COMPANY: **NORTHWEST NATURAL GAS**

WELL: **OM 22-26-65 RD**

FIELD: **MIST**

COUNTY: **COLUMBIA** **STATE:** **OREGON**

COUNTY: COLUMBIA
Field: MIST
Location: 1744.22' SOUTH 2512.13' EAST
Well: OM 22-26-65 RD
Company: NORTHWEST NATURAL GAS

Schlumberger

FORMATION MICRO IMAGER
MSDip
SCALE: 5" = 100'

LOCATION

1744.22' SOUTH, 2512.13' EAST
FROM THE NW CORNER OF 26

Elev.: K.B. 631 ft
G.L. 621 ft
D.F. 629 ft

Permanent Datum: GROUND LEVEL Elev.: 621 ft
Log Measured From: K.B 10.0 ft above Perm. Datum
Drilling Measured From: K.B

API Serial No.	SECTION	TOWNSHIP	RANGE
36-009-00330	26	6N	5W

Logging Date	21-MAY-2000			
Run Number	1			
Depth Driller	2151 ft			
Schlumberger Depth	2144 ft			
Bottom Log Interval	2136 ft			
Top Log Interval	487 ft			
Casing Driller Size @ Depth	7.000 in @ 487 ft		@	
Casing Schlumberger	487 ft			
Bit Size	6.250 in			
Type Fluid In Hole	DMA			
MUD Density / Viscosity	8.9 lbm/gal	45 s		
MUD Fluid Loss / PH	6.6 cm3	9		
MUD Source Of Sample	FLOWLINE			
RM @ Measured Temperature	1.185 ohm.m @ 76 degF		@	
RMF @ Measured Temperature	1.050 ohm.m @ 72 degF		@	
RMC @ Measured Temperature	0.930 ohm.m @ 76 degF		@	
Source RMF / RMC	PRESS	PRESS		
RM @ MRT / RMF @ MRT	0.936 @ 98	0.789 @ 98	@	@
Maximum Recorded Temperatures	98 degF	98 / 98		
Circulation Stopped / Time	21-MAY-2000	9:30		
Logger On Bottom / Time	21-MAY-2000	15:26		
Unit Number / Location	3152	SACRAMENTO		
Recorded By	M.KHAN			
Witnessed By	JACK MEYER			

Run 1

Logging Date		
Run Number		
Depth Driller		
Schlumberger Depth		
Bottom Log Interval		
Top Log Interval		
Casing Driller Size @ Depth		
Casing Schlumberger		
Bit Size		
Type Fluid In Hole		
MUD Density / Viscosity		
MUD Fluid Loss / PH		
MUD Source Of Sample		
RM @ Measured Temperature		
RMF @ Measured Temperature		
RMC @ Measured Temperature		
Source RMF / RMC		
RM @ MRT / RMF @ MRT		@
Maximum Recorded Temperatures		
Circulation Stopped / Time		
Logger On Bottom / Time		
Unit Number / Location		
Recorded By		
Witnessed By		

@ @ @ @

@

Run 2

@

@ @ @ @

@

Run 3

Run 4

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

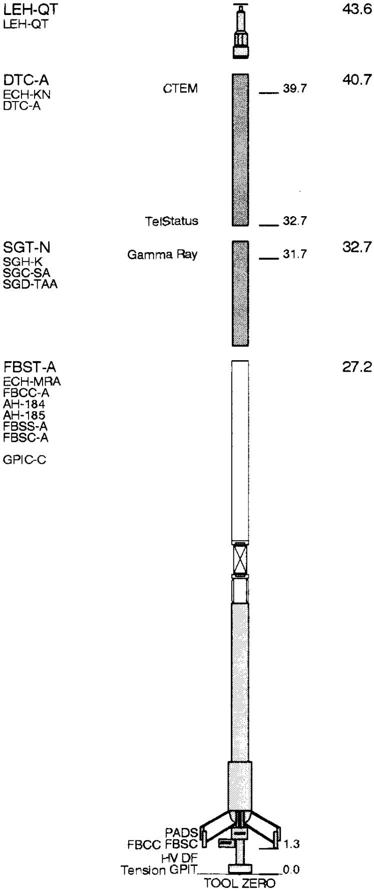
OTHER SERVICES1	OTHER SERVICES2
OS1: PEX	OS1:
OS2: BHC	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2

RUN 1	RUN 2
SERVICE ORDER #:	SERVICE ORDER #:
PROGRAM VERSION: 9C1-303	PROGRAM VERSION:
FLUID LEVEL: 0 ft	FLUID LEVEL:

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT GSR-U/Y WITM (DTS)-A	
DOWNHOLE EQUIPMENT	



MAXIMUM STRING DIAMETER 5.00 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Output DLIS Files

DEFAULT FBSTA .013 FN:12 PRODUCER 21-May-2000 15:42 2156.0 FT 466.0 FT

OP System Version: 9C1-303

MCM

FBST-A	9C1-303	SGT-N	OP91-KP1a
DTC-A	OP91-KP1a		

FMI Dip buttons values are Not corrected by Emex or Gain.

PIP SUMMARY

Time Mark Every 60 S

Gamma Ray (GR)
0 (GAPI) 150

Caliper 2 (C2)
6 (IN) 11

Dip Azimuth

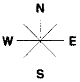
△
MSD_Angle (MSD_Angle)
(DEG)
0 90

BHDrift
(BHDrift)
(DEG)
0 30

Hole
Azimuth

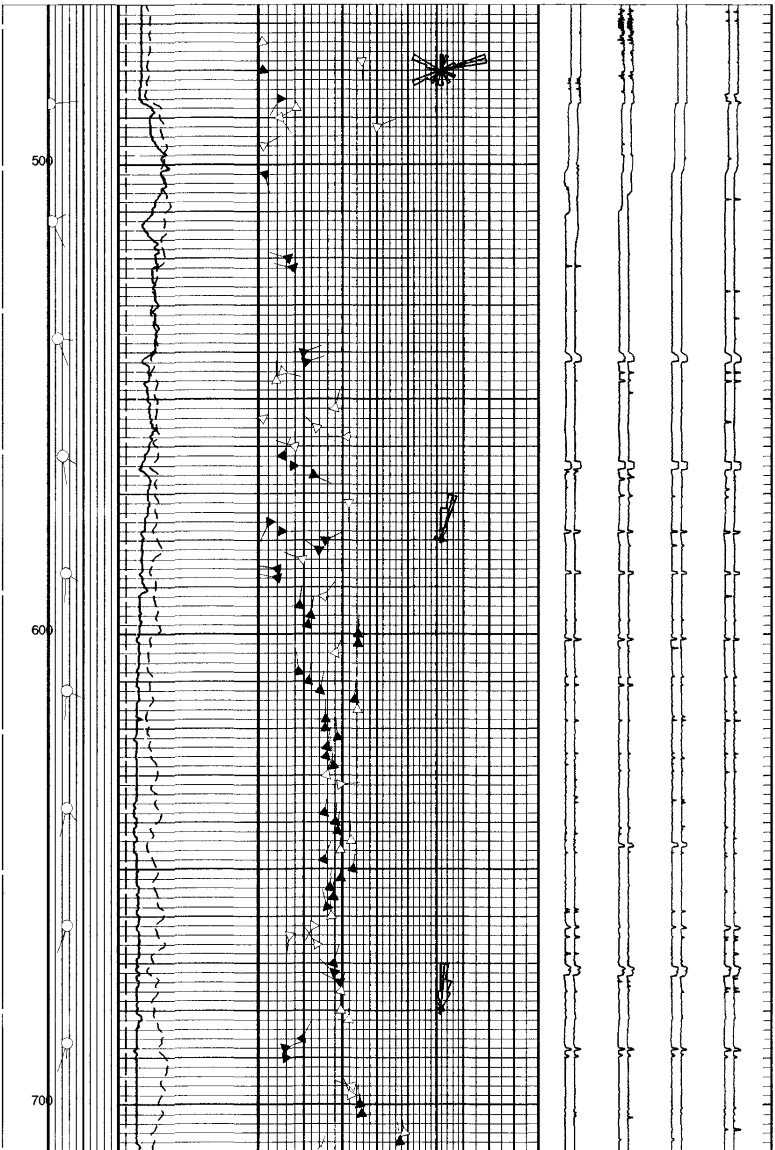
Pad 1
Azimuth

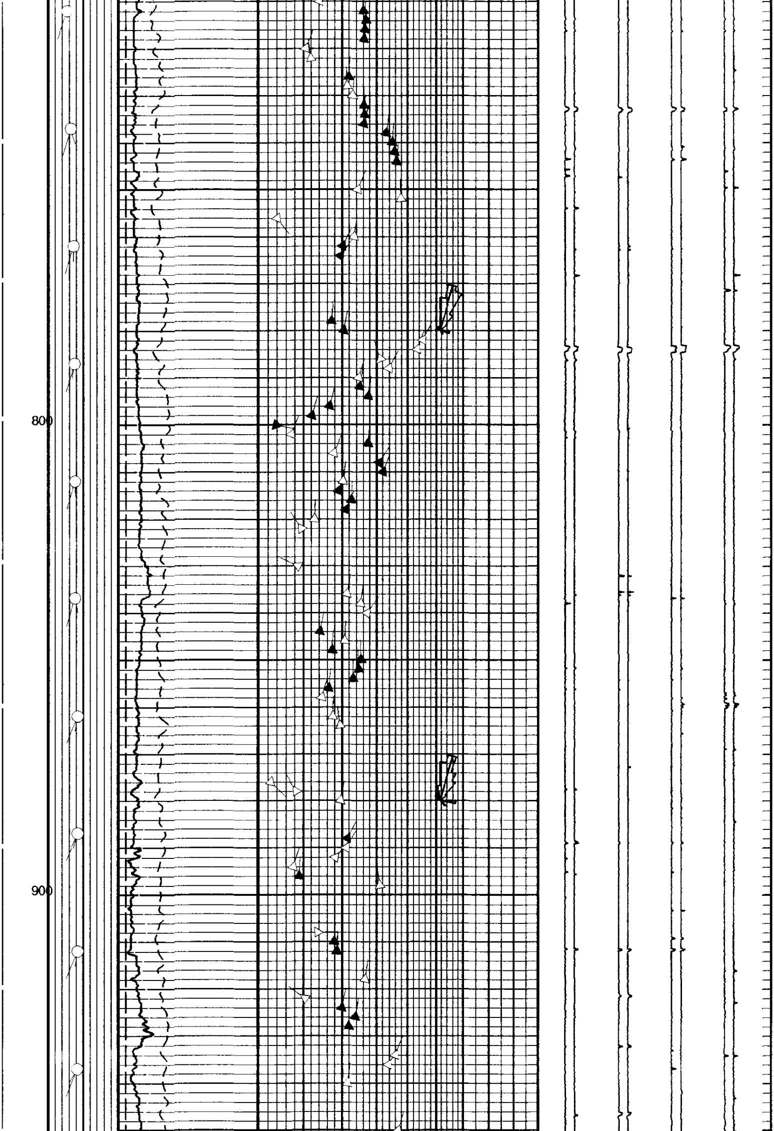
Bit Size (BS)
6 (IN) 11

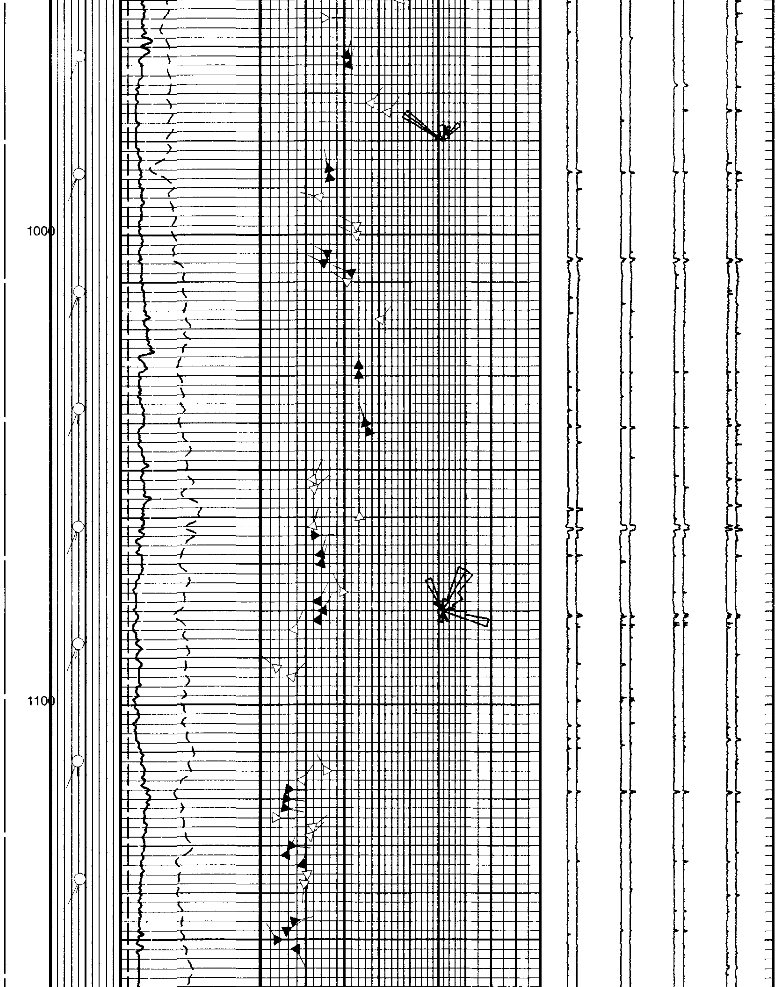


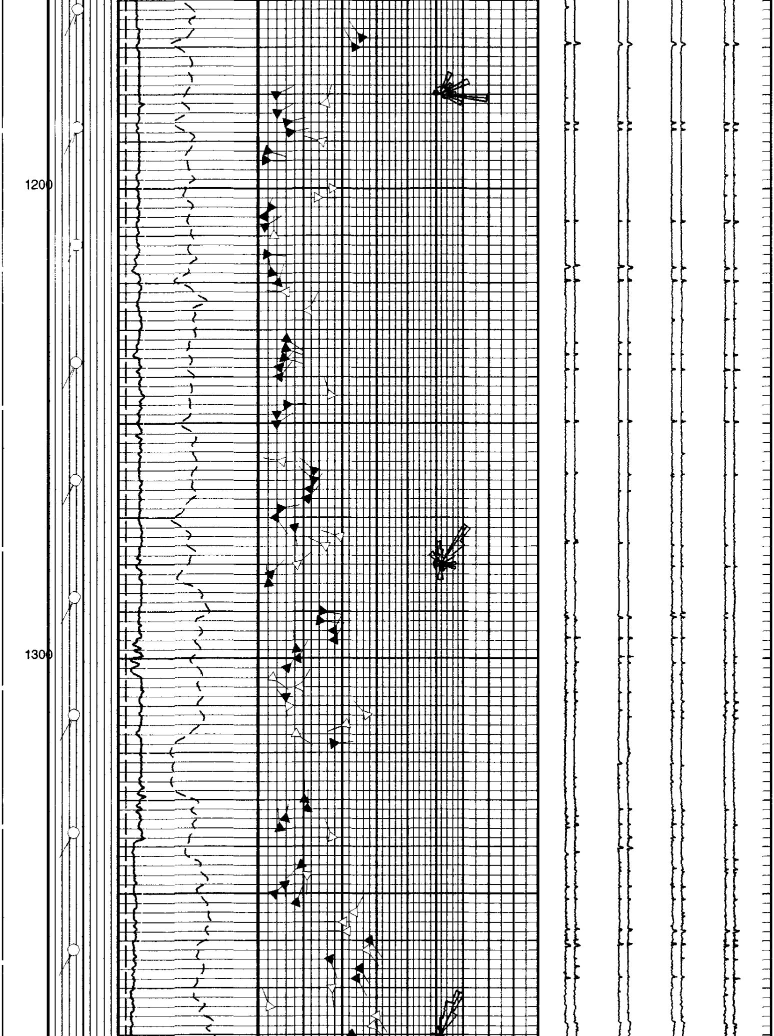
FMI dip buttons

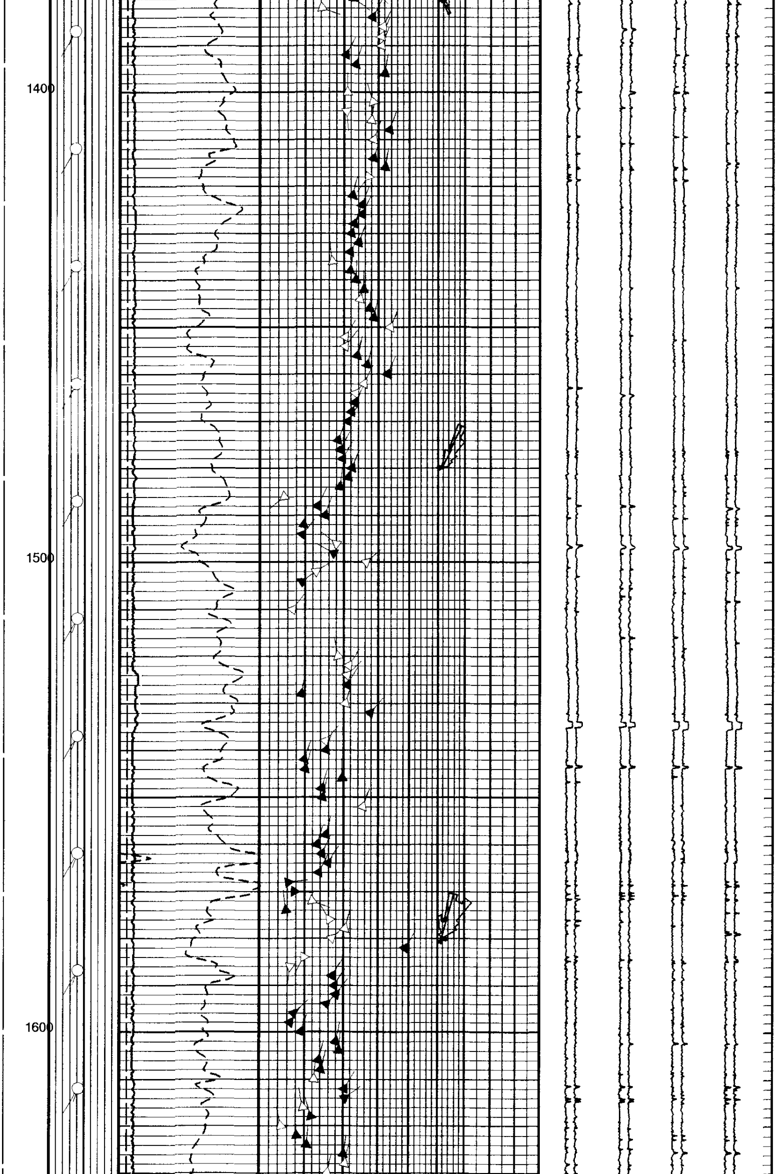
DB4A DB4 DB3A DB3 DB2A DB2 DB1A DB1

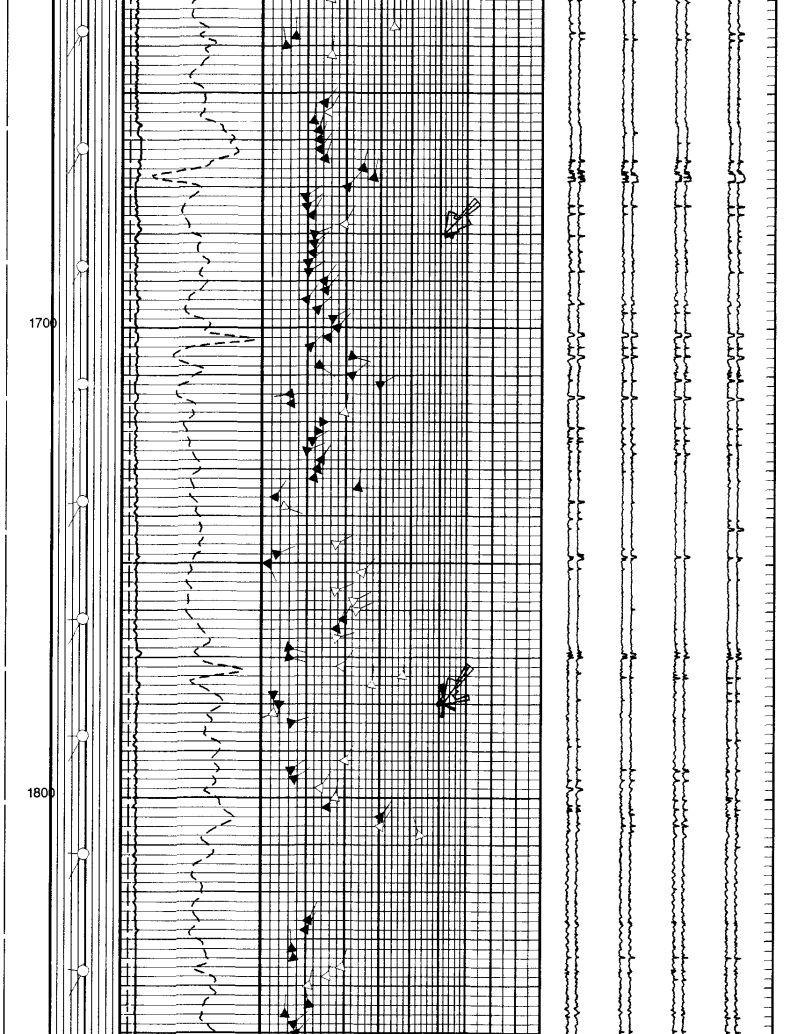


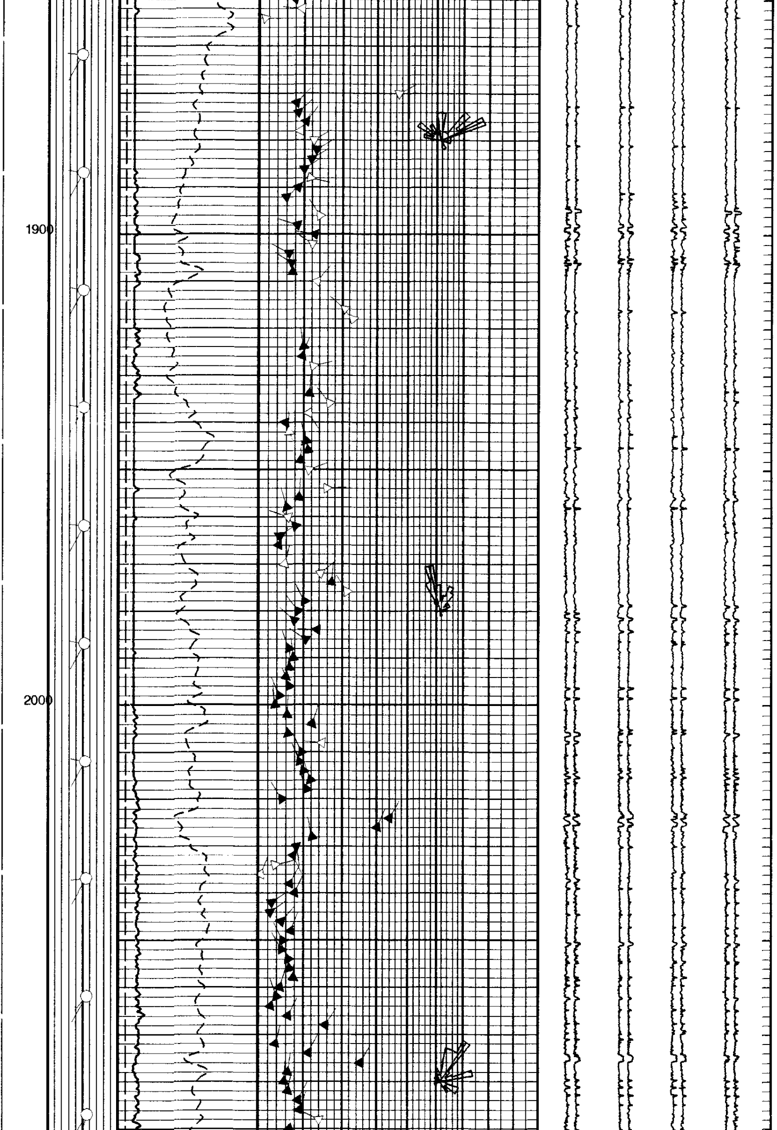


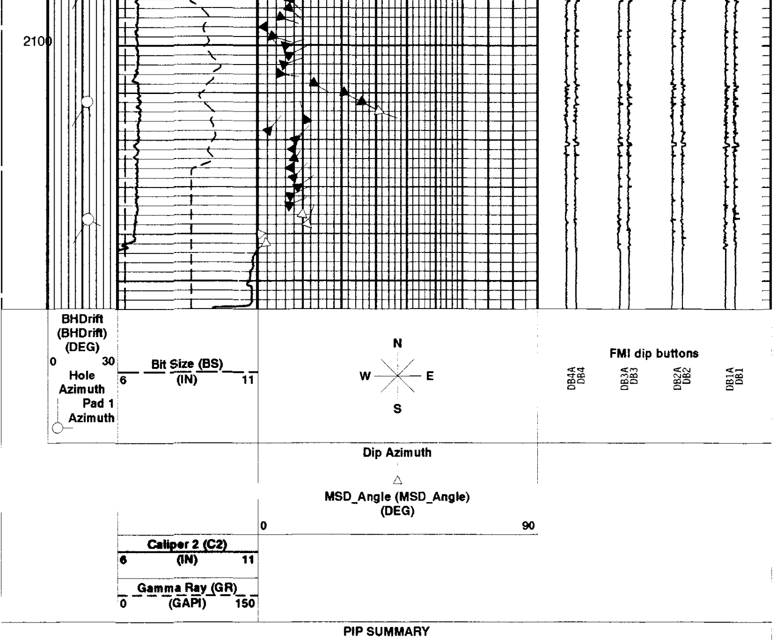












FMI Dip buttons values are Not corrected by Emex or Gain.

Format: FMI_MSDip **Vertical Scale: 5" per 100'** **Graphics File Created: 21-May-2000 15:42**

OP System Version: 9C1-303

MCM

FBST-A	9C1-303	SGT-N	OP91-KP1a
DTC-A	OP91-KP1a		

Parameters

DLIS Name	Description	Value	
	DIP Tool	FBST	
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
BS	Bit Size	6.250	IN
CSBL	CSB DIP Number of Levels	2L	
DPAD	Disabled Pad	NONE	
ELRA	Electrical Radius	0.5	IN
FBCD	FMI Correct Dip values from Emex, Gain	OFF	
FLM	FMI Logging Mode	8PAD	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
INT	Correlation Interval	4	FT
MDEC	Magnetic Field Declination	18.3206	DEG
SANG	Correlation Search Angle	35	DEG
SBUT	DIP Set of Buttons	MSD	
SDFA	Side-by-Side Distance Factor	0.9	IN
SOFF	Stand-Off	0	IN
SPAN	DIP Spanning	1/4	
STDA	Structural DIP Azimuth	0	DEG
STDI	Structural DIP Angle	0	DEG
STEP	Correlation Step	2	FT

Output DLIS Files

DEFAULT	FBSTA .013	FN:12	PRODUCER	21-May-2000 15:42

Output DLIS Files

DEFAULT	FBSTA .012	FN:11	PRODUCER	21-May-2000 15:26	2150.0 FT	1841.5 FT

OP System Version: 9C1-303

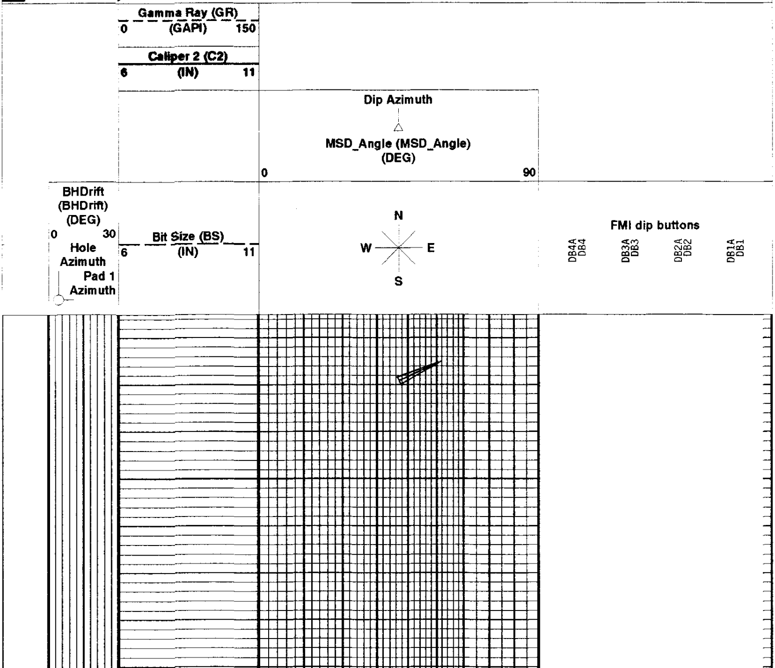
MCM

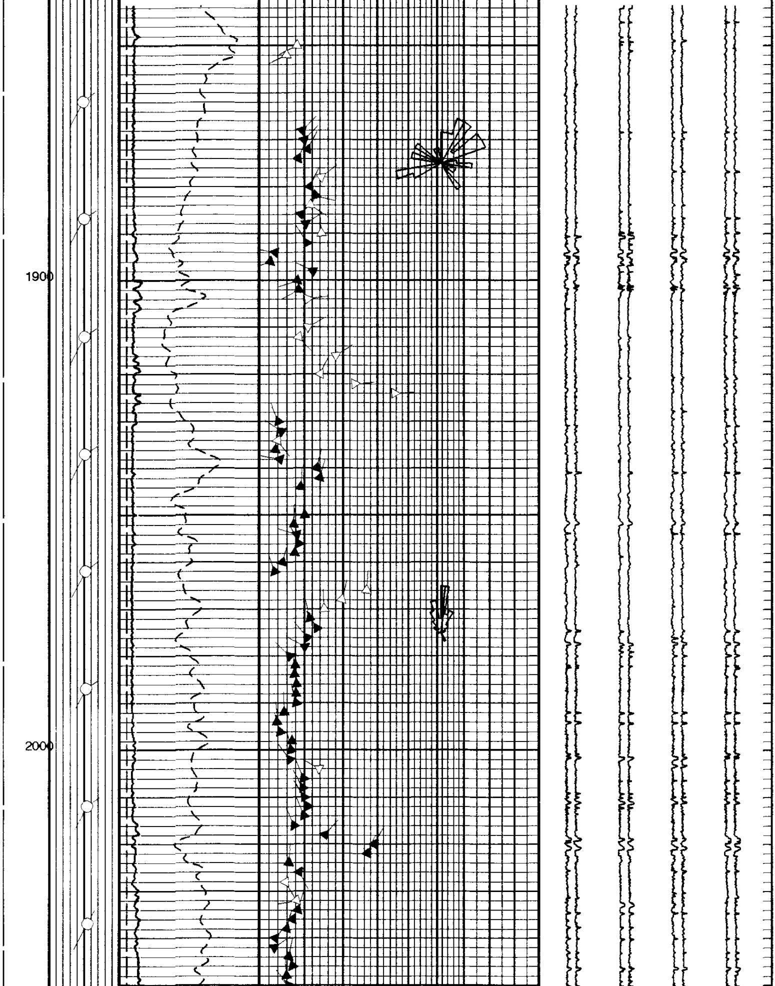
FBST-A	9C1-303	SGT-N	OP91-KP1a
DTC-A	OP91-KP1a		

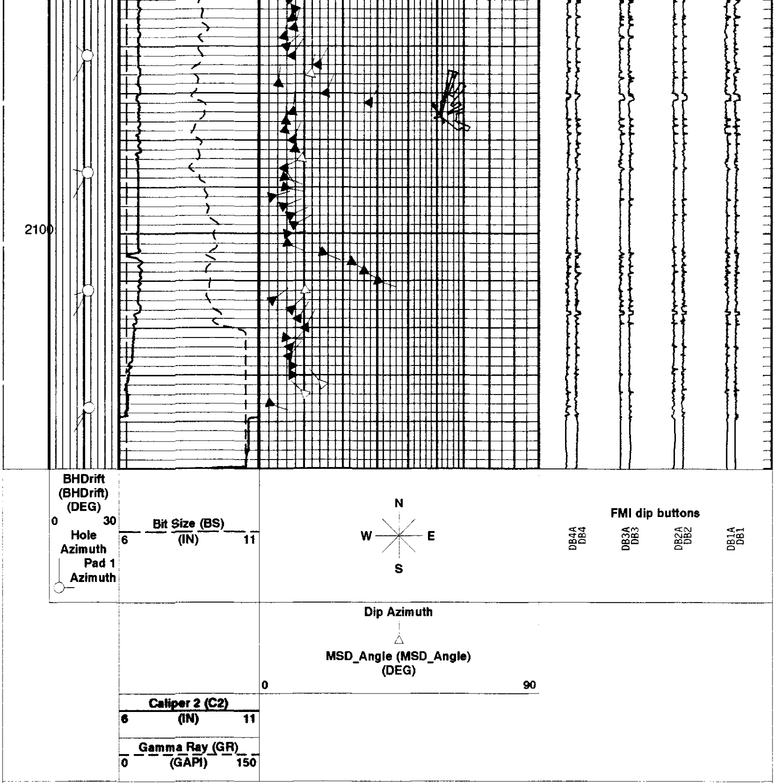
FMI Dip buttons values are Not corrected by Emex or Gain.

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

▬ Time Mark Every 60 S

FMI Dip buttons values are Not corrected by Emex or Gain.

Format: FMI_MSDip **Vertical Scale: 5" per 100'** **Graphics File Created: 21-May-2000 15:26**

OP System Version: 9C1-303

MCM

FBST-A	9C1-303	SGT-N	OP91-KP1a
DTC-A	OP91-KP1a		

Parameters

DLIS Name	Description	Value

	DIP Tool	FBST	
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
BS	Bit Size	6.250	IN
CSBL	CSB DIP Number of Levels	2L	
DPAD	Disabled Pad	NONE	
ELRA	Electrical Radius	0.5	IN
FBCD	FMI Correct Dip values from Emex, Gain	OFF	
FLM	FMI Logging Mode	8PAD	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
INT	Correlation Interval	4	FT
MDEC	Magnetic Field Declination	18.3206	DEG
SANG	Correlation Search Angle	35	DEG
SBUT	DIP Set of Buttons	MSD	
SDFA	Side-by-Side Distance Factor	0.9	IN
SOFF	Stand-Off	0	IN
SPAN	DIP Spanning	1/4	
STDA	Structural DIP Azimuth	0	DEG
STDI	Structural DIP Angle	0	DEG
STEP	Correlation Step	2	FT

Output DLIS Files

DEFAULT FBSTA .012 FN:11 PRODUCER 21-May-2000 15:26

COMPANY: **NORTHWEST NATURAL GAS**

WELL: **OM 22-26-65 RD**

FIELD: **MIST**

COUNTY: **COLUMBIA**

STATE: **OREGON**

BOTTOM LOG INTERVAL	2136 ft
SCHLUMBERGER DEPTH	2144 ft
DEPTH DRILLER	2151 ft
KELLY BUSHING	631 ft
DRILL FLOOR	629 ft
GROUND LEVEL	621 ft

Schlumberger

FORMATION MICRO IMAGER
MSDip
SCALE: 5" = 100'