<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III
1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170

<u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

Form C-101 August 1, 2011

Permit 324069

	ame and Address	CTION COMPAN	Y						2. 00	GRID Number 228937	
	e Lincoln Centre llas, TX 75240								3. AF	Number 30-015-499	102
4. Property Co			5. Property	Name					6. We	ell No.	702
32	5755			CHES RIDE	DLE COM					201H	
					7. Su	rface Location					
JL - Lot	Section	Township		nge	Lot Idn	Feet From	N/S Line	Feet F		E/W Line	County
A	2	24	S	28E		297	<u> </u>	١	368	E	Eddy
					8. Proposed	Bottom Hole L					
JL - Lot	Section	Township	Ran	•	Lot Idn	Feet From	N/S Line	Feet F		E/W Line	County
A	1	24	S	28E	A	33	0	N	340	E	Eddy
					9. Pc	ol Information					
PURPLE SA	GE;WOLFCAMP	(GAS)								98220	
					Addition	al Well Informa	tion				
11. Work Type 12. Well Type 13. Cable/Rotary							14. Lease Type			Level Elevation	
New Well OIL						Private)		979		
16. Multiple 17. Proposed Depth 18. Formation Wolfcamp						19. Contractor		20. Spud D	ate 9/1/2022		
Depth to Grou	nd water		11001		Distance from nearest	resh water well	I			nearest surface wa	ter
We will be	using a closed-l	oop system in	ieu of lined	pits							
					21. Proposed Ca						
Туре	Hole Size		ng Size		Casing Weight/ft	Se	tting Depth	Sa	cks of Cement		Estimated TOC
Surf Int1	17.5 9.875		.375 625		54.5 29.7		450 9027		560 1329		0
Prod	6.75		5.5		20		14991		596		8827
					Casing/Cement Pro	aram: Addition	nal Commonts				
					Casing/Cement Pro	gram. Addition	nai Comments				
	Туре		1		22. Proposed Blo Vorking Pressure	wout Preventi		Pressure		Me	anufacturer
Annular				· ·	5000			3000			ameron
	Double Ran	n			10000			5000			ameron
			+		10000			5000			ameron
	Pipe										

knowledge and b	pelief.	true and complete to the best of my		OIL CONSERVATION	ON DIVISION	
Printed Name:	Electronically filed by Brett A Jeni	nings	Approved By:	Katherine Pickford		
Title:	Regulatory Analyst		Title:	Geoscientist		
Email Address:	Address: brett.jennings@matadorresources.com		Approved Date:	8/26/2022 Expiration Date: 8/26/2024		
Date:	8/25/2022	Conditions of Approval Attached				

District I
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Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

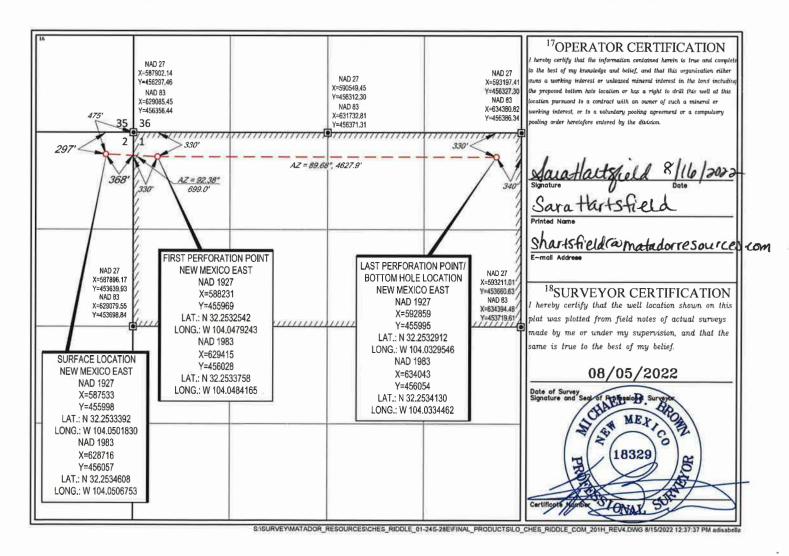
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-0	15-499		9822	Pool Code		PURPLE	SAGE; WOLF		IP (GAS)			
⁴ Property (_			⁶ Well Number						
325755 CHES RIDDLE									201H			
⁷ OGRID 228937	No.		M	IATADO I	•	ODUCTION COMPANY 2979'						
					10 Surface Lo	cation						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	Eas	st/West line	County		
1	1 02 24-S 28-E - 297' NORTH 368' EA							EAS	ST	EDDY		
			¹¹ B	ottom Hol	e Location If Di	fferent From Surf	ace					
TIT 1	0 4	700	-			NT 43 40 43 15	F2 F		. 0.57			

UL or lot no. Feet from the North/South line Feet from the East/West line 1 01 24-S 330 NORTH 340' **EDDY** EAST ²Dedicated Acres Joint or Infill Consolidation Code Order No. 319.36

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Form APD Conditions

Permit 324069

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
<u>District II</u>

Bistrict II

1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 <u>District IV</u>
1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462 State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

PERMIT CONDITIONS OF APPROVAL

- 1	ame and Address: MATADOR PRODUCTION COMPANY [228937]	API Number: 30-015-49902
	One Lincoln Centre	Well:
	Dallas, TX 75240	CHES RIDDLE COM #201H
OCD	Condition	
Reviewer		
kpickford	Notify OCD 24 hours prior to casing & cement	
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud	

kpickford Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh

kpickford Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud,

water zone or zones and shall immediately set in cement the water protection string kpickford Cement is required to circulate on both surface and intermediate1 strings of casing

drilling fluids and solids must be contained in a steel closed loop system

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: Matador	Production (Company	OGRID: 228	3937		Date:	08/24	/2022
II. Type: ⊠Original □	Amendment	due to ☐ 19.15.27.	9.D(6)(a) NMAC	□ 19.15.27.9.D(6	6)(b) NI	MAC 🗆 O	ther.	
If Other, please describ	e:							
III. Well(s): Provide the recompleted from a single					wells pr	oposed to l	be drill	ed or proposed to be
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		icipated MCF/D		Anticipated Produced Water BBL/D
Ches Riddle 201H	TBD	1 02-24S-28E	297' FNL 366' FEL	850	2,250		2.800	
Ches Riddle 221H	TBD	1 02-24S-28E	297' FNL 338'	400	5,500		1,150	
V. Anticipated Schedu proposed to be recompl Well Name					n	et of wells Initial F Back D	Flow	First Production Date
Ches Riddle 201H	TBD	12/26/2022	01/09/2023	03/01/2022		03/21/2022		03/22/2022
Ches Riddle 221H	TBD	01/10/2023	01/28/2023	03/01/2022		03/21/2022		03/22/2022
VI. Separation Equip	nent: ⊠ Atta	ch a complete desc	ription of how Op	erator will size se	paration	n equipmer	nt to op	otimize gas capture.
VII. Operational Prac Subsection A through F			cription of the acti	ons Operator will	take to	comply wi	ith the	requirements of
VIII. Best Manageme during active and plann			te description of (Operator's best ma	anagem	ent practic	es to m	ninimize venting

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☑ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

- **XI.** Map. \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.
- XII. Line Capacity. The natural gas gathering system \square will \square will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.
- XIII. Line Pressure. Operator \(\subseteq \text{does} \) does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).
- ☐ Attach Operator's plan to manage production in response to the increased line pressure.
- XIV. Confidentiality: Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

⊠Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

□Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. □ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- **(b)** power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Addendum to Natural Gas Management Plan for Matador's

Ace Stern Vegas 114H

VI. Separation Equipment

Flow from the wells will be routed via a flowline to a 48"x15" three phase separator dedicated to the well. The first stage separators are sized with input from BRE ProMax and API 12J. Anticipated production rates can be seen in the below table. Liquid retention times at expected maximum rates will be >3 minutes. Gas will be routed from the first stage separator to sales. Hydrocarbon liquids are dumped from the first stage separator and commingled to one or more heater treaters. The flash gas from the heater treater(s) could either be sent to sales or routed to a compressor if the sales line pressure is higher than the MAWP of the heater treater (125 psi). From the heater treaters, hydrocarbon liquid will be routed to the tanks where vapor is compressed by a VRU if technically feasible to either sales or a compressor if the sales line pressure is higher than the VRU's maximum discharge pressure (~150 psi). Therefore, Matador has sized our separation equipment to optimize gas capture and our separation equipment is of sufficient size to handle the expected volumes of gas.

Well Name	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Ches Riddle 201H	850	2,250	2,800
Ches Riddle 221H	400	5,500	1,150

VII. Operation Practices

Although not a complete recitation of all our efforts to comply with a subsection A through F of 19.15.27.8 NMAC, a summary is as follows. During drilling, Matador will have a properly sized flare stack at least 100 feet from the nearest surface hole. During initial flowback we will route the flowback fluids into completion or storage tanks and, to the extent possible, flare rather than vent any gas. We will commence operation of a separator as soon as technically feasible, and have instructed our team that we want to connect the gas to sales as soon as possible but not later than 30 days after initial flowback.

Regarding production operations, we have designed our production facilities to be compliant with the requirements of Part E of 19.15.27.8 NMAC. We will instruct our team to perform the AVOs on the frequency required under the rules. While the well is producing, we will take steps to minimize flaring during maintenance, as set forth below, and we have a process in place for the measuring of any flared gas and the reporting of any reportable flaring events.

VII. Best Management Practices

Steps are taken to minimize venting during active or planned maintenance when technically feasible including:

- Isolating the affected component and reducing pressure through process piping
- Blowing down the equipment being maintained to a control device
- Performing preventative maintenance and minimizing the duration of maintenance activities
- Shutting in sources of supply as possible
- Other steps that are available depending on the maintenance being performed

Matador Production Company

Rustler Breaks
Ches Riddle
Ches Riddle Com #201H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

18 August, 2022

Database: EDM 5000.14 Server

Company: Project:

Matador Production Company

Rustler Breaks Site: Ches Riddle

Well: Ches Riddle Com #201H Wellbore: Wellbore #1 Design: BLM Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Ches Riddle Com #201H

KB @ 3007.5usft KB @ 3007.5usft

Grid

Minimum Curvature

Project Rustler Breaks,

Map System: Geo Datum:

Map Zone:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

New Mexico East 3001

System Datum:

Mean Sea Level

Using geodetic scale factor

Site Ches Riddle

Site Position: From:

Lat/Long

Northing: Easting: Slot Radius: 455,928.36 usft 587,563.08 usft 13-3/16 "

Latitude: Longitude: **Grid Convergence:** 32° 15' 11.327 N 104° 3' 0.311 W

0.15 °

Well Ches Riddle Com #201H

Well Position

+N/-S +E/-W

69.6 usft Northing: -30.1 usft Easting:

455,998.00 usft 587,533.00 usft Latitude: Longitude: 32° 15' 12.017 N 104° 3' 0.660 W

Position Uncertainty

Position Uncertainty:

0.0 usft

0.0 usft

Wellhead Elevation:

Ground Level:

2,979.0 usft

Wellbore Wellbore #1 Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) 12/31/2009 IGRF200510 7.97 60.18 48,759.91049651

BLM Plan #1 Design Audit Notes: Version: Phase: **PROTOTYPE** Tie On Depth: 0.0 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 89.68

Plan Survey Tool Program

Date 8/18/2022

Depth From (usft)

Depth To (usft)

Survey (Wellbore)

Tool Name

Remarks

0.0

14,990.8 BLM Plan #1 (Wellbore #1) MWD

OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	237.82	2,297.4	-29.7	-47.2	1.00	1.00	0.00	237.82	
3,372.7	8.00	237.82	3,359.7	-109.2	-173.5	0.00	0.00	0.00	0.00	
3,906.0	0.00	0.00	3,891.3	-129.0	-205.0	1.50	-1.50	0.00	180.00	
9,126.8	0.00	0.00	9,112.0	-129.0	-205.0	0.00	0.00	0.00	0.00	VP - Ches Riddle Fed
10,026.8	90.00	82.45	9,685.0	-53.7	363.0	10.00	10.00	0.00	82.45	
10,388.1	90.00	89.68	9,685.0	-28.9	723.2	2.00	0.00	2.00	90.00	
14,990.8	90.00	89.68	9,685.0	-3.0	5,325.8	0.00	0.00	0.00	0.00	BHL - Ches Riddle Fe

Database: EDM 5000.14 Server

Company: Matador Production Company

Project: Rustler Breaks
Site: Ches Riddle

Well: Ches Riddle Com #201H

Wellbore: Wellbore #1

Design: BLM Plan #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Ches Riddle Com #201H

KB @ 3007.5usft KB @ 3007.5usft

Grid

ed Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	s Riddle Fed Com								
39.0	0.00	0.00	39.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
100.0		0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0 300.0		0.00 0.00	200.0 300.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00 0.00	0.00 0.00
332.0		0.00	332.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt S		0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0 500.0		0.00 0.00	400.0 500.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00 0.00	0.00 0.00
600.0		0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
615.0		0.00	615.0	0.0	0.0	0.0	0.00	0.00	0.00
Dewey Lal	ke (P)								
700.0		0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0 800.0		0.00	700.0 800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0		0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
986.0		0.00	986.0	0.0	0.0	0.0	0.00	0.00	0.00
Castile (T)									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0		0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0		0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0		0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build	I 1.00								
1,600.0	1.00	237.82	1,600.0	-0.5	-0.7	-0.7	1.00	1.00	0.00
1,700.0		237.82	1,700.0	-1.9	-3.0	-3.0	1.00	1.00	0.00
1,800.0		237.82	1,799.9	-4.2	-6.6	-6.7	1.00	1.00	0.00
1,900.0		237.82 237.82	1,899.7	-7.4	-11.8	-11.9	1.00 1.00	1.00	0.00 0.00
2,000.0			1,999.4	-11.6	-18.5	-18.5		1.00	
2,100.0		237.82	2,098.9	-16.7	-26.6	-26.7	1.00	1.00	0.00
2,200.0		237.82	2,198.3	-22.7	-36.1	-36.3	1.00	1.00	0.00
2,300.0		237.82	2,297.4	-29.7	-47.2	-47.4	1.00	1.00	0.00
2.400.0	.7 hold at 2300.0 N 8.00	237.82	2,396.4	-37.1	-59.0	-59.2	0.00	0.00	0.00
2,500.0		237.82	2,495.5	-44.5	-70.8	-33.2 -71.0	0.00	0.00	0.00
2,600.0									
2,600.0 2,657.1		237.82 237.82	2,594.5 2,651.0	-51.9 -56.2	-82.5 -89.3	-82.8 -89.6	0.00 0.00	0.00 0.00	0.00 0.00
	G30:CS14-CSB	207.02	2,001.0	00.2	00.0	00.0	0.00	0.00	0.00
2.693.4		237.82	2,687.0	-58.9	-93.5	-93.9	0.00	0.00	0.00
G26: Bell (Cyn.		,						
2,700.0		237.82	2,693.5	-59.3	-94.3	-94.6	0.00	0.00	0.00
2,800.0	8.00	237.82	2,792.5	-66.8	-106.1	-106.5	0.00	0.00	0.00
2,900.0	8.00	237.82	2,891.6	-74.2	-117.9	-118.3	0.00	0.00	0.00
3,000.0		237.82	2,990.6	-81.6	-129.6	-130.1	0.00	0.00	0.00
3,100.0		237.82	3,089.6	-89.0	-141.4	-141.9	0.00	0.00	0.00
3,200.0		237.82	3,188.6	-96.4	-153.2	-153.7	0.00	0.00	0.00
3,300.0	8.00	237.82	3,287.7	-103.8	-165.0	-165.6	0.00	0.00	0.00
3,372.7	8.00	237.82	3,359.7	-109.2	-173.5	-174.2	0.00	0.00	0.00
Start Drop	-1.50								
3,400.0	7.59	237.82	3,386.7	-111.2	-176.7	-177.3	1.50	-1.50	0.00
3,500.0	6.09	237.82	3,486.0	-117.5	-186.8	-187.4	1.50	-1.50	0.00

Database: EDM 5000.14 Server

Company: Matador Production Company

Project: Rustler Breaks

Ches Riddle Com #201H

Project: Rustler Breaks
Site: Ches Riddle

Well:

Wellbore: Wellbore #1

Design: BLM Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Ches Riddle Com #201H

KB @ 3007.5usft KB @ 3007.5usft

Grid

ned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,546.2	5.40	237.82	3,532.0	-120.0	-190.7	-191.3	1.50	-1.50	0.00
G13: Cherr	y Cyn.								
3,548.2	5.37	237.82	3,534.0	-120.1	-190.8	-191.5	1.50	-1.50	0.00
G16: Manz	anita								
3,600.0	4.59	237.82	3,585.6	-122.5	-194.6	-195.3	1.50	-1.50	0.00
3,700.0		237.82	3,685.3	-126.0	-200.3	-201.0	1.50	-1.50	0.00
3,800.0		237.82	3,785.2	-128.2	-203.8	-204.5	1.50	-1.50	0.00
3,900.0		237.82	3,885.2	-129.0	-205.0	-205.7	1.50	-1.50	0.00
3,906.0	0.00	0.00	3,891.3	-129.0	-205.0	-205.7	1.50	-1.50	0.00
Start 5220.	7 hold at 3906.0 N	I D							
4,000.0	0.00	0.00	3,985.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,100.0		0.00	4,085.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,200.0		0.00	4,185.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,300.0	0.00	0.00	4,285.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,400.0	0.00	0.00	4,385.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,500.0	0.00	0.00	4,485.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,600.0	0.00	0.00	4,585.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,700.0		0.00	4,685.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,756.8		0.00	4,742.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
G7: Brush	y Cyn.								
4,800.0	0.00	0.00	4,785.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,885.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,000.0		0.00	4,985.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,100.0		0.00	5,085.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,200.0		0.00	5,185.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,285.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,385.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,500.0		0.00	5,485.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,600.0		0.00	5,585.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,700.0		0.00	5,685.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,785.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
5,900.0		0.00	5,885.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,000.0		0.00	5,985.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,100.0		0.00	6,085.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,200.0		0.00	6,185.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,285.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,365.8	0.00	0.00	6,351.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
G4: BSGL	•								
6,400.0		0.00	6,385.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,456.8		0.00	6,442.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
G4.1: AVAL		0.00	0.404.6	400.0	005.0	005 7	0.00	2.00	2.22
6,475.8		0.00	6,461.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
G3.3: Aval	• •	0.00	0.405.0	400.0	005.0	005.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,485.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,600.0		0.00	6,585.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,691.8	0.00	0.00	6,677.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
L8.2: U. Av									
6,700.0		0.00	6,685.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,800.0		0.00	6,785.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,863.8		0.00	6,849.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
L6.3: Avalo	on Carb								
6,900.0		0.00	6,885.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
6,957.8	0.00	0.00	6,943.0	-129.0	-205.0	-205.7	0.00	0.00	0.00

Database: EDM 5000.14 Server

Company: Matador Production Company
Project: Rustler Breaks

Ches Riddle

Well: Ches Riddle Com #201H

Wellbore: Wellbore #1
Design: BLM Plan #1

Site:

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Ches Riddle Com #201H

KB @ 3007.5usft KB @ 3007.5usft

Grid

d Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
L6.2: L. A	alon Shale								
7,000.0		0.00	6,985.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
7,100.0		0.00	7,085.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
7,105.8		0.00	7,091.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
L5.3: FBS									
7,200.0		0.00	7,185.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
7,300.0 7,338.8		0.00 0.00	7,285.2 7,324.0	-129.0 -129.0	-205.0 -205.0	-205.7 -205.7	0.00 0.00	0.00 0.00	0.00 0.00
L5.1: FBS		0.00	7,024.0	120.0	200.0	200.7	0.00	0.00	0.00
7,400.0		0.00	7,385.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
7,500.0	0.00	0.00	7,485.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,585.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
7,624.8		0.00	7,610.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
L4.3: SBS									
7,700.0		0.00	7,685.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
7,800.0 7,900.0		0.00 0.00	7,785.2 7,885.2	-129.0 -129.0	-205.0 -205.0	-205.7 -205.7	0.00 0.00	0.00 0.00	0.00 0.00
,									
8,000.0 8,100.0		0.00 0.00	7,985.2 8,085.2	-129.0 -129.0	-205.0 -205.0	-205.7 -205.7	0.00 0.00	0.00 0.00	0.00 0.00
8,120.8		0.00	8,106.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
L4.1: SBS									
8,200.0	0.00	0.00	8,185.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,285.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
8,400.0		0.00	8,385.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
8,500.0		0.00	8,485.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
8,530.8		0.00	8,516.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
L3.3: TBS 8,600.0		0.00	8,585.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
8,700.0		0.00	8,685.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
8,744.8	3 0.00	0.00	8,730.0	-129.0	-205.0	-205.7	0.00	0.00	0.00
	eak Sand (T)	5.55	5,755.5	.25.5		200	5.55	5.55	5.55
8,800.0	· '	0.00	8,785.2	-129.0	-205.0	-205.7	0.00	0.00	0.00
8,819.8		0.00	8,805.0	- 129.0	-205.0	-205.7	0.00	0.00	0.00
	eak Sand (B)	0.00	0.005.0	100.0	005.0	005.7	0.00	0.00	0.00
8,900.0 9,000.0		0.00 0.00	8,885.2 8,985.2	-129.0 -129.0	-205.0 -205.0	-205.7 -205.7	0.00 0.00	0.00 0.00	0.00 0.00
9,100.0 9,126.8		0.00 0.00	9,085.2 9,112.0	-129.0 -129.0	-205.0 -205.0	-205.7 -205.7	0.00 0.00	0.00 0.00	0.00 0.00
	1 10.00 - VP - Ches			.20,0	200.0	200.7	5,55	0,00	5.55
9,200.0	7.32	82.45	9,185.0	-128.4	-200.4	-201.1	10.00	10.00	0.00
9,205.0	7.82	82.45	9,190.0	-128.3	-199.7	-200.4	10.00	10.00	0.00
L3.2: TBS	•	00.45	0.004.6	407.0	400.0	100 7	40.00	10.00	2.22
9,249.7		82.45	9,234.0	-127.3	-192.0	-192.7	10.00	10.00	0.00
L3.1: TBS	•								
9,300.0		82.45	9,282.6	-125.6	-179.2	-179.9	10.00	10.00	0.00
9,400.0 9,500.0		82.45 82.45	9,375.0 9,459.4	-120.6 -113.6	-141.6 -88.7	-142.3 -89.3	10.00 10.00	10.00 10.00	0.00 0.00
9,600.0		82.45 82.45	9,533.2	-113.6	-22.0	-09.3 -22.6	10.00	10.00	0.00
9,681.4		82.45	9,584.0	-96.4	41.0	40.5	10.00	10.00	0.00
L2: WFM	P A)								
9,700.0	57.32	82.45	9,594.3	-94.4	56.3	55.8	10.00	10.00	0.00
9,747.0		82.45	9,618.0	-89.0	96.5	96.0	10.00	10.00	0.00

Database: EDM 5000.14 Server

Company: Matador Production Company

Project: Rustler Breaks
Site: Ches Riddle

Well: Ches Riddle Com #201H

Wellbore: Wellbore #1

Design: BLM Plan #1

Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference:
MD Reference:
North Reference:

Reference: KB @ 3007.5usf

KB @ 3007.5usft KB @ 3007.5usft

Grid

Minimum Curvature

Well Ches Riddle Com #201H

nned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
X Sand (T)									
9,800.0 9,857.0	67.32 73.03	82.45 82.45	9,640.7 9,660.0	-82.7 -75.7	144.0 197.2	143.5 196.7	10.00 10.00	10.00 10.00	0.00 0.00
X Sand (B)	77.00	00.45	0.074.0	70.0	000.0	207.0	40.00	40.00	0.00
9,900.0	77.32	82.45	9,671.0	-70.2	238.3	237.9	10.00	10.00	0.00
10,000.0 10,026.8	87.32 90.00	82.45 82.45	9,684.3 9,685.0	-57.2 -53.7	336.5 363.0	336.1 362.7	10.00 10.00	10.00 10.00	0.00 0.00
Start DLS 2	.00 TFO 90.00								
10,100.0	90.00	83.91	9,685.0	-45.0	435.7	435.4	2.00	0.00	2.00
10,200.0	90.00	85.91	9,685.0	-36.2	535.3	535.1	2.00	0.00	2.00
10,300.0	90.00	87.91		-30.8		635.0	2.00	0.00	
10,300.0	90.00	07.91	9,685.0	-30.0	635.1	035.0	∠.00	0.00	2.00
10,388.1	90.00	89.68	9,685.0	-28.9	723.2	723.1	2.00	0.00	2.00
Start 4602.6	6 hold at 10388.1	MD							
10,400.0	90.00	89.68	9,685.0	-28.9	735.1	734.9	0.00	0.00	0.00
10,500.0	90.00	89.68	9,685.0	-28.3	835.1	834.9	0.00	0.00	0.00
10,600.0	90.00	89.68	9,685.0	-27.7	935.1	934.9	0.00	0.00	0.00
10,700.0	90.00	89.68	9,685.0	-27.2	1,035.1	1,034.9	0.00	0.00	0.00
10,800.0	90.00	89.68	9,685.0	-26.6		1,134.9	0.00	0.00	0.00
					1,135.1				
10,900.0	90.00	89.68	9,685.0	-26.1	1,235.1	1,234.9	0.00	0.00	0.00
11,000.0	90.00	89.68	9,685.0	-25.5	1,335.1	1,334.9	0.00	0.00	0.00
11,100.0	90.00	89.68	9,685.0	-24.9	1,435.1	1,434.9	0.00	0.00	0.00
11,200.0	90.00	89.68	9,685.0	-24.4	1,535.1	1,534.9	0.00	0.00	0.00
11,300.0	90.00	89.68	9,685.0	-23.8	1,635.1	1,634.9	0.00	0.00	0.00
11,400.0	90.00	89.68	9,685.0	-23.2	1,735.1	1,734.9	0.00	0.00	0.00
11,500.0	90.00	89.68	9,685.0	-22.7	1,835.1	1,834.9	0.00	0.00	0.00
11,600.0	90.00	89.68	9,685.0	-22.1	1,935.1	1,934.9	0.00	0.00	0.00
11,700.0	90.00	89.68	9,685.0	-21.5	2,035.1	2,034.9	0.00	0.00	0.00
11,800.0	90.00	89.68	9,685.0	-21.0	2,135.1	2,134.9	0.00	0.00	0.00
11,900.0	90.00	89.68	9,685.0	-20.4	2,235.1	2,234.9	0.00	0.00	0.00
12,000.0	90.00	89.68	9,685.0	-19.9	2,335.1	2,334.9	0.00	0.00	0.00
12,100.0	90.00	89.68	9,685.0	-19.3	2,435.1	2,434.9	0.00	0.00	0.00
12,200.0	90.00	89.68	9,685.0	-18.7	2,535.1	2,534.9	0.00	0.00	0.00
12,300.0	90.00	89.68	9,685.0	-18.2	2,635.1	2,634.9	0.00	0.00	0.00
12,400.0	90.00	89.68	9,685.0	-17.6	2,735.1	2,734.9	0.00	0.00	0.00
12,500.0	90.00	89.68	9,685.0	-17.0	2,835.1	2,834.9	0.00	0.00	0.00
12,600.0	90.00	89.68	9,685.0	-16.5	2,935.1	2,934.9	0.00	0.00	0.00
12,700.0	90.00	89.68	9,685.0	-15.9	3,035.1	3,034.9	0.00	0.00	0.00
12,800.0	90.00	89.68	9,685.0	-15.3	3,135.1	3,134.9	0.00	0.00	0.00
12,900.0	90.00	89.68	9,685.0	-14.8	3,235.1	3,234.9	0.00	0.00	0.00
13.000.0	90.00	89.68	9,685.0	-14.0	3,335.1	3,334.9	0.00	0.00	0.00
13,100.0	90.00	89.68	9,685.0	-14.2 -13.7	3,435.1	3,434.9		0.00	0.00
13,100.0	90.00	89.68	9,685.0 9,685.0	-13.7 -13.1	3,435.1 3,535.1	3,434.9 3,534.9	0.00 0.00	0.00	0.00
13,300.0	90.00	89.68	9,685.0	-12.5	3,635.1	3,634.9	0.00	0.00	0.00
13,400.0	90.00	89.68	9,685.0	-12.0	3,735.1	3,734.9	0.00	0.00	0.00
13,500.0	90.00	89.68	9,685.0	-11.4	3,835.1	3,834.9	0.00	0.00	0.00
13,600.0	90.00	89.68	9,685.0	-10.8	3,935.1	3,934.9	0.00	0.00	0.00
13,700.0	90.00	89.68	9,685.0	-10.3	4,035.1	4,034.9	0.00	0.00	0.00
13,800.0	90.00	89.68	9,685.0	-9.7	4,135.1	4,134.9	0.00	0.00	0.00
13,900.0	90.00	89.68	9,685.0	-9.1	4,235.1	4,234.9	0.00	0.00	0.00
14,000.0	90.00	89.68	9,685.0	-8.6	4,335.1	4,334.9	0.00	0.00	0.00
14,100.0	90.00	89.68	9,685.0	-8.0	4,435.1	4,434.9	0.00	0.00	0.00
14,200.0	90.00	89.68	9,685.0	-7.5	4,535.1	4,534.9	0.00	0.00	0.00
,						•			
14,300.0	90.00	89.68	9,685.0	-6.9	4,635.1	4,634.9	0.00	0.00	0.00

Database: EDM 5000.14 Server

Company: Matador Production Company

Project: Rustler Breaks
Site: Ches Riddle

Well: Ches Riddle Com #201H

Wellbore: Wellbore #1

Design: BLM Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Ches Riddle Com #201H

KB @ 3007.5usft KB @ 3007.5usft

Grid

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,400.0	90.00	89.68	9,685.0	-6.3	4,735.1	4,734.9	0.00	0.00	0.00
14,500.0	90.00	89.68	9,685.0	-5.8	4,835.1	4,834.9	0.00	0.00	0.00
14,600.0	90.00	89.68	9,685.0	-5.2	4,935.1	4,934.9	0.00	0.00	0.00
14,700.0	90.00	89.68	9,685.0	-4.6	5,035.1	5,034.9	0.00	0.00	0.00
14,800.0	90.00	89.68	9,685.0	-4.1	5,135.1	5,134.9	0.00	0.00	0.00
14,900.0	90.00	89.68	9,685.0	-3.5	5,235.0	5,234.9	0.00	0.00	0.00
14.990.8	90.00	89.68	9.685.0	-3.0	5.325.8	5.325.7	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL - Ches Riddle Fed - plan hits target ce - Point		0.01	0.0	0.0	0.0	455,998.00	587,533.00	32° 15′ 12.017 N	104° 3' 0.660 W
VP - Ches Riddle Fed 0 - plan hits target ce - Point		0.00	9,112.0	-129.0	-205.0	455,869.00	587,328.00	32° 15′ 10.746 N	104° 3' 3.051 W
BHL - Ches Riddle Fed - plan hits target ce - Point		0.00	9,685.0	-3.0	5,325.8	455,995.00	592,859.00	32° 15' 11.844 N	104° 1' 58.638 W

Database: EDM 5000.14 Server

Company: Matador Production Company

Project: Rustler Breaks
Site: Ches Riddle

Well: Ches Riddle Com #201H

Wellbore: Wellbore #1
Design: BLM Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Ches Riddle Com #201H

KB @ 3007.5usft KB @ 3007.5usft

Grid

ons						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	39.0	39.0	Rustler		0.00	89.68
	332.0	332.0	Top Salt Salado			89.68
	615.0	615.0	Dewey Lake (P)			89.68
	986.0	986.0	Castile (T)			89.68
	2,657.1	2,651.0	Base Salt G30:CS14-CSB			89.68
	2,693.4	2,687.0	G26: Bell Cyn.			89.68
	3,546.2	3,532.0	G13: Cherry Cyn.			89.68
	3,548.2	3,534.0	G16: Manzanita			89.68
	4,756.8	4,742.0	G7: Brushy Cyn.			89.68
	6,365.8	6,351.0	G4: BSGL (CS9)			89.68
	6,456.8	6,442.0	G4.1: AVALON-SS			89.68
	6,475.8	6,461.0	G3.3: Avalon SS (B)			89.68
	6,691.8	6,677.0	L8.2: U. Avalon Shale			89.68
	6,863.8	6,849.0	L6.3: Avalon Carb			89.68
	6,957.8	6,943.0	L6.2: L. Avalon Shale			89.68
	7,105.8	7,091.0	L5.3: FBSC			89.68
	7,338.8	7,324.0	L5.1: FBSG			89.68
	7,624.8	7,610.0	L4.3: SBSC			89.68
	8,120.8	8,106.0	L4.1: SBSG			89.68
	8,530.8	8,516.0	L3.3: TBSC			89.68
	8,744.8	8,730.0	L3.3.2: Break Sand (T)			89.68
	8,819.8	8,805.0	L3.3.1: Break Sand (B)			89.68
	9,205.0	9,190.0	L3.2: TBSH)			89.68
	9,249.7	9,234.0	L3.1: TBSG)			89.68
	9,681.4	9,584.0	L2: WFMP A)			89.68
	9,747.0	9,618.0	X Sand (T)			89.68
	9,857.0	9,660.0	X Sand (B)			89.68

lan Annotations				
Measured Depth	Vertical Depth	Local Coor		
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,500.0	1,500.0	0.0	0.0	Start Build 1.00
2,300.0	2,297.4	-29.7	-47.2	Start 1072.7 hold at 2300.0 MD
3,372.7	3,359.7	-109.2	-173.5	Start Drop -1.50
3,906.0	3,891.3	-129.0	-205.0	Start 5220.7 hold at 3906.0 MD
9,126.8	9,112.0	-129.0	-205.0	Start Build 10.00
10,026.8	9,685.0	-53.7	363.0	Start DLS 2.00 TFO 90.00
10,388.1	9,685.0	-28.9	723.2	Start 4602.6 hold at 10388.1 MD
14,990.8	9,685.0	-3.0	5,325.8	TD at 14990.8