Oklahoma Corporation Commission Oil & Gas Conservation Division Post Office Box 52000 Oklahoma City, Oklahoma 73152-2000 Rule 165: 10-3-25

API No.: 35011241130000

Drill Type:

Location:

OTC Prod. Unit No.: 011-225324-0-0000

Well Name: HART FEDERAL 17-20-1XH

Completion Report

Spud Date: November 17, 2018 Drilling Finished Date: December 22, 2018

1st Prod Date: March 20, 2019

Completion Date: March 20, 2019

Min Gas Allowable: Yes

Purchaser/Measurer: ONEOK

First Sales Date: 03/20/2019

NE SE NE SE 1865 FSL 204 FEL of 1/4 SEC Derrick Elevation: 1682 Ground Elevation: 1655 Operator: DERBY EXPLORATION LLC 24143

PO BOX 779 100 PARK AVE STE 400 OKLAHOMA CITY, OK 73101-0779

HORIZONTAL HOLE

BLAINE 18 19N 13W

	Completion Type	Location Exception	וך	Increased Density
Х	Single Zone	Order No	11	Order No
	Multiple Zone	695937	1	There are no Increased Density records to display.
	Commingled			

Casing and Cement											
т	уре		Size Weight Grade Feet P		PSI	SAX	Top of CMT				
CONE	UCTOR		20	65	J-55	4	4				
SURFACE			13.375	54.5	54.5 J-55 420		20		452	SURFACE	
INTER	MEDIATE		9.63 40		HCP-110	8165			682	4840	
PROD	UCTION		5.5	23	P-110	142	245		1300	7607	
					Liner						
Туре	Size	Weig	ght (Grade	Length	PSI	SAX	Тор	Depth	Bottom Dept	
There are no Liner records to display.											

Total Depth: 14245

Pac	ker	Plug		
Depth	Brand & Type	Depth	Plug Type	
There are no Packe	r records to display.	There are no Plug	records to display.	

Initial Test Data

Apr 12, 2019 Order 1 69046 69114 69593	52 48	SSIPPIAN nit Size 640 320	40	2115 Test Data I Code: 35	Perforated I	C	FLOWING	550	40/64	1025
69046 69114	Spacing Orders No U 62	SSIPPIAN nit Size 640 320	npletion and	Code: 35	59MSSP Perforated In	C	lass: OIL			
69046 69114	Spacing Orders No U 62	nit Size 640 320			Perforated I		lass: OIL			
69046 69114	No U 52 48	640 320		Fror		ntervals				
69046 69114	52 48	640 320		Fror						
69114	48	320			n	1	о			
	-			9479	9	12	087			
69593	36 ML			1212	24	14	145			
		ILTIUNIT			-			_		
	Acid Volumes			Fracture Tre	atments					
8	34,004 GALLONS 15% HC	L		13,224,508	GALLONS SLIC POUNDS 40/7		1,455,720			
					F00ND3 40/	IO SAND				
Formation		Т	ор	v	Vere open hole l	ogs run? No				
BIG LIME				7672 C	Date last log run:					
PINK LIME				7891 V	Vere unusual dri	lling circums	tances encou	Intered? No		
NOLA				8138 E	Explanation:					
ΑΤΟΚΑ				8240						
CHESTER				8462						
Other Remarks										
			HE DATA SU	JBMITTED I	NEITHER THE F	FINAL LOCA	TION EXCEP	PTION NOR	THE FINA	<u>م</u> ل
NULTIONIT ORL	DERS HAVE BEEN ISSUI	<u>-</u> D.								
				Lateral H	Holes					
	N RGE: 13W County: BL	AINE								
W2 W2	FWL of 1/4 SEC									

Depth of Deviation: 8273 Radius of Turn: 477 Direction: 180 Total Length: 4532

Measured Total Depth: 14245 True Vertical Depth: 9236 End Pt. Location From Release, Unit or Property Line: 648

FOR COMMISSION USE ONLY

Status: Accepted

1142846

									BIN	
^{API} 011 24113 NO.	(PLEASE TYPE OR USE	BLACK INK ONLY)					60 m		0 - 00	
			OF	OKLAHOMA CORPORATION COMMISSION Oil & Gas Conservation Division			SSION	MAY 0 9 2019		
UNIT NO.	011-225324-0-	-0000			t Office Box		OKI	AHOMA	CORPO	RATION
				Oklahoma C	ity, Oklahom Rule 165:10-		000	COM	VISSIO	V
AMENDED (Reason)					PLETION R					
TYPE OF DRILLING OPERATION		HORIZONTAL HOLE	SPUD	DATE	11/1	7/18			640 Acres	
SERVICE WELL f directional or horizontal, see reve				FINISHED	12/2	2/18				
COUNTY Blaine		P 19N RGE 13W		OF WELL	3/20)/19				
EASE Hart	Federal	WELL 17-20			3/20					
NE 1/4 SE 1/4 NE	1/4 SE 1/4 FSL OF 1	865 FELOF 20		MP DATE			w		18	
LEVATION 1682 Groups	1/4 SEC	1/4 SEC 20		ongitude						
PERATOR	Derby Exploration, LL	C I	OTC/OCC	f known)	2414	13.0				X
IAME ADDRESS		2.O. Box 779	OPERATOR	R NO.	241-					
	OKC	STATE	OK	710	72404	0770				
OMPLETION TYPE	UKC				73101			1	OCATE WE	LL
X SINGLE ZONE		CASING & CEMENT	SIZE	WEIGHT	GRADE		FEET	PSI	SAX	TOP OF CMT
MULTIPLE ZONE Application Date		CONDUCTOR	20	65	J-55		44			
COMMINGLED Application Date	1951371.0.	SURFACE	13.375	54.5	J-55	4	420		452	surface
OCATION EXCEPTION	2018-08586	INTERMEDIATE	9.63	40	пс- P110	8	,165		682	4,840
NCREASED DENSITY ORDER NO.		PRODUCTION	5.5	23	P-110	14	,245		1,838	6,638
		LINER							1360	7607
ACKER @BRANE	D & TYPE	PLUG @	TYPE		PLUG @	1	YPE		TOTAL DEPTH	14,245
ACKER @ BRANE	D & TYPE	PLUG @								
		12EAME	SO TYPE		PLUG @	1	YPE			
OMPLETION & TEST DATA E	BY PRODUCING FORMATION	1359MS	33P		PLUG @ _		-YPE		D	ampted to
COMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER	BY PRODUCING FORMATION Mississippiar MUHW 2018-085851	<u>/359M5</u>	53P	HO) 6			түре		R	eported to
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: OII, Gas, Dry, Inj, a	Mississippiar	1359MS	53P	HO) 6	91148))		Re F	eported to
OMPLETION & TEST DATA E ORMATION PACING & SPACING ROER NUMBER LASS: Oil, Gas, Dry, Inj, Disp, Comm Disp, Svc 695 M	Mississippiav MUHW 2018-085851	<u>/359, M5</u> MU 690	53P	HO) 6))		Re F	rac Focu
OMPLETION & TEST DATA E ORMATION PACING & SPACING IRDER NUMBER LASS: Oil, Gas, Dry, Inj, Disp, Comm Disp, Svc 695 MU ERFORATED	Mississippiar MUHW 2018-085851 936 I.0,011	2359.M5 MU 690 per60R	53P	HO) 6) 		R F	eported to rac Focu
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, Jisp, Comm Disp, Svc ERFORATED ITERVALS	Mississippiar MUHW 2018-085851 936 I.U.O.I U 9,479 12124	<u>∕359,M3</u> MU 690 per 60R ≥ 12087 ≥ 14145	53P 462(L	но) 6			уре)		R F	eport-d ta rac Foru
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, Jisp, Comm Disp, Svc ERFORATED ITERVALS	Mississippiar MUHW 2018-085851 936 I.0,0 i l 936 I.0,0 i l 9,479 12124 84,004	<u>7359,775</u> MU 690 <u>Per GOR</u> 12087 → 14145 (gal) 15% HC	53P 462(L	HO) 6			уре) 		R F	eported the
OMPLETION & TEST DATA E DRMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, Jisp, Comm Disp, Svc (1995) ERFORATED ITERVALS	Mississippidi MUHW 2018-08585 936 I.0,0 i l 9,479 12124 84,004 13,224,508	359, M3 MU 690 per 60R → 12067 → 14145 (gal) 15% HC (gal) slick wate	1 1	HO) 6			УРЕ		- R	rac Focu
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, Jisp, Comm Disp, Svc 095 ERFORATED ITERVALS CID/VOLUME	Mississippiar MUHW 2018-085851 936 I.0,0 i l 936 I.0,0 i l 9,479 12124 84,004	<u>7359,775</u> MU 690 <u>Per GOR</u> 12087 → 14145 (gal) 15% HC	1 1	40) 6)) 			eported the
COMPLETION & TEST DATA E ORMATION PACING & SPACING PADER NUMBER LASS: Oil, Gas, Dry, Inj, Disp, Comm Disp, Svc ERFORATED ITERVALS CID/VOLUME RACTURE TREATMENT	Mississippiar MUHW 2018-08585 936 I.0.0 i 936 I.0.0 i 9479 12124 84,004 13,224,508 11,455,720	359,005 MU 690 per GOR 12067 14145 (gal) 15% HC (gal) slick wate (lb) 40/70	1 1 53 1 1 5 2 3 2 3 2 3 2 3 2 3 2 3 3 3 3 3 1 3 3 1 3 3 1 2 1 5 3 1 2 1 5 3 1 2 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	HO) 6	91148					rac Foru
COMPLETION & TEST DATA E ORMATION PACING & SPACING INDER NUMBER LASS: Oil, Gas, Dry, Inj, Disp, Comm Disp, Svc ERFORATED ITERVALS CID/VOLUME RACTURE TREATMENT Fuids/Prop Amounts)	Mississippian MUHW 2018-08585 936 I.U.O.I 9479 12124 84,004 13,224,508 11,455,720 Min Gas Allo	359,005 MU 690 per GOR 12067 14145 (gal) 15% HC (gal) slick wate (lb) 40/70	1 1	40) 6	91148 Gas Pi					eported to rac Focus rac Focus rac Focus rac Focus rac focus
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, isp, Comm Disp, Svc ERFORATED ITERVALS CID/VOLUME RACTURE TREATMENT Iulds/Prop Amounts) IITIAL TEST DATA	Mississippian MUHW 2018-08585 936 I.0.0 i 936 I.0.0 i 9479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR Oil Allowable	359,000 MU 690 per GOR 12087 14145 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 9 wable (165:11)	1 1 53 1 1 5 2 3 2 3 2 3 2 3 2 3 2 3 3 3 3 3 1 3 3 1 3 3 1 2 1 5 3 1 2 1 5 3 1 2 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	HO) 6	91148 Gas Pi	U (32)			0ne 3/20/	eported the rac Foru rac Foru Ported the Ported the Por
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, Jisp, Comm Disp, Svc 095 ERFORATED ITERVALS CID/VOLUME RACTURE TREATMENT Fulds/Prop Amounts)	Mississippidi MUHW 2018-08585 936 I.0,0 i l 9,479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR Oil Allowable 4/12/2019	359,000 MU 690 per GOR 12087 14145 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 9 wable (165:10)	1 1 53 1 1 5 2 3 2 3 2 3 2 3 2 3 2 3 3 3 3 3 1 3 3 1 3 3 1 2 1 5 3 1 2 1 5 3 1 2 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	40) 6	91148 Gas Pi	U (32)				eport- <u>A</u> ta rac Focu rac Focu eok /2019
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OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, isp, Comm Disp, Svc 0995 (1000000000000000000000000000000000000	Mississippidi MUHW 2018-08585 936 I.0.0 i 936 I.0.0 i 936 I.0.0 i 9479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR Oil Allowable 4/12/2019 448 40 2115 4721	359,000 MU 690 per GOR 12087 14145 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 9 wable (165:10)	1 962 (L 1 97 84 Nd		Gas Pt First S	urchaser/M ales Date	easurer		3/20/	eported the rac Force eOK /2019
OMPLETION & TEST DATA E DRMATION PACING & SPACING RDER NUMBER LASS: Oil, Gas, Dry, Inj, isp, Comm Disp, Svc PACOUNDER REFORATED TERVALS CID/VOLUME RACTURE TREATMENT LUIds/Prop Amounts) ITIAL TEST DATA ITIAL TEST DATA ITIAL TEST DATE L-BBL/DAY L-GRAVITY (API) AS-OIL RATIO CU FT/BBL ATER-BBL/DAY	Mississippidi MUHW 2018-08585 I 936 I.0.0 I 936 I.0.0 I 9479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR OII Allowable 4/12/2019 448 40 2115 4721 2565	359,000 MU 690 per GOR 12087 14145 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 9 wable (165:10)	1 962 (L 1 97 84 Nd		Gas Pt First S	urchaser/M ales Date	easurer		3/20/	eport-A ta rac Foru eOK /2019
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: OII, Gas, Dry, Inj, isp, Comm Disp, Svc 095 ERFORATED ITERVALS CID/VOLUME RACTURE TREATMENT IUIds/Prop Amounts) IITIAL TEST DATE IIL-BBL/DAY IIL-GRAVITY (API) AS-MCF/DAY AS-OIL RATIO CU FT/BBL 'ATER-BBL/DAY JMPING OR FLOWING	Mississippidi MUHW 2018-08585 936 I.0,0 i l 9,479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR Oil Allowable 4/12/2019 448 40 2115 4721 2565 flowing	359,000 MU 690 per GOR 12087 14145 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 9 wable (165:10)	1 962 (L 1 97 84 Nd		Gas Pt First S	urchaser/M ales Date	easurer	TE	3/20/	eport-1 11 rac Focus eOK /2019
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: OII, Gas, Dry, Inj, isp, Comm Disp, Svc	Mississippidi MUHW 2018-08585 936 I.0.0 i 9,479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR Oil Allowable 4/12/2019 448 40 2115 4721 2565 flowing 550	359,000 MU 690 per GOR 12087 14145 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 9 wable (165:10)	1 962 (L 1 97 84 Nd		Gas Pt First S	urchaser/M ales Date	easurer	TE	3/20/	eport-1 tu rac Focus eOK /2019
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COMPLETION & TEST DATA E ORMATION PACING & SPACING PACING & SPACING PACING & SPACING PACING & SPACING PREFORATED VITIAL GENT CODVOLUME RACTURE TREATMENT Fluids/Prop Amounts) NITIAL TEST DATA NITIAL TEST DATE VIL-BBL/DAY VIL-GRAVITY (API) SAS-MCF/DAY SAS-OIL RATIO CU FT/BBL VATER-BBL/DAY UMPING OR FLOWING NITIAL SHUT-IN PRESSURE HOKE SIZE LOW TUBING PRESSURE	Mississippidi MUHW 2018-08585 936 I.0,0 i 9,479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR Oil Allowable 4/12/2019 448 40 2115 4721 2565 flowing 550 40/64 1025	359,005 MU 690 Per GOR 12067 14145 (gal) 15% HC (gal) 15% HC (gal) slick wate (lb) 40/70 wable (165:10-13-3)	53 P 462 (L 1 1 2 5 4 4 5 4 4 5 4 4 5 4 4 5 4 4 5 4 4 5 4 4 5 4 4 5 4 4 5 4 4 5 4 4 4 4 4 4 4 4 4 4 4 4 4	AS	Gas Pt First S	urchaser/M ales Date				/2019
COMPLETION & TEST DATA E ORMATION PACING & SPACING PACING & SPACING PACING & SPACING PACING & SPACING PREFORATED VITIAL GENT CODVOLUME RACTURE TREATMENT Fluids/Prop Amounts) NITIAL TEST DATA NITIAL TEST DATE VIL-BBL/DAY VIL-GRAVITY (API) SAS-MCF/DAY SAS-OIL RATIO CU FT/BBL VATER-BBL/DAY UMPING OR FLOWING NITIAL SHUT-IN PRESSURE HOKE SIZE LOW TUBING PRESSURE	Mississippidi MUHW 2018-08585 936 I.0,0 i 9,479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR Oil Allowable 4/12/2019 448 40 2115 4721 2565 flowing 550 40/64 1025	359,005 MU 690 Per GOR 12067 14145 (gal) 15% HC (gal) 15% HC (gal) slick wate (lb) 40/70 wable (165:10-13-3)	53 P 462 (L 1 1 2 5 4 4 5 4 6 2 1 1 1 1 1 1 1 1 1 1 1 1 1	AS	Gas Pt First S	urchaser/M ales Date				/2019
OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER LASS: OII, Gas, Dry, Inj, Jisp, Comm Disp, Sve ERFORATED ITERVALS CID/VOLUME RACTURE TREATMENT IUGS/Prop Amounts) ITIAL TEST DATA IITIAL TEST DATA IITIAL TEST DATE IL-BBL/DAY IL-GRAVITY (API) AS-MCF/DAY AS-OIL RATIO CU FT/BBL (ATER-BBL/DAY UMPING OR FLOWING IITIAL SHUT-IN PRESSURE A record of the formations drilled to make this report, which was p	Mississippian MUHW 2018-08585 936 I.0.0 i 936 I.0.0 i 936 I.0.0 i 9479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR 011 Allowable 4/12/2019 448 40 2115 4721 2565 flowing 550 40/64 1025 d through, and pertinent remarks a prepared by me or under my supervision	A SAMS MU 690 Per GOR 12087 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 2 wable (165:10-13-3) (165:	53 P 462 (L 1 1 2 5 4 4 5 4 6 2 1 1 1 1 1 1 1 1 1 1 1 1 1	AS Internet of the states	Gas Pt First S	urchaser/M ales Date			3/20/	/2019
OMPLETION & TEST DATA E OMPLETION & TEST DATA E ORMATION PACING & SPACING RDER NUMBER ASS: OII, Gas, Dry, Inj, isp, Comm Disp, Svc 099 ERFORATED TERVALS CID/VOLUME RACTURE TREATMENT luids/Prop Amounts) ITIAL TEST DATA ITIAL TEST DATE L-BBL/DAY L-GRAVITY (API) AS-MCF/DAY AS-OIL RATIO CU FT/BBL ATER-BBL/DAY IMPING OR FLOWING ITIAL SHUT-IN PRESSURE IOKE SIZE OW TUBING PRESSURE	Mississippidi MUHW 2018-08585 I 936 I.0.0 I 936 I.0.0 I 936 I.0.0 I 9479 12124 84,004 13,224,508 11,455,720 Min Gas Allo OR OII Allowable 4/12/2019 448 40 2115 4721 2565 flowing 550 40/64 1025 d through, and pertinent remarks a repared by me or under my supervision Min Gas Allo	MU 690 Per GOR 12087 14145 (gal) 15% HC (gal) slick wate (lb) 40/70 2 wable (165:10-13-3) (175:10-13-3)	1 1 1 1 1 1 1 1 1 1 1 1 1 1	AS Internet of the states	Gas Pu First S	urchaser/M ales Date	easurer easurer easurer easurer easurer		3/20/	my organization edge and belief. 5-202-4535 ONE NUMBER

PLEASE TYPE OR USE BLACK INK ONLY FORMATION RECORD

ptions and thickness of formations ed.	LEASE NAME WELL NO
ТОР	FOR COMMISSION USE ONLY
7,672	ITD on file YES NO
7,891	APPROVED DISAPPROVED
8,138	2) Reject Codes
8,240	
8,462	
	Were open hole logs run?yesX_no
	Date Last log was run
	Was CO ₂ encountered?yes X no at what depths?
	Was H ₂ S encountered?yes no at what depths?
	Were unusual drilling circumstances encountered?yesno
,	
	TOP 7,672 7,891 8,138

640 Acres

BOTTOM HOLE LOCATION FOR DIRECTIONAL HOLE

SEC	TWP	RGE		COUNTY			
Spot Locati	on 1/4	1/4	1/4	1/	Feet From 1/4 Sec Lines	FSL	FWL
Measured T	otal Depth		True Vertical De	pth	BHL From Lease, Unit, or Prope	rty Line:	

WELL NO.

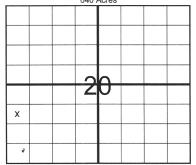
BOTTOM HOLE LOCATION FOR HORIZONTAL HOLE: (LATERALS)

LATERAL #1

SEC 20 TWF	' 19N	RGE	1300	COUNTY			Blaine	493		
Spot Location	SW	1/4	51U ₩2 1/4	SU ₩2 1/4	Feet From 1/4	Sec Lines		3126	FWL	648
Depth of Deviation	8,273		Radius of Turn	477	Direction	180	Total Length		4,532	
Measured Total	Depth		True Vertical Dep	oth	BHL From Lea	ise, Unit, or Prop				
14,245			9,23	36		493°5	648FW	Æ		

LATERAL #2 COUNTY SEC TWP RGE 1/4 Feet From 1/4 Sec Lines Spot Location FWL FSL 1/4 1/4 1/4 Direction Total Radius of Turn Depth of Length Deviation Measured Total Depth True Vertical Depth BHL From Lease, Unit, or Property Line:

LATERAL	#3						
SEC	TWP	RGE		COUNTY			
Spot Locati	on 1/4	1/4	1/4	1/4	Feet From 1/4 Sec Lines	FSL	FWL
Depth of Deviation			Radius of Turn		Direction	Total Length	
Measured 1	Total Depth		True Vertical De	pth	BHL From Lease, Unit, or Pr	operty Line:	



If more than three drainholes are proposed, attach a separate sheet indicating the necessary information.

Direction must be stated in degrees azimuth. Please note, the horizontal drainhole and its end point must be located within the boundaries of the lease or spacing unit.

Directional surveys are required for all drainholes and directional wells. 640 Acres

 040 Acres										