

Schlumberger

COMPANY: NORTHWEST NATURAL GAS
WELL: IW 23a-22-65
FIELD: MIST GAS STORAGE
COUNTY: COLUMBIA STATE: OREGON

LOG NUMBER: 96-000-00304
LOG DATE: 04/27/97
LOG TIME: 10:00 AM
LOG LOCATION: 101 OCT 1997

LOGGING COMPANY: KELLER LOGGING
LOGGING ENGINEER: K. B. BROWN
LOGGING SUPERVISOR: D. J. BROWN

LOGGING UNIT: 101 OCT 1997
LOGGING TIME: 10:00 AM
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The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on measurements and we cannot and do not guarantee the accuracy or correctness of any interpretations and we shall not be responsible for any loss, damage or expense incurred or suffered by anyone as a result of any interpretation made by Schlumberger Logging Company or its employees. These interpretations are also subject to change without notice.

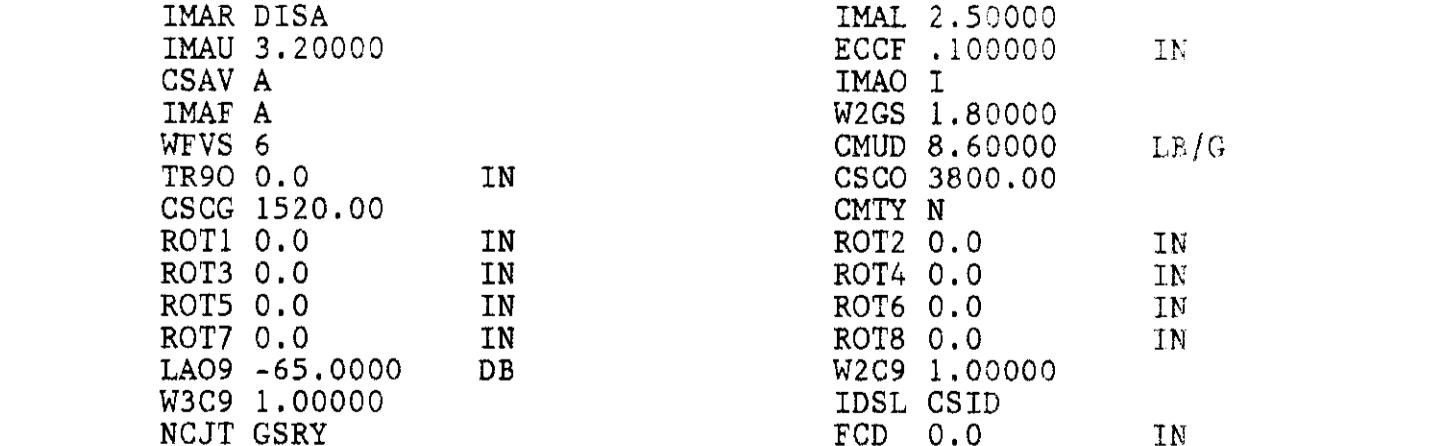
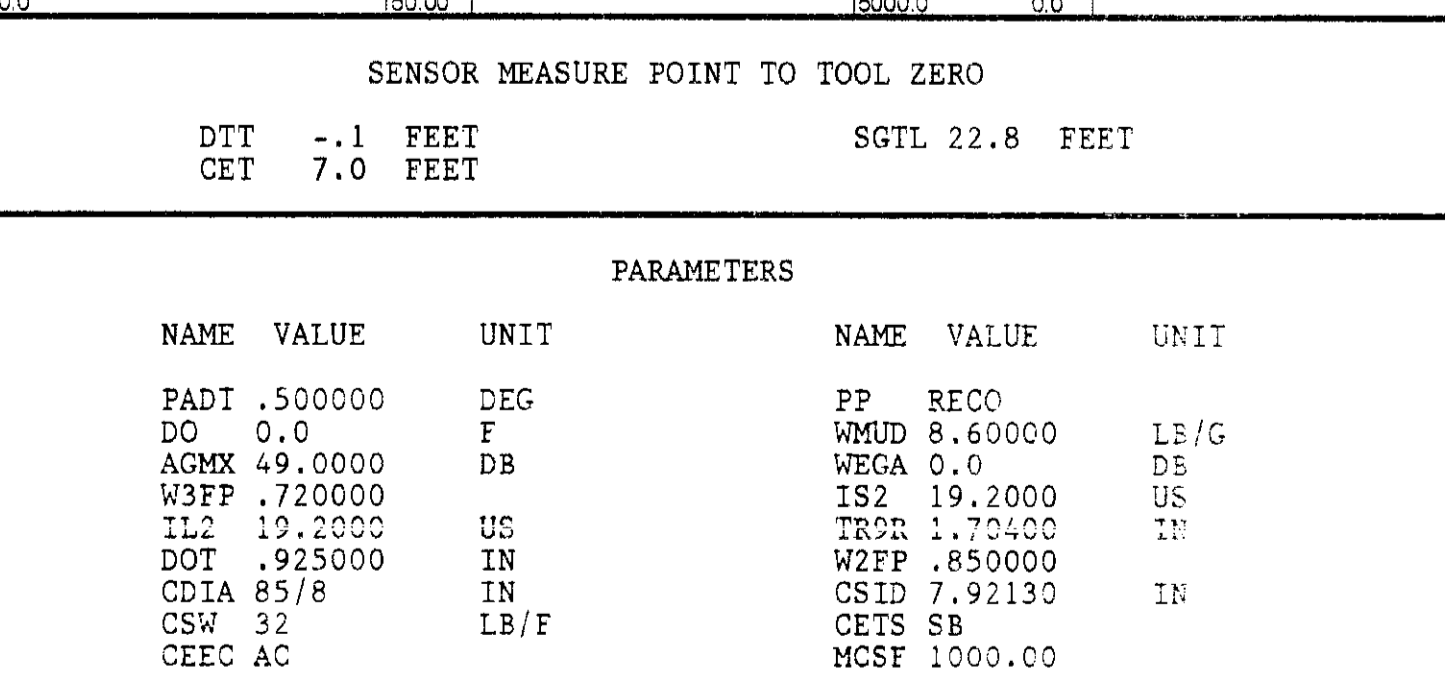
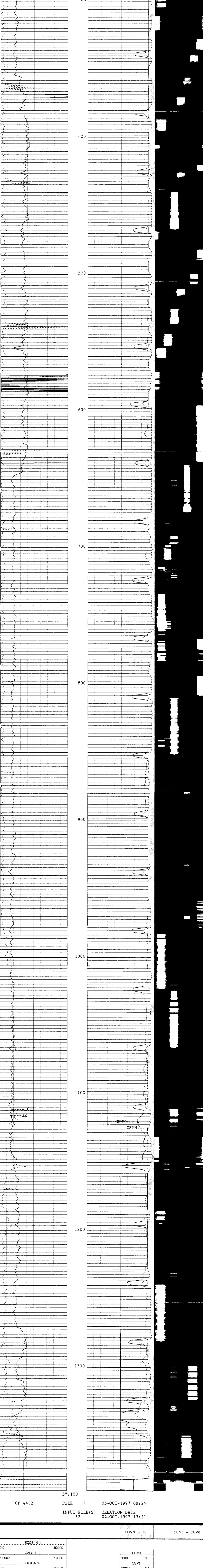
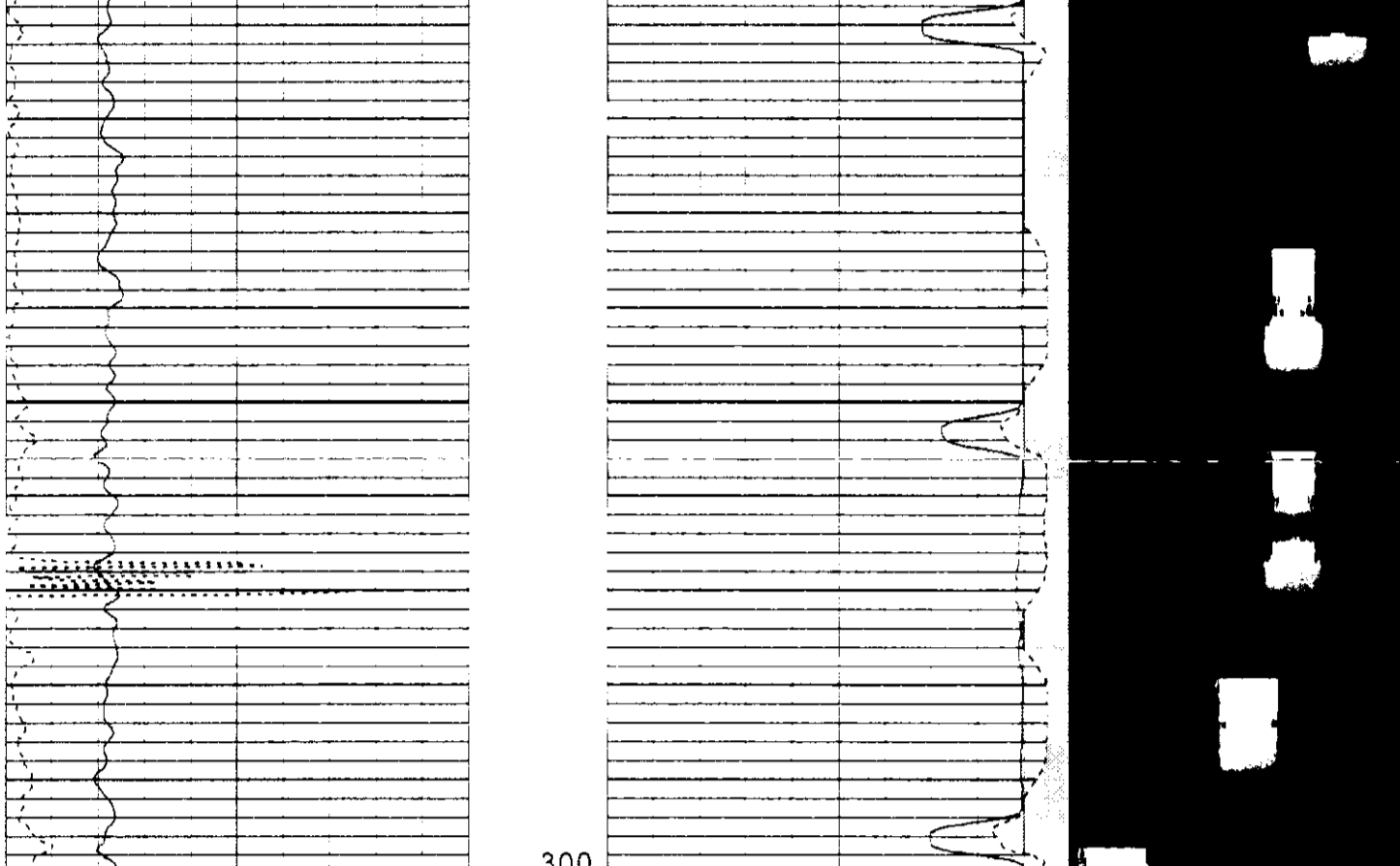
Run No.	CNE	TWC
Service Order No.		
Drilling Fluid Level	0.0 F	
Salinity		
Rmc @ BHT	2.481 CHMM @ 102 DEGF	279 CHMM @ 88.0 DEGF
Rmc @ BHT	2.378 CHMM @ 102 DEGF	479 CHMM @ 88.0 DEGF
Logging Speed	1800 FPHR	

EQUIPMENT DATA

Tool Number 1	DS 151
Tool Number 2	DC 158
Tool Number 3	S.S. WA
Tool Number 4	S.L.C. LA
Tool Number 5	SGCSA 483
Tool Number 6	TCCB 1289
Tool Number 7	
Tool Number 8	
Tool Number 9	
Tool Number 10	
Tool Number 11	
Tool Number 12	

REMARKS:
 RAN INDUCTION AND SONIC IN COMBO RAN FMS LDT CML IN COMBO
 CENTRAL ZERS RAN ON INDUCTION TOOL AND SONIC TOOL
 RAN REPEAT AT CASING DEPTH DUE TO FULL WATERFILL BPTM AT CLIENTS REQUEST.

CREW: DAN LEE
 THANKS FOR USING SCHLUMBERGER!!!!!!



SENSOR MEASURE POINT TO TOOL ZERO

DTT	-1.1 FEET	SGTL	22.8 FEET
CET	7.0 FEET		

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PADI	.500000		PP	RECO	
DO	0.0	F	WMUD	8.60000	LB/G
AGHX	49.0000	DEG	WEGA	0.0	DEG
H3FP	720000	US	IS2	19.2000	IN
IL2	10.2000	DB	TRCP	1.7000	IN
DOT	925000	IN	WZFP	850000	
CDIA	8578	IN	CSID	7.92130	IN
CSW	32	LB/F	CE25	SB	
CEEC	AC		MOST	1000.00	
IMAR	DISA		IMAL	2.50000	
IMAU	3.20000		ECCF	100000	IN
CSAV	A		IXAO	1	
IMAF	A		WZCS	1.80000	
WEVS	6		CMUD	8.60000	LB/G
TR90	0.0	IN	CSO	3800.00	
OSCG	1520.00		CMY	N	
PCT1	0.0	IN	ROT2	0.0	IN
ROT3	0.0	IN	ROT4	0.0	IN
ROT5	0.0	IN	ROT6	0.0	IN
ROT7	0.0	IN	ROT8	0.0	IN
LAC9	65.0000	DB	WZC9	1.00000	
W3C9	1.00000		IDSL	CSID	
NCJT	GSRY		ICD	0.0	IN
BS	12.2500	IN	BHS	CASE	
CS1Z	8.67500	IN			

COMPANY	NORTHWEST NATURAL GAS	SCHL	FR	2282.0 F
WELL	IW 23a-22-65	SCHL	TD	2292.0 F
FIELD	MIST GAS STORAGE	DRLR	TD	2299.0 F
COUNTY	COLUMBIA	STATE	OREGON	Elev: KB 596.0 F
				DF
				QL 580.0 F