12.5   3   58   120	mitia X Annual Special Date of Test 12/18/61  morpany Survey Mid-Continent Oil Compuny Lease N. M. State "P" Nell No. 1  mit P Sec. 1 Twp. 108 Rgc. 332 Purchaser Warren Petrolsum  asing 5 1/2 pt. 17820 1.D. 1.B892 Set at 10910' perf. 1061h' To 10826'  whing 2 3/6 ww. 4.7 1.D. 1.995 Set at 10555' perf. 10551' To 10524'  as Pay: ca. 10618 To 10826 L MG Type Well Mingle  reducing Thru: Casing Tubing I Type Well Mingle  reducing Thru: Casing Tubing I Type Well Mingle  seted Through (Sings) (Meter) Tubing Data Casing Data  COSSERVED CO												Form C-
Initial   Annual   Special   Date of Test 12/18/61	County   Lea   County   Lea		1/1/			MULI	I-FOINT	BACK PRI	essure te	ST FOR GA	s wells		Revised 12-1
Date of Test 12/18/61   Description   Date of Test 12/18/61   Description   Descript	Date of Test 12/18/61   Date	Pool			Jas)		Formatio	n Stre	WA .		County	Lea	1
Company   Surrey   Kid-Continent   Cil   Company   Com	Company   Surrey   Mid-Continant Oil   Company   Compa												2/18/61
nit	Asign   1   Top   108   Rge   328   Purchaser   Warren   Petroleum												
asing 5 1/2 wt. 17220 1.D. 1.995 Set at 10910' Perf. 10511' To 10526'  ubing 2 3/8 w. 4.7 1.D. 1.995 Set at 10555' Perf. 10551' To 10531'  as Fay: 10518 To 10626 L	asing 5 1/2 vt. 17a20 1.D. 1.992 Set at 10910' Perf. 10511' To 10826'  ubing 2 3/8 vv. 4.7 1.D. 1.995 Set at 16555' Perf. 10551' To 10554'  as Pay: 10618 To 10826 L												
ubing 2 3/8 av. 4.7 1.D. 1.995 Set at 10555' Perf. 10551' To 10554'  as Pay: 10568 To 10826 L x0 GI Bar.Press. 13.2  roduring fhru: Casing Tubing I Tyre Well Single- ate of Completion: 11-24-61 Packer 10550 Single-bradenhead-C. C. or G.O. Dual Reservoir Temp.  OBSERVED DATA  CESCRYED DATA  CHarles Press. Diff. Tomp. Press. Temp. Press. Temp. of Flow Of Flow Size Size Psig h, of F. psig of P. psig of P. hr.  The Size Size Psig h, of psig of psig of P. psig of P. hr.  The Size Size Size Size Size Size Size Siz	ubing 2 3/8 vs. 4.7 1.D. 1.995 Set at 10555 Perf, 10551 To 10554 as Fay: calo618 to 10826 L xd GL Bar.Press. 13.2 roducing faru: Casing Tubing X Tyre Well Single-Bradenhead-G. G. or G.O. Dual ate of Completion: 11-21-61 Packer 10550 Single-Bradenhead-G. G. or G.O. Dual Reservoir Tomp.  OBSERVED DATA  OF Press. Temp. Press. Temp. Duration of Flow Chicker Size Size psig h. OF. psig OF. psig OF. psig OF. hr. 17-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-												
Single   Bar.   Press   13.2   Packer   10550   Reservoir Temp.   Single   Branches   Single   Single   Branches   Single   Sin	As   Pay:												
Type Well   Mingle   Single-Bradenhead-G, G, or G.O. Dual   Reservoir Temp.	Type Well   Mingle   Type												
Carrow   C	Confidence												
Carrow   C	Confidence	' <b>ro</b> di	ucing Thru	: Ca	sing_		T	ubi.ng	I	Type W	ell <b>Sing</b>	le el	
Coefficient   Pressure   Flow Temp.   Factor	Coefficient	)ate	of Complet	tion:_	11-64	-61	Pack	er_ <b>105</b>	50 Sin	Reserve	enne <b>ad-</b> G. oir Temp.	G. or	G.O. Dual
Plow Data   Tubing Data   Casing Data   Chine   Cirifice   Size   psig   hw   OF   psig   OF   psig   OF   Duration   Of Flow   Size   psig   hw   OF   psig   OF   psig   OF   Hr.	Plow Data   Tubing Data   Casing Data   Ca												
Prover   Choke   Press   Diff   Temp.   Press   Temp.   Temp.   Duration   Choke   Size   S	Flow Data   Tubing Data   Casing Data	este	ed Through	( Tara	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	Pitter	\ (Motor		DAIR			<b>#1</b>	
Choke   Choke   Press   Diff   Temp   Press   Temp   Press   Temp   Duration of Flow	Choke   Choke   Press   Diff   Temp   Press   Temp   Press   Temp   Duratio	ben					7 Twener	<i></i>					тва
12.5   3   12.5   3	Pressure   Flow Temp.   Factor   Fact		(Prover)	(Ch	oke)	Press	. Diff	Temp.	Tubing Press.	Data Temp.	Casing I		Duratio
12.5   3   12.5   3	Pressure   Flow Temp.   Factor   Fact	0.	(Line)	(Ori	fice)		_	j	,			1 -	1 1
12.5   3   68   120   124   12   12   12   13   26   58   1250   130   120   130	12.5   3   12.5   3   12.5   3   12.5   12		30	1 ,				· ·	psig		psig	F.	
Picon Calculations	FLOW CALCULATIONS  FLOW CALCULATIONS  Flow Temp. Gravity Compress. Rate of Flow Temp. (24-Hour)	工	<b>3"</b>		Ž#	12.5		68	11,00 (BIP		2 -	+	
Picon Calculations	FLOW CALCULATIONS  FLOW CALCULATIONS  Flow Temp. Gravity Compress. Rate of Flow Temp. (24-Hour)	4							1250 (BIP	2096)		+	
FLOW CALCULATIONS    Coefficient	Pressure   Flow Temp.   Gravity   Compress.   Rate of Flow Temp.   Gravity   Factor   Facto	┶┼╌		!				55			-		k hre
FLOW CALCULATIONS    Coefficient	Pressure   Flow Temp.   Gravity   Compress.   Rate of Flow Temp.   Gravity   Factor   Facto	+		<del> </del>		110	63	24	M50(HIB	928)	-	-	2 hrs
Coefficient   Pressure   Flow Temp.   Gravity   Compress.   Rate of Flow Q-MCFPD	Coefficient   Pressure   Flow Temp.   Gravity   Compress.   Rate of Flow Q-MCFPD   Factor			<b></b>		<del>+</del>			<del></del>	<u> </u>	L	1	<u> </u>
C2L-Hour   The print	C24_Hour   The price   Factor   Factor   Factor   Pactor   Pacto	$\top$	Coeffici	ent.	1		PARCUMA				10		
C24-Hour   V   hwPf	C24-Hour   V   N <sub>W</sub> P <sub>f</sub>   psia   F <sub>t</sub>   F <sub>g</sub>   F <sub>pv</sub>   e 15.025 psia		00011101	0110		`	ressure	į.	- 1				
27.52 (2.828)(507) 25.7 .9924 .8771 1.000 343.45 27.52 (5.099)(53.40)29.2 1.0019 .8771 1.000 654.77 27.52 (5.099)(53.40)29.2 1.0018 .8771 1.000 1149.61 27.52 (5.485)(5.586)31.2 1.0088 .8771 1.000 1149.61 27.52 (7.937)(5.586)31.2 1.0058 .8771 1.000 1149.61 27.52 (7.937)(5.586)31.2 1.0058 .8771 1.000 1676.38  PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio. 7980 cf/bol. Specific Gravity Separator Gas 78 Specific Gravity Flowing Fluid 7 Calculations  Pu	27.52 (2.828)(507) 25.7 .9924 .8771 1.000 313.45 27.52 (5.099)(53.10)29.2 1.0019 .8771 1.000 654.77 27.52 (5.099)(53.10)29.2 1.0018 .8771 1.000 1119.61 27.52 (5.405)(5.586)31.2 1.0018 .8771 1.000 1119.61 27.52 (7.937)(5.586)31.2 1.0058 .8771 1.000 1119.61 27.52 (7.937)(5.586)31.2 1.0058 .8771 1.000 1119.61  PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio 7980 cf/bsl Specific Gravity Separator Gas Specific Gravity Flowing Fluid		(24-Hou	r)	$\sqrt{h_{WI}}$	pe	psia	. 1	t				-
Pressure Calculations   Pres	Pressure Calculations   Pres		27.52				25.7		<u></u> -				•
PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio. 7980 cf/bbl. Specific Gravity Separator Gas 78 yity of Liquid Hydrocarbons 51.2 deg. Specific Gravity Flowing Fluid 7 c 2586.2 Pc 6688.4 these  Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 (FcQ)2 Pw Pc Pc Pw Pc Pc Pw Pc Pc Pw Pc Pc Pc Pw Pc Pc Pc Pw Pc	PRESSURE CALCULATIONS  PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio 7980 cf/bbl. Specific Gravity Separator Gas 78 Specific Gravity Flowing Fluid 7 Calculations  Liquid Hydrocarbons 51.2 deg. Specific Gravity Flowing Fluid 7 Calculations  Pw Pt (psia) Pt Fc (FcQ) (FcQ) Pc 2586.2 Pc 6688.4 these  Pt (psia) Pt (psia) Pt Fc (psia) (psia) Pt (ps				5.099	(53.1	0)29.2						
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PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio. 7980 cf/bbl. Specific Gravity Separator Gas 78: specific Gravity Flowing Fluid 7: class of the control of t	PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio. 7980 cf/b5l. Specific Gravity Separator Gas 78 yity of Liquid Hydrocarbons 51.2 deg. Specific Gravity Flowing Fluid 7 (1-e-5) P <sub>C</sub> 2586.2 P <sub>C</sub> 6688 h the P <sub>C</sub> 2586.2	+	27.52	-	7.937	15-5	6)31.2	1.0058		.8772	1,000	)	1076,38
Pt (psia) Pt (ps	Pt (psia) Pt FcQ (FcQ) <sup>2</sup> (FcQ) <sup>2</sup> Pw <sup>2</sup> Pc-Pw Pt (psia) Pt (psia) Pt FcQ (FcQ) <sup>2</sup> (FcQ) <sup>2</sup> Pw <sup>2</sup> Pc-Pw Pt (psia) Pt (psia) Pt FcQ (FcQ) <sup>2</sup> (FcQ) <sup>2</sup> Pw <sup>2</sup> Pc-Pw Pt (psia) Pt (p	Lio vity	quid Hydro	carbor d Hydr	rocarbo	ons <b>51</b>	80	cf/bbl.		Speci Speci	fic Gravi	ty Flow	ing Fluid 7
Pt (psia)	Pt (psia)	T	P <sub>W</sub>				(F.O.)2	1 /-	2		-2 -2	T	
2161.2   6057.5   630.90   0.95167     2109.2   1113.2   1239.2   5149.2   0.43044     941.20   855.86   5802.5   0.33393     solute Potential:   1140   MCFPD; n   6.51266     MPANY   Sunray Kid-Centinent Oil Company     DRESS   P. O. Box   128   Hobbs, New Mexico     ENT and TITLE   R. E. Statton   U. Statte.	2161.2   6057.5   630.90   0.95167     2109.2   1113.2   1239.2   5149.2   0.43044     941.20   MCFPD; n	F		<u> </u>	r		(r <sub>c</sub> /v)		c <sup>-6</sup> ) -e <sup>-3</sup> )	"w<	rc-Pw		
1113.2 941.20  Solute Potential:  1140  MCFPD; n  6.51266  MPANY Sunray Mid-Centinent Oil Company  DRESS P. O. Box 128 Hobbs, New Mexico  ENT and TITLE R. E. Statton  W. Statton	1113_2 941.20  Bolute Potential: 1140  MCFPD; n 0.51266  MPANY Sunray Mid-Centinent Oil Company  DRESS P. O. Box 128 Hobbs, New Maxico  ENT and TITLE R. E. Statton // Stattey  PNESSED O. T. Owen			· · · · · · · · · · · · · · · · · · ·						6057.5	630.90	1	0.95167
Solute Potential: 1140 MCFPD; n 6.51266  MPANY Sunray Kid-Centinent Cil Company  DRESS P. O. Scx 128 Hobbs, New Mexico  ENT and TITLE R. E. Statton N. Statte.	Bolute Potential: 1140 MCFPD; n 0.51266 MPANY Sunray Mid-Continent Oil Company DRESS P. O. Box 128 Hobbs, New Mexico ENT and TITLE R. E. Statton A. Stattey ENESSED O. T. Owen					<del></del> +					£110.9	<del> </del>	0.1.201.
Bolute Potential: 1140 MCFPD; n 0.51266 MPANY Sunray Mid-Centiment Oil Company DRESS P. O. Box 128 Hobbs, New Mexico ENT and TITLE R. E. Statton W. Statter.	Bolute Potential: 1140 MCFPD; n 8.51266 MPANY Sunray Mid-Centiment Oil Company DRESS P. O. Box 128 Hobbs, New Mexico ENT and TITLE R. E. Statton A. Stattoy CNESSED O. T. Owen	9	41.20								5882.3	<del> </del>	
MPANY Sunray Mid-Continent Oil Company  DRESS P. O. Box 128 Hobbs, New Mexico  ENT and TITLE R. E. Statton / Starker.	PANY Sunray Mid-Continent Oil Company  DRESS P. O. Box 128 Hobbs, New Mexico  ENT and TITLE R. E. Statton A. Stattey  PNESSED O. T. Owen	<u></u>								,			
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	[NESSED O. T. Owen					lobbs,	New Nex	100					
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REMARKS

Point 3 not stabilized.

## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

- Q = Actual rate of flow at end of flow period at W. H. working pressure  $(P_W)$ . MCF/da. @ 15.025 psia and 60° F.
- Pc= 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
  psia
- PwT Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- PtT Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- Pr Meter pressure, psia.
- hw Differential meter pressure, inches water.
- Fg Gravity correction factor.
- Ft Flowing temperature correction factor.
- Fpv Supercompressability factor.
- n I Slope of back pressure curve.
- Note: If  $P_{\rm W}$  cannot be taken because of manner of completion or condition of well, then  $P_{\rm W}$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_{\rm t}$ .