

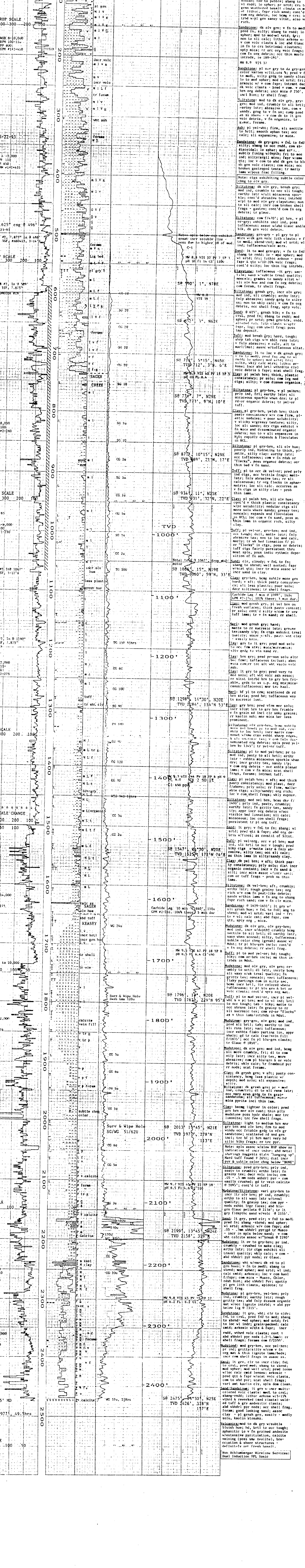
HORIZON

WELL LOGGING

COMPANY: NAHAHA & HEAGANT ENERGY CO.
 WELL: LF RAVEN #12A-35-75
 LOCATION: 157.6'S and 735' from the NW corner of Sec. 33, T10N, R10W, N. M.
 ELEVATION: 888.5' G.L. 1899' K.B.
 FIELD: HST
 COUNTY: COLUMBIA
 ADJ NUMBER: # 16-000-00399
 SPUD DATE: 5-21-93 to 5-26-93
 DEPTH: 1076.8' to 2475' K.B.
 GEOLOGIST: ROB LUCAS
 COMPANY MAN: ROB LUCAS
 CONTRACTOR: Taylor Drilling
 RIG:
 LOGGING GEOLOGISTS: Jim Eastes Dan Cross
 BIT SIZE: 12.25" to 598'
 7.875" 2475'
 CASING: 8.625" x 396'
 CALIBRATION: BY METHANE - 100 UNITS

ABBREVIATIONS		SYMBOLS	
CO	Circulate Out	PEBBLES >2mm	
LAT	Logged After Trip	SAND	
LAS	Logged After Survey	SANDSTONE	
CG	Connection Gas	SILTSTONE	
KC	Kelly Cut Gas	MUDSTONE	
WG	Wiper Gas	SHALE	
TG	Trip Gas	MARL	
SG	Survey Gas	CLAY	
WR	Wiper Run	CHLOROSTONE	
CORE INTERVAL		LIMESTONE	
HOB (100.000' full scale)		VOLCANICS	
TRIP		TUFF	
		BASALT	

DRILL RATE	LITHOLOGY	MIN	GASES	CHROMATOGRAPH	REMARKS
ROP			DITCH GAS	METHANE	DESCRIPTIONS
			OFFSCALE	ETHANE	SURVEYS
			CUTTINGS GAS	PROPANE	MUD CHECKS
			OFFSCALE	BUTANE	MISCELLANEOUS
				PENTANE	



LOGGING GEOLOGISTS: Jim Eastes Dan Cross