



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Yakama Nation Natural Resources Program
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PORTLAND AREA
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June 1, 2009

SUBJECT: Letter Report: IHS Satus Area Groundwater Nitrate Contamination Sample Results

Dear Phil,

On December 22, 2008, the Yakama Nation requested IHS assistance in addressing concerns with nitrate contamination in groundwater. Specifically, IHS was to develop and implement a study to determine the number of potentially affected existing tribal member's wells for nitrate contamination on the reservation.

Background: The IHS coordinated with multiple Yakama Nation agencies [Tribal Water & Sewer, Water Resources, Water Code, and Environmental programs]. During these discussions, the focus of the nitrate contamination study was the Satus Area based on previous studies that showed the area had a high propensity for nitrate groundwater contamination. A summary of the previous sampling studies results are shown below:

Satus Basin:

- 36% of samples exceeded Nitrate MCL
- 29 of 80 samples above 10 mg/L
- Range above MCL: 10-140 mg/L
- 21 of the 29 sample sites are on Trust property
- 8 of the 29 sample sites are on Fee property

Ahtanum Basin:

- 2% of samples exceeded Nitrate MCL
- 1 of 45 samples above 10 mg/L [11.2 mg/L]
- The one sample site is on Trust property

Toppenish Basin [PHASE 1 STUDY]:

- 2% of samples exceeded Nitrate MCL
- 6 of 340 samples above 10 mg/L
- Range above MCL: 12.2 - 15.6 mg/L

Toppenish Basin [PHASE 2 STUDY: 48 wells with elevated Nitrates from Phase 1 were selected for Phase 2 Study]:

- 21% of samples had exceedances of Nitrate MCL
- 10 of 48 samples above 10 mg/L at some point during sampling
- Range above MCL: 10.1-17.8 mg/L
- 4 of the 10 sample sites are on Trust property
- 6 of the 10 sample sites are on Fee property

1.8 mg/L
10.3 mg/L

Toppenish
<1%
2 of
Range
1 of
1 of

February
3%
App
12 of
Range
All s

February
8%
App
6 of
Range
All s



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