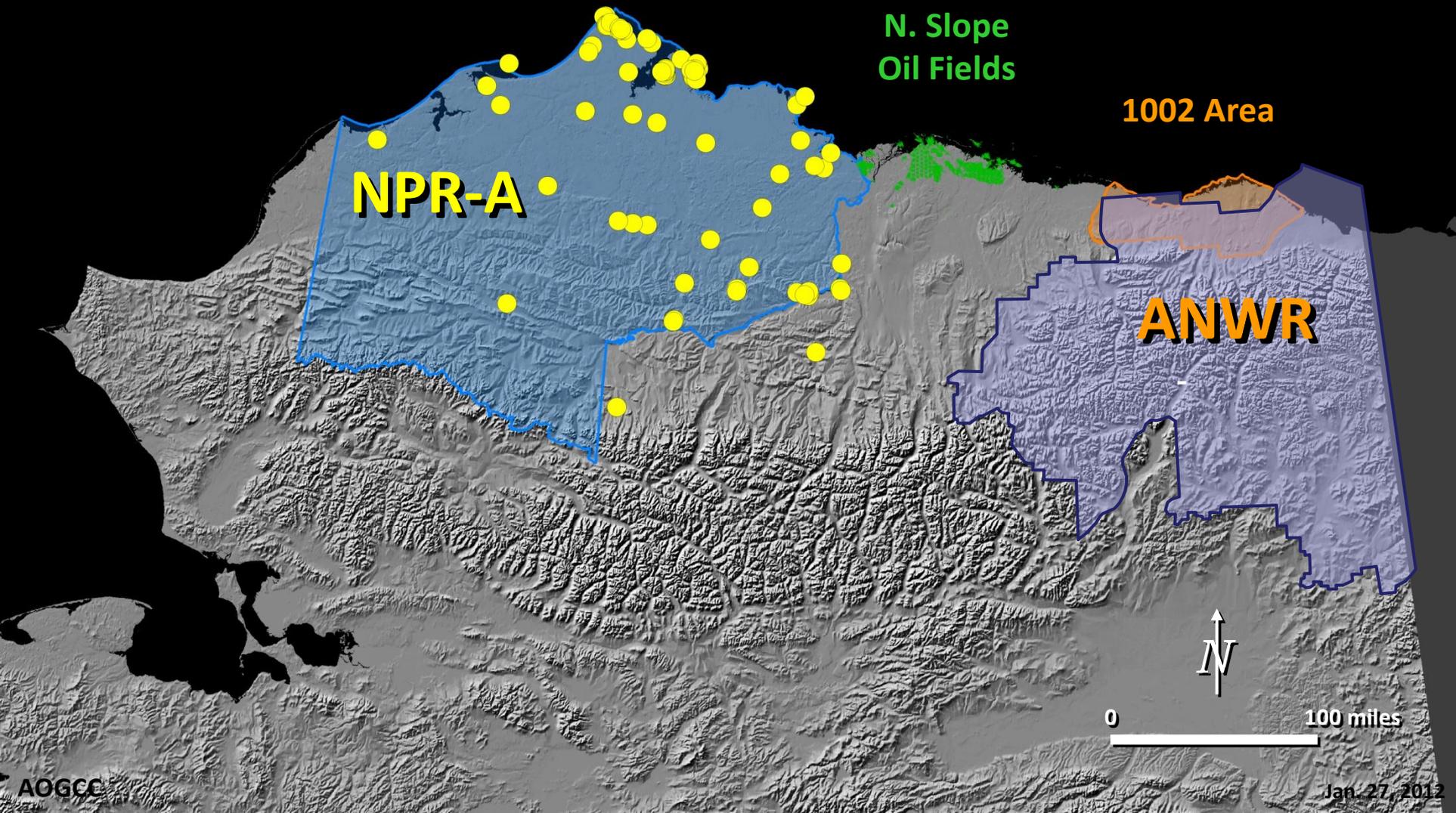


BLM Legacy Wells: Environmental Hazards and Eyesores





















Wellhead along with
wood and metal debris
in a natural oil seep





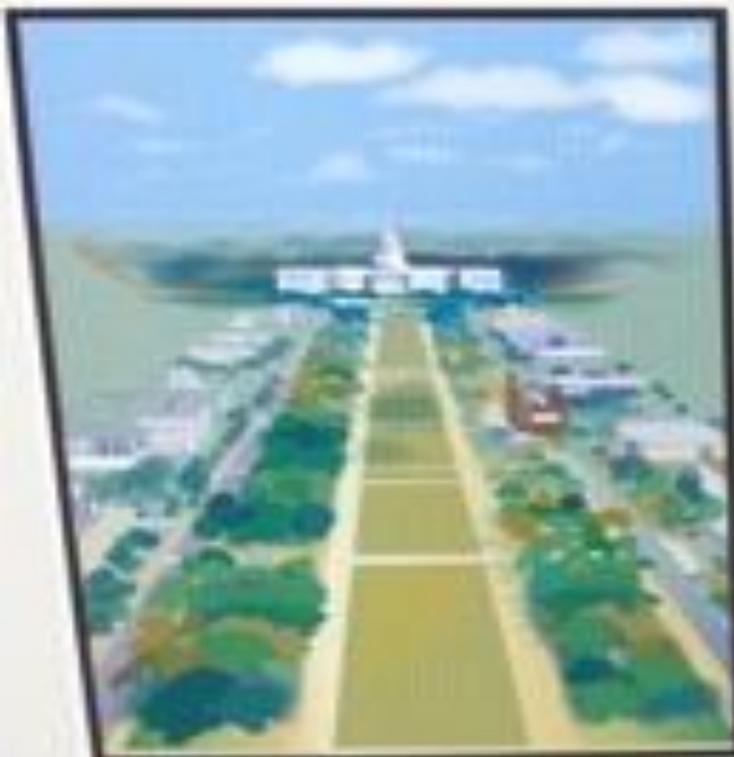
Natural subsidence and snowmelt have started to obscure this site.







Back-up slides



What's Happening?

National Mall and Memorial Parks is restoring the Mall lawn and making other improvements between 3rd Street and 7th Street. The work includes the installation of engineered soil medium to resist soil compaction, durable turf varieties and granite edging. New sustainable systems to improve soil drainage and collect stormwater for irrigation will reduce the use of potable water and help improve regional water quality. This contract work is to be completed by December 2012.



Status of Legacy Wells

- 16 properly plugged and abandoned (7 by Alaska Native Groups rather than BLM)
- 5 improperly plugged and not abandoned
- 29 not cased & partially revegetated
- 17 claimed to be used for temperature monitoring by USGS
- 17 transferred to Alaska native ownership
- **2 leaking greenhouse gases**
- 50 other out-of-compliance wells

Example Problems

- At least 26 are open to the atmosphere and at one time were filled with drilling mud
- At least 44 have wood, metal, plastic, glass, and concrete debris on site
- At least 17 are filled with diesel
- 3 can no longer be found - 1 under landslide at Colville River's edge, 2 in lakes

Example Problems

- At least 2 leak greenhouse gases
- 29 are partially revegetated at surface but have unknown downhole conditions; some have surface clean-up issues
- At least 49 have metal piping sticking above ground level

Alaska Regulations with which BLM Lacks Compliance

20 AAC 25.070 (3)

20 AAC 25.105(a) and (b)

20 AAC 25.110(a), (b), (d), and (e)

20 AAC 25.112 (b), (c), (d), (e), (f), and (g)

20 AAC 25.070(3)

- The operator of a well shall file with the commission, within 30 days after completion, abandonment, or suspension of the well and within 30 days after completion or plugging of a well branch, if occurring at a different time, a complete well record on the Well Completion or Recompletion Report and Log (Form 10-407), including the tests required by this chapter and a summary of daily well operations reporting drilling depths, abnormally geo-pressured strata, lost circulation and other hole difficulties encountered, simulated kick drills, mud weight, and a brief description of principal items of work done, such as running and cementing casing, drill stem tests, BOP tests, coring, sidewall sampling, and logging . . .

20 AAC 25.105(a)

- . . . If the owner is the landowner, all wells that have been permitted on a property by 20 AAC 25.005 must be abandoned within one year following permanent cessation of the operator's oil and gas activity within the field where the wells are located or according to an abandonment schedule approved by the commission, unless the wells are earlier abandoned for safety reasons.

20 AAC 25.105(b)

A well drilled onshore or from a fixed offshore platform must be abandoned before removal of the drill rig unless the well is completed as an oil, gas, or service well or is suspended, or unless well operations are shut down in accordance with 20 AAC 25.072. . . .

20 AAC 25.110(a)

If allowed under 20 AAC 25.105, an operator may apply to the commission under this section to approve the suspension of a well or to renew the approval of the suspension of a well. The operator must state the reasons the well should be suspended, and not completed or abandoned, and must demonstrate to the commission's satisfaction that (1) the well (A) is mechanically sound; (B) will not allow the migration of fluids; (C) will not damage freshwater or producing or potentially producing formations; (D) will not impair the recovery of oil or gas; (E) is secure, safe, and not a threat to public health; and (F) is in compliance with all provisions of AS 31.05, this chapter, and any order, stipulation, or permit issued by the commission; (2) the well (A) has future utility as an exploratory, development, or service well; (B) is a viable candidate for redrilling; or (C) is located on a pad or platform with active producing or service wells.

20 AAC 25.110(b)

An Application for Sundry Approvals (Form 10-403) must be approved by the commission before operations to suspend a well commence, except that oral approval may be requested under 20 AAC 25.507(b). In addition to meeting the requirements of (a) of this section, the application must include the following: (1) wellbore diagrams illustrating the current and proposed mechanical configurations of the well; (2) information on abnormally geo-pressured or depleted strata; (3) a description of the proposed work plan, including how the integrity of existing and proposed plugs will be demonstrated.

20 AAC 25.110(d)

The operator of a suspended well shall maintain the integrity and safety of the well and surrounding location and clear the location in accordance with 20 AAC 25.170(a)(2) or (b) or with 20 AAC 172(c)(2) or (d), as applicable.

20 AAC 25.110(e)

For a well suspended before January 1, 2009, the operator shall inspect the well site before September 30, 2010. For a well initially suspended on or after January 1, 2009, the operator shall inspect the well site within 12 months after the date of suspension. For a well suspended under this section, subsequent inspections shall be conducted within 24 months before September 30 of every calendar year ending in 0 or 5, except that a suspended well is not required to undergo a subsequent inspection under this subsection if the initial inspection under this subsection occurred within the prior 24-month period. For all inspections under this section, the operator shall provide the commission notice at least 10 days before the inspection and the opportunity for commission inspectors to accompany the operator on the inspection tour. If convenient for the commission, shorter notice periods may be accepted.

20 AAC 25.112(b)

Plugging of a well must include effectively segregating uncased and cased portions of the wellbore to prevent vertical movement of fluid within the wellbore. . . .

20 AAC 25.112(c)

Plugging of cased portions of a wellbore must be performed in a manner that ensures that all hydrocarbons and freshwater are confined to their respective indigenous strata and are prevented from migrating into other strata or to the surface.

20 AAC 25.112(d)

Plugging of the surface of a well must meet the following requirements: (1) by the displacement method, a cement plug at least 150 feet in length, with the top of the cement no more than five feet below original ground level onshore, or between 10 and 30 feet below the mudline datum offshore, must be placed within the smallest diameter casing string; (2) either (A) all annular space open at the surface onshore, or in communication with open hole and extending to the mudline datum offshore, must be plugged with cement to seal the annular space in a manner satisfactory to the commission; or (B) all casing interior to the surface casing must be recovered to a depth of 100 feet or more below the original ground level onshore or the mudline datum offshore and the casing stubs plugged with cement as provided in (c)(2)(A) of this section; if the cement plug is extended to within the distance from the surface specified in (1) of this subsection, the requirement of (1) of this subsection need not be met.

20 AAC 25.112(e)

Cement used for plugging within zones of permafrost must be designed to set before freezing and have a low heat of hydration.

20 AAC 25.112(f)

Each of the respective intervals of a wellbore between the various plugs must be filled with fluid of sufficient density to exert a hydrostatic pressure exceeding the greatest formation pressure of permeable formations in the intervals between the plugs at the time of abandonment.

20 AAC 25.112(g)

Except for surface plugs, the operator shall record the actual location and integrity of cement plugs, cement retainers, or bridge plugs required by this section