

From: Nickens, Henry V (Contractor)
Sent: Fri Jun 18 03:09:53 2010
To: Merrill, Robert C; Brookes, David; McDonald, W Leith; Banon, Hugh H
Cc: Harrison, Gary E; Cecil, Chris; Gokdemir, Oktay M.; Chitale, Ashish; Lynch, Richard; Holt, Charles A; Tooms, Paul J; Mason, Mike C
Subject: RE: Disposal well for MC 252
Importance: Normal
Attachments: Macondo - MC296#1 GAP Injection.xls

Attached is the predicted injection rates from Macondo to MC296#1 based on the injectivity indices and reservoir pressure provided by Bob.

I assumed two Macondo productivities (Macondo 35 MBD and 60 MBD cases from study of Top Kill 3) and a 10000 ft, 8" flowline connecting the wells.

Calculation of injection rates were done for three cases for each Macondo productivity - min, max and best estimate II's.

These are maximum rates - from Bob's note, erosion could be a problem for the Upper Sand and flow choke will be required.

Henry Nickens

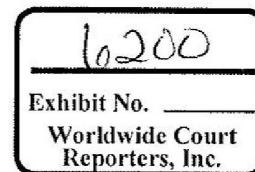
From: Merrill, Robert C
Sent: Thu 6/17/2010 8:14 PM
To: Brookes, David; McDonald, W Leith; Banon, Hugh H
Cc: Harrison, Gary E; Cecil, Chris; Nickens, Henry V (Contractor); Gokdemir, Oktay M.; Chitale, Ashish; Lynch, Richard; Holt, Charles A; Tooms, Paul J; Mason, Mike C
Subject: RE: Disposal well for MC 252

Hugh:

I enclose the draft note on the suitability of the MC296 #1 for oil disposal. The volumes will depend on the arrival pressure, but the well's completion will limit injection if we wish to avoid erosion. For an arrival pressure of ~2000 psi one could inject about 10 mbd.

Bob

Bob Merrill
Senior Advisor
Reservoir Engineering Community of Practice
BP EPT, Houston



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email: merrillrc@bp.com

From: Brookes, David

Sent: Thursday, June 17, 2010 5:36 PM

To: Merrill, Robert C; McDonald, W Leith; Banon, Hugh H

Cc: Harrison, Gary E; Cecil, Chris; Nickens, Henry V (Contractor); Gokdemir, Oktay M.; Chitale, Ashish; Lynch, Richard; Holt, Charles A; Tooms, Paul J; Mason, Mike C

Subject: Disposal well for MC 252

Bob,

We have had a positive response from the Nakika team on the injectivity of the wells in the Kepler area, it appears we can possibly inject 40 - 50kbpd without damaging the formation.

However the wells would be at the end of a 12 mile tieback and we would like to see if there is any closer feasible disposal well opportunity.

Can you advise if the ENI MC 291 well offers an alternate route yet?

DAvgB

From: Merrill, Robert C

Sent: 17 June 2010 14:52

To: McDonald, W Leith; Banon, Hugh H

Cc: Harrison, Gary E; Brookes, David; Cecil, Chris; Nickens, Henry V (Contractor); Gokdemir, Oktay M.; Chitale, Ashish; Lynch, Richard; Holt, Charles A

Subject: RE: Downhole Flow Control - slot size / pressure drop

Leith:

Thank-you. I talked to some other folks and found our "go-to" fellow on sliding sleeves (Mark Barrilleaux).

Bob

Bob Merrill

Senior Advisor

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From: McDonald, W Leith
Sent: Thursday, June 17, 2010 2:39 PM
To: Merrill, Robert C; Banon, Hugh H
Cc: Harrison, Gary E; Brookes, David; Cecil, Chris; Nickens, Henry V (Contractor); Gokdemir, Oktay M.; Chitale, Ashish; Lynch, Richard; Holt, Charles A
Subject: RE: Downhole Flow Control - slot size / pressure drop

Bob,

I spoke with Richard Lynch and he suggested that you contact Charlie Holt and that he should be able to point you in the right direction.

W. Leith McDonald
Offshore Pipeline Engineer
BP - US Pipelines & Logistics
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From: Merrill, Robert C
Sent: Thursday, June 17, 2010 11:46 AM
To: Banon, Hugh H
Cc: Harrison, Gary E; McDonald, W Leith; Brookes, David; Cecil, Chris; Nickens, Henry V (Contractor); Gokdemir, Oktay M.; Chitale, Ashish
Subject: Downhole Flow Control - slot size / pressure drop

Hugh:

Who is on the team knowledgeable about "Well Dynamics" sliding sleeves? The rigel well is a smart completion, and the sliding sleeve was constructed by Well Dynamics. It would be good to be able to incorporate the pressure drop across the sleeve. Per my earlier note, it's not an issue for gas production, but it could become one for oil injection.

Bob

Bob Merrill

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From: Brookes, David
Sent: Wednesday, June 16, 2010 9:06 PM
To: Cecil, Chris; Merrill, Robert C
Cc: Banon, Hugh H; Tooms, Paul J; Harrison, Gary E; McDonald, W Leith
Subject: RE: Mariner Well - MC 296-1

Chris, Robert
Did you have any initial views on the capacity of the Marina well or the Nakika Ariel or Kepler wells to act as a temporary reservoir for Maconda fluids ? Paul Tooms is presenting at 9am Thursday on a tieback option and we would like to include the secondary option of injecting into a depleted well as possible temporary solution for any topside hurricane shutdown

Dave Brookes
Chief Engineer - Subsea and Floating Systems
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[REDACTED] brookeda@bp.com

From: McDonald, W Leith
Sent: 16 June 2010 18:33
To: Cecil, Chris; Merrill, Robert C
Cc: Banon, Hugh H; Tooms, Paul J; Harrison, Gary E; Brookes, David
Subject: FW: Mariner Well - MC 296-1

Chris/Bob,

Please find initial information about the ENI/Mariner MC296-1 well. ENI will be forwarding additional information in the near future.

W. Leith McDonald
Offshore Pipeline Engineer
BP - US Pipelines & Logistics

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From: Loegering, Cory [mailto:CLOEGERING@mariner-energy.com]
Sent: Wednesday, June 16, 2010 5:37 PM
To: Tooms, Paul J
Cc: Lynch, Richard; McDonald, W Leith; Crum, John; Carmony, David; Roller, Thom
Subject: RE: Mariner Well

Paul,
I spoke with ENI (operator of the MC 252/296 Well) and they have elected to take the lead on sending over a package to you. I have attached a package of materials we prepared for you and have subsequently sent them to ENI also to keep them informed. Let me know if I can be of further assistance. We are willing to help in any way.

Regards,

Cory L. Loegering
Senior Vice President
Mariner Energy, Inc.
2000 W. Sam Houston Parkway South
Suite 2000
Houston, TX 77042

713-954-5574 (direct)
From: Tooms, Paul J [mailto:paul.tooms@uk.bp.com]
Sent: Wednesday, June 16, 2010 2:35 PM
To: Loegering, Cory
Cc: Lynch, Richard; McDonald, W Leith
Subject: RE: Mariner Well

Cory
At the meeting with Secretary Salazar yesterday, you offered that you had some depleted wells nearby. I am looking at options to run flowlines to take the oil and gas away from MC252#1 (Macondo) - using a depleted well for injection is certainly an option.
Could you provide me with some details of the well or wells you had in mind including location, depth and pressure of the production zone, connection type, and pressure rating of the flowline system
Thanks for your help in this.

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Paul
Paul Tooms
VP Engineering
Mobile phone number: [REDACTED]

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Company Details: BP Exploration Operating Company Ltd
Registered Office: Chertsey Road Sunbury-on-Thames Middlesex TW16 7BP
Registered in England and Wales Number 305943

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

From: Lynch, Richard
Sent: Wednesday, June 16, 2010 2:14 PM
To: Carmony, David; 'CLOEGERING@mariner-energy.com'; Tooms, Paul J
Subject: RE: Mariner Well
David,

Thanks for the note. Paul Tooms and his team are looking at pipeline concepts. I am passing your email addresses along to him, so that he can contact you if he needs additional information. Thank you!
Best Regards,

Richard Lynch
Vice President - Drilling and Completions - CDO
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Houston, Texas USA 77079

Office Phone: +1-281-366-3566
Mobile Phone: [REDACTED]

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

From: Carmony, David [mailto:David.Carmony@usa.apachecorp.com]
Sent: Tuesday, June 15, 2010 4:13 PM
To: Lynch, Richard; 'CLOEGERING@mariner-energy.com'
Subject: Mariner Well

Richard, the Mariner offset well that Cory mentioned in the meeting today is a depletion drive well that is currently depleted to abandonment pressure. That might make a good injection well for BP to utilize or use the pipeline system to get to a host processing platform. I have attached Cory's email if you need to contact him for additional information. Good luck, let me know if we can help out.

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Macondo - MC296#1 Injection

35 MBD				MC292#1	Injection Rate (STB/D)		
Macondo		Upper	Lower	WHP	Upper	Lower	Total
PI		II	II				
	6.9	7	2	5220	17900	5100	23000
	6.9	18	5	4225	21800	6100	27900
	6.9	60	17	3740	23400	6800	30200

60 MBD							
Macondo		MC292#1 ion Rate (STB/D)					
PI		Upper	Lower	WHP	Upper	Lower	Total
22.3		7	2	6760	22900	6600	29500
22.3		18	5	5920	28500	8000	36500
22.3		60	17	5380	31500	9100	40600