d

Jicarilla 457-3#3
Injectivity Test

12/03/99-12/13/99

I. Injection summary

Date	Volume (bbls)	Inj. Press. (psi)	Avg Rate (BPM)	Remarks
12/03/99	1100	520	1.5	
12/04/99	1807	600	1.25	
12/05/99	1449	610	1	
12/06/99	1382	580	1.1	
12/07/99	1398	590	1.1	Pump 800gal acid
12/08/99	1634	525	1.2	
12/09/99	2023	480	1.5	
12/10/99	2473	490	1.7	
12/11/99	2477	530	1.7	
12/12/99	2634	580	2.2	
12/13/99	1661	530	1.4	

Total water injected-----20,038 bbls

II. Offset producing well pressure monitoring

There are two nearby wells producing from the Ojo Alamo formation. The Jicarilla 457-4 #2 is located ≈3,300 ft. due west, and the Jicarilla 457-9 #2 is located ≈ 6300' southwest of the Jicarilla 457-3 #3. Pressure data for the Ojo Alamo formation in these two wells during and after the injectivity test is attached.

III. Pressure Buildup Data Jicarilla 457-3 #3

On 01/12/00 pressure bombs were placed at 3146'. Pressure was monitored for a 48 hr. period. Pressure data is attached.

3-30N-03W

30-039-25779

FLOW FILE DAILY VOLUME REPORT Page #1

METER ID 45742
METER LOC JICARILLA 457-4 #2
COLLECT DATE 01/01/00 08:01:21
REPORT DATE 01/03/00 10:09:19
ERROR CHECK ** SEE BELOW **

DATE	DP in H2O	AP psia	TEMP degF	C'	EXTENSION	VOLUME mcf	ERROR CHECK
01/01/00	3.59	62.78	31.28	208.437	0.045	9.3	PASS
TOTAL VOLUME						9.3	....
12/31/99	3.34	62.88	34.88	207.688	0.345	71.6	PASS
12/30/99	3.69	62.13	31.75	208.504	0.358	74.6	PASS
12/29/99	3.78	62.44	40.91	206.443	0.366	75.5	PASS
12/28/99	3.69	62.44	43.75	205.636	0.358	73.7	PASS
12/27/99	3.75	62.31	44.56	205.437	0.363	74.6	PASS
12/26/99	3.69	62.28	47.19	204.919	0.358	73.4	PASS
12/25/99	4.09	60.59	49.44	204.507	0.374	76.5	PASS
12/24/99	3.88	60.97	49.63	204.535	0.364	74.5	PASS
12/23/99	4.16	61.59	59.16	202.455	0.378	76.5	PASS
12/22/99	3.81	63.63	53.34	203.759	0.368	75.0	PASS
12/21/99	3.75	63.91	50.44	204.416	0.367	75.0	PASS
12/20/99	3.94	60.63	40.41	206.375	0.366	75.6	PASS
12/19/99	4.00	59.59	37.44	207.178	0.366	75.8	PASS
12/18/99	4.22	59.00	46.38	205.151	0.374	76.6	PASS
12/17/99	4.31	57.34	44.19	205.665	0.374	76.8	PASS
12/16/99	8.22	58.09	38.81	207.382	0.433	89.8	PASS
12/15/99	4.00	59.06	31.13	208.666	0.362	75.5	PASS
12/14/99	3.91	58.72	40.13	206.442	0.359	74.1	PASS
12/13/99	4.53	58.03	57.66	202.723	0.385	78.1	PASS
12/12/99	4.38	57.56	50.69	204.273	0.379	77.4	PASS
12/11/99	4.38	58.53	40.38	206.385	0.370	76.3	PASS
12/10/99	4.94	58.28	31.31	208.327	0.385	80.3	PASS
12/09/99	4.81	59.22	26.78	209.547	0.340	71.2	PASS
12/08/99	4.78	58.44	28.34	209.029	0.396	82.7	PASS
12/07/99	4.28	59.25	36.00	207.347	0.379	78.6	PASS
12/06/99	4.75	58.97	44.31	205.602	0.398	81.8	PASS
12/05/99	4.69	58.66	56.94	203.057	0.396	80.3	PASS
12/04/99	4.41	59.09	40.53	206.401	0.384	79.2	PASS
12/03/99	4.69	58.84	31.53	208.311	0.396	82.4	PASS
12/02/99	4.63	59.09	39.66	206.538	0.392	81.0	PASS
12/01/99	4.38	59.38	48.47	204.746	0.380	77.7	PASS
TOTAL VOLUME						2392.3	....
11/30/99	4.19	59.03	51.09	204.320	0.376	76.9	PASS
11/29/99	4.66	59.00	51.78	204.159	0.396	80.8	PASS
11/28/99	5.50	59.44	51.78	204.118	0.433	88.3	PASS
TOTAL VOLUME						245.9	....

FLOW FILE DAILY VOLUME REPORT Page #1

METER ID 45792OJO
METER LOC JICARILLA 457-9 #2OJO
COLLECT DATE 01/01/00 08:20:11
REPORT DATE 01/03/00 10:09:30
ERROR CHECK ** SEE BELOW **

DATE	DP in H2O	AP psia	TEMP degF	C'	EXTENSION	VOLUME mcf	ERROR CHECK
01/01/00	1.03	18.97	35.78	628.887	0.013	8.2	PASS
TOTAL VOLUME						8.2	....
12/31/99	1.09	19.19	40.28	625.831	0.108	67.4	PASS
12/30/99	1.16	24.53	38.72	625.801	0.084	52.4	PASS
12/29/99	1.16	23.47	37.06	627.111	0.090	56.7	PASS
12/28/99	1.50	22.50	38.44	625.172	0.099	61.7	PASS
12/27/99	1.03	21.88	40.00	625.813	0.098	61.4	PASS
12/26/99	1.06	20.38	41.31	625.241	0.102	64.0	PASS
12/25/99	1.09	20.09	38.63	626.862	0.105	65.8	PASS
12/24/99	1.09	20.03	39.22	626.358	0.104	65.4	PASS
12/23/99	1.13	26.44	37.03	627.386	0.086	53.8	PASS
12/22/99	1.66	60.03	40.34	627.274	0.029	18.4	PASS
12/21/99	1.16	19.81	38.03	627.070	0.071	44.8	PASS
12/20/99	1.09	19.47	38.03	627.149	0.109	68.6	PASS
12/19/99	1.13	20.91	39.13	626.286	0.104	65.4	PASS
12/18/99	1.06	19.38	38.00	627.261	0.108	67.7	PASS
12/17/99	1.28	20.97	39.50	625.481	0.101	62.9	PASS
12/16/99	1.47	25.22	36.66	626.715	0.087	54.4	PASS
12/15/99	2.34	29.19	33.63	627.503	0.055	34.4	PASS
12/14/99	1.50	25.19	38.25	625.867	0.057	35.9	PASS
12/13/99	2.97	41.50	44.31	621.284	0.033	20.7	PASS
12/12/99	2.00	46.03	47.16	621.200	0.029	18.2	PASS
12/11/99	1.09	19.16	39.47	626.246	0.096	59.9	PASS
12/10/99	1.13	28.66	38.25	626.711	0.087	54.4	PASS
12/09/99	1.09	22.66	36.72	628.130	0.107	67.0	PASS
12/08/99	1.19	18.59	36.97	627.770	0.110	69.2	PASS
12/07/99	1.22	18.78	39.91	625.848	0.112	69.8	PASS
12/06/99	1.06	20.75	40.28	625.596	0.104	65.1	PASS
12/05/99	1.03	26.75	39.16	626.276	0.101	63.0	PASS
12/04/99	1.19	20.13	38.97	626.286	0.105	65.9	PASS
12/03/99	1.28	18.09	39.13	626.279	0.111	69.8	PASS
12/02/99	1.25	18.13	43.56	623.593	0.111	69.4	PASS
12/01/99	1.22	18.31	46.91	621.581	0.111	69.2	PASS
TOTAL VOLUME						1763.2	....
11/30/99	1.22	18.53	48.72	620.413	0.112	69.6	PASS
11/29/99	1.19	18.84	49.09	620.075	0.112	69.2	PASS
11/28/99	1.19	19.16	48.56	620.464	0.111	68.7	PASS
TOTAL VOLUME						207.5	....

COBRA SLICKLINE CORPORATION

Reservoir Engineering Data

Farmington, New Mexico

INDIVIDUAL WELL DATA SHEET

File No.: 2541P

Company: Mallon Oil Company

Lease: Jicarilla 457-3

Well No.: 3

Field:

County/State: Rio Arriba, New Mexico

Formation: Ojo

Test Date: January 12, 2000

Elevation (ft):	Casing Pressure (psi): 0
Atmosphere Pressure (psi): 10.91	Tubing Pressure (psi): -4.36 (tbg on vaccuum)
Total Depth (ft):	Fluid Level (ft):
Perforation (ft): 3146-3192	Water Level (ft): 508.15
Tbg Size (in): 2 7/8 to (ft):	Temperature (°F): 113.71 at (ft): 3146
Csg Size (in): to (ft):	Atmosphere Temperature (°F): 59
Packer (ft):	Element No.: 75068
Seat Nipple (ft):	Element Range (psi): 0-6000
Maximum Safe Test Depth (ft): 3146	Operator: J Williams / Unit No.: Trlr 1

Well Status: shut in

Time	Depth Feet	Temperature °F	Pressure Psig	Differential Psi	Differential Feet	Gradient Psi per Ft
13:00	0	60.80	6.55		0	
13:04	500	58.73	170.58	164.030	500	0.328060
13:09	1000	70.08	388.01	217.430	500	0.434860
13:14	1500	81.63	605.09	217.080	500	0.434160
13:17	2000	90.47	821.54	216.450	500	0.432900
13:22	2500	103.24	1038.12	216.580	500	0.433160
13:26	3000	112.89	1254.23	216.110	500	0.432220
13:30	3146	113.71	1317.44	63.210	146	0.432945

Pressure: Psig @ subsurf. Datum Depth (ft): Feet/Change:

Last Pressure Date: Last Pressure @ (ft):

Remarks:

COBRA SLICKLINE CORPORATION

Reservoir Engineering Data

Farmington, New Mexico

INDIVIDUAL WELL DATA SHEET

File No.: 2541P

Company: Mallon Oil Company

Lease: Jicarilla 457-3

Well No.: 3

Field:

County/State: Rio Arriba, New Mexico

Formation: Ojo

Test Date: January 14, 2000

Elevation (ft):		Casing Pressure (psi): 0	
Atmosphere Pressure (psi): 10.26		Tubing Pressure (psi): -0.48 (tbg on vaccuum)	
Total Depth (ft):		Fluid Level (ft):	
Perforation (ft): 3146-3192		Water Level (ft): 468.18	
Tbg Size (in): 2 7/8	to (ft):	Temperature (°F): 107.02	at (ft): 3146
Csg Size (in):	to (ft):	Atmosphere Temperature (°F): 54	
Packer (ft):		Element No.: 75068	
Seat Nipple (ft):		Element Range (psi): 0-6000	
Maximum Safe Test Depth (ft): 3146		Operator: J Williams	Unit No.: Trlr 1

Well Status: shut in

Time	Depth Feet	Temperature °F	Pressure Psig	Differential Psi	Differential Feet	Gradient Psi per Ft
13:57	0	53.80	9.78		0	
13:53	500	61.90	164.01	154.230	500	0.308460
13:48	1000	74.72	381.93	217.920	500	0.435840
13:43	1500	85.36	598.90	216.970	500	0.433940
13:39	2000	95.63	815.55	216.650	500	0.433300
13:35	2500	104.99	1031.97	216.420	500	0.432840
13:30	3000	113.22	1248.17	216.200	500	0.432400
13:29	3146	107.02	1311.49	63.320	146	0.433699

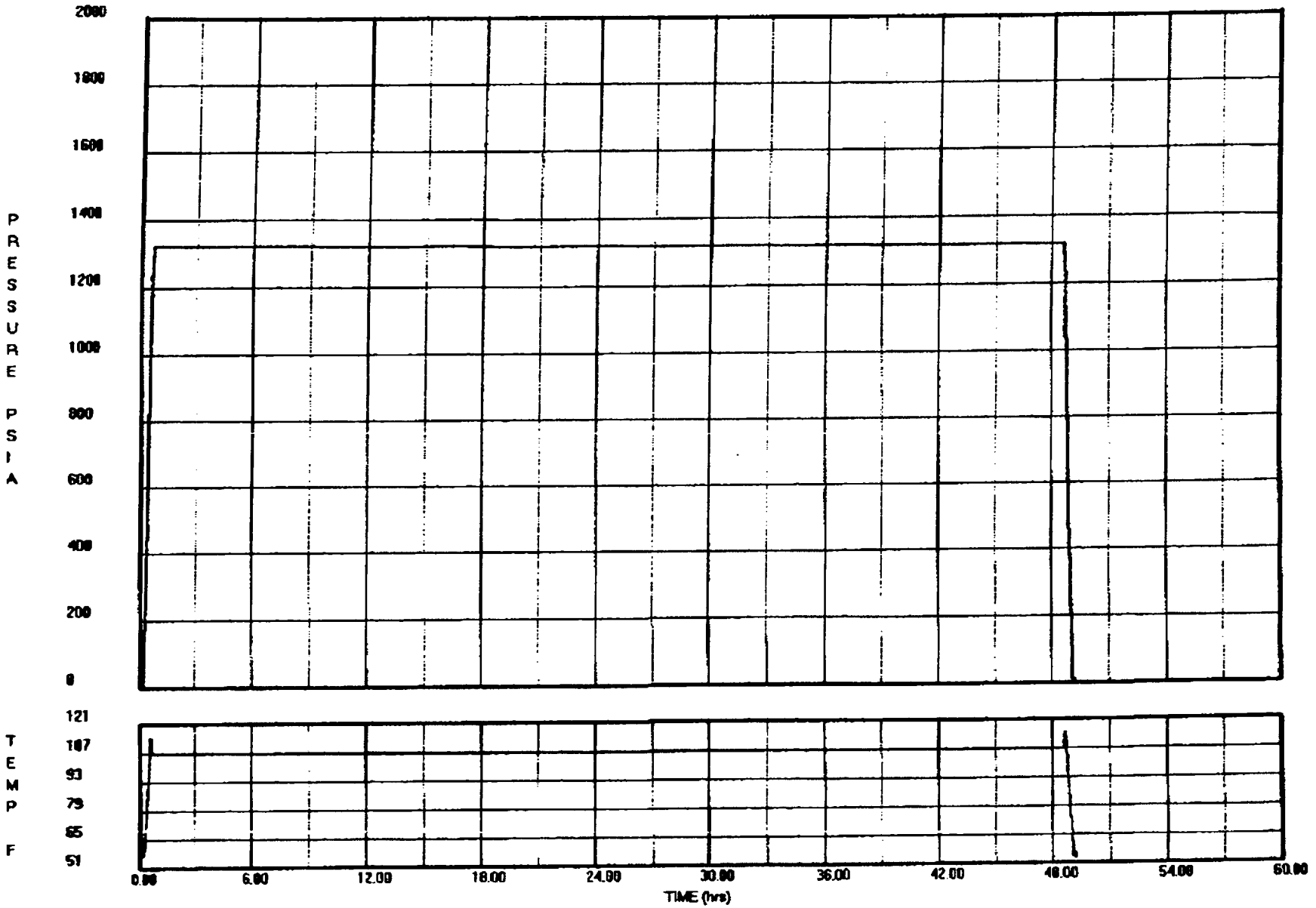
Pressure:	Psig @ subsurf. Datum Depth (ft):	Feet/Change:
Last Pressure Date:	Last Pressure @ (ft):	
Remarks:		

Spartek Systems
Job Event Sheet

Real Time	Delta Time	Pressure	Temperature	Comments
01/12/00 13:00:53	0.164722	6.549	60.997	0'
01/12/00 13:04:28	0.224444	170.576	58.729	500'
01/12/00 13:09:33	0.309167	388.015	70.077	1000'
01/12/00 13:14:06	0.385556	605.091	81.630	1500'
01/12/00 13:17:48	0.446667	821.542	90.488	2000'
01/12/00 13:22:33	0.525833	1038.122	103.237	2500'
01/12/00 13:26:58	0.599444	1254.234	112.887	3000'
01/12/00 13:30:13	0.653611	1317.436	113.709	3146'
01/14/00 13:29:28	48.641111	1311.493	107.023	3146'
01/14/00 13:30:03	48.650833	1248.169	113.217	3000'
01/14/00 13:35:33	48.742500	1031.966	104.989	2500'
01/14/00 13:39:43	48.811944	815.547	95.634	2000'
01/14/00 13:43:48	48.880000	598.898	85.360	1500'
01/14/00 13:48:03	48.950833	381.935	74.724	1000'
01/14/00 13:53:18	49.038333	164.035	61.831	500'
01/14/00 13:57:38	49.110556	9.786	53.824	0'

MALLON OIL COMPANY

Jicarilla 457-3 #3



Mallon Oil Company

a Mallon Resources Subsidiary

Denver/Colorado ♦ Carlsbad/New Mexico ♦ Durango/Colorado

Facsimile Transmission Cover Page

Date: _____ Time: _____ Mountain Standard Time

To: Frank Chavez

Company Name: NMOCD

Fax Number: 505 334-6170

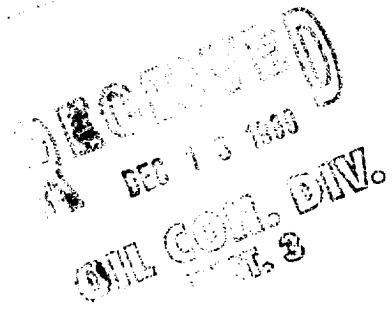
From: Terry Lindeman at Mallon, Durango, Colorado, USA

Number of pages including this cover page: 19

Report any problems receiving this transmission to Mallon at (970) 382-9100

Message:

Bill Hurlbut
Dec 3rd Verbal Approval
For 3 days Injection
214-665-8305



Dixon Sandoval
505 759 3242 Ext 405

C-115 - Operator's Monthly Report (Continuation Page - Instructions are on the back of form C-115)

2 Operator	Hallwood Petroleum, Inc.	3 OGRID 009812	4 Month/year 08/99	6 Page 19 of 23

		INJECTION			PRODUCTION					DISPOSITION OIL, GAS, AND WATER						
7 POOL NO. AND NAME Property No. and Name Well No. & U-L-S-T-R API No.	8 Code 1	9 Volume	10 Pressure	11 Code 2	12 Barrels of Oil/ Condensate Produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 Code 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on Hand at begining of month	20 Volume Bbls/mcf	21 Transporter OGRID	22 Code 4	23 oil on hand at end of month
78240 HAT MESA MORROW (GAS)																
004885 FEDERAL 13																
001 C 13 21S 32E	F				0	166	51	7	O	1055810		145				145
30-025-26898									G	1055830	1080		32	023435		
									G				19		U	
									W	1055850			166			
80690 LOS PINOS FT SD PC,S(G)																
004883 FEDERAL																
004 P 3 31N 7W	F				0	11	1276	31	G	1055030	1189		1237	025244		
30-045-22803									G				39		U	
									W	1055050			11			
004913 STATE																
002 N 2 31N 7W	F				0	11	1767	31	G	1054730	1193		1727	025244		
30-045-22779									G				40		U	
									W	1054750			11			
003 I 2 31N 7W	F				0	0	1614	31	O	1054810		40				40
30-045-22781									G	1054830	1204		1579	025244		
									G				35		U	

Mallon Oil Company

a Mallon Resources Subsidiary

Denver/Colorado ♦ Durango/Colorado ♦ Carlsbad/New Mexico

November 30, 1999

Mr. Ray Leissner / Mr. Jim Vass
Environmental Protection Agency
Region VI
Dallas, Texas

Dear Mr. Leissner and Mr. Vass:

Enclosed is Mallon Oil Company's application for emergency disposal of produced water into the Ojo Alamo Formation in the Jicarilla 457-3 No. 3 well. In addition to having no other wells inside a half mile radius, there are no wells due North, North East and due East for several miles. Mallon Oil Company is the only operator within six miles of this well and Mallon Oil Company is the only operator in the area producing the Ojo Alamo.

I hope you find the attached information complete. If there is any additional data required please call me at 970-382-9100. I really appreciate the help and attention you have given this matter.

Sincerely,

T. G. Lindeman
Operations Superintendent

Enclosures

C-115 - Operator's Monthly Report (Continuation Page - Instructions are on the back of form C-115)

2 Operator Hallwood Petroleum, Inc.	3 OGRID 009812	4 Month/year 08/99	6 Page 20 of 23

		INJECTION			PRODUCTION					DISPOSITION OIL, GAS, AND WATER						
7 POOL NO. AND NAME Property No. and Name Well No. & U-L-S-T-R API No.	8 Code 1	9 Volume	10 Pressure	11 Code 2	12 Barrels of Oil/ Condensate Produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 Code 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on Hand at begining of month	20 Volume Bbls/mcf	21 Transporter OGRID	22 Code 4	23 oil on hand at end of month
80890 MALAGA ATOKA (GAS)																
004889 FORT 7 COM 001 O 7 24S 29E 30-015-25658	F				0	0	3395	31	G G	1049130	1025		3099 296	17741	 U	
83780 REVELATION STRAWN (GAS)																
004905 PENNZOIL STATE COM 001 B 16 22S 25E 30-015-22014	F				0	6	2767	31	O G G W	1053810 1053830 1053850	 1133 	124 	 2472 295 6	 013382 	 U 	124
84415 SALT DRAW ATOKA (GAS)																
004911 SALT DRAW 2 COM 001 E 2 25S 28E 30-015-25164	F				14	0	5841	23	O G G	1048910 1048930 	46.5 1050 	132 	124 5711 130	167356 013382 	 U	22

Well # _____
Permit # _____
Date Received : _____
*EPA Authorization # _____

Permit Application Checklist

	Attached	Not Attached		
1.	XX		1.	Budget Bureau Form # 1004 - 0135 (Sundry Notices) or #1004 - 0136 (Application to Drill) (2 copies to EPA).
2.	XX		2.	Map using township-range-sections to show the location of wells within 1/2 mile (2640 ft.) of the proposed well.
3.		N/A	3.	Tabulation of data on wells within 1/2 mile (2640 ft) that pentrate the injection interval including:
				company and well name
				depth
				location
				date drilled
				type of well and status
				record of plugging and/or completion
				corrective action plan for inadequately completed or plugged wells.
4.	XX		4.	Injection well schematic drawings of surface and subsurface details showing:
				(i) total depth plug-back depth,
				(ii) depth to top and bottom of injecton interval,
				(iii) depth to top and bottom of casing and cemented interval, plus amount of cement,
				(iv) size of casing and tubing and depth of packer, and
				(v) hole diameter,
				(vi) all perforated intervals, and/or open hole interval

* Applicable to wells authorized by rule

C-115 - Operator's Monthly Report (Continuation Page - Instructions are on the back of form C-115)

2 Operator Hallwood Petroleum, Inc.	3 OGRID 009812	4 Month/year 08/99	6 Page 21 of 23

		INJECTION			PRODUCTION					DISPOSITION OIL, GAS, AND WATER						
7 POOL NO. AND NAME Property No. and Name Well No. & U-L-S-T-R API No.	8 Code 1	9 Volume	10 Pressure	11 Code 2	12 Barrels of Oil/ Condensate Produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 Code 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on Hand at begining of month	20 Volume Bbls/mcf	21 Transporter OGRID	22 Code 4	23 oil on hand at end of month
84480 SALT LAKE MORROW S(GAS)																
004912 SALT LAKE SOUTH DEEP																
001 2 6 21S 32E	F				6	84	5289	30	O	1053010		17				23
30-025-27492									G	1053030	1092		5004	013382		
									G				285		U	
									W	1053050			84			
86780 VACA DRAW MORROW (GAS)																
004873 BELL LAKE 2 STATE																
001 H 2 25S 33E	F				96	97	9760	31	O	1052010	53.9	196	189	167356		103
30-025-27178									G	1052030	1073		9554	023435		
									G				206		U	
									W	1052050			97			

	Attached	Not Attached		
5.	XX		5.	Operating data including:
				(i) type of injection well (SWD or ER) .
				(ii) maximum and average injection rate,
				(iii) maximum and average injection pressure,
				(iv) whether operations is cyclic or continuous, and
				(v) source and analysis of injected fluids including TDS, chlorides, and additives.
6.	XX		6.	Geologic data on the injection and confining zones, including faults, geological name. thickness, porosity, permeability, depth, current reservoir pressure or fluid level, water quality, and lithologic description.
7.	XX		7.	Verification of notice to the affected Tribal Government and list showing names and addressess of all owners of record of land within 1/4 of the well.
8.	XX		8.	All available logging and testing data on the well (for existing wells only).
9.		N.A.	9.	Proof of adequate financial responsibility.
10.		N.A.	10.	Certification form signed by well owner/operator or authorized representative (authorization must be in writing and copy attached).

C-115 - Operator's Monthly Report (Continuation Page - Instructions are on the back of form C-115)

2 Operator Hallwood Petroleum, Inc.	3 OGRID 009812	4 Month/year 08/99	6 Page 22 of 23

		INJECTION			PRODUCTION					DISPOSITION OIL, GAS, AND WATER						
7 POOL NO. AND NAME Property No. and Name Well No. & U-L-S-T-R API No.	8 Code 1	9 Volume	10 Pressure	11 Code 2	12 Barrels of Oil/ Condensate Produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 Code 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on Hand at begining of month	20 Volume Bbls/mcf	21 Transporter OGRID	22 Code 4	23 oil on hand at end of month
86790 VACA DRAW WOLFCAMP (GAS)																
004872 BELL LAKE 11 FEDERAL 001 B 11 25S 33E 30-025-26729	F				136	0	7056	31	O G G	1052310 1052330	55.3 1253	198	183 6379 677	167356 023435	 U	151
96162 MORRISON BLUFF ENTRADA																
19002 CARDON COM SWD #1 1 27 32N 13W 30-045-24392	D	27463		W	0		0		W	0000000			27463		O	
96412 CULEBRA BLUFF; STRAWN																
004920 WILLIAMS 35 COM 001 C 35 23S 28E 30-015-22759	F				0	21	9679	31	G G W	1055130 1055150	1117		9503 176 21	007057	 U	

Well #_____

Well Completion and Operation Data

Type Injection Well: (EOR/SWD/HC Storage) (New/Conversion)

Injection: (Continuous/Cyclic)

Approximate # days operating/year +/- 60 days
Rate (B/D): Average 2000 Maximum 2000
Wellhead pressure (psi): Average 350 psi Maximum 600psi
Fluid: TDS 13297 ppm Sp. Gr. 1.0 Analyses included: (yes/no)
Source (formation name) San Jose, Ojo Alamo, Pictured Cliffs
Will anything be added to the water to be injected? (yes/no)
What will those additives be? Biocide, corossion inhibitor

Geologic Data (all references to depths are below land surface)

Injection Interval: Top 3100' ; Bottom 3192' ; Effective Thickness 92'
Formation name Ojo Alamo Lithology SS
Porosity (%) 12 Current Reservoir Pressure 700 Date 4/23/98
Current Fluid Level in Well 1700 ft. Date 4/23/98
Permeability (md) 8md
Drill Stem Test Included: (YES) (NO)

Confining Zones: Thickness between injection zone and USDW _____
Lithology Shale
Cumulative shale 32 ± ' ; thickest shale zone 14' (interval)
Faults: Are there any faults in the area of the well which penetrate the injection interval? (Yes/No)

Well Data: (all references to depths are below land surface)

Surface Elevation: 7121' (KB/GL) Total (Depth/Plugged Back Depth) 3960'/3830'
Date Drilled or to be drilled 4/9/98
Type logs available on (this well/offset well): (By reference/included)
Dual Spaced Neutron/ Dual Induction

Construction:	Size (in)	Depth Interval	Sacks of Cement	Hole Size	Cement Interval	How Determined
Surface Csg.	8-5/8"	0-542'	300	12-1/4"	TD-surface	circ 110 sxs
Intermediate Csg.						
Long String Csg.	5-1/2"	0-3852'	630	7-7/8"	TD-surface	circ 50 sxs
Liner						
Tubing			Packer type and depth			

Other Perforated Intervals None

OTHER INDIAN LANDS

C-115 - Operator's Monthly Report (Continuation Page - Instructions are on the back of form C-115)

2 Operator	Hallwood Petroleum, Inc.	3 OGRID 009812	4 Month/year 08/99	6 Page 23 of 23

		INJECTION			PRODUCTION					DISPOSITION OIL, GAS, AND WATER						
7 POOL NO. AND NAME Property No. and Name Well No. & U-L-S-T-R API No.	8 Code 1	9 Volume	10 Pressure	11 Code 2	12 Barrels of Oil/ Condensate Produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 Code 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on Hand at begining of month	20 Volume Bbls/mcf	21 Transporter OGRID	22 Code 4	23 oil on hand at end of month
96415 WILLOW LAKE;BONE SPRNG W																
004892 HARKEY 35 STATE 001 J 35 24S 27E 30-015-25812	P				237	100	4675	31	O G W	1047310 1047330 1047350	53.9 1131	102	165 4675 100	167356 013382		174
96815 INDIAN BASIN; STRAWN,SE																
004876 CATCLAW DRAW 12 012 N 24 21S 25E 30-015-23253	F				0	0	695	23	O G G	1048110 1048130	1090	3	672 23	009812	U	3

WELL SCHEMATIC

Operator Mallon Oil Company

Completion Date:

Well Name: Jicarilla 457-3 Well # 3

1805' Ft. F S L & 865 Ft. F W L

NW SW 1/4 Section 3 Twp. 30N Rg. 03W

Surface Elevation 7121'

Formation(s) Top/Bottom from PBTD to surface:

Lewis	3774'	3960'
Pictured Cliffs	3689'	3784'
Fruitland Coal	3558'	3670'
Kirkland	3352'	3376'
Ojo Alamo	3132'	3196'
Nacimiento	2022'	2046'
San Jose	0'	2000'

Tubing Size: 2-7/8" In.

Weight: 6.5 lb./Ft.

Length: 3090' Ft.

Packer Type: Arrow uni VI 10k

Set at: 3090' Ft.

Formation(s) perforated above packer:

San Jose 1652' to 1766 squeezed & tested

' to '

Formation(s) perforated below packer:

Ojo Alamo 3146' to 3192'

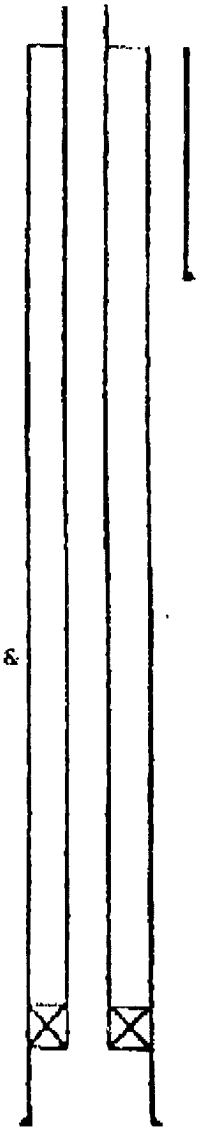
' to '

' to '

Open hole below production casing from N/A ' to N/A '

Formation(s) present in open hole:

N/A



SURFACE CASING DATA

Hole Size: 12-1/4" In.

Casing Size: 8-5/8" In.

Weight: 24 lb/F

Length: 542' Ft.

Cement Type: Class B

Amount: 300 Sx.

Additives: 2% CaCl2 1/4# celoFlk

Casing set at: 542' Ft.

Top of Cement: surface Ft.

Method of Determination: circulated 110 sxs

PRODUCTION CASING DATA

Hole Size: 7-7/8" In.

Casing Size: 5-1/2" In.

Weight: 15.5 lb/F

Length: 3975' Ft.

Cement Type: Class C with poz

Amount: 630 Sx.

Additives:

Casing Set at: 3975' Ft.

Top of Cement: surface Ft.

Method of Determination: circulated 50 sxs

PBTD: 3830'

TD: 3960'

NOTE: All depths are to be from ground level. If KB depths are used make notations on diagram & give height of KB above ground level.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501
WELL DELIVERABILITY TEST REPORT 19__91_____

FORM C-122-A
REVISED 4-1-91

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #57

UNIT LETTER :	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
A	33	29N	6W	NORTHWEST PIPELINE CORP.

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
5.500	5.012	5670	1.660	1.380	5042

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5042 TO: 5628	CASING:	TUBING: X	0.701	3534

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91 TO: 10/27/91	11/04/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
5	343	343	341	2	0	349

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
351	351	5	521	521	365	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
101	1.0059	1.0029	Q= 101 MCF/D

WORKING PRESSURE CALCULATION

(l-e-s)	(Fc Qm)2(1000)	R2 =	(l-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.227	6220		1410	123201	124611	353

$$D = Q\,(Pc^2 - Pd^2 / Pc^2 - Pw^2)^n = 101 \left| \frac{138435}{146830} \right|^n = (0.9428)^n = 0.9568$$

= 97 MCF/D

REMARKS:

SUMMARY

Item H	351 Psia
Pc	521 Psia
Q	101 MCF/D
Pw	353 Psia
Pd	365 Psia
D	97 MCF/D

RECEIVED
DEC 06 1991
OIL CON. DIV
DIST. 3

COMPANY : PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE : 12/05/91

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

T. G. Lindeman
Name

Operations Superintendent
Title*

*If certification is signed by a party other than the injection well owner/operator a written statement of authorization signed by the owner/operator must accompany the application.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501

FORM C-122-A
REVISED 4-1-91

WELL DELIVERABILITY TEST REPORT 19__91_____

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #56A

UNIT LETTER :	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
C	33	29N	6W	NORTHWEST PIPELINE CORP.

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
4.500	4.052	5660	2.375	1.995	5008

GAS PAY ZONE	WELL PRODUCING THRU	GAS GRAVITY	GRAVITY X LENGTH
FROM: 5008 TO: 5592	CASING: TUBING: X	0.680	3405

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91 TO: 10/27/91	11/04/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
424	359	345	342	3	14	346

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
349	363	446	443	446	312	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
159	1.0088	1.0044	Q= 160 MCF/D

WORKING PRESSURE CALCULATION

(1-e-s)	(Fc Qm)2(1000)	R2 =	(1-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.219	2254		495	131769	132264	364

$$D = Q\,(Pc2-Pd2\,/\,Pc2-Pw2)^{n} = 160 \left(\frac{101447}{66852}\right)^{n} = (1.5220)^{n} = 1.3703 = 219 \text{ MCF/D}$$

REMARKS:

SUMMARY

Item H	349 Psia
Pc	446 Psia
Q	160 MCF/D
Pw	364 Psia
Pd	312 Psia
D	219 MCF/D

RECEIVED
DEC 06 1991
OIL CON. DIV
DIST. 3

COMPANY : PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE : 12/05/91

Form 3160-4
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPL (See other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] DRY [ ] OTHER T/A

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF RESVR [ ]

5 LEASE DESIGNATION AND SERIAL NO: Jic 457

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Jicarilla Apache Tribe

7. UNIT AGREEMENT NAME: N/A

8 FARM OR LEASE NAME, WELL NO.: Jicarilla 457-3 No. 3

2 NAME OF OPERATOR: Mallon Oil Company

9. API WELL NO.: 30-039-25779

3 ADDRESS AND TELEPHONE NO: P.O. Box 3256, Carlsbad, NM 88220 (505) 885-4596

10 FIELD AND POOL, OR WILDCAT: Cabresto Canyon; Ojo Alamo Ext.

4 LOCATION OF WELL (Report location clearly and in accordance with any State requirements *)
At surface: 1805' FSL and 865' FWL Sec. 3, T30N-R03W (Unit L)
At top prod. interval reported below: 1805' FSL and 865' FWL Sec. 3, T30N-R03W (Unit L)
At total depth:

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 3, T30N-R03W

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
N/A	N/A	Rio Arriba	NM

15 DATE SPUDDED	16. DATE TD REACHED	17. DATE COM. (Ready to Prod.)	18. ELEVATION (DF, RKB, RT, GR, E	19. ELEV. CASINGHEAD
4/1/98	4/9/98	N/A	7143' GR	7144'

20. TOTAL DEPTH, MD & TVD	21. PLUGBACK TD, MD & TVD	22. IF MULTIPLE COMP., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
3960'	3830'		→	Yes	N/A

24 PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD*)
3146'-3192' Cabresto Canyon; Ojo Alamo Ext.

25. WAS DIRECTIONAL SURVEY MADE: No

26 TYPE ELECTRIC AND OTHER LOGS RUN
DILT-SGRD, SDL / DSN

27. WAS WELL CORED: No

28 CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT LB/FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8" J-55	24 lb	542'	12-1/4"	300 sxs Class B, circ 110 sxs to pit	
5-1/2" J-55	15.5 lb	3957'	7-7/8"	190 sxs 35/65 Poz, 440 sxs 50/50 Poz, circ 50 sxs to surface	

29 LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)
N/A				

30 TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A	N/A	

31. PERFORATION RECORD (Interval, size, and number)
3146'-3192', 4 JSPF (184 holes)
CIBP at 3000'

32 ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3146'-3192'	3000 gals 7-1/2% HCL Frac 65,870 lbs 12/20 sand

33 * PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pum	WELL STAT (Producing or Shut in)
N/A	Swab	SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL - BBL.	GAS - MCF	WATER - BBL	GAS-OIL RATIO
4/17/98	24 hrs	3/8"		0	60	68	N/A

FLOW TBG PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL - BBL.	GAS - MCF	WATER - BBL	OIL GRAVITY - API (CORR.)
5	0		0	60	68	N/A

34 DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
No Gas

TEST WITNESSED BY: Johnny Angel

35 LIST OF ATTACHMENTS

36 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Christy Serrano (Christy Serrano) Production Secretary DATE 5-17-99

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501
WELL DELIVERABILITY TEST REPORT 19__91_____

FORM C-122-A
REVISED 4-1-91

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #56

UNIT LETTER :	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
N	33	29N	6W	NORTHWEST PIPELINE CORP.

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
5.500	5.012	5985	2.375	1.995	5340

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5340 TO: 5962	CASING:	TUBING: X	0.695	3711

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 12/09/91 TO: 12/15/91	12/23/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
438	389	342	341	1	47	320

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
321	368	458	437	458	321	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
119	1.0029	1.0015	Q= 119 MCF/D

WORKING PRESSURE CALCULATION

(1-e-s)	(Fc Qm)2(1000)	R2 = (1-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.237	1258	297	135424	135721	368

$$D = Q\left(\frac{Pc2-Pd2}{Pc2-Pw2}\right)^{n} = 119\left(\frac{106980}{74043}\right)^{n} = (1.4448)^{n} = 1.3178$$

= 157 MCF/D

REMARKS:

SUMMARY

Item H	321 Psia
Pc	458 Psia
Q	119 MCF/D
Pw	368 Psia
Pd	321 Psia
D	157 MCF/D

RECEIVED
FEB11 1992
OIL CON. DIV.
DIST. 3

COMPANY : PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE: : 02/10/92

CONFIDENTIAL

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir
Use "APPLICATION FOR PERMIT --" for such proposals.

5. Lease Designation and Serial No.
Jic 457

6. If Indian, Allotte or Tribe Name
Jicarilla Apache Tribe

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation
N/A

1. Type of Well
[ ] Oil Well [X] Gas Well [ ] Other:

2. Name of Operator
Mallon Oil Company

8. Well Name and No.
Jicarilla 457-3 No. 3

3. Address and Telephone No.
P.O. Box 2707 Durango, CO 81302 (970)382-9100

9. Well API. No.

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1805' FSL and 865' FWL (NW SW) Unit L
Sec 3, T30N-R03W

10. Field and Pool, or Exploratory Area
Cabresto Canyon; Ojo Alamo Ext

11. County or Parish, State
Rio Arriba County, New Mexico

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other: Disposal	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this zone.)*

Mallon Oil Company intends to squeeze off the San Jose perfs 1672'-1766' with appoximately 60 sxs cement. Drill out squeeze pressure test to 1000 psi. Drill out CIBP at 3000'. RIH with 2-7/8" tbg and pkr, set pkr at 3050'. Upon approval from EPA use the Ojo Alamo formation 3146'-3192' for emergency disposal of Ojo Alamo produced water from the East Blanco Field.

14. I hereby certify that the foregoing is true and correct

Signed Christy Serrano (Christy Serrano) Title Production Secretary Date 11-29-99

(This space for Federal or State office use)

Approved By _____ Title _____ Date _____

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

CONFIDENTIAL

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501
WELL DELIVERABILITY TEST REPORT 19__91_____

FORM C-122-A
REVISED 4-1-91

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #57A

UNIT LETTER :	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
P	33	29N	6W	EPNG

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
4.500	4.052	5766	2.375	1.995	5130

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5130 TO: 5720	CASING:	TUBING: X	0.707	3627

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91 TO: 10/27/91	11/04/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
516	416	414	411	3	2	423

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-In Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
426	428	526	455	526	**** 368	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
61	1.0073	1.0036	Q= 61 MCF/D

WORKING PRESSURE CALCULATION

(l-e-s)	(Fc Qm)2(1000)	R2 =	(l-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.232	331		77	183184	183261	428

$$D = Q\,(Pc^2 - Pd^2 / Pc^2 - Pw^2)^n = 61 \left(\frac{141105}{93415}\right)^n = (1.5105)^{n\ (\text{illegible})} 1.3625 = 83 \text{ MCF/D}$$

REMARKS:

OIL CON. DIV.
DIST. 3

SUMMARY

Item H	426 Psia
Pc	526 Psia
Q	61 MCF/D
Pw	428 Psia
Pd	368 Psia
D	83 MCF/D

COMPANY : PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE: : 12/05/91

Mallon Oil Company

Jicarilla 457-3#3
1805' FSL 865' FWL Unit L
Sec. 7, T30N-R03W
Rio Arriba County, New Mexico

Recompletion Procedure

PBTD: 3880'
CASING: 5-1/2", 15.5 LB/FT

1. MIRU rig, ND wellhead, NU BOP, PU cement retainer, TIH on 2-7/8" tbg. and set at 1640', sting out and pressure test to 1000 psi., sting into retainer, establish injection rate. Cement squeeze San Jose perfs with 150 sks cement and additives. Sting out TOOH. WOC at least 18 hrs., PU drill bit , TIH drill out retainer and cement, pressure test squeeze to 1000 psi.

2. If squeeze test ok drill out CIBP @ 3000'. TOOH with bit, PU 5-1/2" neutral pkr with F profile and on/ off tool, TIH and set pkr. @ 2900'

3. RU rig pump establish injection rate with 2% KCl water Max. pressure 600 psi.

4. ND BOP, NU wellhead. Release rig Set up for injectivity test.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501
WELL DELIVERABILITY TEST REPORT 19__91_____

FORM C-122-A
REVISED 4-1-91

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #52

UNIT LETTER :	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
B	34	29N	6W	NORTHWEST PIPELINE CORP.

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF.-FEET
5.500	5.012	5605	2.375	1.995	5038

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5038 TO: 5608	CASING:	TUBING: X	0.734	3698

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91 TO: 10/27/91	11/04/91

PRESSURE DATA-ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C-Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
509	410	409	401	8	1	408

(H)Corrected Meter Pressure (g + e)	(I)Avg. Wellhead Press. Pt= (h + f)	(J)Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC=Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
416	417	539	526	539	377	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
104	1.0200	1.0099	Q= 105 MCF/D

WORKING PRESSURE CALCULATION

(I-e-s)	(Fc Qm)2(1000)	R2 =	(I-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.236	975		230	173889	174119	417

$$D = Q\left(\frac{Pc^2 - Pd^2}{Pc^2 - Pw^2}\right)^n = 105 \left(\frac{148166}{116402}\right)^n = (1.2729)^n = 126 \text{ MCF/D}$$

REMARKS:

RECEIVED
DEC 11 1991
OIL CON. DIV.
DIST. 3

SUMMARY

Item H	416 Psia
Pc	539 Psia
Q	105 MCF/D
Pw	417 Psia
Pd	377 Psia
D	126 MCF/D

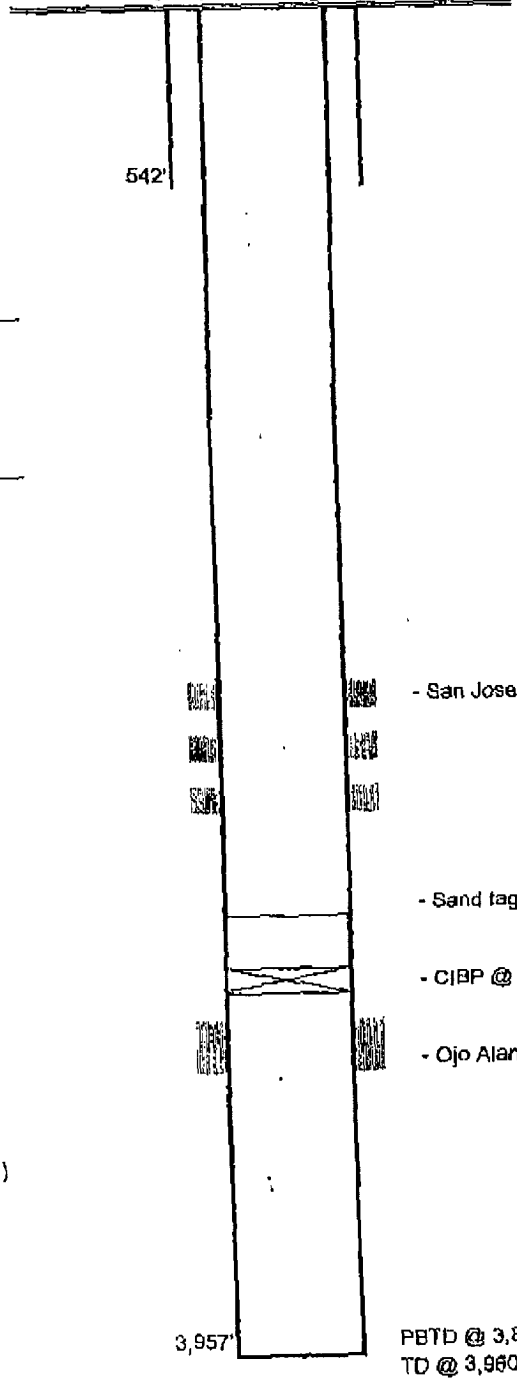
COMPANY: PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE: : 12/05/91

Jicarilla 457-3 No. 3
NW SW Sec.7, T30N, R3W
1,805' FSL & 865' FWL
East Blanco Field / Unit-L
Rio Arriba County, NM

Elev. GL @ 7,121'
Elev. KB @ 7,133' (12' KB)

Mallon Oil Company
Wellbore Diagram

11/10/99
CHW



Surface Casing
8 5/8", 24#, J-55, LT&C, set @ 542' KB.
Cmt w/ 300sx Class-B w/2%CaCl2.
circ. 110sx to pit.

Production Casing
5 1/2", 15.5#, J-55, set @ 3,957' KB.
Cmt w/ 190sx 35/65 & 440sx 50/50 POZ.
circ. 50sx to surface.

Tubing

no tubing or packer in the hole

- San Jose Perfs @ 1,672' - 1,680'
  1,740' - 1,747'
  1,760' - 1,766'

- Sand tagged at 2,845'

- CIBP @ 3,000'

- Ojo Alamo Perfs @ 3,146' - 3,192'

Perforations
San Jose: Perf w/ 4jspf (21', 84 holes)
1,672' - 1,680'
1,740' - 1,747'
1,760' - 1,766'

Ojo Alamo: Perf w/ 4jspf (46', 184 holes)
3,146' - 3,192'

PBTD @ 3,880' KB.
TD @ 3,960' KB.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501

FORM C-122-A
REVISED 4-1-91

WELL DELIVERABILITY TEST REPORT 19__91_____

POOL NAME: BLANCO	POOL SLOPE: 0.75	FORMATION: MESAVERDE		COUNTY: RIO ARRIBA
COMPANY: PHILLIPS PETROLEUM COMPANY			WELL NAME AND NUMBER	SAN JUAN 29-6 #7A
UNIT LETTER: E	SECTION: 34	TOWNSHIP: 29N	RANGE: 6W	PURCHASING PIPELINE: NORTHWEST PIPELINE CORPORATION

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
4.500	4.052	5610	2.375	1.995	4995

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 4995 TO: 5535	CASING:	TUBING: X	0.692	3457

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91 TO: 10/27/91	11/04/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
496	409	409	403	6	0	414

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
420	420	551	542	551	386	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
195	1.0149	1.0074	Q= 196 MCF/D

WORKING PRESSURE CALCULATION

(1-e-s)	(Fc Qm)2(1000)	R2 =	(1-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.222	3411		758	176400	177158	421

$$D = Q\,(Pc2 - Pd2 / Pc2 - Pw2)^{n} = 196 \left(\frac{154837}{126443}\right)^{n} = (1.2246)^{n} = 1.1641$$

= 229 MCF/D

REMARKS:

SUMMARY

Item H	420 Psia
Pc	551 Psia
Q	196 MCF/D
Pw	421 Psia
Pd	386 Psia
D	229 MCF/D

COMPANY: PHILLIPS PETROLEUM COMPANY
BY: Terry Bowker
TITLE: Field Tester
COMPANY: Phillips Petroleum Company
DATE: 12/05/91

WATER TO BE DISPOSED

FW01W623

BJ SERVICES COMPANY

WATER ANALYSIS #FW01W623

FARMINGTON LAB

GENERAL INFORMATION

OPERATOR: MALLON OIL
WELL: CHARGE PUMP
FIELD:
SUBMITTED BY: M.O.C.
WORKED BY : MIKE LOGAN
PHONE NUMBER:

DEPTH:
DATE SAMPLED: 08/20/99
DATE RECEIVED: 08/20/99
COUNTY: RIO ARRIBA STATE: NM
FORMATION:

SAMPLE DESCRIPTION

water for analysis
CHARGE PUMP

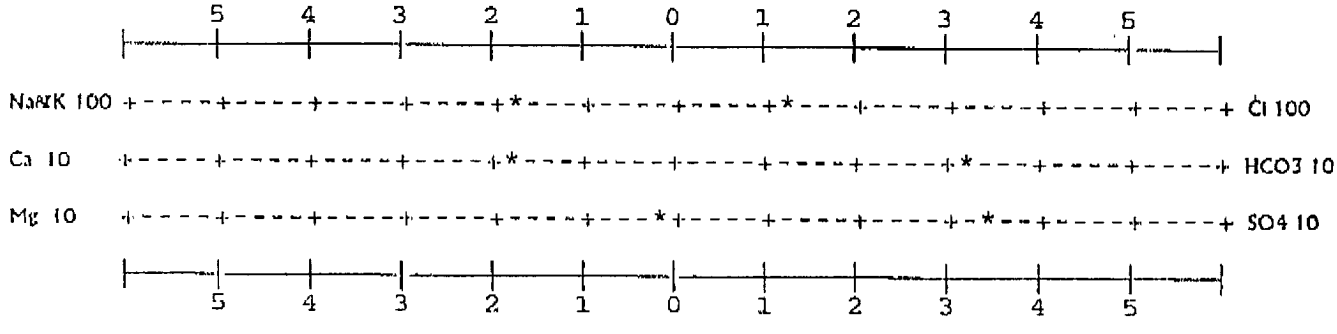
PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY: 1.000 @ 74°F PH: 9.09
RESISTIVITY (MEASURED): 1.400 ohms @ 75°F

IRON (FE++) :	0 ppm	SULFATE:	1,600 ppm
CALCIUM:	360 ppm	TOTAL HARDNESS	1,041 ppm
MAGNESIUM:	34 ppm	BICARBONATE:	2,013 ppm
CHLORIDE:	4,609 ppm	SODIUM CHLORIDE(Calc)	7,582 ppm
SODIUM+POTASS:	4,034 ppm	TOT. DISSOLVED SOLIDS:	13,297 ppm
H2S: GOOD TRACE		POTASSIUM CHLORIDE: 13	

REMARKS

STIFF TYPE PLOT (IN MEQ/L)



ANALYST _____
MIKE LOGAN

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501

FORM C-122-A
REVISED 4-1-91

WELL DELIVERABILITY TEST REPORT 19__91_____

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #7

UNIT LETTER :	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
M	34	29N	6W	NORTHWEST PIPELINE CORP.

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
4.500	4.052	5696	2.375	1.995	5054

GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5054	TO: 5640	CASING:	TUBING: X	0.660	3336

DATE OF FLOW TEST		DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91	TO: 10/27/91	11/04/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
529	489	406	412	-6	83	424

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
418	501	554	544	554	388	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C /	Corrected Volume
205	0.9854	0.9927	Q= 204 MCF/D

WORKING PRESSURE CALCULATION

(1-e-s)	(Fc Qm)2(1000)	R2 =	(1-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.215	3661		788	251001	251489	502

$$D = Q\left(\frac{Pc2 - Pd2}{Pc2 - Pw2}\right)^{n} = 204 \left(\frac{156527}{55127}\right)^{n} = (2.8394)^{n} = 2.1874 = 407 \text{ MCF/D}$$

REMARKS:

RECEIVED
DEC 11 1991
OIL CON. DIV.
DIST. 3

SUMMARY

Item H	418 Psia
Pc	554 Psia
Q	204 MCF/D
Pw	502 Psia
Pd	388 Psia
D	407 MCF/D

COMPANY : PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE: : 12/05/91

FORMATION WATER

Water Analysis Work Sheet

Company: Mallon Oil Co. Sample I.D.: FW01W237

Well: Jic 457-3 #3 Date Sampled: 9/14/98

Submitted By: R. King Date Tested: 9/14/98

Formation: Ojo Alamo Field: East Blanco

Results

pH	6.43	Potassium Chloride: KCl	920
Resistivity (ohms)	0.4	Sodium Chloride: (calc, mg/l)	16663
H2S	0	Temperature	73
Fe +2 : Ferric	50	Sulfate (mg/l)	2167
Specific Gravity	1.015	Fe +3 : Ferrous	0
Bicarbonate : HCO3- (mg/l)	35	Sodium + Potassium (mg/l)	4947
Calcium : Ca +2 (mg/l)	2091	Total Hardness (mg/l)	5816
Chloride : Cl - (mg/l)	10129	Magnesium : Mg +2 (mg/l)	144
Total Dissolved Solids (mg/l)	23095		

Comments:

Test Sample from 3146-3192'

Lab Manager Dave Shepherd

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501

FORM C-122-A
REVISED 4-1-91

WELL DELIVERABILITY TEST REPORT 19__91_____

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #52A

UNIT LETTER :	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
P	34	29N	6W	EPNG

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
4.500	4.052	5662	2.375	1.995	5082

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5082 TO: 5548	CASING:	TUBING: X	0.717	3644

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91 TO: 10/27/91	11/04/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
484	441	407	397	10	34	410

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd=__70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
420	454	518	511	518	363	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
104	1.0252	1.0125	Q= 105 MCF/D

WORKING PRESSURE CALCULATION

(1-e-s)	(Fc Qm)2(1000)	R2 =	(1-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.233	980		228	206116	206344	454

$$D = Q\,(Pc2-Pd2 / Pc2-Pw2)^{n} = 105 \left(\frac{136845}{61980}\right)^{n} = (2.2079)^{n} = 1.8113$$

= 191 MCF/D

REMARKS:

RECEIVED
DEC 11 1991.
OIL CON. DIV.
DIST. 3

SUMMARY

Item H	420 Psia
Pc	518 Psia
Q	105 MCF/D
Pw	454 Psia
Pd	363 Psia
D	191 MCF/D

COMPANY : PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE : 12/05/91

EAST BLANCO

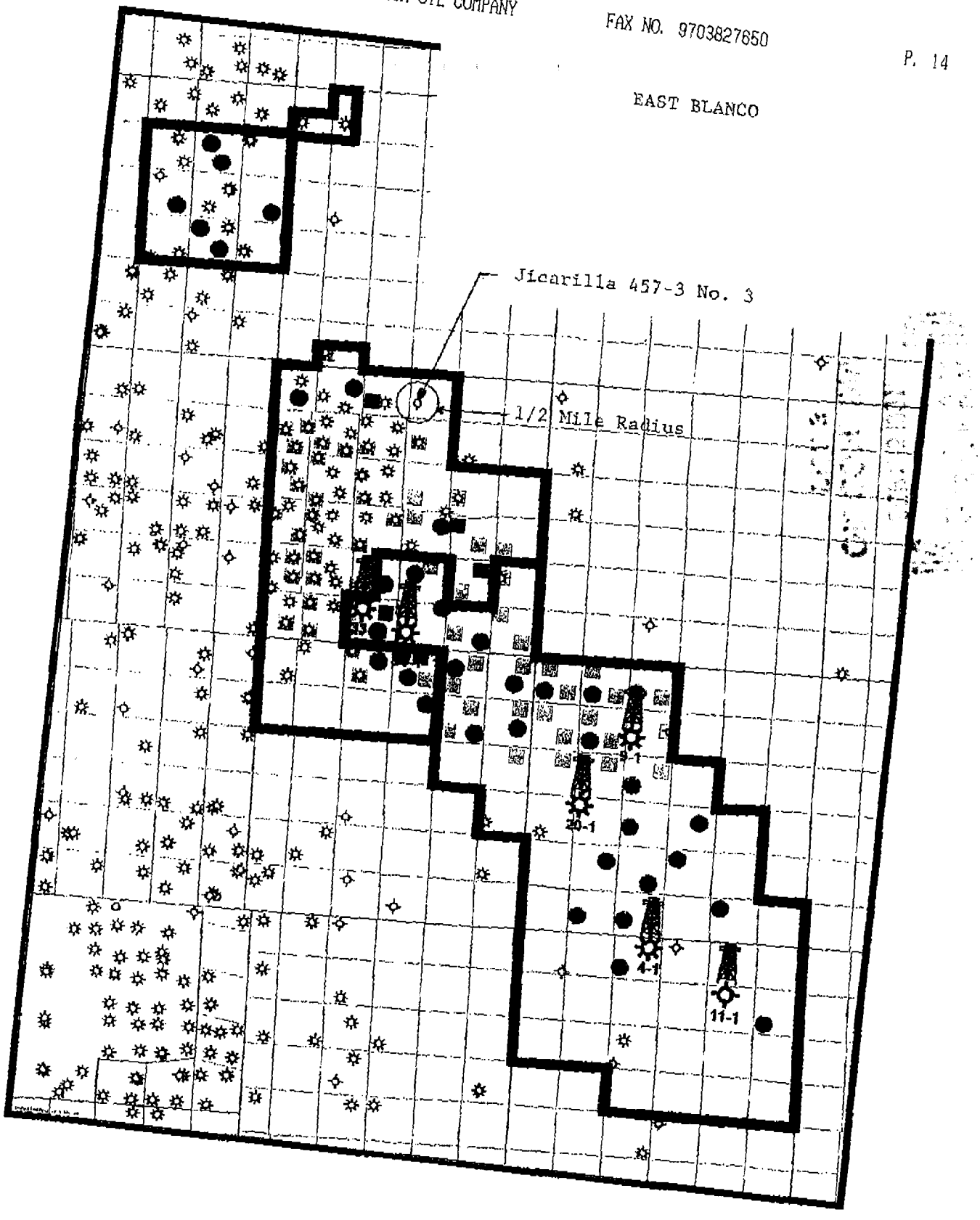


EXHIBIT #pp

RECEIVED
SEP 25 1991
OIL CON. DIV.
DIST. 3

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87504

WELL DELIVERABILITY TEST REPORT FOR 1991

FORM C-122-A
REVISED 4-1-91

POOL NAME:	POOL SLOPE:	FORMATION:	COUNTY:
BLANCO	0.75	MESAVERDE	RIO ARRIBA

COMPANY:	WELL NAME AND NUMBER:
PHILLIPS PETROLEUM COMPANY	SAN JUAN 29-6 #48

UNIT LETTER:	SECTION:	TOWNSHIP:	RANGE:	PURCHASING PIPELINE:
A	35	29N	6W	NORTHWEST PIPELINE CORP.

CASING O.D. - INCHES	CASING I.D - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D - INCHES	TOP - TUBING PERF.- FEET
5.500	5.012	5670	2.375	1.995	5052

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5052 TO: 5626	CASING:	TUBING: X	0.698	3526

DATE OF FLOW TEST		DATE SHUT IN PRESSURE MEASURED:
FROM: 07/15/91	TO: 07/21/91	07/30/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A)Flowing Casing Pressure (DWT)	(B)Flowing Tubing Pressure (DWT)	(C)Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C-Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
444	391	337	343	-6	54	349

(H)Corrected Meter Pressure (g + e)	(I)Avg. wellhead Press. Pt=(h + f)	(J)Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC=Higher value of (J) or (K)	(M) Del.Pressure Pd=__70%__Pc	(N) Separator or Dehydrator Pr.(DWT) for critical flow only.
343	397	528	523	528	370	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C / Item D	Square Root of Item C / Item D	Corrected Volume
90	0.9825	0.9912	Q= 89 MCF/D

WORKING PRESSURE CALCULATION

(l-e -s)	(Fc Qm)2(1000)	R2 = (l-e -s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt2 + R2	Pw = square root of Pw2
0.226	704	159	157609	157768	397

$$D = Q\,(Pc2-Pd2 / Pc2-Pw2)^{n} = 89 \qquad \frac{141884}{121016}^{n} = (1.1724)^{n} = 1.1267 \qquad = 101 \text{ MCF/D}$$

REMARKS:

SUMMARY

Item H	343 Psia
Pc	528 Psia
Q	89 MCF/D
Pw	397 Psia
Pd	370 Psia
D	101 MCF/d

COMPANY: PHILLIPS PETROLEUM COMPANY
BY: Terry Bowker
Terry Bowker
TITLE: Field Tester
COMPANY: Phillips Petroleum Company
DATE: 9-12-91

STATEMENT OF AUTHORIZATION

I, Duane C. Winkler for Mallon Oil Co., hereby authorize Terry Lindeman
injection well owner/operator
to act in my behalf in executing the necessary forms including permit applications, compliance reports, etc., as required under the Environmental Protection Agency Underground Injection Control program.

Signed (owner/operator)

Date: November 30, 1999

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P.O.BOX 2088
SANTA FE, NEW MEXICO 87501

FORM C-122-A
REVISED 4-1-91

WELL DELIVERABILITY TEST REPORT 19__91_____

POOL NAME: BLANCO	POOL SLOPE: 0.75	FORMATION: MESAVERDE	COUNTY: RIO ARRIBA

COMPANY: PHILLIPS PETROLEUM COMPANY	WELL NAME AND NUMBER SAN JUAN 29-6 #49A

UNIT LETTER : E	SECTION: 35	TOWNSHIP: 29N	RANGE: 6W	PURCHASING PIPELINE: NORTHWEST PIPELINE CORP.

CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP TUBING PERF. - FEET
4.500	4.000	5681	2.375	1.995	5100

GAS PAY ZONE	WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM: 5100 TO: 5616	CASING:	TUBING: X	0.720	3672

DATE OF FLOW TEST	DATE SHUT IN PRESSURE MEASURED:
FROM: 10/21/91 TO: 10/27/91	11/04/91

PRESSURE DATA - ALL PRESSURES IN PSIA

(A) Flowing Casing Pressure (DWT)	(B) Flowing Tubing Pressure (DWT)	(C) Flowing Meter Pressure (DWT)	(D) Flow Chart Static Reading	(E) Meter Error (Item C - Item D)	(F) Friction Loss (A-C) OR (B-C)	(G) Average Meter Pressure (Integr.)
471	449	342	350	-8	107	347

(H) Corrected Meter Pressure (g + e)	(I) Avg. Wellhead Press. Pt= (h + f)	(J) Shut-in Casing Pressure (DWT)	(K) Shut-in Tubing Pressure (DWT)	(L) PC = Higher Mtr Value of (J) or (K)	(M) Del. Pressure Pd = __70%__Pc ****	(N) Separator or Dehydrator Pr. (DWT) for critical flow only.
339	446	481	476	481	337	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item C/Item D	Square Root of Item C / Item D	Corrected Volume
189	0.9771	0.9885	Q= 187 MCF/D

WORKING PRESSURE CALCULATION

(1-e-s)	(Fc Qm)2(1000)	R2 =	(1-e-s)(Fc Qm)2(1000)	Pt2 =	Pw2 = Pt + R2	Pw = square root of Pw2
0.234	3086		723	198916	199639	447

$$D = Q\left(\frac{Pc2 - Pd2}{Pc2 - Pw2}\right)^{n} = 187 \left(\frac{117994}{31722}\right)^{n} = (3.7196)^{n} = 2.6784$$

= 374 MCF/D

REMARKS:

SUMMARY

Item H	339 Psia
Pc	481 Psia
Q	187 MCF/D
Pw	447 Psia
Pd	337 Psia
D	374 MCF/D

RECEIVED
DEC 19 1991
OIL CON. DIV.
DIST. 3

COMPANY : PHILLIPS PETROLEUM COMPANY
BY : Terry Bowker
Terry Bowker
TITLE : Field Tester
COMPANY : Phillips Petroleum Company
DATE : 12/17/91

NEW MEXICO STATE LAND OFFICE

IMPROVEMENT DAMAGE BOND FOR OIL & GAS LEASES
MULTI-LEASE (BLANKET) BOND

BOND NO. 9009250
(For use of Surety Company)

BOND NO. _____
(For Land Office Use)

premium $4,000.00

KNOW ALL MEN BY THESE PRESENTS:

That Mallon Oil Company, (an individual) (a partnership) (a corporation organized in the State of Colorado, with its principal office in the City of Denver State of Colorado, and authorized to do business in the State of New Mexico), as PRINCIPAL, and Far West Insurance Company, a corporation organized and existing under the laws of the State of California, and authorized to do business in the State of New Mexico with duly appointed resident agent licensed in the State of New Mexico to execute this bond on behalf of the surety company, as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of the New Mexico State Land Office and its lessees holding grazing or agricultural leases on State trust lands and for the use and benefit of purchasers holding purchase contracts or patents to state lands, with minerals reserved, their grantees and successors in interest, pursuant to Section 19-10-26 NMSA 1978, as amended, in the sum of Twenty Thousand ($20,000.00) lawful money of the United States, for the payment of which well and truly to be made, said PRINCIPAL AND SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that:

WHEREAS, the above principal has heretofore or may hereafter enter into one or more oil and gas leases with the State of New Mexico; and

WHEREAS, said leases were entered into by the said principal, subject to the requirements of the provisions of Section 19-10-26 NMSA 1978, as amended; and

WHEREAS, all or part of the lands embraced in said oil and gas leases have been leased for grazing or agricultural purposes or have been sold, with minerals reserved to the State of New Mexico, to various purchasers who hold limited patents from the State of New Mexico or State purchase contracts; and

WHEREAS, the above principal, individually, or in association with one or more other parties, has commenced or may commence development or operations upon the land embraced in the aforesaid oil and gas lease.

NOW THEREFORE, if the above bounden principal and surety or either of them or their successors or assigns, or any of them, upon demand shall make good and sufficient recompense, satisfaction or payment unto the New Mexico State Land Office and its holders of State grazing or agricultural leases, State purchase contracts, or State patents, with minerals reserved to the State, and their heirs, executors, administrators, successors and assigns, for all damages to livestock, range, water, crops, or tangible improvements on such lands as may be suffered by the New Mexico State Land Office and its lessees and purchasers or their successors in interest, by reason of such development, use or occupancy of such lands by such principal, or for such damages including attorneys' fees as a court of competent jurisdiction may determine and fix in any action brought on this bond.

THEN, THEREFORE, this obligation shall be null and void; otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

SIGNED AND SEALED this 26th day of October, 19 93.

Mallon Oil Company
PRINCIPAL

999 18th St. #1700 Denver, CO 80202
Address

BY [signature]
Signature

Secretary
Title

(Note: Principal, if corporation, affix corporate seal here)

Far West Insurance Company
SURETY

P.O. Box 4500 Woodland Hills, CA 913

BY [signature]
Attorney-in-Fact
Donna W. Coen

(Note: Corporate surety affix corporate seal here)

(ACKNOWLEDGMENTS ON REVERSE SIDE)

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C-115 - Operator's Monthly Report (Continuation Page)

2 Operator: SANTA FE ENERGY RESOURCES INC	3 OGRID: 020305	4 Month/Year 12/96	6 Page 27 of 29

		INJECTION			PRODUCTION				DISPOSITION OF OIL, GAS, AND WATER							
7 POOL NO. AND NAME Property NO.and Name Well No. & U-L-S-T-R API No.	8 CODE 1	9 Volume	10 Pressure	11 CODE 2	12 Barrels of oil/condensate produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 CODE 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on hand at beginning of month	20 Volume (Bbls/mcf)	21 Transporter OGRID	22 CODE 4	23 Oil on hand at end of month
84640 SAND DUNES ATOKA, WEST (GAS)																
016656 PURE GOLD C-17 FED BATTERY																
002 G-17-23S-31E																
30-015-26021	F				1	18	11935	29								
									O	2806858		97				98
									G	2246630	1088		11548	139633		
									G				387		U	
016657 PURE GOLD "C" FEDERAL #1																
001 N-17-23S-31E																
30-015-23992	F				12	687	11033	31								
									O	2246710		75				87
									G	2246730	1037		11033	032109		
									W	2246750			787			
016662 STERLING SILVER 33 FEDERAL																
001 E-33-23S-31E																
03-015-25639	F				0	17	15248	30								
									O	2806868		53				53
									G	2246830	1030		15128	032109		
									G				120		U	
									W	2246850			80			
016664 STERLING SILVER 3 FED																
001 E-03-24S-31E																
30-015-25831	P				87	12	15405	31								
									O	2817874		184				81
									O	2817874	56.5		190	037480		
									G	2245530	1236		15199	017741		
									G				206		U	
016700 P.G. 4 FEDERAL #1																
001 C-09-23S-31E																
30-015-26509	F				0	240	3619	31								
									G	2248530	1070		3516	032109		
									G				103		U	
									W	2248550			287			

(Note: If corporate surety executes this bond by an attorney-in-fact not in New Mexico, the resident New Mexico agent shall countersign here below.)

Countersigned by:

New Mexico Resident Agent — Address

ACKNOWLEDGMENT FORM FOR NATURAL PERSONS

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 19____, before me personally appeared _____, to me known to be the person (s) described in and who executed the same as his (their) free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the date and year in this certificate first above written.

My Commission Expires — Notary Public

ACKNOWLEDGMENT FORM FOR CORPORATION

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 19____, before me personally appeared _____, to me personally known who, being by me duly sworn, did say that he is _____ of _____ and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

My Commission Expires — Notary Public

ACKNOWLEDGMENT FORM FOR CORPORATE SURETY

STATE OF Colorado)
) ss.
COUNTY OF Denver)

On this 26th day of October, 19 93, before me appeared Donna W. Coen, to me personally known, who, being by me duly sworn, did say that he is Attorney-in-fact of Far West Insurance Company and that the foregoing instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

6-7-96
My Commission Expires

Natalie A West
Notary Public

(Note: Corporate surety attach power of attorney)

APPROVED this _____ day of _____, 19____.

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COMMISSIONER OF PUBLIC LANDS

NOTE: File with Commissioner of Public Lands, P. O. Box 1148, New Mexico State Land Office Building, Santa Fe.

C-115 - Operator's Monthly Report (Continuation Page)

2 Operator: SANTA FE ENERGY RESOURCES INC	3 OGRID: 020305	4 Month/Year 12/96	6 Page 28 of 29

		INJECTION			PRODUCTION				DISPOSITION OF OIL, GAS, AND WATER							
7 POOL NO. AND NAME Property NO.and Name Well No. & U-L-S-T-R API No.	8 CODE 1	9 Volume	10 Pressure	11 CODE 2	12 Barrels of oil/condensate produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 CODE 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on hand at beginning of month	20 Volume (Bbls/mcf)	21 Transporter OGRID	22 CODE 4	23 Oil on hand at end of month
84720 SAND DUNES MORROW, WEST (GAS)																
016655 NORTH PURE GOLD 8 FED																
001 I-08-23S-31E																
30-015-26296	F				12	33	34109	31								
									O	2806866		18				30
									G	2245230	1028		33695	139633		
									G				414		U	
016661 STERLING SILVER 34 FEDERAL																
001 E-34-23S-31E																
30-015-25773	F				0	0	3977	31								
									G	2244830	1041		3884	032109		
									G				93		U	
016662 STERLING SILVER 33 FEDERAL																
002 G-33-23S-31E																
30-015-25696	F				0	0	6722	30								
									G	2246930	1035		6722	032109		
87600 WINCHESTER, MORROW GAS																
018919 FORT SEDGEWICK 26 STATE COM																
001 C-26-19S-28E																
30-015-28959	F				0	0	897	29								
									O	2818504		21				21
									G	2818026	1072		781	032109		
									G				116		U	
96464 CORRAL CANYON DELAWARE, N.																
017409 CORRAL FLY UNIT WELL #1																
001 G-02-25S-29E																
30-015-28576	P				676	607	424	30								
									O	2816911		635				582
									O	2816911	37.0		729	022507		
									G				160		U	
									G				264		V	
									W	2816913			610			

POWER NUMBER
FW07745
BOND NUMBER
9009250
This Power of Attorney has been delivered in connection with the above bond number.

Amwest
Far West Insurance Company
P.O. Box 4500, Woodland Hills, CA 91365-4500
Tel: (818) 704-1111

LIMITED POWER OF ATTORNEY
(READ CAREFULLY)
To be used only in conjunction with the bond specified herein.

VOID IF NOT USED BY
JUNE 1, 1994
No Power of Attorney on this form shall be valid as to bonds, undertakings, recognizances or other written obligations in the nature thereof executed on or after said expiration date.

NAME OF PRINCIPAL: Mallon Oil Company PENAL SUM $ 20,000.00

NAME OF OBLIGEE: State of New Mexico

This Power of Attorney may not be used in conjunction with any other power of attorney. This Power of Attorney is void if altered or erased. This document is printed on Gray paper with black and red ink. This power of attorney bears a raised seal of FAR WEST INSURANCE COMPANY. Only originals of this Power of Attorney are valid. No representations or warranties regarding this Power of Attorney may be made by any person other than an authorized officer of FAR WEST INSURANCE COMPANY, and must be in writing. Questions or inquiries regarding this Power of Attorney must be addressed to FAR WEST INSURANCE COMPANY at the address and telephone number set forth at the top of this Power of Attorney, Attention: Underwriting Department. This Power of Attorney shall be governed by the laws of the State of California. Any power of attorney used in connection with any bond issued by FAR WEST INSURANCE COMPANY on or after July 1, 1990 must be on Far West Form UN-F1007 (Rev. 7/90). All other previous power of attorney forms issued by FAR WEST INSURANCE COMPANY have been revoked and are of no further force or effect.

KNOW ALL MEN BY THESE PRESENTS, that FAR WEST INSURANCE COMPANY, A CALIFORNIA CORPORATION, (the "Company"), does hereby make, constitute and appoint

Donna W. Coen

its true and lawful Attorney(s)-in-Fact, with limited power and authority for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto if a seal is required, bonds, undertakings, recognizances or other written obligations in the nature thereof, as follows:

License & Permit Bonds Up To $1,000,000.00

and to bind FAR WEST INSURANCE COMPANY thereby. This appointment is made under and by authority of the following provisions of the By-Laws of the Company which are now in full force and effect:

Article II, Section 7 of the By-Laws of FAR WEST INSURANCE COMPANY

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of FAR WEST INSURANCE COMPANY at a meeting duly held on July 28, 1983:

RESOLVED that the president or any vice-president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any power of attorney previously granted to such person.

RESOLVED FURTHER that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the company

(i) when signed by the president or any vice-president and attested and sealed (if a seal be required) by any secretary or assistant secretary; or

(ii) when signed by the president or any vice-president or secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or

(iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the power of attorney issued by the company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, FAR WEST INSURANCE COMPANY has caused these presents to be signed by its proper officers, and its corporate seal to be hereunto affixed this 1 day of June 19 92.

John E. Savage, President — Karen G. Cohen, Secretary

State of California
County of Los Angeles

On June 1, 1992 before me, Peggy B. Lofton (here insert name) Notary Public, personally appeared John E. Savage and Karen G. Cohen personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me all that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Peggy B. Lofton (Seal)

OFFICIAL SEAL
PEGGY B. LOFTON
Notary Public-California
LOS ANGELES COUNTY
My Commission Expires
July 26, 1995

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES—ss.

CERTIFICATE

I, the undersigned, _____ secretary of the FAR WEST INSURANCE COMPANY, a California corporation, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked, and furthermore, that the provisions of the By-Laws of the Company and the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

Signed and sealed at Denver, CO this 26th day of October 19 93

C-115 - Operator's Monthly Report (Continuation Page)

2 Operator: SANTA FE ENERGY RESOURCES INC	3 OGRID: 020305	4 Month/Year 12/96	6 Page 29 of 29

		INJECTION			PRODUCTION				DISPOSITION OF OIL, GAS, AND WATER							
7 POOL NO. AND NAME Property NO.and Name Well No. & U-L-S-T-R API No.	8 CODE 1	9 Volume	10 Pressure	11 CODE 2	12 Barrels of oil/condensate produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 CODE 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on hand at beginning of month	20 Volume (Bbls/mcf)	21 Transporter OGRID	22 CODE 4	23 Oil on hand at end of month
017926 CORRAL FLY 11 STATE #1																
001 A-11-25S-29E 30-015-28716	P				324	690	30	31								
									O	2817106		184				508
									G				30		V	
									W	2817161			610			
96568 WILDCAT 22N6W32N; GALLUP (G) 010009 STATE 23-22-6 #14																
014 N-32-22N-06W 30-043-20749	S				0	0	0	00								
96665 WILDCAT 018928 GAUCHO UNIT																
001 G-29-22S-34E 30-025-33440	F				171	36	32043	31								
									O	2818448						171
									G	2818449	1059		31423	032109		
									G				620		U	
96109 SWD; GRAYBURG DELAWARE 016624 SHINNERY #5 (SWD)																
005 H-14-18S-32E 30-025-30719	S			W	0	0	0									

Jicarilla 457-3 No. 3

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
811 South First, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

OPERATOR'S MONTHLY REPORT

Form C-115 First Page
Revised May 1995

1 [X] Amended Report

2 Operator: SANTA FE ENERGY RESOURCES INC

3 OGRID: 020305

4 Month/Year 11/96

5 Address: 550 W. TEXAS SUITE 1330 MIDLAND, TEXAS 79701

6 Page 1 of 1

		INJECTION			PRODUCTION				DISPOSITION OF OIL, GAS, AND WATER							
7 POOL NO. AND NAME Property NO. and Name Well No. & U-L-S-T-R API No.	8 CODE 1	9 Volume	10 Pressure	11 CODE 2	12 Barrels of oil/condensate produced	13 Barrels of water produced	14 MCF Gas Produced	15 Days Produced	16 CODE 3	17 Point of Disposition	18 Gas BTU or Oil API Gravity	19 Oil on hand at beginning of month	20 Volume (Bbls/mcf)	21 Transporter OGRID	22 CODE 4	23 Oil on hand at end of month
50373 UNDES PIERCE CROSSING WOLFCAMP 016663 MALAGA 1 FEDERAL COM 001 N-01-24S-28E 30-015-26249	S				0	0	0	00	0	2818532		101				101

I hereby certify that the information contained in this report is true and complete to the best of my knowledge.

24 Edward Mackey
Signature

EDWARD MACKEY , SR.PRODUCTION CLERK
Printed Name & Title

02/10/97
Date

915-686-6732
Phone Number