional information regarding the laboratory accreditation program, please see the following Web site which includes the accreditation and exemption information:

www.tceq.texas.gov/compliance/compliance_support/qa/env_lab_accreditation.html

Ms. Jennifer Sinopoli
May 10, 2011
Page 2

This registration is taken under the authority delegated by the Executive Director of the TCEQ. If you have questions, please contact Mr. Monico Banda at (512) 239-1589.

Sincerely,



Anne M. Inman, P.E., Manager
Rule Registrations Section
Air Permits Division

Represented Emissions:

VOC	0.35	tpy
H ₂ S	0.03	tpy

cc: Air Section Manager, Region 16 - Laredo

Project Number: 163998

TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	95251	Company Name:	EOG Resources, Inc.	APD Reviewer:	Mr. Monico Banda
Project No.:	163998	Unit Name:	Cactus Jack Production Facility	PBR No(s).:	106.352 2000-SEP-04 TO 2011-FEB-27

GENERAL INFORMATION

Regulated Entity No.:	RN106098866	Project Type:	Permit by Rule Application
Customer Reference No.:	CN600564520	Date Received by TCEQ:	March 11, 2011
Account No.:		Date Received by Reviewer:	April 15, 2011
City/County:	Encinal, Webb County	Physical Location:	from encinal travel w on hwy 44 for 11 mi to hwy 83 turn r on hwy 83 and travel 3 mi to gate on right

CONTACT INFORMATION

Responsible Official/ Primary Contact Name and Title:	Ms. Jennifer Sinopoli Environmental Engineer	Phone No.:	(210) 403-7882	Email:	JENNIFER_SINOPOLI@EOGRESOURCES.COM
Technical Contact/ Consultant Name and Title:	Same as above	Fax No.:	(210) 403-7883		
		Phone No.:		Email:	
		Fax No.:			

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there affected NSR or Title V permits for the project?		X	This is the only air authorization at this site; sitewide emissions are less than Title V major source levels (100 tpy).
Is each PBR > 25/250 tpy?		X	
Are PBR sitewide emissions > 25/250 tpy?		X	
Are there permit limits on using PBRs at the site?		X	
Is PSD or Nonattainment netting required?		X	Sitewide emissions are less than PSD major source levels (250 tpy); Webb County is an attainment county.
Do NSPS, NESHAP, or MACT standards apply to this registration?		X	
Does NOx Cap and Trade apply to this registration?		X	
Is the facility in compliance with all other applicable rules and regulations?	X		

DESCRIBE OVERALL PROCESS AT THE SITE

EOG Resources, Inc. has submitted a Form PI-7 to register the Cactus Jack Production Facility near Encinal, Webb County under §106.352.

DESCRIBE PROJECT AND INVOLVED PROCESS

The Cactus Jack Production Facility is a sour gas site consisting of two 300-bbl water storage tanks, fugitive components, and an unlit flare (used as vent).

TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES

EOG Resources, Inc.'s Cactus Jack Production Facility qualifies for §106.352.

- (1) There are no compressors at this site; an unlit flare will be used as a vent, registration under §106.492 is not required.
- (2) Total sitewide emissions are less than the limits listed in §106.352(2).
- (3) Cactus Jack Production Facility is located at least 1/4 mile from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located.
- (4) Total emissions of sulfur compounds (as H₂S), excluding SO₂ are less than 4 lb/hr; each vent emitting sulfur compounds will be at least 20 feet.
- (5) EOG Resources, Inc has submitted a Form PI-7.

COMMUNICATION LOG

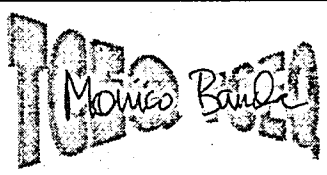
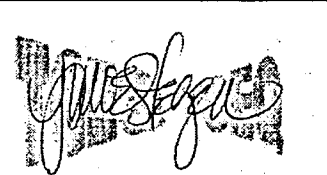

Date	Time	Name/Company	Subject of Communication

TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	95251	Company Name:	EOG Resources, Inc.	APD Reviewer:	Mr. Monico Banda
Project No.:	163998	Unit Name:	Cactus Jack Production Facility	PBR No(s).:	106.352 2000-SEP-04 TO 2011-FEB-27

ESTIMATED EMISSIONS															
EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NOx		CO		PM ₁₀		PM _{2.5}		SO ₂		Other	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
FUG/Fugitives		0.07	0.32											0.01	0.02
Load/Loading		0.25	0.002												
TK-1/Water Storage Tank		0.003	0.01											0.002	0.006
TK-2/Water Storage Tank		0.003	0.01											0.002	0.006
TOTAL EMISSIONS (TPY):			0.35												0.03
MAXIMUM OPERATING SCHEDULE:		Hours/Day		Days/Week		Weeks/Year		Hours/Year		Days/Year		Hours/Year		Days/Year	
		24		7		52		8,760							

SITE REVIEW / DISTANCE LIMIT	Yes	No	Description/Outcome	Date	Reviewed by
Site Review Required?		X		May 10, 2011	Mr. Monico Banda
PBR Distance Limits Met?	X		Cactus Jack Production Facility is located at least 1/4 mile from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located.	May 10, 2011	Mr. Monico Banda

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:			 See Hard Copy.
PRINTED NAME:	Mr. Monico Banda	Ms. Julie Steger	Ms. Anne M. Inman, P.E., Manager
DATE:	May 10, 2011	May 10, 2011	

BASIS OF PROJECT POINTS	POINTS
Base Points:	2.0
Project Complexity Description and Points:	
Technical Reviewer Project Points Assessment:	2.0
Final Reviewer Project Points Confirmation:	

05/10/2011 -----NSR IMS - PROJECT RECORD -----

PROJECT#: 163998 PERMIT#: 95251 STATUS: PENDING
RECEIVED: 03/11/2011 PROJTYPE: INITIAL AUTHTYPE: PBR
RENEWAL:

DISP CODE: C
ISSUED DT: 5/10/11

PROJECT ADMIN NAME: CACTUS JACK PRODUCTION FACILITY
PROJECT TECH NAME: CACTUS JACK PRODUCTION FACILITY

2.0
June

Assigned Team: RULE REG SECTION

STAFF ASSIGNED TO PROJECT:

O'BRIEN, BRENDA - REVIEWR1_2 - AP INITIAL REVIEW
BANDA, MONICO - REVIEW ENG - RR TEAM

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)

ISSUED TO: EOG RESOURCES INC
COMPANY NAME: EOG Resources, Inc.
CUSTOMER REFERENCE NUMBER: CN600564520

REGULATED ENTITY/SITE INFORMATION

REGULATED ENTITY NUMBER: RN106098866 ACCOUNT:
PERMIT NAME: CACTUS JACK PRODUCTION FACILITY

REGULATED ENTITY LOCATION: FROM ENCINAL TRAVEL W ON HWY 44 FOR 11 MI TO HWY 83 TURN R ON HWY 83 AND TRAVEL 3 MI TO GATE ON RIGHT

REGION 16 - LAREDO NEAR CITY: ENCINAL COUNTY: WEBB

CONTACT DATA

CONTACT NAME: MS JENNIFER SINOPOLI CONTACT ROLE: RESPONSIBLE OFFICIAL
JOB TITLE: ENVIRONMENTAL ENGINEER ORGANIZATION: EOG RESOURCES INC
MAILING ADDRESS: PO BOX 592929, SAN ANTONIO, TX, 78259-0196
PHONE: (210) 403-7882 Ext: 0
FAX: (210) 403-7883 Ext: 0
EMAIL: JENNIFER_SINOPOLI@EOGRESOURCES.COM

FEE:

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
1191746413		450.00		CHECK

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	03/11/2011	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	03/15/2011	
CERTAIN RECORDS MAINTAINED	03/15/2011	03/15/2011

CENTRAL REGISTRY UPDATED	03/15/2011	03/15/2011
PROJECT RECEIVED BY ENGINEER (DATE)	04/15/2011	
ENGINEER INITIAL REVIEW COMPLETED (DATE)	04/28/2011	
PEER / MANAGER REVIEW PERIOD	05/10/2011	05/10/2011

PROJECT RULES:

Unit Desc	Rule Desc	Request Type	On Application	Approve
OIL AND GAS PRODUCTION FACILITIES	106.352 2000-SEP-04 TO 2011-FEB-27 -	ADD	Y	APPROVE

PERMIT RULES:

Unit Desc	Rule Desc	Start Date	End Date
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PROJECT ATTRIBUTES:

Attributes	Value
PROJECT POINT	
RR DISTRIBUTION	IMPLEMENTED



March 8, 2011

Air Permits Initial Review Team (APIRT), MC-161
Office of Permitting, Remediation, and Registration
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

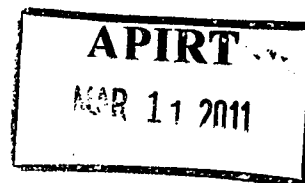
Re: EOG Resources, Inc.
Cactus Jack Production Facility
Permit by Rule No. 106.352 Registration
Encinal, Webb County
CN600564520

Certified Mail 7010 2780 0000 1391 5703

EOG Resources, Inc.
P. O. Box 592929
San Antonio, TX 78259-0196

19100 Ridgewood Parkway
Building 2
San Antonio, TX 78259-1828
(210) 403-7700

AIR PERMITS DIVISION
MAR 11 2011
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Attn: APIRT

On behalf of EOG Resources, Inc., I am submitting the enclosed permit by rule registration to authorize a sour gas production facility in Webb County. This facility is already constructed and construction began prior to February 27, 2011. Equipment at the site consists of production separators, two 300-bbl storage tanks, an inoperable flare that serves as a vent, and process fugitives. As documented in the enclosed registration package, these facilities are authorized under 30 TAC §106.352.

EOG Resources, Inc. is aware that PBR §106.352 has been revised effective February 27, 2011. The checklist for PBR §106.352, last revised in October 2004, has been included to show compliance with the permit by rule. This checklist is still appropriate because the Cactus Jack Production Facility is located in Webb County and is only subject to subsection (I) of §106.352.

If you have any questions, please call me at (210) 403-7882.

Sincerely,

Jennifer Sinopoli, E.I.T.
Environmental Engineer

JAS/

Enclosure

cc: Ms. Rose Luna-Pirtle, TCEQ, Region 16, Laredo, w/enclosure

163998

AIR PERMITS DIVISION

MAR 11 2011

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Texas Commission on Environmental Quality

Cactus Jack Production Facility

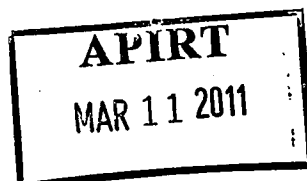
Permit by Rule Registration No. 106.352
Encinal, Webb County
Regulated Entity No. TBA
Customer No. CN600564520

Prepared by: Jennifer Sinopoli, E.I.T.
March 2011



**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

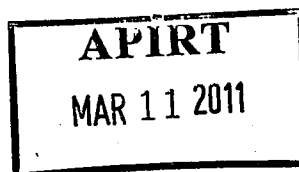
I. REGISTRANT INFORMATION			
A. TCEQ Customer Reference Number: CN- 600564520		TCEQ Regulated Entity Number: RN-	
<i>New Core Data Form Information: If there is no CN or RN number, a Core Data Form must be completed and submitted with an original signature.</i>			
B. Company or Other Legal Customer Name: EOG Resources, Inc.			
Company Official Contact Name: Jennifer Sinopoli		Title: Environmental Engineer	
Mailing Address: P.O. Box 592929			
City: San Antonio		State: TX	Zip Code: 78529-0196
Phone No.: (210) 403-7882	Fax No.: (210) 403-7883	E-mail Address: Jennifer_Sinopoli@eogresources.com	
C. Technical Contact Name: Same as I.B		Title:	
Company:			
Mailing Address:			
City:		State:	Zip Code:
Phone No. :	Fax No.:	E-mail Address:	
D. Facility Location Information - Street Address:			
<i>If "NO," street address, provide written driving directions to the site: (attach description if additional space is needed)</i>			
From Encinal, travel west on Hwy 44 for 11 miles to Hwy 83. Turn right on Hwy 83 and travel 3 miles to gate on right.			
City: Encinal		County: Webb	Zip Code: 78019
II. FACILITY AND SITE INFORMATION			
A. Name and Type of Facility: Cactus Jack Production Facility			<input type="checkbox"/> Permanent <input type="checkbox"/> Portable
B. PBR claimed under 30 TAC § 106 (List all that apply in hard copy, or choose all that apply from the drop down menus in electronic version):			
§ 106. 352 Oil and Gas Production Facilities		§ 106.	
§ 106.		§ 106.	
§ 106.		§ 106.	
Are you claiming a historical standard exemption or PBR?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter effective date and Rule Number:			





**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

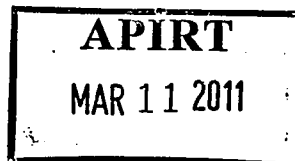
II. FACILITY AND SITE INFORMATION			
C. Is there a previous Standard Exemption or PBR for the facility in this registration? (Attach details regarding changes)			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter Registration Number and Rule Number:			
D. Are there any other facilities at this site which are authorized by an Air Standard Exemption or PBR?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter Registration Number and Rule Number:			
E. Are there any other air preconstruction permits at this site?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter Permit Numbers:			
Are there any other air preconstruction permits at this site that would be directly associated with this project?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter Permit Numbers:			
F. Is this facility located at a site which is required to obtain a federal operating permit pursuant to 30 TAC Chapter 122?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> To be Determined
If the site currently has an existing federal operating permit, enter the permit number:			
Identify the requirements of 30 TAC Chapter 122 that will be triggered if this claim is accepted: (check all that apply)			
<input type="checkbox"/> Initial Application for an FOP <input type="checkbox"/> Significant Revision for SOP <input type="checkbox"/> Minor Revision for SOP			
<input type="checkbox"/> Operational Flexibility/Off Permit Notification for an SOP <input type="checkbox"/> Revision for GOP <input type="checkbox"/> To be Determined <input checked="" type="checkbox"/> None			
Identify the type(s) issued and/or FOP application(s) submitted/pending for the site: (check all that apply)			
<input type="checkbox"/> SOP <input type="checkbox"/> GOP <input type="checkbox"/> GOP application/revision application: (submitted or under APD review)			
<input type="checkbox"/> SOP application/revision application: (submitted or under APD review) <input checked="" type="checkbox"/> N/A			
G. TCEQ Account Identification Number: (if known)			
III. FEE INFORMATION			
See Section VI. for an address to send fee or go to www.2.tceq.state.tx.us/epay to pay online.			
A. Is this registration an update to a previously registered facility and accompanied by a Form APD-CERT solely to establish a federally enforceable emission limit and will not authorize new facilities? (If "YES," a fee is not required. If "NO," then go to Section III.B.)			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
B. If "YES," to any of the following three questions, a \$100 fee is required. Otherwise, a \$450 fee is required.			
Does this business have less than 100 employees or have less than 6 million dollars in annual gross receipts?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Is this registration submitted by a governmental entity with a population of less than 10,000?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO





**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

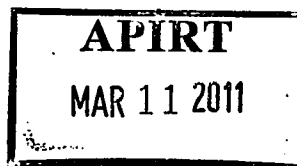
III. FEE INFORMATION (continued)			
C. Check/Money Order or Transaction Number (Payable to TCEQ):	119174641	Was fee Paid online?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Company name of check: EOG Resources, Inc.		Fee amount:	\$ \$450.00
IV. SELECTED FACILITY REVIEWS ONLY-TECHNICAL INFORMATION			
<i>Note: If claiming one of the following PBRs, complete this section, then skip to Section VI., "Submitting your registration" below:</i>			
<i>Animal Feeding Operations § 106.161, Livestock Auction Facilities § 106.162, Saw Mills § 106.223, Grain Handling, Storage and Drying § 106.283, Auto Body Refinishing Facilities § 106.436, Air Curtain Incinerator § 106.496</i>			
A. Is the applicable PBR checklist attached which shows the facility meets all general and specific requirements of the PBR(s) being claimed?			<input type="checkbox"/> YES <input type="checkbox"/> NO
B. Distance from this facility's emission release point to the nearest property line:			feet
Distance from this facility's emission release point to the nearest off-property structure:			feet
V. TECHNICAL INFORMATION INCLUDING STATE AND FEDERAL REGULATORY REQUIREMENTS			
<i>Registrants must be in compliance with all applicable state and federal regulations and standards to claim a PBR.</i>			
A. Is Confidential information submitted and properly marked "CONFIDENTIAL" with this registration?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
B. Is a process flow diagram or a process description attached?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
C. Are emissions data and calculations for this claim attached?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
D. Is information attached showing how the general requirements (30 TAC § 106.4) of the PBR is met for this Registration? (PBR checklists may be used, but are optional)			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>Note: Please be reminded that if the facilities listed in this registration are subject to the Mass Emissions Cap & Trade program under 30 TAC Chapter 101, Subchapter H, Division 3, the owner/operator of these facilities must possess NO_x allowances equivalent to the actual NO_x emissions from these facilities.</i>			
E. Is information attached showing how the specific PBR requirements are met for this registration? (PBR checklist may be used, but are optional)			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
F. Distance from this facility's emission release point to the nearest property line:			>1320 feet
Distance from this facility's emission release point to the nearest off-property structure:			>1320 feet
<i>Note: In limited cases, a map or drawing of the site and surrounding land use may be requested during the technical review or at the request of the TCEQ Regional Office or local air pollution control program during an investigation.</i>			





**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

VI. SUBMITTING YOUR REGISTRATION		
A. FEES – Pick one of the two options below for payment:		
<i>Who</i>	<i>Where</i>	<i>What</i>
1. Fee Paid Online	Go to Website www6.tceq.state.tx.us/epay	No Additional Action Needed
2. Fee Mailed to Revenue Section, TCEQ	Regular, Certified, Priority Mail MC 214, P.O. Box 13088 Austin, Texas 78711-3088 Hand Delivery, Overnight Mail MC 214, 12100 Park 35 Circle, Building A, Third Floor, Austin, Texas 78753	Original Money Order or Check Copy of Form PI-7 and Core Data Form
B. COPIES OF THE REGISTRATION – Copies must be sent as listed below: Processing delays may occur if copies are not sent as noted.		
1. Hard Copy Only Air Permits Initial Review Team (APIRT)	Regular, Certified, Priority Mail MC161, P.O. Box 13087 Austin, Texas 78711-3087 Hand Delivery, Overnight Mail MC 161, 12100 Park 35 Circle, Building C, Third Floor, Austin, Texas 78753 Fax No.: (512) 239-2123 (do <u>not</u> follow fax with paper copies)	Originals Form PI-7, Core Data Form, and all attachments
2. Appropriate local and TCEQ Regional Office Programs	To Find your local or Regional Air Pollution Control Programs go to the TCEQ, APD Website at www.tceq.state.tx.us/nav/permits/air_permits.html or call (512) 239-1250	Copy of Form PI-7, Core Data Form, and all attachments to each office.
3. Print	(Blank for Print Button)	Prints a Hard Copy of the Form PI-7





TCEQ Core Data Form

TCEQ Use Only

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided)			
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application)			
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other	
2. Attachments		Describe Any Attachments: (ex. Title V Application, Waste Transporter Application, etc.)	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Permit by Rule No. 106.35 Registration	
3. Customer Reference Number (if issued)		4. Regulated Entity Reference Number (if issued)	
CN 600564520		RN 0	

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
6. Customer Role (Proposed or Actual) – as it relates to the <u>Regulated Entity</u> listed on this form. Please check only <u>one</u> of the following:			
<input type="checkbox"/> Owner		<input type="checkbox"/> Operator	
<input type="checkbox"/> Occupational Licensee		<input type="checkbox"/> Responsible Party	
<input checked="" type="checkbox"/> Owner & Operator		<input type="checkbox"/> Voluntary Cleanup Applicant	
<input type="checkbox"/> Other:			
7. General Customer Information			
<input type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State)		<input type="checkbox"/> Change in Regulated Entity Ownership	
<input checked="" type="checkbox"/> No Change**			
**If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.			
8. Type of Customer:			
<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
<input type="checkbox"/> City Government		<input type="checkbox"/> Sole Proprietorship- D.B.A	
<input type="checkbox"/> County Government		<input type="checkbox"/> Federal Government	
<input type="checkbox"/> State Government			
<input type="checkbox"/> Other Government		<input type="checkbox"/> General Partnership	
<input type="checkbox"/> Limited Partnership		<input type="checkbox"/> Other:	
9. Customer Legal Name (If an individual, print last name first: ex: Doe, John)		If new Customer, enter previous Customer below	
		End Date:	
10. Mailing Address:			
City		State	
ZIP		ZIP + 4	
11. Country Mailing Information (if outside USA)		12. E-Mail Address (if applicable)	
13. Telephone Number		14. Extension or Code	
() -		() -	
16. Federal Tax ID (9 digits)		17. TX State Franchise Tax ID (11 digits)	
18. DUNS Number (if applicable)		19. TX SOS Filing Number (if applicable)	
20. Number of Employees		21. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input type="checkbox"/> Yes <input type="checkbox"/> No	

SECTION III: Regulated Entity Information

22. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)			
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information <input type="checkbox"/> No Change** (See below)			
**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.			
23. Regulated Entity Name (name of the site where the regulated action is taking place)			
Cactus Jack Production Facility			

APIRT

MAR 11 2011

24. Street Address of the Regulated Entity: (No P.O. Boxes)								
	City		State		ZIP		ZIP + 4	
25. Mailing Address:	P.O. Box 592929							
	City	San Antonio	State	TX	ZIP	78529	ZIP + 4	0196
26. E-Mail Address:	Jennifer.Sinopoli@eogresources.com							
27. Telephone Number	28. Extension or Code		29. Fax Number (if applicable)					
(210) 403-7882			(210) 403-7883					
30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)		32. Primary NAICS Code (5 or 6 digits)		33. Secondary NAICS Code (5 or 6 digits)			
1311			211111					
34. What is the Primary Business of this entity? (Please do not repeat the SIC or NAICS description.)								
Gas production								

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	From Encinal, travel west on Hwy 44 for 11 miles to Hwy 83. Turn right on Hwy 83 and travel 3 miles to gate on right.							
36. Nearest City	County		State		Nearest ZIP Code			
Encinal	Webb		TX		78019			
37. Latitude (N) In Decimal:	28.09190		38. Longitude (W) In Decimal:		99.53438			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Industrial Hazardous Waste	<input type="checkbox"/> Municipal Solid Waste
<input checked="" type="checkbox"/> New Source Review – Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS	<input type="checkbox"/> Sludge Tires
<input type="checkbox"/> Stormwater	<input type="checkbox"/> Title V – Air	<input type="checkbox"/> Used Oil	<input type="checkbox"/> Utilities	<input type="checkbox"/> Voluntary Cleanup
<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

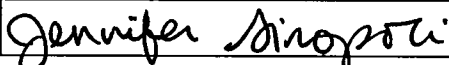
SECTION IV: Preparer Information

40. Name:	Jennifer Sinopoli		41. Title:	Environmental Engineer	
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address		
(210) 403-7882		(210) 403-7883	Jennifer.Sinopoli@eogresources.com		

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	EOG Resources, Inc.		Job Title:	Environmental Engineer	
Name(In Print):	Jennifer Sinopoli		Phone:	(210) 403-7882	
Signature:			Date:	3.9.2011	

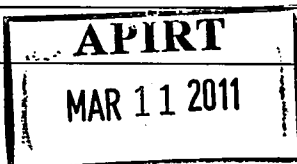


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V.C EMISSIONS DATA.....	2
V.D GENERAL REQUIREMENTS.....	19
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ATTACHMENT V.B

PROCESS DESCRIPTION

The Cactus Jack Production Facility is a sour gas site. The facility produces no oil or condensate and very little water. Water is stored in one of two 300-bbl storage tanks. The tanks are tied to an unlit flare which serves as a vent for the battery. Fugitive emissions from valves, connectors, etc. are represented by EPN FUG.

ATTACHMENT V.C

EMISSIONS DATA

Fugitives (EPN FUG)

Fugitive emissions were estimated based on the TCEQ technical guidance document for "Equipment Fugitive Leaks" dated October 2000. The Oil and Gas Production Operations equipment leak emission factors approved by the TCEQ were used in the emissions estimations.

Truck Loading of Water (EPN LOAD)

Truck loading emission rates are calculated using the loading loss factor equation from AP-42 Section 5.2, dated January 1995. A saturation factor of 0.6 is used for trucks in dedicated normal service. The maximum hourly emission rate is based on loading 180 bbls in one hour. The maximum annual emission rate is based on a total throughput of 8 bbl water/day. Emissions from the loading of produced water are estimated to be 1% of the emissions from loading crude oil.

Water Storage Tanks (EPNs TK-1, TK-2)

No significant emissions are expected from the water storage tanks; however, in order to be conservative, the produced water tanks were modeled as crude oil (RVP 5) storage tanks in TANKS 4.0.9d. The working and standing emissions from the produced water are estimated to be 1% of the emissions from crude oil. The flash losses were calculated using the Gas to Water Ratio (GWR) from another EOG site in Webb County. The results of laboratory analysis of the water are included in this section. A site specific water flash study was not available and the water at the Union Ranch Lopez Production Facility is considered representative of the water at the Cactus Jack Production Facility.

All emission points are shown in the attached Emission Summary spreadsheet.

EMISSION SUMMARY

Source	EPN	VOC		H ₂ S		HAP	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Fugitives	FUG	0.07	0.32	0.01	0.02	0.07	0.30
Loading	LOAD	0.25	1.7E-03	--	--	--	--
Water Storage Tank	TK-1	0.003	0.012	1.5E-03	6.6E-03	5.0E-04	2.2E-03
Water Storage Tank	TK-2	0.003	0.012	1.5E-03	6.6E-03	5.0E-04	2.2E-03
TOTAL		0.33	0.35	0.01	0.04	0.07	0.31

EMISSION ESTIMATE FOR FUGITIVES

EPN: FUG
 Operating schedule (hr/yr): 8760

Fugitive Emission Calculations:

Emission Source	Source Count	Uncontrolled Emission Factor * (lb/hr-source)	Control Factor	Hourly Emissions (lb/hr)	Annual Emissions (ton/yr)
Valves: gas	12	0.00992	0%	0.119	0.52
water/oil	8	0.000216	0%	0.00	0.01
Flanges: gas	0	0.00086	0%	0.00	0.00
water/oil	0	0.000006	0%	0.00	0.00
Connectors: gas	30	0.00086	0%	0.03	0.11
water/oil	20	0.000243	0%	0.00	0.02
Pumps: water/oil	0	0.000052	0%	0.000	0.00
Other: gas	2	0.0194	0%	0.04	0.17
water/oil	2	0.030900	0%	0.06	0.27

Sample Calculation:

$$\text{Gas Valve Emissions} = (12 \text{ valves})(0.00992 \text{ lb/hr-source})(1 - 0) \\ = 0.119 \text{ lb/hr}$$

* The emission factors are from the TCEQ's 2000 "Equipment Leak Fugitives" for Oil and Gas Production Operations.

FUGITIVE EMISSION RATE SPECIATION

Gas Speciation:

Component	Weight Percent	Hourly Emissions (lb/hr)	Annual Emissions (tons/yr)
Total	99.99	0.18	0.80
Nitrogen	0.050	9.1E-05	4.0E-04
Carbon Dioxide	13.260	0.02	0.11
Hydrogen Sulfide	2.745	5.0E-03	0.02
Methane	76.830	0.14	0.62
Ethane	4.458	0.01	0.04
Propane	1.101	2.0E-03	0.01
n-Butane	0.290	5.3E-04	2.3E-03
Isobutane	0.371	6.8E-04	3.0E-03
n-Pentane	0.093	1.7E-04	7.5E-04
Isopentane	0.171	3.1E-04	1.4E-03
Hexanes +	0.625	1.1E-03	0.01
Total HAP	0.625	1.1E-03	0.01
Total VOC	2.651	4.9E-03	0.02

Gas Speciation from Cactus Jack No.10, Sample Taken 6/14/2004.

Water/ Oil Speciation

Component	Weight Percent	Hourly Emissions (lb/hr)	Annual Emissions (tons/yr)
Total	100	0.07	0.30
Produced Water	100	0.07	0.30
Total HAP	100	0.07	0.30
Total VOC	100	0.07	0.30

EMISSION ESTIMATE FOR WATER LOADING

Truck Hourly Loading Emission Calculations

Using equation $L_L = 12.46 \cdot \text{SPM}/T$ from AP-42, Chapter 5, Section 5.2-4

S =	0.6	= Saturation Factor
P =	4.7583	= True vapor pressure of liquid loaded (psia)
M =	50	= Molecular Weight of Vapors (lb/lb-mole)
T =	546.6	= Temperature of bulk liquid loaded (in degrees Rankine)
Hourly Loading Rate	7560	= Gallons Loaded per Hour
Control	99	= Water emissions are estimated to be 1% of crude oil
$L_L =$	0.032540295	= Loading Loss (in pounds of VOC released per 1000 gallons of liquid loaded)
VOC lb/hr =	0.25	

Truck Annual Loading Emission Calculations

Using equation $L_L = 12.46 \cdot \text{SPM}/T$ from AP-42, Chapter 5, Section 5.2-4

S =	0.6	= Saturation Factor
P =	3.9831	= True vapor pressure of liquid loaded (psia)
M =	50	= Molecular Weight of Vapors (lb/lb-mole)
T =	536.76	= Temperature of bulk liquid loaded (in degrees Rankine)
Annual Loading Rate	122640	= Gallons Loaded per Year
Control	99	= Water emissions are estimated to be 1% of crude oil
$L_L =$	0.027738333	= Loading Loss (in pounds of VOC released per 1000 gallons of liquid loaded)
VOC tpy =	0.0017	

Enter temperature in Fahrenheit (°F):	Temperature in Rankine (°R):
86.93	546.6

Enter Barrels of Liquid	Gallons of liquid:
	0

Enter gallons per year	Barrels per day:
	0

Enter temperature in Fahrenheit (°F):	Temperature in Rankine (°R):
77.09	536.76

Enter Barrels of Liquid	Gallons of liquid:
	0

Enter gallons per year	Barrels per day:
	0

EMISSION ESTIMATE FOR STORAGE VESSELS

EPNs: TK-1, TK-2
 Description: Produced Water Storage Tanks

EPN	Description	Throughput bbl/day	Working and Standing Losses			Flash Losses			Total Emission Rate		
			VOC tpy	H ₂ S tpy	HAP tpy	VOC tpy	H ₂ S tpy	HAP tpy	VOC tpy	H ₂ S tpy	HAP tpy
FL-TANK	Water Tank	4.0	0.006	3.1E-06	3.1E-04	5.7E-03	6.6E-03	1.9E-03	0.012	6.6E-03	2.2E-03
FL-TANK	Water Tank	4.0	0.006	3.1E-06	3.1E-04	5.7E-03	6.6E-03	1.9E-03	0.012	6.6E-03	2.2E-03
TOTAL			0.01	6.3E-06	6.3E-04	0.01	0.01	3.7E-03	0.02	0.01	4.4E-03

Water Tank- Working and Standing Losses

Working & Standing Losses from TANK 4.0.9d

1259.56 lb/yr

Assume water tank VOC emissions are

1% of the working and standing losses of one crude oil tank.

Assume tank HAP emissions are

5% of the VOC emissions.

H₂S emissions are based on

5% of the VOC emissions.

EMISSION ESTIMATE FOR FLASH LOSSES FROM THE WATER STORAGE TANKS
EPNs TK-1 and TK-2

GWR	1.26	scf/bbl
Molecular Weight	27.01	lb/lb-mol
Throughput	4.00	bbl/day
	5.04	scf/day
	0.21	scf/hr
Total Hourly Flash Loss	0.0150	lb/hr
Total Annual Flash Loss	0.0657	tpy

Throughput (scf/day) = (1.26 scf/bbl) * (4 bbl/day) = (5.04 scf/day)

Total Hourly Flash Loss = (0.21 scf/hr) / (379 scf/lbmol) * (27.01 lb/lbmol) = (0.015 lb/hr)

Component	Weight Percent Flash Gas Analysis	Flash Loss [lb/hr]	Flash Loss [ton/yr]
Hydrogen Sulfide*	10.000	1.5E-03	6.6E-03
Carbon Dioxide	48.979	0.007	0.032
Nitrogen	0.000	0.000	0.000
Methane	36.159	0.005	0.024
Ethane	6.162	0.001	0.004
Propane	2.271	0.000	0.001
Isobutane	0.385	0.000	0.000
Normal Butane	0.654	0.000	0.000
2,2 Dimethylpropane	0.000	0.000	0.000
Isopentane	0.235	0.000	0.000
Normal Pentane	0.195	0.000	0.000
2,2 Dimethylbutane	0.019	0.000	0.000
Cyclopentane	0.101	0.000	0.000
2,3 Dimethylbutane	0.026	0.000	0.000
2 Methylpentane	0.115	0.000	0.000
3 Methylpentane	0.080	0.000	0.000
Methylcyclopentane	0.284	0.000	0.000
Cyclohexane	0.380	0.000	0.000
2 Methylhexane	0.045	0.000	0.000
3 Methylhexane	0.048	0.000	0.000
Other C7s	0.147	0.000	0.000
Normal Heptane	0.093	0.000	0.000
Methylcyclohexane	0.367	0.000	0.000
Other C8s	0.188	0.000	0.000
Normal Octane	0.038	0.000	0.000
Other C9s	0.084	0.000	0.000
Normal Nonane	0.014	0.000	0.000
Other C10s and +	0.076	0.000	0.000
Normal Decane	0.005	0.000	0.000
Benzene	1.270	0.000	0.001
Toluene	1.208	0.000	0.001
Ethylbenzene	0.024	0.000	0.000
Xylenes	0.188	0.000	0.000
Normal Hexane	0.160	0.000	0.000
TOTAL	110.00	0.015	0.0657
TOTAL VOC	8.70	0.001305	0.005716
TOTAL HAPs	2.85	0.000428	0.00187

Flash gas speciation from sample dated 3/3/2010 from Union Ranch Lopez
 No. 1-H Gas Evolved from Water Flashed. Hydrogen Sulfide content has
 been increased to be conservative.

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	300-bbl Water Storage Tanks
City:	Webb County
State:	Texas
Company:	EOG Resources, Inc.
Type of Tank:	Vertical Fixed Roof Tank
Description:	Cactus Jack Production Facility 4 bbl water/day

Tank Dimensions

Shell Height (ft):	15.00
Diameter (ft):	12.00
Liquid Height (ft):	14.80
Avg. Liquid Height (ft):	3.00
Volume (gallons):	12,600.00
Turnovers:	4.87
Net Throughput(gal/yr):	61,320.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition:	Good
Roof Color/Shade:	Gray/Light
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.06

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meteorological Data used in Emissions Calculations: Del Rio, Texas (Avg Atmospheric Pressure = 13.82 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

300-bbl Water Storage Tanks - Vertical Fixed Roof Tank
Webb County, Texas

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Crude oil (RVP 5)	All	77.09	67.26	86.93	71.62	3.9831	3.3122	4.7583	50.0000			207.00	Option 4: RVP=5

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

300-bbl Water Storage Tanks - Vertical Fixed Roof Tank
Webb County, Texas

Annual Emission Calculations

Standing Losses (lb):	1,041.4796
Vapor Space Volume (cu ft):	1,371.3052
Vapor Density (lb/cu ft):	0.0346
Vapor Space Expansion Factor:	0.2142
Vented Vapor Saturation Factor:	0.2809

Tank Vapor Space Volume:	
Vapor Space Volume (cu ft):	1,371.3052
Tank Diameter (ft):	12.0000
Vapor Space Outage (ft):	12.1250
Tank Shell Height (ft):	15.0000
Average Liquid Height (ft):	3.0000
Roof Outage (ft):	0.1250

Roof Outage (Cone Roof)	
Roof Outage (ft):	0.1250
Roof Height (ft):	0.0000
Roof Slope (ft/ft):	0.0625
Shell Radius (ft):	6.0000

Vapor Density	
Vapor Density (lb/cu ft):	0.0346
Vapor Molecular Weight (lb/lb-mole):	50.0000
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	3.9831
Daily Avg. Liquid Surface Temp. (deg. R):	536.7649
Daily Average Ambient Temp. (deg. F):	69.3750
Ideal Gas Constant R	
(psia cu ft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	531.2850
Tank Paint Solar Absorptance (Shell):	0.5400
Tank Paint Solar Absorptance (Roof):	0.5400
Daily Total Solar Insulation	
Factor (Btu/sq ft day):	1,515.5833

Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.2142
Daily Vapor Temperature Range (deg. R):	39.3436
Daily Vapor Pressure Range (psia):	1.4460
Breather Vent Press. Setting Range (psia):	0.0600
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	3.9831
Vapor Pressure at Daily Minimum Liquid	
Surface Temperature (psia):	3.3122
Vapor Pressure at Daily Maximum Liquid	
Surface Temperature (psia):	4.7583
Daily Avg. Liquid Surface Temp. (deg R):	536.7649
Daily Min. Liquid Surface Temp. (deg R):	526.9290
Daily Max. Liquid Surface Temp. (deg R):	546.6008
Daily Ambient Temp. Range (deg. R):	22.8167

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.2809
Vapor Pressure at Daily Average Liquid:	
Surface Temperature (psia):	3.9831

Vapor Space Outage (ft):	12.1250
Working Losses (lb):	218.0774
Vapor Molecular Weight (lb/lb-mole):	50.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	3.9831
Annual Net Throughput (gal/yr.):	61,320.0000
Annual Turnovers:	4.8667
Turnover Factor:	1.0000
Maximum Liquid Volume (gal):	12,600.0000
Maximum Liquid Height (ft):	14.8000
Tank Diameter (ft):	12.0000
Working Loss Product Factor:	0.7500
Total Losses (lb):	1,259.5570

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

300-bbl Water Storage Tanks - Vertical Fixed Roof Tank
Webb County, Texas

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Crude oil (RVP 5)	218.08	1,041.48	1,259.56



FESCO, Ltd.
1100 Fesco Avenue - Alice, Texas 78332

June 22, 2004

For: EOG Resources, Inc.
539 N. Carancahua, Suite 1000
Corpus Christi, Texas 78401-2437

Sample: Cactus Jack No. 10
Separator Gas @ 741 psig & 90 °F

Station: N/A

Date Sampled: 6/14/2004 at 09:00 hours

Sampled by:

CHROMATOGRAPH ANALYSIS

COMPONENT	MOL%	GPM
Hydrogen Sulfide*	1.500	
Nitrogen	0.033	
Carbon Dioxide	5.613	
Methane	89.213	
Ethane	2.761	0.734
Propane	0.465	0.127
Isobutane	0.119	0.039
n-Butane	0.093	0.029
Isopentane	0.044	0.016
n-Pentane	0.024	0.009
Hexanes Plus	0.135	0.059
Totals:	100.000	1.013

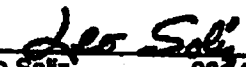
Computed Real Properties:

Specific Gravity	0.645 (Air=1.000)
Compressibility(Z)	0.9976
Gross Heating Value at 14.650 psia & 60 °F	
Dry Basis	987 BTU/CF
Saturated Basis	971 BTU/CF

*H₂S Test on Location by Sensidyne Method Yielded 15000.1 PPM,
Which is Equivalent To 1.500 Mol% or 943.4 Gr/100 CF

Base Conditions: 14.650 psia & 60 °F

Certified: FESCO, Ltd. - Alice, Texas


Leo Soliz 361-661-7015

Job Number: 43289.001
Analyst ID: JG

Cyl Number: A-447

CALCULATION OF WEIGHT COMPOSITION FROM MOLAR COMPOSITION

Cactus Jack No. 10 Separator Gas Sample

Component Name	MW	Mole %	MW x Mole%	Weight %	VOC Wt%	VOC Mole%	HAP Wt%	HAP Mole%
Methane	16.04	89.213	1430.98	76.83	-	-	-	-
Ethane	30.07	2.761	83.02	4.46	-	-	-	-
Propane	44.10	0.465	20.51	1.10	1.10	0.47	-	-
Isobutane	58.12	0.119	6.92	0.37	0.37	0.12	-	-
n-Butane	58.12	0.093	5.41	0.29	0.29	0.09	-	-
Isopentane	72.15	0.044	3.17	0.17	0.17	0.04	-	-
n-Pentane	72.15	0.024	1.73	0.09	0.09	0.02	-	-
Hexane	86.18	0.135	11.63	0.62	0.62	0.14	0.62	0.14
Nitrogen	28.01	0.033	0.92	0.05	-	-	-	-
Carbon Dioxide	44.01	5.613	247.03	13.26	-	-	-	-
Hydrogen Sulfide	34.08	1.500	51.12	2.75	-	-	-	-
Totals		100.000	1862.44	99.99	2.65	0.88	0.62	0.14

March 24, 2010



FESCO, Ltd.
1100 Fesco Avenue - Alice, Texas 78332

For: EOG Resources, Inc.
539 N. Carancahua, Suite 900
Corpus Christi, Texas 78478-0028

Date Sampled: 03/03/2010

Date Analyzed: 03/09/2010

Job Number: J01962W

Sample Union Ranch Lopez No. 1-H

FLASH LIBERATION OF SEPARATOR WATER		
	Separator Water	Stock Tank
Pressure, psig	50	0
Temperature, °F	75	70
Gas Water Ratio (1)	----	1.26
Gas Specific Gravity (2)	----	0.936
Separator Volume Factor (3)	1.000	1.000

(1) - Scf of flashed vapor per barrel of stock tank water

(2) - Air = 1.000

(3) - Separator volume / Stock tank volume

Analyst: J. G.

Base Conditions: 14.65 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

David Dannhaus 361-661-7015

March 10, 2010

FESCO, Ltd.
1100 Fesco Ave. - Alice, Texas 78332

For: EOG Resources, Inc.
539 N. Carancahua, Suite 900
Corpus Christi, Texas 78478-0028

Sample: Union Ranch Lopez No. 1-H
Gas Evolved from Water Flashed
From 76 psig & 74 °F to 0 psig & 70 °F

Date Sampled: 03/03/2010

Job Number: 01962.002

CHROMATOGRAPH EXTENDED ANALYSIS - SUMMATION REPORT

COMPONENT	MOL%	GPM
Hydrogen Sulfide*	< 0.001	
Nitrogen	0.000	
Carbon Dioxide	30.055	
Methane	60.870	
Ethane	5.534	1.472
Propane	1.391	0.381
Isobutane	0.179	0.058
n-Butane	0.304	0.095
2-2 Dimethylpropane	0.000	0.000
Isopentane	0.088	0.032
n-Pentane	0.073	0.026
Hexanes	0.164	0.067
Heptanes Plus	<u>1.342</u>	<u>0.459</u>
Totals	100.000	2.591

Computed Real Characteristics Of Heptanes Plus:

Specific Gravity _____ 3.110 (Air=1)
Molecular Weight _____ 89.72
Gross Heating Value _____ 4430 BTU/CF

Computed Real Characteristics Of Total Sample:

Specific Gravity _____ 0.936 (Air=1)
Compressibility (Z) _____ 0.9960
Molecular Weight _____ 27.01
Gross Heating Value
Dry Basis _____ 838 BTU/CF
Saturated Basis _____ 824 BTU/CF

*Hydrogen Sulfide tested in laboratory by Stained Tube Method (GPA 2377)

Results: 0.031 Gr/100 CF, 0.5 PPMV or 0.000 Mol %

Base Conditions: 14.650 PSI & 60 Deg F

Certified: FESCO, Ltd. - Alice, Texas

Analyst: RG
Processor: MRF
Cylinder ID: DL-9

David Dannhaus 361-661-7015

CHROMATOGRAPH EXTENDED ANALYSIS
TOTAL REPORT

COMPONENT	MOL %	GPM	WT %
Hydrogen Sulfide*	< 0.001		< 0.001
Nitrogen	0.000		0.000
Carbon Dioxide	30.055		48.979
Methane	60.870		36.159
Ethane	5.534	1.472	6.162
Propane	1.391	0.381	2.271
Isobutane	0.179	0.058	0.385
n-Butane	0.304	0.095	0.654
2,2 Dimethylpropane	0.000	0.000	0.000
Isopentane	0.088	0.032	0.235
n-Pentane	0.073	0.026	0.195
2,2 Dimethylbutane	0.006	0.002	0.019
Cyclopentane	0.039	0.016	0.101
2,3 Dimethylbutane	0.008	0.003	0.026
2 Methylpentane	0.036	0.015	0.115
3 Methylpentane	0.025	0.010	0.080
n-Hexane	0.050	0.020	0.160
Methylcyclopentane	0.091	0.031	0.284
Benzene	0.439	0.122	1.270
Cyclohexane	0.122	0.041	0.380
2-Methylhexane	0.012	0.006	0.045
3-Methylhexane	0.013	0.006	0.048
2,2,4 Trimethylpentane	0.000	0.000	0.000
Other C7's	0.040	0.017	0.147
n-Heptane	0.025	0.011	0.093
Methylcyclohexane	0.101	0.040	0.367
Toluene	0.354	0.118	1.208
Other C8's	0.046	0.021	0.188
n-Octane	0.009	0.005	0.038
Ethylbenzene	0.006	0.002	0.024
M & P Xylenes	0.040	0.015	0.157
O-Xylene	0.008	0.003	0.031
Other C9's	0.018	0.009	0.084
n-Nonane	0.003	0.002	0.014
Other C10's	0.008	0.005	0.042
n-Decane	0.001	0.001	0.005
Undecanes (11)	<u>0.006</u>	<u>0.004</u>	<u>0.034</u>
Totals	100.000	2.591	100.000

Computed Real Characteristics Of Total Sample:

Specific Gravity _____ 0.936 (Air=1)
 Compressibility (Z) _____ 0.9960
 Molecular Weight _____ 27.01
 Gross Heating Value
 Dry Basis _____ 838 BTU/CF
 Saturated Basis _____ 824 BTU/CF



Texas Commission on Environmental Quality
Permit by Rule Applicability Checklist
Title 30 Texas Administrative Code § 106.4

The following checklist was developed by the Texas Commission on Environmental Quality (TCEQ), Air Permits Division, to assist applicants in determining whether or not a facility meets all of the applicable requirements. Before claiming a specific Permit by Rule (PBR), a facility must first meet all of the requirements of Title 30 Texas Administrative Code § 106.4 (30 TAC § 106.4), "Requirements for Permitting by Rule." Only then can the applicant proceed with addressing requirements of the specific Permit by Rule being claimed.

The use of this checklist is not mandatory; however, it is the responsibility of each applicant to show how a facility being claimed under a PBR meets the general requirements of 30 TAC § 106.4 and also the specific requirements of the PBR being claimed. If all PBR requirements cannot be met, a facility will not be allowed to operate under the PBR and an application for a construction permit may be required under 30 TAC § 116.110(a).

Registration of a facility under a PBR can be performed by completing Form PI-7 (Registration for Permits by Rule) or Form PI-7-CERT (Certification and Registration for Permits by Rule). The appropriate checklist should accompany the registration form. Check the most appropriate answer and include any additional information in the spaces provided. If additional space is needed, please include an extra page and reference the question number. The PBR forms, tables, checklists and guidance documents are available from the TCEQ, Air Permits Division Web site at: www.tceq.state.tx.us/permitting/air/nav/air_pbr.html.

1. 30 TAC § 106.4(a)(1) & (4): Emission limits	
List emissions in tpy for each facility (add additional pages or table if needed): See table on pg. 4 SO ₂ = _____ PM ₁₀ = _____ VOC = _____ NO _x = _____ CO = _____ Other H ₂ S = _____ SO ₂ = _____ PM ₁₀ = _____ VOC = _____ NO _x = _____ CO = _____ Other _____ = _____ SO ₂ = _____ PM ₁₀ = _____ VOC = _____ NO _x = _____ CO = _____ Other _____ = _____ Total 0.0 0.0 0.35 0.0 0.0 0.04	
<ul style="list-style-type: none">• Are the SO₂, PM₁₀, VOC, or other air contaminant emissions claimed for each facility in this PBR submittal less than 25 tpy? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO• Are the NO_x and CO emissions claimed for each facility in this PBR submittal less than 250 tpy? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <p><i>If the answer to both is "Yes," continue to the question below. If the answer to either question is "No," a PBR cannot be claimed.</i></p>	
Has any facility at the property had public notice and opportunity for comment under 30 TAC Section 116 for a regular permit or permit renewal? (This does not include public notice for voluntary emission reduction permits, grandfathered existing facility permits, or federal operating permits.) <i>If "Yes," skip to Section 2. If "No," continue to the questions below.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If the site has had no public notice, please answer the following: <ul style="list-style-type: none">• Are the SO₂, PM₁₀, VOC, or other emissions claimed for all facilities in this PBR submittal less than 25 tpy?• Are the NO_x and CO emissions claimed for all facilities in this PBR submittal less than 250 tpy? <p><i>If the answer to both questions is "Yes," continue to Section 2.</i> <i>If the answer to either question is "No," a PBR cannot be claimed. A permit will be required under Chapter 116.</i></p>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
2. 30 TAC § 106.4(a)(2): Nonattainment check	
Are the facilities to be claimed under this PBR located in a designated ozone nonattainment county? <i>If "Yes," please indicate which county by checking the appropriate box to the right.</i> (Marginal) - Hardin, Jefferson, and Orange counties (BPA) (Moderate) - Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties (HGA) (Moderate) - Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant counties (DFW) <i>If "Yes," to any of the above, continue to the next question. If "No," continue to Section 3.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> BPA <input type="checkbox"/> HGA <input type="checkbox"/> DFW

<p>Does this project trigger a nonattainment review? To determine the answer, review the information below:</p> <ul style="list-style-type: none"> • Is the project's potential to emit (PTE) for emissions of VOC or NO_x increasing by 100 tpy or more? <i>PTE is the maximum capacity of a stationary source to emit any air pollutant under its worst-case physical and operational design unless limited by a permit, rule, or made federally enforceable by a certification.</i> • Is the site an existing major nonattainment site and are the emissions of VOC or NO_x increasing by 40 tpy or more? <p>If needed, attach contemporaneous netting calculations per nonattainment guidance. Additional information can be found at: www.tceq.state.tx.us/permitting/air/forms/newsourcereview/tables/nsr_table8.html and www.tceq.state.tx.us/permitting/air/nav/air_docs_newsourcereview.html</p> <p><i>If "Yes," to any of the above, the project is a major source or a major modification and a PBR may not be used. A Nonattainment Permit review must be completed to authorize this project. If "No," continue to Section 3.</i></p>	<p><input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO</p>
<p>3. 30 TAC § 106.4(a)(3): Prevention of Significant Deterioration (PSD) check</p>	
<p>Does this project trigger a review under PSD rules? To determine the answer, review the information below:</p> <ul style="list-style-type: none"> • Are emissions of any regulated criteria pollutant increasing by 100 tpy of any criteria pollutant at a named source? • Are emissions of any criteria pollutant increasing by 250 tpy of any criteria pollutant at an unnamed source? • Are emissions increasing above significance levels at an existing major site? <p>PSD information can be found at: www.tceq.state.tx.us/permitting/air/forms/newsourcereview/tables/nsr_table9.html and www.tceq.state.tx.us/permitting/air/nav/air_docs_newsourcereview.html</p> <p><i>If "Yes," to any of the above, a PBR may not be used. A PSD Permit review must be completed to authorize the project. If "No," continue to Section 4.</i></p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>
<p>4. 30 TAC § 106.4(a)(6): Federal Requirements</p>	
<ul style="list-style-type: none"> • Will all facilities under this PBR meet applicable requirements of Title 40 Code of Federal Regulations (40 CFR) Part 60, New Source Performance Standards (NSPS)? If "Yes," which Subparts are applicable?: <div style="border-bottom: 1px solid black; height: 1.2em; width: 100%; margin-top: 5px;"></div> • Will all facilities under this PBR meet applicable requirements of 40 CFR Part 63, Hazardous Air Pollutants Maximum Achievable Control Technology (MACT) standards? If "Yes," which Subparts are applicable?: <div style="border-bottom: 1px solid black; height: 1.2em; width: 100%; margin-top: 5px;"></div> • Will all facilities under this PBR meet applicable requirements of 40 CFR Part 61, National Emissions Standards for Hazardous Air Pollutants (NESHAPs)? If "Yes," which Subparts are applicable?: <div style="border-bottom: 1px solid black; height: 1.2em; width: 100%; margin-top: 5px;"></div> <p><i>If "Yes" to any of the above, please attach a discussion of how the facilities will meet any applicable standards.</i></p>	<p><input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> N/A</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> N/A</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> N/A</p>
<p>5. 30 TAC § 106.4(a)(7): PBR prohibition check</p>	
<p>Are there any air permits at the site containing conditions which prohibit or restrict the use of PBRs?</p> <p><i>If "Yes," PBRs may not be used or their use must meet the restrictions of the permit. A new permit or permit amendment may be required. List permit number(s):</i> _____</p> <p><i>If "No," continue to Section 6.</i></p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>

6. 30 TAC § 106.4(a)(8): NO_x Cap and Trade																							
<ul style="list-style-type: none"> Is the facility located in Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? <i>If "Yes," answer the question below. If "No," continue to Section 7.</i> Will the proposed facility or group of facilities obtain required allowances for NO_x if they are subject to 30 TAC Chapter 101, Subchapter H, Division 3 (relating to the Mass Emissions Cap and Trade Program)? 	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO																					
7. Highly Reactive Volatile Organic Compounds (HRVOC) check																							
<ul style="list-style-type: none"> Is the facility located in Harris County? <i>If "Yes," answer the next question. If "No," skip to the box below.</i> Will the project be constructed after June 1, 2006? <i>If "Yes," answer the next question. If "No," skip to the box below.</i> Will one or more of the following HRVOC be emitted as a part of this project? <p><i>If "Yes," complete the information below:</i></p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;"><u>lb/hr</u></th> <th style="width: 20%; text-align: center;"><u>tpy</u></th> </tr> </thead> <tbody> <tr> <td>▶ 1,3-butadiene</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>▶ all isomers of butene (e.g., isobutene [2-methylpropene or isobutylene])</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>▶ alpha-butylene (ethylethylene)</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>▶ beta-butylene (dimethylethylene, including both cis- and trans-isomers)</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>▶ ethylene</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>▶ propylene</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table>		<u>lb/hr</u>	<u>tpy</u>	▶ 1,3-butadiene	_____	_____	▶ all isomers of butene (e.g., isobutene [2-methylpropene or isobutylene])	_____	_____	▶ alpha-butylene (ethylethylene)	_____	_____	▶ beta-butylene (dimethylethylene, including both cis- and trans-isomers)	_____	_____	▶ ethylene	_____	_____	▶ propylene	_____	_____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO
	<u>lb/hr</u>	<u>tpy</u>																					
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▶ beta-butylene (dimethylethylene, including both cis- and trans-isomers)	_____	_____																					
▶ ethylene	_____	_____																					
▶ propylene	_____	_____																					
<ul style="list-style-type: none"> Is the facility located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? <i>If "Yes," answer the next question. If "No," the checklist is complete.</i> Will the project be constructed after June 1, 2006? <i>If "Yes," answer the next question. If "No," the checklist is complete.</i> Will one or more of the following HRVOC be emitted as a part of this project? <p><i>If "Yes," complete the information below:</i></p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;"><u>lb/hr</u></th> <th style="width: 20%; text-align: center;"><u>tpy</u></th> </tr> </thead> <tbody> <tr> <td>▶ ethylene</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>▶ propylene</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table>		<u>lb/hr</u>	<u>tpy</u>	▶ ethylene	_____	_____	▶ propylene	_____	_____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO												
	<u>lb/hr</u>	<u>tpy</u>																					
▶ ethylene	_____	_____																					
▶ propylene	_____	_____																					

PRINT

2011 Month to Month EOG Eagleford Contractor Safety Information

EOG South Texas Contact: Christy Gonzalez phone: 210-471-0984

APPLIES ONLY TO EOG Eagleford TEXAS AREA

REPORTS DUE NO LATER THAN 15TH OF EACH MONTH

Company Name: Roywell Services, Inc

PLEASE INDICATE COMPANY NAME ABOVE

	All Hours Worked	TOTAL OSHA REC.	LTII/DAFW Cases	RWC/ Restricted Duty Cases	MTO/ Illness Cases
Jan-11	120.00				
Feb-11	97.00				
Mar-11					
Apr-11					
May-11					
Jun-11					
Jul-11		0			
Aug-11		0			
Sep-11		0			
Oct-11		0			
Nov-11		0			
Dec-11		0			
Totals (auto)	97.00	0	0	0	0

*NOTE: November information is estimated and subject to change

1. DAFW= Days Away From Work Cases (Lost Workdays)

2. Restricted Duty- Injuries involving restrictions on normal job duties

Incident Details:

Rig Number	Date	Incident Type	Name of Injured Person



Title 30 Texas Administrative Code § 106.352
Permit By Rule (PBR) Checklist
Oil and Gas Production Facilities

The following checklist is designed to help you confirm that you meet Title 30 Texas Administrative Code § 106.352 (30 TAC § 106.352) requirements. If you do not meet all the requirements, you may alter the project design or operation in such a way that all the requirements of the PBR are met or you may obtain a construction permit. The PBR forms, tables, checklists and guidance documents are available from the Texas Commission on Environmental Quality (TCEQ), Air Permits Division Web site at www.tceq.state.tx.us/nav/permits/air_permits.html.

CHECK THE MOST APPROPRIATE ANSWER		
	Check the type of facilities covered by this registration(check all that are applicable): <input checked="" type="checkbox"/> oil or gas production facility <input type="checkbox"/> carbon dioxide separation facility <input type="checkbox"/> oil or gas pipeline facility	
	The facilities at the site include (check all that apply): <input checked="" type="checkbox"/> one or more tanks <input checked="" type="checkbox"/> separators <input type="checkbox"/> dehydration units <input type="checkbox"/> free water knockouts <input type="checkbox"/> gunbarrels <input type="checkbox"/> heater treaters <input type="checkbox"/> natural gas liquids recovery units <input type="checkbox"/> gas sweetening and other gas conditioning facilities <input type="checkbox"/> sulfur recovery units	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Will gas sweetening, sulfur recovery, or other gas conditioning facilities only condition gas that contains less than two (2) long tons per day of sulfur compounds as sulfur?	<input type="checkbox"/> YES <input type="checkbox"/> NO N/A
1	Do all compressors and flares fully meet the requirements of 30 TAC § 106.512 and 30 TAC § 106.492, respectively? Attach data showing how the exemptions are met. Checklists are available.	<input type="checkbox"/> YES <input type="checkbox"/> NO N/A
2	Are total emissions from all facilities, including fugitives and loading emissions, less than 25 tpy SO ₂ , VOC, or 250 tpy of CO or NO _x ?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Have you attached calculations and other data, such as a gas analysis, showing that the emissions limits of the general rule are met?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
3	If the facility handles sour gas, is it located at least 1/4 mile from any recreational area, residence, or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located? Attach a scaled map.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
4	Are total emissions of sulfur compounds, excluding sulfur oxides, less than 4.0 pounds per hour? Attach calculations.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Does the height of each vent emitting sulfur compounds meet or exceed the minimum vent height stated in 30 TAC § 106.352? List stack height: 20 ft	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

PRINT