

STATE OF OREGON  
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES  
800 NE Oregon Street #28, Portland OR 97232

WELL SUMMARY REPORT  
(In compliance with rules and regulations pursuant to ORS 520)

NW Natural Northwest Natural Gas OM 32-22-65  
(Company or Operator) (Lease) (Well No.)

Sec. 22 T. 6N R. 5W Surveyed Coordinates (if directional, BHL & SHL): SHL; 1884.04' South & 1261.26' East from the NE Corner of Section 22, T6N, R5W, WB & M. BHL; 330.55' S & 452.33' W from surface location

Wildcat: (or) Field Name: Calvin Creek Storage Field County: Columbia

Signature: *[Handwritten Signature]*

Date: 12/4/98 Position: Storage Development Engineer

Commenced drilling: 7/15/98	Completed drilling: 7/21/98	P&A:
Total depth: MD 2365' TVD 2274'	Redrill depth:	
Logs run: Platform Express Neutron Density, BHC Sonic, Induction/SP, Formation Micro Image		

CASING RECORD	Size of hole	Size of casing	Wt. in lbs. per ft.	Grade Type	Depth	Amount of cement
		12 1/4"	8 5/8"	24#/ft	J-55	425'
	7 7/8"	5 1/2"	15.5#/ft	J-55	2315'	330 sx

		Geological Marker	Depth
Plugs	None	Keasey	695' MD
		Cowlitz	1422' MD
Junk	None	Clark & Wilson	1715' MD

Perforations or Liner	Size of Casing	From	To	Shots/ft.	Method of Perforating		
					Jet	Bullet	Slotted Line
	5 1/2"	1717'	2017'	1 shot/ft		X	

Initial Production	Date	Clean Oil bbl/day	Gravity	Percent Water	F.T.P.	F.C.P.	S.I.T.P.	S.I.C.P.