

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

O&G Permit #:

533

APPLICATION FOR PERMIT TO DRILL AN OIL OR GAS WELL

API#: 36-009-00351

(To be accompanied by a \$250 permit fee, a surety bond conditioned as provided by law, and evidence of mineral rights ownership or lease.) This application becomes a permit to drill when signed and dated by DOGAMI in box below.  
 In compliance with rules and regulations pursuant to ORS 520, application is hereby made for permit to drill (a gas well) (an oil well) to be known as: IW 24bH-23-65

NW Natural Northwest Natural Gas Company IW 24bH-23-65  
 (Company or Operator) (Lease) (Well No.)

Sec. 23 T. 6N R. 5W Surveyed Coordinates (if directional, BHL & SHL): BHL: 715' North & 1749' East  
 of the SW corner, sec. 23; T6N; R5W SHL: 985.3' North & 1244' East from the SW corner Sec. 23; T6N; R5W

Wildcat: (or) Field Name: Calvin Creek-Reichhold Pool County: Columbia  
 Elevation of ground above sea level: 905 feet. All depth measurements are taken from Kelly Bushing which is 16' above ground.

Lessor (Mineral Owner): Longview Fibre Co.	287
Address: P. O. Box 667 Longview, WA 98630	
Surface Owner: Longview Fibre Co.	287
Address: P. O. Box 667 Longview, WA 98630	
Lessee: Northwest Natural Gas Company	222
Address: 220 Northwest Second Ave. Portland, OR 97209	

We propose to use the following strings of casings and to land or cement them as herein indicated:

Size of hole	Size of Casing	Weight in pounds per foot	Grade/Type	Depth	Amount of Cement
17-1/2"	13-3/8"	54.50#	H-40	400 feet	300 sx
12-1/4"	8 5/8"	32#	J-55	1800 feet	775 sx

Geologic Objectives: Clark and Wilson Sand  
 Proposed Depth: 2675' MD 1615' TVD

Company/Operator: NW Natural 222

DOGAMI approved (date) 3/9/00  
 PROVIDE 24-hr. NOTICE TO WITNESS BEFORE TEST.  
 by: Dan E. [Signature] DOGAMI

Signature: Todd A. Thomas

Position: Storage Development Engineer

Date: 2/14/2000

SEND WELL COMMUNICATION TO:

Name: Todd A. Thomas

Address: 220 Northwest 2<sup>nd</sup> Ave.  
 Portland, OR 97209

Phone:(day) 503/226-4211 ext. 4686 (night) 503/848-2947

Note: (1) Issuance of this permit is not a finding of compliance with the Statewide Planning Goals or the acknowledged comprehensive plan. (2) Permit expires one year from date of issue. (3) Land use approval must be obtained from the county or city in which the drilling takes place. (4) Unless specifically exempted, permittee is obligated to comply with all current applicable statutes and rules including those adopted

