From: Kraus, Andreas M
Sent: Wed Jul 01 19:49:04 2009
To: Hafle, Mark E
Subject: RE: Macondo AFE Status
Importance: Normal
Attachments: X2-000X8_MACONDO_WellAFE_Rev0 (3).ZIP

Ready for signature…

<<...>>
Thanks
ANDREAS
Team Lead - Project Services - Gulf of Mexico Deepwater
Office: 281-366-4763 Cell: 281-773-4522
e-mail: andreas.m.kraus@bp.com

From: Hafle, Mark E
Sent: Wednesday, July 01, 2009 2:31 PM
To: Kraus, Andreas M
Subject: Macondo AFE Status

Andreas,
What is the status of the Macondo AFE?
Regards,

Mark Hafle
Drilling Engineer
BP Deepwater GoM
281-366-4237 (o)
281-687-8216 (m)

AUTHORIZATION FOR EXPENDITURE

SAP NO:	X2-000X8
BP(GOM)	YES BP(GOM)X - Exploration
BP(GOM) COST CENTER	

DATE PREPARED:	18-Jun-2009	FINANCIAL MEMO NO:	GoM-SPU-FM-2009-5
OPERATOR:	BP	AFE NO:	X2-000X8
LEASE/UNIT/FACILITY:	OCS-G-32306	START DATE:	15-Jul-2009
LEASE/FAC FLAC ID:	Mississippi Canyon 252	END DATE:	30-Nov-2009
WELL DESC/NAME/NO:	MC 252 #1	SURFACE LOCATION:	X=1,202,803 Y=10,431,617
WELL FLAC:		BOTTOM HOLE LOC:	X=1,202,803 Y=10,431,617
BUSINESS UNIT:	GoMX	PRPSD TOTAL DEPTH:	20,200' MD/TVD
BP WORKING INTEREST:	100.000%	COUNTY/STATE:	Offshore - GoM / La
JOINT OPRTG AGRMNT NO:		OPERATING FIELD:	Macondo - Wildcat
SAP COST CENTER:		HORIZON: (formation/prospect)	Miocene

CAPITAL	
Project ID:	X2 Exploratory Drilling
Project TYPE	BB Capital - Exploration Authority
E&P COMPONENT	02 Exploration Well Costs
REPLACEMENT ACCOUNTING	Component Replacement - YES

EXPENSE	
Project ID:	

WELL TYPE - If Applicable
Oil Well
Exploratory Well
FIELD TRIAL - Required
Not A Field Trial
COPAS Overhead - Required
Drilling

PROJECT DESCRIPTION/COMMENTS	Project Name: Macondo (MC 252 #1)

Authority is requested to fund the drilling and evaluation of the Macondo exploration (ILX) well. This well will be drilled with the Transocean "Marianas" semi-submersible in 4,992' of water. The well will be vertically drilled. 6 strings of casing are planned to be run to reach TD. Also included is a contingency expandable liner, risked at 50% and a string of 9-7/8" casing that will be run in the success case as part of the temporary abandonment plan (Future Production casing). The well will require ~ 80 days and $99.2M to drill and temporarily abandon.

The AFE also includes an additional ~ 18 days and $21.4M for the suspension of the well prior to peak hurricane season (Aug 15) and the restart of the well following the end of the peak hurricane season (Oct 15). The 60 days of rig dayrate for the stacked period is not included in this AFE.

WORKING INTEREST OWNERS	Initial WI %	Final WI %	WI COST	NOTES
BP	100.000%	100.000%	$ 120,580,000	
			$ -	
			$ -	
			$ -	
Total	100%	Total 100%	Total Costs $ 120,580,000	

TANGIBLE / INTANGIBLE	DESCRIPTION	ESTIMATED GROSS COST	
		PROJECT / PRODUCER	DRY HOLE
INTANGIBLE	Rig MOB, prep, drill, evaluate, and abandonment costs	$ 111,937,000.00	$ 111,937,000.00
TANGIBLE	Tubular (36", 28", 22", 18", 16", 13-5/8", 11-7/8" cont. and wellhead costs	$ 8,643,000.00	$ 8,643,000.00
	TOTAL PROJECT COST	$ 120,580,000.00	$ 120,580,000.00

PROJECT CONTACTS:	NAME	TITLE	EMAIL	PHONE
	Mark Hafle	Drilling Engineer	mark.hafle@bp.com	281-366-4237
	Andreas M. Kraus	D&C Project Services Team Lead	andreas.m.kraus@bp.com	281-366-4763

PARTNER APPROVAL: YES _____ NO _____ DATE: _____

COMPANY NAME / NONOPERATOR: _____

PRINT NAME: _____ TITLE: _____

SIGNATURE: _____

NOTICE TO NONOPERATOR: Costs shown are estimates only. Nonoperators should not consider these estimates as establishing any limit on the monies which will be required to perform the proposed operation. Overhead will be charged in accordance with the Joint Operating Agreement.

ADDITIONAL APPROVALS:	PRINT NAME	SIGNATURE	DATE
AFE ORIGINATOR:	Mark Hafle		
DRILLING MANAGER:	Ian Little		
COMMERCIAL	Xuemei Liu		
PERFORMANCE UNIT LEADER	Jay Thorseth		
VICE PRESIDENT - GoM EXPLORATION	David Rainey		
DOA (Delegation of Authority)	Verified Yes ___ No: ___	Initial: _____	
FINANCIAL TREATMENT	Verified Yes ___ No: ___	Initial: _____	

Form 115 Rev: 11.21.07

BP GoM Deepwater Exploration

Macondo Prospect (Basis of Design)

OPERATOR:	BP PARTNER: TBD	DATE:	5/16/2009_Rev 5
WELL NAME:	MC 252 #1, MACONDO PROSPECT, OCS-G-32306	PTD:	20,200' MD/TVD
FIELD / PROSPECT:	WILDCAT AREA: OFFSHORE STATE LA	RF ELEV:	89' (Marianas) WD: 4992'
SURFACE LOCATION:	X=1,202,803.88 Y=10,431,617.00	PBHL:	X=1,202,803.88 Y=10,431,617.00
OBJECTIVE ZONE(S):	M56	RIG:	Transocean Marianas

DRIL-QUIP SS-15ES BIGBORE II WELLHEAD SYSTEM WITH 18.500" ID

DEPTH (RKB)	HOLE SIZE	CASING	MUD
ML @ 5081' MD/TVD	31.220" ID ADAPTER		
16" supplemental adapter @ ~5121' in 22" extension joint 18.375" ID	JET	36" X 1.50",X-80 HC-100/MT x X-56, D90/MT	Seawater
36" @ 5361' MD/TVD (280' bml)	48 °F	8.6 PP / 8.7 FIT/LOT	
TOC @ ~ 5081' MD/TVD (Mudline)	26" X 32-1/2"	28", 218.27ppf X-52, S60/MT	Seawater
16" rupture/burst disk sub ~1000' bml			
28" @ 6275' MD/TVD (1194' bml)	65 °F	8.6 PP / 9.8 FIT/LOT	
TOC @ ~ 5081' MD/TVD (Mudline)	26"	22", 277.01#, X-80, H90/MT EXTENSION JT X 22", 224.28# X-80, S90/MT	Seawater or 11.5+/- P&D
18" supplemental adapter @ ~ 7600' 18.250" ID			
22" @ 8000' MD/TVD (2919' bml)	94 °F	9.3 PP / 11.1 FIT/LOT	
TOC @ ~8900' MD/TVD	18-1/8"x22" Rotary Steerable	18" 117# P-110, HYDRIL 511	10.0 - 10.6 ppg SOBM
16" rupture/burst disk sub ~9000'			
18" @ 9900' MD/TVD (4819' bml)	122 °F	10.4 PP / 12.3 FIT/LOT	
16" rupture/burst disk sub ~10,400'			
TOC @ ~11,500' MD/TVD	16.5"x20" Rotary Steerable	16" 97# P-110, HYDRIL 511	10.6 - 11.8 ppg SOBM
TOL @ ~12,200' MD			
16" @ 12,500 MD / TVD (7419' bml)	162 °F	11.6 PP / 13.6 FIT/LOT	
TOC @ ~14,300' MD/TVD	14-3/4"x16" Rotary Steerable	13-5/8" 88.2# Q-125, SLIJ-II	11.8 - 13.1 ppg SOBM
TOL @ ~15,000' MD			
13-5/8" @ 15,300' MD/TVD (10,219' bml)	199 °F	12.9 PP / 14.7 FIT/LOT	
TOC @ ~16,000' MD/TVD	12-1/4"x14" ROTARY STEERABLE	Contingency 11-3/4" x 13-5/8" Expandable Liner	13.1 - 13.5 ppg SOBM
11-3/4" @ 17,000' MD/TVD (11,919' bml)	222 °F	13.3 PP / 15.2 FIT/LOT	
TOC @ ~13,000' MD/TVD	10-5/8" x 12-1/4" ROTARY STEERABLE	Potential 9-7/8", 62.8#, TBD Production Casing	13.5 - 14.6 ppg SOBM
Well TD = 20,200' MD/TVD			
Potential : 9-7/8" @ 20,200' MD/TVD	262 °F	14.4 PP / 16.1 FIT/LOT	

Drilling & Completions Uncertainty Statement - Summary

Project Details | Country: USA | Project: Macondo - MC 252 #1 - PT well w/split

Deliverable: Exploration Well, keeper option | CVP Stage: Appraise | Workbook: SWE 4.43

Basis of Estimate

Assumptions:

- Performance Target Well with Split time
- Straight Hole
- 11-7/8" Expandable risked at 50%
- No Hurricane NPT outside of peak stacked time

Analogue Data:

Isabela, Nakika, Santa Cruz, Yumuri, Rigel

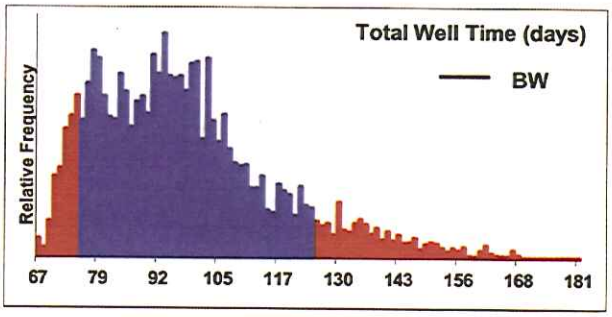
Best Wells Performance:

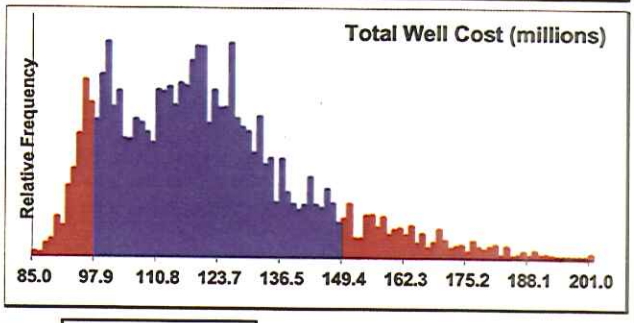
BiC = 25.6 day/10k

Time & Cost Summary

Mean Well Cost: $ 120.58 MM | Cost Percentile: P56

P10 - P90 Range: $ 97.20 MM - $ 148.32 MM (± 21%)





Best Wells: 51 days (P0) | Mean Well Time: 98 days

Cost Breakdown

Dry Hole Cost:	$ 63.18 MM
Well Split Cost:	$ 21.36 MM

KPIs

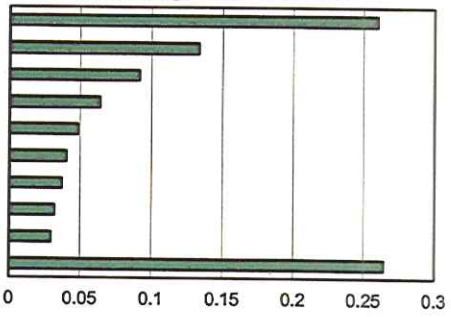
KPIs	P10	Mean	P90	Best Wells
Days / 10K	26.3	40.8	58.2	25.6
Well Split Time	16.5	18.4	20.4	0.0
Well NPT%	9.0%	19.4%	37.8%	

Risk & Uncertainty

Risk & Uncertainty Comments:

- Narrow PP/FG window
- Weather/Hurricane season
- Stuck Pipe / logging tools
-

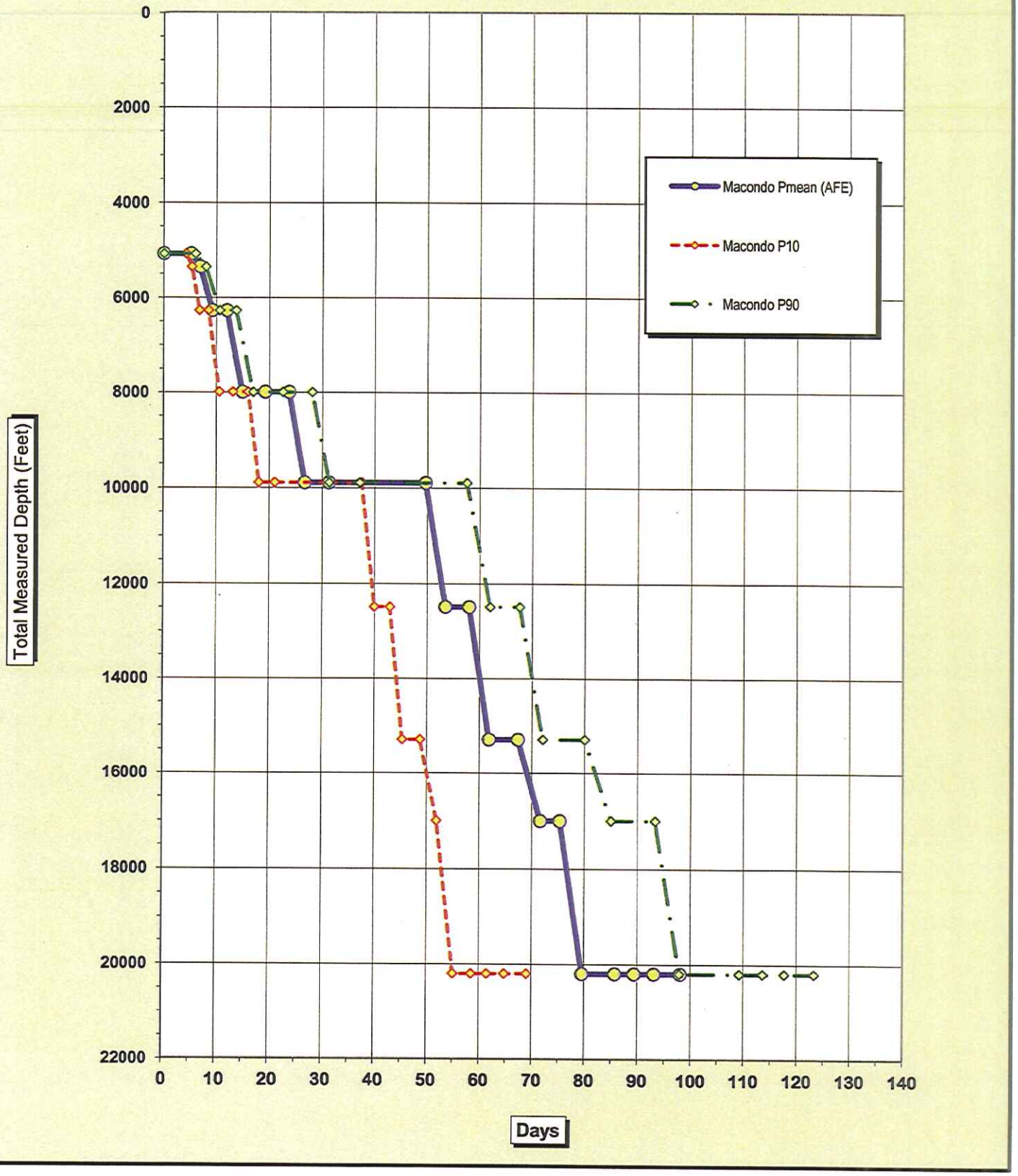
Rig issues / equipment failure	26.0%
Drilling Non-specific NPT%	13.3%
Major Losses	9.2%
Wireline logging	6.4%
Logging problems	4.9%
Run Riser & BOP's	4.0%
BOP / Riser problems	3.7%
Run 18" Liner	3.2%
Drill 16-1/2"x20" hole	3.0%
Other	26.4%



Last updated on: 8-May-09 by: Mark Hafle

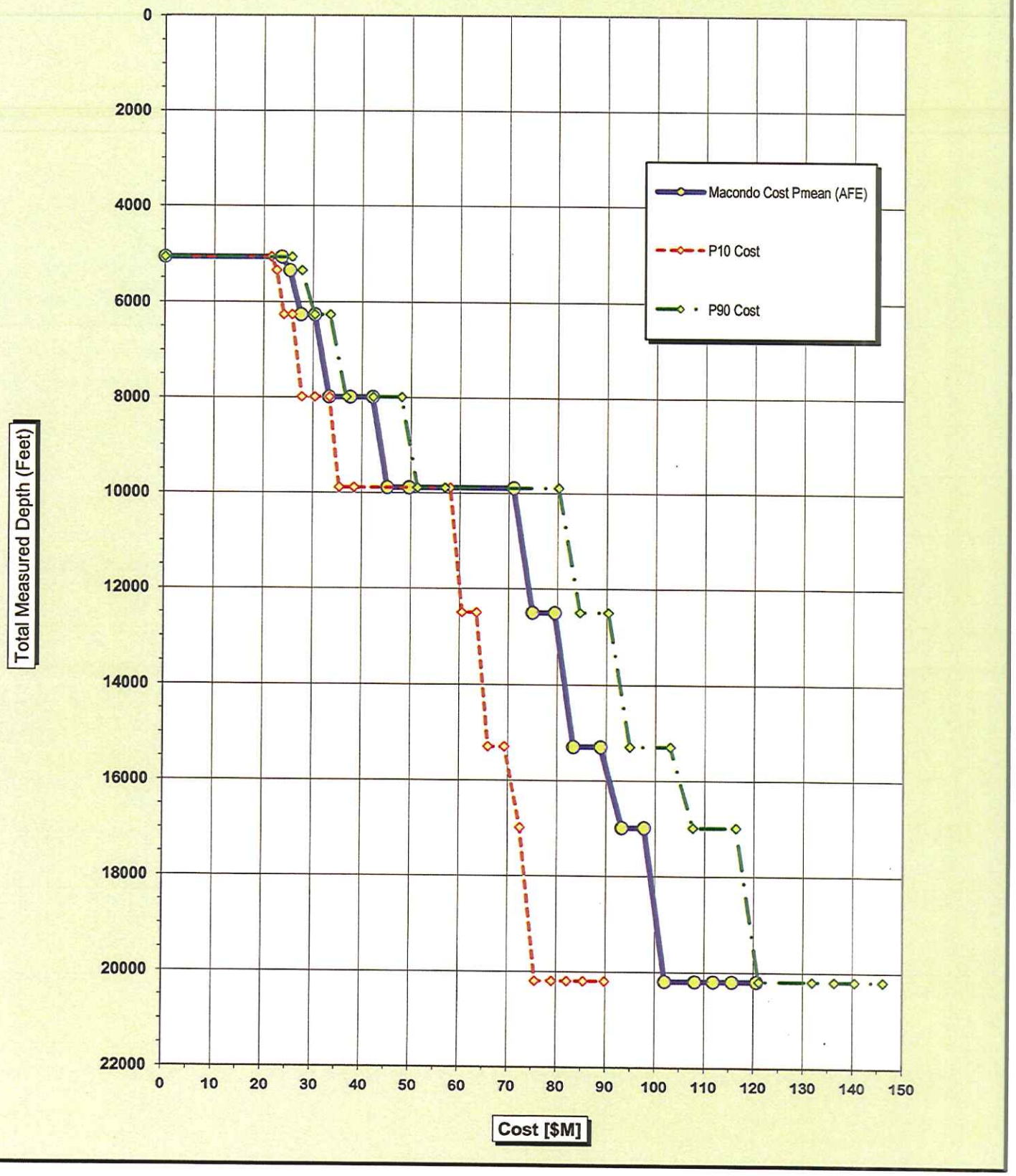
Print Date: 5/22/2011

Macondo - MC 252 #1
Days vs Depth



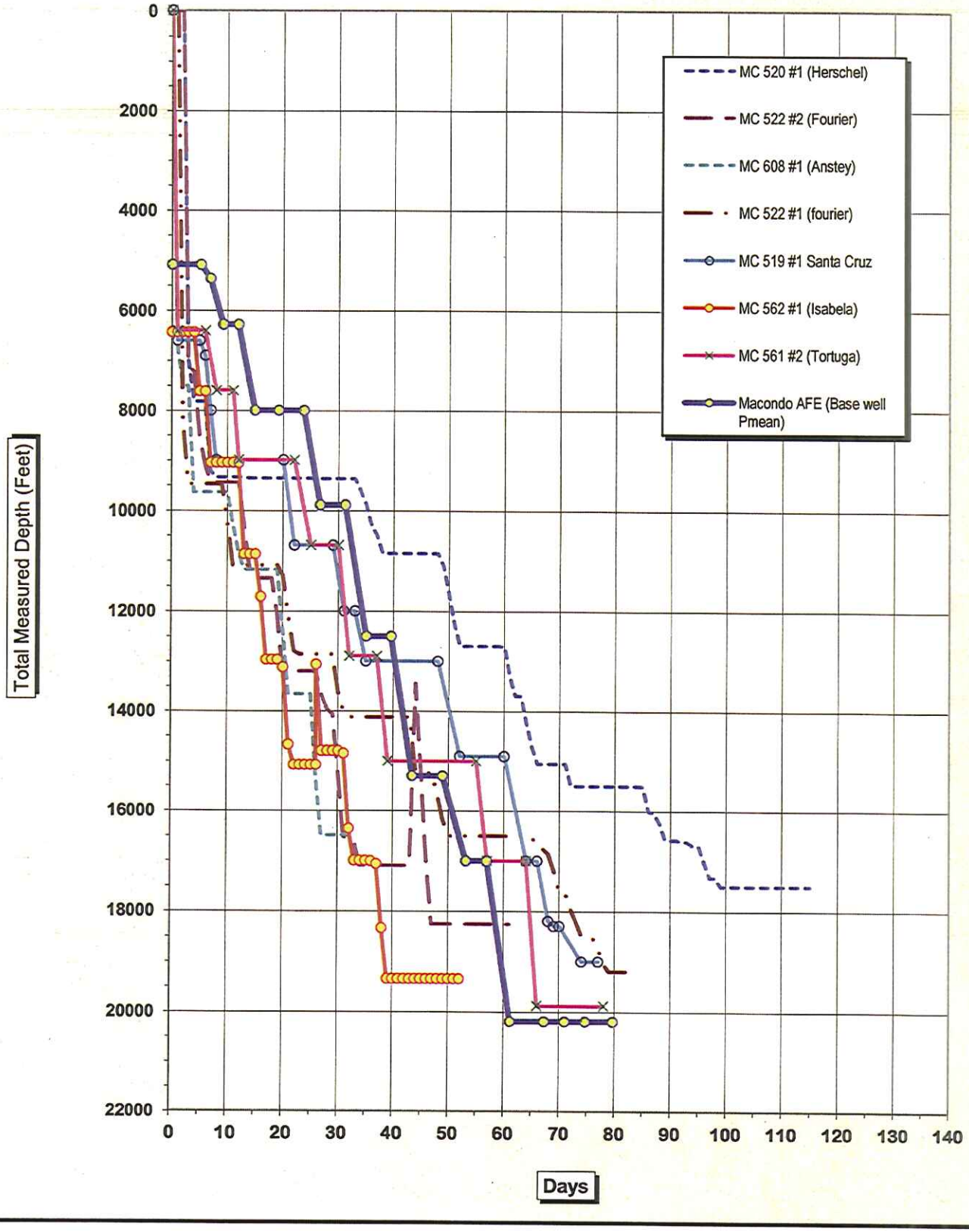
Print Date: 5/22/2011

Macondo - MC 252 #1
Cost vs Depth



Print Date: 5/22/2011

Macondo - MC 252 #1 - Offset Wells
Days vs Depth



Final Well AFE (June 18,2009) operations / time / cost data for plots

Days

	P10	Pmean	P90	depth
	0	0	0	5081
Mob Rig and Install Mooring Lines	4.24	5.20	6.00	5081
Jet in 36"	1.07	1.72	1.99	5361
Drill 26" x 32.5"	1.46	2.25	2.56	6275
Run 28"	1.70	2.78	3.18	6275
Drill 26" hole	2.03	2.95	3.20	8000
Run 22"	2.59	4.28	5.61	8000
Run Riser & BOP's	2.89	4.50	5.54	8000
Drill 18.125" x 22" hole	2.04	2.98	3.22	9900
Run 18" Liner	2.94	4.56	5.80	9900
Incremental time for splitting Well	16.55	18.38	20.40	9900.00
Drill 16-1/2"x20" hole	2.44	3.85	4.46	12500
Run 16"	2.95	4.48	5.61	12500
Drill 14.5"x16" hole	2.42	3.82	4.44	15300
Run 13 5/8" liner	3.37	5.51	7.96	15300
Drill 12-1/4" x 14"	3.19	4.28	4.96	17000
Run Expandable Liner 11-7/8 x 13-5/8	0.00	3.72	8.35	17000
Drill 10-5/8"x12-1/4"	3.17	4.25	4.60	20200
Wireline logging	3.43	6.18	11.30	20200
Temporary Abandonment	2.99	3.70	4.40	20200
Pull BOP	3.33	3.70	4.08	20200
De-moor rig / Demob	4.20	4.94	5.64	20200
Hurricane Downtime	0.00	0.00	0.00	20200

Cost [$k]

	P10	Pmean	P90	depth
	0	0	0	5081
Mob Rig and Install Mooring Lines	21516.7	23547.7	25701.2	5081
Jet in 36"	1064.9	1671.6	2006.5	5361
Drill 26" x 32.5"	1462.6	2306.5	2610.9	6275
Run 28"	1687.4	2834.9	3191.3	6275
Drill 26" hole	2043.0	2918.6	3247.4	8000
Run 22"	2609.6	4287.9	5462.2	8000
Run Riser & BOP's	2972.2	4580.8	5839.1	8000
Drill 18.125" x 22" hole	2049.0	2965.0	3232.3	9900
Run 18" Liner	2978.4	4471.3	5633.5	9900
Incremental time for splitting Well	19653.2	21364.5	23188.9	9900
Drill 16-1/2"x20" hole	2489.1	3882.4	4385.8	12500
Run 16"	2951.2	4560.5	5758.8	12500
Drill 14.5"x16" hole	2471.7	3882.4	4483.3	15300
Run 13 5/8" liner	3347.4	5509.5	8204.2	15300
Drill 12-1/4" x 14"	3182.8	4367.6	4665.6	17000
Run Expandable Liner 11-7/8 x 13-5/8	0.0	4517.3	8683.3	17000
Drill 10-5/8"x12-1/4"	3179.8	4334.0	4719.7	20200
Wireline logging	3422.2	6087.0	10848.7	20200
Temporary Abandonment	3048.2	3747.5	4448.8	20200
Pull BOP	3369.8	3744.0	4101.4	20200
De-moor rig / Demob	4280.4	5003.0	5701.9	20200
Hurricane Downtime	0.0	0.0	0.0	20200