02054460

FORM 6 Rev 12/05

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver Colorado 80203 (303) 894-2100 Fax (303) 894-2109

DE DA | ET | OE | ES DA

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COGCC

WELL ABANDONMENT REPORT

Submit original plus one copy. This form is to be submitted as an intent whenever a plugging is planned on a borehole. The approved intent shall be valid for twelve months after the approval date after that period a new intent will be required. After the plugging is complete, this form and one copy shall again be submitted as a subsequent report of the work as actually completed.

COGCC Operator Number: 53650
Name of Operator: Marathon Oil Company
Address: 5555 San Felipe St, Mailstop 35:08
City: Houston State: Texas Zip: 77056-2701

Contact Name & Telephone
Anna Walls
No: (713) 296-3468
Fax: (713) 513-4394

24 hour notice required, contact: Dave Andrews
Tel: 970-456-5262

API Number 045-14245-01
Well Name: 697-13C Well Number: 18
Location (QtrQtr, Sec, Twp, Rng, Meridian): SESW 13 06S 97W 6th P.M.
County: GARFIELD Federal, Indian or State Lease Number:
Field Name: GRAND VALLEY Field Number: 31290

Complete the Attachment Checklist

	Oper	OGCC
Wellbore Diagram	x	
Cement Job Summary		
Wireline Job Summary		

[X] **Notice of Intent to Abandon** [ ] **Subsequent Report of Abandonment**

Only Complete the Following Background Information for Intent to Abandon

Latitude: 39.51891 Longitude: -108.17276
GPS Data:
Date of Measurement: 5/15/2008 PDOP Reading: 1.9 Instrument Operator's Name: Craig Davis

Reason for Abandonment: [ ] Dry [ ] Production Sub-economic [X] Mechanical Problems [ ] Other
Casing to be Pulled: [ ] Yes [x] No Top of Casing Cement:
DA Fish in Hole: [X] Yes [ ] No If yes, explain details below
Wellbore has Uncemented Casing Leaks: Yes [x] No If yes, explain details below
Details: P&A lateral sidetrack. Cement retainer is set @ 2497' w/30 sx cmt on top and 30 sx cmt below plug. Set cement plug from 0 - 50'. Cmt 30 sks cmt. Well plugge
Cap corners of both casings & place ground marker with well name/number

Current and Previously Abandoned Zones

Formation	Perforations - Top	Perforations - Bottom	Date Abandoned	Method of Isolation (None, Squeezed, BP, Cement, etc.)	Plug Depth

Casing History

String	Size of Hole	Size of Casing	Weight per ft	Setting Depth	Sacks Cement	Cement Bottom	Cement Top
DA Conductor	24" ~~26~~	20	~~53~~ 94	~~140~~ 123'		~~140~~ 123'	Surface
Surface	14-3/4	9-5/8	36	2537'	1347	2537'	Surface
Production							

CICR (EXISTING) Plugging Procedure for Intent and Subsequent Report

~~CIBP~~ #1: Depth 2497 30 sacks cmt on top. CIPB #2: Depth _____ _____ sacks cmt on top. NOTE: Two (2) sacks cement required on all CIBPs.

Set 30 sks cmt from 0 50 ft. in [x] Casing [ ] Open Hole [x] Annulus
DA Set _____ sks cmt from _____ _____ ft. in [ ] Casing [ ] Open Hole [ ] Annulus
Set ___ ___ sks cmt from ___ ___ ___ ft. in [ ] Casing [ ] Open Hole [ ] Annulus
Set _____ sks cmt from ___ ___ ft. to ___ _____ ft. in [ ] Casing [ ] Open Hole [ ] Annulus
EXISTING Set 157 sks cmt from 5200 ft. to 4700 ft. in [ ] Casing [x] Open Hole [ ] Annulus
Perforate and squeeze at _____ ft. with _____ sacks Leave at least 100 ft. in casing
Perforate and squeeze at _____ ft. with _____ sacks Leave at least 100 ft. in casing
Perforate and squeeze at _____ ft. with _____ sacks Leave at least 100 ft. in casing
Set 30 sacks half in, half out surface casing from 2597 ft. to 2497 ft. (BELOW CICR)
Set 30 sacks at surface (AS SHOWN ABOVE)
Cut four feet below ground level, weld on plate Dry-Hole Marker: [ ] Yes [X] No
Set _____ sacks in rat hole Set _____ sacks in mouse hole

Additional Plugging Information for Subsequent Report Only

Casing Recovered: _____ ft. of _____ in. casing Plugging date: _____
*Wireline Contractor: _____ *Cementing Contractor: BJ Services Company
Type of Cement and Additives Used: Class G cmt
***Attach job summaries.**

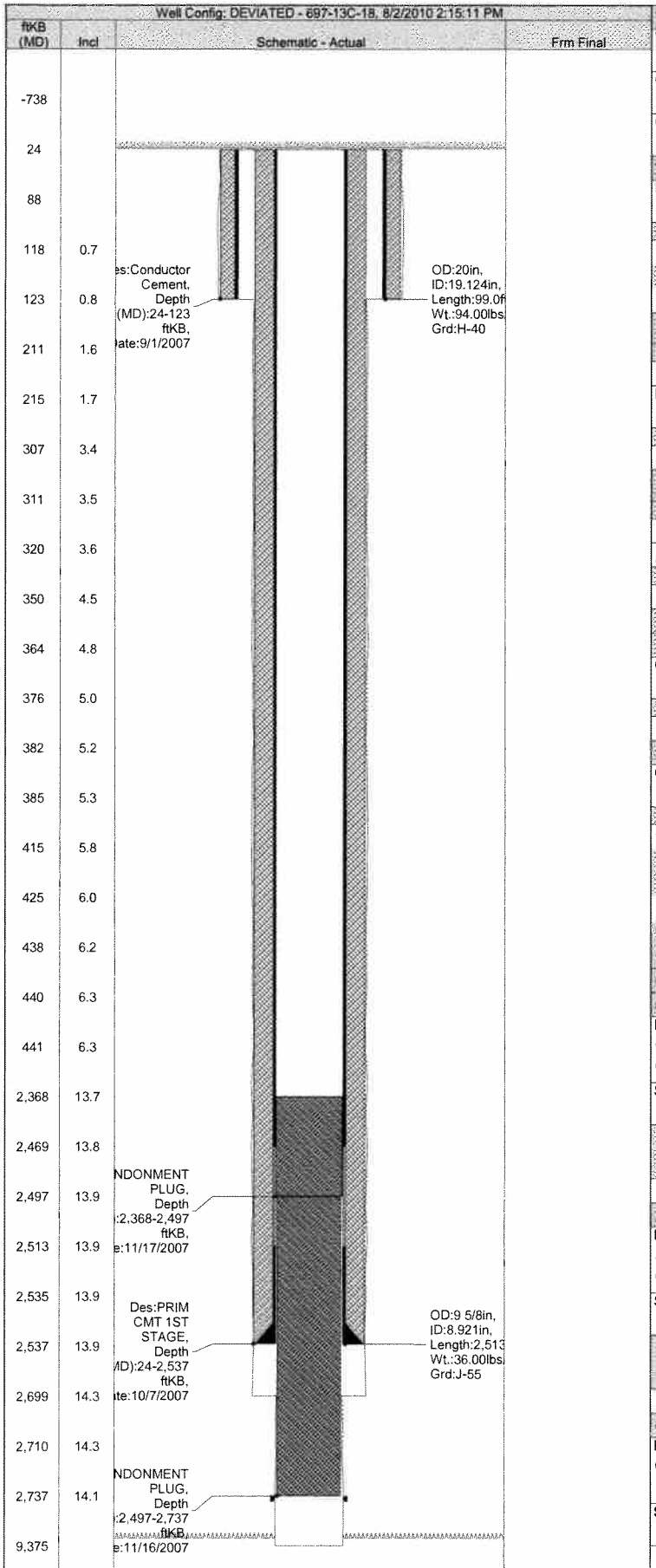
I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Anna Walls Email: avwalls@marathonoil.com
Signed: Anna Walls Title: Reg. Compliance Tech Date: 8/2/2010

OGCC Approved: David Andrews Title: PE II Date: 8/9/2010
CONDITIONS OF APPROVAL, IF ANY:

Marathon Oil Company

Wellbore Schematic Input Report
Well Name: 697-13C-18



Well Header Setup

Well Name	MOC UWI	
697-13C-18		
Original KB Elevation (ft)	**Spud Date**	**Rig Release Date**
8,370.50	9/26/2007	
Qtr/Qtr, Block, Sec, Town, Range	**Latitude (°)**	**Longitude (°)**
SESW SEC 13 T 6S R 97W	39.518910	-108.172760

Wellbore Sections Setup

Parent Wellbore	Kick Off Depth (ftKB)	Vertical Section Direction (°)
697-13C-18		187.61

Section	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	24	24.0	123.0
Surface	14 3/4	123.0	2,699.0
Production 1	8 1/2	2,699.0	9,375.0

PBTDs

Date	Depth (ftKB)	Method	Comment

Parent Wellbore	Kick Off Depth (ftKB)	Vertical Section Direction (°)
697-13C-18	3,100.0	223.96

Section	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Production 1	8 1/2	3,100.0	7,233.0

PBTDs

Date	Depth (ftKB)	Method	Comment

Zones

Zone	Top (ftKB)	Btm (ftKB)	Comment

Casing Data

Conductor 1

Casing Description	Run Date	Set Depth (ftKB)
Conductor 1	9/1/2007	123.0

Item Description	OD (in)	ID (in)	Len (ft)
Casing Joints	20	19.124	99.00

SURFACE CASING

Casing Description	Run Date	Set Depth (ftKB)
SURFACE CASING	10/6/2007	2,537.0

Item Description	OD (in)	ID (in)	Len (ft)
Casing Joints	9 5/8	8.921	2,444.81
CASING FLOAT COLLAR	9 5/8	8.921	44.35
Casing Joints	9 5/8	8.921	22.37
CASING FLOAT SHOE	9 5/8	8.921	1.46

Cement Data

Conductor 1, 123.0ftKB

Description	String	Wellbore	Type
Conductor Cement	Conductor 1, 123.0ftKB	697-13C-18	casing

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Full Retu...	Cmn...
	Conductor Cement	24.0	123.0		

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Amount (sacks)	Full Retur...	Cmnt Rtrn (bbl)
	Conductor Cement	24.0	123.0			

SURFACE CASING, 2,537.0ftKB

Description	String	Wellbore	Type
Surface Casing Cement	SURFACE CASING, 2,537.0ftKB	697-13C-18	casing

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Full Retu...	Cmn...
1	PRIM CMT 1ST STAGE	24.0	2,537.0	No	260.0

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Amount (sacks)	Full Retur...	Cmnt Rtrn (bbl)
1	PRIM CMT 1ST STAGE	24.0	2,537.0		No	260.0

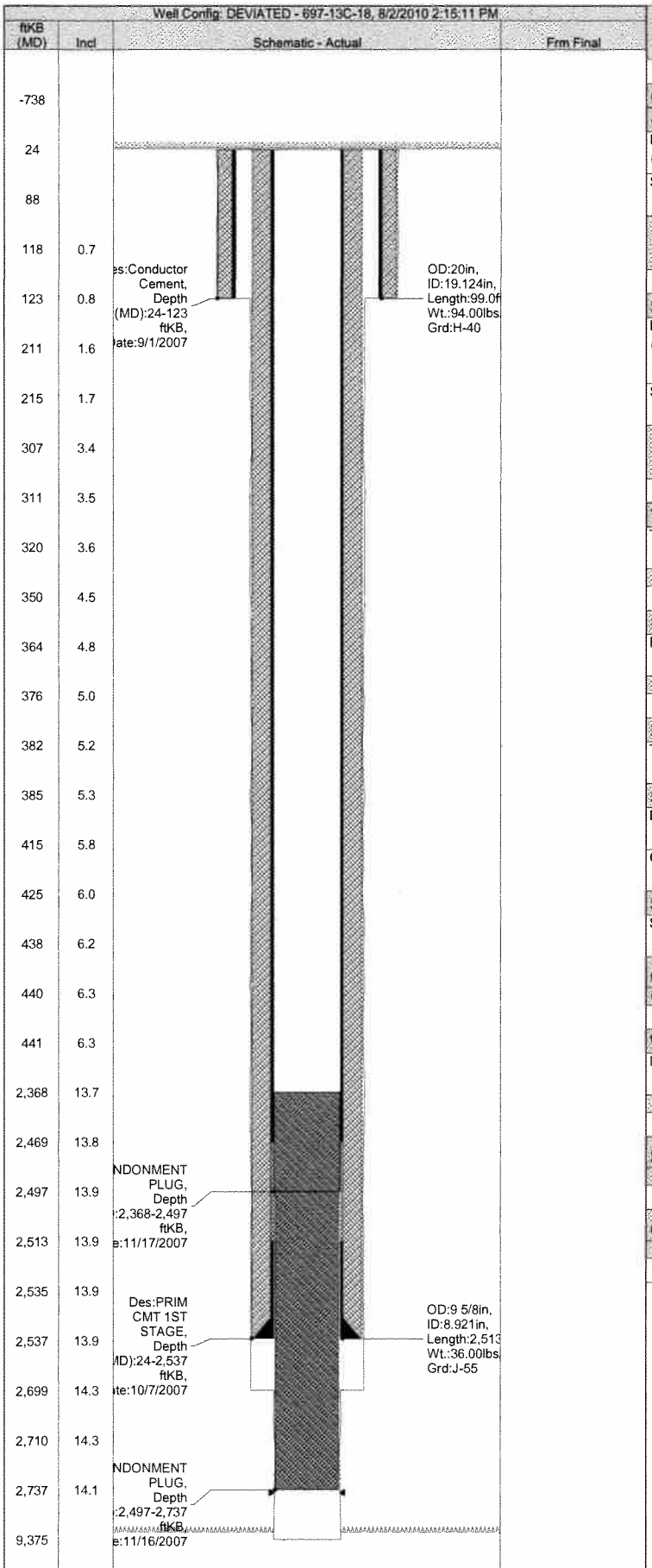
<String?>

Description	String	Wellbore	Type
Cement Plug		697-13C-18 BP01	plug

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Full Retu...	Cmn...
1	ABANDONMENT PLUG	4,700.0	5,200.0	No	

Wellbore Schematic Input Report
Well Name: 697-13C-18

Marathon Oil Company



Stg No.	Description	Top (ftKB)	Btm (ftKB)	Amount (sacks)	Full Retur...	Cmnt Rtrn (bbl)
1	ABANDONMENT PLUG	4,700.0	5,200.0	157	No	

Cement Data

<String?>

Description	String	Wellbore	Type
Cement Plug		697-13C-18	plug

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Full Retu...	Cmn...
1	ABANDONMENT PLUG	2,497.0	2,737.0	No	

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Amount (sacks)	Full Retur...	Cmnt Rtrn (bbl)
1	ABANDONMENT PLUG	2,497.0	2,737.0	85	No	

SURFACE CASING, 2,537.0ftKB

Description	String	Wellbore	Type
Cement Plug	SURFACE CASING, 2,537.0ftKB	697-13C-18	plug

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Full Retu...	Cmn...
1	ABANDONMENT PLUG	2,368.0	2,497.0	No	

Stg No.	Description	Top (ftKB)	Btm (ftKB)	Amount (sacks)	Full Retur...	Cmnt Rtrn (bbl)
1	ABANDONMENT PLUG	2,368.0	2,497.0	60	No	

Tubing Data

Tubing Description	Run Date	Set Depth (ftKB)

Item Description	OD (in)	ID (in)	Len (ft)

Rod Data

Rod Description	Run Date	Set Depth (ftKB)

Item Description	OD (in)	Len (ft)

Perforation Data

Type	Top (ftKB)	Bottom (ftKB)	Zone

Stimulations & Treatments

Diversion Company	ISIP (psi)	P(si-pre) (psi)	Post Treat ISIP (psi)

Comment

Stim/Treat Stages

Stage Number	Top (ftKB)	Bottom (ftKB)	Comment

Other In Hole

OD (in)	Description	Top (ftKB)	Btm (ftKB)	ID (in)	Make	Model
8 1/2	Fish	5,538.0	6,951.0			

Wellhead Description

Install Date	Type	Make	Size (in)	WP (psi)

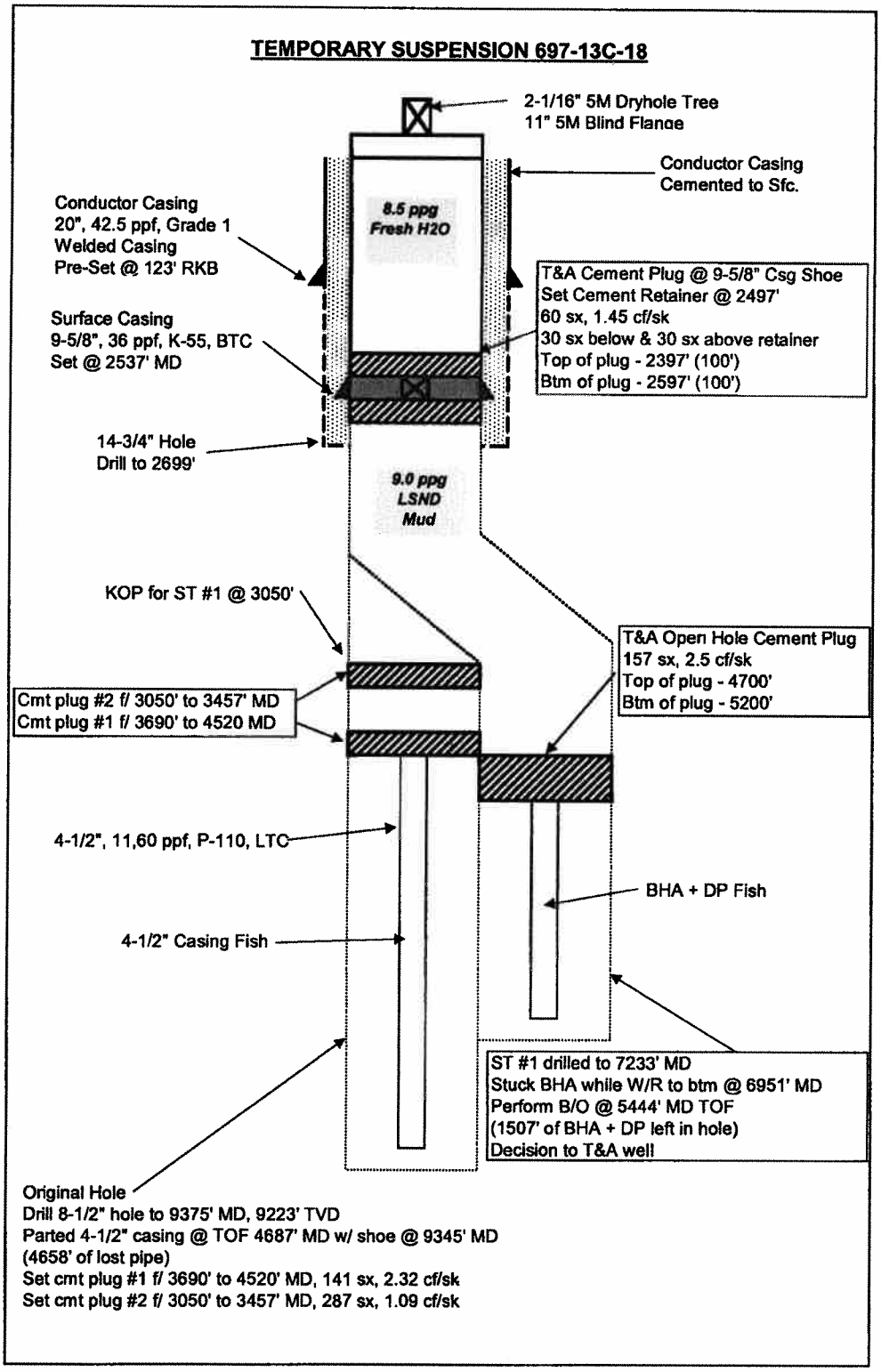
Make	Model	Section	Top Sz (in)	Btm Sz (in)	WP (psi)

Schematic Annotations

Depth (ftKB)	Annotation

General Notes

Date	Comment


TEMPORARY SUSPENSION 697-13C-18
2-1/16" 5M Dryhole Tree
11" 5M Blind Flange
Conductor Casing
Cemented to Sfc.
Conductor Casing
20", 42.5 ppf, Grade 1
Welded Casing
Pre-Set @ 123' RKB
8.5 ppg
Fresh H2O
T&A Cement Plug @ 9-5/8" Csg Shoe
Set Cement Retainer @ 2497'
60 sx, 1.45 cf/sk
30 sx below & 30 sx above retainer
Top of plug - 2397' (100')
Btm of plug - 2597' (100')
Surface Casing
9-5/8", 36 ppf, K-55, BTC
Set @ 2537' MD
14-3/4" Hole
Drill to 2699'
9.0 ppg
LSND
Mud
KOP for ST #1 @ 3050'
T&A Open Hole Cement Plug
157 sx, 2.5 cf/sk
Top of plug - 4700'
Btm of plug - 5200'
Cmt plug #2 f/ 3050' to 3457' MD
Cmt plug #1 f/ 3690' to 4520 MD
4-1/2", 11,60 ppf, P-110, LTC
BHA + DP Fish
4-1/2" Casing Fish
ST #1 drilled to 7233' MD
Stuck BHA while W/R to btm @ 6951' MD
Perform B/O @ 5444' MD TOF
(1507' of BHA + DP left in hole)
Decision to T&A well
Original Hole
Drill 8-1/2" hole to 9375' MD, 9223' TVD
Parted 4-1/2" casing @ TOF 4687' MD w/ shoe @ 9345' MD
(4658' of lost pipe)
Set cmt plug #1 f/ 3690' to 4520' MD, 141 sx, 2.32 cf/sk
Set cmt plug #2 f/ 3050' to 3457' MD, 287 sx, 1.09 cf/sk

Andrews, David

From: Andrews, David
Sent: Thursday, July 29, 2010 3:15 PM
To: 'Gandler, Greg'; Goeres, Bryson G.
Cc: Weed, Tim E.; Wiskofske, Michael T.; Walls, Anna V.; Kamas, Joshua S.
Subject: RE: 697-13C-18 P&A

Greg,

I reviewed the anti-collision report that Josh submitted on 7/27. You may recall that I had some potential concerns with a lack of plug overlap in the offset holes from the base of plug in the original hole to the top of plug in the sidetrack hole. It appears that there is a lateral separation between the holes of approximately 50 feet in this interval, so I am satisfied with the existing downhole and surface casing shoe plugs.

Please write up the Form 6 (Notice of Intent to Abandon) to show a surface plug in the casing and annulus (minimum 50' to surface).

Thanks,

David D. Andrews, P.E., P.G.
Engineering Supervisor - Western Colorado

State of Colorado
Oil and Gas Conservation Commission
707 Wapiti Court, Suite 204
Rifle, Colorado 81650
Office Phone: (970) 625-2497 Ext. 1
Cell Phone: (970) 456-5262
Fax: (970) 625-5682
E-mail: David.Andrews@state.co.us
Website: http://www.colorado.gov/cogcc

From: Gandler, Greg [mailto:glgandler@marathonoil.com]
Sent: Thursday, July 29, 2010 2:56 PM
To: Andrews, David; Goeres, Bryson G.
Cc: Weed, Tim E.; Wiskofske, Michael T.; Walls, Anna V.; Kamas, Joshua S.
Subject: 697-13C-18 P&A

Dave,

I spoke with Josh and he mentioned you had some questions for Bryson and myself regarding the P&A work. I'll be in the field frac'ing august 1-15, if I have some down time maybe I can swing by Rifle and meet up with you. Thanks Dave.

Greg Gandler

Piceance Completions

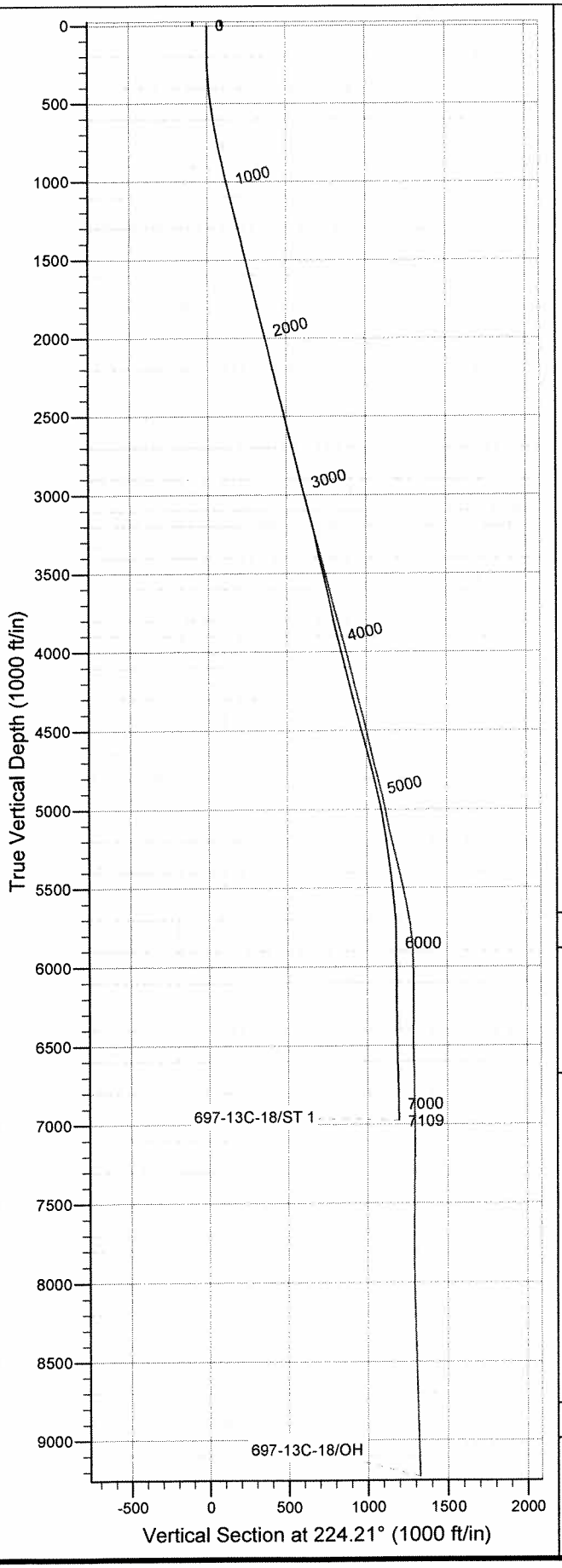
Marathon Oil Company

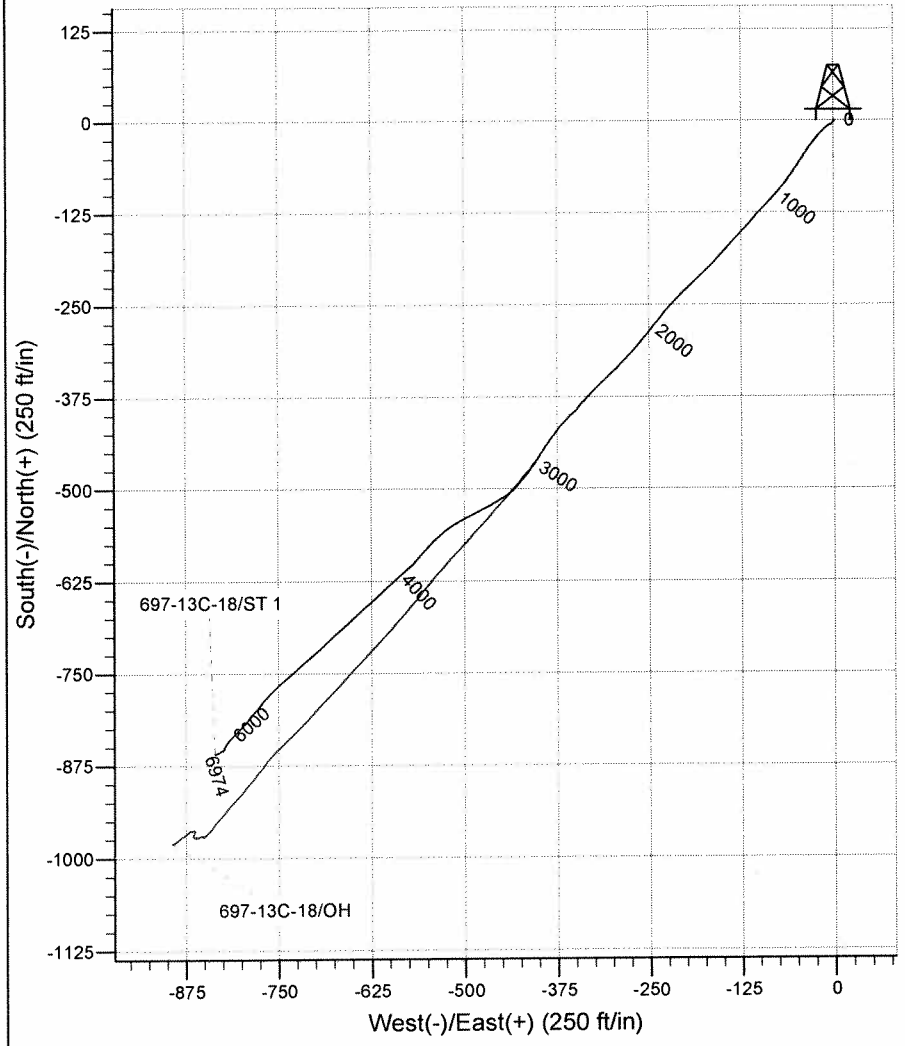
Office 713-296-1884

Scientific Drilling

Project: Garfield County, CO NAD 83
Site: 697-13C Pad
Well: 697-13C-18
Wellbore: ST 1
Design: ST 1

Marathon Oil Co.





WELL DETAILS: 697-13C-18

Ground Level: GL 8342' & RKB 24' @ 8366.00ft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1624980.94	2246094.86	39° 31' 8.059 N	108° 10' 22.003 W

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well 697-13C-18 - Slot D, True North
Vertical (TVD) Reference: GL 8342' & RKB 24' @ 8366.00ft
Section (VS) Reference: Slot - D(0.00N, 0.00E)
Measured Depth Reference: GL 8342' & RKB 24' @ 8366.00ft
Calculation Method: Minimum Curvature
Local North: True
Location: Sec 13 T6S R97W

PROJECT DETAILS: Garfield County, CO NAD 83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

Design: ST 1 (697-13C-18/ST 1)

Created By: Rex Hall Date: 2010-07-27

Marathon Oil Co.

Garfield County, CO NAD 83
697-13C Pad
697-13C-18
ST 1
ST 1

Anticollision Report

27 July, 2010

Scientific Drilling International

Anticollision Report

Company:	Marathon Oil Co.	**Local Co-ordinate Reference:**	Well 697-13C-18 - Slot D
Project:	Garfield County, CO NAD 83	**TVD Reference:**	GL 8342' & RKB 24' @ 8366.00ft
Reference Site:	697-13C Pad	**MD Reference:**	GL 8342' & RKB 24' @ 8366.00ft
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	697-13C-18	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	ST 1	**Database:**	EDM 2003.16 Multi-User Db
Reference Design:	ST 1	**Offset TVD Reference:**	Offset Datum

Reference ST 1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Program **Date** 12/28/2007

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	359.00	Survey #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
373.00	3,032.00	Survey #2 (OH)	MWD	MWD - Standard
3,081.00	7,109.00	Survey #1 (ST 1)	MWD	MWD - Standard

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
697-13C Pad						
697-13C-18 - OH - OH	3,032.00	3,032.00	0.00	0.00	10,000.000	CC
697-13C-18 - OH - OH	3,058.85	3,058.85	0.25	-1.87	0.116	Level 1, SF
697-13C-18 - OH - OH	3,263.72	3,263.66	1.40	-7.21	0.163	Level 1, ES

Scientific Drilling International

Anticollision Report

Company:	Marathon Oil Co.	**Local Co-ordinate Reference:**	Well 697-13C-18 - Slot D
Project:	Garfield County, CO NAD 83	**TVD Reference:**	GL 8342' & RKB 24' @ 8366.00ft
Reference Site:	697-13C Pad	**MD Reference:**	GL 8342' & RKB 24' @ 8366.00ft
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	697-13C-18	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	ST 1	**Database:**	EDM 2003.16 Multi-User Db
Reference Design:	ST 1	**Offset TVD Reference:**	Offset Datum

Offset Design 697-13C Pad - 697-13C-18 - OH - OH — **Offset Site Error:** 0.00 ft

Survey Program: 100-NS-GYRO-MS, 373-MWD — **Offset Well Error:** 0.00 ft

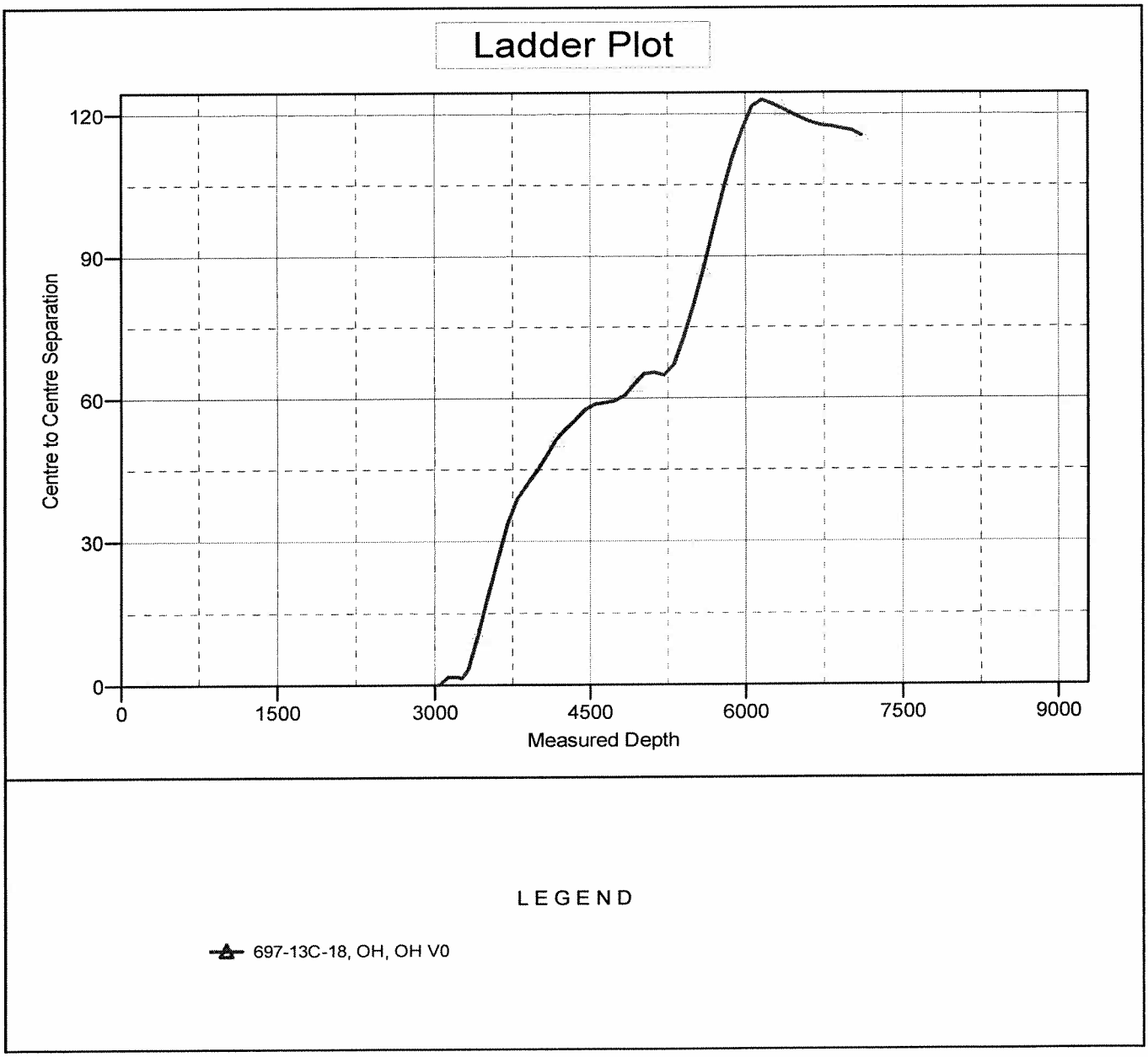
Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
3,032.00	2,962.70	3,032.00	2,962.70	0.00	0.00	0.00	-453.15	-397.13	0.00	0.00	0.00	N/A CC	
3,058.85	2,988.59	3,058.85	2,988.65	1.62	1.77	159.93	-458.89	-400.95	0.25	-1.87	2.12	0.116	Level 1, SF
3,081.00	3,009.87	3,080.99	3,010.06	2.19	2.40	159.93	-463.49	-404.16	0.82	-2.04	2.86	0.286	Level 1
3,134.00	3,061.03	3,133.96	3,061.36	2.94	3.48	144.10	-474.04	-412.12	1.71	-2.93	4.64	0.369	Level 1
3,229.00	3,153.19	3,228.95	3,153.20	3.92	4.90	91.41	-492.71	-427.58	1.65	-7.16	8.81	0.187	Level 1
3,263.72	3,186.89	3,263.66	3,186.71	4.22	5.34	54.35	-499.60	-433.44	1.40	-7.21	8.61	0.163	Level 1, ES
3,321.00	3,242.74	3,320.85	3,241.94	4.68	6.00	-34.07	-510.99	-442.93	3.26	-2.48	5.75	0.566	Level 1
3,416.00	3,335.60	3,415.65	3,333.70	5.32	6.95	-59.71	-529.13	-458.39	10.40	1.21	9.19	1.132	Level 2
3,511.00	3,428.18	3,510.23	3,425.23	5.95	7.82	-71.78	-546.88	-474.27	18.36	6.96	11.40	1.611	
3,605.00	3,519.46	3,604.10	3,516.11	6.56	8.62	-77.10	-564.13	-490.20	26.11	12.70	13.41	1.947	
3,700.00	3,611.93	3,698.32	3,607.26	7.13	9.38	-73.54	-581.86	-506.17	33.60	18.79	14.81	2.269	
3,795.00	3,704.62	3,793.59	3,699.44	7.68	10.12	-62.43	-599.85	-522.19	38.82	23.01	15.81	2.456	
3,889.00	3,796.36	3,886.82	3,789.61	8.20	10.81	-53.22	-617.74	-537.67	41.88	25.39	16.49	2.540	
3,984.00	3,888.99	3,981.71	3,881.30	8.73	11.49	-50.15	-636.75	-553.06	44.72	27.65	17.06	2.620	
4,078.00	3,980.41	4,075.87	3,972.38	9.27	12.14	-57.45	-655.38	-568.02	47.90	29.88	18.02	2.658	
4,173.00	4,072.75	4,171.27	4,064.75	9.80	12.78	-57.58	-673.59	-583.39	51.38	32.20	19.18	2.679	
4,268.00	4,164.98	4,266.40	4,157.03	10.34	13.39	-57.56	-691.12	-598.52	53.66	33.27	20.39	2.632	
4,363.00	4,257.08	4,361.17	4,248.79	10.88	14.00	-59.14	-708.77	-614.32	55.64	34.11	21.53	2.584	
4,457.00	4,348.03	4,455.11	4,339.62	11.42	14.60	-61.02	-726.55	-630.37	57.73	35.00	22.73	2.540	
4,552.00	4,439.70	4,550.83	4,432.44	11.98	15.17	-63.31	-743.87	-646.02	58.88	34.63	24.26	2.427	
4,646.00	4,530.49	4,645.07	4,524.12	12.52	15.72	-65.29	-759.89	-660.82	59.17	33.39	25.78	2.295	
4,741.00	4,622.42	4,740.12	4,616.84	13.04	16.24	-69.74	-775.41	-674.90	59.57	32.25	27.32	2.180	
4,836.00	4,714.55	4,835.12	4,709.45	13.55	16.75	-73.14	-790.91	-689.26	60.66	31.99	28.67	2.116	
4,930.00	4,805.94	4,928.41	4,799.95	14.03	17.29	-73.99	-807.38	-704.83	62.96	33.32	29.63	2.125	
5,025.00	4,898.57	5,024.28	4,892.93	14.50	17.84	-70.44	-824.21	-721.02	65.24	34.84	30.41	2.146	
5,120.00	4,991.64	5,120.46	4,986.87	14.92	18.34	-64.21	-838.68	-735.65	65.50	34.41	31.08	2.107	
5,215.00	5,085.17	5,215.39	5,080.04	15.30	18.79	-60.70	-851.41	-748.69	64.91	33.39	31.52	2.059	
5,216.48	5,086.63	5,216.83	5,081.45	15.30	18.79	-60.64	-851.60	-748.88	64.91	33.38	31.53	2.059	
5,309.00	5,177.97	5,306.50	5,169.06	15.64	19.24	-55.70	-865.91	-761.52	67.03	35.59	31.44	2.132	
5,404.00	5,271.95	5,400.74	5,260.68	15.96	19.74	-54.55	-883.31	-775.10	72.86	41.90	30.96	2.354	
5,499.00	5,366.10	5,496.38	5,353.75	16.26	20.24	-47.39	-900.49	-788.82	79.68	49.34	30.35	2.626	
5,593.00	5,459.49	5,590.84	5,445.91	16.53	20.72	-48.50	-916.23	-802.30	87.19	57.60	29.59	2.947	
5,688.00	5,554.06	5,686.27	5,539.28	16.76	21.19	-41.29	-930.99	-815.44	95.61	66.77	28.84	3.315	
5,783.00	5,648.65	5,780.92	5,632.01	16.99	21.63	-30.69	-945.09	-828.01	103.64	75.46	28.18	3.677	
5,877.00	5,742.41	5,879.67	5,729.43	17.18	22.02	-25.27	-957.73	-838.01	110.95	83.21	27.74	3.999	
5,972.00	5,837.36	5,980.50	5,829.69	17.30	22.32	26.62	-965.69	-844.83	116.84	89.53	27.31	4.278	
6,067.00	5,932.36	6,078.29	5,927.26	17.37	22.54	51.47	-970.34	-849.49	121.72	94.74	26.99	4.511	
6,161.00	6,026.36	6,177.73	6,026.66	17.45	22.69	56.92	-971.50	-851.67	123.06	96.11	26.95	4.566	
6,256.00	6,121.36	6,273.49	6,122.41	17.52	22.80	-24.97	-970.69	-852.25	122.22	95.13	27.10	4.511	
6,351.00	6,216.36	6,367.96	6,216.88	17.60	22.90	-1.21	-970.11	-852.15	121.25	93.88	27.37	4.430	
6,446.00	6,311.36	6,462.63	6,311.55	17.69	23.00	-29.46	-969.81	-852.19	120.12	92.44	27.68	4.339	
6,540.00	6,405.35	6,556.23	6,405.15	17.79	23.11	-51.49	-969.78	-852.34	119.13	91.07	28.06	4.245	
6,635.00	6,500.33	6,650.90	6,499.81	17.89	23.22	-48.99	-969.88	-853.11	118.28	89.82	28.46	4.156	
6,730.00	6,595.31	6,745.37	6,594.27	18.01	23.35	-53.15	-970.16	-854.63	117.68	88.90	28.78	4.089	
6,825.00	6,690.29	6,840.00	6,688.88	18.13	23.49	-49.91	-970.81	-856.41	117.43	88.31	29.12	4.033	
6,919.00	6,784.27	6,934.31	6,783.17	18.24	23.63	-39.53	-971.39	-858.24	117.00	87.60	29.40	3.979	
7,014.00	6,879.24	7,029.57	6,878.41	18.37	23.77	-61.04	-971.81	-860.24	116.60	86.91	29.69	3.927	
7,109.00	6,974.20	7,125.52	8,974.33	18.49	23.91	-59.96	-971.51	-862.35	115.47	85.39	30.08	3.839	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Marathon Oil Co.	**Local Co-ordinate Reference:**	Well 697-13C-18 - Slot D
Project:	Garfield County, CO NAD 83	**TVD Reference:**	GL 8342' & RKB 24' @ 8366.00ft
Reference Site:	697-13C Pad	**MD Reference:**	GL 8342' & RKB 24' @ 8366.00ft
Site Error:	0.00ft	**North Reference:**	True
Reference Well:	697-13C-18	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00ft	**Output errors are at**	2.00 sigma
Reference Wellbore	ST 1	**Database:**	EDM 2003.16 Multi-User Db
Reference Design:	ST 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to GL 8342' & RKB 24' @ 8366.00ft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W °

Coordinates are relative to: 697-13C-18 - Slot D
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.69°



CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation