

O&G PERMIT #: 540

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

800 NE Oregon St # 28 Portland, OR 97232

API #: _____

APPLICATION FOR PERMIT TO DRILL AN OIL OR GAS WELL

(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) to be known as: IW 24H-15-65

(an oil well) (Company or Operator) (Lease) (Well No.)

Operator - NW Natural; Lease - Northwest Natural Gas Company; Well Name - IW 24H-15-65

in Sec. 15 of T 6 R 5 Directional No Yes Survey Coordinates (if yes, BHL & SHL)

Surface Location: 2,350 ft. east and 355 ft. south of the NW corner of section 22 T6N R5W

Top of C&W Sandstone location: 540 ft. north and 750 ft. west of surface (SE 1/4 of SW 1/4 of sec. 15 T6N R5W)

Bottom Hole Location: 680 ft. north and 1,390 ft. west of surface (SW 1/4 of SW 1/4 of sec. 15 T6N R5W)

Wildcat: (or) Field Name: Mist County Columbia

Elevation of ground above sea level is 630 feet. All depth measurements are taken from Kelley Bushing, which is 18 above ground.

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AUG 19 2003
Mineral Land Reclamation

292 Lessor (Mineral Owner): Fred W. and Phylis R. Busch Jr.

292 Address: 13163 Busch Lane, Mist, OR 97016

Surface Owner: Fred W. and Phylis R. Busch Jr.

Address: 13163 Busch Lane, Mist, OR 97016

222 Lessee: Northwest Natural Gas Company

Address: 220 NW Second Ave., Portland, OR 97209

We propose to use the following strings of casing 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
17.5 in.	13.375 in.	54.5	H-40	400 ft.	300 sx
12.25 in	8.625 in.	32	J-55	2,200 ft	800 sx

Geologic Objectives: Clark and Wilson Sandstone

Proposed Depth 2,800' MD: 1,580' TVD Company/Operator NW Natural

Signature: H. Jack Meyer

Position: Geologist

Date: 8-15-03

SEND WELL COMMUNICATION TO:

Name: H. Jack Meyer

Address: NW Natural 220 NW Second Ave. Portland, OR 97209

Phone (Day) 503-226-4211 ext 4683 (Night) 503-666-3970

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 after permit issuance.

API 34-009-00358