

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
910 State Office Building Portland, OR 97201

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

| | | |
|--|--|--|
| Northwest Natural Gas Co. (Company or Operator) | Northwest Natural Gas Co. (Lease) | IW 23d-3 (Well No.) |
| Sec. 3 T6N 5W | Surveyed Coordinate (if directional, BHL & SHL): | |
| Surface: 299' S & 2475' E from the West 1/4 corner Sec. 11, T6N; R5W BHL: 572'S & 42' W at 3079' | | |
| Wilcat: _____ | (or Field Name): <u>Mist Storage</u> | County: <u>Columbia</u> |
| Date: _____ | <u>1/16/92</u> | Signature: <u>[Signature]</u> Position: <u>Senior Operations Superintendent</u> |
| Commenced drilling: <u>10/7/91</u> | Completed drilling: <u>10/27/91</u> | P & A: <u>no</u> |
| Total depth: <u>3079' MD</u> | Redrill depth: _____ | |
| Log runs: <u>DIL, Sonic, Gamma Ray, Neutron Density, Dipmeter, Photon, 4-Arm Caliper, Vertilog</u> | | |

| | Size of hole | Size of Casing | Wt in lbs. per ft. | Grade Type | Depth | Amount of Cement |
|---------------|--------------|----------------|--------------------|------------|-------|------------------|
| CASING RECORD | 17 1/2" | 13 3/8" | 54.5 | K-55 | 684' | 530 sx |
| | 12 1/4" | 8 5/8" | 32 | K-55 | 2715' | 845 sx |
| | | | | | | |

| | Geological Marker(s) | Depth |
|-------|-----------------------|--------------------------------|
| Plugs | cement f/ 3073'-2828' | Clark & Wilson 2715' (M.D.) |
| Junk | N/A | |

| | Size of Casing | From | To | Shot/ft | Method of Perforating | | |
|-----------------------|----------------|-------|-------|---------|-----------------------|--------|--------------|
| | | | | | Jet | Bullet | Slotted Line |
| Perforations or Liner | 5 1/2" | 2828' | 2618' | | | | XX |
| | | | | | | | |

| | Date | Clean Oil bbl/day | Gravity | Percent Water | FTP FCP | SITP SICP |
|--------------------|------|-------------------|---------|---------------|---------|-----------|
| Initial Production | | | | | | |
| | | | | | | |