

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-4 Form must be typed March 2009

APPLICATION FOR COMMINGLING OF Commingling ID #_ PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a)

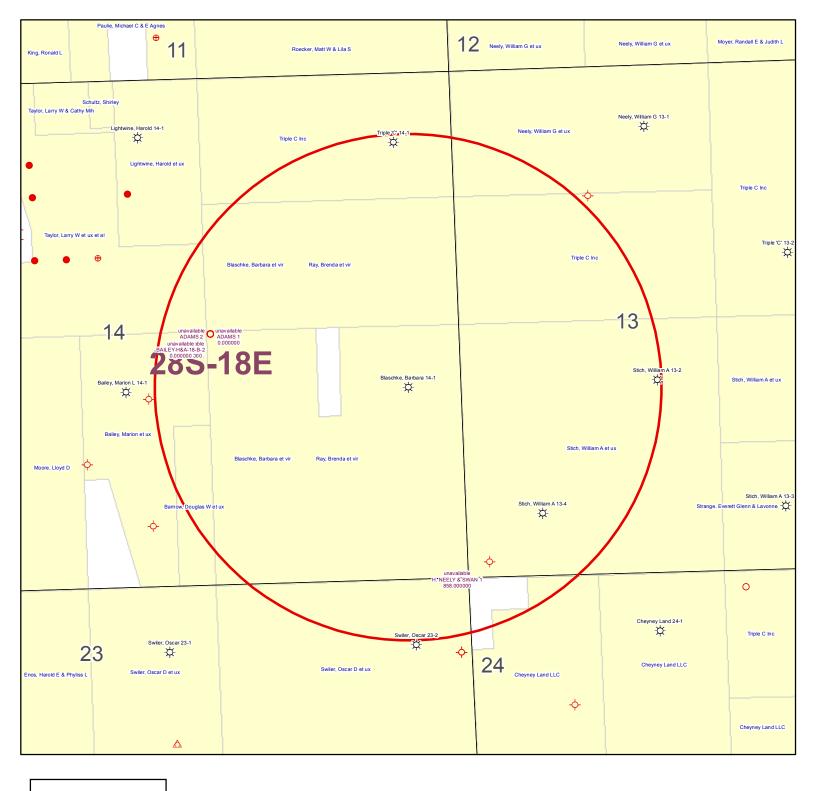
OPERAT	OR: License #	API No. 15			
Name:		Spot Descr	iption:		
Address	1:		Se	ec Twp S. R.,	East West
Address	2:			_ Feet from _ North / _	South Line of Section
City:	State: Zip:+			_ Feet from	West Line of Section
Contact F	Person:	County:			
Phone:	()	Lease Nam	ne:	Well #:	
1.	Name and upper and lower limit of each production interval to be com	mingled:			
	Formation:		(Perfs):		
	Formation:		(Perfs):		
	Formation:		(Perfs):		
	Formation:		(Perfs):		
	Formation:		(Perfs):		
2.	Estimated amount of fluid production to be commingled from each inte				
	Formation:	BOPD:		_ MCFPD:	BWPD:
	Formation:	BOPD:		_ MCFPD:	BWPD:
	Formation:	BOPD:		_ MCFPD:	BWPD:
	Formation:	BOPD:		_ MCFPD:	BWPD:
	Formation:	BOPD:		MCFPD:	BWPD:
□ 3.□ 4.	Plat map showing the location of the subject well, all other wells on the the subject well, and for each well the names and addresses of the less Signed certificate showing service of the application and affidavit of pu	ssee of reco	rd or operato	r.	in a 1/2 mile radius of
		abilication ac	roquirou iiri	W.W. 02 0 100a.	
	mingling of PRODUCTION ONLY, include the following:	¬			
	Wireline log of subject well. Previously Filed with ACO-1: Yes	_] NO			
<u> </u>	Complete Form ACO-1 (Well Completion form) for the subject well.				
For Com	mingling of FLUIDS ONLY, include the following:				
	Well construction diagram of subject well.				
8.	Any available water chemistry data demonstrating the compatibility of	the fluids to	be comming	led.	
current in mingling i	IT: I am the affiant and hereby certify that to the best of my formation, knowledge and personal belief, this request for comstrue and proper and I have no information or knowledge, which stent with the information supplied in this application.		Subn	nitted Electronically	

Protests may be filed by any party having a valid interest in the application. Protests must be in writing and comply with K.A.R. 82-3-135b and must be filed wihin 15 days of publication of the notice of application. Denied Approved 15-Day Periods Ends: __

KCC Office Use Only

Approved By:

Date: _



KGS STATUS

- ◆ DA/PA
- EOR
- **⇔** GAS
- △ INJ/SWD
- OIL
- **♦** OIL/GAS
- OTHER

Blaschke, Barbara 14-1 14-28S-18E 1" = 1,000'

-	Α	В	С	D	Е	F	G	Н	1		K
1	Produced Fluids #	В	1	2	3	4	5	11	•	<u> </u>	
	Parameters	Units	Input	Input	Input	Input	Input		Click he	re	Click
3	Select the brines	Select fluid		Ī		V	Ī	Mixed brine:	to run SS	-	
4	Sample ID	by checking						Cell H28 is	to ruii oc	•	Click
5	Date	the box(es),	3/19/2012	3/4/2012	3/14/2012	1/20/2012	1/20/2012	STP calc. pH.	————		
6	Operator	Row 3	PostRock	PostRock	PostRock	PostRock	PostRock	Cells H35-38			Click
7	Well Name		Ward Feed	Ward Feed	Clinesmith	Clinesmith	Clinesmith	are used in	Goal Seek	SSP	
8	Location		#34-1	#4-1	#5-4	#1	#2	mixed brines	0.00		Click
9	Field		CBM	CBM	Bartles	Bartles	Bartles	calculations.			
10	Na ⁺	(mg/l)*	19,433.00	27,381.00	26,534.00	25689.00	24220.00	24654.20	Initial(BH)	Final(WH)	SI/SR
11	K ⁺ (if not known =0)	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
	Mg ²⁺	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91		lcite	
	Ca ²⁺	(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
	Sr ²⁺		1,050.00	2,432.00	2,044.00	1720.00	1740.00				0.13
	Ba ²⁺	(mg/l)						0.00	Da	rite	
.,		(mg/l)						0.00			
	Fe ²⁺	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21		lite	
	Zn ²⁺	(mg/l)						0.00	-1.77	-1.80	-0.03
18	Pb ²⁺	(mg/l)						0.00	Gyp	sum	
19	Cl	(mg/l)	36,299.00	48,965.00	47,874.00	45632.00	43147.00	44388.44	-3.19	-3.18	0.00
20	SO ₄ ²⁻	(mg/l)	1.00	1.00	8.00	1.00	1.00	2.40	Hemil	ıydrate	
21	F.	(mg/l)						0.00	-3.96	-3.90	0.06
	Br'	(mg/l)						0.00		ydrite	
	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
_	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03		estite	
	CO3 Alkalinity	(mg/l as CO3)	170.00	434.00	237,00	200.00	234.00	241.03	Cen		
_	Carboxylic acids**	(mg/l)						0.00	Inor 6	Sulfide	
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
											-0.00
	Borate	(mg/L) H3BO3						0.00	Zinc	Sulfide	
	TDS (Measured)	(mg/l)	4.040	4.0=4				72781	~		
	Calc. Density (STP) CO ₂ Gas Analysis	(g/ml)	1.038 19.97	1.051 18.76	1.050 22.41	1.048 35.53	1.045	1.047	Calcium	fluoride	
	- ,	(%)		0.0292			33.79	26.16	I C.	-l	
	H ₂ S Gas Analysis*** Total H2Saq	(%)	0.0289	1.00	0.0296	0.0306	0.0151 0.50	0.0269	-0.74	rbonate -0.51	0.23
_	_	(mgH2S/l)	1.00 5.67	5.76	1.00 5.72	1.00 5.54	5.55	5.63		eeded (mg/L)	0.23
34	pH, measured (STP)	pH 0-CO2%+Alk,	5.07	5./0	5.72	5.54	5.55	5.03	Calcite	NTMP	
	Choose one option								Calcite	NIMI	
35	to calculate SI?	2-CO2%+pH	0	0	0	0	0				
36	Gas/day(thousand cf/day)	(Mcf/D)						0	0.00	0.00	
	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	BHPMP	
	Water/Day	(B/D)	100	100	100	100	100	500	0.00	0.00	
	For mixed brines, enter val			mag in Calle (H	(40 H42)						
-	Initial T			` .		44.0	40.0	(Enter H40-H43)		Н	
		(F)	66.0	71.0	70.0	41.0	49.0	60.0	5.69	5.60	1
	Final T	(F) (F)	66.0 66.0	71.0 71.0	70.0 70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (5.60 CentiPoise)	
42	Final T Initial P	(F) (F) (psia)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0	5.69 Viscosity (1.196	5.60 CentiPoise) 0.826	
42 43	Final T Initial P Final P	(F) (F) (psia) (psia)	66.0 66.0	71.0 71.0	70.0 70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (1.196 Heat Capaci	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C)	
42 43 44	Final T Initial P Final P Use TP on Calcite sheet?	(F) (F) (psia) (psia) I-Yes;0-No	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959	
42 43 44 45	Final T Initial P Final P	(F) (F) (psia) (psia)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0	5.69 Viscosity (1.196 Heat Capaci 0.955	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C)	
42 43 44 45 46	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav.	(F) (F) (psia) (psia) I-Yes;0-No API grav.	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 eeded (mg/L)	
42 43 44 45 46 47 48	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00	
42 43 44 45 46 47 48 49 50	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG//Day Conc. Multiplier H* (Strong acid) *	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) †	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP:	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP:	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP)	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH' (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/l) (pH)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP)	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations=	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions=	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./I) (equiv./I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= ECations= Calc TDS=	(F) (F) (Psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I)	66.0 66.0 25.0 25.0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textit{\Sigma}\$ (STP) Exhions= \$\textit{\Sigma}\$ (STD)= Inhibitor Selection	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time	(F) (F) (Psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I)	66.0 66.0 25.0 25.0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0 Unit Converter	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 60 61 62 63	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle \text{Calcite}\$ acid \$\text{Lacite}\$ acid \$\text	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0 4 1 1 2	70.0 70.0 25.0 25.0 25.0 Inhibitor NTMP BHPMP	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= £Anions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you?	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0 0	# 1 2 3	Inhibitor NTMP BHPMP PAA	Unit Converter From Unit C m³	49.0 25.0 25.0 25.0 (From metric Value 80 100	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle \text{Calcite}\$ acid \$\text{Lacite}\$ acid \$\text	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0 4 1 1 2	70.0 70.0 25.0 25.0 25.0 Inhibitor NTMP BHPMP	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\mathbb{\text{Catluated}}\$ Alkalinity Caclulated \$\mathbb{\text{Catluated}}\$ Eanions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is:	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0 0	71.0 71.0 25.0 25.0 1 1 1 2 3 4	Inhibitor NTMP BHPMP PAA DTPMP	Unit Converter From Unit °C m³ m³ MPa	49.0 25.0 25.0 25.0 (From metric Value 80 100 1,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit °F ft³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 60 61 62 63 64 65 66 67	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated Alkalinity Caclulated Alkalinity Caclulated ECations= ZAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor # is:	(F) (F) (Psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120 1 4	0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit C m MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft ³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 44 45 46 47 48 49 50 51 52 53 54 55 56 60 61 62 63 64 65 66 67 68	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed,	(F) (F) (Psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./I) (equiv./I) (mg/l) Input 120 1 4 1 50	0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 4 5 6 6 7	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA HEDP	Unit Converter From Unit C m³ m³ MPa Bar Torr	49.0 25.0 25.0 25.0 25.0 Value 80 100 1,000 496 10,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit °F ft³ bbl(42 US gal) psia psia psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194 193	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 44 45 46 47 48 49 50 51 52 53 54 55 56 60 61 62 63 64 65 66 67 68 69	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * OH* (Strong base) * Ouality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor is: % of 1st inhibitor is:	(F) (F) (Psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120 1 4	0 0 0 0 Unit min 1-Yes;0-No # # %	## 1 2 3 4 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit C m MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft ³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	

Saturation Index Calculations

Champion Technologies, Inc. (Based on the Tomson-Oddo Model)

Brine 1: Ward Feed Yard 34-1
Brine 2: Ward Feed Yard 4-1
Brine 3: Clinesmith 5-4
Brine 4: Clinesmith 1
Brine 5: Clinesmith 2

			Ratio			
	20%	20%	20%	20%	20	
Component (mg/L)	Brine 1	Brine 2	Brine 3	Brine 4	Brine 5	Mixed Brine
Calcium	1836	2452	2044	1920	1948	1952
Magnesium	1096	872	1200	953	858	865
Barium	0	0	0	0	0	0
Strontium	0	0	0	0	0	0
Bicarbonate	190	234	259	268	254	253
Sulfate	1	1	8	1	1	1
Chloride	36299	48965	47874	45632	43147	43206
CO ₂ in Brine	246	220	264	422	405	401
Ionic Strength	1.12	1.48	1.46	1.38	1.31	1.31
Temperature (°F)	89	89	89	89	89	89
Pressure (psia)	50	50	120	120	120	119

Saturation Index

Calcite	-1.71	-1.41	-1.48	-1.68	-1.69	-1.69
Gypsum	-3.71	-3.64	-2.82	-3.73	-3.72	-3.69
Hemihydrate	-3.70	-3.65	-2.83	-3.74	-3.71	-3.69
Anhydrite	-3.89	-3.79	-2.97	-3.89	-3.88	-3.85
Barite	N/A	N/A	N/A	N/A	N/A	N/A
Celestite	N/A	N/A	N/A	N/A	N/A	N/A

PTB

Calcite	N/A	N/A	N/A	N/A	N/A	N/A
Gypsum	N/A	N/A	N/A	N/A	N/A	N/A
Hemihydrate	N/A	N/A	N/A	N/A	N/A	N/A
Anhydrite	N/A	N/A	N/A	N/A	N/A	N/A
Barite	N/A	N/A	N/A	N/A	N/A	N/A
Celestite	N/A	N/A	N/A	N/A	N/A	N/A

POSTROCK



Current Completion

SPUD DATE: 2/23/2006

COMP. Date: 3/16/2006 API: 15-133-26399-00-00

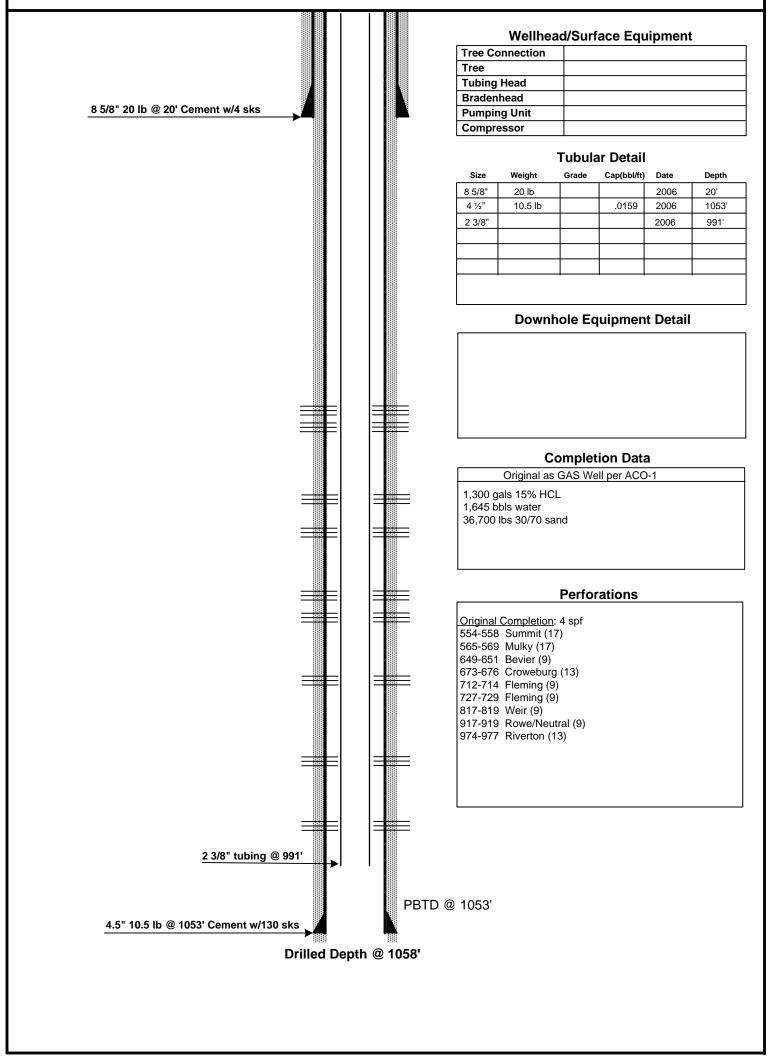
WELL: Blaschke, Barbara 14-1

FIELD : Cherokee Basin

STATE : Kansas COUNTY : Neosho

: Neosho LOCATION: 14-28S-18E (NE,SE)

ELEVATION: 940'



PREPARED BY: POSTROCK

APPROVED BY:

DATE: Sept, 2012

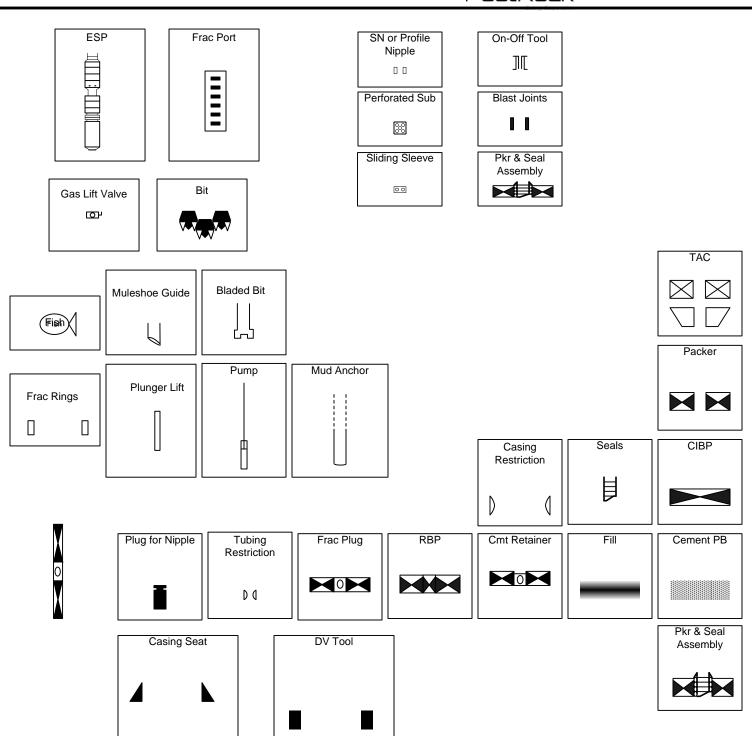
DATE:_

POSTROCK



LEGEND

PostRock[®]



KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

ORIGINA Form Must Be Typed

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

33344	API No. 15 - 133-26399~00~00
Operator: License #_33344 Name: Quest Cherokee, LLC	
Name:	County: Neosho
City/State/Zip: Chanute, KS 66720	leet from S / N (circle one) Line of Section
Purchaser: Bluestem Pipeline, LLC	feet from E/ W (circle one) Line of Section
Operator Contact Person: Gary Laswell	Footages Calculated from Nearest Outside Section Corner:
Phone: (620) 431-9500	(circle one) NE SE NW SW
Contractor: Name: Michael Drilling, LLC	Lease Name: Blaschke, Barbara Well #: 14-1
License: 33783	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Designate Type of Completion:	Elevation: Ground: 940 Kelly Bushing: n/a
✓ New Well Re-Entry Workover	Total Depth: 1058 Plug Back Total Depth: 1053.80
Oil SWD SIOW Temp. Abd.	Amount of Surface Pipe Set and Cemented at 20.2 Feet
✓ Gas ENHR SIGW	Multiple Stage Cementing Collar Used? ☐ Yes ✓ No
Dry Other (Core, WSW, Expl., Cathodic, etc)	If yes, show depth setFeet
If Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 1053.80
Operator:	curfoco 120
Well Name:	feet depth to surface w/ 150 sx cmt.
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan
Deepening Re-perf Conv. to Enhr/SWD	(Data must be collected from the Reserve Pit)
Plug Back Plug Back Total Depth	Chloride contentppm Fluid volumebbls
	Dewatering method used
33	Location of fluid disposal if hauled offsite:
Dual Completion Docket No	Operator Name: KANSAS CORPORATION COMMISSION
Other (SWD or Enhr.?) Docket No	Lease Name: Licensel Nb.2_3_2006
2/23/06 2/27/06 3/16/06	
Spud Date or Date Reached TD Completion Date or Recompletion Date	Quarter Sec Twp S. R
	BOOKEL NO. WICHITA, KS
Kansas 67202, within 120 days of the spud date, recompletion, workow Information of side two of this form will be held confidential for a period of	th the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, wer or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. 12 months if requested in writing and submitted with the form (see rule 82-3-s and geologist well report shall be attached with this form. ALL CEMENTING s. Submit CP-111 form with all temporarily abandoned wells.
All requirements of the statutes, rules and regulations promulgated to regul herein are complete and correct to the best of my knowledge.	late the oil and gas industry have been fully complied with and the statements
Signatura 1 5 / Pores	KCC Office Use ONLY
Signature: 19 100000	NOO OTHER USE ONLY
Title: Head of Operations Date: 6/22/06	Letter of Confidentiality Received
Subscribed and sworn to before me this and day of	If Denied, Yes Date:
20_06.	Wireline Log Received
	Geologist Report Received
Notary Public: Genny K. Klmmounn	UIC Distribution
Date Commission Expires: Quly 3, 2009	JENNIFERR AMMANN
	Notary Public - State of Kansas
Му	Appt. Expires 7-30-09

Operator Name: Qu	est Cherokee, LL	С		Leas	e Name:	Blaschke, B	arbara	Well #: 14-1	1	
	88 S. R. 18		t West	Coun	ty: Neos	ho	- 1			
tested, time tool ope temperature, fluid re	how important tops a n and closed, flowing covery, and flow rate s surveyed. Attach	g and shut s if gas to	-in pressures, surface test, a	whether solong with	shut-in pre	essure reache	d static level, hyd	rostatic pressure	es, botto	m ho e
Drill Stem Tests Take		_ Y	es 🗸 No	181-3	 ✓L	og Forma	ition (Top), Depth	and Datum		Sample
Samples Sent to Ge	ological Survey	□ Y	es 🗹 No		Nam See	e Attached		Тор	1	Daturn
Cores Taken		□ Y	es 🗸 No							
Electric Log Run (Submit Copy)		✓ Y	es No							
List All E. Logs Run:										
Comp. Density Dual Induction Gamma Ray C	Log		Olg woodgrade					-110-0	1 122	1932/110 (330 11111)
		Repo	CASING rt all strings set-	RECORD conductor,		ew Used ermediate, produ	ction, etc.			
Purpose of String	Size Hole Drilled	Siz	te Casing	We	eight s. / Ft.	Setting Depth	Type of Cement	# Sacks Used		and Percent dditiv ss
Surface	12-1/4"	8-5/8"		20#		20.2	"A"	4		
Production	6-3/4"	4-1/2		10.5#		1053.8	"A"	130		
			ADDITIONAL	. CEMENT	ING / SQL	JEEZE RECOF	RD			
Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Туре	of Cement	#Sack	s Used		Type and	Percent Additives		
Shots Per Foot			RD - Bridge Plug Each Interval Per		е		racture, Shot, Ceme Amount and Kind of N		d	Depth
4	974-977/917-919	9/817-81	9/727/729/7	12-714/6	373-676	400gat 15% HCL w/ 41	bbts 2% kcl water, 460bbls wa	ter w/ 2% KCL, Blockie 7500	# 30/70 sand	974-9 /7/917-9
4	649-651/565-56	9/554-55	8			500gal 15% HCL w/ 45	bbts 2% kcl water, 625bbts water	or w/ 2% KCL, Blockle 16000	# 30/70 sand	817-8 19/727-7
								5 61		712-7 4/673-6
							*************			649-651
						400gal 15% HCl, w/ 54	bbts 2% kcl water, 560bbts water	er w/ 2% KCL, Blockie 13200	# 30/70 sand	565-5 39/554-5
TUBING RECORD 2-	Size 3/8"	Set At 991		Packer n/a	At	Liner Run	Yes N	o	000-14-00	
Date of First, Resumer	d Production, SWD or E	Enhr.	Producing Met	hod	Flowin	g 📝 Pum	ping Gas L	.ift Othe	er (Explain)
Estimated Production Per 24 Hours	oii n/a	Bbls.	Gas 23.3mcf	Mcf	Wate 26.4		Bbls.	Gas-Oil Ratio		Gravity
Disposition of Gas	METHOD OF 0	COMPLETIC			20.41	Production Int	erval	- (4		
Vented ✓ Sold			Open Hole Other (Spec	✓ Pe	rf. 🗌 [Dually Comp.	Commingled			

39

Michael Drilling, LLC P.O. Box 402 Iola, KS 66749 620-365-2755

Company:			

Quest Cherokee LLC

Address:

9520 North May Ave, Suite 300

Okłahoma City, Okłahoma 73120

Ordered By: Domie Meyers

Date: 02/25/06

Lease: Blaschke, Barbara

County: Neosho

Well#:

14-1

API#: 15-133-26399-00-00

Drilling Log

FEET	DESCRIPTION	FEET	DESCRIPTION
0-14	Overburden	382-411	Shale
14-26	Lime	4:1-416	Sand
20-35	Shale	416-440	Shale
35-102	Lime	440-441	Coal
102-104	Shale	441-448	Lime
104-107	Black Shale and Water	448-449	Coal
107-114	Lime	449-488	Lime
114-140	Sand	488-511	Black Shale
14(+153	Sandy Shale	511-520	Sand
153-176	il.ime	520-532	Shale
170-180	Shafe	532-550	Lime
180-191	Lime	542	Gas Test (12" at 1/4 Choke)
191-204	Shele	550-554	Shale
204-280	Lime	554-557	Black Shale
280-282	Shale	557-559	Shale
282-285	Black Shale	5.59-565	Lime
285-287	Shale	560	Gas Test (12" at 1/4 Choke)
287-289	Lime	565-567	Black Shele and Coal
289-320	Send and Shale	567-622	Shale
32(+322	Coal	582	Gas Test (12" at 1/4 Choke)
322:-342	Line	622-624	Lime
342-355	Shale and Line	624-649	5hale Shale
355-363	Lime	649-650	Coal
363-382	Lime and Shale	650-6663	Shale

Michael Drilling, LLC P.O. Box 402 Iola, KS 66749 620-365-2755

Con	200		
$-\alpha m$	1110	1117	

Quest Cherokee LLC

Address:

9520 North May Ave. Suite 300

Oklahoma City, Oklahoma 73120

Ordered By: Donnie Meyers

Date: 02/25/06

Lease: Blaschke, Barbara

County: Neosno

Well#: 14-1

API#: 15-133-26399-00-00

Drilling Log

FIET	DESCRIPTION	FEET	DESCRIPTION
663-664	Coal	1058	TD
664-669	Shale		
669-670	Lime		
670-671	Cnal		
671-676	Shale		
676-682	Sand		KANSAS CORPORATION COMMISSION
682-699	Shale		JUN 2 3 2006
699-700	Coal		CONSERVATION DIVISION
700-715	Shak		WICHITA, KS
715-716	Coal		
716-727	Shale		
727-735	Coal		
735-746	Sand		
746-916	Shale		
916-917	Coal		
917-921	Shale "		
921-922	Coel		
922-972	Shale		
958	Gas Test (50" at 1/4 Choke)		
972-975	Coal		
975-981	Shale		
977	Gas Test (50° at 1/4 Choke)		
981-1058	Mississippi Lime		1
1040	Gas Test (50° at 1/4 Choke)		30



DATE: 02/27/2006

		Data	a from Driller'	s Log	Michael D	rilling Ri	g #2.
WELL NAME	Blaschke, Barban	SECTION:	14	REPORT	#: SPUD DA	TE:	2/23/2006
WELL#:	14-1	TWP:	28S	DEPTH:	1058		
FIELD:	Cherokee Basin	RANGE:	18E	PBTD:	22.7		
COUNTY:	Neosho	ELEVATION:	940	FOOTAGE	1980 FT FROM	South	LINE
STATE:	Kansas	API#:	15-133-26399-00-00		660 FT FROM	and the same of th	LINE
	Raisis		13-133-20377-00-00		1927/9-908-00-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	NE SE) (() ()
CTIVITY DE		in drilled to TD 1058 ft. on	02/24/2006.	1	P		
GAS SHOWS:		Gas Measurement	Zone Footag	100	Net Gas / Comments		
Mulberry Coal		0 mcf/day @					
Lexington Shale	& Coal	6 mcf/day @	************************	FT. •	6 mcf/day from this are:	a. Gas Tes	t at 542 ft.
Summit Shale &		6 mcf/day @		*****************	GCS. Gas Test at 560		
Mulky Shale &	******	6 mcf/day @		***************************************	GCS. Gas Test at 582		
Bevier Coal		6 mcf/day @		FT. *			
Verdigris Limes	stone	6 mcf/day @		FT. *			
Croweburg Sha	*****	6 mcf/day @		FT.			
leming Coal		6 mcf/day @					
Veir Coal		6 mcf/day @	727-735	FT.			
Bartlesville San	d	6 mcf/day @		FT.			
Rowe Coal		6 mcf/day @		*****			
Neutral Coal		12 mcf/day @			6 mcf/day from this are		t at 958 ft.
Riverton Coal		12 mcf/day @			GCS. Gas Test at 977		
Mississippi		12 mcf/day @	Top at 981	FT.	GCS. Gas Test at 104) ft.	
TD: 1058 ft.							
Zone not ident	tifiable from D	riller's hand written notes.	·				
	Formation T	ops and Casing Recommer	dation made with	out benefit of	viewing open-hole logs fir	st.	
	Tormation 1	ops and Casing Accomme	idadon made with	Jul Denem Of	vicinia open note to by the		
Surface Casing	@ 20.2 ft.						
Α.					5: ₉₅		
Surface Casing	Size: 8 5/8"						
		mation in this Report was				lepths	
& orifice checks	reflect what t	he driller recorded during	drilling activities.	Zones listed	below are fyi only.		24.5000.3
Pawnee Limesto	ne 449-488				144	R.	CENTER
	*** ***				KANSA	SCORE	CEIVED
Oswego Limesto	ne 532-550					W COKP	DRATION COL
Mineral Coal 67	-					JUN	2 3 2006
Scammon Coal 6							
Tebo Coal 715-7	16				6	ONSERVA	TION DIVISIO
If the Zone abov	ve has no foota	ges listed, the Zone was no	t identifiable from	the Driller's	Notes.	WIC	HTA, KS
CASING RECO	OMMENDATI	ONS: Run casin	g / Cement to surf	ace			
and of Geologic	/ Drilling Pan	ort. Thank You!	7 322				
On Site Represe			ngist, CPG #4630	(620) 305-920	3 Cell. KRecoy@qrcp.ne	t	
one Represe		acti Accopy Schiol Geol	Page 1 0 14000	(200) 303-720	- Com Anticeo Jusquepane		



211 W. 14TH STREET, CHANUTE, KS 66720 620-431-9500

TICKET NUMBER 1425	
FIELD TICKET REF #	- 古古書
FOREMAN Toe	

COUNTY

TREATMENT REPORT & FIELD TICKET CEMENT

SECTION

TOWNSHIP

WELL NAME & NUMBER

3-16.06	01050	-hKE	DUL	carra 1-1-	14	28 10	5 NO
FOREMAN / OPERATOR	TIME	TIME	LESS LUNCH	TRUCK #	TRAILER # .	TRUCK HOURS	EMPLOYEE SIGNATURE
Jane . 73		10:30		903388		3.5	101 Clarita
T.M. A	6.45	1		903197		3.75	In and
Russell . A	6:00			903/03		41.5	I fund
david c	7:00			603296	932452	3.5	David Plane
J-11. W	7:00			903106		3.5	Jeff notife
MANUA CICL	0/7:00	-	1	ex+ra.	1	The same of the sa	1-1-1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-
IOB TYPE Longs	ACING HOLES	IZE _ 6 3/4	<u>/</u> I	HOLE DEPTH 10	58 CASI	NG SIZE & WEIGH	T_4110 100
CASING DEPTH /	53 -80 DRILL P	IPE		TUBING	OTH	ER	
SLURRY WEIGHT	14.5 SLURRY	VOL	\	WATER gal/sk	CEM	ENT LEFT in CASIN	VG
DISPLACEMENT /	6.80 DISPLA	CEMENT PS	I I	MIX PSI	RATE	3.86	pm
DEMARKS.							
RIN 25	KS DIEM -	Sunol	40 5017	face. INS 140 SKS ped wipe B	folled com	ent head	MAN 25K
Dremael "	4 11 5	by di	ie of	140 SKS	of remen	+ toget	dup to
Surface	Flush	Du ma	Tom	ned wine B	DIUS to	bottom &	- Sat Floots
301100	4	1		1	1)		was .
		ile. – Aktie	-399		VANDA	RECEIVED)
			140 2 140 4		ACVIDA	S CORPORATION CO	OMMISSION
	105	3.90	F+ 4"1"	Crsing		JUN 2 3 200	6
3.35				2005			i
			-	Id an collar	-	ONSERVATION DIVIS WICHITA, KS	SION
631300	2			tracter .			
0 T53	2	100		trailor			
ACCOUNT CODE	QUANTITY or L	JNITS		DESCRIPTION OF S	ERVICES OR PRODU	ICT	TOTAL AMOUNT
003388	3'.5	hc I	Foreman Pickup				
903197	3.75		Cement Pump Tru	ck			
207/03	4.5		Bulk Truck	Alma:			
1104	13		Portland Cement				
1124	5		50/50 POZ-Blend-	Coment- BA(fles	5 370" AL	3"	
1126	1		OWC - Blend Cen	ment 41/2 Union	er Plue		
1110	14		Gilsonite				
1107	1.0	5 SK	Flo-Seal				
1118	3 4	1 5K	Premium Gel	12			
1215A	1 1501		KCL			(0)	<u> </u>
1111B		3 50	Sediom-Silicate (Calchloride			
1123	7000 cal		City Water				
903296	3.5	24	Transport Truck				
9321172	3.5		Transport Trailer				
903100	3.5		80 Vac				
Ravin 4513			NU " The	at shor			

BLASCHKE, BARBARA 14-1

1 NAME & UPPE	R & LOWER LIMIT OF EACH PROD	DUCTION I	NTERVAL TO I	BE COMMING	LED			
FORMATION:	FLEMING		(PERFS):	727 -	729			
FORMATION:	WIER	_	(PERFS):	817 -	819			
FORMATION:	ROWE/NEUTRAL		(PERFS):	917 -	919			
FORMATION:	RIVERTON		(PERFS):	974 -	977			
FORMATION:	CATTLEMAN		(PERFS):	739 -	745			
FORMATION:			(PERFS):		·			
FORMATION:		_	(PERFS):		·			
FORMATION:		_	(PERFS):		·			
FORMATION:			(PERFS):		·			
FORMATION:			(PERFS):		·			
FORMATION:		_	(PERFS):		·			
FORMATION:		_	(PERFS):		·			
2 ESTIMATED AN	MOUNT OF FLUID PRODUCTION 1	ГО ВЕ СОМ	MINGLED FR	OM EACH INT	ERVAL			
FORMATION:	FLEMING		BOPD:	0	MCFPD:	2.33	BWPD:	0.56
FORMATION:	WIER	_	BOPD:	0	MCFPD:	2.33	BWPD:	0.56
FORMATION:	ROWE/NEUTRAL	_	BOPD:	0	MCFPD:	2.33	BWPD:	0.56
FORMATION:	RIVERTON	_	BOPD:	0	MCFPD:	2.33	BWPD:	0.56
FORMATION:	CATTLEMAN	_	BOPD:	3	MCFPD:	0	BWPD:	20
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
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FORMATION:		0	BOPD:		MCFPD:		BWPD:	

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS NOTICE OF FILING APPLICATION

RE: In the Matter of Postrock Midcontinent Production, LLC Application for Commingling of Production in the Blaschke, Barbara 14-1 located in Neosho County, Kansas.

TO: All Oil & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all persons whomever concerned.

You, and each of you, are hereby notified that Postrock Midcontinent Production, LLC has filed an application to commingle the Summit, Mulky, Bevier, Croweburg, Fleming, Weir, Rowe/Neutral, Riverton and Cattleman producing formations at the Blaschke, Barbara 14-1, located in the SW NE NE SE, S14-T28S-R18E, Approximately 2002 FSL & 550 FEL, Neosho County, Kansas.

Any persons who object to or protest this application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of this publication. These protests shall be filed pursuant to Commission regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or pollute the natural resources of the State of Kansas.

All persons interested or concerned shall take notice of the foregoing and shall govern themselves accordingly. All person and/or companies wishing to protest this application are required to file a written protest with the Conservation Division of the Kansas Oil and Gas Commission.

Upon the receipt of any protest, the Commission will convene a hearing and protestants will be expected to enter an appearance either through proper legal counsel or as individuals, appearing on their own behalf.

Postrock Midcontinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704

A COPY OF THE AFFIDAVIT OF PUBLICATION MUST ACCOMPANY ALL APPLICATIONS

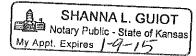
Affidavit of Publication A

STATE OF KANSAS, NEOSHO COUNTY, ss:

Rhonda Howerter, being first duly sworn, deposes and says: That she is Classified Manager of THE CHANUTE TRIBUNE, a daily newspaper printed in the State of Kansas, and published in and of general circulation in Neosho County, Kansas, with a general paid circulation on a daily basis in Neosho County, Kansas, and that said newspaper is not a trade, religious or fraternal publication.

Said newspaper is a daily published at least weekly 50 times a year: has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice; and has been admitted at the post office of Chanute, in said county as second class matter.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for consecutive, the first publication thereof being made as aforesaid on the day of
, 2012, 2012
, 2012, 2012
Phonda Howerti
Subscribed and sworn to and before me this
Notary Public
My commission expires: January 9, 2015
Printer's Fee
Affidavit, Notary's Fee \$ 3.00
Additional Copies\$
Total Publication Fees \$ 74,17



AFFIDAVIT

STATE OF KANSAS

SS.

County of Sedgwick

Mark Fletchall, of lawful age, being first duly sworn, deposeth and saith: That he is Record Clerk of The Wichita Eagle, a daily newspaper published in the City of Wichita, County of Sedgwick, State of Kansas, and having a general paid circulation on a daily basis in said County, which said newspaper has been continuously and uninterruptedly published in said County for more than one year prior to the first publication of the notice hereinafter mentioned, and which said newspaper has been entered as second class mail matter at the United States Post Office in Wichita, Kansas, and which said newspaper is not a trade, religious or fraternal publication and that a notice of a true copy is hereto attached was published in the regular and entire Morning issue of said The Wichita Eagle for 1 issues, that the first publication of said notice was

made as aforesaid on the 11th of

October A.D. 2012, with

subsequent publications being made on the following dates:

And affiant further says that he has personal knowledge of the statements above set forth and that they are true.

Subscribed and sworn to before me this

11th day of October, 2012

PENNY L. CASE

E的 Notary Public :

My Appt. Expires 2

Notary Public Sedgwick County, Kansas

Printer's Fee: \$134.80

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE OCTOBER 11, 2012 (3211697) BEFORE THE STATE CORPORATION COMMISSION

OF THE STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: In the Matter of Postrock Midconlinent
Production, LLC Application for
Commingling of Production in the
Blaschke, Barbara 14-1 located in Neosho
County Konsar

Blaschke, Barbara 14-1 located in Neosho County, Kansas.

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Affida	vit of Notice Served	<u> </u>
Re:		IGLING OF PRODUCTION OR FLUIDS ACO-4
	Well Name: BLASCHKE, BARBARA 14-1	Legal Location: SWNENESE S14-T28S-R18E
The und	ersigned hereby certificates that he / she is a duly authorized	
2012	, a true and correct copy of the application refer	renced above was delivered or mailed to the following parties:
Note: A	copy of this affidavit must be served as a part of the applicat	tion.
	Name	Address (Attach additional sheets if necessary)
SEE	ATTACHED	
المعطام ال	attest that notice of the filing of this application was published	d in the THE CHANUTE TRIBUNE , the official county publication
of NE		county. A copy of the affidavit of this publication is attached.
of	27th	county. A copy of the anidavit of this publication is attached.
Signed th	day of NOVEMBER	
		Jen Morres
		Applicant or Duly Authorized Agent
	Subscribed and sw	vorn to before me this 27 day of NOVEMBER
		Quite D Zeal.
	JENNIFER R. BEAL	Notary Pythilic Sudden Stall Sudden S
	OFFICIAL MY COMMISSION EXPIRES	My Commission Expires: Quely 20, 20/6
	1-30-2010	1.0

BLASCHKE, BARBARA 14-1

14-28S-18E

trct in SE4

James A & Wilma Westhoff

13450 Gray Rd Chanute, KS 66720

24-28S-18E

trct in NW4 NW4 Jeffrey R & Charlene M. Meyer

15870 Harper Rd Chanute, KS 66720

trct in NW4 NW4 Canville Township Trustees

%Umbarger, Phillip 3450 150Th Rd Chanute, KS 66720

BLASCHKE, BARBARA 14-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

t Operators, Unleased Mineral Owners and Landowi h additional sheets if necessary)	ners acreage	<u> </u>	
Name:	Legal D	escription of Leasehold:	
ATTACHED			
		MATERIAL PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDR	
by certify that the statements made herein are true and corn		,	
	$\langle \cdot \rangle$	Larra	
	Applicant or Duly Authorized Agent		
Subscribed	and sworn before me this 26TH day of NOV	EMBER 2012	2
0.0007.000		_	
JENNIFER R. BEAL	Juneyer K.	Bial	
OFFICIAL MY COMMISSION EXPIRES	Notary Public	Bial . 30, 2016	
7-20-2016	My Commission Expires:	, 00, 0010	
	0 0		

BLASCHKE, BARBARA 14-1

14-28S-18E

trct in SE4

James A & Wilma Westhoff

13450 Gray Rd Chanute, KS 66720

24-28S-18E

trct in NW4 NW4

Jeffrey R & Charlene M. Meyer

15870 Harper Rd Chanute, KS 66720

trct in NW4 NW4 Canville Township Trustees

%Umbarger, Phillip 3450 150Th Rd Chanute, KS 66720

Conservation Division Finney State Office Building 130 S. Market, Rm. 2078 Wichita, KS 67202-3802



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor

Mark Sievers, Chairman Thomas E. Wright, Commissioner Shari Feist Albrecht, Commissioner

December 12, 2012

Clark Edwards
PostRock Midcontinent Production LLC
Oklahoma Tower
210 Park Ave, Ste 2750
Oklahoma City, OK 73102

RE: Approved Commingling CO121209

Blaschke, Barbara 14-1, Sec. 14-T28S-R18E, Neosho County

API No. 15-133-26399-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on December 10, 2012, has been reviewed and approved by the Kansas Corporation Commission (KCC) per K.A.R. 82-3-123. Notice was examined and found to be proper per K.A.R. 82-3-135a. No protest had been filed within the 15-day protest period.

Based upon the depth of the Riverton formation perforations, total oil production shall not exceed 100 BOPD and total gas production shall not exceed 50% of the absolute open flow (AOF).

File form ACO-1 upon re-completion of the well to commingle.

Commingling ID number CO121209 has been assigned to this approved application. Use this number for well completion reports (ACO-1) and other correspondence that may concern this approved commingling.

Sincerely,

Rick Hestermann Production Department