SUSPENSE

ENGINEER W

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

TH	IS CHECKLI	ST IS MAI			FRATIVE APPLICATIONS FOR		RULES AND REGULATIONS
Applic		n-Stand C-Downl [PC-Poo [\	dard Loc hole Con I Commi WFX-Wat	ation] [NSP-N nmingling] [ngling] [OLS terflood Expan D-Salt Water D	on-Standard Proration CTB-Lease Comminglir S - Off-Lease Storage] sion] [PMX-Pressure isposal] [IPI-Injection	Unit] [SD-Simultane lg] [PLC-Pool/Leas [OLM-Off-Lease Me Maintenance Expan n Pressure Increase]	e Commingling] asurement] sion]
	[EOI	R-Quali	fied Enh	anced Oil Reco	overy Certification] [PPR-Positive Produc	tion Response]
[1]		OF APF [A]	Location		Those Which Apply for it - Simultaneous Dedice		IPI-3
		Check ([B]	Commi		e - Measurement PLC PC		
		[C]			ressure Increase - Enha		R
		[D]	Other: S	Specify			
[2]		ICATIO [A]			Check Those Which A or Overriding Royalty		Apply
		[B]	Of	fset Operators,	Leaseholders or Surface	e Owner	
		[C]	П Ар	plication is On	e Which Requires Publi	shed Legal Notice	
		[D]	□ No	tification and/o	or Concurrent Approval ement - Commissioner of Public Lar	by BLM or SLO nds, State Land Office	
		[E]	☐ Fo	all of the above	ve, Proof of Notification	or Publication is Atta	iched, and/or,
		[F]	☐ Wa	nivers are Attac	hed		
[3]				AND COMP		ON REQUIRED TO	PROCESS THE TYPE
	al is accu	rate an	d compl	ete to the best o		understand that no a	ation for administrative ction will be taken on this
Rita	a C. Sr	Note: : mith	Statement	Rita C.	ed by an individual with mai Digitally signed by Rita C. Sm DN: cn=Rita C. Smith, o=Hess	ith _	
Print or Type Name			· · · -	Smith	em <u>ail</u> smith@hess.com, c=t Date: 2010.04.06 11:25:34 -05'00'	Title	Date
				Delal	They	rsmith@hess e-mail Address	.com

HESS CORPORATION



P.O. Box 840 Seminole, TX 79360

Rita C Smith

Engineering Technician (432) 758-6726 Cell (432) 209-1084

April 6, 2010

NMOCD

Attn: Ed Martin

1220 South St. Francis Dr.

Santa Fe New Mexico 87505

Ref: Step Rate Test

Mitchell 1830 092F

Permit # 30-021-20494 allowing injection into Mitchell 1830-092F

Order # SWD-1181 June 18, 2009 that approved the original injection pressure

Hess Corporation is requesting a maximum injection pressure increase to 1082 psia, from the Permit number 30-021-20494 and Administrative Order SWD-1181 for the Mitchell 1830 092F original injection pressure. Cardinal conducted a Step Rate Test on the Mitchell 1830-029F. Parting pressure is 1751.8 psia BHP with a Rate Intercept of 560.8 BPD. The surface pressure intercept is 1082 psia with a 15 minute ISIP = 1703.3 psia BHP

Attached the Surface & BHP Vs Rate plots, Well Bore Diagram, and the Raw data (and on diskette).

Your consideration in this matter is greatly appreciated. If additional information is needed, please let us know at your earliest convenience.

If you have any questions regarding the cancellation of this application, please contact me at (432)758-6726 or rsmith@hess.com

Sincerely,

Rita C Smith

Engineering Tech

Step Rate Test



Cardinal Surveys Company

29-Mar-10

Hess Corporation

Well:

Mitchell 1830-092F

Field;

Bravo Dome

County:

Harding County, NM

SC59190

File No. 19,789

Intercept @ 560.8 BPD, 1751.8 BH PSIA & Surface Intercept @ 1082 PSIA

Downhole PSI Tool Ser. No.

CSC2601

Surface PSI Gauge Ser. No.

10213

Tool @ 1600'

	Start	End	Rate
1	-10:40 AM	11:00 AM	0 At 1600'
2	11:15 AM	12:15 PM	100
3	12:15 PM	1:15 PM	200
4	1:15 PM	2:15 PM	300
5	2:15 PM	3:15 PM	400
6	3:15 PM	4:15 PM	500
7	4:15 PM	5:15 PM	700
8	5:15 PM	6:15 PM	900
9	6:15 PM	6:30 PM	15 MIN. Fall-Off

NOTE: Due to surface pump being maxed out at 900 BPD, test was ended

14 15 16

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Step Rate Test 29-Mar-10

Hess Corporation Well: Mitchell 1830-092F Field: Bravo Dome Location: Harding Co. NM



Upper Trend 1762.2 1777.2	
Lower Trend 1685.4 1713.6 1735.2	1613.5 1709.8 BPD PSIA
Avg. BPD 0 106 198 295 398 497 698	0.2467 0.075 560.861969 1751.86465
Delta BBL 0 17.9 30.8 42.1 63.9 85.9 103.1	intersect BHP PSI
Cum BBL 0 17.9 48.7 90.8 154.7 240.6 343.7 469.1	
Surf PSIA 546.9 898.3 952.1 998.2 1033.1 1096.2 1112.6	
BHP PSIA 1235 1592.3 1642.1 1685.4 1713.6 1735.2 1762.2 1777.2	
Step BPD 0 100 100 100 200 200	
Last Rate BPD 0 100 200 300 400 500 700 900	
D Time Min 20 60 60 60 60 60 15	
E Time 11:00 AM 12:15 PM 1:15 PM 2:15 PM 3:15 PM 5:15 PM 6:15 PM 6:30 PM	
S Time 10:40 AM 11:15 AM 1:15 PM 1:15 PM 2:15 PM 4:15 PM 5:15 PM 6:15 PM	



