

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

HISTORY OF OIL OR GAS WELL
(In compliance with rules and regulations pursuant to ORS 520)

(Company or Operator) Northwest Natural Gas Company(Lease) NW Natural Gas Co (Well No.) 44-3-65

Sec. 3, Township 6N, Range 5 W Surveyed Coordinates – N 03 04'39" E 1249.1' N 86° 54 47" W 253.4' , SE 1/4 Sec. 3.

Wildcat: _____ (or) Field Name: Mist Underground Storage County: Columbia

Signature: [Handwritten Signature]

Date: 2/27/08

Position: Project Manager

Use this form in reporting the daily operations at the well. (Operator may use his own forms, but heading of this form must also be completed and submitted.) Please submit a complete history of the well. Include such information as bit sizes, mud weights, casing sizes and depths set, amount of cement used, drilling depths, fishing, logging, perforating, and plugging procedures, and anything else pertinent to the operation. Do not include litho logy.

February 28, 2007 - Started rig move February 22, 2007 and finished move February 23, 2007. February 24 to 26 rig up rig, finish rig plumbing, wait on missing parts, install tigger winch and survey line unit. Shut down Sunday and wait on parts. Installed conductor barrel. Finish installing Pason unit and Pason automatic driller. Rigged in mud loggers. Rig in mud cleaning equipment. Start rig and prepare to spud. Found mud tank seal element had failed and we had lost 200 barrels fresh water. Repair leaking element wit fix-a-fault sealer and fill tank again. Mix spud mud. Pick up bit and bit sub. Spud well. Drilled to 161 feet K.B. Shut down rig for modification and equipment. Estimate two plus days shut down.

March 1, 2007 - Rig shut down for modifications and equipment shortage. Back on bottom. After rig modifications, circulate and condition mud. Survey at 158 feet 1 degree. Drill and survey ahead to 373 feet. Lost circulation at 270 feet. Mix mud and LCM. Regained full circulation. Mud weight = 8.6, Viscosity = 64.

March 2, 2007 - Drill 799.3 feet K.B. Circulate hole clean. Trip out to pick up 17.5" hole opener. Hole good no mud loss on trip. Trip in with hole opener. Hole clean to bottom. Open 8.75" hole to 17.5". Opening hole. Mud weight = 8.6, viscosity = 64.

March 3, 2007 - Opening 8.75" hole to 17.5" hole. Repair bail kick out pin. Open hole to 17.5". Move safety chain on top drive. Open hole to 17.5". Restore cushion sub. Open hole to 17.5". Circulate clean hole. Trip out of hole, lay down tools and wait on bit. Mud weight = 8.6, Viscosity = 64.

March 4, 2007 - Hold safety meeting. Wait on bit. Make up BHA and trip in hole to 658 feet. Ream to 784 feet. Bit was inadvertently balled up. Trip out and clean off mud ball. Trip in hole and drill to 794 feet K.B. Circulate and condition hole to run casing. Mud weight = 87., Viscosity =100.

March 5, 2007 - Circulate and condition hole. Drill to 804.89 feet. Kelly down 17.5 inch hole. Trip out to run casing. Rig up and run 793.37 feet 13 3/8" H-40 48# ST/C 8 RD range 3 casing. Land casing at 790 feet K.B. Circulate casing for two hours. Reduce mud viscosity and yield point with water and thinners. Cement casing with 525 sacks of Class A type III cement mixed at 14.6 lb/gal with 3% gel. Displaced cement with 124 barrels mud. Bumped plug with 900 psi. Held pressure 15 minutes - all OK. Cement in place. Float held. WOC. Mud weight = 87., Viscosity = 100.

March 6, 2007 - Wait on cement. Wait on pipe to do top job. Run in annulus with 1.25" pipe. Tag up solid at 100 feet K.B. Load and mix 105 sacks cement and 300 lbs. gel. Pump 147 cubic feet cement into annulus. Had 1 barrel clean cement to surface. Cement in place. WOC. Cement slowly dropping in annulus to ground level after 2 hours. WOC, will monitor samples.

March 7, 2007 - Safety meeting. Lay down conductor pipe and surface casing. Weld on casing bowl. Heat, weld, cool and test cavity to 1000 psi. Stack BOPE. Nipple up new BOPE. Build new bleed off line and kill line.

March 8, 2007 - Safety meeting. Nipple up BOPE. Test blind rams. Trip in hole. Circulate and condition mud. Drill out plugs and shoe. Shoe at 790 feet K.B. Had three feet good hard cement below shoe. Make connection at 801.85 feet. Drill ahead to 860 feet with 12.25" bit. Bit balled, unable to get bit drilling again. Trip out to pick up directional tools. Mud weight = 8.5, Viscosity = 35.

March 9, 2007 - Safety Meeting. Lay down 12.25" BHA. Make up directional tools. Trip in hole. Directional drill from 811 feet to 1830 feet K.B. Directional survey to follow. Mud weight = 8.7, Viscosity = 73.

March 10, 2007 - Safety meeting. Directionally drill 8.75" hole to 2704 feet K.B. Repair hydraulic leak on top drive. Drill ahead. Drillrate dropped off to 7' per hr. Mud weight = 8.7, Viscosity = 73.

March 11, 2007 - Safety meeting. Trip out of hole. Thin mud down from 200 to 80. Trip out and lay down directional tools. Bit is in good shape. String did not show any signs of mud balling. BHA was clean. Tested mud motor. Change out mud motor. Trip in hole with ream and clean as needed. Drill ahead. ROP now back to normal. Mud weight = 8.7, Viscosity = 73.

March 12, 2007 - Safety meeting. Drill ahead as per directional program. Drill to 3672 feet K.B - well T.D. 0600 hr. 3/12/07. Circulate and condition mud and hole to wiper trip. Mud weight = 8.7, Viscosity = 73.

March 13, 2007 - Safety meeting. Dummy trip to 2700 feet K.B. Had only 77 units gas on bottoms up. Note: Mud weight now at 9.1 lb/gal. Had a volunteer water loss of 8 cc with this mud. Circulate one hour on bottom. Trip out to log. Lay down directional tools and release directional hands. Rig in Halliburton logging service and log well as per company geologist instructions. Mud weight = 9.1, Viscosity = 70.

March 14, 2007 - Safety meeting. Wait on orders. Wait on 2 7/8" tubing and crossover. Trip in hole with 15 joints 2 7/8" tubing and drill pipe. Tag bottom and circulate btm up. Rig in cementers and spot 120 sack cement plug on bottom. 165 cu/ft slurry mixed at 14.6 lb/gal. Trip out lay down and load out 2 7/8" tubing. Pick up 12.25" hole opener and trip in hole. Mud weight = 9.1, Viscosity = 70.

March 15, 2007 - Safety meeting. Trip in hole with 12.25" opener to 790 feet K.B. Open hole from 790 feet to 1970 feet. Mud weight = 9.2, Viscosity = 70.

March 16, 2007 - Safety meeting. Opening hole from 8.75" to 12.25". Mud weight = 9.2, Viscosity = 60.

March 17, 2007 - Safety meeting. Continue to open hole to 12.25" to T.D. Circulate and condition mud and hole for 2.50 hrs. Trip out of hole. Trip good, no tight spots. Lay down BHA. Safety meeting. Lubricate rig and adjust brakes. Unload and strap casing as needed. Rig in casing tongs.

March 18, 2007 - Safety meeting. Ran 9 5/8" casing to 1800 feet. Casing sticky. Rig up head and circulate. Clean up hole - lots of trash. Ran casing to 2055 feet. Casing tight. Rig up circulate head and circulate hole clean. Run casing to 2276.88 feet. Had to circulate each joint down. Casing stuck. Circulate and work casing. Make decision to pull casing. Prepare lease to rack casing on ground. Pull three joints casing. Casing stuck. Work casing collar to floor. Circulate casing. Wait on orders.

March 19, 2007 - Safety meeting. Circulate and work casing. Wait on orders. Rig out tong hand. Prepare to cement casing. Casing shoe is now at 2163 feet K.B. Rig in Halliburton and cement casing in place. Cement program to follow. Nipple down BOPE. Set casing slips. Nipple up BOPE. Did not cut off casing. Left casing shut in over night.

March 20, 2007 - Safety meeting. Bled off casing pressure. Pick up BOPS. Cut off casing. Install (B) section. Install BOP crossover 11" 3000. Test: casing, ring connections. 350 low - 960 high. OK. Finish nipple up. Trip in hole with 8.75" bit. Condition mud and circulate. Waiting 7 5/8" casing. Mud weight = 9.2, Viscosity = 60.

March 21, 2007 - Safety meeting. Rig to test BOPE and test same. Rig repair. Change top drive motor. Drill out plug, sliding sleeve etc. Clean out hole to 3180 feet. Mud weight = 9.2, Viscosity = 60.

March 22, 2007 - Safety meeting. Clean out hole to 3326 feet K.B. Top off water shut off plug. Polished 60 feet. Good hard cement. Note: PB TD is now 3326 feet K.B. K.B to ground is 14 feet. Circulate and condition mud and hole. Run centrifuge. Clean up mud. Make two wiper trips through section. Wash and ream 12.25" hole each time. Circulate and condition mud and hole to run 7 5/8" casing. Mud weight = 9.2, Viscosity = 80.

March 23, 2007 - Safety meeting. Run in hole with 7 5/8" repair liner. Very slow running liner through 9 5/8" casing. Had to push liner

with HWDP. Note: Land liner shoe at 3154 feet K.B. Landed liner with one petal basket in the 8.75" hole and one basket in the 12.25" hole. Circulate liner and hole for 3.75 hr. at 4 barrels per minute. All OK. Pump pressure is normal. Set burn liner hanger and start cement job. Pump 10 bb mud flush. 25 bbls weighted spacer and 129 bbls cement. Mud weight = 9.2, Viscosity = 80.

March 24, 2007 - Finish pumping cement on 7 5/8" liner job. Lost circulation after dropping wiper plug. Liner packed off. Lost last 81 barrels cement to hole. Trip out of hole with drill string and running tools. No sign of cement above hanger top. WOC. Order tools to make repair. Trip in hole with 6.75" bit and make 3.5" pipe to 2625 feet K.B. Tag clabbered mud, circulate out, start mud stripping operation. WOC and wait on wireline unit to make repairs. Mud weight = 9.2, Viscosity 80.

March 25, 2007 - WOC. Wait on wire line unit to run CBL. Strip drilling mud back. Clean out 7 5/8" liner to 3100 feet KB. Wait on wire line unit. Mud weight = 9.2, Viscosity=80.0

March 26, 2007 - Safety meeting. Strip mud. Wait on wire line unit. Trip out to run CBL log. Run COGCO CBL, VDL, CCL log from 3100 feet K.B. to surface. W.O.O. Evaluate log. Pressure test liner lap to 1000 psi for ten minutes, held ok. Trip in hole to drill out cement. Stop and work on catwalk skate. Continue tripping in hole. Mud weight = 9.2, viscosity 80.0

March 27, 2008 - Safety meeting. Trip in hole to 3100' K.B. Drill out landing collar, float collar and plugs. Drill out cement to 3154 feet K.B. Drill out shoe. Drill cement out of 8.75" hole. Circulate the hole clean. Dummy trip into casing wait 1/2 hr. Monitor well. Well is taking water. Trip back to bottom. Circulate bottoms up, no gas. Trip out of hole. Pick up under reamer 6"x13". Trip in hole with under reamer. Mud weight = 9.2, Visocosity 80.

March 28, 2007 - Safety meeting. Circulate and condition mud to under ream. Sand section. Under ream from 3158 feet KB to 3326' K.B. Open hole to 13 inches. Circulate hole clean. Trip into casing. Wait 1 hour. Trip back to btm. No fill on bottom. Trip back into casing. Clean mud tanks. Mix 100 barrels salt polymer, clean displacement fluid. Trip into bottom and spot clean fluid. Trip back to shoe. Mix and displace 220 barrels salt polymer fluid. Mud weight 8.4, viscosity 30, 1% salt. Circulate hole. Trip out to pick up production screen.

March 29, 2007 - Safety meeting. Trip out lay down 13" under reamer. Make up production screen and running tools. Install concentric circulation string. Trip in hole to 3326 feet K.B., tag bottom. Circulate rat hole clean. Set production screen 1 foot off bottom. Hydraulic set packer. Test backside to 1000 psi for 5 minutes - held good. Trip out lay down running tools. Move out 3.5" drill pipe and lay down 2 7/8" concentric string. Make up 7 5/8" seal and 9 5/8" packer assembly with seal bore extension. Running tools. Trip in hole with 9 5/8" packer on 4.5" drill pipe.

March 30, 2007 - Safety meeting. Finish in hole with 7 5/8" seal, 9 5/8" packer with seal assembly. Set seal on top of 7 5/8" liner. Used Halliburton pump service to set packer and test back side. All OK. Trip out. Lay down running tools. Rig up to run 7" production tubing. Run in hole with 7" 23 lb. J-55 production casing with 15 foot seal section. Space out to land hanger with 11 feet of seals buried. Test back side to 1000 psi. All OK. Circulate in 100 bbls clean fresh inhibited water. 86 barrels into backside, remainder in tubing. Land hanger and lock down. Test backside and hanger seal to 100 psi. All OK. Install back pressure valve in tubing hanger. Nipple down BOPE and install wellhead.

March 31, 2007 - Finish nipple up production tree. Clean and transfer mud to storage. Clean mud tanks and equipment. Tear out operator rental equipment. Rig release at 1800 hr. 03/30/2007.