



April 30, 1996

Mr. Frank Chavez
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

50 Road 4990
P.O. Box 159
Bloomfield, New Mexico 87413
505
632-8013

**Re: Workover Report, Giant Refining Company - Bloomfield WD-1
San Juan County, New Mexico**

RECEIVED
MAY - 2 1996
OIL CON. DIV.
DIST. 3

Dear Mr. Chavez:

Giant Refining Company - Bloomfield (Giant) submits the summary of the workover activities, including the sand fracture, for its Class 1 Injection Well, including the Workover and Completion Report by Mr. Paul Thompson of Walsh Engineering and Production, Incorporated, who was the supervising consultant for the workover.

Drake Drilling Rig #22 was moved onto the site on March 1, 1996 and rigged up. The 2 7/8" production tubing was pulled using a snubbing unit from Live Well service. A WSI tree saver was rigged up and the well was sand fractured by BJ Services using 153,940 pounds of 20/40 Arizona sand. After the frac job, the WSI tree saver and BJ Services were rigged down and the well was shut in for two days to allow for normalizing. The well was flowed back on March 4, 1996 but the pressure did not drop enough to trip in with the 2 3/8" work string. Live Well Service rigged up on March 5, 1996 and tripped into hole with 2 3/8" work string. Sand was circulated out. Started trip out of hole with 2 3/8" work string. Finish TOH on March 6, 1996 and trip in with 2 7/8" production tubing. Set Packer at 3221' KB. Pumped 20 bbl packer fluid into annulus prior to setting packer and set donut. Pressure tested annulus to 1200 psi, packer held. Rig down Live Well and BOP. Nipple up wellhead.

The Step Rate Injection Test and the Mechanical Integrity Test were performed on March 7, 1996 and were witnessed by Mr. Ernie Busch of your office. Copies of the Tefteller data and the graph by Paul Thompson are included for your perusal.

If you require additional information, please do not hesitate to contact me at (505) 632 8013.

Sincerely:

Lynn Shelton
Environmental Manager
Giant Refining Company - Bloomfield

Enclosures

cc: John Stokes, Refinery Manager, Giant Refining Company - Bloomfield
Mark Ashley, NM OCD, Santa Fe

WALSH ENGINEERING AND PRODUCTION

WORKOVER AND COMPLETION REPORT

Operator: Giant Bloomfield Refinery Well Name: SWD #1
Date: March 1, 1996 Report No.: 1
Field: Blanco Mesa Verde Location: SE 27 29N 11W
Contractor: Drake Rig #22 Supervisor: Paul Thompson

Work Summary:

Move on location and rig up Drake #22. Tefteller set tubing plug in "F" nipple. ND wellhead and NU BOP. Rig up Live Well Service. Release packer and TOH with 97 joints of 2-7/8" cement lined tubing and Mt. States 5-1/2" packer. Rig down Live Well Service and rig up WSI tree saver and BJ. Initial wellhead pressure was 770#. Fraced well with 20,000 gal. pad of slick water followed by 153,900# of 20/40 sand at 1/2 - 2 ppg. Job completed at 1830 hrs. 3/1/96. ISIP = 750#, 5 min. = 720#, 10 min. = 710#. 15 min. = 710#. AIR = 65 BPM, MIR = 66 BPM, ATP = 1500#, MTP = 1770#. Total fluid = 2937 bbls. All water contained 0.5 gal/1000 of friction reducer and biocide. Rig down WSI and BJ. Shut well in for the weekend.

Daily Costs:

Roads and Loc.:	0
Rig Costs:	2,200
Snubbing Unit:	2,615
Rig Move:	700
Frac:	28,326
Packers, BPs,:	300
Acid:	0
Water:	1,000
Bits and Mills:	0
Permits:	0
Supervision:	365
Trucking:	0
Drill Collars:	0

Tubulars:	0
Wellhead Equip.: WSI	2,081
Subsurface Equip.:	0
Artificial Lift Eq.:	0
Sucker Rods:	0
Tanks Rental:	1,200
Separators, Dehys:	0
Flowlines:	0
Installation/Labor:	0
Fittings, Valves, ect.:	0
Meters, LACT, ect.:	0
Electrical Equip.:	0
Misc.:	0
Total Daily Cost:	38,787
Cumulative Cost:	38,787

WALSH ENGINEERING AND PRODUCTION

WORKOVER AND COMPLETION REPORT

Operator: Giant Bloomfield Refinery Well Name: SWD #1
Date: March 4, 1996 Report No.: 2
Field: Blanco Mesa Verde Location: SE 27 29N 11W
Contractor: Drake Rig #22 Supervisor: Paul Thompson

Work Summary:

SICP = 660#. Flowed well to frac tanks to relieve pressure. Flowed 2000 bbls of water with some sand to frac tanks. Casing pressure dropped to 240# but still could not push 2-3/8" tubing into the well. Shut in well. Will snub in tubing 3/5/96.

Daily Costs:

Roads and Loc.:	0	Tubulars:	0
Rig Costs:	1,350	Wellhead Equip.:	0
Snubbing Unit:	0	Subsurface Equip.:	0
Rig Move:	0	Artificial Lift Eq.:	0
Frac:	0	Sucker Rods:	0
Packers, BPs,:	0	Tanks Rental:	0
Acid:	0	Separators, Dehys:	0
Water:	1,500	Flowlines:	0
Bits and Mills:	0	Installation/Labor:	0
Permits:	0	Fittings, Valves, ect.:	0
Supervision:	234	Meters, LACT, ect.:	0
Trucking:	0	Electrical Equip.:	0
Drill Collars:	0	Misc.:	0
		Total Daily Cost:	3,084
		Cumulative Cost:	41,871

WALSH ENGINEERING AND PRODUCTION

WORKOVER AND COMPLETION REPORT

Operator: Giant Bloomfield Refinery Well Name: SWD #1
Date: March 5, 1996 Report No.: 3
Field: Blanco Mesa Verde Location: SE 27 29N 11W
Contractor: Drake Rig #22 Supervisor: Paul Thompson

Work Summary:

SICP = 650#. Rigged up Live Well Service. Snubbed in hole with 2-3/8" workstring with notched collar and string float on bottom. Tagged sand at 3343'KB. Cleaned out sand to PBDT at 3525'KB. Circulated conventional to flow back tanks. Pumped 100 bbls of water down the tubing at PBDT to clean the annulus. Well was making very little sand. Shut in well and start TOH with tubing with snubbing unit. Shut down for snubbing unit repairs with 6 joints of 2-3/8" tubing in the hole.

Daily Costs:

Roads and Loc.:	0	Tubulars:	0
Rig Costs:	1,850	Wellhead Equip.:	0
Snubbing Unit:	3,000	Subsurface Equip.:	0
Rig Move:	0	Artificial Lift Eq.:	0
Frac:	0	Sucker Rods:	0
Packers, BPs,:	0	Tanks Rental:	300
Acid:	0	Separators, Dehys:	0
Water:	1,000	Flowlines:	0
Bits and Mills:	0	Installation/Labor:	0
Permits:	0	Fittings, Valves, ect.:	0
Supervision:	365	Meters, LACT, ect.:	0
Trucking:	0	Electrical Equip.:	0
Drill Collars:	0	Misc.:	0
		Total Daily Cost:	6,515
		Cumulative Cost:	48,386

WALSH ENGINEERING AND PRODUCTION

WORKOVER AND COMPLETION REPORT

Operator: Giant Bloomfield Refinery Well Name: SWD #1
Date: March 6, 1996 Report No.: 4
Field: Blanco Mesa Verde Location: SE 27 29N 11W
Contractor: Drake Rig #22 Supervisor: Paul Thompson

Work Summary:

SICP = 630#. Finish TOH and lay down 2-3/8" workstring. Add 2' spool to BOP stack. Picked up 5-1/2" X 2-7/8" Mt. States Arrowset 1 packer on 97 joints (3202.92') of 2-7/8", 6.5#, J-55, EUE cement lined tubing. Set packer at 3221'KB. Pumped 20 gal. of packer fluid into annulus prior to setting packer. Set donut in wellhead and pressure tested annulus to 1200# held OK. Rig down Live Well service. Nipple down BOP and nipple up wellhead. Tefteller retrieved tubing plug. Prepare for step rate injection test 3/7/96.

Daily Costs:

Roads and Loc.:	0
Rig Costs:	2,000
Snubbing Unit:	2,851
Rig Move:	500
Frac:	0
Packers, BPs,:	1,250
Packer Fluid:	225
Water:	0
Bits and Mills:	0
Permits:	0
Supervision:	365
Trucking:	300
Drill Collars:	0

Tubulars:	0
Wellhead Equip.:	0
Subsurface Equip.:	0
Artificial Lift Eq.:	0
Sucker Rods:	0
Tanks Rental:	0
Separators, Dehys:	0
Flowlines:	0
Installation/Labor:	0
Fittings, Valves, ect.:	0
Meters, LACT, ect.:	0
Electrical Equip.:	0
Misc.:	0
Total Daily Cost:	7,491
Cumulative Cost:	55,877

WALSH ENGINEERING AND PRODUCTION

WORKOVER AND COMPLETION REPORT

Operator: Giant Bloomfield Refinery Well Name: SWD #1
Date: March 7, 1996 Report No.: 5
Field: Blanco Mesa Verde Location: SE 27 29N 11W
Contractor: Supervisor: Paul Thompson

Work Summary:

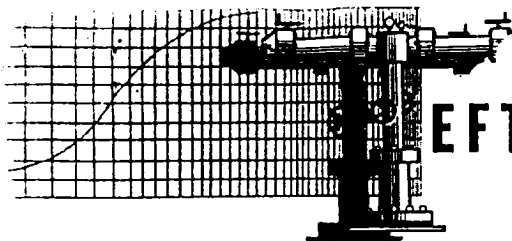
SITP = 640#. Run Tefteller bottom hole pressure gauge to mid pint of the perms at 3400". Rig up BJ pumping equipment. Run step rate injection test from 0.5 to 5.5 BPM using fresh water. Maximum surface treating pressure was 1460#. Pulled pressure gauges. Ran mechanical integrity test on 2-7/8" X 5-1/2" annulus. Held 350 # for 30 min. Both tests witnessed by Mr. Ernie Busch of the NMOCD. Rigged down BJ. Initial pressure on the bradenhead was 350#. Blew well down to slight vent in 10 min. Left bradenhead valve open.

FINAL REPORT

Daily Costs:

Roads and Loc.:	0	Tubulars:	0
Rig Costs:	0	Wellhead Equip.:	0
Snubbing Unit:	0	Subsurface Equip.:	0
Rig Move:	0	Artificial Lift Eq.:	0
Pump Trucks:	1,521	Sucker Rods:	0
Packers, BPs,:	0	Tanks Rental:	0
BHP Gauges:	1,056	Separators, Dehys:	0
Water:	0	Flowlines:	0
Bits and Mills:	0	Installation/Labor:	0
Permits:	0	Fittings, Valves, ect.:	0
Supervision:	278	Meters, LACT, ect.:	0
Trucking:	0	Electrical Equip.:	0
Drill Collars:	0	Misc.:	0
		Total Daily Cost:	2,855
		Cumulative Cost:	58,732

[illegible]



HP • BU • PI • DO • GWT • RFS • GOR • FL • TS

EFTELLER, INC.

reservoir engineering data

FARMINGTON, NEW MEXICO / MIDLAND, TEXAS
GRAND JUNCTION, COLORADO

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(505) 325-1731

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Grand Junction Fax (303) 241-7634

GIANT REFINING

SWD (CLASS 1) NO. WD-1

MARCH 7, 1996

Serving the Rocky Mountain Area & Permian Basin Area

COMPANY: GIANT REFINING

PAGE 1 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	07:46:00	.0000	.01	67.58		
03/07	08:16:30	.5083	.47	46.90		
03/07	08:19:00	.5500	.89	44.34		
03/07	08:19:15	.5542	.93	44.16		
03/07	08:22:00	.6000	1.35	41.84		
03/07	08:22:15	.6042	1.38	41.69		
03/07	08:27:00	.6833	1.78	38.85		
03/07	08:27:15	.6875	1.81	38.73		
03/07	08:38:15	.8708	2.04	36.47		
03/07	08:38:30	.8750	8.77	36.51		
03/07	08:38:45	.8792	701.41	36.53		
03/07	08:39:00	.8833	667.26	36.55		
03/07	08:39:15	.8875	654.50	36.58		
03/07	08:39:30	.8917	663.26	36.60		
03/07	08:39:45	.8958	686.24	36.63		
03/07	08:39:48	.8969	690.35	36.72		
03/07	08:39:52	.8979	702.55	36.85		
03/07	08:39:56	.8990	711.16	36.99		
03/07	08:40:00	.9000	714.85	37.12		
03/07	08:40:03	.9010	722.01	37.25		
03/07	08:40:07	.9021	730.35	37.38		
03/07	08:40:11	.9031	736.44	37.52		
03/07	08:40:15	.9042	741.33	37.65		
03/07	08:40:18	.9052	748.88	37.78		
03/07	08:40:22	.9063	757.63	37.91		
03/07	08:40:26	.9073	762.79	38.05		
03/07	08:40:30	.9083	769.41	38.18		
03/07	08:40:33	.9094	775.09	38.33		
03/07	08:40:37	.9104	780.64	38.52		
03/07	08:40:41	.9115	784.19	38.70		
03/07	08:40:45	.9125	790.41	38.88		
03/07	08:40:48	.9135	796.62	39.07		
03/07	08:40:52	.9146	800.84	39.25		
03/07	08:40:56	.9156	806.92	39.43		
03/07	08:41:00	.9167	814.99	39.61		
03/07	08:41:03	.9177	824.66	39.80		
03/07	08:41:07	.9187	833.53	39.98		
03/07	08:41:11	.9198	841.07	40.17		
03/07	08:41:15	.9208	848.88	40.35		
03/07	08:41:18	.9219	857.74	40.55		
03/07	08:41:22	.9229	864.35	40.76		
03/07	08:41:26	.9240	869.89	40.97		
03/07	08:41:30	.9250	877.29	41.19		
03/07	08:41:33	.9260	884.43	41.40		
03/07	08:41:37	.9271	891.04	41.61		
03/07	08:41:41	.9281	897.11	41.83		
03/07	08:41:45	.9292	905.31	42.04		
03/07	08:41:48	.9302	908.99	42.25		
03/07	08:41:52	.9312	915.33	42.46		
03/07	08:41:56	.9323	921.93	42.68		
03/07	08:42:00	.9333	927.21	42.89		
03/07	08:42:03	.9344	933.15	43.10		
03/07	08:42:07	.9354	937.36	43.32		
03/07	08:42:11	.9365	944.23	43.55		
03/07	08:42:15	.9375	948.84	43.78		
03/07	08:42:18	.9385	955.17	43.99		
03/07	08:42:22	.9396	960.71	44.22		
03/07	08:42:26	.9406	967.58	44.45		
03/07	08:42:30	.9417	973.12	44.67		
03/07	08:42:33	.9427	977.06	44.90		
03/07	08:42:37	.9438	983.13	45.12		
03/07	08:42:41	.9448	989.47	45.35		
03/07	08:42:45	.9458	995.00	45.58		
03/07	08:42:48	.9469	1001.34	45.80		
03/07	08:42:52	.9479	1007.67	46.03		

COMPANY: GIANT REFINING

PAGE 2 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	08:42:56	.9490	1015.20	46.25		
03/07	08:43:00	.9500	1023.40	46.48		
03/07	08:43:03	.9510	1031.72	46.71		
03/07	08:43:07	.9521	1039.52	46.94		
03/07	08:43:11	.9531	1046.79	47.16		
03/07	08:43:15	.9542	1052.98	47.39		
03/07	08:43:18	.9552	1059.32	47.61		
03/07	08:43:22	.9563	1066.45	47.84		
03/07	08:43:26	.9573	1072.12	48.07		
03/07	08:43:30	.9583	1081.64	48.30		
03/07	08:43:33	.9594	1085.05	48.51		
03/07	08:43:37	.9604	1089.92	48.74		
03/07	08:43:41	.9615	1097.45	48.97		
03/07	08:43:45	.9625	1104.18	49.19		
03/07	08:43:48	.9635	1112.63	49.42		
03/07	08:43:52	.9646	1119.90	49.65		
03/07	08:43:56	.9656	1129.02	49.88		
03/07	08:44:00	.9667	1137.34	50.10		
03/07	08:44:03	.9677	1146.06	50.33		
03/07	08:44:07	.9688	1154.25	50.55		
03/07	08:44:11	.9698	1161.78	50.78		
03/07	08:44:15	.9708	1171.30	51.00		
03/07	08:44:18	.9719	1179.75	51.23		
03/07	08:44:22	.9729	1186.61	51.46		
03/07	08:44:26	.9740	1194.67	51.69		
03/07	08:44:30	.9750	1201.93	51.91		
03/07	08:44:33	.9760	1211.04	52.14		
03/07	08:44:37	.9771	1216.04	52.36		
03/07	08:44:41	.9781	1227.55	52.59		
03/07	08:44:45	.9792	1236.40	52.81		
03/07	08:44:48	.9802	1244.45	53.04		
03/07	08:44:52	.9812	1251.71	53.27		
03/07	08:44:56	.9823	1260.69	53.49		
03/07	08:45:00	.9833	1268.35	53.72		
03/07	08:45:03	.9844	1275.47	53.93		
03/07	08:45:07	.9854	1286.05	54.16		
03/07	08:45:11	.9865	1292.10	54.40		
03/07	08:45:15	.9875	1300.29	54.63		
03/07	08:45:18	.9885	1308.87	54.86		
03/07	08:45:22	.9896	1316.65	55.09		
03/07	08:45:26	.9906	1323.37	55.31		
03/07	08:45:30	.9917	1329.69	55.54		
03/07	08:45:33	.9927	1339.60	55.78		
03/07	08:45:37	.9937	1340.87	56.01		
03/07	08:45:41	.9948	1342.81	56.24		
03/07	08:45:45	.9958	1350.46	56.47		
03/07	08:45:48	.9969	1354.65	56.71		
03/07	08:45:52	.9979	1353.14	56.94		
03/07	08:45:56	.9990	1363.44	57.18		
03/07	08:46:00	1.0000	1378.65	57.41		
03/07	08:46:03	1.0010	1385.90	57.65		
03/07	08:46:07	1.0021	1393.14	57.88		
03/07	08:46:11	1.0031	1404.51	58.12		
03/07	08:46:15	1.0042	1414.27	58.35		
03/07	08:46:18	1.0052	1424.17	58.59		
03/07	08:46:22	1.0063	1432.48	58.82		
03/07	08:46:26	1.0073	1443.97	59.06		
03/07	08:46:30	1.0083	1458.25	59.30		
03/07	08:46:33	1.0094	1467.22	59.54		
03/07	08:46:37	1.0104	1475.79	59.78		
03/07	08:46:41	1.0115	1489.80	60.02		
03/07	08:46:45	1.0125	1502.61	60.27		
03/07	08:46:48	1.0135	1511.57	60.51		
03/07	08:46:52	1.0146	1518.94	60.75		
03/07	08:46:56	1.0156	1527.91	61.00		

COMPANY: GIANT REFINING

PAGE 3 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	08:47:00	1.0167	1537.13	61.24		
03/07	08:47:03	1.0177	1547.95	61.48		
03/07	08:47:07	1.0187	1557.84	61.73		
03/07	08:47:11	1.0198	1568.40	61.97		
03/07	08:47:15	1.0208	1576.56	62.21		
03/07	08:47:18	1.0219	1587.77	62.46		
03/07	08:47:22	1.0229	1598.06	62.71		
03/07	08:47:26	1.0240	1605.15	62.96		
03/07	08:47:30	1.0250	1614.24	63.22		
03/07	08:47:33	1.0260	1623.59	63.47		
03/07	08:47:37	1.0271	1633.34	63.72		
03/07	08:47:41	1.0281	1640.57	63.98		
03/07	08:47:45	1.0292	1650.18	64.23		
03/07	08:47:48	1.0302	1659.53	64.48		
03/07	08:47:52	1.0313	1670.74	64.74		
03/07	08:47:56	1.0323	1679.95	64.99		
03/07	08:48:00	1.0333	1690.63	65.24		
03/07	08:48:03	1.0344	1701.82	65.51		
03/07	08:48:07	1.0354	1713.16	65.78		
03/07	08:48:11	1.0365	1723.16	66.05		
03/07	08:48:15	1.0375	1732.36	66.32		
03/07	08:48:18	1.0385	1744.75	66.60		
03/07	08:48:22	1.0396	1756.47	66.87		
03/07	08:48:26	1.0406	1766.47	67.14		
03/07	08:48:30	1.0417	1775.01	67.41		
03/07	08:48:33	1.0427	1785.41	67.68		
03/07	08:48:37	1.0438	1795.01	67.95		
03/07	08:48:41	1.0448	1805.93	68.22		
03/07	08:48:45	1.0458	1816.59	68.50		
03/07	08:48:48	1.0469	1822.47	68.79		
03/07	08:48:52	1.0479	1832.72	69.08		
03/07	08:48:56	1.0490	1842.30	69.38		
03/07	08:49:00	1.0500	1845.52	69.67		
03/07	08:49:03	1.0510	1854.97	69.97		
03/07	08:49:07	1.0521	1865.22	70.27		
03/07	08:49:11	1.0531	1875.73	70.56		
03/07	08:49:15	1.0542	1886.24	70.86		
03/07	08:49:18	1.0552	1898.08	71.15		
03/07	08:49:22	1.0562	1910.84	71.44		
03/07	08:49:26	1.0573	1922.81	71.74		
03/07	08:49:30	1.0583	1934.11	72.04		
03/07	08:49:33	1.0594	1945.94	72.33		
03/07	08:49:37	1.0604	1958.46	72.56		
03/07	08:49:41	1.0615	1969.38	72.79		
03/07	08:49:45	1.0625	1981.11	73.01		
03/07	08:49:48	1.0635	1993.35	73.24		
03/07	08:49:52	1.0646	2006.27	73.47		
03/07	08:49:56	1.0656	2018.25	73.70		
03/07	08:50:00	1.0667	2030.23	73.92		
03/07	08:50:03	1.0677	2043.80	74.16		
03/07	08:50:07	1.0688	2056.71	74.38		
03/07	08:50:11	1.0698	2069.88	74.61		
03/07	08:50:15	1.0708	2081.20	74.84		
03/07	08:50:18	1.0719	2091.21	75.01		
03/07	08:50:22	1.0729	2100.81	75.20		
03/07	08:50:26	1.0740	2109.89	75.39		
03/07	08:50:30	1.0750	2115.12	75.58		
03/07	08:50:33	1.0760	2118.09	75.77		
03/07	08:51:22	1.0896	2118.23	78.56		
03/07	08:51:41	1.0948	2117.88	79.80		
03/07	08:51:45	1.0958	2117.79	80.09		
03/07	08:52:00	1.1000	2117.44	81.15		
03/07	08:52:03	1.1010	2117.36	81.42		
03/07	08:52:18	1.1052	2117.08	82.47		
03/07	08:52:22	1.1063	2116.73	82.74		

INSTRUMENT @ 3400'

COMPANY: GIANT REFINING

PAGE 4 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	hhhh.hhhh	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
03/07	08:53:15	1.1208	2116.67	86.12		
03/07	08:54:15	1.1375	2117.04	89.75		
03/07	08:54:45	1.1458	2117.29	91.56		
03/07	08:55:00	1.1500	2117.51	92.47		
03/07	08:55:48	1.1635	2117.64	95.13		
03/07	08:56:37	1.1771	2117.93	97.22		
03/07	08:57:30	1.1917	2118.04	99.00		
03/07	08:58:30	1.2083	2118.34	100.51		
03/07	08:59:30	1.2250	2118.45	102.04		
03/07	09:00:30	1.2417	2118.53	103.26		
03/07	09:01:30	1.2583	2118.79	104.02		
03/07	09:02:30	1.2750	2118.71	104.78		
03/07	09:03:30	1.2917	2118.77	105.37		
03/07	09:04:30	1.3083	2118.81	105.75		
03/07	09:05:30	1.3250	2118.86	106.12		
03/07	09:06:30	1.3417	2118.90	106.41		
03/07	09:07:30	1.3583	2118.95	106.59		
03/07	09:08:30	1.3750	2118.99	106.78		
03/07	09:09:30	1.3917	2119.02	106.92		
03/07	09:10:30	1.4083	2119.04	107.00		
03/07	09:11:30	1.4250	2119.07	107.09		
03/07	09:12:30	1.4417	2119.10	107.17		
03/07	09:13:30	1.4583	2119.12	107.22		
03/07	09:14:30	1.4750	2119.15	107.26		
03/07	09:15:30	1.4917	2119.14	107.30		
03/07	09:16:30	1.5083	2119.14	107.33		
03/07	09:17:30	1.5250	2119.14	107.35		
03/07	09:18:30	1.5417	2119.14	107.36		
03/07	09:19:30	1.5583	2119.15	107.38		
03/07	09:20:30	1.5750	2119.15	107.41		
03/07	09:21:30	1.5917	2119.15	107.43		
03/07	09:22:30	1.6083	2119.14	107.44		
03/07	09:23:30	1.6250	2119.16	107.45		
03/07	09:24:30	1.6417	2119.14	107.45		
03/07	09:25:30	1.6583	2119.16	107.45		
03/07	09:26:30	1.6750	2119.17	107.45		
03/07	09:27:30	1.6917	2119.15	107.47		
03/07	09:28:30	1.7083	2119.14	107.48		
03/07	09:29:30	1.7250	2119.14	107.49		
03/07	09:30:30	1.7417	2119.17	107.49		
03/07	09:31:30	1.7583	2119.11	107.49		
03/07	09:32:30	1.7750	2119.10	107.50		
03/07	09:33:30	1.7917	2119.11	107.51		
03/07	09:34:30	1.8083	2119.11	107.51		
03/07	09:35:30	1.8250	2119.14	107.51		
03/07	09:36:30	1.8417	2119.11	107.52		
03/07	09:37:30	1.8583	2119.41	107.53		
03/07	09:38:30	1.8750	2119.00	107.54		
03/07	09:39:30	1.8917	2119.05	107.54		
03/07	09:40:30	1.9083	2119.08	107.54		
03/07	09:41:30	1.9250	2119.08	107.54		
03/07	09:42:30	1.9417	2119.10	107.54		
03/07	09:43:30	1.9583	2119.11	107.54		
03/07	09:44:30	1.9750	2119.10	107.55		
03/07	09:45:30	1.9917	2119.08	107.55		
03/07	09:46:30	2.0083	2119.06	107.55		
03/07	09:47:30	2.0250	2119.12	107.56		
03/07	09:48:30	2.0417	2119.10	107.56		
03/07	09:49:30	2.0583	2119.09	107.56		
03/07	09:50:30	2.0750	2119.44	107.56		
03/07	09:51:30	2.0917	2119.39	107.57		
03/07	09:52:30	2.1083	2119.57	107.57		
03/07	09:53:30	2.1250	2119.65	107.57		
03/07	09:53:45	2.1292	2119.69	107.57		
03/07	09:54:00	2.1333	2119.20	107.58		

RATE #1 - 0.06 BPM

START TEST

COMPANY: GIANT REFINING

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WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	10:55:45	3.1625	2125.47	107.49		
03/07	10:56:45	3.1792	2125.59	107.49		
03/07	10:57:45	3.1958	2125.72	107.47		
03/07	10:58:45	3.2125	2125.83	107.46		
03/07	10:59:45	3.2292	2125.91	107.44		
03/07	11:00:45	3.2458	2126.00	107.44		RATE #5 - 3.0 BPM
03/07	11:01:45	3.2625	2126.09	107.42		
03/07	11:02:45	3.2792	2126.19	107.41		
03/07	11:03:45	3.2958	2126.28	107.39		
03/07	11:04:45	3.3125	2126.38	107.38		
03/07	11:05:45	3.3292	2126.44	107.37		
03/07	11:06:45	3.3458	2126.52	107.37		
03/07	11:07:15	3.3542	2126.59	107.36		
03/07	11:07:30	3.3583	2127.17	107.35		
03/07	11:07:45	3.3625	2127.47	107.35		
03/07	11:08:00	3.3667	2127.65	107.35		
03/07	11:09:00	3.3833	2127.76	107.33		
03/07	11:10:00	3.4000	2127.84	107.33		
03/07	11:11:00	3.4167	2127.98	107.32		
03/07	11:12:00	3.4333	2128.09	107.32		
03/07	11:13:00	3.4500	2128.20	107.32		
03/07	11:14:00	3.4667	2128.31	107.32		
03/07	11:15:00	3.4833	2128.43	107.32		
03/07	11:16:00	3.5000	2128.51	107.32		RATE #6 - 3.6 BPM
03/07	11:17:00	3.5167	2128.59	107.32		
03/07	11:18:00	3.5333	2128.68	107.31		
03/07	11:19:00	3.5500	2128.80	107.32		
03/07	11:20:00	3.5667	2128.91	107.32		
03/07	11:21:00	3.5833	2129.01	107.32		
03/07	11:21:45	3.5958	2129.05	107.32		
03/07	11:22:00	3.6000	2129.55	107.32		
03/07	11:22:15	3.6042	2130.20	107.32		
03/07	11:23:15	3.6208	2130.43	107.32		
03/07	11:24:15	3.6375	2130.48	107.33		
03/07	11:25:15	3.6542	2130.60	107.34		
03/07	11:26:15	3.6708	2130.75	107.35		
03/07	11:27:15	3.6875	2130.89	107.36		
03/07	11:28:15	3.7042	2131.06	107.36		
03/07	11:29:15	3.7208	2131.23	107.37		
03/07	11:30:15	3.7375	2131.38	107.37		
03/07	11:31:15	3.7542	2131.53	107.37		RATE #7 - 4.4 BPM
03/07	11:32:15	3.7708	2131.65	107.37		
03/07	11:33:15	3.7875	2131.75	107.37		
03/07	11:34:15	3.8042	2131.89	107.37		
03/07	11:35:15	3.8208	2132.00	107.36		
03/07	11:36:15	3.8375	2132.09	107.37		
03/07	11:36:45	3.8458	2132.16	107.37		
03/07	11:37:00	3.8500	2130.31	107.37		
03/07	11:37:15	3.8542	2130.87	107.37		
03/07	11:37:30	3.8583	2132.81	107.37		
03/07	11:38:00	3.8667	2133.18	107.37		
03/07	11:38:15	3.8708	2133.27	107.37		
03/07	11:39:15	3.8875	2133.36	107.37		
03/07	11:40:15	3.9042	2133.45	107.37		
03/07	11:41:15	3.9208	2133.56	107.37		
03/07	11:42:15	3.9375	2133.69	107.37		
03/07	11:43:15	3.9542	2133.81	107.37		
03/07	11:44:15	3.9708	2133.93	107.36		
03/07	11:45:15	3.9875	2134.07	107.35		
03/07	11:46:15	4.0042	2134.23	107.35		
03/07	11:47:15	4.0208	2134.38	107.34		
03/07	11:48:15	4.0375	2134.53	107.33		
03/07	11:49:15	4.0542	2134.65	107.32		RATE #8 - 5.5 BPM
03/07	11:50:15	4.0708	2134.78	107.31		
03/07	11:51:15	4.0875	2134.90	107.32		

COMPANY: GIANT REFINING

PAGE 7 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	11:52:15	4.1042	2135.01	107.31		
03/07	11:52:30	4.1083	2134.92	107.31		
03/07	11:52:45	4.1125	2134.47	107.31		
03/07	11:53:00	4.1167	2131.52	107.31		
03/07	11:53:15	4.1208	2131.31	107.31		
03/07	11:53:30	4.1250	2136.13	107.31		
03/07	11:53:45	4.1292	2137.31	107.31		
03/07	11:54:33	4.1427	2137.66	107.33		
03/07	11:55:22	4.1563	2137.96	107.35		
03/07	11:56:15	4.1708	2138.08	107.35		
03/07	11:57:15	4.1875	2138.18	107.36		
03/07	11:58:15	4.2042	2138.32	107.38		
03/07	11:59:15	4.2208	2138.47	107.39		
03/07	11:59:45	4.2292	2138.53	107.39		
03/07	12:00:00	4.2333	2139.02	107.39		
03/07	12:00:15	4.2375	2139.28	107.39		
03/07	12:00:30	4.2417	2139.59	107.39		
03/07	12:01:30	4.2583	2139.40	107.39		
03/07	12:02:30	4.2750	2139.44	107.39		
03/07	12:03:30	4.2917	2139.52	107.38		
03/07	12:04:30	4.3083	2139.64	107.37		
03/07	12:05:00	4.3167	2139.72	107.36		
03/07	12:05:15	4.3208	2137.55	107.36		
03/07	12:05:30	4.3250	2141.24	107.36		
03/07	12:05:45	4.3292	2144.53	107.36		
03/07	12:06:00	4.3333	2143.98	107.36		
03/07	12:07:00	4.3500	2143.85	107.36		
03/07	12:07:48	4.3635	2144.23	107.37		
03/07	12:08:03	4.3677	2143.80	107.37		
03/07	12:08:07	4.3688	2143.58	107.37		
03/07	12:08:22	4.3729	2143.44	107.39		
03/07	12:08:26	4.3740	2133.73	107.39		
03/07	12:08:56	4.3823	2133.33	107.39		
03/07	12:09:00	4.3833	2133.23	107.39		
03/07	12:09:45	4.3958	2132.82	107.40		
03/07	12:10:00	4.4000	2132.59	107.39		
03/07	12:10:30	4.4083	2132.24	107.37		
03/07	12:10:45	4.4125	2132.09	107.37		
03/07	12:11:45	4.4292	2131.82	107.34		
03/07	12:12:45	4.4458	2131.49	107.31		
03/07	12:13:45	4.4625	2131.18	107.29		RECALIBRATE FLOW METER
03/07	12:14:45	4.4792	2131.09	107.28		
03/07	12:15:45	4.4958	2130.95	107.26		
03/07	12:16:15	4.5042	2130.85	107.25		
03/07	12:16:30	4.5083	2130.28	107.25		
03/07	12:16:45	4.5125	2129.83	107.25		
03/07	12:17:00	4.5167	2130.31	107.25		
03/07	12:17:30	4.5250	2130.65	107.24		
03/07	12:17:45	4.5292	2131.72	107.24		
03/07	12:18:45	4.5458	2131.60	107.24		RATE #1-A - 2.0 BPM
03/07	12:19:45	4.5625	2131.66	107.23		
03/07	12:20:45	4.5792	2131.79	107.23		
03/07	12:21:45	4.5958	2131.83	107.24		
03/07	12:22:45	4.6125	2132.21	107.24		
03/07	12:23:00	4.6167	2132.94	107.24		
03/07	12:24:00	4.6333	2133.07	107.24		RATE #2-A - 3.0 BPM
03/07	12:24:30	4.6417	2133.42	107.24		
03/07	12:24:45	4.6458	2133.55	107.24		
03/07	12:25:45	4.6625	2133.68	107.25		
03/07	12:26:45	4.6792	2133.64	107.26		
03/07	12:27:45	4.6958	2133.56	107.27		
03/07	12:28:30	4.7083	2133.56	107.28		
03/07	12:28:45	4.7125	2135.74	107.28		RATE #3-A - 4.0 BPM
03/07	12:29:45	4.7292	2135.93	107.30		
03/07	12:30:45	4.7458	2136.02	107.31		

COMPANY: GIANT REFINING

PAGE 8 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	12:30:48	4.7469	2136.06	107.32		
03/07	12:30:52	4.7479	2136.59	107.32		
03/07	12:31:41	4.7615	2136.61	107.35		
03/07	12:32:30	4.7750	2136.83	107.35		
03/07	12:33:30	4.7917	2136.72	107.36		
03/07	12:34:30	4.8083	2136.74	107.36		RATE #4-A - 5.0 BPM
03/07	12:34:45	4.8125	2138.34	107.36		
03/07	12:35:00	4.8167	2139.11	107.36		
03/07	12:35:48	4.8302	2139.51	107.37		
03/07	12:36:37	4.8438	2139.83	107.39		
03/07	12:37:30	4.8583	2139.93	107.39		
03/07	12:38:30	4.8750	2140.01	107.39		RATE #5-A - 5.0 BPM
03/07	12:39:30	4.8917	2140.16	107.40		
03/07	12:40:30	4.9083	2140.33	107.41		
03/07	12:41:30	4.9250	2140.50	107.41		
03/07	12:42:30	4.9417	2140.68	107.41		
03/07	12:43:30	4.9583	2140.86	107.41		
03/07	12:44:30	4.9750	2141.03	107.40		RATE #6-A - 5.0 BPM
03/07	12:45:30	4.9917	2141.20	107.40		
03/07	12:46:30	5.0083	2141.37	107.39		
03/07	12:47:30	5.0250	2141.54	107.39		
03/07	12:48:30	5.0417	2141.71	107.39		
03/07	12:49:30	5.0583	2141.87	107.37		
03/07	12:49:45	5.0625	2141.90	107.37		← SHUT PUMPING DOWN — END TEST
03/07	12:50:00	5.0667	2135.05	107.37		
03/07	12:50:30	5.0750	2134.77	107.37		
03/07	12:50:45	5.0792	2134.59	107.37		
03/07	12:51:45	5.0958	2134.22	107.37		
03/07	12:52:33	5.1094	2133.94	107.37		
03/07	12:53:30	5.1250	2133.77	107.35		
03/07	12:54:30	5.1417	2133.43	107.34		
03/07	12:55:30	5.1583	2133.16	107.32		
03/07	12:56:30	5.1750	2133.00	107.32		
03/07	12:57:30	5.1917	2132.89	107.32		
03/07	12:58:30	5.2083	2132.76	107.32		
03/07	12:59:30	5.2250	2132.63	107.31		
03/07	13:00:30	5.2417	2132.49	107.30		
03/07	13:01:30	5.2583	2132.35	107.30		
03/07	13:02:30	5.2750	2132.20	107.30		
03/07	13:03:30	5.2917	2132.07	107.30		
03/07	13:04:30	5.3083	2131.95	107.30		
03/07	13:05:30	5.3250	2131.82	107.30		
03/07	13:06:30	5.3417	2131.70	107.30		
03/07	13:07:30	5.3583	2131.59	107.30		
03/07	13:08:30	5.3750	2131.50	107.30		
03/07	13:09:30	5.3917	2131.42	107.30		
03/07	13:10:30	5.4083	2131.34	107.31		
03/07	13:11:30	5.4250	2131.25	107.32		
03/07	13:12:30	5.4417	2131.16	107.32		
03/07	13:13:30	5.4583	2131.07	107.33		
03/07	13:14:30	5.4750	2131.00	107.34		
03/07	13:15:30	5.4917	2130.92	107.35		
03/07	13:16:30	5.5083	2130.83	107.36		
03/07	13:17:30	5.5250	2130.76	107.36		
03/07	13:18:30	5.5417	2130.70	107.37		
03/07	13:19:30	5.5583	2130.65	107.37		
03/07	13:19:45	5.5625	2130.64	107.37		INSTRUMENT OFF BOTTOM
03/07	13:20:00	5.5667	2121.09	107.37		
03/07	13:20:15	5.5708	2116.62	107.37		
03/07	13:20:18	5.5719	2113.06	107.37		
03/07	13:20:22	5.5729	2109.66	107.32		
03/07	13:20:26	5.5740	2106.12	107.27		
03/07	13:20:30	5.5750	2102.19	107.22		
03/07	13:20:33	5.5760	2098.39	107.17		
03/07	13:20:37	5.5771	2094.33	107.12		

COMPANY: GIANT REFINING

PAGE 9 OF 11

WELL NAME : SWD (CLASS 1) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	13:20:41	5.5781	2090.27	107.07		
03/07	13:20:45	5.5792	2086.07	107.02		
03/07	13:20:48	5.5802	2082.27	106.97		
03/07	13:20:52	5.5813	2078.60	106.93		
03/07	13:20:56	5.5823	2074.41	106.88		
03/07	13:21:00	5.5833	2070.21	106.83		
03/07	13:21:03	5.5844	2066.05	106.68		
03/07	13:21:07	5.5854	2061.93	106.43		
03/07	13:21:11	5.5865	2060.17	106.19		
03/07	13:21:15	5.5875	2058.55	105.95		
03/07	13:21:18	5.5885	2056.92	105.71		
03/07	13:21:22	5.5896	2054.90	105.46		
03/07	13:21:26	5.5906	2051.56	105.22		
03/07	13:21:30	5.5917	2049.15	104.98		
03/07	13:21:33	5.5927	2046.73	104.74		
03/07	13:21:37	5.5938	2044.19	104.50		
03/07	13:21:41	5.5948	2041.51	104.26		
03/07	13:21:45	5.5958	2038.70	104.01		
03/07	13:21:48	5.5969	2035.78	103.70		
03/07	13:21:52	5.5979	2033.13	103.35		
03/07	13:21:56	5.5990	2030.23	103.00		
03/07	13:22:00	5.6000	2027.32	102.66		
03/07	13:22:03	5.6010	2024.15	102.31		
03/07	13:22:07	5.6021	2018.60	101.96		
03/07	13:22:11	5.6031	2011.21	101.62		
03/07	13:22:15	5.6042	2003.56	101.27		
03/07	13:22:18	5.6052	1995.90	100.92		
03/07	13:22:22	5.6062	1987.98	100.57		
03/07	13:22:26	5.6073	1980.06	100.22		
03/07	13:22:30	5.6083	1970.82	99.88		
03/07	13:22:33	5.6094	1954.60	99.50		
03/07	13:22:37	5.6104	1935.87	99.14		
03/07	13:22:41	5.6115	1917.14	98.79		
03/07	13:22:45	5.6125	1898.01	98.43		
03/07	13:22:48	5.6135	1879.80	98.07		
03/07	13:22:52	5.6146	1860.53	97.72		
03/07	13:22:56	5.6156	1840.60	97.36		
03/07	13:23:00	5.6167	1820.54	97.01		
03/07	13:23:03	5.6177	1800.61	96.65		
03/07	13:23:07	5.6188	1780.80	96.30		
03/07	13:23:11	5.6198	1762.32	95.94		
03/07	13:23:15	5.6208	1742.11	95.58		
03/07	13:23:18	5.6219	1721.77	95.24		
03/07	13:23:22	5.6229	1703.41	94.90		
03/07	13:23:26	5.6240	1683.72	94.57		
03/07	13:23:30	5.6250	1663.90	94.24		
03/07	13:23:33	5.6260	1643.81	93.89		
03/07	13:23:37	5.6271	1622.27	93.56		
03/07	13:23:41	5.6281	1602.58	93.23		
03/07	13:23:45	5.6292	1582.75	92.89		
03/07	13:23:48	5.6302	1562.79	92.55		
03/07	13:23:52	5.6312	1542.95	92.22		
03/07	13:23:56	5.6323	1522.19	91.89		
03/07	13:24:00	5.6333	1502.35	91.55		
03/07	13:24:03	5.6344	1482.91	91.23		
03/07	13:24:07	5.6354	1461.75	90.90		
03/07	13:24:11	5.6365	1441.11	90.58		
03/07	13:24:15	5.6375	1420.86	90.26		
03/07	13:24:18	5.6385	1400.75	89.94		
03/07	13:24:22	5.6396	1378.39	89.61		
03/07	13:24:26	5.6406	1359.19	89.29		
03/07	13:24:30	5.6417	1338.42	88.97		
03/07	13:24:33	5.6427	1318.69	88.65		
03/07	13:24:37	5.6438	1297.38	88.33		
03/07	13:24:41	5.6448	1275.67	88.01		

COMPANY: GIANT REFINING

PAGE 10 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	13:24:45	5.6458	1255.68	87.68		
03/07	13:24:48	5.6469	1233.96	87.37		
03/07	13:24:52	5.6479	1213.96	87.06		
03/07	13:24:56	5.6490	1192.90	86.74		
03/07	13:25:00	5.6500	1173.29	86.43		
03/07	13:25:03	5.6510	1152.23	86.12		
03/07	13:25:07	5.6521	1130.24	85.81		
03/07	13:25:11	5.6531	1109.17	85.50		
03/07	13:25:15	5.6542	1087.97	85.18		
03/07	13:25:18	5.6552	1066.90	84.88		
03/07	13:25:22	5.6563	1047.54	84.57		
03/07	13:25:26	5.6573	1032.41	84.25		
03/07	13:25:30	5.6583	1017.80	83.94		
03/07	13:25:33	5.6594	1000.95	83.63		
03/07	13:25:37	5.6604	984.75	83.33		
03/07	13:25:41	5.6615	970.14	83.03		
03/07	13:25:45	5.6625	955.92	82.73		
03/07	13:25:48	5.6635	941.04	82.43		
03/07	13:25:52	5.6646	926.95	82.12		
03/07	13:25:56	5.6656	913.39	81.82		
03/07	13:26:00	5.6667	899.96	81.52		
03/07	13:26:03	5.6677	887.05	81.22		
03/07	13:26:07	5.6687	875.47	80.91		
03/07	13:26:11	5.6698	864.41	80.61		
03/07	13:26:15	5.6708	852.95	80.32		
03/07	13:26:18	5.6719	842.29	80.01		
03/07	13:26:22	5.6729	831.89	79.73		
03/07	13:26:26	5.6740	820.95	79.44		
03/07	13:26:30	5.6750	810.15	79.15		
03/07	13:26:33	5.6760	799.09	78.86		
03/07	13:26:37	5.6771	788.81	78.58		
03/07	13:26:41	5.6781	778.01	78.29		
03/07	13:26:45	5.6792	768.13	78.00		
03/07	13:26:48	5.6802	758.38	77.72		
03/07	13:26:52	5.6813	749.82	77.43		
03/07	13:26:56	5.6823	741.40	77.14		
03/07	13:27:00	5.6833	733.89	76.86		
03/07	13:27:03	5.6844	726.92	76.58		
03/07	13:27:07	5.6854	719.41	76.32		
03/07	13:27:11	5.6865	712.30	76.06		
03/07	13:27:15	5.6875	706.38	75.79		
03/07	13:27:18	5.6885	700.98	75.53		
03/07	13:27:22	5.6896	696.11	75.26		
03/07	13:27:26	5.6906	691.78	74.99		
03/07	13:27:30	5.6917	687.57	74.73		
03/07	13:27:33	5.6927	683.63	74.46		
03/07	13:27:37	5.6937	679.42	74.20		
03/07	13:27:41	5.6948	675.35	73.93		
03/07	13:27:45	5.6958	672.07	73.67		
03/07	13:27:48	5.6969	668.79	73.41		
03/07	13:27:52	5.6979	665.77	73.18		
03/07	13:27:56	5.6990	663.01	72.94		
03/07	13:28:00	5.7000	660.39	72.69		
03/07	13:28:03	5.7010	658.43	72.46		
03/07	13:28:07	5.7021	657.00	72.22		
03/07	13:28:11	5.7031	655.70	71.97		
03/07	13:28:15	5.7042	654.13	71.74		
03/07	13:28:18	5.7052	652.83	71.50		
03/07	13:28:22	5.7063	652.57	71.25		
03/07	13:28:26	5.7073	652.13	71.02		
03/07	13:28:30	5.7083	651.46	70.78		
03/07	13:29:18	5.7219	651.46	68.12		
03/07	13:29:37	5.7271	651.36	67.29		
03/07	13:29:41	5.7281	654.43	67.12		
03/07	13:29:45	5.7292	654.38	66.96		

COMPANY: GIANT REFINING

PAGE 11 OF 11

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.RED

Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
03/07	13:29:48	5.7302	434.67	66.79		
03/07	13:29:52	5.7312	233.34	66.63		
03/07	13:29:56	5.7323	188.64	66.46		
03/07	13:30:00	5.7333	140.10	66.30		
03/07	13:30:03	5.7344	108.90	66.15		
03/07	13:30:07	5.7354	67.50	66.01		
03/07	13:30:11	5.7365	37.22	65.88		
03/07	13:30:15	5.7375	22.81	65.74		
03/07	13:30:18	5.7385	16.20	65.61		
03/07	13:30:22	5.7396	.07	65.47		

 *
 * EVENT SUMMARY *
 *

COMPANY : GIANT REFINING

PAGE : B

WELL NAME : SWD (CLASS I) NO. WD-1

DATE : 03/08/96

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F224307.REB

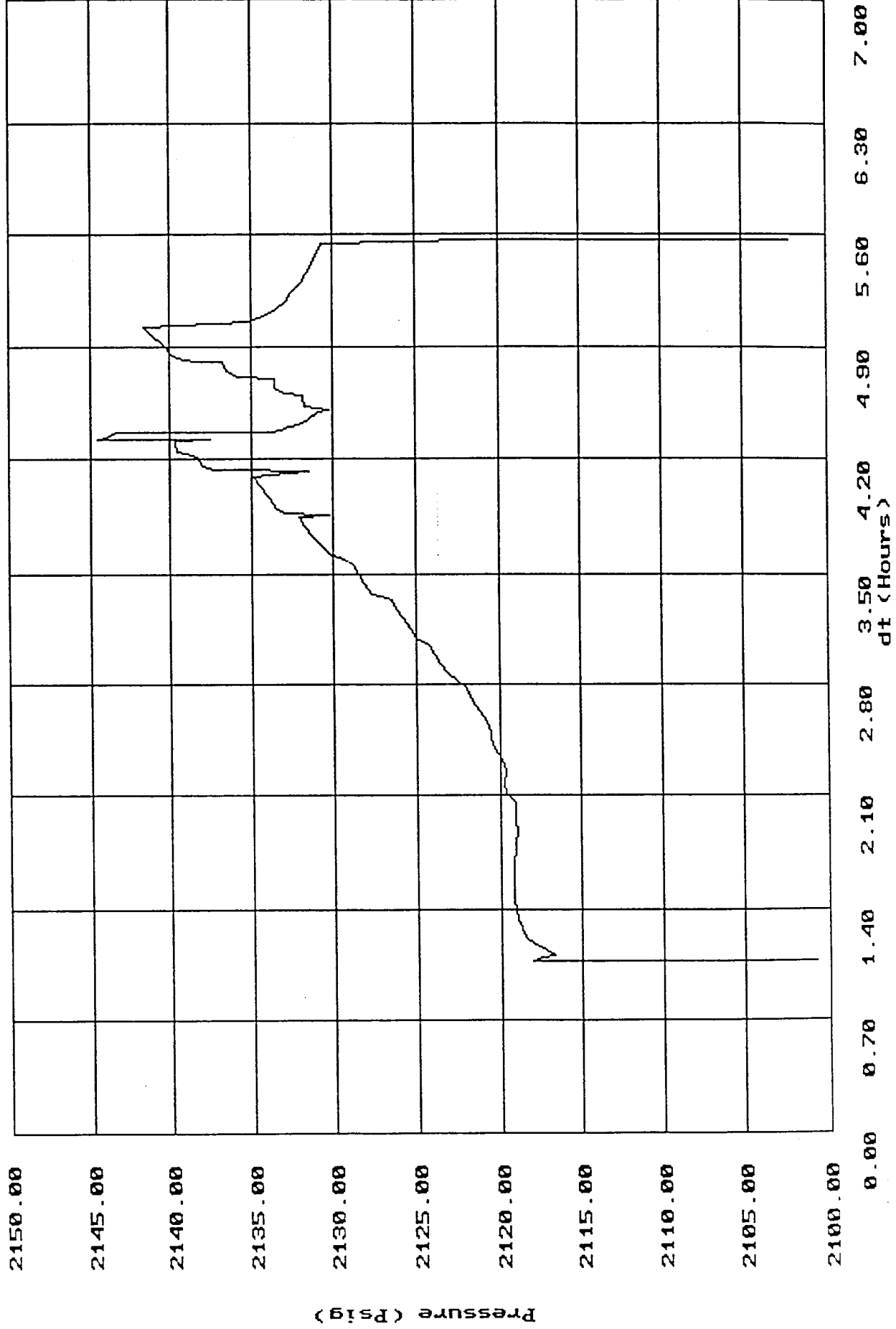
Date MM/DD	Time hh:mm:ss	Test Time hhhh.hhhh	Key Event	Pressure Psig	Temp Deg F
03/07	08:51:22	1.0896	INSTRUMENT @ 3400'	2118.23	78.56
03/07	09:46:30	2.0083	RATE #1 - 0.06 BPM	2119.06	107.55
03/07	10:01:30	2.2583	RATE #2 - 1.1 BPM	2119.69	107.57
03/07	10:31:30	2.7583	RATE #3 - 2.0 BPM	2121.88	107.61
03/07	10:46:00	3.0000	RATE #4 - 2.5 BPM	2123.96	107.51
03/07	11:00:45	3.2458	RATE #5 - 3.0 BPM	2126.00	107.44
03/07	11:16:00	3.5000	RATE #6 - 3.6 BPM	2128.51	107.32
03/07	11:31:15	3.7542	RATE #7 - 4.4 BPM	2131.53	107.37
03/07	11:49:15	4.0542	RATE #8 - 5.5 BPM	2134.65	107.32
03/07	12:13:45	4.4625	RECALIBRATE FLOW METER	2131.18	107.29
03/07	12:18:45	4.5458	RATE #1-A - 2.0 BPM	2131.60	107.24
03/07	12:24:00	4.6333	RATE #2-A - 3.0 BPM	2133.07	107.24
03/07	12:28:45	4.7125	RATE #3-A - 4.0 BPM	2135.74	107.28
03/07	12:34:30	4.8083	RATE #4-A - 5.0 BPM	2136.74	107.36
03/07	12:38:30	4.8750	RATE #5-A - 5.0 BPM	2140.01	107.39
03/07	12:44:30	4.9750	RATE #6-A - 5.0 BPM	2141.03	107.40
03/07	12:49:45	5.0625	SHUT PUMPING DOWN	2141.90	107.37
03/07	13:19:45	5.5625	INSTRUMENT OFF BOTTOM	2130.64	107.37

GIANT REFINING

Pressure vs dt

SUD (CLASS 1) NO. WD-1
SAN JUAN COUNTY, NM
F224307-RED

TEETELLER, INC.
3-7-98
STEP RATE TEST



46 1323

FIGURE #1

GIANT REFINERY SMD #1

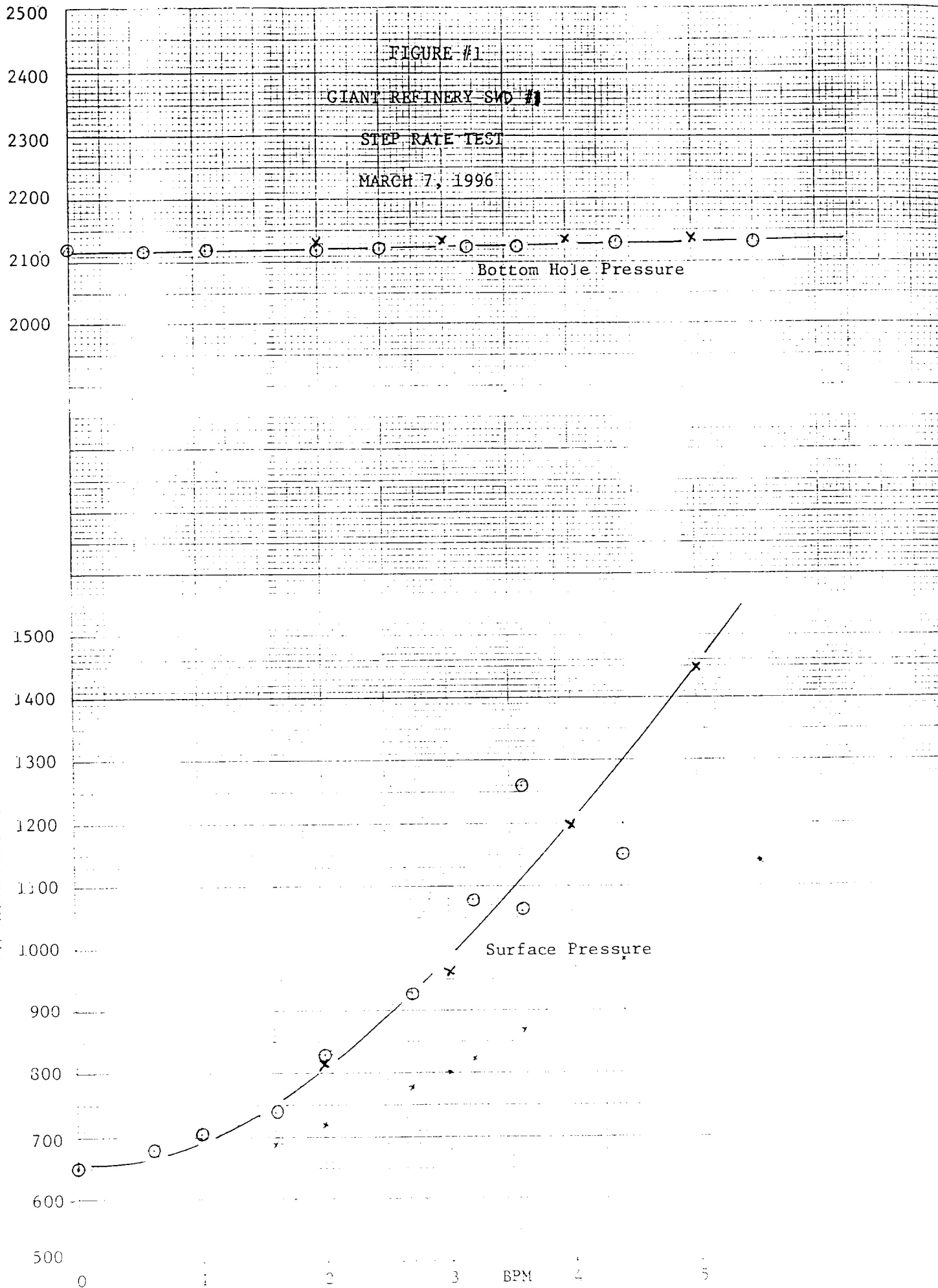
STEP RATE TEST

MARCH 7, 1996

Bottom Hole Pressure

Surface Pressure

Pressure (PSI) vs. Flow Rate (BPM)



BJ SERVICES COMPANY

GIANT REFINERY

BLOOMFIELD WD #1
SAN JUAN COUNTY, NM
MESA VERDE FORMATION

SLICKWATER FRAC WD WELL
PREPARED FOR
MR. PAUL THOMPSON

SERVICE POINT

FARMINGTON, NM
(505) 327-6222

FEBRUARY 29, 1996

FM050525

PREPARED BY

MIKE MCNEESE
SR. DISTRICT ENGINEER
FARMINGTON

SALES REPRESENTATIVE

MIKE MCNEESE
TECH REP II

FM050525 01

BJ SERVICES COMPANY

OPERATOR: GIANT REFINERY
WELL: BLOOMFIELD WD #1
FORMATION: MESA VERDE

WELL DATA

Net Pay	84 ft
Depth to Middle Perforation	3,395 ft
Casing	5 1/2", 15.5#
Fracture Gradient	.45 psi/ft
Bottom Hole Frac Pressure	1,528 psi
Bottom Hole Temperature	115 deg F
Perforated Interval	3276'-3514' 4 JSPF 316 HOLES

FM050525 01 01

BJ SERVICES COMPANY**FRAC CALCULATIONS**

OPERATOR: GIANT REFINERY
 WELL: BLOOMFIELD WD #1
 FORMATION: MESA VERDE

DEFINITIONS

BHFP = Bottom Hole Frac Pressure
 HH = Hydrostatic Head
 PF = Friction Loss in 5 1/2", 15.5# CASING
 PFP = Perforation Friction Pressure
 = $[2.93 \times (\text{rate/perfs})^2 / (\text{perf diam})^4] \times \text{spec gravity}$
 ISDP = Instantaneous Shut Down Pressure
 = BHFP - HH
 STP = Surface Treating Pressure
 = BHFP - HH + PF + PF + PFP
 HHP = Hydraulic Horsepower
 = STP x Rate / 40.80

CALCULATIONS

BHFP = 0.600 psi/ft x 3395 ft = 2037 psi
 HH = 0.433 psi/ft x 3395 ft = 1470 psi
 PF = 85 psi/1000 ft x 3395 ft = 288 psi
 PFP = $\frac{[2.93 \times (60.0 \text{ bpm} / 316)^2]}{(0.450 \text{ in})^4} \times 1.00 = 3 \text{ psi}$
 ISDP = 2037 psi - 1470 psi = 567 psi
 STP = 2037 psi - 1470 psi + 288 psi + 3 psi = 858 psi
 HHP = (858 psi x 60.0 bpm) / 40.80 = 1261 hhp

* Surface treating pressure (STP) estimated using a 0.600 psi/ft frac gradient. The frac gradient should be verified by ISDP calculation during prepad or pad.

FM050525 01 01

BJ SERVICES COMPANY

OPERATOR: GIANT REFINERY
 WELL: BLOOMFIELD WD #1
 FORMATION: MESA VERDE

FLUID & PROPPANT PUMPING SCHEDULE

FLUID TYPE	FLUID VOLUME (GALS)	PROPPANT				VOLUME		
		CONC. (LB/GAL)	TOTAL (LBS)	MESH SIZE	TYPE	FLUID (BBLs)	SLURRY (BBLs)	CUM (BBLs)
SLICK H2O	26000	0.00	0			619	619	619
SLICK H2O	20000	0.50	10000	20/40	SAND	476	487	1106
SLICK H2O	20000	1.00	20000	20/40	SAND	476	498	1604
SLICK H2O	20000	1.50	30000	20/40	SAND	476	509	2113
SLICK H2O	45000	2.00	90000	20/40	SAND	1071	1169	3282
FLUSH	3150	0.00	0			75	75	3357
TOTALS	134150		150000			3193	3357	3357

RATE SCHEDULE

FLUID TYPE	FLUID VOLUME (GALS)	PROPPANT CONC. (LB/GAL)	SLURRY RATE (BPM)	FLUID RATE (BPM)	PROPPANT RATE (LBS/MIN)	SLURRY VOLUME (BBLs)	PUMP TIME HH:MM:SS
SLICK H2O	26000	0.00	60.0	60.0	0.0	619	00:10:19
SLICK H2O	20000	0.50	60.0	58.7	1232.1	487	00:08:06
SLICK H2O	20000	1.00	60.0	57.4	2410.7	498	00:08:17
SLICK H2O	20000	1.50	60.0	56.2	3539.2	509	00:08:28
SLICK H2O	45000	2.00	60.0	55.0	4620.9	1169	00:19:28
FLUSH	3150	0.00	60.0	60.0	0.0	75	00:01:15
TOTAL PUMP TIME							00:55:56

FM050525 01 01

BJ SERVICES COMPANY**COST ESTIMATE****MESA VERDE SLICKWATER FRAC**

QTY	UNIT	PRODUCT DESCRIPTION	UNIT PRICE	GROSS AMOUNT	DISC (%)	NET AMOUNT
75	GAL	FRW-30, FRICTION REDUCER	37.70	2,827.50	38.0	1,753.05
54	LBS	XCIDE-207, BACTERIACIDE	37.00	1,998.00	38.0	1,238.76
30	MILES	CHEMICALS DELIVERY, LIGHT VEHICLE, LIGHT	1.80	54.00	38.0	33.48
105000	GAL	PROP CONC PUMP CHG 0.0 TO 4 PPG	0.04	4,200.00	38.0	2,604.00
1500	CWT	20/40 MESH ARIZONA	7.92	11,880.00	38.0	7,365.60
1125	T-M	DELIVERY CHARGE, 15 MILES	1.00	1,125.00	38.0	697.50
1	UNIT	MASTER MIXER 51 TO 60 BPM	2,080.00	2,080.00	38.0	1,289.60
6	EACH	FRAC PUMP MINIMUM CHARGE	2,500.00	15,000.00	38.0	9,300.00
30	MILES	LIGHT EQUIPMENT 1 VEH. 30 MILES	1.80	54.00	38.0	33.48
300	MILES	HEAVY EQUIPMENT 10 VEH. 30 MILES	2.95	885.00	38.0	548.70
1	EACH	DENSIOMETER	575.00	575.00	38.0	356.50
1	EACH	SAND MASTER/KING < 4000 CWT 3 DAYS	925.00	925.00	38.0	573.50
1	EACH	TREATMENT MONITORING VAN (T.M.V.)	1,965.00	1,965.00	0.0	1,965.00
TOTALS:				\$43,568.50		\$27,759.17

THE TECHNICAL DATA CONTAINED IN THIS PROPOSAL IS BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF WRITING AND IS SUBJECT TO FURTHER ANALYSIS AND TESTING. THE PRICING DATA CONTAINED IN THIS PROPOSAL ARE ESTIMATES ONLY AND MAY VARY DEPENDING ON THE WORK ACTUALLY PERFORMED. PRICING DOES NOT INCLUDE FEDERAL, STATE AND LOCAL TAXES OR ROYALTIES. THIS QUOTATION IS BASED ON BJ SERVICES COMPANY BEING AWARDED THE WORK ON A FIRST CALL BASIS AND WITHIN THIRTY (30) DAYS OF THE PROPOSAL DATE. THESE PRICES WILL BE SUBJECT TO REVIEW IF THE WORK IS DONE AFTER THIRTY (30) DAYS FROM THE PROPOSAL DATE, OR ON A SECOND OR THIRD CALL BASIS. CUSTOMER WILL BE CHARGED FOR ALL 'SPECIAL PROPPANTS' DELIVERED TO LOCATION, WHETHER THEY ARE PUMPED OR NOT. ALL PROPPANTS OTHER THAN STANDARD GRADE FRAC SAND ARE CONSIDERED 'SPECIAL PROPPANTS'.

FM050525 01 01

BJ SERVICES COMPANY**COST ESTIMATE****MESA VERDE SLICKWATER FRAC**

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
75	GAL	FRW-30, FRICTION REDUCER	1,753.05
54	LBS	XCIDE-207, BACTERIACIDE	1,238.76
30	MILES	CHEMICALS DELIVERY, LIGHT VEHICLE, LIGHT V	33.48
105000	GAL	PROP CONC PUMP CHG 0.0 TO 4 PPG	2,604.00
1500	CWT	20/40 MESH ARIZONA	7,365.60
1125	T-M	DELIVERY CHARGE, 15 MILES	697.50
1	UNIT	MASTER MIXER 51 TO 60 BPM	1,289.60
6	EACH	FRAC PUMP MINIMUM CHARGE	9,300.00
30	MILES	LIGHT EQUIPMENT 1 VEH. 30 MILES	33.48
300	MILES	HEAVY EQUIPMENT 10 VEH. 30 MILES	548.70
1	EACH	DENSIOMETER	356.50
1	EACH	SAND MASTER/KING < 4000 CWT 3 DAYS	573.50
1	EACH	TREATMENT MONITORING VAN (T.M.V.)	1,965.00
TOTALS:			\$27,759.17

THE TECHNICAL DATA CONTAINED IN THIS PROPOSAL IS BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF WRITING AND IS SUBJECT TO FURTHER ANALYSIS AND TESTING. THE PRICING DATA CONTAINED IN THIS PROPOSAL ARE ESTIMATES ONLY AND MAY VARY DEPENDING ON THE WORK ACTUALLY PERFORMED. PRICING DOES NOT INCLUDE FEDERAL, STATE AND LOCAL TAXES OR ROYALTIES.

THIS QUOTATION IS BASED ON BJ SERVICES COMPANY BEING AWARDED THE WORK ON A FIRST CALL BASIS AND WITHIN THIRTY (30) DAYS OF THE PROPOSAL DATE. THESE PRICES WILL BE SUBJECT TO REVIEW IF THE WORK IS DONE AFTER THIRTY (30) DAYS FROM THE PROPOSAL DATE, OR ON A SECOND OR THIRD CALL BASIS.

CUSTOMER WILL BE CHARGED FOR ALL 'SPECIAL PROPPANTS' DELIVERED TO LOCATION, WHETHER THEY ARE PUMPED OR NOT. ALL PROPPANTS OTHER THAN STANDARD GRADE FRAC SAND ARE CONSIDERED 'SPECIAL PROPPANTS'.

FH050525 01 01

BJ SERVICES COMPANY
FIELD RECEIPT WORKSHEET

MESA VERDE SLICKWATER FRAC

PRODUCT CODE	QUANTITY	UNIT	PRODUCT DESCRIPTION	UNIT PRICE
H0596	75	GAL	FRW-30, FRICTION REDUCER	37.70
H4726	54	LBS	XCIDE-207, BACTERIACIDE	37.00
J7416	30	MILES	CHEMICALS DELIVERY, LIGHT VEHICLE, LIGHT	1.80
J4606A	105,000	GAL	PROP CONC PUMP CHG 0.0 TO 4 PPG	0.04
NOTPR	1,500	CWT	20/40 MESH ARIZONA	7.92
J4016	1,125	T-M	DELIVERY CHARGE, 15 MILES	1.00
F3066A	1	UNIT	MASTER MIXER 51 TO 60 BPM	2080.00
J1416	6	EACH	FRAC PUMP MINIMUM CHARGE	2500.00
J3916	30	MILES	LIGHT EQUIPMENT 1 VEH. 30 MILES	1.80
J3906	300	MILES	HEAVY EQUIPMENT 10 VEH. 30 MILES	2.95
J3216	1	EACH	DENSIOMETER	575.00
J3106	1	EACH	SAND MASTER/KING < 4000 CWT 3 DAYS	925.00
J3006	1	EACH	TREATMENT MONITORING VAN (T.M.V.)	1965.00

FM050525 01

BJ SERVICES COMPANY**Treatment Requirements for: MESA VERDE WD WELL**

FRAC/FLUSH: 134,000 GALLONS SLICKWATER PUMPED VOLUME
 150,000 GALLONS TO BE MIXED

Made Up With:
0.38 Pounds XCIDE-207, BACTERIACIDE

Containing per 1000 Gallons:
0.50 Gallons FRW-30, FRICTION REDUCER

RUN FRW-30 ON THE FLY AT 0.5 GAL/M. MONITOR FRW-30 RATE TO
CONTROL FRICTION. RECALCULATE FLUSH ON LOCATION.

PROPPANTS: 150,000 Pounds 20/40 MESH ARIZONA

FM050525

PRODUCT DESCRIPTIONS

FRW-30 (Friction Reducer)

An anionic polymeric friction reducer used in water and light brines. Friction reduction of up to 80% can be achieved.

X-CIDE 207 (Bactericide)

A non-ionic isothiasolin bactericide in a convenient, solid granular form. It provides broad spectrum control of slime forming and sulfate-reducing bacteria in oilfield water