

## KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1090529

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 Description: _		
Address	1:		Sec Twp	_S. R Bast West
Address	2:		Feet from No	orth / South Line of Section
City:	State: Zip:+		Feet from Ea	ast / West Line of Section
	Person:			
Phone:	()	Lease Name:	We	II #:
_ 1.	Name and upper and lower limit of each production interval to	be commingled:		
	Formation:	(Perfs):		
2.	Estimated amount of fluid production to be commingled from e			
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:			BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
<ul><li>□ 3.</li><li>□ 4.</li></ul>	Plat map showing the location of the subject well, all other well the subject well, and for each well the names and addresses of Signed certificate showing service of the application and affida	of the lessee of record or op-	erator.	ses within a 1/2 mile radius of
For Con	nmingling of PRODUCTION ONLY, include the following:			
☐ 5.	Wireline log of subject well. Previously Filed with ACO-1:	Yes No		
☐ 6.	Complete Form ACO-1 (Well Completion form) for the subject	<del></del>		
For Con	nmingling of FLUIDS ONLY, include the following:			
☐ 7.	Well construction diagram of subject well.			
8.	Any available water chemistry data demonstrating the compati	ibility of the fluids to be com	mingled.	
current ir mingling	<b>VIT:</b> I am the affiant and hereby certify that to the best of my nformation, knowledge and personal belief, this request for comis true and proper and I have no information or knowledge, which istent with the information supplied in this application.	Si	ubmitted Electror	nically
l —	C Office Use Only  nied ☐ Approved			st in the application. Protests must be ne filed wihin 15 days of publication of

Date: \_

15-Day Periods Ends: \_\_\_

Approved By: \_

	Α	В	С	D	Е	F	G	Н	1	1	K
1	Produced Fluids #	Б	1	2	3	4	5	11		<u> </u>	I IX
	Parameters	Units	Input	Input	Input	Input	Input		Click her	re	Click
3	Select the brines	Select fluid	7	Ī		V	Ī	Mixed brine:	to run SS	-	
4	Sample ID	by checking						Cell H28 is	10 1411 00	•	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			Click
9	Field		CBM	CBM	Bartles	Bartles	Bartles	calculations.			
10	Na <sup>+</sup>	(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 <sup>+</sup> (if not known =0)	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
	Mg <sup>2+</sup>	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91		lcite	
	Ca <sup>2+</sup>	(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
	Sr <sup>2+</sup>		1,030.00	2,432.00	2,044.00	1720.00	1740.00				0.13
	Ba <sup>2+</sup>	(mg/l)						0.00	Ба	rite	
.,		(mg/l)						0.00			
	Fe <sup>2+</sup>	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21		lite	
	Zn <sup>2+</sup>	(mg/l)						0.00	-1.77	-1.80	-0.03
18	Pb <sup>2+</sup>	(mg/l)						0.00	Gyp	osum	
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 <sub>4</sub> <sup>2-</sup>	(mg/l)	1.00	1.00	8.00	1.00	1.00	2.40	Hemil	ıydrate	
	F	(mg/l)						0.00	-3.96	-3.90	0.06
	Br'	(mg/l)						0.00		ydrite	3.00
	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
_			100.00	224.00	250.00	200 00	254.00				0.12
	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03	Cele	estite	
_	CO3 Alkalinity	(mg/l as CO3)						_			
	Carboxylic acids**	(mg/l)						0.00		Sulfide	
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
28	Borate	(mg/L) H3BO3						0.00	Zinc S	Sulfide	
29	TDS (Measured)	(mg/l)						72781			
30	Calc. Density (STP)	(g/ml)	1.038	1.051	1.050	1.048	1.045	1.047	Calcium	fluoride	
31	CO <sub>2</sub> Gas Analysis	(%)	19.97	18.76	22.41	35.53	33.79	26.16			
	H <sub>2</sub> S Gas Analysis***	(%)	0.0289	0.0292	0.0296	0.0306	0.0151	0.0269		rbonate	
33	Total H2Saq	(mgH2S/l)	1.00	1.00	1.00	1.00	0.50	0.90	-0.74	-0.51	0.23
34	pH, measured (STP)	pН	5.67	5.76	5.72	5.54	5.55	5.63	Inhibitor ne	eeded (mg/L)	
	Chasse one ention	0-CO2%+Alk,							Calcite	NTMP	
35	Choose one option to calculate SI?		0	0	0	0					
	Gas/day(thousand cf/day)	(Mcf/D)	•		0	U		0	0.00	0.00	
	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	BHPMP	1
	Water/Day	(B/D)	100	100	100	100	100	500	0.00	0.00	
39	For mixed brines, enter val	ues for temperat	tures and pressi	res in Cells (H	(40-H43)			(Enter H40-H43)		Н	
40	Initial T	iucs for tempera						(Linco 1145)	р	п	
41		(F)	66.0	71.0	70.0	41.0	49.0	60.0	5.69	5.60	1
	Final T		66.0	71.0	70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (	5.60 CentiPoise)	
	Final T Initial P	(F)	66.0 25.0	71.0 25.0	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	Initial P Final P	(F) (F) (psia) (psia)	66.0	71.0	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/ <sup>0</sup> C)	
42 43 44	Initial P Final P Use TP on Calcite sheet?	(F) (F) (psia) (psia) 1-Yes;0-No	66.0 25.0	71.0 25.0	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/ <sup>0</sup> C) 0.959	
42 43 44 45	Initial P Final P Use TP on Calcite sheet? API Oil Grav.	(F) (psia) (psia) 1-Yes;0-No API grav.	66.0 25.0	71.0 25.0	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 ne	5.60 CentiPoise) 0.826 ty (cal/ml/ <sup>0</sup> C) 0.959 eeded (mg/L)	
42 43 44 45 46	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav.	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	66.0 25.0	71.0 25.0	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	5.60 CentiPoise) 0.826 ty (cal/ml/ <sup>0</sup> C) 0.959 eded (mg/L) HDTMP	
42 43 44 45 46 47	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 25.0	71.0 25.0	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	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	66.0 25.0	71.0 25.0	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	5.60 CentiPoise) 0.826 ty (cal/ml/ <sup>0</sup> C) 0.959 eded (mg/L) HDTMP	
42 43 44 45 46 47 48 49	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) (B/D)	66.0 25.0	71.0 25.0	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	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) (B/D)	66.0 25.0	71.0 25.0	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	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 25.0	71.0 25.0	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	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) (B/D) (N) (N) STP:	66.0 25.0	71.0 25.0	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	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 <sub>2</sub> S Gas	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	66.0 25.0	71.0 25.0	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	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 <sub>2</sub> 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 25.0	71.0 25.0	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	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) (N) STP: (%) (mgH2S/I) (pH) (%)	66.0 25.0	71.0 25.0	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	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated	(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	66.0 25.0	71.0 25.0	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	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle{\textstyle{2}}\$\text{Control}\$	(F) (F) (psia) (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 25.0	71.0 25.0	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	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated	(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	66.0 25.0	71.0 25.0	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	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 <sub>2</sub> S Gas Total H2Saq (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) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./l) (equiv./l)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0 25.0	49.0 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	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= ECations= Calc TDS=	(F) (F) (psia) (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 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0 1nhibitor NTMP	41.0 25.0 25.0 Unit Converter	49.0 25.0 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 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	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle{\textstyle{2}}\text{Collections=} \$\text{\$\	(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	66.0 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0	41.0 25.0 25.0 Unit Converter From Unit	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 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	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,S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated E\(\text{Calculated}\) Alkalinity Caclulated E\(\text{Calculated}\) E\(\tex	(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	66.0 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0 1nhibitor NTMP	41.0 25.0 25.0 Unit Converter	49.0 25.0 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 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 60 61 62 63	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer	(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) (equiv./I) Input 120	66.0 25.0 25.0 0 0	71.0 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 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	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 <sub>2</sub> 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?	(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) (equiv./I) (mg/I) Input 120	0 0 0 0 Unit min	# 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	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	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, 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) (equiv./I) (mg/I) Input 120	0 0 0 0 Unit min	# 1 2 3 4	Inhibitor NTMP BHPMP PAA DTPMP	Unit Converter From Unit °C m³ m³	49.0 25.0 25.0 25.0 (From metric Value 80 100 100	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit	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 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated Alkalinity Caclulated Alkalinity Caclulated SCations= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed,	(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) (mg/I) Input 120  1 4	0 0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 5 5	Inhibitor NTMP BHPMP PAA DTPMP PPCA	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 55 56 57 58 59 60 61 62 63 64 65 66 67	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 <sub>2</sub> 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:	(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) (mg/I) Input 120  1 4	0 0 0 0 Unit min 1-Yes;0-No #	# 1 2 3 4 5 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit  °C  m³  m³  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 <sup>3</sup> 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 43 44 45 46 47 48 49 50 51 52 53 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69	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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECAtions= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor # is: If you select Mixed,  1st inhibitor # is: % of 1st inhibitor is:	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./l) (equiv./l) (mg/l) Input 120  1 4 1 50	0 0 0 0 Unit min 1-Yes;0-No # # %	## 1 2 3 4 4 5 5 6 7 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	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	

## **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 <sub>2</sub> 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**

WELL : Taylor, Wayne L 1-1

FIELD : Cherokee Basin

STATE: Kansas
COUNTY: Neosho

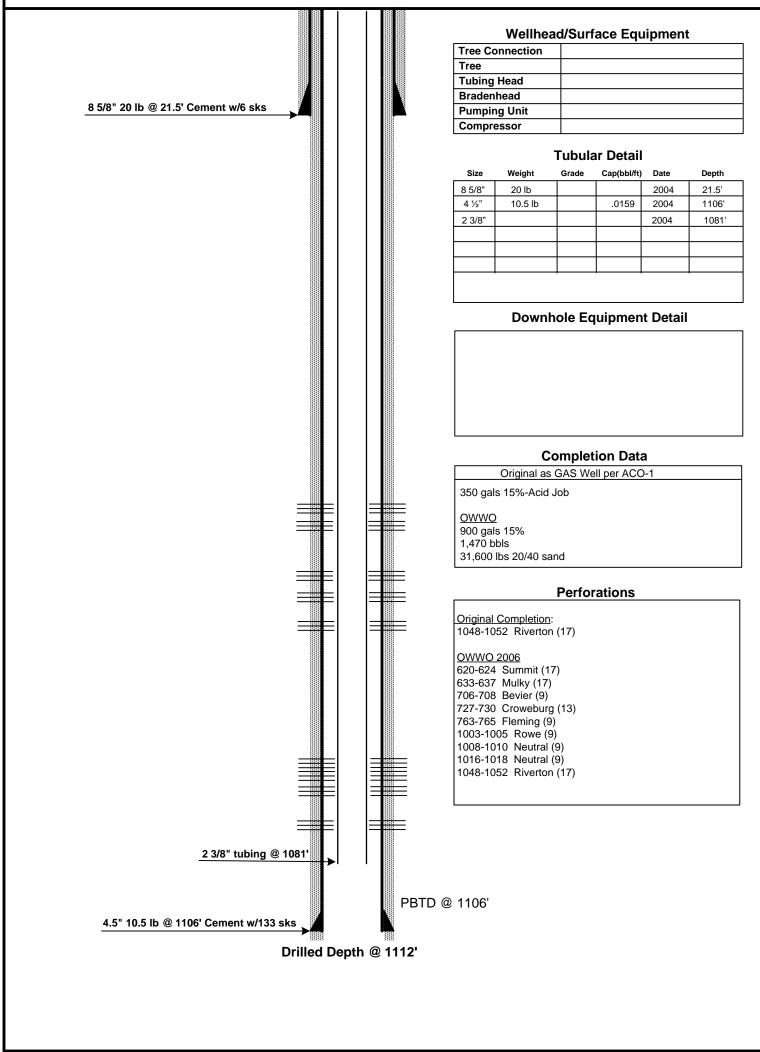
PREPARED BY: POSTROCK

APPROVED BY: \_

SPUD DATE: 10/22/2004 COMP DATE: 11/12/2004 API: 15-133- 26198-00-00

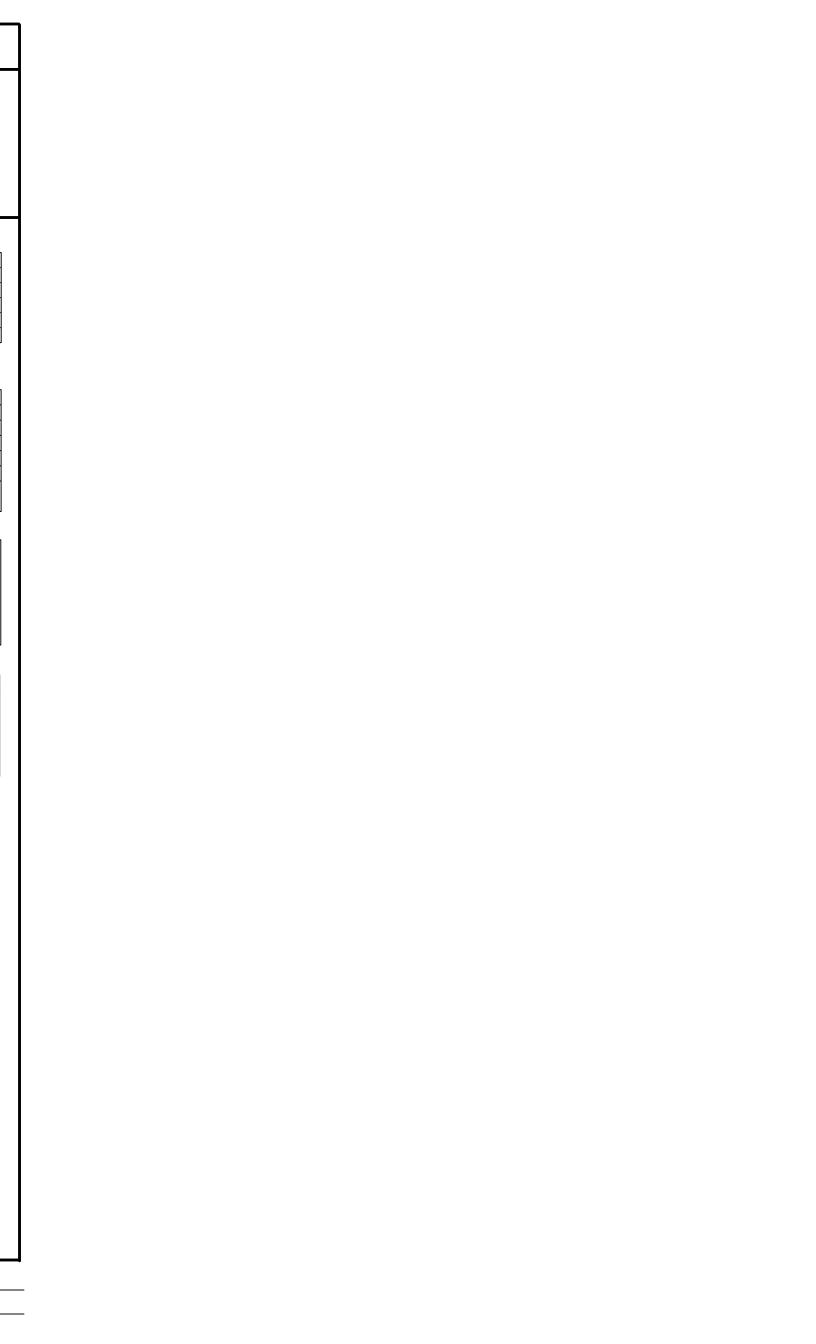
**LOCATION: 1-29S-17E (NE,SE)** 

**ELEVATION: 975'** 



**DATE:** July, 2012

DATE:\_

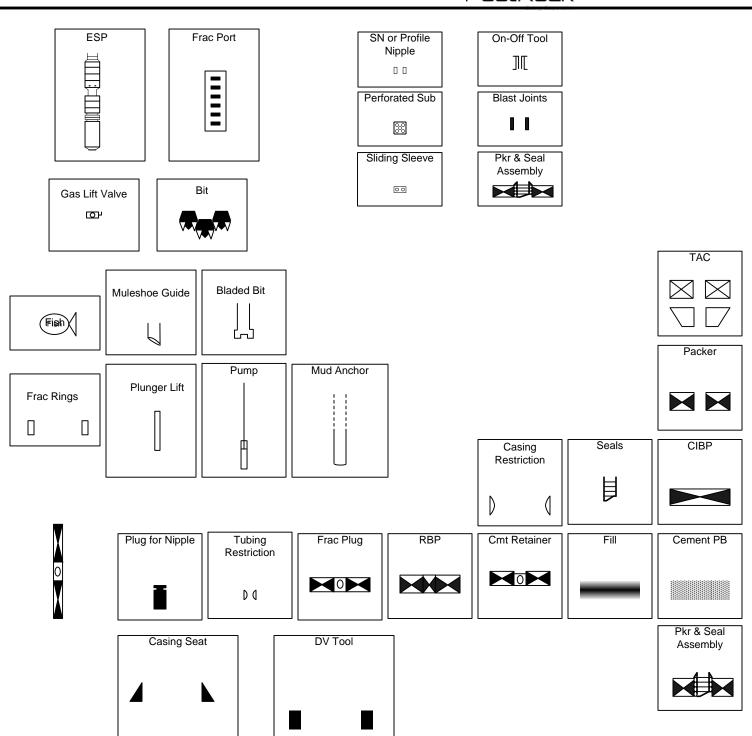


## **POSTROCK**



## **LEGEND**

## PostRock<sup>®</sup>



APR 1 8 2006

# KANSAS CORPORATION COMMISSION ORIGINAL September 1999 OIL & GAS CONSERVATION DIVISION Form Must Be Typed

CONSERVATION DIVISION WICHITA, KS

**WELL HISTORY - DESCRIPTION OF WELL & LEASE** 

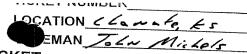
Operator: License #_33344	API No. 15 - 133-26198-00-00
Name: Quest Cherokee, LLC	County: Neosho
Address: 211 W. 14th Street	
City/State/Zip: Chanute, KS 66720	1980 feet from S N (circle one) Line of Section
Purchaser: Bluestem Pipeline, LLC	660 feet from (E ) W (circle one) Line of Section
Operator Contact Person: Gary Laswell	Footages Calculated from Nearest Outside Section Corner:
Phone: ( 620 ) 431-9500	(circle one) NE (SE) NW SW
Contractor: Name: Barton T. Lorenz	Lease Name: Taylor, Wayne L. Well #: 1-1
License: 33286	Field Name: Cherokee Basin CBM
Wellsite Geologist: n/a	Producing Formation: Riverton
Designate Type of Completion:	Elevation: Ground: 975 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 1112 Plug Back Total Depth: 1106
Oil SWD SIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 21.5 Feet
Gas ENHR SIGW	Multiple Stage Cementing Collar Used?
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 1119
Operator:	feet depth to Surface w/ 133 sx cmt.
Well Name:	
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Deepening Re-perf Conv. to Enhr./SWD	Chloride content ppm Fluid volume bbls
Plug BackPlug Back Total Depth	Dewatering method used
Commingled Docket No	
Dual Completion Docket No	Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No	Operator Name:
10/22/04 10/25/04 11/12/04	Lease Name: License No.:
Spud Date or Date Reached TD Completion Date or	Quarter Sec Twp S. R
Recompletion Date Recompletion Date	County: Docket No.:
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 107 for confidentiality in excess of 12 months). One copy of all wireline logs TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells	the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, er or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. It months if requested in writing and submitted with the form (see rule 82-3-12 and geologist well report shall be attached with this form. ALL CEMENTING and Submit CP-111 form with all temporarily abandoned wells.
Signature: / ) ey ( / Cisnut	KCC Office Use ONLY
Title: Head of Operations Date: 4/13/06	Letter of Confidentiality Received
Subscribed and sworn to before me this 13th day of 10 fi	If Denied, Yes Date:
20.06.	Wireline Log Received
	Geologist Report Received
Notary Public: Jennah 7. Ammann	UIC Distribution
Date Commission Expires: ( 1/1/// /7//) A///	ENNIFER AMMANN ary Public - State of Kansas

Operator Name: Qu	est Cherokee, LL	С		Lease	- 	Γaylor, V	Vayne L.		Well #:1-1		
Sec. 1 Twp. 2			West		y: Neos						
INSTRUCTIONS: S tested, time tool ope temperature, fluid re Electric Wireline Log	n and closed, flowing covery, and flow rate	g and shut- s if gas to	in pressures, surface test, a	whether sh long with f	hut-in pre	ssure rea	ached stati	c level, hydr	ostatic pressure	es, botto	m hole
Drill Stem Tests Take		Ye	es <b>√</b> No		<b>V</b> L	og Fo	ormation (	Гор), Depth	and Datum		Sample
Samples Sent to Ge	ological Survey	☐ Ye	es 🗹 No		Nam See	e attache	d		Тор	ļ	Datum
Cores Taken	•	☐ Ye	s V No		000	attaono	<b>-</b>				
Electric Log Run (Submit Copy)		✓ Ye							RECEIVED	N 20 20 20 20 20 20 20 20 20 20 20 20 20	No.
List All E. Logs Run:								Kansas C	ORPORATION CO	<b>ACCINANA</b>	NA.
Comp. Density Dual Induction Gamma Ray/N	Log								NPR 1 8 200 NSERVATION DIV WICHITA, KS		
									MOUITA, NO		
		Repor	CASING t all strings set-c	RECORD conductor, si	Lancon III		sed production,	etc.			
Purpose of String	Size Hole Drilled		e Casing (In O.D.)	Wei		Setti Dep		Type of Cement	# Sacks Used		and Percent
Surface	11"	8-5/8"		20#		21.5'	<b>"</b> A	\"	6		
Production	6-3/4"	4-1/2"		10.5#		1106'	<b>"</b> A	\"	133		
Purpose:	Depth Top Bottom	Туре	ADDITIONAL of Cement	CEMENTI		JEEZE RE	ECORD	Type and	Percent Additives		
Perforate Protect Casing Plug Back TD Plug Off Zone											
	T										
Shots Per Foot			D - Bridge Plug Each Interval Per		•	A		, Shot, Cemei t and Kind of N	nt Squeeze Recor faterial Used)	d	Depth
4	1048-1052					Acid jol	b, 350 gal	15% acid,	KCL .25 gal, E	Biocide	1048-1052
TUBING RECORD	Size	Set At	•	Packer A	At	Liner Ru		-	· · · · · · · · · · · · · · · · · · ·		
	3/8"	1081.15		n/a			Ye	es 🗸 No	)		
4/04/05	rd Production, SWD or E	zriffi.	Producing Met	110 <b>u</b>	Flowin	g 🗸	Pumping	Gas L	ift Othe	er (Explain	)
Estimated Production Per 24 Hours	Oil n/a	Bbls.	Gas 55 mcf	Mcf	Wate 20 bl		Bbls.		Gas-Oil Ratio		Gravity
Disposition of Gas	METHOD OF (	COMPLETIC					on Interval				
Vented ✓ Sold (If vented, S	Used on Lease ubmit ACO-18.)		Open Hole Other (Spec	✓ Perf	f. [	Dually Com	processor of the same of the s	Commingled _			

CHANUTE, KS 66720 620-431-9500

THORIZTION\_





TOTAL

DATE

## TREATMENT REPORT & FIELD TICKET

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C	F	NЛ	⊏	N	т
•	ь,	141	ᆫ	14	•

11-12-2004	WELL NAME & NUMBER  Taylor, Wayne L. # 1-1	SECTION	TOWNSHIP	RANGE	COUNTY
<u></u>	7		295	175	Ma

FOREMAN	TIME	T	T	T			1 / 6
	IIIVIE	TIME	LESS	TRUCK	TRUCK	EMPLO	/EE
OPERATOR	IN	OUT	LUNCH	#			
John. M	11:30	5:46			HOURS	SIGNAT	JFHE
wes. 7		1	No	348	5		7
	11:30	5:14	No	197	~	11/10/00 1	<del></del>
Jimmy, 4	11:30	512	No	103	>-	Westery O	your
Tim . A	11:30	503	No	140	<del></del>		
RODNE, A	11:30	4:40			<u>_</u>	On agent	
		1160	No	286	5	Rod	
		1					

The state of the s	1 1	
J.TYPE Long String HOLE SIZE 63	HOLE DEPTH /// Z	
CASING DEPTH //06 DRILL PIPE	TUBING	CASING SIZE & WEIGHT 4 /10.5
SLURRY WEIGHTSLURRY VOL		OTHER
DISPLACEMENT 17.5 DISPLACEMENT DEL 750	WATER gal/sk	CEMENT LEFT in CASING
REMARKS: Cife Land	MIX PSI 250	RATE
REMARKS: Circulate with frost  13 BBL Dge with 15 cantill Dge Refus, flush	4º6 RON	Gol about, Pan
water, set float stoe.	20/10/05 2001	um Silicate, coment
water, set flood stop	The party	plag with K.C.L.
Wait ON BORDY to MOR L		
Very Nost, Maddy landing	COCETION /	44.
Very Nost, Muddy Location, all	(tows pulled	in, acound, and out of

ACCOUNT CODE	QUANITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	T	1
	# 348	Foreman Pickup	UNIT PRICE *	TOTAL
	# 197	Cement Pump Truck	RECEIVED	
1110	#103	Bulk Truck KANE	AS CORPORATION C	OMMISSION
	13sts	Gilsonite	APR 1 8 200	6
1118	1 5 k s	Flo-Seal Premiun Gel	CONSERVATION DIV	SION
1215A	1991	KCL	WICHITA, KS	
-1111B	159915	Sodium SIlicate		
1123	6,300 995	City Water /50 BBC		
	#140	Transport		
	#786 170 = K-	80 Vac		
	W/out a dditions	Cement 133 sts w/additives		
			SALES TAX	
			ESTIMATED	

TITLE\_\_\_

## BARTON T. LORENZ #33286 543-A 22000 Rd. Cherryvale, KS 67335 620-328-4433

502-503

503-539

539-541

541-550

550-552

561-571

571-592

592-614

614-616

616-619

619-623

623-628 628-630

630-631

631-633

633-635

635-646

646-659

659-676

552-561

SHALE

SHALE

SHALE

SHALE

SHALE LIME

SHALE

SHALE

LIME

SAND

SHALE

LIME

LIME PINK

**BLACK SHALE** 

SANDY SHALE

LIME OSWEGO

**BLACK SHALE** 

SANDY SHALE

COAL LESS THAN 8"

SAND/ODOR

## DRILLER LOG

### QUEST CHEROKEE, LLC

Wayne Taylor #1-1 S1, T29, R17E Neosho County API # 15-133-26198-00-00

0-8 8-40' 40-91 91-96	DIRT SAND SHALE LIME		10-22-04 Drilled 11" hole and Set 21.5' of 8 5/8" Surface pipe Set with 6 sacks of Portland Cen	nent
96-107	SHALE		10-25-04 Started drilling 6 3/4" he	ole
107-178	LIME			
178-182	SHALE		10-25-04 Finished drilling to T.D	. 1112'
182-187	LIME			
187-200	SANDY SHALE		WATER @ 511'	
200-220	SAND		WATER INCREASE @ 980'	Dr.
220-227	SHALE		10510110110110110	RECEIVED KANSAS CORPORATION COMMISSION
227-238 238-241	LIME	00 7 1405	485' 3" ON 1/2" ORIFICE	WALLON COMMISSION
230-241 241-253	SHALE	62.7 MCF	511 100 511 HZ 5111 10E	APR 1 8 2006
241-255 253-265	LIME	77 MCF	561' 8" ON 1" ORIFICE	7 8 2006
265-316	SHALE LIME	141 MCF	586' 28" ON 1" ORIFICE	CONSERVATION DIVISION WICHITA, KS
316-370	SANDY SHALE	190 MCF	626' 54" ON 1" ORIFICE	WICHITA, KS
370-370	SHALE	181 MCF	636' 17" ON 1 1/4" ORIFICE	
380-383	LIME		711' 15" ON 1 1/4" ORIFICE	
383-413	SHALE		736' 17" ON 1 1/4" ORIFICE 761' 16" ON 1 1/4" ORIFICE	
413-425	LIME		786' 15" ON 1 1/4" ORIFICE	
425-431	SHALE	340 MCF		
431-438	SAND	822 MCF	887' 13 LBS ON 1 1/4" ORIFICE	
438-464	SHALE	1495 MCF		
464-491	SANDY SHALE		1012' UNABLE TO TEST DUE TO	WATER
491-501	LIME	1715 MCF		v v / \ 1 \ 1 \
501-502	COAL LESS THAN 6"		The State of the S	
E00 E00				

\* BARTON T. LORENZ #33286 543-A 22000 Rd. Cherryvale, KS 67335 620-328-4433

## DRILLER LOG

QUEST CHEROKEE, LLC

Wayne Taylor #1-1 S1, T29, R17E Neosho County API # 15-133-26198-00-00

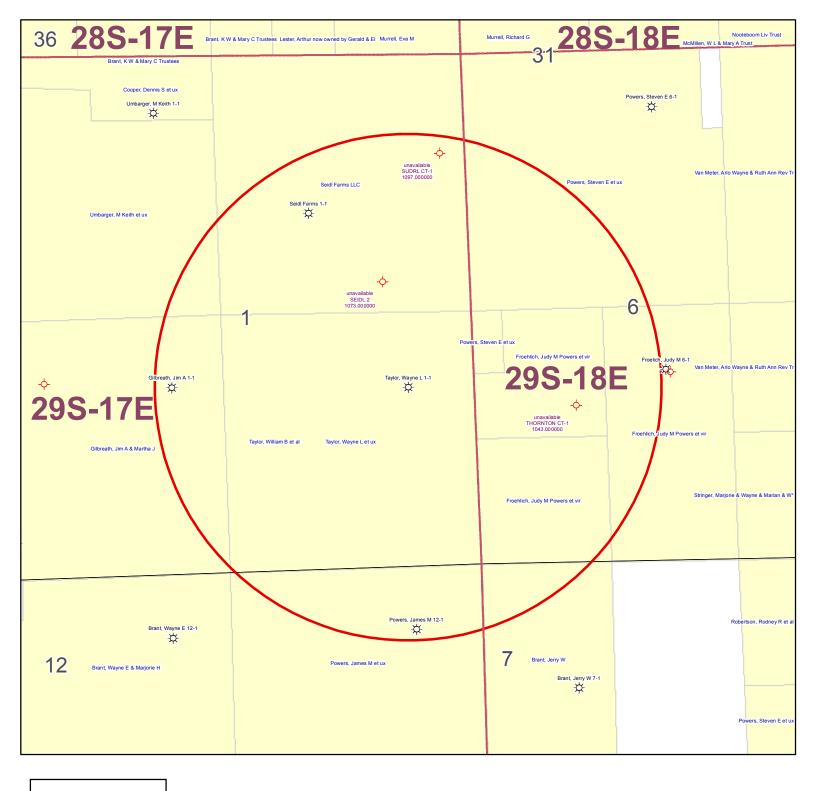
676-686	SANDY SHALE
686-701	SHALE
701-702	COAL
702-720	SHALE
720-722	LIME
722-724	SHALE
724-725	COAL LESS THAN 8"
725-738	SAND
738-759	SANDY SHALE
759-760	COAL
760-773	SAND
773-777	SHALE
777-798	SAND/ODOR
798-808	SANDY SHALE
808-818	SHALE
818-819	COAL LESS THAN 8"
819-826	SAND
826-836	SANDY SHALE
836-853	SAND
853-861	SANDY SHALE
861-873	LAMINATED SAND/ODOR
873-897	LAMINATED SAND
897-912	SAND
912-934	SANDY SHALE
934-960	SAND/ODOR
960-990	SAND
990-991	COAL
991-999	SHALE
999-1000	
1000-1042	
1042-1044	
1044-1057	
1057-1112	LIME MISSISSIPPI/ODOR

APR 1 8 2006

RECEIVED KANSAS CORPORATION COMMISSION

CONSERVATION DIVISION WICHITA, KS

T.D. 1112'



## **KGS STATUS**

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

Taylor, Wayne L 1-1 1-29S-17E 1" = 1,000'

#### BEFORE THE STATE CORPO-RATION 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 Taylor, Wayne L 1-1 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, Rowe, Neutral, Riverton and Bartlesville producing formations at the Taylor, Wayne L 1-1, located in the NESWNESE S1-T29S-R17E, Approximately 1867 FSL & 687 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 ACCOM-PANY ALL APPLICATIONS

## Affidavit of Publication 🐝

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



Total Publication Fees ..... \$ 73,0

#### 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 17th of

August 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

17th day of August, 2012

PENNY L. CASE Notary Public State of Kansas My Appt. Expires

Notary Public Sedgwick County, Kansas

Printer's Fee: \$139.60

## LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
AUGUST 17, 2012 (3201729)
BEFORE THE STATE CORPORATION
COMMISSION OF THE STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: in the Maiter of Postrock Midcontinent
Production, LLC Application for
Commingling of Production in the Taylor,
Wayne L 1-1 located in Neosho County,
Kansas.

Kansas.
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Neosto County, Kansas.

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Denair.
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

## TAYLOR, WAYNE L 1-1

1 NAME & UPPE	R & LOWER LIMIT OF EACH PRO	DUCTION INTE	RVAL TO BE	COMMING	_ED			
FORMATION:	FLEMING		(PERFS):	763 -	765			
FORMATION:	ROWE		(PERFS):	1003 -	1005			
FORMATION:	NEUTRAL		(PERFS):	1008 -	1010			
FORMATION:	NEUTRAL		(PERFS):	1016 -	1018			
FORMATION:	RIVERTON	<u> </u>	(PERFS):	1048 -	1052			
FORMATION:	BARTLESVILLE		(PERFS):	798 -	802			
FORMATION:			(PERFS):					
FORMATION:			(PERFS):					
FORMATION:			(PERFS):					
FORMATION:			(PERFS):					
FORMATION:			(PERFS):					
FORMATION:			(PERFS):					
2 ESTIMATED AN	MOUNT OF FLUID PRODUCTION	ГО ВЕ СОММІ	NGLED FROM	M EACH INTI	ERVAL			
FORMATION:	FLEMING		BOPD:	0	MCFPD:	1.6	BWPD:	4
FORMATION:	ROWE		BOPD:	0	MCFPD:	1.6	BWPD:	4
FORMATION:	NEUTRAL		BOPD:	0	MCFPD:	1.6	BWPD:	4
FORMATION:	NEUTRAL		BOPD:	0	MCFPD:	1.6	BWPD:	4
FORMATION:	RIVERTON		BOPD:	0	MCFPD:	1.6	BWPD:	4
FORMATION:	BARTLESVILLE	_	BOPD:	3	MCFPD:	0	BWPD:	20
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
FORMATION:		0	BOPD:		MCFPD:		BWPD:	
FORMATION:		0	BOPD:		MCFPD:		BWPD:	

Affidav	fidavit of Notice Served	!	l
Re:	Application for: APPLICATION FOR COMMINGLING OF PRODUCTION	OR FLUIDS ACO-4	
	Well Name: TAYLOR, WAYNE L 1-1 Legal Location:	NESWNESE S1-T29S-R17E	
The und	e undersigned hereby certificates that he / she is a duly authorized agent for the applicant, and that on	the day 18th of Septemb	<u> </u>
2012			
Note: A	te: A copy of this affidavit must be served as a part of the application.		
		dditional sheets if necessary)	
POST	OSTROCK MIDCONTINENT PRODUCTION ,LLC 210 PARK AVENU	IE, SUITE 2750, OKLAHOMA CITY, (	OK 73102-5641
I further a	rther attest that notice of the filing of this application was published in the <u>The Chanu</u>	e Tribune , the officia	al county publication
of	Neosho county. A copy of the affida	vit of this publication is attached.	
	ned this 18th day of September 2012	•	
Signed th	ned this 18th day of September, 2012	110	
	Applicant or Duly Authorized	Acont // Lours	
		day of <u>September</u>	
ę	Subscribed and sworn to before me this	day of Oepre/430er	, 2012
,	JENNIFER R. BEAL	fu K. Deal	
<b>\$</b>	MY COMMISSION EXPIRES  Notary Public  7-20-2010  My Commission Expires:	(2.1. 20 2NI	f <sub>10</sub>
(!	My Commission Expires:	guez. a xorg	
	·		

t Operators, Unleased Mineral Owners and Landowners acreage	i
h additional sheets if necessary)	)
Name:	Legal Description of Leasehold:
STROCK MIDCONTINENT PRODUCTION, LLC	POSTROCK HAS LEASED ALL ACREAGE IN THE 1/2
THOOK WILDOON THE LITT THOO DO THON, ELO	
	MILE RADIUS
y certify that the statements made herein are true and correct to the best	of my knowledge and belief.
	( ) Manage
	Jest & Maris
Appl	ligant or Duly Authorized Agent
Subscribed and sworn bef	fore me this 18th day of September ,2012
A those in the west like and the west of the spirit program to the spirit the	
JENNIFER R. BEAL	Chanter K Beal
Notes SEAL 2015 MY COMMISSION EXPIRES	ary Public
The second secon	Commission Expires: July 30, 2016

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

October 3, 2012

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

RE: Approved Commingling CO091209

Taylor, Wayne L. 1-1, Sec. 1-T29S-R17E, Neosho County

API No. 15-133-26198-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on September 18, 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 CO091209 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