

**PRUEBA DRAWDOWN  
Y GRADIENTE FLUYENTE**

*It was taken  
by Williamson*

**PETRO-TECH PERUANA S.A.  
LOBITOS MAR LO16-14  
TALARA - PERU**

DEL 04 AL 10 DE DICIEMBRE DE 1995

REPORTE PREPARADO  
POR  
MIGUEL BRAVO DE RUEDA F.

|                         |      |
|-------------------------|------|
| PETRO-TECH PERUANA S.A. |      |
| DIC 18 1995             |      |
| FIRMA:                  | 2213 |
| RECEPCION               |      |

*Victor Espinoza  
Gerente*

## INFORMACION GENERAL

|                          |  |                                     |  |
|--------------------------|--|-------------------------------------|--|
| POZO: LO16-14            |  | AREA : LOBITOS                      |  |
| PRUEBA : PRUEBA DRAWDOWN |  |                                     |  |
| FORMACION : BASAL SALINA |  | INTERVALO PRODUCTOR : 9664' - 9460' |  |

**POZO LO16-14**  
**CASING 5 1/2"**

MEMORY GAUGE @ 9500' WLM  
7549"

TAPON @ 9750'

TAPON @ 10106'

F. COLLAR 10240'

F. SHOE 10330'

| FECHA                            | DATOS DEL POZO                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 04/12/95                         | Producción Acumulada: 154,295 Bls.<br>Estado del Pozo : Productor.<br>Prdoducción: 636 BOPD x 350 psi x 1/2" x 798 GOR.<br>Tope de Arena: 9,520'.<br>Tapón : 9750'.                                                                                                                                                                                                                                                                                                    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| <b>DESARROLLO DE LA PRUEBA</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 11:00:00<br>11:18:00<br>11:33:00 | Chequeó baterías del Memory Gauges. Prueba satisfactoria.<br>Se conectó baterías.<br>Presurizó Lubricador.                                                                                                                                                                                                                                                                                                                                                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 11:36:00<br>12:31:00             | Se extrangulo el pozo.<br>Registradores a 9,500' WLM.                                                                                                                                                                                                                                                                                                                                                                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 04/12/95<br>16:40:00<br>17:40:00 | Beam de 1/2"<br>Se cambio Beam de 1/2" por Beam de 3/8".<br>Por orden del departamento de producción se modifíco el programa inicial regresando al Beam de 1/2".                                                                                                                                                                                                                                                                                                       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 05/12/95<br>06/12/95             | 04:40:00 .....Se cambio Beam de 1/2" por Beam de 3/8".<br>13:40:00 .....Se cambio Beam de 3/8" por Beam de 5/8".                                                                                                                                                                                                                                                                                                                                                       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 09/12/95                         | Final del Drawdown.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 08:01:00                         | Gradiente Fluyente de 9,500' a 0' con paradas a:<br><table style="margin-left: 20px;"> <tr><td>9500'</td><td>7400'</td><td>5000'</td></tr> <tr><td>9200'</td><td>7100'</td><td>4600'</td></tr> <tr><td>8900'</td><td>6800'</td><td>4200'</td></tr> <tr><td>8600'</td><td>6500'</td><td>3800'</td></tr> <tr><td>8300'</td><td>6200'</td><td>3400'</td></tr> <tr><td>8000'</td><td>5800'</td><td>3200'</td></tr> <tr><td>7700'</td><td>5400'</td><td></td></tr> </table> | 9500' | 7400' | 5000' | 9200' | 7100' | 4600' | 8900' | 6800' | 4200' | 8600' | 6500' | 3800' | 8300' | 6200' | 3400' | 8000' | 5800' | 3200' | 7700' | 5400' |  |
| 9500'                            | 7400'                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5000' |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 9200'                            | 7100'                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4600' |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 8900'                            | 6800'                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4200' |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 8600'                            | 6500'                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3800' |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 8300'                            | 6200'                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3400' |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 8000'                            | 5800'                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3200' |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 7700'                            | 5400'                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 09:07:00                         | Pozo Cerrado a 3,200' WLM.                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 09:18:00                         | Se desfoga lubricador.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |
| 09:30:00                         | Se desconectó baterías.                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |

**OBSERVACIONES :**

Los datos utilizados corresponden a la bomba de fondo, serial 20602.  
Los Registradores se colocaron a la profundidad de 9,500' WLM.

En la Prueba de Gradiente Fluyente se cerro el pozo a 3,200' WLM para evitar una posible perdida de los registradores. La presión a 0' fue la que marcó el manometro en superficie 215 psi.

COMENTARIOS

En el pozo LO16-14 del área Lobitos Mar, que tiene como arena productiva a la formación Basal Salina con una producción promedio de 630 BOPD x 350 psi x 1/2" x 798 GOR, fue programado para una prueba Drawdown por un periodo de 120 horas. Los registradores electrónicos se colocaron a la profundidad de 9,500 pies.

La prueba se inicio con Beam de 1/2" registrandose una producción promedio de 30 bbl/h, con el cambio de Beam de 1/2" por uno de 3/8" se consiguio una producción promedio de 20 bbl/h y con el Beam de 5/8" se obtuvo una producción de 34 bbl/hr.

| BEAM   |           | #HORAS |           | PRODUCCION |            |
|--------|-----------|--------|-----------|------------|------------|
| 1/2"   | 30 bbl/hr | 16     | 17.05 hrs | 480 BBL    | ⇒ 720 bopd |
| 3/8"   | 20 bbl/hr | 31     | 31.08 hrs | 626 BBL    | ⇒ 480 bopd |
| 5/8"   | 34 bbl/hr | 66     | 62.11 hrs | 2,339 BBL  | ⇒ 816 bopd |
| 115.43 |           |        |           |            |            |

Para el análisis se tomó la data obtenida con el Beam de 3/8" y el Beam de 5/8", con la que se obtuvo los siguientes resultados: Beam 3/8" P1h = 1520 psia, un factor Skin de -4.83 y una permeabilidad de 3.744 md, para el Beam de 5/8" se obtuvo una permeabilidad de 9.476 y un factor Skin de -2.63. Con lo que se concluye que no existe daño en la formación y la permeabilidad se encuentra entre 3.744 - 9.476 md y la presión del Reservorio se encuentra aproximadamente a 2420 psi.

De la prueba de gradiente fluyente no se registro presencia de agua en el pozo y se obtuvo una presión fluyente a 9,500' WLM ( 7,547 PM ) de 1266 psi.

$\Delta t =$

1508 DMM  
 7  
 9-59-319  
 20-23  
 91.88

**RESULTADOS CALCULADOS**

Compañía : PETRO-TECH PERUANA S.A.  
Pozo : LO16-14  
Area : Lobitos Mar

Fecha de la Prueba : 12/04/1995

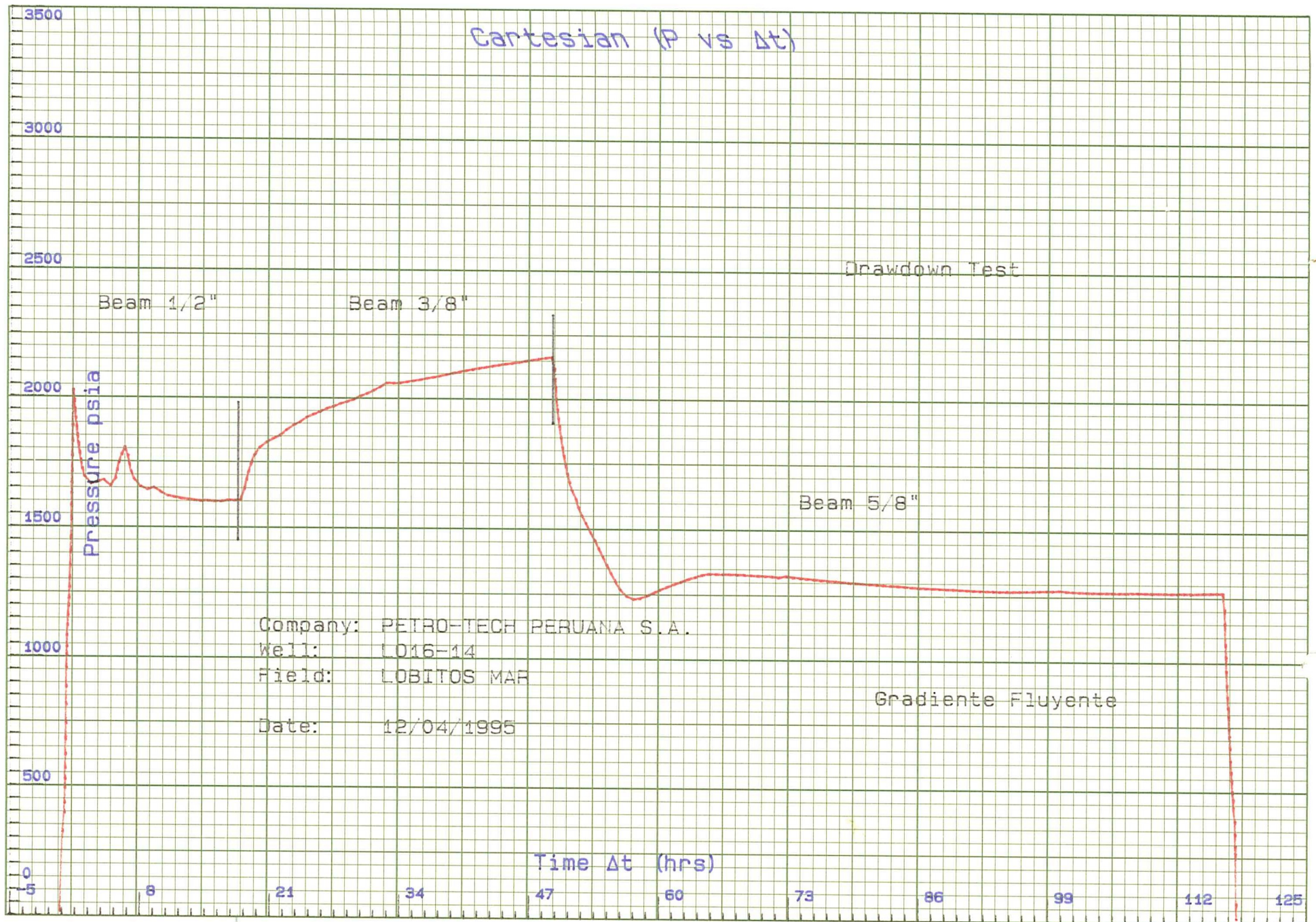
**[ Análisis Semi-Log Beam 3/8" ]**

|                          |       |            |         |
|--------------------------|-------|------------|---------|
| Capacidad de Flujo       | md-ft | kh         | 243.351 |
| Permeabilidad            | md    | k          | 3.744   |
| Factor Skin              | total | S          | -4.83   |
| $\Delta P$ debido a Skin | psi   | $\Delta P$ | +0.00   |
| Eficiencia de Flujo      | %     | EF         | +100.00 |
| Radio de Drenaje         | pies  | $r_d$      | 177     |
| Extrapolated Press @ 1hr | psia  | P1hr       | 1520    |
| Extrapolated Pressure    | psia  | P*         | 2420 -  |

**[ Análisis de Curvas Tipo - Beam 5/8" ]**

|                          |       |            |         |
|--------------------------|-------|------------|---------|
| Capacidad de Flujo       | md-ft | kh         | 615.951 |
| Permeabilidad            | md    | k          | 9.476   |
| Factor Skin              | total | S          | -2.63   |
| $\Delta P$ debido a Skin | psi   | $\Delta P$ | +0.00   |
| Eficiencia de Flujo      | %     | EF         | +100.00 |





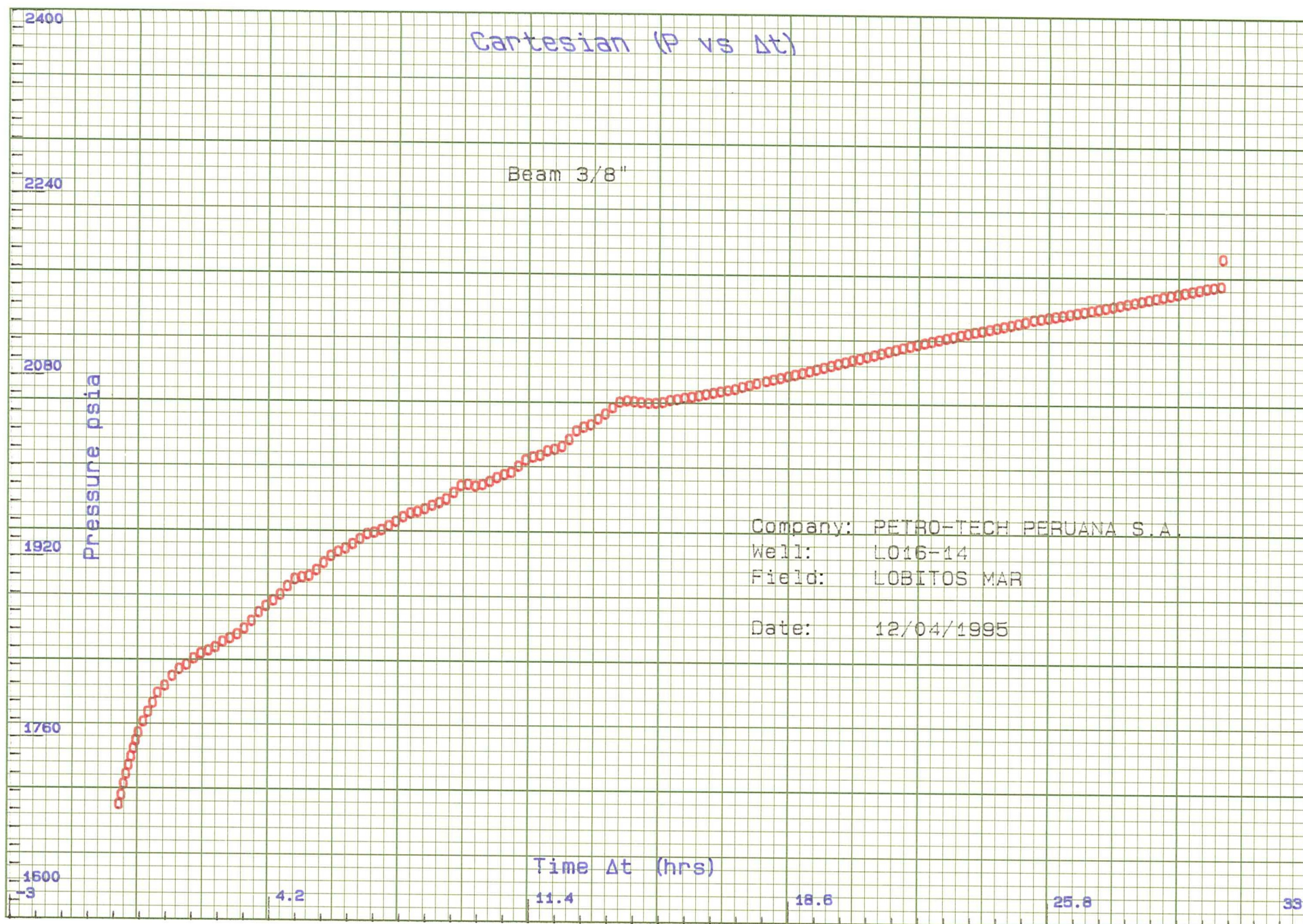
5.31  
+ 1/2 → 3/2

18.14

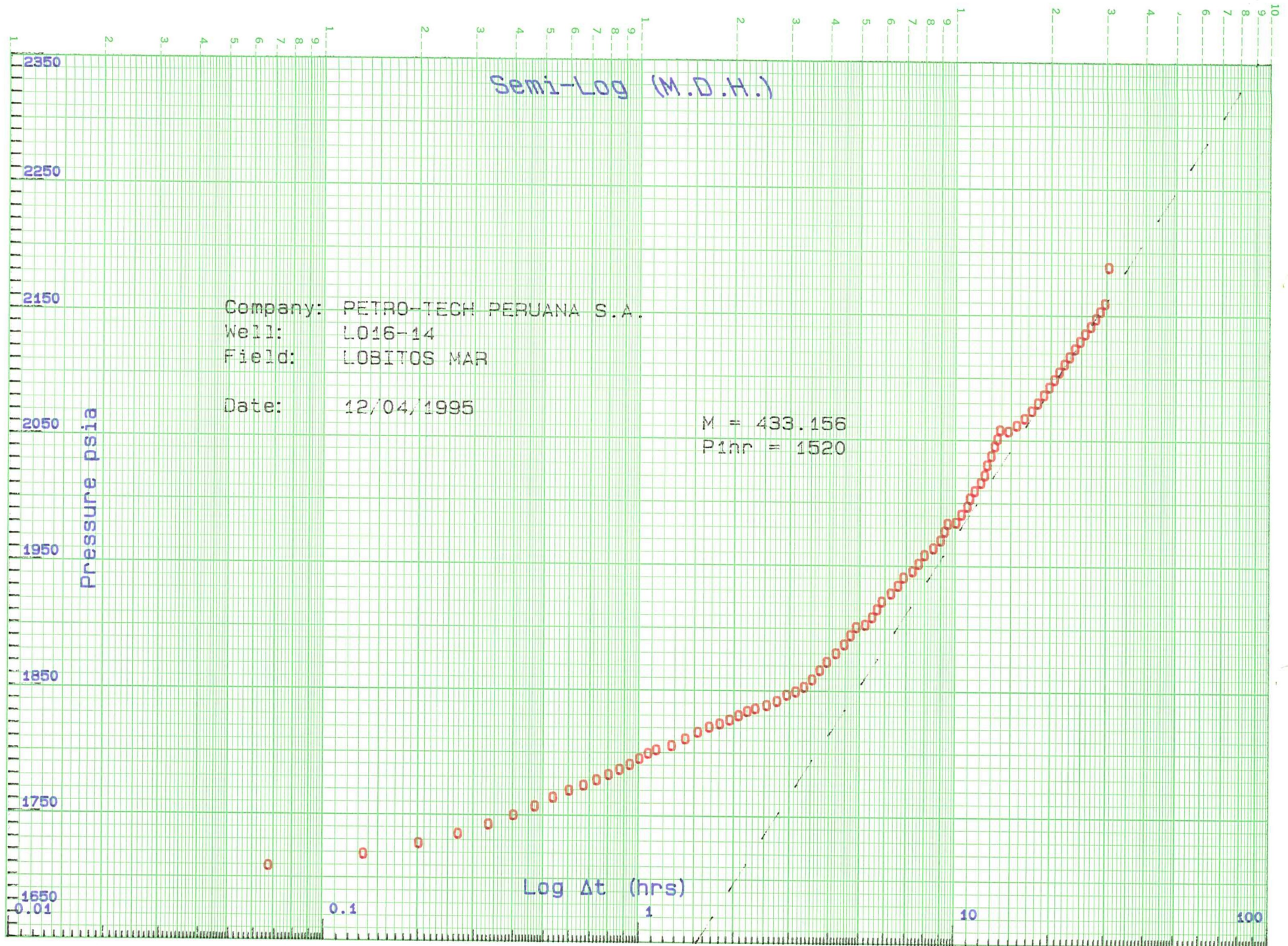
49.6

116.24

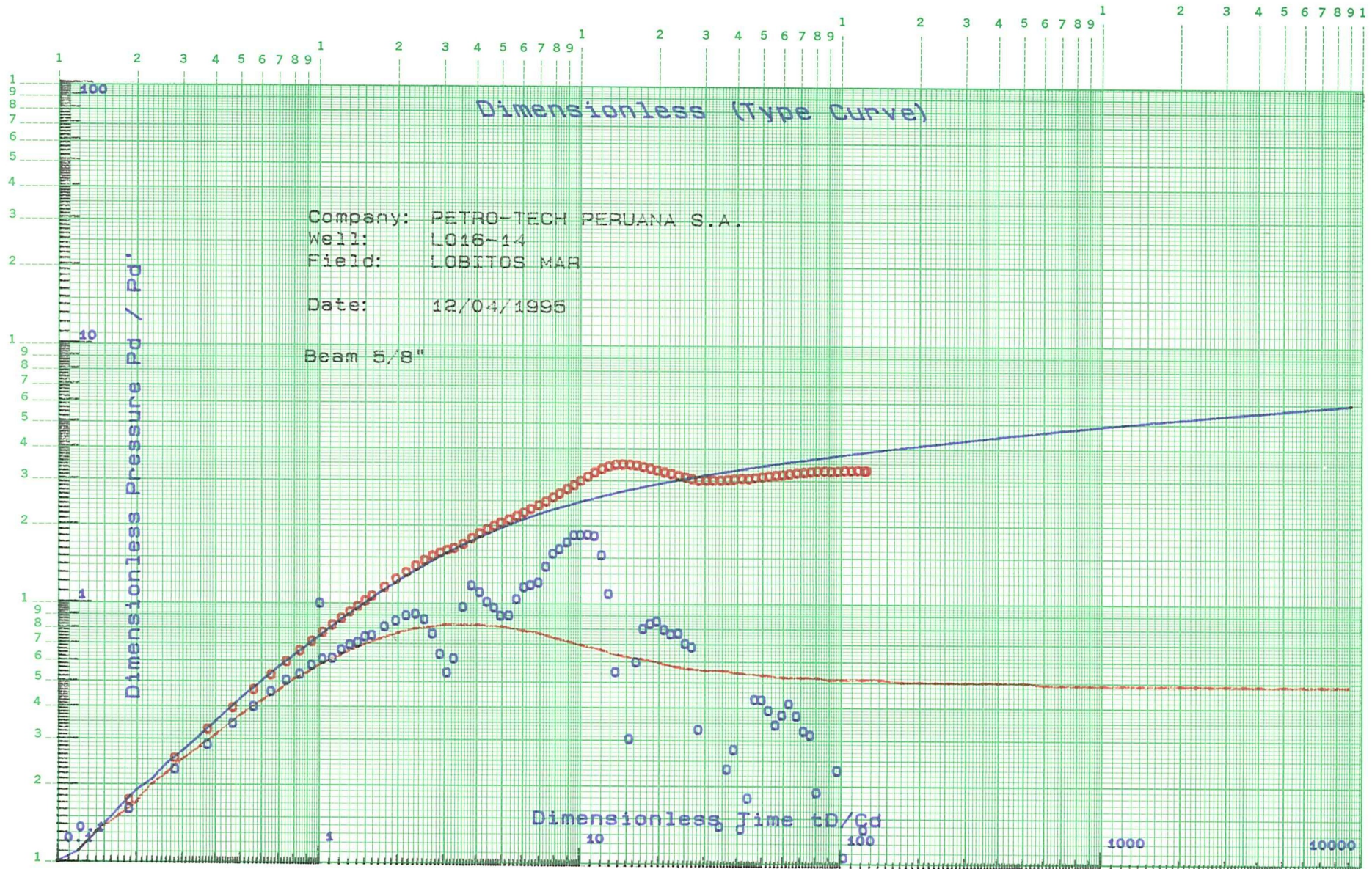












## BEAM 1/2"

| HORA      | PRODUCCION | PRESION | GOR | BSW % |
|-----------|------------|---------|-----|-------|
|           |            |         |     |       |
| 04-Dec-95 |            |         |     |       |
| 11.35     |            | 280     | 674 | 0.1   |
| 12.35     | 6          | 420     | 674 |       |
| 13.35     | 36         | 300     | 674 |       |
| 14.35     | 27         | 250     | 829 |       |
| 15.35     | 33         | 260     | 829 |       |
| 16.35     | 31         | 280     | 829 |       |
| 17.35     | 18         | 350     | 829 |       |
| 18.35     | 31         | 300     |     |       |
| 19.35     | 30         | 300     |     |       |
| 20.35     | 31         | 280     |     |       |
| 21.35     | 31         | 280     |     |       |
| 22.35     | 30         | 240     |     |       |
| 23.35     | 29         | 290     |     |       |
| 24.35     | 30         | 300     |     |       |
| 05-Dec-95 |            |         |     |       |
| 1.35      | 29         | 300     |     |       |
| 2.35      | 29         | 300     |     |       |
| 3.35      | 29         | 300     |     |       |
| 4.35      | 30         | 300     |     | 0.1   |



## BEAM 3/8"

| HORA      | PRODUCCION | PRESION | GOR | BSW % |
|-----------|------------|---------|-----|-------|
| 05-Dec-95 |            |         |     |       |
| 5.35      | 26         | 320     | 904 | 0.1   |
| 6.35      | 16         | 360     | 904 |       |
| 7.35      | 23         | 390     | 904 |       |
| 8.35      | 18         | 390     | 904 |       |
| 9.35      | 19         | 370     | 865 |       |
| 10.35     | 19         | 370     | 865 |       |
| 11.35     | 19         | 360     | 865 |       |
| 12.35     | 20         | 360     | 865 |       |
| 13.35     | 20         | 360     | 865 |       |
| 14.35     | 19         | 360     | 789 |       |
| 15.35     | 20         | 360     | 789 |       |
| 16.35     | 19         | 350     | 789 |       |
| 17.35     | 19         | 350     | 789 |       |
| 18.35     | 20         | 345     | 758 |       |
| 19.35     | 19         | 340     | 758 |       |
| 20.35     | 20         | 350     | 758 |       |
| 21.35     | 20         | 350     | 758 |       |
| 22.35     | 19         | 350     |     |       |
| 23.35     | 20         | 350     |     |       |
| 24.35     | 20         | 350     |     |       |
| 06-Dec-95 |            |         |     |       |
| 1.35      | 20         | 350     |     |       |
| 2.35      | 19         | 345     |     |       |
| 3.35      | 19         | 340     |     |       |
| 4.35      | 20         | 340     |     |       |
| 5.35      | 19         | 335     | 724 |       |
| 6.35      | 20         | 335     | 724 |       |
| 7.35      | 19         | 330     | 724 |       |
| 8.35      | 19         | 330     | 724 |       |
| 9.35      | 20         | 330     | 863 |       |
| 10.35     | 18         | 330     | 863 |       |
| 11.35     | 20         | 330     | 863 |       |
| 12.35     | 18         | 330     | 863 | 0.1   |

## BEAM 5/8"

| HORA      | PRODUCCION | PRESION | GOR | BSW % |
|-----------|------------|---------|-----|-------|
| 06-Dec-95 |            |         |     |       |
| 13.35     | 52         | 235     | 605 | 0.1   |
| 14.35     | 44         | 210     | 605 |       |
| 15.35     | 44         | 220     | 605 |       |
| 16.35     | 58         | 230     | 605 |       |
| 17.35     | 33         | 210     |     |       |
| 18.35     | 47         | 265     |     |       |
| 19.35     | 41         | 265     |     |       |
| 20.35     | 38         | 250     |     |       |
| 21.35     | 38         | 245     |     |       |
| 22.35     | 35         | 230     |     |       |
| 23.35     | 36         | 210     |     |       |
| 24.35     | 35         | 210     |     |       |
| 07-Dec-95 |            |         |     |       |
| 1.35      | 36         | 205     |     |       |
| 2.35      | 38         | 210     |     |       |
| 3.35      | 33         | 205     |     |       |
| 4.35      | 29         | 200     |     |       |
| 5.35      | 34         | 200     | 870 |       |
| 6.35      | 34         | 200     | 870 |       |
| 7.35      | 34         | 200     | 870 |       |
| 8.35      | 35         | 210     | 870 |       |
| 9.35      | 34         | 215     | 809 |       |
| 10.35     | 35         | 215     | 809 |       |
| 11.35     | 34         | 215     | 809 |       |
| 12.35     | 34         | 215     | 809 |       |
| 13.35     | 34         | 215     | 809 |       |
| 14.35     | 33         | 215     | 850 |       |
| 15.35     | 34         | 215     | 850 |       |
| 16.35     | 34         | 215     | 850 |       |
| 17.35     | 34         | 215     | 850 |       |
| 18.35     | 34         | 215     |     |       |
| 19.35     | 34         | 215     |     |       |
| 20.35     | 33         | 210     |     |       |
| 21.35     | 34         | 215     |     |       |
| 22.35     | 34         | 215     |     |       |
| 23.35     | 33         | 215     |     |       |
| 24.35     | 33         | 210     |     |       |
| 08-Dec-95 |            |         |     |       |
| 1.35      | 34         | 215     |     |       |
| 2.35      | 33         | 215     |     |       |
| 3.35      | 33         | 215     |     | 0.1   |



| HORA      | PRODUCCION | PRESION | GOR | BSW % |
|-----------|------------|---------|-----|-------|
| 4.35      | 34         | 215     |     |       |
| 5.35      | 35         | 215     | 912 | 0.1   |
| 6.35      | 33         | 215     | 912 |       |
| 7.35      | 34         | 220     | 912 |       |
| 8.35      | 32         | 215     | 912 |       |
| 9.35      | 34         | 215     | 884 |       |
| 10.35     | 32         | 215     | 884 |       |
| 11.35     | 34         | 215     | 884 |       |
| 12.35     | 32         | 215     | 884 |       |
| 13.35     | 33         | 215     | 884 |       |
| 14.35     | 34         | 215     | 875 |       |
| 15.35     | 33         | 215     | 875 |       |
| 16.35     | 33         | 215     | 875 |       |
| 17.35     | 33         | 215     | 875 |       |
| 18.35     | 34         | 215     |     |       |
| 19.35     | 32         | 215     |     |       |
| 20.35     | 32         | 215     |     |       |
| 21.35     | 33         | 215     |     |       |
| 22.35     | 33         | 215     |     |       |
| 23.35     | 33         | 215     |     |       |
| 24.35     | 32         | 215     |     |       |
| 09-Dec-95 |            |         |     |       |
| 1.35      | 33         | 215     |     |       |
| 2.35      | 33         | 215     |     |       |
| 3.35      | 33         | 215     |     |       |
| 4.35      | 32         | 215     |     |       |
| 5.35      | 32         | 220     |     |       |
| 6.35      | 33         | 220     |     |       |
| 7.35      | 33         | 220     |     | 0.1   |

\* El pozo se entregó con una producción de: 33 BBL/H x 220 psi x 5/8" x 852 GOR.

Company : PETRO-TECH PERUANA S.A.  
 Well : LO16-14  
 Field : LOBITOS MAR  
 Engineer : Miguel Bravo de Rueda F.  
 Gauge Type : Starburst Ultra II  
 Serial No. : 20602  
 Gauge Range : 0 - 6014 psia  
 Gauge Depth : 9,500 ft. ( WLM )  
 Perfs. : 9,664' - 9,460'

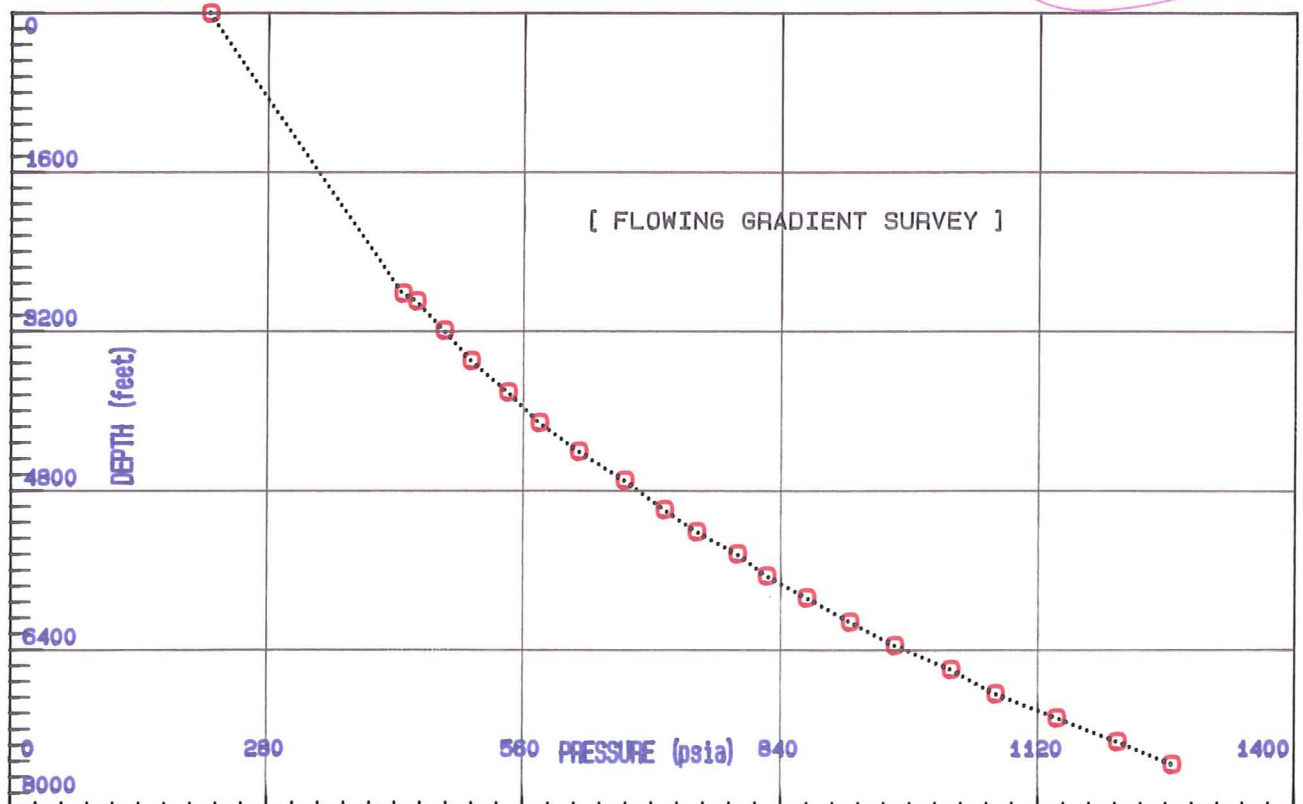
Country : PERU  
 State : TALARA  
 Date : 12/04/1995  
 Well API : 35  
 Well Type : Oil  
 Test Type : Flowing Gradient

[ GRADIENT DATA ]

| #  | MD   | TVD  | PRESSURE | PSI/ft |
|----|------|------|----------|--------|
| 1  | 0    | 0    | 215      |        |
| 2  | 3200 | 2817 | 426.46   | 0.075  |
| 3  | 3400 | 2894 | 441.77   | 0.199  |
| 4  | 3800 | 3188 | 471.73   | 0.102  |
| 5  | 4200 | 3491 | 501.37   | 0.098  |
| 6  | 4600 | 3808 | 541.75   | 0.127  |
| 7  | 5000 | 4117 | 576.06   | 0.111  |
| 8  | 5400 | 4404 | 619.00   | 0.150  |
| 9  | 5800 | 4695 | 668.95   | 0.172  |
| 10 | 6200 | 4989 | 711.91   | 0.146  |
| 11 | 6500 | 5210 | 746.98   | 0.159  |
| 12 | 6800 | 5431 | 791.09   | 0.200  |
| 13 | 7100 | 5653 | 823.14   | 0.144  |
| 14 | 7400 | 5874 | 866.51   | 0.196  |
| 15 | 7700 | 6117 | 913.45   | 0.193  |
| 16 | 8000 | 6353 | 962.37   | 0.207  |
| 17 | 8300 | 6594 | 1023.82  | 0.255  |
| 18 | 8600 | 6838 | 1072.49  | 0.199  |
| 19 | 8900 | 7081 | 1139.29  | 0.275  |
| 20 | 9200 | 7317 | 1205.25  | 0.279  |
| 21 | 9500 | 7547 | 1265.76  | 0.263  |

0.4037  
 B.F.  
 1766

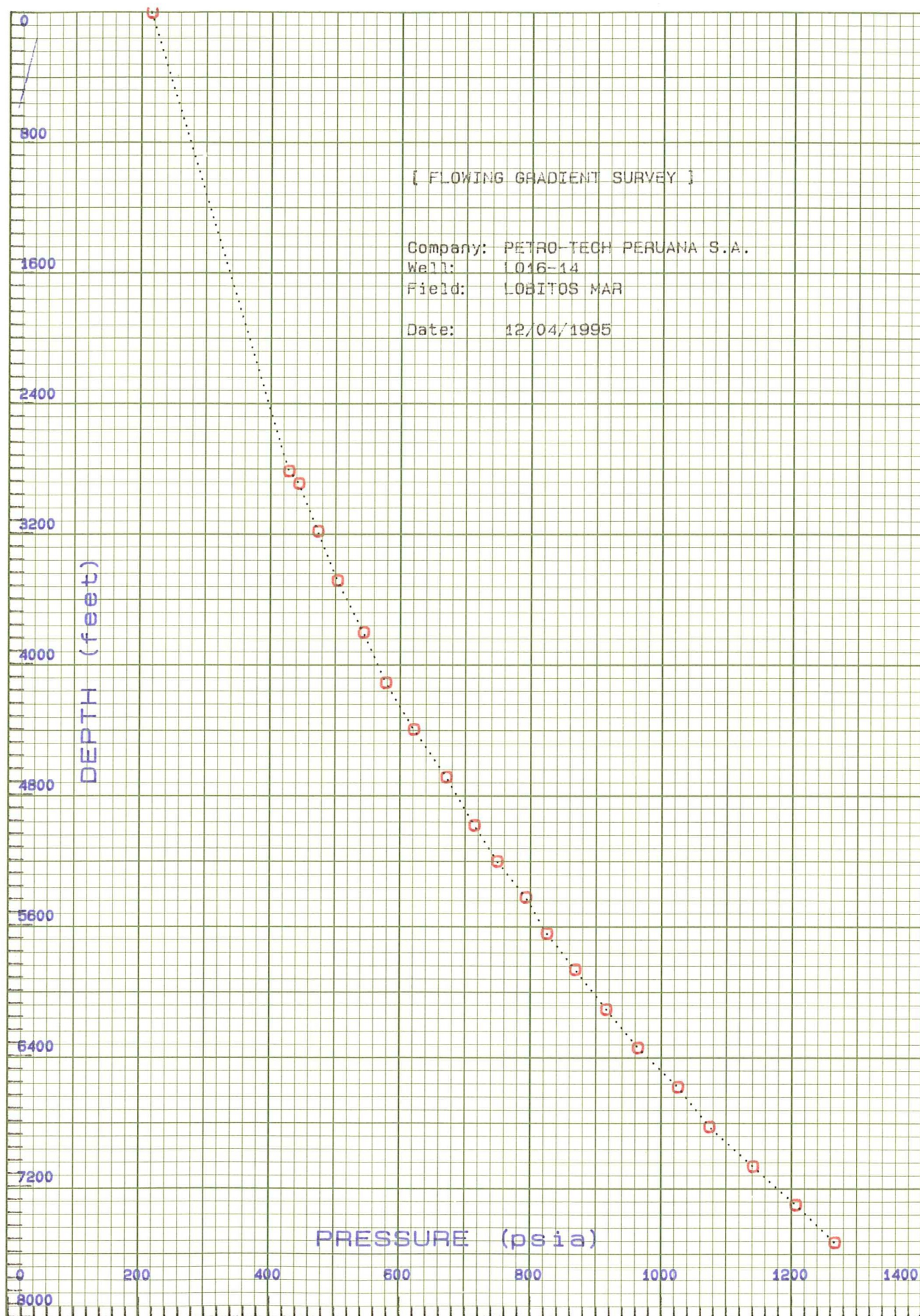
9562 1765 =  
 0.766 544





46 0780

K&E 10 X 10 TO THE INCH • 7 X 10 INCHES  
KEUFFEL & ESSER CO. MADE IN U.S.A.



# LWA

# SPC

Company: PETRO-TECH PERUANA S.A.  
Well: LO16-14  
Field: LOBITOS MAR

County: PERU  
State: TALARA

Engineer: Miguel Bravo de Rueda F.  
Gauge Type: Starburst Ultra II  
Serial No.: 20602  
Gauge Range: 0-6014  
Gauge Depth: 9500 ft

Date: 12/04/1995

Well Type: Oil  
Test Type: Flowing Gradient.  
Well Status: Producer

## [ GRADIENT DATA ]

| #  | MD   | TVD  | PRESSURE | PSI/ft |
|----|------|------|----------|--------|
| 1  | 0    | 0    | 215.00   |        |
| 2  | 3200 | 2817 | 426.46   | 0.075  |
| 3  | 3400 | 2894 | 441.77   | 0.199  |
| 4  | 3800 | 3188 | 471.73   | 0.102  |
| 5  | 4200 | 3491 | 501.37   | 0.098  |
| 6  | 4600 | 3808 | 541.75   | 0.127  |
| 7  | 5000 | 4117 | 576.06   | 0.111  |
| 8  | 5400 | 4404 | 619.00   | 0.150  |
| 9  | 5800 | 4695 | 668.95   | 0.172  |
| 10 | 6200 | 4989 | 711.91   | 0.146  |
| 11 | 6500 | 5210 | 746.98   | 0.159  |
| 12 | 6800 | 5431 | 791.09   | 0.200  |
| 13 | 7100 | 5653 | 823.14   | 0.144  |
| 14 | 7400 | 5874 | 866.51   | 0.196  |
| 15 | 7700 | 6117 | 913.45   | 0.193  |
| 16 | 8000 | 6353 | 962.37   | 0.207  |
| 17 | 8300 | 6594 | 1023.82  | 0.255  |
| 18 | 8600 | 6838 | 1072.49  | 0.199  |
| 19 | 8900 | 7081 | 1139.29  | 0.275  |
| 20 | 9200 | 7317 | 1205.25  | 0.279  |
| 21 | 9500 | 7547 | 1265.76  | 0.263  |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Monday: Dec. 4, 1995]

Page 1

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
|----------|-----|--------------|-------------|---------------|----------------|

Reg. Electronicos Starburst Ultra II.

Tope:Inst# 20600, Fondo:Inst# 20601.

Conecto Baterias: 11:18:00

|    |   |          |        |       |       |
|----|---|----------|--------|-------|-------|
| 1  | 0 | 11:18: 0 | 0.0000 | 14.50 | 64.44 |
| 5  | 0 | 11:22: 0 | 0.0667 | 14.50 | 63.98 |
| 10 | 0 | 11:27: 0 | 0.1500 | 14.50 | 63.39 |
| 14 | 0 | 11:31: 0 | 0.2167 | 14.50 | 63.10 |

Presurizo Lubricador.

|    |   |          |        |         |        |
|----|---|----------|--------|---------|--------|
| 16 | 0 | 11:33: 0 | 0.2500 | 316.24  | 63.03  |
| 19 | 0 | 11:36: 0 | 0.3000 | 315.44  | 63.93  |
| 23 | 0 | 11:40: 0 | 0.3667 | 319.71  | 64.36  |
| 28 | 0 | 11:45: 0 | 0.4500 | 455.10  | 68.12  |
| 32 | 0 | 11:49: 0 | 0.5167 | 615.22  | 75.43  |
| 37 | 0 | 11:54: 0 | 0.6000 | 951.46  | 87.23  |
| 41 | 0 | 11:58: 0 | 0.6667 | 1090.01 | 96.35  |
| 46 | 0 | 12: 3: 0 | 0.7500 | 1154.27 | 103.52 |
| 50 | 0 | 12: 7: 0 | 0.8167 | 1196.29 | 107.06 |
| 55 | 0 | 12:12: 0 | 0.9000 | 1262.38 | 109.54 |
| 59 | 0 | 12:16: 0 | 0.9667 | 1346.18 | 110.80 |
| 64 | 0 | 12:21: 0 | 1.0500 | 1479.51 | 112.77 |
| 68 | 0 | 12:25: 0 | 1.1167 | 1662.11 | 114.67 |
| 73 | 0 | 12:30: 0 | 1.2000 | 1955.95 | 117.41 |

Registradores @ 9500'.

Beam de 1/2".

|     |   |          |        |         |        |
|-----|---|----------|--------|---------|--------|
| 74  | 0 | 12:31: 0 | 1.2167 | 2023.44 | 118.13 |
| 83  | 0 | 12:40: 0 | 1.3667 | 1976.20 | 121.00 |
| 94  | 0 | 12:51: 0 | 1.5500 | 1887.78 | 122.01 |
| 104 | 0 | 13: 1: 0 | 1.7167 | 1825.13 | 122.48 |
| 115 | 0 | 13:12: 0 | 1.9000 | 1775.03 | 122.86 |
| 125 | 0 | 13:22: 0 | 2.0667 | 1734.22 | 123.08 |
| 136 | 0 | 13:33: 0 | 2.2500 | 1702.87 | 123.26 |
| 146 | 0 | 13:43: 0 | 2.4167 | 1685.87 | 123.43 |
| 157 | 0 | 13:54: 0 | 2.6000 | 1674.54 | 123.58 |
| 167 | 0 | 14: 4: 0 | 2.7667 | 1668.56 | 123.68 |
| 178 | 0 | 14:15: 0 | 2.9500 | 1661.94 | 123.75 |
| 188 | 0 | 14:25: 0 | 3.1167 | 1656.18 | 123.78 |
| 199 | 0 | 14:36: 0 | 3.3000 | 1657.31 | 123.80 |
| 209 | 0 | 14:46: 0 | 3.4667 | 1659.29 | 123.80 |
| 220 | 0 | 14:57: 0 | 3.6500 | 1667.08 | 123.79 |
| 230 | 0 | 15: 7: 0 | 3.8167 | 1674.15 | 123.77 |
| 241 | 0 | 15:18: 0 | 4.0000 | 1677.56 | 123.77 |
| 251 | 0 | 15:28: 0 | 4.1667 | 1676.28 | 123.76 |
| 262 | 0 | 15:39: 0 | 4.3500 | 1674.90 | 123.74 |
| 272 | 0 | 15:49: 0 | 4.5167 | 1668.36 | 123.70 |
| 283 | 0 | 16: 0: 0 | 4.7000 | 1660.98 | 123.64 |
| 293 | 0 | 16:10: 0 | 4.8667 | 1655.04 | 123.59 |
| 304 | 0 | 16:21: 0 | 5.0500 | 1649.27 | 123.54 |
| 314 | 0 | 16:31: 0 | 5.2167 | 1644.03 | 123.52 |
| 316 | 0 | 16:33: 0 | 5.2500 | 1643.10 | 123.52 |
| 317 | 0 | 16:34: 0 | 5.2667 | 1642.72 | 123.52 |



LWA

SPC

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

[Monday: Dec. 4, 1995]

Field: LOBITOS MAR

Page 2

| REC<br>#                                      | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|-----------------------------------------------|-----|--------------|-------------|---------------|----------------|
| 319                                           | 0   | 16:36: 0     | 5.3000      | 1641.94       | 123.53         |
| 320                                           | 0   | 16:37: 0     | 5.3167      | 1641.41       | 123.53         |
| 322                                           | 0   | 16:39: 0     | 5.3500      | 1640.99       | 123.53         |
| Se cambio Beam de 1/2" por Beam 3/8".         |     |              |             |               |                |
| 323                                           | 0   | 16:40: 0     | 5.3667      | 1649.63       | 123.53         |
| 325                                           | 0   | 16:42: 0     | 5.4000      | 1664.97       | 123.54         |
| 326                                           | 0   | 16:43: 0     | 5.4167      | 1669.55       | 123.54         |
| 328                                           | 0   | 16:45: 0     | 5.4500      | 1678.06       | 123.54         |
| 329                                           | 0   | 16:46: 0     | 5.4667      | 1681.43       | 123.54         |
| 331                                           | 0   | 16:48: 0     | 5.5000      | 1688.79       | 123.54         |
| 332                                           | 0   | 16:49: 0     | 5.5167      | 1691.53       | 123.54         |
| 334                                           | 0   | 16:51: 0     | 5.5500      | 1698.18       | 123.53         |
| 335                                           | 0   | 16:52: 0     | 5.5667      | 1700.87       | 123.53         |
| 337                                           | 0   | 16:54: 0     | 5.6000      | 1706.83       | 123.52         |
| 338                                           | 0   | 16:55: 0     | 5.6167      | 1709.92       | 123.52         |
| 340                                           | 0   | 16:57: 0     | 5.6500      | 1715.65       | 123.51         |
| 341                                           | 0   | 16:58: 0     | 5.6667      | 1718.71       | 123.51         |
| 343                                           | 0   | 17: 0: 0     | 5.7000      | 1724.29       | 123.49         |
| 344                                           | 0   | 17: 1: 0     | 5.7167      | 1726.88       | 123.48         |
| 346                                           | 0   | 17: 3: 0     | 5.7500      | 1731.87       | 123.47         |
| 347                                           | 0   | 17: 4: 0     | 5.7667      | 1733.80       | 123.46         |
| 349                                           | 0   | 17: 6: 0     | 5.8000      | 1739.38       | 123.44         |
| 350                                           | 0   | 17: 7: 0     | 5.8167      | 1741.34       | 123.43         |
| 352                                           | 0   | 17: 9: 0     | 5.8500      | 1746.53       | 123.42         |
| 353                                           | 0   | 17:10: 0     | 5.8667      | 1748.46       | 123.41         |
| 355                                           | 0   | 17:12: 0     | 5.9000      | 1752.76       | 123.39         |
| 356                                           | 0   | 17:13: 0     | 5.9167      | 1754.37       | 123.38         |
| 358                                           | 0   | 17:15: 0     | 5.9500      | 1758.11       | 123.37         |
| 359                                           | 0   | 17:16: 0     | 5.9667      | 1760.32       | 123.36         |
| 361                                           | 0   | 17:18: 0     | 6.0000      | 1763.05       | 123.35         |
| 362                                           | 0   | 17:19: 0     | 6.0167      | 1765.87       | 123.34         |
| 364                                           | 0   | 17:21: 0     | 6.0500      | 1768.52       | 123.33         |
| 365                                           | 0   | 17:22: 0     | 6.0667      | 1770.25       | 123.33         |
| 367                                           | 0   | 17:24: 0     | 6.1000      | 1773.71       | 123.32         |
| 368                                           | 0   | 17:25: 0     | 6.1167      | 1775.41       | 123.31         |
| 377                                           | 0   | 17:34: 0     | 6.2667      | 1790.04       | 123.28         |
| 386                                           | 0   | 17:43: 0     | 6.4167      | 1804.26       | 123.25         |
| Se cambio Beam de 3/8" por Beam de 1/2".      |     |              |             |               |                |
| Por baja de produccion se cambio el programa. |     |              |             |               |                |
| 393                                           | 0   | 17:50: 0     | 6.5333      | 1820.49       | 123.24         |
| 395                                           | 0   | 17:52: 0     | 6.5667      | 1808.64       | 123.24         |
| 404                                           | 0   | 18: 1: 0     | 6.7167      | 1766.24       | 123.26         |
| 413                                           | 0   | 18:10: 0     | 6.8667      | 1735.92       | 123.34         |
| 422                                           | 0   | 18:19: 0     | 7.0167      | 1713.52       | 123.48         |
| 431                                           | 0   | 18:28: 0     | 7.1667      | 1695.73       | 123.62         |
| 440                                           | 0   | 18:37: 0     | 7.3167      | 1680.91       | 123.73         |
| 449                                           | 0   | 18:46: 0     | 7.4667      | 1670.70       | 123.81         |
| 458                                           | 0   | 18:55: 0     | 7.6167      | 1662.75       | 123.84         |
| 467                                           | 0   | 19: 4: 0     | 7.7667      | 1656.82       | 123.85         |
| 476                                           | 0   | 19:13: 0     | 7.9167      | 1653.11       | 123.83         |

65333  
1.2167  
53166

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Monday: Dec. 4, 1995]

Page 3

| REC<br>#                | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|-------------------------|-----|--------------|-------------|---------------|----------------|
| 483                     | 0   | 19:22: 0     | 8.0667      | 1649.05       | 123.78         |
| 488                     | 0   | 19:32: 0     | 8.2333      | 1649.13       | 123.73         |
| 492                     | 0   | 19:40: 0     | 8.3667      | 1646.86       | 123.68         |
| 497                     | 0   | 19:50: 0     | 8.5333      | 1645.24       | 123.63         |
| 501                     | 0   | 19:58: 0     | 8.6667      | 1639.69       | 123.59         |
| 506                     | 0   | 20: 8: 0     | 8.8333      | 1640.21       | 123.54         |
| 510                     | 0   | 20:16: 0     | 8.9667      | 1641.97       | 123.52         |
| 515                     | 0   | 20:26: 0     | 9.1333      | 1644.34       | 123.49         |
| 519                     | 0   | 20:34: 0     | 9.2667      | 1646.53       | 123.47         |
| 524                     | 0   | 20:44: 0     | 9.4333      | 1644.60       | 123.45         |
| 528                     | 0   | 20:52: 0     | 9.5667      | 1641.48       | 123.44         |
| 533                     | 0   | 21: 2: 0     | 9.7333      | 1637.14       | 123.43         |
| 537                     | 0   | 21:10: 0     | 9.8667      | 1633.83       | 123.43         |
| 542                     | 0   | 21:20: 0     | 10.0333     | 1629.68       | 123.42         |
| 546                     | 0   | 21:28: 0     | 10.1667     | 1626.69       | 123.42         |
| 551                     | 0   | 21:38: 0     | 10.3333     | 1622.27       | 123.41         |
| 555                     | 0   | 21:46: 0     | 10.4667     | 1619.26       | 123.41         |
| 560                     | 0   | 21:56: 0     | 10.6333     | 1617.96       | 123.40         |
| 564                     | 0   | 22: 4: 0     | 10.7667     | 1615.27       | 123.40         |
| 569                     | 0   | 22:14: 0     | 10.9333     | 1614.44       | 123.39         |
| 573                     | 0   | 22:22: 0     | 11.0667     | 1612.05       | 123.39         |
| 578                     | 0   | 22:32: 0     | 11.2333     | 1612.71       | 123.38         |
| 582                     | 0   | 22:40: 0     | 11.3667     | 1610.93       | 123.38         |
| 587                     | 0   | 22:50: 0     | 11.5333     | 1609.67       | 123.38         |
| 591                     | 0   | 22:58: 0     | 11.6667     | 1609.42       | 123.37         |
| 596                     | 0   | 23: 8: 0     | 11.8333     | 1606.56       | 123.37         |
| 600                     | 0   | 23:16: 0     | 11.9667     | 1605.90       | 123.37         |
| 605                     | 0   | 23:26: 0     | 12.1333     | 1605.50       | 123.36         |
| 609                     | 0   | 23:34: 0     | 12.2667     | 1604.73       | 123.36         |
| 614                     | 0   | 23:44: 0     | 12.4333     | 1603.95       | 123.36         |
| 618                     | 0   | 23:52: 0     | 12.5667     | 1602.64       | 123.36         |
| [Tuesday: Dec. 5, 1995] |     |              |             |               |                |
| 623                     | 1   | 0: 2: 0      | 12.7333     | 1602.41       | 123.36         |
| 627                     | 1   | 0:10: 0      | 12.8667     | 1601.76       | 123.35         |
| 632                     | 1   | 0:20: 0      | 13.0333     | 1600.43       | 123.35         |
| 636                     | 1   | 0:28: 0      | 13.1667     | 1600.58       | 123.35         |
| 641                     | 1   | 0:38: 0      | 13.3333     | 1600.06       | 123.35         |
| 645                     | 1   | 0:46: 0      | 13.4667     | 1599.73       | 123.35         |
| 650                     | 1   | 0:56: 0      | 13.6333     | 1599.30       | 123.35         |
| 654                     | 1   | 1: 4: 0      | 13.7667     | 1598.90       | 123.35         |
| 659                     | 1   | 1:14: 0      | 13.9333     | 1599.33       | 123.35         |
| 662                     | 1   | 1:22: 0      | 14.0667     | 1598.30       | 123.35         |
| 665                     | 1   | 1:34: 0      | 14.2667     | 1596.64       | 123.35         |
| 668                     | 1   | 1:46: 0      | 14.4667     | 1597.72       | 123.35         |
| 671                     | 1   | 1:58: 0      | 14.6667     | 1598.37       | 123.35         |
| 674                     | 1   | 2:10: 0      | 14.8667     | 1596.41       | 123.35         |
| 677                     | 1   | 2:22: 0      | 15.0667     | 1595.51       | 123.35         |
| 680                     | 1   | 2:34: 0      | 15.2667     | 1597.17       | 123.35         |
| 683                     | 1   | 2:46: 0      | 15.4667     | 1597.14       | 123.35         |
| 686                     | 1   | 2:58: 0      | 15.6667     | 1597.14       | 123.34         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Tuesday: Dec. 5, 1995]

Page 4

| REC<br>#                           | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|------------------------------------|-----|--------------|-------------|---------------|----------------|
| 689                                | 1   | 3:10: 0      | 15.8667     | 1598.27       | 123.34         |
| 692                                | 1   | 3:22: 0      | 16.0667     | 1597.90       | 123.34         |
| 695                                | 1   | 3:34: 0      | 16.2667     | 1595.94       | 123.34         |
| 698                                | 1   | 3:46: 0      | 16.4667     | 1598.42       | 123.34         |
| 701                                | 1   | 3:58: 0      | 16.6667     | 1600.56       | 123.34         |
| 704                                | 1   | 4:10: 0      | 16.8667     | 1599.15       | 123.34         |
| 707                                | 1   | 4:22: 0      | 17.0667     | 1599.56       | 123.34         |
| 710                                | 1   | 4:34: 0      | 17.2667     | 1600.01       | 123.34         |
| 713                                | 1   | 4:46: 0      | 17.4667     | 1601.14       | 123.34         |
| 716                                | 1   | 4:58: 0      | 17.6667     | 1599.71       | 123.33         |
| 719                                | 1   | 5:10: 0      | 17.8667     | 1600.77       | 123.32         |
| 722                                | 1   | 5:22: 0      | 18.0667     | 1601.05       | 123.30         |
| 725                                | 1   | 5:34: 0      | 18.2667     | 1601.08       | 123.28         |
| Cambio de Beam 1/2" por Beam 3/8". |     |              |             |               |                |
| 727                                | 1   | 5:42: 0      | 18.4000     | 1644.18       | 123.26         |
| 728                                | 1   | 5:46: 0      | 18.4667     | 1657.73       | 123.24         |
| 729                                | 1   | 5:50: 0      | 18.5333     | 1668.78       | 123.23         |
| 730                                | 1   | 5:54: 0      | 18.6000     | 1679.01       | 123.23         |
| 731                                | 1   | 5:58: 0      | 18.6667     | 1689.84       | 123.22         |
| 732                                | 1   | 6: 2: 0      | 18.7333     | 1700.06       | 123.21         |
| 733                                | 1   | 6: 6: 0      | 18.8000     | 1708.46       | 123.20         |
| 734                                | 1   | 6:10: 0      | 18.8667     | 1718.20       | 123.19         |
| 735                                | 1   | 6:14: 0      | 18.9333     | 1726.85       | 123.18         |
| 736                                | 1   | 6:18: 0      | 19.0000     | 1734.58       | 123.17         |
| 737                                | 1   | 6:22: 0      | 19.0667     | 1742.21       | 123.16         |
| 738                                | 1   | 6:26: 0      | 19.1333     | 1749.56       | 123.15         |
| 739                                | 1   | 6:30: 0      | 19.2000     | 1756.76       | 123.15         |
| 740                                | 1   | 6:34: 0      | 19.2667     | 1763.70       | 123.14         |
| 741                                | 1   | 6:38: 0      | 19.3333     | 1769.37       | 123.13         |
| 742                                | 1   | 6:42: 0      | 19.4000     | 1773.52       | 123.13         |
| 743                                | 1   | 6:46: 0      | 19.4667     | 1777.87       | 123.13         |
| 744                                | 1   | 6:50: 0      | 19.5333     | 1782.19       | 123.12         |
| 745                                | 1   | 6:54: 0      | 19.6000     | 1786.21       | 123.12         |
| 746                                | 1   | 6:58: 0      | 19.6667     | 1790.25       | 123.12         |
| 747                                | 1   | 7: 2: 0      | 19.7333     | 1794.86       | 123.12         |
| 748                                | 1   | 7: 6: 0      | 19.8000     | 1799.03       | 123.12         |
| 749                                | 1   | 7:10: 0      | 19.8667     | 1802.00       | 123.12         |
| 750                                | 1   | 7:14: 0      | 19.9333     | 1803.93       | 123.12         |
| 751                                | 1   | 7:18: 0      | 20.0000     | 1805.54       | 123.12         |
| 752                                | 1   | 7:22: 0      | 20.0667     | 1808.05       | 123.13         |
| 753                                | 1   | 7:26: 0      | 20.1333     | 1810.90       | 123.13         |
| 754                                | 1   | 7:30: 0      | 20.2000     | 1814.18       | 123.13         |
| 755                                | 1   | 7:34: 0      | 20.2667     | 1816.34       | 123.13         |
| 756                                | 1   | 7:38: 0      | 20.3333     | 1818.73       | 123.14         |
| 757                                | 1   | 7:42: 0      | 20.4000     | 1820.56       | 123.14         |
| 758                                | 1   | 7:46: 0      | 20.4667     | 1821.91       | 123.15         |
| 759                                | 1   | 7:50: 0      | 20.5333     | 1823.18       | 123.15         |
| 760                                | 1   | 7:54: 0      | 20.6000     | 1824.24       | 123.16         |
| 761                                | 1   | 7:58: 0      | 20.6667     | 1826.33       | 123.16         |
| 762                                | 1   | 8: 2: 0      | 20.7333     | 1828.21       | 123.16         |

$18.2667$   
 $1.2167$   
 $17.0500$



Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Tuesday: Dec. 5, 1995]

Page 5

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
| 763      | 1   | 8: 6: 0      | 20.8000     | 1829.86       | 123.17         |
| 764      | 1   | 8:10: 0      | 20.8667     | 1831.67       | 123.17         |
| 765      | 1   | 8:14: 0      | 20.9333     | 1833.29       | 123.18         |
| 766      | 1   | 8:18: 0      | 21.0000     | 1834.51       | 123.18         |
| 767      | 1   | 8:22: 0      | 21.0667     | 1835.43       | 123.19         |
| 768      | 1   | 8:26: 0      | 21.1333     | 1835.55       | 123.19         |
| 769      | 1   | 8:30: 0      | 21.2000     | 1836.87       | 123.20         |
| 770      | 1   | 8:34: 0      | 21.2667     | 1838.17       | 123.20         |
| 771      | 1   | 8:38: 0      | 21.3333     | 1839.49       | 123.20         |
| 772      | 1   | 8:42: 0      | 21.4000     | 1840.02       | 123.21         |
| 773      | 1   | 8:46: 0      | 21.4667     | 1841.55       | 123.21         |
| 774      | 1   | 8:50: 0      | 21.5333     | 1843.58       | 123.21         |
| 775      | 1   | 8:54: 0      | 21.6000     | 1845.01       | 123.22         |
| 776      | 1   | 8:58: 0      | 21.6667     | 1846.46       | 123.22         |
| 777      | 1   | 9: 2: 0      | 21.7333     | 1846.96       | 123.22         |
| 778      | 1   | 9: 6: 0      | 21.8000     | 1848.00       | 123.23         |
| 779      | 1   | 9:10: 0      | 21.8667     | 1849.12       | 123.23         |
| 780      | 1   | 9:14: 0      | 21.9333     | 1850.11       | 123.23         |
| 781      | 1   | 9:18: 0      | 22.0000     | 1851.61       | 123.23         |
| 782      | 1   | 9:22: 0      | 22.0667     | 1852.91       | 123.23         |
| 783      | 1   | 9:26: 0      | 22.1333     | 1855.12       | 123.23         |
| 784      | 1   | 9:30: 0      | 22.2000     | 1856.80       | 123.23         |
| 785      | 1   | 9:34: 0      | 22.2667     | 1858.88       | 123.24         |
| 786      | 1   | 9:38: 0      | 22.3333     | 1860.64       | 123.24         |
| 787      | 1   | 9:42: 0      | 22.4000     | 1863.41       | 123.24         |
| 788      | 1   | 9:46: 0      | 22.4667     | 1866.28       | 123.24         |
| 789      | 1   | 9:50: 0      | 22.5333     | 1868.11       | 123.24         |
| 790      | 1   | 9:54: 0      | 22.6000     | 1871.16       | 123.25         |
| 791      | 1   | 9:58: 0      | 22.6667     | 1872.99       | 123.25         |
| 792      | 1   | 10: 2: 0     | 22.7333     | 1875.03       | 123.25         |
| 793      | 1   | 10: 6: 0     | 22.8000     | 1876.91       | 123.25         |
| 794      | 1   | 10:10: 0     | 22.8667     | 1877.95       | 123.25         |
| 795      | 1   | 10:14: 0     | 22.9333     | 1879.94       | 123.25         |
| 796      | 1   | 10:18: 0     | 23.0000     | 1881.82       | 123.26         |
| 797      | 1   | 10:22: 0     | 23.0667     | 1883.65       | 123.26         |
| 798      | 1   | 10:26: 0     | 23.1333     | 1885.40       | 123.26         |
| 799      | 1   | 10:30: 0     | 23.2000     | 1887.11       | 123.26         |
| 800      | 1   | 10:34: 0     | 23.2667     | 1890.03       | 123.26         |
| 801      | 1   | 10:38: 0     | 23.3333     | 1892.55       | 123.26         |
| 802      | 1   | 10:42: 0     | 23.4000     | 1894.38       | 123.27         |
| 803      | 1   | 10:46: 0     | 23.4667     | 1896.38       | 123.27         |
| 804      | 1   | 10:50: 0     | 23.5333     | 1898.52       | 123.27         |
| 805      | 1   | 10:54: 0     | 23.6000     | 1900.76       | 123.27         |
| 806      | 1   | 10:58: 0     | 23.6667     | 1901.83       | 123.27         |
| 807      | 1   | 11: 2: 0     | 23.7333     | 1902.31       | 123.27         |
| 808      | 1   | 11: 6: 0     | 23.8000     | 1902.46       | 123.27         |
| 809      | 1   | 11:10: 0     | 23.8667     | 1902.44       | 123.27         |
| 812      | 1   | 11:22: 0     | 24.0667     | 1904.72       | 123.28         |
| 815      | 1   | 11:34: 0     | 24.2667     | 1910.80       | 123.28         |
| 818      | 1   | 11:46: 0     | 24.4667     | 1917.31       | 123.28         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Tuesday: Dec. 5, 1995]

Page 6

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
| 821      | 1   | 11:58: 0     | 24.6667     | 1922.32       | 123.28         |
| 824      | 1   | 12:10: 0     | 24.8667     | 1926.01       | 123.29         |
| 827      | 1   | 12:22: 0     | 25.0667     | 1929.08       | 123.29         |
| 830      | 1   | 12:34: 0     | 25.2667     | 1932.87       | 123.29         |
| 833      | 1   | 12:46: 0     | 25.4667     | 1937.50       | 123.30         |
| 836      | 1   | 12:58: 0     | 25.6667     | 1941.29       | 123.30         |
| 839      | 1   | 13:10: 0     | 25.8667     | 1943.07       | 123.30         |
| 842      | 1   | 13:22: 0     | 26.0667     | 1945.41       | 123.30         |
| 845      | 1   | 13:34: 0     | 26.2667     | 1948.79       | 123.31         |
| 848      | 1   | 13:46: 0     | 26.4667     | 1952.45       | 123.31         |
| 851      | 1   | 13:58: 0     | 26.6667     | 1957.15       | 123.31         |
| 854      | 1   | 14:10: 0     | 26.8667     | 1959.13       | 123.31         |
| 857      | 1   | 14:22: 0     | 27.0667     | 1961.27       | 123.32         |
| 860      | 1   | 14:34: 0     | 27.2667     | 1963.71       | 123.32         |
| 863      | 1   | 14:46: 0     | 27.4667     | 1966.61       | 123.32         |
| 866      | 1   | 14:58: 0     | 27.6667     | 1969.41       | 123.32         |
| 869      | 1   | 15:10: 0     | 27.8667     | 1972.76       | 123.33         |
| 872      | 1   | 15:22: 0     | 28.0667     | 1979.60       | 123.33         |
| 875      | 1   | 15:34: 0     | 28.2667     | 1984.00       | 123.34         |
| 878      | 1   | 15:46: 0     | 28.4667     | 1983.94       | 123.36         |
| 881      | 1   | 15:58: 0     | 28.6667     | 1982.62       | 123.38         |
| 884      | 1   | 16:10: 0     | 28.8667     | 1985.33       | 123.42         |
| 887      | 1   | 16:22: 0     | 29.0667     | 1988.42       | 123.48         |
| 890      | 1   | 16:34: 0     | 29.2667     | 1991.38       | 123.52         |
| 893      | 1   | 16:46: 0     | 29.4667     | 1993.79       | 123.58         |
| 896      | 1   | 16:58: 0     | 29.6667     | 1997.01       | 123.63         |
| 899      | 1   | 17:10: 0     | 29.8667     | 2003.35       | 123.68         |
| 902      | 1   | 17:22: 0     | 30.0667     | 2007.29       | 123.72         |
| 905      | 1   | 17:34: 0     | 30.2667     | 2009.31       | 123.76         |
| 908      | 1   | 17:46: 0     | 30.4667     | 2011.77       | 123.80         |
| 911      | 1   | 17:58: 0     | 30.6667     | 2014.54       | 123.82         |
| 914      | 1   | 18:10: 0     | 30.8667     | 2016.19       | 123.85         |
| 917      | 1   | 18:22: 0     | 31.0667     | 2019.74       | 123.87         |
| 920      | 1   | 18:34: 0     | 31.2667     | 2026.95       | 123.89         |
| 923      | 1   | 18:46: 0     | 31.4667     | 2033.58       | 123.91         |
| 926      | 1   | 18:58: 0     | 31.6667     | 2035.63       | 123.92         |
| 929      | 1   | 19:10: 0     | 31.8667     | 2038.98       | 123.93         |
| 932      | 1   | 19:22: 0     | 32.0667     | 2045.00       | 123.94         |
| 935      | 1   | 19:34: 0     | 32.2667     | 2049.20       | 123.94         |
| 938      | 1   | 19:46: 0     | 32.4667     | 2055.24       | 123.95         |
| 941      | 1   | 19:58: 0     | 32.6667     | 2058.62       | 123.95         |
| 944      | 1   | 20:10: 0     | 32.8667     | 2059.33       | 123.95         |
| 947      | 1   | 20:22: 0     | 33.0667     | 2058.21       | 123.96         |
| 950      | 1   | 20:34: 0     | 33.2667     | 2057.30       | 123.96         |
| 953      | 1   | 20:46: 0     | 33.4667     | 2057.04       | 123.96         |
| 956      | 1   | 20:58: 0     | 33.6667     | 2057.55       | 123.97         |
| 959      | 1   | 21:10: 0     | 33.8667     | 2058.41       | 123.97         |
| 962      | 1   | 21:22: 0     | 34.0667     | 2060.09       | 123.97         |
| 965      | 1   | 21:34: 0     | 34.2667     | 2061.08       | 123.97         |
| 968      | 1   | 21:46: 0     | 34.4667     | 2062.22       | 123.98         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Tuesday: Dec. 5, 1995]

Page 7

| REC<br>#                  | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|---------------------------|-----|--------------|-------------|---------------|----------------|
| 971                       | 1   | 21:58: 0     | 34.6667     | 2063.42       | 123.98         |
| 974                       | 1   | 22:10: 0     | 34.8667     | 2064.66       | 123.98         |
| 977                       | 1   | 22:22: 0     | 35.0667     | 2065.83       | 123.99         |
| 980                       | 1   | 22:34: 0     | 35.2667     | 2067.12       | 123.99         |
| 983                       | 1   | 22:46: 0     | 35.4667     | 2068.34       | 123.99         |
| 986                       | 1   | 22:58: 0     | 35.6667     | 2069.44       | 123.99         |
| 989                       | 1   | 23:10: 0     | 35.8667     | 2070.42       | 124.00         |
| 994                       | 1   | 23:21: 0     | 36.0500     | 2072.76       | 124.00         |
| 1004                      | 1   | 23:31: 0     | 36.2167     | 2074.01       | 124.00         |
| 1015                      | 1   | 23:42: 0     | 36.4000     | 2075.61       | 124.01         |
| 1025                      | 1   | 23:52: 0     | 36.5667     | 2076.93       | 124.01         |
| [Wednesday: Dec. 6, 1995] |     |              |             |               |                |
| 1036                      | 2   | 0: 3: 0      | 36.7500     | 2078.27       | 124.01         |
| 1046                      | 2   | 0:13: 0      | 36.9167     | 2079.47       | 124.01         |
| 1057                      | 2   | 0:24: 0      | 37.1000     | 2080.81       | 124.01         |
| 1067                      | 2   | 0:34: 0      | 37.2667     | 2082.03       | 124.01         |
| 1078                      | 2   | 0:45: 0      | 37.4500     | 2083.43       | 124.01         |
| 1088                      | 2   | 0:55: 0      | 37.6167     | 2084.70       | 124.01         |
| 1099                      | 2   | 1: 6: 0      | 37.8000     | 2086.17       | 124.02         |
| 1109                      | 2   | 1:16: 0      | 37.9667     | 2087.55       | 124.02         |
| 1120                      | 2   | 1:27: 0      | 38.1500     | 2089.07       | 124.02         |
| 1130                      | 2   | 1:37: 0      | 38.3167     | 2090.47       | 124.02         |
| 1141                      | 2   | 1:48: 0      | 38.5000     | 2092.02       | 124.02         |
| 1151                      | 2   | 1:58: 0      | 38.6667     | 2093.39       | 124.02         |
| 1162                      | 2   | 2: 9: 0      | 38.8500     | 2094.89       | 124.03         |
| 1172                      | 2   | 2:19: 0      | 39.0167     | 2096.23       | 124.03         |
| 1183                      | 2   | 2:30: 0      | 39.2000     | 2097.71       | 124.03         |
| 1193                      | 2   | 2:40: 0      | 39.3667     | 2099.05       | 124.03         |
| 1204                      | 2   | 2:51: 0      | 39.5500     | 2100.50       | 124.03         |
| 1214                      | 2   | 3: 1: 0      | 39.7167     | 2101.85       | 124.03         |
| 1225                      | 2   | 3:12: 0      | 39.9000     | 2103.35       | 124.03         |
| 1235                      | 2   | 3:22: 0      | 40.0667     | 2104.69       | 124.03         |
| 1246                      | 2   | 3:33: 0      | 40.2500     | 2106.19       | 124.03         |
| 1256                      | 2   | 3:43: 0      | 40.4167     | 2107.49       | 124.03         |
| 1267                      | 2   | 3:54: 0      | 40.6000     | 2108.89       | 124.03         |
| 1277                      | 2   | 4: 4: 0      | 40.7667     | 2110.16       | 124.03         |
| 1288                      | 2   | 4:15: 0      | 40.9500     | 2111.48       | 124.02         |
| 1298                      | 2   | 4:25: 0      | 41.1167     | 2112.65       | 124.02         |
| 1309                      | 2   | 4:36: 0      | 41.3000     | 2113.94       | 124.03         |
| 1319                      | 2   | 4:46: 0      | 41.4667     | 2115.14       | 124.03         |
| 1330                      | 2   | 4:57: 0      | 41.6500     | 2116.41       | 124.03         |
| 1340                      | 2   | 5: 7: 0      | 41.8167     | 2117.60       | 124.03         |
| 1351                      | 2   | 5:18: 0      | 42.0000     | 2118.90       | 124.02         |
| 1361                      | 2   | 5:28: 0      | 42.1667     | 2120.04       | 124.02         |
| 1372                      | 2   | 5:39: 0      | 42.3500     | 2121.29       | 124.02         |
| 1382                      | 2   | 5:49: 0      | 42.5167     | 2122.38       | 124.02         |
| 1393                      | 2   | 6: 0: 0      | 42.7000     | 2123.57       | 124.02         |
| 1403                      | 2   | 6:10: 0      | 42.8667     | 2124.62       | 124.02         |
| 1414                      | 2   | 6:21: 0      | 43.0500     | 2125.83       | 124.02         |
| 1424                      | 2   | 6:31: 0      | 43.2167     | 2126.95       | 124.03         |



Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Wednesday: Dec. 6, 1995]

Page 8

| REC<br>#                           | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|------------------------------------|-----|--------------|-------------|---------------|----------------|
| 1435                               | 2   | 6:42: 0      | 43.4000     | 2128.17       | 124.02         |
| 1445                               | 2   | 6:52: 0      | 43.5667     | 2129.24       | 124.02         |
| 1456                               | 2   | 7: 3: 0      | 43.7500     | 2130.48       | 124.02         |
| 1466                               | 2   | 7:13: 0      | 43.9167     | 2131.96       | 124.02         |
| 1473                               | 2   | 7:24: 0      | 44.1000     | 2133.36       | 124.02         |
| 1477                               | 2   | 7:36: 0      | 44.3000     | 2134.27       | 124.02         |
| 1481                               | 2   | 7:48: 0      | 44.5000     | 2135.26       | 124.02         |
| 1485                               | 2   | 8: 0: 0      | 44.7000     | 2136.28       | 124.02         |
| 1489                               | 2   | 8:12: 0      | 44.9000     | 2137.34       | 124.02         |
| 1493                               | 2   | 8:24: 0      | 45.1000     | 2138.41       | 124.01         |
| 1497                               | 2   | 8:36: 0      | 45.3000     | 2139.53       | 124.01         |
| 1501                               | 2   | 8:48: 0      | 45.5000     | 2140.67       | 124.01         |
| 1505                               | 2   | 9: 0: 0      | 45.7000     | 2141.87       | 124.01         |
| 1509                               | 2   | 9:12: 0      | 45.9000     | 2143.06       | 124.01         |
| 1513                               | 2   | 9:24: 0      | 46.1000     | 2144.28       | 124.01         |
| 1517                               | 2   | 9:36: 0      | 46.3000     | 2145.50       | 124.01         |
| 1521                               | 2   | 9:48: 0      | 46.5000     | 2146.77       | 124.01         |
| 1525                               | 2   | 10: 0: 0     | 46.7000     | 2148.04       | 124.01         |
| 1529                               | 2   | 10:12: 0     | 46.9000     | 2149.31       | 124.01         |
| 1533                               | 2   | 10:24: 0     | 47.1000     | 2150.63       | 124.01         |
| 1537                               | 2   | 10:36: 0     | 47.3000     | 2151.93       | 124.01         |
| 1541                               | 2   | 10:48: 0     | 47.5000     | 2153.25       | 124.01         |
| 1545                               | 2   | 11: 0: 0     | 47.7000     | 2154.55       | 124.01         |
| 1549                               | 2   | 11:12: 0     | 47.9000     | 2155.84       | 124.01         |
| 1553                               | 2   | 11:24: 0     | 48.1000     | 2157.09       | 124.01         |
| 1557                               | 2   | 11:36: 0     | 48.3000     | 2158.36       | 124.01         |
| 1561                               | 2   | 11:48: 0     | 48.5000     | 2159.60       | 124.01         |
| 1565                               | 2   | 12: 0: 0     | 48.7000     | 2160.78       | 123.99         |
| 1569                               | 2   | 12:12: 0     | 48.9000     | 2162.20       | 123.97         |
| 1570                               | 2   | 12:15: 0     | 48.9500     | 2162.28       | 123.97         |
| 1571                               | 2   | 12:18: 0     | 49.0000     | 2162.76       | 123.96         |
| 1572                               | 2   | 12:21: 0     | 49.0500     | 2162.97       | 123.95         |
| 1573                               | 2   | 12:24: 0     | 49.1000     | 2163.12       | 123.95         |
| 1574                               | 2   | 12:27: 0     | 49.1500     | 2163.35       | 123.94         |
| 1575                               | 2   | 12:30: 0     | 49.2000     | 2163.76       | 123.94         |
| 1576                               | 2   | 12:33: 0     | 49.2500     | 2163.79       | 123.93         |
| 1577                               | 2   | 12:36: 0     | 49.3000     | 2163.96       | 123.93         |
| 1578                               | 2   | 12:39: 0     | 49.3500     | 2188.15       | 123.92         |
| Cambio de Beam 3/8" por Beam 5/8". |     |              |             |               |                |
| 1579                               | 2   | 12:42: 0     | 49.4000     | 2165.74       | 123.92         |
| 1580                               | 2   | 12:45: 0     | 49.4500     | 2118.64       | 123.92         |
| 1581                               | 2   | 12:48: 0     | 49.5000     | 2078.42       | 123.91         |
| 1582                               | 2   | 12:51: 0     | 49.5500     | 2045.85       | 123.91         |
| 1583                               | 2   | 12:54: 0     | 49.6000     | 2019.42       | 123.91         |
| 1584                               | 2   | 12:57: 0     | 49.6500     | 1996.77       | 123.91         |
| 1585                               | 2   | 13: 0: 0     | 49.7000     | 1976.71       | 123.91         |
| 1586                               | 2   | 13: 3: 0     | 49.7500     | 1957.10       | 123.91         |
| 1587                               | 2   | 13: 6: 0     | 49.8000     | 1939.61       | 123.91         |
| 1588                               | 2   | 13: 9: 0     | 49.8500     | 1922.82       | 123.91         |
| 1589                               | 2   | 13:12: 0     | 49.9000     | 1907.01       | 123.91         |

49.3500  
18.4000  
30.9500

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Wednesday: Dec. 6, 1995]

Page 9

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
| 1590     | 2   | 13:15: 0     | 49.9500     | 1892.26       | 123.91         |
| 1591     | 2   | 13:18: 0     | 50.0000     | 1877.56       | 123.91         |
| 1592     | 2   | 13:21: 0     | 50.0500     | 1863.75       | 123.91         |
| 1593     | 2   | 13:24: 0     | 50.1000     | 1849.66       | 123.92         |
| 1594     | 2   | 13:27: 0     | 50.1500     | 1836.72       | 123.92         |
| 1595     | 2   | 13:30: 0     | 50.2000     | 1824.33       | 123.92         |
| 1596     | 2   | 13:33: 0     | 50.2500     | 1812.00       | 123.92         |
| 1597     | 2   | 13:36: 0     | 50.3000     | 1800.61       | 123.93         |
| 1598     | 2   | 13:39: 0     | 50.3500     | 1790.05       | 123.93         |
| 1599     | 2   | 13:42: 0     | 50.4000     | 1778.79       | 123.93         |
| 1600     | 2   | 13:45: 0     | 50.4500     | 1768.87       | 123.94         |
| 1601     | 2   | 13:48: 0     | 50.5000     | 1758.62       | 123.94         |
| 1602     | 2   | 13:51: 0     | 50.5500     | 1748.98       | 123.94         |
| 1603     | 2   | 13:54: 0     | 50.6000     | 1739.16       | 123.95         |
| 1604     | 2   | 13:57: 0     | 50.6500     | 1730.37       | 123.95         |
| 1605     | 2   | 14: 0: 0     | 50.7000     | 1722.18       | 123.95         |
| 1606     | 2   | 14: 3: 0     | 50.7500     | 1712.31       | 123.96         |
| 1607     | 2   | 14: 6: 0     | 50.8000     | 1703.52       | 123.96         |
| 1608     | 2   | 14: 9: 0     | 50.8500     | 1695.48       | 123.96         |
| 1609     | 2   | 14:12: 0     | 50.9000     | 1687.49       | 123.96         |
| 1610     | 2   | 14:15: 0     | 50.9500     | 1678.90       | 123.96         |
| 1611     | 2   | 14:18: 0     | 51.0000     | 1671.52       | 123.96         |
| 1612     | 2   | 14:21: 0     | 51.0500     | 1664.28       | 123.96         |
| 1613     | 2   | 14:24: 0     | 51.1000     | 1657.47       | 123.96         |
| 1614     | 2   | 14:27: 0     | 51.1500     | 1651.40       | 123.96         |
| 1615     | 2   | 14:30: 0     | 51.2000     | 1646.55       | 123.96         |
| 1616     | 2   | 14:33: 0     | 51.2500     | 1641.70       | 123.95         |
| 1617     | 2   | 14:36: 0     | 51.3000     | 1637.38       | 123.95         |
| 1618     | 2   | 14:39: 0     | 51.3500     | 1633.71       | 123.95         |
| 1619     | 2   | 14:42: 0     | 51.4000     | 1631.13       | 123.94         |
| 1620     | 2   | 14:45: 0     | 51.4500     | 1627.59       | 123.94         |
| 1621     | 2   | 14:48: 0     | 51.5000     | 1623.69       | 123.93         |
| 1622     | 2   | 14:51: 0     | 51.5500     | 1619.17       | 123.93         |
| 1623     | 2   | 14:54: 0     | 51.6000     | 1614.13       | 123.92         |
| 1624     | 2   | 14:57: 0     | 51.6500     | 1608.40       | 123.92         |
| 1625     | 2   | 15: 0: 0     | 51.7000     | 1601.77       | 123.92         |
| 1626     | 2   | 15: 3: 0     | 51.7500     | 1594.71       | 123.91         |
| 1627     | 2   | 15: 6: 0     | 51.8000     | 1589.06       | 123.91         |
| 1628     | 2   | 15: 9: 0     | 51.8500     | 1582.96       | 123.90         |
| 1629     | 2   | 15:12: 0     | 51.9000     | 1577.33       | 123.90         |
| 1630     | 2   | 15:15: 0     | 51.9500     | 1572.06       | 123.89         |
| 1631     | 2   | 15:18: 0     | 52.0000     | 1566.81       | 123.89         |
| 1632     | 2   | 15:21: 0     | 52.0500     | 1562.41       | 123.89         |
| 1633     | 2   | 15:24: 0     | 52.1000     | 1558.04       | 123.88         |
| 1634     | 2   | 15:27: 0     | 52.1500     | 1553.70       | 123.88         |
| 1635     | 2   | 15:30: 0     | 52.2000     | 1549.58       | 123.88         |
| 1636     | 2   | 15:33: 0     | 52.2500     | 1545.06       | 123.87         |
| 1637     | 2   | 15:36: 0     | 52.3000     | 1541.59       | 123.87         |
| 1638     | 2   | 15:39: 0     | 52.3500     | 1537.57       | 123.87         |
| 1639     | 2   | 15:42: 0     | 52.4000     | 1534.31       | 123.86         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Wednesday: Dec. 6, 1995]

Page 10

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
| 1640     | 2   | 15:45: 0     | 52.4500     | 1530.69       | 123.86         |
| 1641     | 2   | 15:48: 0     | 52.5000     | 1527.48       | 123.86         |
| 1642     | 2   | 15:51: 0     | 52.5500     | 1524.54       | 123.86         |
| 1643     | 2   | 15:54: 0     | 52.6000     | 1520.75       | 123.85         |
| 1644     | 2   | 15:57: 0     | 52.6500     | 1517.05       | 123.85         |
| 1645     | 2   | 16: 0: 0     | 52.7000     | 1513.35       | 123.85         |
| 1646     | 2   | 16: 3: 0     | 52.7500     | 1510.46       | 123.85         |
| 1647     | 2   | 16: 6: 0     | 52.8000     | 1507.03       | 123.84         |
| 1648     | 2   | 16: 9: 0     | 52.8500     | 1502.37       | 123.84         |
| 1649     | 2   | 16:12: 0     | 52.9000     | 1498.81       | 123.84         |
| 1650     | 2   | 16:15: 0     | 52.9500     | 1495.24       | 123.84         |
| 1651     | 2   | 16:18: 0     | 53.0000     | 1491.69       | 123.83         |
| 1652     | 2   | 16:21: 0     | 53.0500     | 1487.35       | 123.83         |
| 1653     | 2   | 16:24: 0     | 53.1000     | 1483.62       | 123.83         |
| 1654     | 2   | 16:27: 0     | 53.1500     | 1479.89       | 123.82         |
| 1655     | 2   | 16:30: 0     | 53.2000     | 1477.20       | 123.82         |
| 1656     | 2   | 16:33: 0     | 53.2500     | 1473.50       | 123.82         |
| 1657     | 2   | 16:36: 0     | 53.3000     | 1469.82       | 123.82         |
| 1658     | 2   | 16:39: 0     | 53.3500     | 1466.12       | 123.81         |
| 1659     | 2   | 16:42: 0     | 53.4000     | 1462.36       | 123.81         |
| 1660     | 2   | 16:45: 0     | 53.4500     | 1459.55       | 123.81         |
| 1661     | 2   | 16:48: 0     | 53.5000     | 1456.38       | 123.81         |
| 1662     | 2   | 16:51: 0     | 53.5500     | 1452.47       | 123.81         |
| 1663     | 2   | 16:54: 0     | 53.6000     | 1449.20       | 123.81         |
| 1664     | 2   | 16:57: 0     | 53.6500     | 1444.96       | 123.81         |
| 1665     | 2   | 17: 0: 0     | 53.7000     | 1441.08       | 123.80         |
| 1666     | 2   | 17: 3: 0     | 53.7500     | 1437.15       | 123.80         |
| 1667     | 2   | 17: 6: 0     | 53.8000     | 1432.23       | 123.80         |
| 1668     | 2   | 17: 9: 0     | 53.8500     | 1428.40       | 123.79         |
| 1669     | 2   | 17:12: 0     | 53.9000     | 1424.57       | 123.79         |
| 1670     | 2   | 17:15: 0     | 53.9500     | 1420.68       | 123.79         |
| 1671     | 2   | 17:18: 0     | 54.0000     | 1416.83       | 123.78         |
| 1672     | 2   | 17:21: 0     | 54.0500     | 1412.97       | 123.78         |
| 1673     | 2   | 17:24: 0     | 54.1000     | 1409.07       | 123.78         |
| 1674     | 2   | 17:27: 0     | 54.1500     | 1405.16       | 123.77         |
| 1675     | 2   | 17:30: 0     | 54.2000     | 1401.20       | 123.77         |
| 1676     | 2   | 17:33: 0     | 54.2500     | 1397.27       | 123.76         |
| 1677     | 2   | 17:36: 0     | 54.3000     | 1393.32       | 123.76         |
| 1678     | 2   | 17:39: 0     | 54.3500     | 1389.36       | 123.76         |
| 1679     | 2   | 17:42: 0     | 54.4000     | 1385.43       | 123.75         |
| 1680     | 2   | 17:45: 0     | 54.4500     | 1381.52       | 123.75         |
| 1681     | 2   | 17:48: 0     | 54.5000     | 1377.62       | 123.74         |
| 1682     | 2   | 17:51: 0     | 54.5500     | 1373.71       | 123.74         |
| 1683     | 2   | 17:54: 0     | 54.6000     | 1369.83       | 123.73         |
| 1684     | 2   | 17:57: 0     | 54.6500     | 1365.95       | 123.73         |
| 1685     | 2   | 18: 0: 0     | 54.7000     | 1362.09       | 123.72         |
| 1686     | 2   | 18: 3: 0     | 54.7500     | 1358.26       | 123.72         |
| 1687     | 2   | 18: 6: 0     | 54.8000     | 1353.67       | 123.71         |
| 1688     | 2   | 18: 9: 0     | 54.8500     | 1350.68       | 123.71         |
| 1689     | 2   | 18:12: 0     | 54.9000     | 1346.09       | 123.70         |



Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Wednesday: Dec. 6, 1995]

Page 11

| REC<br>#                 | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|--------------------------|-----|--------------|-------------|---------------|----------------|
| 1690                     | 2   | 18:15: 0     | 54.9500     | 1342.08       | 123.70         |
| 1691                     | 2   | 18:18: 0     | 55.0000     | 1338.35       | 123.69         |
| 1692                     | 2   | 18:21: 0     | 55.0500     | 1334.50       | 123.69         |
| 1693                     | 2   | 18:24: 0     | 55.1000     | 1330.92       | 123.68         |
| 1694                     | 2   | 18:27: 0     | 55.1500     | 1327.02       | 123.67         |
| 1695                     | 2   | 18:30: 0     | 55.2000     | 1323.29       | 123.67         |
| 1696                     | 2   | 18:33: 0     | 55.2500     | 1320.02       | 123.66         |
| 1697                     | 2   | 18:36: 0     | 55.3000     | 1316.19       | 123.66         |
| 1698                     | 2   | 18:39: 0     | 55.3500     | 1313.17       | 123.65         |
| 1699                     | 2   | 18:42: 0     | 55.4000     | 1310.43       | 123.65         |
| 1703                     | 2   | 18:54: 0     | 55.6000     | 1296.18       | 123.63         |
| 1707                     | 2   | 19: 6: 0     | 55.8000     | 1282.81       | 123.60         |
| 1711                     | 2   | 19:18: 0     | 56.0000     | 1269.70       | 123.58         |
| 1715                     | 2   | 19:30: 0     | 56.2000     | 1259.40       | 123.56         |
| 1719                     | 2   | 19:42: 0     | 56.4000     | 1249.84       | 123.55         |
| 1723                     | 2   | 19:54: 0     | 56.6000     | 1242.69       | 123.53         |
| 1727                     | 2   | 20: 6: 0     | 56.8000     | 1237.01       | 123.52         |
| 1731                     | 2   | 20:18: 0     | 57.0000     | 1233.26       | 123.51         |
| 1735                     | 2   | 20:30: 0     | 57.2000     | 1231.31       | 123.50         |
| 1739                     | 2   | 20:42: 0     | 57.4000     | 1230.37       | 123.48         |
| 1743                     | 2   | 20:54: 0     | 57.6000     | 1230.25       | 123.47         |
| 1747                     | 2   | 21: 6: 0     | 57.8000     | 1230.96       | 123.46         |
| 1751                     | 2   | 21:18: 0     | 58.0000     | 1232.31       | 123.45         |
| 1755                     | 2   | 21:30: 0     | 58.2000     | 1234.80       | 123.44         |
| 1759                     | 2   | 21:42: 0     | 58.4000     | 1237.11       | 123.42         |
| 1763                     | 2   | 21:54: 0     | 58.6000     | 1241.25       | 123.41         |
| 1767                     | 2   | 22: 6: 0     | 58.8000     | 1244.60       | 123.40         |
| 1771                     | 2   | 22:18: 0     | 59.0000     | 1248.13       | 123.38         |
| 1775                     | 2   | 22:30: 0     | 59.2000     | 1251.79       | 123.37         |
| 1779                     | 2   | 22:42: 0     | 59.4000     | 1255.39       | 123.36         |
| 1783                     | 2   | 22:54: 0     | 59.6000     | 1259.43       | 123.35         |
| 1787                     | 2   | 23: 6: 0     | 59.8000     | 1262.37       | 123.35         |
| 1791                     | 2   | 23:18: 0     | 60.0000     | 1266.53       | 123.34         |
| 1793                     | 2   | 23:30: 0     | 60.2000     | 1270.09       | 123.33         |
| 1795                     | 2   | 23:42: 0     | 60.4000     | 1273.28       | 123.33         |
| 1797                     | 2   | 23:54: 0     | 60.6000     | 1276.84       | 123.33         |
| [Thursday: Dec. 7, 1995] |     |              |             |               |                |
| 1799                     | 3   | 0: 6: 0      | 60.8000     | 1280.44       | 123.32         |
| 1801                     | 3   | 0:18: 0      | 61.0000     | 1283.79       | 123.32         |
| 1803                     | 3   | 0:30: 0      | 61.2000     | 1285.64       | 123.32         |
| 1805                     | 3   | 0:42: 0      | 61.4000     | 1288.63       | 123.32         |
| 1807                     | 3   | 0:54: 0      | 61.6000     | 1291.58       | 123.31         |
| 1809                     | 3   | 1: 6: 0      | 61.8000     | 1294.40       | 123.31         |
| 1811                     | 3   | 1:18: 0      | 62.0000     | 1297.14       | 123.31         |
| 1813                     | 3   | 1:30: 0      | 62.2000     | 1300.79       | 123.31         |
| 1815                     | 3   | 1:42: 0      | 62.4000     | 1303.25       | 123.30         |
| 1817                     | 3   | 1:54: 0      | 62.6000     | 1304.98       | 123.30         |
| 1819                     | 3   | 2: 6: 0      | 62.8000     | 1308.50       | 123.30         |
| 1821                     | 3   | 2:18: 0      | 63.0000     | 1310.00       | 123.30         |
| 1823                     | 3   | 2:30: 0      | 63.2000     | 1312.54       | 123.29         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Thursday: Dec. 7, 1995]

Page 12

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
| 1825     | 3   | 2:42: 0      | 63.4000     | 1315.00       | 123.29         |
| 1827     | 3   | 2:54: 0      | 63.6000     | 1317.28       | 123.29         |
| 1829     | 3   | 3: 6: 0      | 63.8000     | 1319.36       | 123.29         |
| 1831     | 3   | 3:18: 0      | 64.0000     | 1321.27       | 123.29         |
| 1833     | 3   | 3:30: 0      | 64.2000     | 1324.72       | 123.29         |
| 1835     | 3   | 3:42: 0      | 64.4000     | 1326.98       | 123.28         |
| 1837     | 3   | 3:54: 0      | 64.6000     | 1329.16       | 123.28         |
| 1839     | 3   | 4: 6: 0      | 64.8000     | 1329.95       | 123.28         |
| 1841     | 3   | 4:18: 0      | 65.0000     | 1329.92       | 123.28         |
| 1843     | 3   | 4:30: 0      | 65.2000     | 1329.97       | 123.28         |
| 1845     | 3   | 4:42: 0      | 65.4000     | 1329.34       | 123.28         |
| 1847     | 3   | 4:54: 0      | 65.6000     | 1329.62       | 123.28         |
| 1849     | 3   | 5: 6: 0      | 65.8000     | 1329.74       | 123.28         |
| 1851     | 3   | 5:18: 0      | 66.0000     | 1329.69       | 123.27         |
| 1853     | 3   | 5:30: 0      | 66.2000     | 1329.59       | 123.27         |
| 1855     | 3   | 5:42: 0      | 66.4000     | 1329.47       | 123.27         |
| 1857     | 3   | 5:54: 0      | 66.6000     | 1329.29       | 123.27         |
| 1859     | 3   | 6: 6: 0      | 66.8000     | 1329.14       | 123.27         |
| 1861     | 3   | 6:18: 0      | 67.0000     | 1328.98       | 123.27         |
| 1863     | 3   | 6:30: 0      | 67.2000     | 1328.78       | 123.27         |
| 1865     | 3   | 6:42: 0      | 67.4000     | 1328.53       | 123.27         |
| 1867     | 3   | 6:54: 0      | 67.6000     | 1328.22       | 123.27         |
| 1869     | 3   | 7: 6: 0      | 67.8000     | 1327.92       | 123.27         |
| 1871     | 3   | 7:18: 0      | 68.0000     | 1327.59       | 123.27         |
| 1873     | 3   | 7:30: 0      | 68.2000     | 1328.25       | 123.27         |
| 1875     | 3   | 7:42: 0      | 68.4000     | 1326.91       | 123.26         |
| 1877     | 3   | 7:54: 0      | 68.6000     | 1326.53       | 123.26         |
| 1879     | 3   | 8: 6: 0      | 68.8000     | 1326.14       | 123.26         |
| 1881     | 3   | 8:18: 0      | 69.0000     | 1325.74       | 123.26         |
| 1883     | 3   | 8:30: 0      | 69.2000     | 1325.31       | 123.26         |
| 1885     | 3   | 8:42: 0      | 69.4000     | 1324.83       | 123.26         |
| 1887     | 3   | 8:54: 0      | 69.6000     | 1324.29       | 123.26         |
| 1889     | 3   | 9: 6: 0      | 69.8000     | 1323.81       | 123.26         |
| 1891     | 3   | 9:18: 0      | 70.0000     | 1323.35       | 123.26         |
| 1893     | 3   | 9:30: 0      | 70.2000     | 1322.87       | 123.26         |
| 1895     | 3   | 9:42: 0      | 70.4000     | 1322.31       | 123.26         |
| 1897     | 3   | 9:54: 0      | 70.6000     | 1321.73       | 123.26         |
| 1899     | 3   | 10: 6: 0     | 70.8000     | 1321.15       | 123.26         |
| 1901     | 3   | 10:18: 0     | 71.0000     | 1320.79       | 123.26         |
| 1903     | 3   | 10:30: 0     | 71.2000     | 1320.69       | 123.26         |
| 1905     | 3   | 10:42: 0     | 71.4000     | 1319.57       | 123.26         |
| 1907     | 3   | 10:54: 0     | 71.6000     | 1318.66       | 123.26         |
| 1909     | 3   | 11: 6: 0     | 71.8000     | 1317.65       | 123.25         |
| 1911     | 3   | 11:18: 0     | 72.0000     | 1317.42       | 123.25         |
| 1913     | 3   | 11:30: 0     | 72.2000     | 1322.92       | 123.25         |
| 1915     | 3   | 11:42: 0     | 72.4000     | 1322.21       | 123.25         |
| 1917     | 3   | 11:54: 0     | 72.6000     | 1322.16       | 123.25         |
| 1919     | 3   | 12: 6: 0     | 72.8000     | 1321.83       | 123.25         |
| 1921     | 3   | 12:18: 0     | 73.0000     | 1319.91       | 123.25         |
| 1923     | 3   | 12:30: 0     | 73.2000     | 1318.43       | 123.25         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Thursday: Dec. 7, 1995]

Page 13

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
| 1925     | 3   | 12:42: 0     | 73.4000     | 1318.13       | 123.25         |
| 1927     | 3   | 12:54: 0     | 73.6000     | 1317.32       | 123.25         |
| 1929     | 3   | 13: 6: 0     | 73.8000     | 1315.59       | 123.25         |
| 1931     | 3   | 13:18: 0     | 74.0000     | 1315.62       | 123.25         |
| 1933     | 3   | 13:30: 0     | 74.2000     | 1314.76       | 123.25         |
| 1935     | 3   | 13:42: 0     | 74.4000     | 1313.99       | 123.25         |
| 1937     | 3   | 13:54: 0     | 74.6000     | 1313.26       | 123.25         |
| 1939     | 3   | 14: 6: 0     | 74.8000     | 1312.52       | 123.25         |
| 1941     | 3   | 14:18: 0     | 75.0000     | 1311.79       | 123.25         |
| 1943     | 3   | 14:30: 0     | 75.2000     | 1311.05       | 123.25         |
| 1945     | 3   | 14:42: 0     | 75.4000     | 1310.32       | 123.25         |
| 1947     | 3   | 14:54: 0     | 75.6000     | 1309.61       | 123.25         |
| 1949     | 3   | 15: 6: 0     | 75.8000     | 1308.87       | 123.25         |
| 1951     | 3   | 15:18: 0     | 76.0000     | 1308.13       | 123.25         |
| 1953     | 3   | 15:30: 0     | 76.2000     | 1307.42       | 123.25         |
| 1955     | 3   | 15:42: 0     | 76.4000     | 1306.71       | 123.25         |
| 1957     | 3   | 15:54: 0     | 76.6000     | 1306.03       | 123.25         |
| 1959     | 3   | 16: 6: 0     | 76.8000     | 1305.34       | 123.25         |
| 1961     | 3   | 16:18: 0     | 77.0000     | 1304.64       | 123.24         |
| 1963     | 3   | 16:30: 0     | 77.2000     | 1303.24       | 123.24         |
| 1965     | 3   | 16:42: 0     | 77.4000     | 1303.29       | 123.24         |
| 1967     | 3   | 16:54: 0     | 77.6000     | 1302.61       | 123.24         |
| 1969     | 3   | 17: 6: 0     | 77.8000     | 1301.95       | 123.24         |
| 1971     | 3   | 17:18: 0     | 78.0000     | 1301.31       | 123.24         |
| 1973     | 3   | 17:30: 0     | 78.2000     | 1300.70       | 123.24         |
| 1975     | 3   | 17:42: 0     | 78.4000     | 1300.14       | 123.24         |
| 1977     | 3   | 17:54: 0     | 78.6000     | 1299.59       | 123.24         |
| 1979     | 3   | 18: 6: 0     | 78.8000     | 1299.03       | 123.24         |
| 1981     | 3   | 18:18: 0     | 79.0000     | 1297.56       | 123.24         |
| 1983     | 3   | 18:30: 0     | 79.2000     | 1298.06       | 123.24         |
| 1985     | 3   | 18:42: 0     | 79.4000     | 1297.61       | 123.24         |
| 1987     | 3   | 18:54: 0     | 79.6000     | 1297.15       | 123.24         |
| 1989     | 3   | 19: 6: 0     | 79.8000     | 1295.96       | 123.24         |
| 1991     | 3   | 19:18: 0     | 80.0000     | 1296.21       | 123.24         |
| 1993     | 3   | 19:30: 0     | 80.2000     | 1295.73       | 123.24         |
| 1995     | 3   | 19:42: 0     | 80.4000     | 1295.30       | 123.24         |
| 1997     | 3   | 19:54: 0     | 80.6000     | 1295.60       | 123.24         |
| 1999     | 3   | 20: 6: 0     | 80.8000     | 1294.36       | 123.24         |
| 2001     | 3   | 20:18: 0     | 81.0000     | 1293.88       | 123.24         |
| 2003     | 3   | 20:30: 0     | 81.2000     | 1293.45       | 123.24         |
| 2005     | 3   | 20:42: 0     | 81.4000     | 1292.91       | 123.24         |
| 2007     | 3   | 20:54: 0     | 81.6000     | 1292.41       | 123.24         |
| 2009     | 3   | 21: 6: 0     | 81.8000     | 1291.90       | 123.24         |
| 2011     | 3   | 21:18: 0     | 82.0000     | 1291.32       | 123.24         |
| 2013     | 3   | 21:30: 0     | 82.2000     | 1290.78       | 123.24         |
| 2015     | 3   | 21:42: 0     | 82.4000     | 1290.23       | 123.24         |
| 2017     | 3   | 21:54: 0     | 82.6000     | 1289.69       | 123.24         |
| 2019     | 3   | 22: 6: 0     | 82.8000     | 1289.13       | 123.24         |
| 2021     | 3   | 22:18: 0     | 83.0000     | 1288.55       | 123.23         |
| 2023     | 3   | 22:30: 0     | 83.2000     | 1287.99       | 123.23         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Thursday: Dec. 7, 1995]

Page 14

| REC<br>#               | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|------------------------|-----|--------------|-------------|---------------|----------------|
| 2025                   | 3   | 22:42: 0     | 83.4000     | 1287.41       | 123.23         |
| 2027                   | 3   | 22:54: 0     | 83.6000     | 1286.85       | 123.23         |
| 2029                   | 3   | 23: 6: 0     | 83.8000     | 1286.27       | 123.23         |
| 2031                   | 3   | 23:18: 0     | 84.0000     | 1285.71       | 123.23         |
| 2033                   | 3   | 23:30: 0     | 84.2000     | 1285.18       | 123.23         |
| 2035                   | 3   | 23:42: 0     | 84.4000     | 1284.62       | 123.23         |
| 2037                   | 3   | 23:54: 0     | 84.6000     | 1284.11       | 123.23         |
| [Friday: Dec. 8, 1995] |     |              |             |               |                |
| 2039                   | 4   | 0: 6: 0      | 84.8000     | 1283.58       | 123.23         |
| 2041                   | 4   | 0:18: 0      | 85.0000     | 1283.08       | 123.23         |
| 2043                   | 4   | 0:30: 0      | 85.2000     | 1282.59       | 123.23         |
| 2045                   | 4   | 0:42: 0      | 85.4000     | 1282.11       | 123.23         |
| 2047                   | 4   | 0:54: 0      | 85.6000     | 1281.65       | 123.23         |
| 2049                   | 4   | 1: 6: 0      | 85.8000     | 1281.20       | 123.23         |
| 2051                   | 4   | 1:18: 0      | 86.0000     | 1280.72       | 123.23         |
| 2053                   | 4   | 1:30: 0      | 86.2000     | 1280.28       | 123.23         |
| 2055                   | 4   | 1:42: 0      | 86.4000     | 1279.85       | 123.23         |
| 2057                   | 4   | 1:54: 0      | 86.6000     | 1279.45       | 123.23         |
| 2059                   | 4   | 2: 6: 0      | 86.8000     | 1279.07       | 123.23         |
| 2061                   | 4   | 2:18: 0      | 87.0000     | 1278.69       | 123.23         |
| 2063                   | 4   | 2:30: 0      | 87.2000     | 1277.57       | 123.23         |
| 2065                   | 4   | 2:42: 0      | 87.4000     | 1277.98       | 123.23         |
| 2067                   | 4   | 2:54: 0      | 87.6000     | 1277.62       | 123.23         |
| 2069                   | 4   | 3: 6: 0      | 87.8000     | 1277.29       | 123.23         |
| 2071                   | 4   | 3:18: 0      | 88.0000     | 1276.96       | 123.23         |
| 2073                   | 4   | 3:30: 0      | 88.2000     | 1276.61       | 123.23         |
| 2075                   | 4   | 3:42: 0      | 88.4000     | 1276.28       | 123.23         |
| 2077                   | 4   | 3:54: 0      | 88.6000     | 1276.00       | 123.23         |
| 2079                   | 4   | 4: 6: 0      | 88.8000     | 1275.67       | 123.23         |
| 2081                   | 4   | 4:18: 0      | 89.0000     | 1275.34       | 123.23         |
| 2083                   | 4   | 4:30: 0      | 89.2000     | 1275.04       | 123.22         |
| 2085                   | 4   | 4:42: 0      | 89.4000     | 1274.73       | 123.22         |
| 2087                   | 4   | 4:54: 0      | 89.6000     | 1274.43       | 123.22         |
| 2089                   | 4   | 5: 6: 0      | 89.8000     | 1274.12       | 123.22         |
| 2091                   | 4   | 5:18: 0      | 90.0000     | 1273.84       | 123.22         |
| 2095                   | 4   | 5:30: 0      | 90.2000     | 1273.28       | 123.22         |
| 2099                   | 4   | 5:42: 0      | 90.4000     | 1272.78       | 123.21         |
| 2103                   | 4   | 5:54: 0      | 90.6000     | 1272.30       | 123.21         |
| 2107                   | 4   | 6: 6: 0      | 90.8000     | 1271.84       | 123.21         |
| 2111                   | 4   | 6:18: 0      | 91.0000     | 1271.41       | 123.21         |
| 2115                   | 4   | 6:30: 0      | 91.2000     | 1271.00       | 123.21         |
| 2119                   | 4   | 6:42: 0      | 91.4000     | 1270.60       | 123.21         |
| 2123                   | 4   | 6:54: 0      | 91.6000     | 1270.24       | 123.21         |
| 2127                   | 4   | 7: 6: 0      | 91.8000     | 1269.94       | 123.21         |
| 2131                   | 4   | 7:18: 0      | 92.0000     | 1269.66       | 123.21         |
| 2135                   | 4   | 7:30: 0      | 92.2000     | 1269.38       | 123.21         |
| 2139                   | 4   | 7:42: 0      | 92.4000     | 1269.13       | 123.21         |
| 2143                   | 4   | 7:54: 0      | 92.6000     | 1268.95       | 123.21         |
| 2147                   | 4   | 8: 6: 0      | 92.8000     | 1268.75       | 123.21         |
| 2151                   | 4   | 8:18: 0      | 93.0000     | 1268.57       | 123.21         |



Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Friday: Dec. 8, 1995]

Page 15

| REC<br># | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|--------------|-------------|---------------|----------------|
| 2155     | 4   | 8:30: 0      | 93.2000     | 1268.39       | 123.20         |
| 2159     | 4   | 8:42: 0      | 93.4000     | 1268.19       | 123.20         |
| 2163     | 4   | 8:54: 0      | 93.6000     | 1267.96       | 123.20         |
| 2167     | 4   | 9: 6: 0      | 93.8000     | 1267.71       | 123.20         |
| 2171     | 4   | 9:18: 0      | 94.0000     | 1267.48       | 123.20         |
| 2175     | 4   | 9:30: 0      | 94.2000     | 1267.30       | 123.20         |
| 2179     | 4   | 9:42: 0      | 94.4000     | 1267.15       | 123.19         |
| 2183     | 4   | 9:54: 0      | 94.6000     | 1267.08       | 123.19         |
| 2187     | 4   | 10: 6: 0     | 94.8000     | 1267.08       | 123.19         |
| 2191     | 4   | 10:18: 0     | 95.0000     | 1267.13       | 123.19         |
| 2195     | 4   | 10:30: 0     | 95.2000     | 1267.23       | 123.19         |
| 2199     | 4   | 10:42: 0     | 95.4000     | 1267.38       | 123.19         |
| 2203     | 4   | 10:54: 0     | 95.6000     | 1267.56       | 123.19         |
| 2207     | 4   | 11: 6: 0     | 95.8000     | 1267.74       | 123.19         |
| 2211     | 4   | 11:18: 0     | 96.0000     | 1267.96       | 123.19         |
| 2215     | 4   | 11:30: 0     | 96.2000     | 1268.19       | 123.19         |
| 2219     | 4   | 11:42: 0     | 96.4000     | 1268.42       | 123.19         |
| 2223     | 4   | 11:54: 0     | 96.6000     | 1268.65       | 123.19         |
| 2227     | 4   | 12: 6: 0     | 96.8000     | 1268.88       | 123.19         |
| 2231     | 4   | 12:18: 0     | 97.0000     | 1269.08       | 123.19         |
| 2235     | 4   | 12:30: 0     | 97.2000     | 1269.26       | 123.19         |
| 2239     | 4   | 12:42: 0     | 97.4000     | 1269.44       | 123.19         |
| 2243     | 4   | 12:54: 0     | 97.6000     | 1269.59       | 123.19         |
| 2247     | 4   | 13: 6: 0     | 97.8000     | 1269.77       | 123.18         |
| 2251     | 4   | 13:18: 0     | 98.0000     | 1269.92       | 123.18         |
| 2255     | 4   | 13:30: 0     | 98.2000     | 1270.07       | 123.18         |
| 2259     | 4   | 13:42: 0     | 98.4000     | 1270.25       | 123.18         |
| 2263     | 4   | 13:54: 0     | 98.6000     | 1270.40       | 123.18         |
| 2267     | 4   | 14: 6: 0     | 98.8000     | 1270.61       | 123.17         |
| 2271     | 4   | 14:18: 0     | 99.0000     | 1270.84       | 123.17         |
| 2275     | 4   | 14:30: 0     | 99.2000     | 1271.01       | 123.17         |
| 2279     | 4   | 14:42: 0     | 99.4000     | 1271.27       | 123.17         |
| 2283     | 4   | 14:54: 0     | 99.6000     | 1271.57       | 123.16         |
| 2287     | 4   | 15: 6: 0     | 99.8000     | 1271.47       | 123.16         |
| 2291     | 4   | 15:18: 0     | 100.0000    | 1272.28       | 123.16         |
| 2295     | 4   | 15:30: 0     | 100.2000    | 1273.10       | 123.16         |
| 2299     | 4   | 15:42: 0     | 100.4000    | 1273.40       | 123.16         |
| 2303     | 4   | 15:54: 0     | 100.6000    | 1271.45       | 123.16         |
| 2307     | 4   | 16: 6: 0     | 100.8000    | 1269.80       | 123.16         |
| 2311     | 4   | 16:18: 0     | 101.0000    | 1268.55       | 123.16         |
| 2315     | 4   | 16:30: 0     | 101.2000    | 1268.50       | 123.16         |
| 2319     | 4   | 16:42: 0     | 101.4000    | 1267.89       | 123.16         |
| 2323     | 4   | 16:54: 0     | 101.6000    | 1267.41       | 123.16         |
| 2327     | 4   | 17: 6: 0     | 101.8000    | 1266.96       | 123.16         |
| 2331     | 4   | 17:18: 0     | 102.0000    | 1266.50       | 123.16         |
| 2335     | 4   | 17:30: 0     | 102.2000    | 1266.07       | 123.16         |
| 2339     | 4   | 17:42: 0     | 102.4000    | 1265.66       | 123.16         |
| 2343     | 4   | 17:54: 0     | 102.6000    | 1265.31       | 123.16         |
| 2347     | 4   | 18: 6: 0     | 102.8000    | 1265.03       | 123.15         |
| 2351     | 4   | 18:18: 0     | 103.0000    | 1264.83       | 123.15         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Friday: Dec. 8, 1995]

Page 16

| REC<br>#                 | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|--------------------------|-----|--------------|-------------|---------------|----------------|
| 2355                     | 4   | 18:30: 0     | 103.2000    | 1264.67       | 123.15         |
| 2359                     | 4   | 18:42: 0     | 103.4000    | 1264.57       | 123.15         |
| 2363                     | 4   | 18:54: 0     | 103.6000    | 1264.47       | 123.15         |
| 2367                     | 4   | 19: 6: 0     | 103.8000    | 1264.40       | 123.14         |
| 2371                     | 4   | 19:18: 0     | 104.0000    | 1264.35       | 123.14         |
| 2375                     | 4   | 19:30: 0     | 104.2000    | 1264.32       | 123.14         |
| 2379                     | 4   | 19:42: 0     | 104.4000    | 1264.27       | 123.14         |
| 2383                     | 4   | 19:54: 0     | 104.6000    | 1264.25       | 123.14         |
| 2387                     | 4   | 20: 6: 0     | 104.8000    | 1264.22       | 123.14         |
| 2391                     | 4   | 20:18: 0     | 105.0000    | 1264.19       | 123.14         |
| 2401                     | 4   | 20:28: 0     | 105.1667    | 1264.07       | 123.14         |
| 2412                     | 4   | 20:39: 0     | 105.3500    | 1263.92       | 123.14         |
| 2422                     | 4   | 20:49: 0     | 105.5167    | 1263.87       | 123.14         |
| 2433                     | 4   | 21: 0: 0     | 105.7000    | 1263.84       | 123.13         |
| 2443                     | 4   | 21:10: 0     | 105.8667    | 1263.82       | 123.13         |
| 2454                     | 4   | 21:21: 0     | 106.0500    | 1263.77       | 123.13         |
| 2464                     | 4   | 21:31: 0     | 106.2167    | 1263.79       | 123.12         |
| 2475                     | 4   | 21:42: 0     | 106.4000    | 1263.89       | 123.12         |
| 2485                     | 4   | 21:52: 0     | 106.5667    | 1263.94       | 123.13         |
| 2496                     | 4   | 22: 3: 0     | 106.7500    | 1264.07       | 123.13         |
| 2506                     | 4   | 22:13: 0     | 106.9167    | 1264.25       | 123.13         |
| 2517                     | 4   | 22:24: 0     | 107.1000    | 1264.40       | 123.12         |
| 2527                     | 4   | 22:34: 0     | 107.2667    | 1264.43       | 123.12         |
| 2538                     | 4   | 22:45: 0     | 107.4500    | 1264.38       | 123.12         |
| 2548                     | 4   | 22:55: 0     | 107.6167    | 1264.50       | 123.12         |
| 2559                     | 4   | 23: 6: 0     | 107.8000    | 1264.81       | 123.11         |
| 2569                     | 4   | 23:16: 0     | 107.9667    | 1264.91       | 123.11         |
| 2580                     | 4   | 23:27: 0     | 108.1500    | 1264.89       | 123.11         |
| 2590                     | 4   | 23:37: 0     | 108.3167    | 1264.86       | 123.11         |
| 2601                     | 4   | 23:48: 0     | 108.5000    | 1264.76       | 123.11         |
| 2611                     | 4   | 23:58: 0     | 108.6667    | 1264.58       | 123.11         |
| [Saturday: Dec. 9, 1995] |     |              |             |               |                |
| 2622                     | 5   | 0: 9: 0      | 108.8500    | 1264.43       | 123.11         |
| 2632                     | 5   | 0:19: 0      | 109.0167    | 1264.30       | 123.11         |
| 2643                     | 5   | 0:30: 0      | 109.2000    | 1264.05       | 123.10         |
| 2653                     | 5   | 0:40: 0      | 109.3667    | 1263.82       | 123.10         |
| 2664                     | 5   | 0:51: 0      | 109.5500    | 1263.70       | 123.10         |
| 2674                     | 5   | 1: 1: 0      | 109.7167    | 1263.70       | 123.10         |
| 2685                     | 5   | 1:12: 0      | 109.9000    | 1263.72       | 123.10         |
| 2695                     | 5   | 1:22: 0      | 110.0667    | 1263.72       | 123.10         |
| 2706                     | 5   | 1:33: 0      | 110.2500    | 1263.75       | 123.10         |
| 2716                     | 5   | 1:43: 0      | 110.4167    | 1263.77       | 123.10         |
| 2727                     | 5   | 1:54: 0      | 110.6000    | 1263.70       | 123.09         |
| 2737                     | 5   | 2: 4: 0      | 110.7667    | 1263.60       | 123.09         |
| 2748                     | 5   | 2:15: 0      | 110.9500    | 1263.55       | 123.09         |
| 2758                     | 5   | 2:25: 0      | 111.1167    | 1263.52       | 123.09         |
| 2769                     | 5   | 2:36: 0      | 111.3000    | 1263.50       | 123.09         |
| 2779                     | 5   | 2:46: 0      | 111.4667    | 1263.47       | 123.08         |
| 2790                     | 5   | 2:57: 0      | 111.6500    | 1263.52       | 123.08         |
| 2800                     | 5   | 3: 7: 0      | 111.8167    | 1263.55       | 123.08         |

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Saturday: Dec. 9, 1995]

Page 17

| REC<br>#                                          | DAY | REAL<br>TIME | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|---------------------------------------------------|-----|--------------|-------------|---------------|----------------|
| 2811                                              | 5   | 3:18: 0      | 112.0000    | 1263.57       | 123.08         |
| 2821                                              | 5   | 3:28: 0      | 112.1667    | 1263.58       | 123.07         |
| 2832                                              | 5   | 3:39: 0      | 112.3500    | 1263.60       | 123.07         |
| 2842                                              | 5   | 3:49: 0      | 112.5167    | 1263.63       | 123.07         |
| 2853                                              | 5   | 4: 0: 0      | 112.7000    | 1263.60       | 123.07         |
| 2863                                              | 5   | 4:10: 0      | 112.8667    | 1263.42       | 123.07         |
| 2874                                              | 5   | 4:21: 0      | 113.0500    | 1263.25       | 123.07         |
| 2884                                              | 5   | 4:31: 0      | 113.2167    | 1263.09       | 123.07         |
| 2895                                              | 5   | 4:42: 0      | 113.4000    | 1263.02       | 123.07         |
| 2905                                              | 5   | 4:52: 0      | 113.5667    | 1263.07       | 123.07         |
| 2916                                              | 5   | 5: 3: 0      | 113.7500    | 1263.20       | 123.07         |
| 2926                                              | 5   | 5:13: 0      | 113.9167    | 1263.35       | 123.06         |
| 2937                                              | 5   | 5:24: 0      | 114.1000    | 1263.68       | 123.06         |
| 2947                                              | 5   | 5:34: 0      | 114.2667    | 1264.11       | 123.06         |
| 2958                                              | 5   | 5:45: 0      | 114.4500    | 1264.49       | 123.06         |
| 2968                                              | 5   | 5:55: 0      | 114.6167    | 1264.69       | 123.06         |
| 2979                                              | 5   | 6: 6: 0      | 114.8000    | 1264.82       | 123.06         |
| 2989                                              | 5   | 6:16: 0      | 114.9667    | 1264.90       | 123.06         |
| 3000                                              | 5   | 6:27: 0      | 115.1500    | 1264.90       | 123.06         |
| 3010                                              | 5   | 6:37: 0      | 115.3167    | 1264.80       | 123.05         |
| 3021                                              | 5   | 6:48: 0      | 115.5000    | 1264.80       | 123.05         |
| 3031                                              | 5   | 6:58: 0      | 115.6667    | 1264.95       | 123.05         |
| 3042                                              | 5   | 7: 9: 0      | 115.8500    | 1265.18       | 123.05         |
| 3052                                              | 5   | 7:19: 0      | 116.0167    | 1265.38       | 123.05         |
| 3063                                              | 5   | 7:30: 0      | 116.2000    | 1265.48       | 123.05         |
| 3073                                              | 5   | 7:40: 0      | 116.3667    | 1265.49       | 123.03         |
| 3080                                              | 5   | 7:47: 0      | 116.4833    | 1265.54       | 123.01         |
| 3081                                              | 5   | 7:48: 0      | 116.5000    | 1265.44       | 123.00         |
| 3082                                              | 5   | 7:49: 0      | 116.5167    | 1265.40       | 122.97         |
| 3084                                              | 5   | 7:51: 0      | 116.5500    | 1265.42       | 122.88         |
| 3085                                              | 5   | 7:52: 0      | 116.5667    | 1265.44       | 122.81         |
| 3087                                              | 5   | 7:54: 0      | 116.6000    | 1265.56       | 123.04         |
| 3088                                              | 5   | 7:55: 0      | 116.6167    | 1265.56       | 123.04         |
| Final del Drawdown - Inicio de Gradiente Fluyente |     |              |             |               |                |
| 3089                                              | 5   | 7:56: 0      | 116.6333    | 1265.76       | 123.04         |
| 3090                                              | 5   | 7:57: 0      | 116.6500    | 1265.76       | 123.05         |
| 3091                                              | 5   | 7:58: 0      | 116.6667    | 1265.54       | 123.03         |
| Parada @ 9200'.                                   |     |              |             |               |                |
| 3093                                              | 5   | 8: 0: 0      | 116.7000    | 1205.00       | 122.65         |
| 3094                                              | 5   | 8: 1: 0      | 116.7167    | 1205.50       | 122.36         |
| 3096                                              | 5   | 8: 3: 0      | 116.7500    | 1150.26       | 121.82         |
| Parada @ 8900'.                                   |     |              |             |               |                |
| 3097                                              | 5   | 8: 4: 0      | 116.7667    | 1136.17       | 121.23         |
| 3099                                              | 5   | 8: 6: 0      | 116.8000    | 1142.40       | 120.80         |
| Parada @ 8600'.                                   |     |              |             |               |                |
| 3100                                              | 5   | 8: 7: 0      | 116.8167    | 1071.50       | 120.57         |
| 3102                                              | 5   | 8: 9: 0      | 116.8500    | 1073.48       | 120.05         |
| Parada @ 8300'.                                   |     |              |             |               |                |
| 3103                                              | 5   | 8:10: 0      | 116.8667    | 1023.82       | 119.77         |
| 3105                                              | 5   | 8:12: 0      | 116.9000    | 968.12        | 119.57         |

116.6167  
49.3500  
67.2667

116.6167  
49.40  
67.2167

Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Saturday: Dec. 9, 1995]

Page 18

| REC<br># | DAY | REAL<br>TIME    | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|-----------------|-------------|---------------|----------------|
|          |     | Parada @ 8000'. |             |               |                |
| 3106     | 5   | 8:13: 0         | 116.9167    | 960.88        | 119.32         |
| 3108     | 5   | 8:15: 0         | 116.9500    | 963.85        | 118.29         |
|          |     | Parada @ 7700'. |             |               |                |
| 3109     | 5   | 8:16: 0         | 116.9667    | 913.86        | 117.98         |
| 3111     | 5   | 8:18: 0         | 117.0000    | 913.04        | 117.37         |
|          |     | Parada @ 7400'. |             |               |                |
| 3112     | 5   | 8:19: 0         | 117.0167    | 867.26        | 117.06         |
| 3114     | 5   | 8:21: 0         | 117.0500    | 865.76        | 116.43         |
| 3115     | 5   | 8:22: 0         | 117.0667    | 870.29        | 116.11         |
|          |     | Parada @ 7100'. |             |               |                |
| 3116     | 5   | 8:23: 0         | 117.0833    | 823.80        | 115.79         |
| 3117     | 5   | 8:24: 0         | 117.1000    | 822.48        | 115.46         |
| 3118     | 5   | 8:25: 0         | 117.1167    | 829.20        | 115.12         |
|          |     | Parada @ 6800'. |             |               |                |
| 3119     | 5   | 8:26: 0         | 117.1333    | 791.07        | 115.10         |
| 3120     | 5   | 8:27: 0         | 117.1500    | 791.11        | 114.41         |
| 3121     | 5   | 8:28: 0         | 117.1667    | 787.01        | 114.06         |
|          |     | Parada @ 6500'. |             |               |                |
| 3122     | 5   | 8:29: 0         | 117.1833    | 748.01        | 113.70         |
| 3123     | 5   | 8:30: 0         | 117.2000    | 745.95        | 113.33         |
| 3124     | 5   | 8:31: 0         | 117.2167    | 748.00        | 113.31         |
|          |     | Parada @ 6200'. |             |               |                |
| 3126     | 5   | 8:33: 0         | 117.2500    | 712.87        | 112.57         |
| 3127     | 5   | 8:34: 0         | 117.2667    | 710.94        | 112.22         |
| 3129     | 5   | 8:36: 0         | 117.3000    | 671.35        | 111.45         |
|          |     | Parada @ 5800'. |             |               |                |
| 3130     | 5   | 8:37: 0         | 117.3167    | 668.95        | 110.93         |
|          |     | Parada @ 5400'. |             |               |                |
| 3132     | 5   | 8:39: 0         | 117.3500    | 619.78        | 110.13         |
| 3133     | 5   | 8:40: 0         | 117.3667    | 618.23        | 109.66         |
| 3135     | 5   | 8:42: 0         | 117.4000    | 624.84        | 108.34         |
|          |     | Parada @ 5000'. |             |               |                |
| 3136     | 5   | 8:43: 0         | 117.4167    | 576.06        | 108.33         |
| 3138     | 5   | 8:45: 0         | 117.4500    | 583.78        | 106.93         |
|          |     | Parada @ 4600'. |             |               |                |
| 3139     | 5   | 8:46: 0         | 117.4667    | 544.49        | 106.43         |
| 3141     | 5   | 8:48: 0         | 117.5000    | 539.02        | 105.41         |
| 3142     | 5   | 8:49: 0         | 117.5167    | 542.07        | 104.90         |
|          |     | Parada @ 4200'. |             |               |                |
| 3143     | 5   | 8:50: 0         | 117.5333    | 501.38        | 104.71         |
| 3144     | 5   | 8:51: 0         | 117.5500    | 501.35        | 103.88         |
| 3145     | 5   | 8:52: 0         | 117.5667    | 506.89        | 103.36         |
|          |     | Parada @ 3800'. |             |               |                |
| 3147     | 5   | 8:54: 0         | 117.6000    | 472.74        | 102.33         |
| 3148     | 5   | 8:55: 0         | 117.6167    | 470.72        | 101.83         |
| 3150     | 5   | 8:57: 0         | 117.6500    | 474.69        | 100.77         |
|          |     | Parada @ 3400'. |             |               |                |
| 3151     | 5   | 8:58: 0         | 117.6667    | 438.36        | 100.18         |
| 3153     | 5   | 9: 0: 0         | 117.7000    | 445.19        | 99.13          |



Company: PETRO-TECH PERUANA S.A.

Well: LO16-14

Field: LOBITOS MAR

[Saturday: Dec. 9, 1995]

Page 19

| REC<br># | DAY | REAL<br>TIME         | DT<br>(HRS) | BHP<br>(PSIA) | BHT<br>(Deg.F) |
|----------|-----|----------------------|-------------|---------------|----------------|
| 3154     | 5   | 9: 1: 0              | 117.7167    | 444.96        | 98.53          |
|          |     | Parada @ 3200'.      |             |               |                |
| 3155     | 5   | 9: 2: 0              | 117.7333    | 427.34        | 98.14          |
| 3156     | 5   | 9: 3: 0              | 117.7500    | 424.24        | 97.65          |
| 3157     | 5   | 9: 4: 0              | 117.7667    | 427.82        | 97.21          |
| 3159     | 5   | 9: 6: 0              | 117.8000    | 424.92        | 96.24          |
|          |     | Pozo Cerrado.        |             |               |                |
| 3160     | 5   | 9: 7: 0              | 117.8167    | 387.35        | 95.95          |
| 3162     | 5   | 9: 9: 0              | 117.8500    | 295.17        | 93.96          |
| 3163     | 5   | 9:10: 0              | 117.8667    | 286.92        | 92.32          |
| 3165     | 5   | 9:12: 0              | 117.9000    | 272.16        | 87.95          |
| 3166     | 5   | 9:13: 0              | 117.9167    | 278.94        | 85.62          |
| 3168     | 5   | 9:15: 0              | 117.9500    | 291.03        | 82.34          |
| 3169     | 5   | 9:16: 0              | 117.9667    | 73.14         | 80.61          |
|          |     | Desfogo Lubricador.  |             |               |                |
| 3170     | 5   | 9:17: 0              | 117.9833    | 14.50         | 79.21          |
| 3171     | 5   | 9:18: 0              | 118.0000    | 14.50         | 77.85          |
| 3172     | 5   | 9:19: 0              | 118.0167    | 14.50         | 76.32          |
| 3174     | 5   | 9:21: 0              | 118.0500    | 14.50         | 73.81          |
| 3175     | 5   | 9:22: 0              | 118.0667    | 14.50         | 72.81          |
| 3177     | 5   | 9:24: 0              | 118.1000    | 14.50         | 70.89          |
| 3178     | 5   | 9:25: 0              | 118.1167    | 14.50         | 70.24          |
| 3180     | 5   | 9:27: 0              | 118.1500    | 14.50         | 68.88          |
| 3181     | 5   | 9:28: 0              | 118.1667    | 14.50         | 68.64          |
|          |     | Desconecto Baterias. |             |               |                |
| 3183     | 5   | 9:30: 0              | 118.2000    | 14.50         | 67.51          |

[ Louisiana Well Analysis LTD. &amp; S.P.C. ]