

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1025 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised August 1, 2011

HOBBS CDP

JUN 19 2014

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-41693
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name DUNKEL 7 STATE
8. Well Number 1H
9. OGRID Number 6137
10. Pool name or Wildcat WC-025 G-06 S183608B; Bone Spring

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator Devon Energy Production Company, L.P.	
3. Address of Operator 333 W. Sheridan Avenue, Oklahoma City, Oklahoma 73102-5010 (405) 552-7848	
4. Well Location Unit Letter <u>245</u> feet from the <u>S</u> line and <u>865</u> feet from the <u>W</u> line Section <u>7</u> Township <u>18S</u> Range <u>36E</u> NMPM Lea, County New Mexico	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3866.5'	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Devon Energy Production Co., L.P. respectfully requests to change the original approved permit as follows:

1) Change surface hole location from 200 FSL & 865 FWL to 245 FSL & 865 FWL; Lot 4, Section 7, Township 18S, Range 36E; in order to avoid existing pipelines.

Please see attached revised C-102, drilling plan and directional survey.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE David H. Cook TITLE Regulatory Specialist DATE 6/18/2014

Type or print name David H. Cook E-mail address: david.cook@dvn.com PHONE: (405) 552-7848

For State Use Only

APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 06/24/14
Conditions of Approval (if any).

JUN 24 2014

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
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

HOBBS OCD

JUN 19 2014

RECEIVED

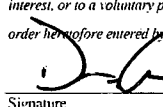
State of New Mexico
Energy Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-41693		² Pool Code 98064		³ Pool Name WC-025 G-06 S183608B; BONE SPRING					
⁴ Property Code 40427		⁵ Property Name DUNKEL 7 STATE						⁶ Well Number 1H	
⁷ OGRID No. 6137		⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.						⁹ Elevation 3866.5	
¹⁰ Surface Location									
UL or lot no. 4	Section 7	Township 18 S	Range 36 E	Lot Idn	Feet from the 245	North/South line SOUTH	Feet from the 865	East/West line WEST	County LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. 1	Section 7	Township 18 S	Range 36 E	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 660	East/West line WEST	County LEA
¹² Dedicated Acres 148.28		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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.

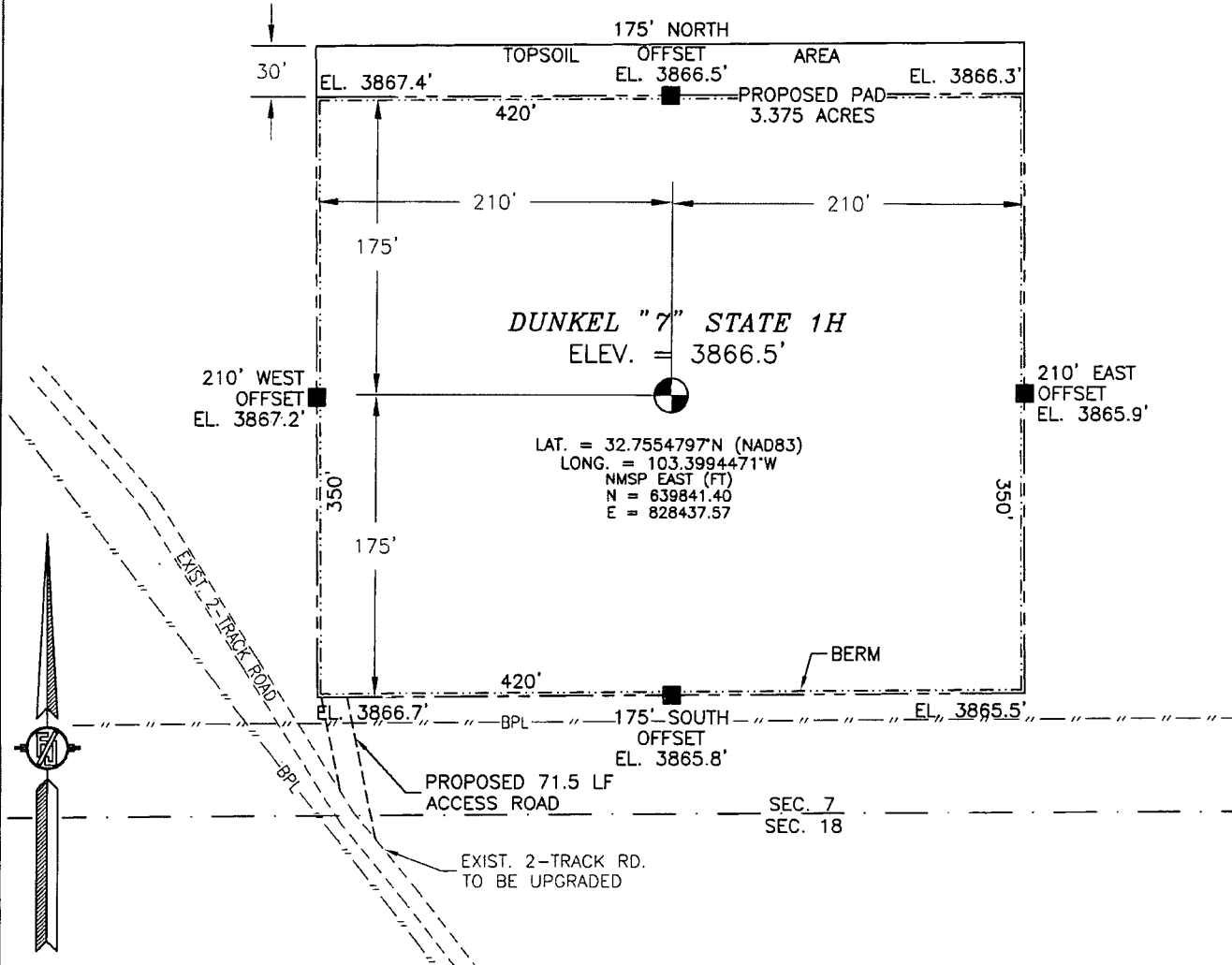
N89°38'07"E 2599.78 FT NW CORNER SEC. 7 LAT. = 32.7693302°N LONG. = 103.4022824°W NMSP EAST (FT) N = 644872.98 E = 827521.59 660' 330' LOT 1 BOTTOM OF HOLE BOTTOM OF HOLE LAT. = 32.7684122°N LONG. = 103.4001274°W NMSP EAST (FT) N = 644544.82 E = 828186.94 LOT 2 W Q CORNER SEC. 7 LAT. = 32.7620775°N LONG. = 103.4022746°W NMSP EAST (FT) N = 642234.22 E = 827547.20 LOT 3 DUNKEL "7" STATE 1H ELEV. = 3866.5' LAT. = 32.7554797°N (NAD83) LONG. = 103.3994471°W NMSP EAST (FT) N = 639841.40 E = 828437.57 LOT 4 SURFACE LOCATION SW CORNER SEC. 7 LAT. = 32.7548109°N LONG. = 103.4022586°W NMSP EAST (FT) N = 639590.45 E = 827575.35 245' 865' S89°36'12"W 2602.68 FT 2602.68 FT S89°36'12"W 2602.68 FT 500°36'46"E 2640.52 FT 500°36'46"E 2640.52 FT 500°36'46"E 2640.52 FT 500°36'46"E 2640.52 FT		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  6/18/2014 Signature Date David H. Cook Regulatory Specialist Printed Name david.cook@dvn.com E-mail Address ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JUNE 18 2014 Date of Survey  Signature and Seal of Professional Surveyor Certificate Number 12797 SURVEY NO. 2621B
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PP: 200 FSL ; 660 FWL

SECTION 7, TOWNSHIP 18 SOUTH, RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



0 10 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF US HIGHWAY 62-180 AND NM HIGHWAY 483 AT ARKANSAS JUNCTION GO NORTH ON NM HIGHWAY 483 2.51 MILES JUST PAST SQUIRES ROAD, YOU ARE TURNING INTO AN EXISTING PAD WITH BATTERIES. AT SOUTHWEST CORNER OF PAD IS A CATTLE GUARD, GO WEST 2.15 MILES TO A PIPE LINE FACILITY, ABOUT 50' NORTH IS A GATE, GO NORTH PAST GATE TO ROAD INTERSECTION, TAKE LEFT FORK ALONG NORTH SIDE OF EXISTING PIPE LINE, GO NORTHWEST 1.22 MILES TO SOUTHWEST CORNER OF PAD.

DEVON ENERGY PRODUCTION COMPANY, L.P.

DUNKEL "7" STATE 1H

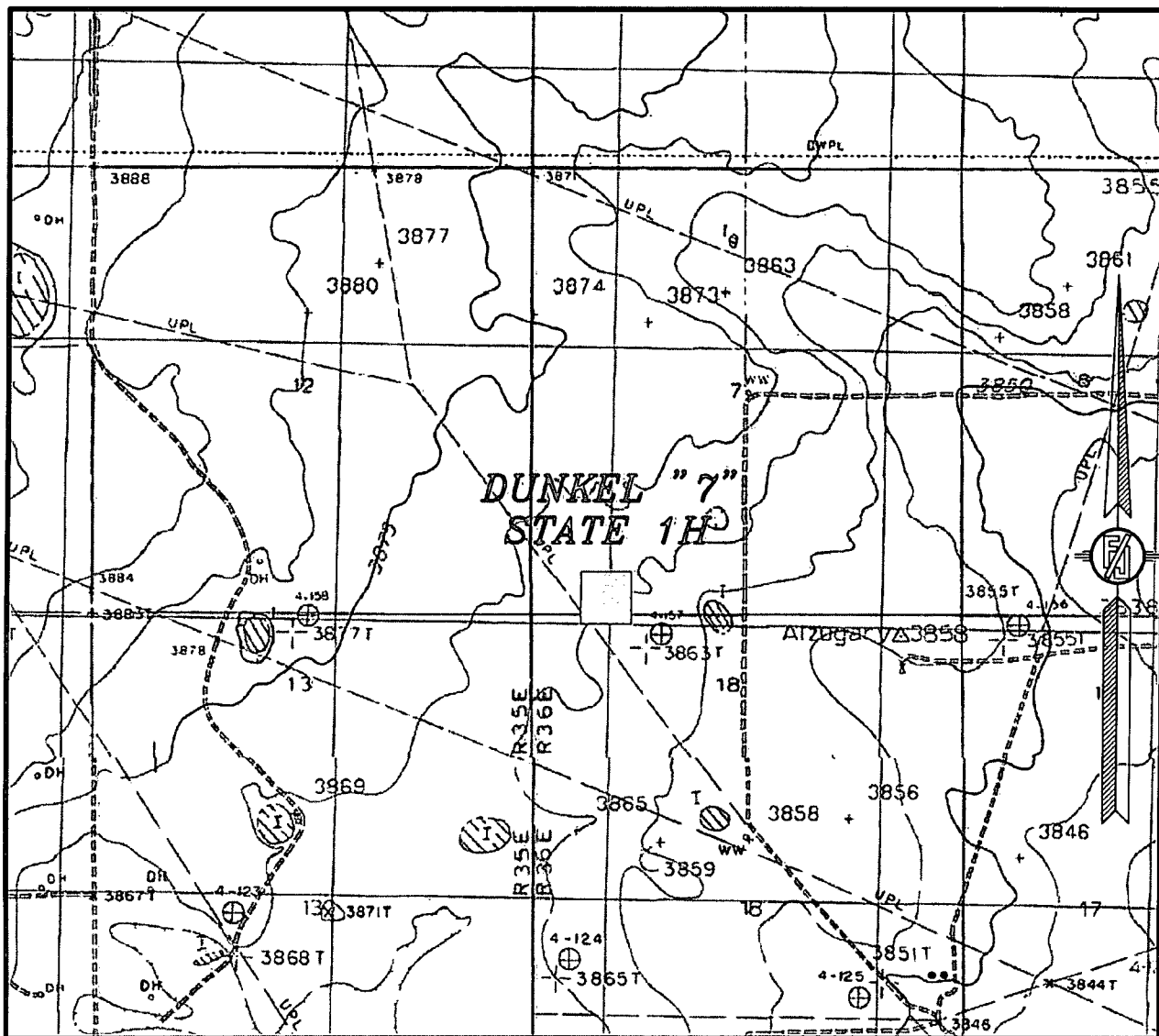
LOCATED 245 FT. FROM THE SOUTH LINE
AND 865 FT. FROM THE WEST LINE OF
SECTION 7, TOWNSHIP 18 SOUTH,
RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JUNE 11, 2014

SURVEY NO. 2621B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 7, TOWNSHIP 18 SOUTH, RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
LOVINGTON SW

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

DUNKEL "7" STATE 1H

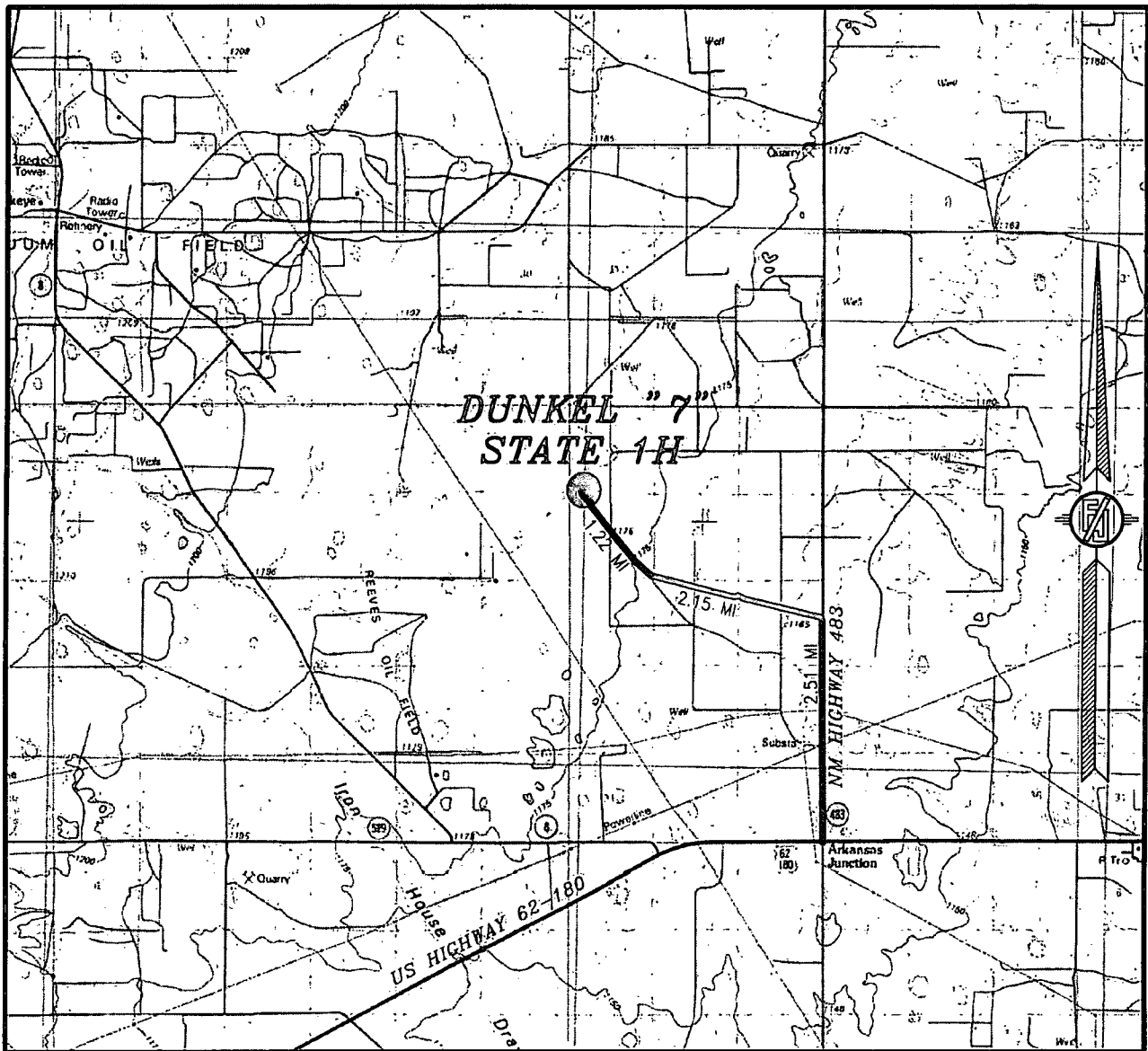
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SECTION 7, TOWNSHIP 18 SOUTH,
RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JUNE 11, 2014

SURVEY NO. 2621B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 7, TOWNSHIP 18 SOUTH, RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

DUNKEL "7" STATE 1H

LOCATED 245 FT. FROM THE SOUTH LINE
AND 865 FT. FROM THE WEST LINE OF
SECTION 7, TOWNSHIP 18 SOUTH,
RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

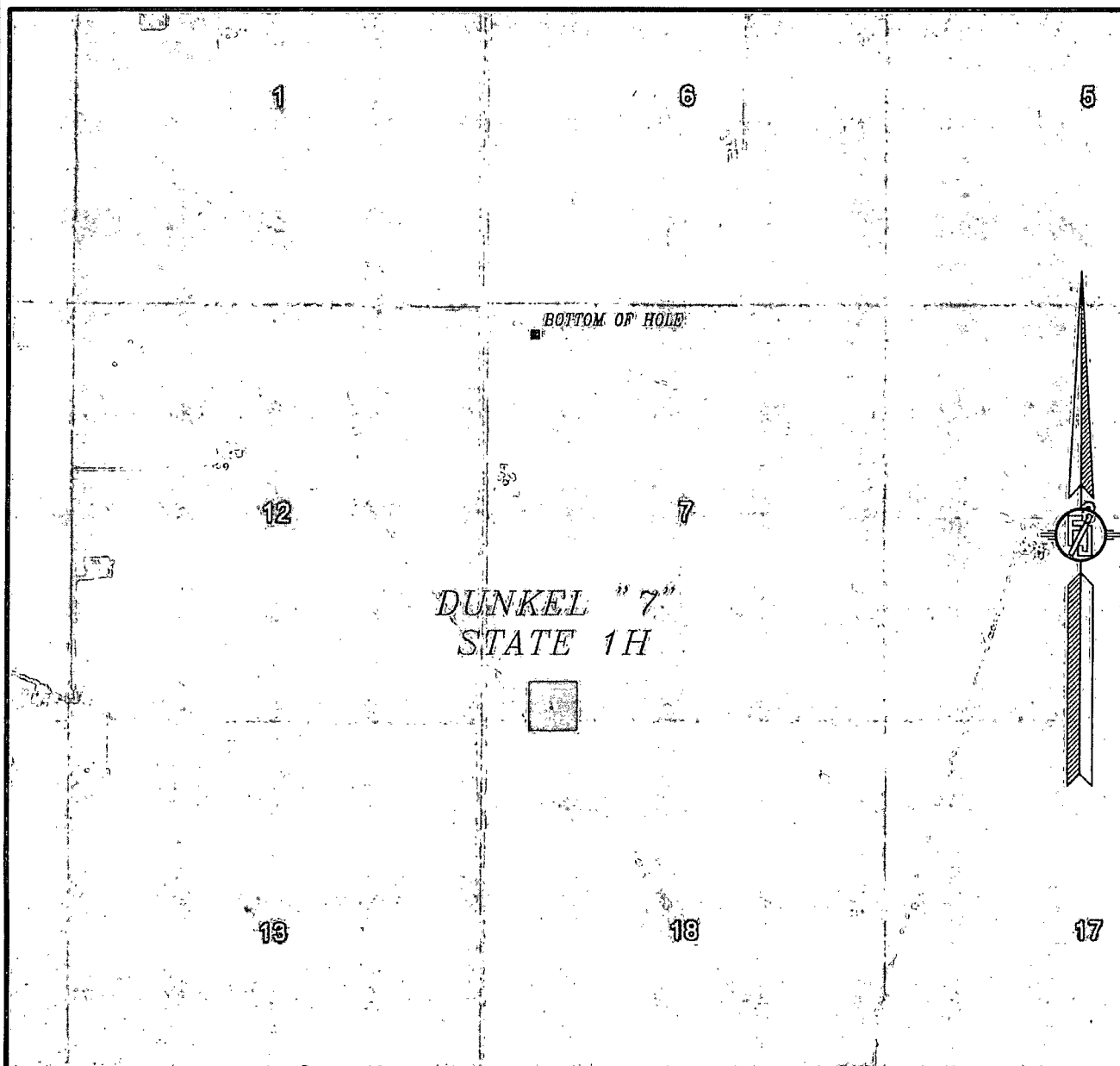
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JUNE 11, 2014

SURVEY NO. 2621B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 7, TOWNSHIP 18 SOUTH, RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.

DUNKEL "7" STATE 1H

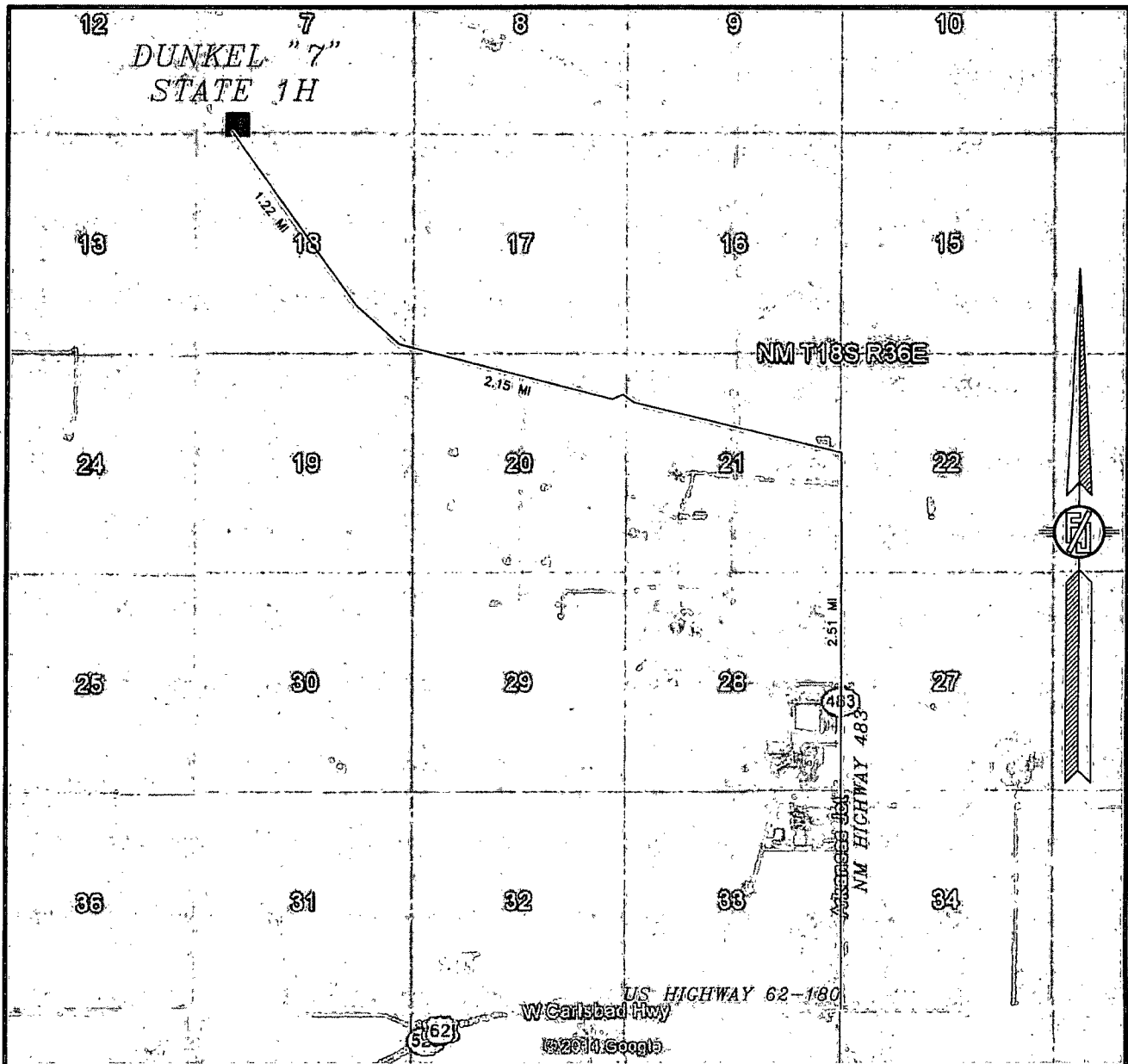
LOCATED 245 FT. FROM THE SOUTH LINE
AND 865 FT. FROM THE WEST LINE OF
SECTION 7, TOWNSHIP 18 SOUTH,
RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JUNE 11, 2014

SURVEY NO. 2621B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 7, TOWNSHIP 18 SOUTH, RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.

DUNKEL "7" STATE 1H

LOCATED 245 FT. FROM THE SOUTH LINE
AND 865 FT. FROM THE WEST LINE OF
SECTION 7, TOWNSHIP 18 SOUTH,
RANGE 36 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JUNE 11, 2014

SURVEY NO. 2621B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

1. Casing Program:

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight	Collar	Grade
17-1/2"	0 – 2,000'	13-3/8"	0 – 2,000'	54.5#	BTC	J-55
12-1/4"	2,000' – 3,225'	9-5/8"	0 – 3,225'	36#	BTC	J-55
8-3/4"	3,225' – 13,705'	5-1/2"	0-13,705'	17#	BTC	P-110

Maximum TVD in lateral: 9,191 ft

2. Design Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13-3/8"	1.21	2.92	8.34
9-5/8"	1.20	2.10	3.90
5-1/2"	1.74	2.47	3.49

3. Cement Program:

Cementing Program (cement volumes based on at least 25% excess)

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
13-3/8" Surface	1220	13.5	9.08	1.72	Lead	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water
	560	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
9-5/8" Intermediate	480	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	430	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
Pilot Hole Plug Back	560	15.6	5.39	1.19	Plug Cement	Class H Cement + 0.2% Halad-9 + 0.2% HR-601 + 60.5 % Fresh Water
5-1/2" Production Casing Single Stage	670	11.0	15.23	2.71	Lead	Tuned Light Blend + 0.125 lb/sk Pol-E-Flake + 76.3% Fresh Water
	1380	14.5	5.32	1.21	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.25% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water

5-1/2" Production Casing 2-Stage Option	530	12.5	10.86	1.96	Lead	(65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water
	1380	14.5	5.38	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.25% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water
	DV Tool @ 5300ft					
	270	11.9	12.89	2.26	Lead	(50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000 + 76.4% Fresh Water
	120	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water

TOC for all Strings:

13-3/8" Surface	0ft
9-5/8" Intermediate	0ft
Pilot Hole Plug Back	8354ft
5-1/2" Production Single Stage	2725ft
5-1/2" Production 2-Stage	Stage #1 = 5300ft Stage #2 = 2725ft

Notes:

- Cement volumes Surface 100%, Intermediate 75%, Pilot 10% and Production based on at least 25% excess
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data
- If lost circulation is encountered while drilling the production and/or the intermediate wellbores, a DV tool will be installed a minimum of 50' below the previous casing shoe and a minimum of 200' above the current shoe. If the DV tool has to be moved, the cement volumes will be adjusted proportionately. Both single and double stage proposals are listed in the cement table.

4. Pressure Control Equipment

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

5. Proposed Mud Circulation System:

Depth Range	Mud Weight	Viscosity	Fluid Loss	Type System
0 - 2000'	8.4-9.0	30-34	N/C	FW
2000' – 3,225'	9.8-10.0	28-32	N/C	Brine
3,225' – 13,705'	8.6-9.0	28-32	N/C	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times.

6. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13-3/8" casing shoe until the 5-1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13-3/8" shoe until total depth is reached.

devon

Project: Lea County (NAD83)
Site: Dunkel 7 State 1H
Well: Dunkel 7 State 1H
Original Hole:
Design 4

- Flint Unit Well #2, Original Hole, Original Hole V0
 — Design 4

PATHFINDER

A Schlumberger Company



Azimuths to Grid North
 True North: -0.50°
 Magnetic North: 6.70°

Magnetic Field
 Strength: 48680.6nT
 Dip Angle: 60.64°
 Date: 2/24/2014
 Model: IGRF2010

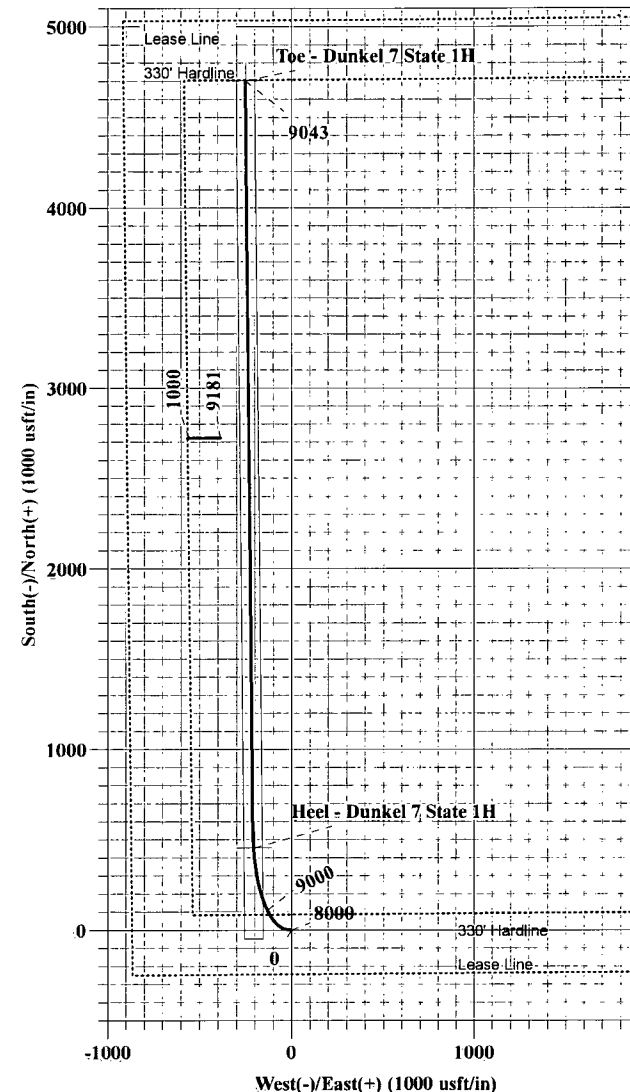
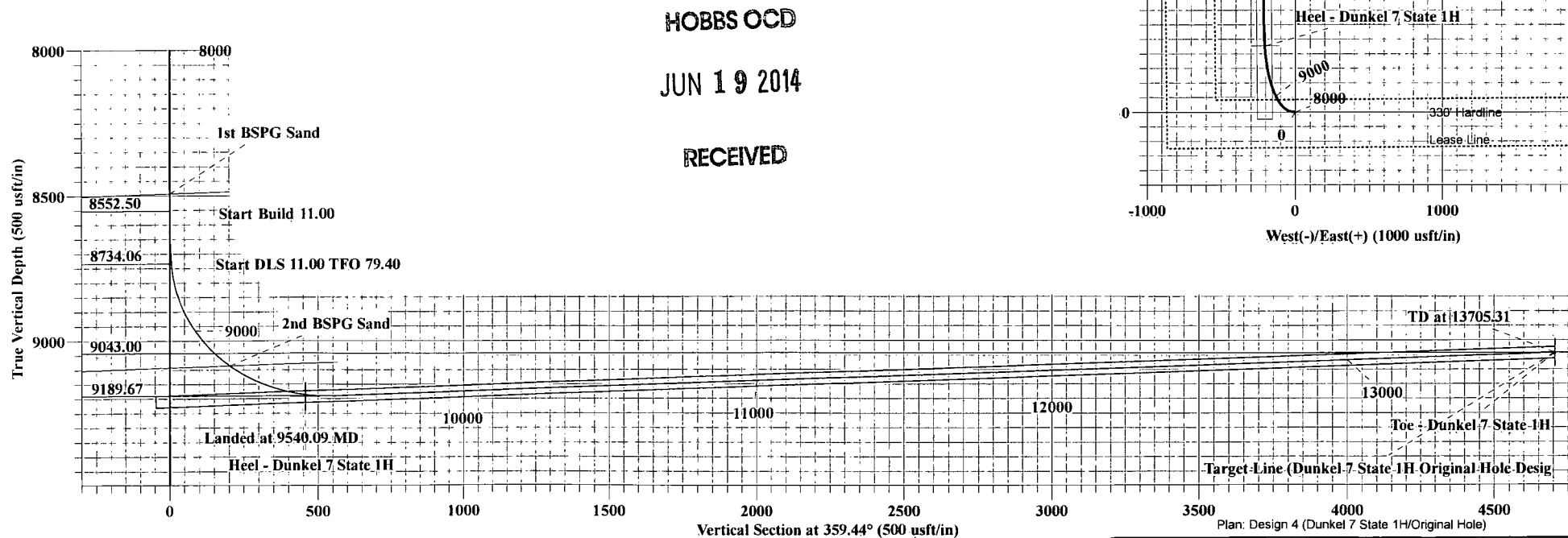
US State Plane 1983
 New Mexico Eastern Zone

WELL DETAILS: Dunkel 7 State 1H

		WELL @ 3893.40usft (Original Well Elev)		3866.40	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	639841.40	828437.57	32° 45' 19.727 N	103° 23' 58.010 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8552.50	0.00	0.00	8552.50	0.00	0.00	0.00	0.00	0.00	
3	8737.95	20.40	280.00	8734.06	5.67	-32.17	11.00	280.00	5.99	
4	9540.09	92.02	359.45	9189.67	540.98	-210.43	11.00	79.40	543.01	
5	13705.31	92.02	359.45	9043.00	4703.42	-250.63	0.00	0.00	4705.64	Toe - Dunkel 7 State 1H



HOBBS OCD

JUN 19 2014

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Devon Energy, Inc.

Lea County (NAD83)

Dunkel 7 State 1H

Dunkel 7 State 1H

Original Hole

Plan: Design 4

Standard Planning Report

18 June, 2014

Pathfinder - A Schlumberger Company

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Dunkel 7 State 1H
Company:	Devon Energy, Inc.	TVD Reference:	WELL @ 3893.40usft (Original Well Elev)
Project:	Lea County (NAD83)	MD Reference:	WELL @ 3893.40usft (Original Well Elev)
Site:	Dunkel 7 State 1H	North Reference:	Grid
Well:	Dunkel 7 State 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Design 4		

Project	Lea County (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Dunkel 7 State 1H		
Site Position:	Northing:	639,841.40 usft	Latitude: 32° 45' 19.727 N
From: Map	Easting:	828,437.57 usft	Longitude: 103° 23' 58.010 W
Position Uncertainty: 0.00 usft	Slot Radius: 13-3/16 "		Grid Convergence: 0.51 °

Well	Dunkel 7 State 1H		
Well Position	+N/-S	0.00 usft	Northing: 639,841.40 usft
	+E/-W	0.00 usft	Easting: 828,437.57 usft
			Latitude: 32° 45' 19.727 N
			Longitude: 103° 23' 58.010 W
Position Uncertainty	0.00 usft	Wellhead Elevation: 3,893.40 usft	Ground Level: 3,866.40 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/24/2014	7.21	60.64	48,681

Design	Design 4			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.44

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,552.50	0.00	0.00	8,552.50	0.00	0.00	0.00	0.00	0.00	0.00	
8,737.95	20.40	280.00	8,734.06	5.67	-32.17	11.00	11.00	0.00	280.00	
9,540.09	92.02	359.45	9,189.67	540.98	-210.43	11.00	8.93	9.90	79.40	
13,705.31	92.02	359.45	9,043.00	4,703.42	-250.63	0.00	0.00	0.00	0.00	Toe - Dunkel 7 State

Pathfinder - A Schlumberger Company

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Dunkel 7 State 1H
Company:	Devon Energy, Inc.	TVD Reference:	WELL @ 3893.40usft (Original Well Elev)
Project:	Lea County (NAD83)	MD Reference:	WELL @ 3893.40usft (Original Well Elev)
Site:	Dunkel 7 State 1H	North Reference:	Grid
Well:	Dunkel 7 State 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Design 4		

Planned 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)
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,552.50	0.00	0.00	8,552.50	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	5.23	280.00	8,599.93	0.38	-2.13	0.40	11.00	11.00	0.00
8,700.00	16.23	280.00	8,698.04	3.60	-20.43	3.80	11.00	11.00	0.00
8,737.95	20.40	280.00	8,734.06	5.67	-32.17	5.99	11.00	11.00	0.00
8,800.00	22.63	297.67	8,791.84	13.10	-53.42	13.62	11.00	3.59	28.49
8,900.00	29.23	318.04	8,881.90	40.28	-86.88	41.12	11.00	6.60	20.36
9,000.00	37.79	330.66	8,965.30	85.28	-118.32	86.43	11.00	8.56	12.62
9,100.00	47.25	339.01	9,038.98	146.46	-146.57	147.88	11.00	9.46	8.35
9,175.31	54.68	343.74	9,086.39	201.87	-165.12	203.47	11.00	9.87	6.28
2nd BSPG Sand									
9,200.00	57.15	345.09	9,100.23	221.56	-170.61	223.22	11.00	10.01	5.50
9,300.00	67.29	349.93	9,146.79	307.83	-189.53	309.67	11.00	10.14	4.84
9,400.00	77.55	354.09	9,176.96	402.10	-202.66	404.06	11.00	10.26	4.16
9,500.00	87.87	357.93	9,189.63	500.90	-209.51	502.93	11.00	10.32	3.84
9,540.09	92.02	359.45	9,189.67	540.98	-210.43	543.01	11.00	10.33	3.77
9,600.00	92.02	359.45	9,187.56	600.84	-211.00	602.88	0.00	0.00	0.00
9,700.00	92.02	359.45	9,184.04	700.78	-211.97	702.82	0.00	0.00	0.00
9,800.00	92.02	359.45	9,180.52	800.71	-212.93	802.75	0.00	0.00	0.00
9,900.00	92.02	359.45	9,176.99	900.64	-213.90	902.69	0.00	0.00	0.00
10,000.00	92.02	359.45	9,173.47	1,000.58	-214.86	1,002.63	0.00	0.00	0.00
10,100.00	92.02	359.45	9,169.95	1,100.51	-215.83	1,102.57	0.00	0.00	0.00
10,200.00	92.02	359.45	9,166.43	1,200.44	-216.79	1,202.51	0.00	0.00	0.00
10,300.00	92.02	359.45	9,162.91	1,300.38	-217.76	1,302.44	0.00	0.00	0.00
10,400.00	92.02	359.45	9,159.39	1,400.31	-218.73	1,402.38	0.00	0.00	0.00
10,500.00	92.02	359.45	9,155.87	1,500.24	-219.69	1,502.32	0.00	0.00	0.00
10,600.00	92.02	359.45	9,152.35	1,600.18	-220.66	1,602.26	0.00	0.00	0.00
10,700.00	92.02	359.45	9,148.82	1,700.11	-221.62	1,702.20	0.00	0.00	0.00
10,800.00	92.02	359.45	9,145.30	1,800.04	-222.59	1,802.13	0.00	0.00	0.00
10,900.00	92.02	359.45	9,141.78	1,899.98	-223.55	1,902.07	0.00	0.00	0.00
11,000.00	92.02	359.45	9,138.26	1,999.91	-224.52	2,002.01	0.00	0.00	0.00
11,100.00	92.02	359.45	9,134.74	2,099.84	-225.48	2,101.95	0.00	0.00	0.00
11,200.00	92.02	359.45	9,131.22	2,199.78	-226.45	2,201.89	0.00	0.00	0.00
11,300.00	92.02	359.45	9,127.70	2,299.71	-227.41	2,301.82	0.00	0.00	0.00
11,400.00	92.02	359.45	9,124.18	2,399.64	-228.38	2,401.76	0.00	0.00	0.00
11,500.00	92.02	359.45	9,120.65	2,499.58	-229.34	2,501.70	0.00	0.00	0.00
11,600.00	92.02	359.45	9,117.13	2,599.51	-230.31	2,601.64	0.00	0.00	0.00
11,700.00	92.02	359.45	9,113.61	2,699.44	-231.27	2,701.58	0.00	0.00	0.00
11,800.00	92.02	359.45	9,110.09	2,799.38	-232.24	2,801.51	0.00	0.00	0.00
11,900.00	92.02	359.45	9,106.57	2,899.31	-233.20	2,901.45	0.00	0.00	0.00
12,000.00	92.02	359.45	9,103.05	2,999.24	-234.17	3,001.39	0.00	0.00	0.00
12,100.00	92.02	359.45	9,099.53	3,099.18	-235.13	3,101.33	0.00	0.00	0.00
12,200.00	92.02	359.45	9,096.01	3,199.11	-236.10	3,201.26	0.00	0.00	0.00
12,300.00	92.02	359.45	9,092.48	3,299.04	-237.07	3,301.20	0.00	0.00	0.00
12,400.00	92.02	359.45	9,088.96	3,398.98	-238.03	3,401.14	0.00	0.00	0.00
12,500.00	92.02	359.45	9,085.44	3,498.91	-239.00	3,501.08	0.00	0.00	0.00
12,600.00	92.02	359.45	9,081.92	3,598.84	-239.96	3,601.02	0.00	0.00	0.00
12,700.00	92.02	359.45	9,078.40	3,698.78	-240.93	3,700.95	0.00	0.00	0.00
12,800.00	92.02	359.45	9,074.88	3,798.71	-241.89	3,800.89	0.00	0.00	0.00
12,900.00	92.02	359.45	9,071.36	3,898.64	-242.86	3,900.83	0.00	0.00	0.00
13,000.00	92.02	359.45	9,067.84	3,998.58	-243.82	4,000.77	0.00	0.00	0.00
13,100.00	92.02	359.45	9,064.31	4,098.51	-244.79	4,100.71	0.00	0.00	0.00
13,200.00	92.02	359.45	9,060.79	4,198.44	-245.75	4,200.64	0.00	0.00	0.00

Pathfinder - A Schlumberger Company
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Dunkel 7 State 1H
Company:	Devon Energy, Inc.	TVD Reference:	WELL @ 3893.40usft (Original Well Elev)
Project:	Lea County (NAD83)	MD Reference:	WELL @ 3893.40usft (Original Well Elev)
Site:	Dunkel 7 State 1H	North Reference:	Grid
Well:	Dunkel 7 State 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Design 4		

Planned 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)	
13,300.00	92.02	359.45	9,057.27	4,298.38	-246.72	4,300.58	0.00	0.00	0.00	
13,400.00	92.02	359.45	9,053.75	4,398.31	-247.68	4,400.52	0.00	0.00	0.00	
13,500.00	92.02	359.45	9,050.23	4,498.24	-248.65	4,500.46	0.00	0.00	0.00	
13,600.00	92.02	359.45	9,046.71	4,598.18	-249.61	4,600.40	0.00	0.00	0.00	
13,700.00	92.02	359.45	9,043.19	4,698.11	-250.58	4,700.33	0.00	0.00	0.00	
13,705.31	92.02	359.45	9,043.00	4,703.42	-250.63	4,705.65	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Target Line (Dunkel 7 St. - hit/miss target - Shape - Rectangle (sides W100.00 H4,755.00 D40.00)	-2.02	359.44	9,043.00	4,703.42	-250.63	644,544.82	828,186.94	32° 46' 6.284 N	103° 24' 0.459 W	
Toe - Dunkel 7 State 1H - plan hits target center - Point	0.00	0.00	9,043.00	4,703.42	-250.63	644,544.82	828,186.94	32° 46' 6.284 N	103° 24' 0.459 W	
Heel - Dunkel 7 State 1H - plan misses target center by 7.78usft at 9454.55usft MD (9186.09 TVD, 455.66 N, -207.20 E) - Point	0.00	0.00	9,193.00	455.01	-203.70	640,296.41	828,233.87	32° 45' 24.247 N	103° 24' 0.348 W	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,893.00	1,893.00	Rustler		-1.86	359.44	
2,113.00	2,113.00	Top of Salt		-1.86	359.44	
3,093.00	3,093.00	Base of Salt		-1.86	359.44	
3,323.00	3,323.00	Yates		-1.86	359.44	
4,453.00	4,453.00	Queen		-1.86	359.44	
4,993.00	4,993.00	Grayburg		-1.86	359.44	
5,693.00	5,693.00	Brushy Canyon		-1.86	359.44	
6,693.00	6,693.00	1st BSPG Lime		-1.86	359.44	
8,493.00	8,493.00	1st BSPG Sand		-1.86	359.44	
9,175.31	9,086.39	2nd BSPG Sand		-1.86	359.44	