HALLIBURTON | Sperry Drilling

DGR Dual Gamma Ray
EWR-Phase 4
PWD

Powered by INSITE

1 : 200

Country : Japan
Field : Nankai Trough
Location : Lat: 33° 18' 3.04" North
Long: 136° 38' 12.17" East
Well : C0002N
Company : JAMSTEC
Rig : CHIKYU

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DOE Number :

LOCATION
Latitude : 33° 18' 3.04" North
Longitude : 136° 38' 12.17" East
UTM Easting = 652382.4 m
UTM Northing = 3685834.6 m

Other Services
Directional Drilling
DDSr Drillstring Dynamics

Permanent Datum : Mean Sea Level Elevation : 0.00 m
Log Measured From : Drill Floor 28.50 m Above Permanent Datum
Drilling Measured From : Drill Floor

MD LOG

Elev. KB 0.00 m
DF 28.50 m
GL 0.00 m
WD 1939.00 m

Depth Logged : 2,827.00 m To 4,297.00 m
Date Logged : 04-Nov-13 To 15-Nov-13
Total Depth MD : 4,297.00 m TVD : 4,295.90 m
Spud Date : 11-Oct-13

Unit No. : 0003501 Job No. : JP-XX-0900526576
Plot Type : Final
Plot Date : 08-Jan-14

Borehole Record (MD)			
Run No.	Size	From	To
1	17.000 in	2,827.00 m	3,976.00 m
2	17.000 in	3,976.00 m	4,297.00 m

Borehole Record (MD)			
Run No.	Size	From	To

Casing Record (MD)			
Size	Weight	From	To
36.000 in	822.35 kgpm	1,962.82 m	2,021.00 m
20.000 in	192.39 kgpm	1,962.82 m	2,827.80 m

WELL INFORMATION

MWD Run Number	100	200			
Date run completed	10-Nov-13	15-Nov-13			
Rig Bit Number	1	2			
Bit Size (in)	17.000	17.000			
Tool Nominal OD (in)	8.000	8.000			
Log Start Depth (MD, m)	2,827.000	3,976.000			
Log End Depth (MD, m)	3,976.000	4,297.000			
Drill or Wipe	Drill	Drill			
Drill/Wipe Start Date and Time	04-Nov-13 20:30	11-Nov-13 22:15			
Drill/Wipe End Date and Time	09-Nov-13 19:30	13-Nov-13 01:15			
Min Inc (deg) @ Depth (MD, m)	.12 @ 3,353.037	.06 @ 3,958.213			
Max Inc (deg) @ Depth (MD, m)	5.36 @ 3,084.170	.40 @ 4,277.760			
Bit TFA(cm2) / Bit Type	5.8 / PDC	5.8 / PDC			
Flow Rate (m3pm)	3.41	3.60			
Max AV (mps) / CV (mps) @ MWD	N/A / N/A	N/A / N/A			
Fluid Type	Polymer	Polymer			
Density (ppg) / Viscosity (spl)	9.18 / 82.45	9.18 / 49.15			
Filtrate CL (ppm)	77,000.00	81,700.00			
pH / Fluid Loss (m3pm)	12.23 / 0	12.30 / 0			
PV (mPsec) / YP (pa)	31 / 14.84	31 / 14.84			
% Solids / % Sand	8 / 0.4	8.00 / 0.4			
% Oil / Oil:Water Ratio	N/A / N/A	N/A / N/A			
Rm @ Measured Temp (degC)	.100 @ 24.00	.100 @ 24.00			
Rmf @ Measured Temp (degC)	.100 @ 24.00	.080 @ 24.00			
Rmc @ Measured Temp (degC)	.100 @ 24.00	.140 @ 24.00			
Max Tool Temp (degC) / Source	25.00 / PCM	37.00 / EWR			
Rm @ Max Tool Temp (degC)	.0979 @ 25.00	N/A @ 37.00			
Lead MWD Engineer	Joe Lyman	Joe Lyman			
Customer Representative	Dr Moe	Dr Moe			

SENSOR INFORMATION

Downhole Processor Information

Tool Type	HCIM	HCIM			
Software Version	88.48	88.48			
Sub Serial Number	12060986	12060986			
Insert Serial Number	11296577	11296577			
Date and Time Initialized	02-Nov-13 10:59	11-Nov-13 02:23			
Date and Time Read	10-Nov-13 18:23	15-Nov-13 09:54			
ECMB SW Version	N/A	N/A			

Directional Sensor Information

Tool Type	PCDC	PCDC			
Distance From Bit (m)	22.270	19.180			
Software Version	6.21	6.21			
Sub Serial Number	11025002	11025002			
Sonde Serial Number	10919528	10919473			
Sensor ID Number	N/A	N/A			
Toolface Offset (deg)	0	0			

Gamma Ray Sensor Information

Tool Type	DGR	DGR			
Distance From Bit (m)	12.750	10.190			
Recorded Sample Period (sec)	10	10			
Software Version	N/A	N/A			
Sub Serial Number	11199632	11199632			
Insert/Sonde Serial Number	11354963	11354963			

Resistivity Sensor Information

Tool Type	EWR-P4	EWR-P4			
Distance From Bit (m)	15.200	12.120			
Recorded Sample Period (sec)	10	10			
Software Version	1.50	1.50			
Sub Serial Number	12165429	12165429			
Receiver Insert Serial Number	12222544	12222544			
Transmitter Insert Serial Number	12207317	12207317			
Receiver Orientation	Down	Down			

Pressure Sensor Information

Tool Type	PWD	PWD			
Distance From Bit (m)	17.700	14.620			
Recorded Sample Period (sec)	2	2			
Software Version	4.12	4.12			
Collar Serial Number	0	12070384			
Insert Serial Number	0	11832609			

REMARKS

1. All depths are referenced to the driller's pipe tally and are measured from the drill floor.
2. Formation exposure time is presented for the resistivity sensor.
3. The following smoothing parameters have been applied to the data:

   Gamma, Resistivity,& Exposure Time

   0.1524m interval,0.60960m coercion distance
4. Environmental Information.

```
Hole size         : 17 Inches
Mud weight        : 9.3-9.4 ppg
Mud Type          : Polymer
Mud Resistivity   : 0.1 Ohmm
KCL Concentration : 4.58-5.96 % wt
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5. Curve Identifiers:

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ROPA    : Smoothed Rate of Penetration.
DGRCC   : Smoothed Comb Gamma Ray BCorr (K+ and Borehole Corrected)
R09PC   : Smoothed Phase Resistivity BCorr(Extra Shallow Spacing).
R15PC   : Smoothed Phase Resistivity BCorr(Shallow Spacing).
R27PC   : Smoothed Phase Resistivity BCorr(Medium Spacing).
R39PC   : Smoothed Phase Resistivity BCorr(Deep Spacing).
EWXT    : Smoothed Formation Exposure Time.
EWTEMP  : Smoothed EWR Temperature
PWEA    : PWD Annular EMW
PWPA    : PWD Annular Pressure
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6. All data presented is recorded data unless otherwise noted.
7. Spike in ROPA over interval 3147 - 3148.5 MRT and 3188 - 3190 MRT due to short trip.

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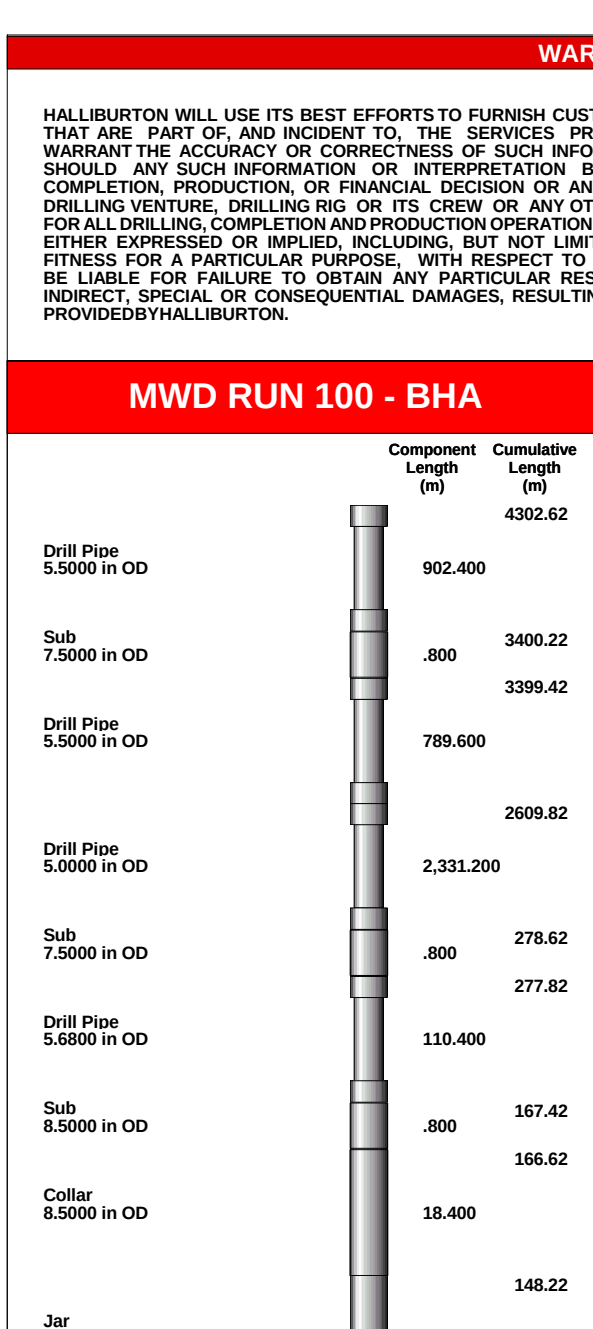
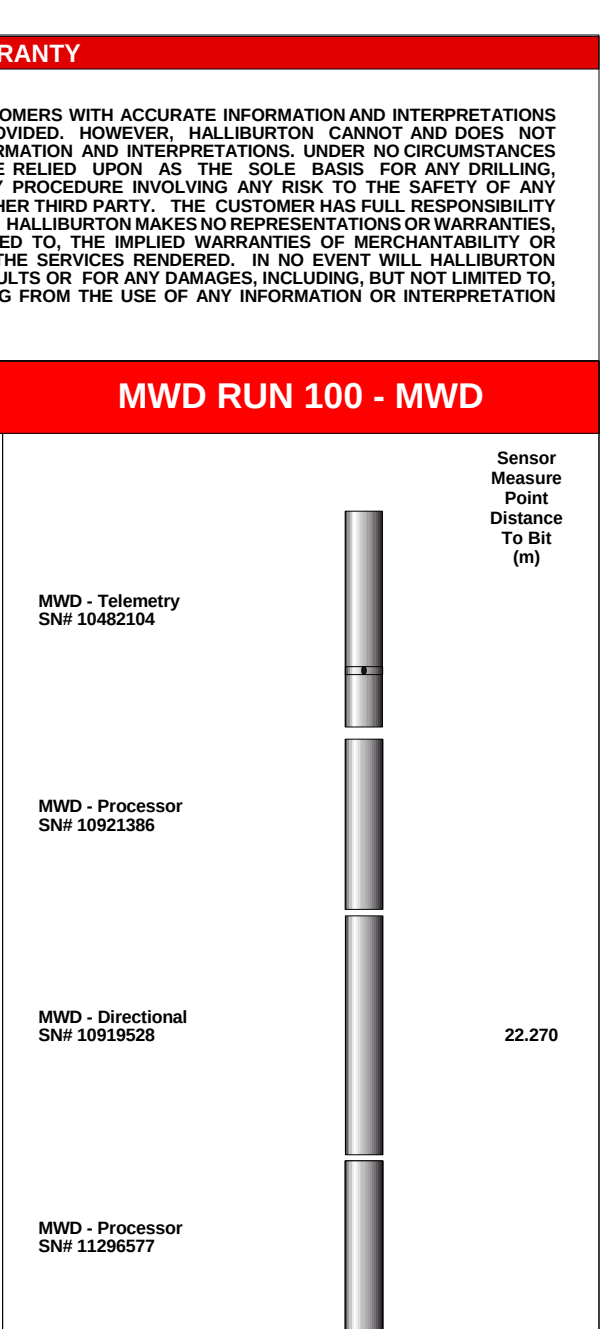
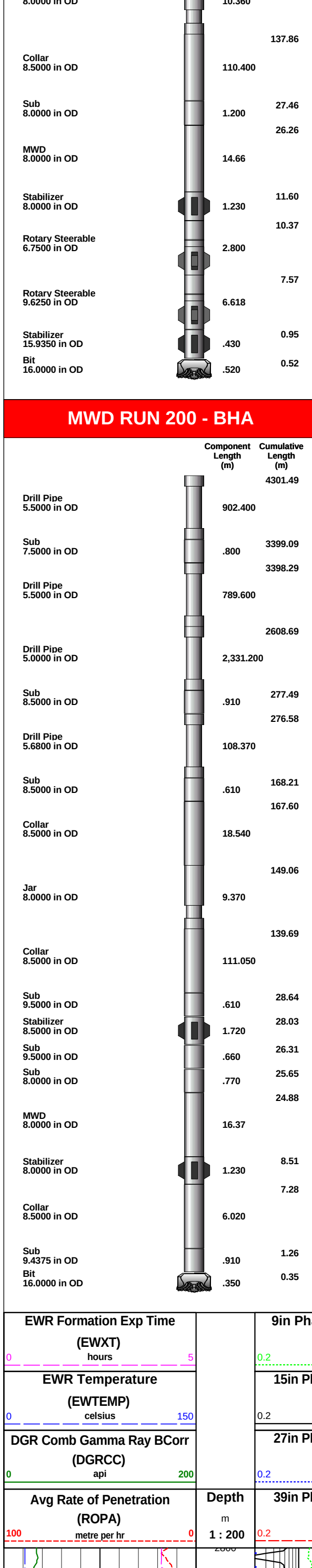
MWD RUN 100 - BHA


Component Length (m)
Cumulative Length (m)
4302.62
Drill Pipe 5.5000 in OD
902.400
3400.22
Sub 7.5000 in OD
.800
3399.42
Drill Pipe 5.5000 in OD
789.600
2609.82
Drill Pipe 5.0000 in OD
2,331.200
278.62
Sub 7.5000 in OD
.800
277.82
Drill Pipe 5.6800 in OD
110.400
167.42
Sub 8.5000 in OD
.800
166.62
Collar 8.5000 in OD
18.400
148.22
Jar 8.0000 in OD
10.360
137.86
Collar 8.5000 in OD
110.400
27.46
Sub 8.0000 in OD
1.200
26.26
MWD 8.0000 in OD
14.66
11.60
Stabilizer 8.0000 in OD
1.230
10.37
Rotary Steerable 6.7500 in OD
2.800
7.57
Rotary Steerable 9.6250 in OD
6.618
0.95
Stabilizer 15.9350 in OD
.430
0.52
Bit 16.0000 in OD
.520

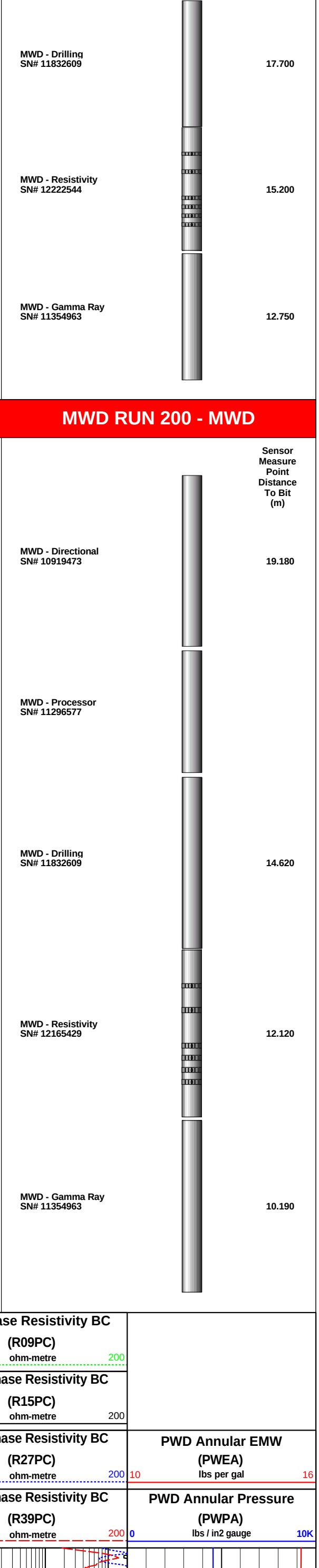
MWD RUN 100 - MWD


Sensor Measure Point Distance To Bit (m)
MWD - Telemetry SN# 10482104
MWD - Processor SN# 10921386
MWD - Directional SN# 10919528
22.270
MWD - Processor SN# 11296577
MWD - Drilling SN# 11832609
17.700
MWD - Resistivity SN# 12222544
15.200
MWD - Gamma Ray SN# 11354963
12.750

MWD RUN 200 - BHA


Component Length (m)
Cumulative Length (m)
4301.49
Drill Pipe 5.5000 in OD
902.400
3399.09
Sub 7.5000 in OD
.800
3398.29
Drill Pipe 5.5000 in OD
789.600
2608.69
Drill Pipe 5.0000 in OD
2,331.200
277.49
Sub 8.5000 in OD
.910
276.58
Drill Pipe 5.6800 in OD
108.370
168.21
Sub 8.5000 in OD
.610
167.60
Collar 8.5000 in OD
18.540
149.06
Jar 8.0000 in OD
9.370
139.69
Collar 8.5000 in OD
111.050
28.64
Sub 9.5000 in OD
.610
28.03
Stabilizer 8.5000 in OD
1.720
26.31
Sub 9.5000 in OD
.660
25.65
Sub 8.0000 in OD
.770
24.88
MWD 8.0000 in OD
16.37
8.51
Stabilizer 8.0000 in OD
1.230
7.28
Collar 8.5000 in OD
6.020
1.26
Sub 9.4375 in OD
.910
0.35
Bit 16.0000 in OD
.350

MWD RUN 200 - MWD


Sensor Measure Point Distance To Bit (m)
MWD - Directional SN# 10919473
19.180
MWD - Processor SN# 11296577
MWD - Drilling SN# 11832609
14.620
MWD - Resistivity SN# 12165429
12.120
MWD - Gamma Ray SN# 11354963
10.190

3550
3575
3600
3625
3650
3675
3700
3725
3750
3775
3800
3825
3850
3875
3900
3925
3950
3975
4000
4025
4050
4075
4100
4125
4150
4175
4200
4225
4250
4275
4300
TD section @ 4297 mRT / 4267.4 mBRT
Avg Rate of Penetration
(ROPA)
100 metre per hr 0
DGR Comb Gamma Ray BCorr
(DGRCC)
0 api 200
EWR Temperature
(EWTEMP)
0 celsius 150
EWR Formation Exp Time
(EWXT)
0 hours 5
Depth
m
1 : 200
39in Phase Resistivity BC
(R39PC)
0.2 ohm-metre 200
27in Phase Resistivity BC
(R27PC)
0.2 ohm-metre 200
15in Phase Resistivity BC
(R15PC)
0.2 ohm-metre 200
9in Phase Resistivity BC
(R09PC)
0.2 ohm-metre 200
PWD Annular Pressure
(PWPA)
0 lbs / in2 gauge 10K
PWD Annular EMW
(PWEA)
10 lbs per gal 16