

**STATUS REPORT  
2014  
MOYLE PETROLEUM COMPANY  
FORMER COMMON CENTS  
SODA SPRINGS, IDAHO**

Prepared for:

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Submitted to:

Idaho Department of Environmental Quality  
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## 1.0 INTRODUCTION

### 1.1 PURPOSE

Olympus Technical Services, Inc. (Olympus), under contract with Moyle Petroleum Company (MPC), prepared this Status Report for the former Soda Springs Common Cents Store (Site). MPC is the former owner of the Site. The Site is located in Caribou County, Idaho at 262 East 2<sup>nd</sup> South in the City of Soda Springs. Figure 1 shows the location of the Site within the Soda Springs area. The Public Land Survey System locates the Site in the northeast quarter of the southwest quarter of Section 7, Township 9 South, Range 42 East of the Boise meridian. Figures 2 and 3 show Site maps illustrating the Soda Springs Chevron and former Common Cents Site structures.

The MPC reported a release of approximately 1,200 gallons of unleaded gasoline to the Idaho Department of Environmental Quality (IDEQ) in 1996. Since the report of the release, MPC has retained several consultants to assess the nature and extent of petroleum hydrocarbons in the subsurface. At present, the MPC has contracted Olympus to assess the nature and extent of petroleum hydrocarbon impact to the subsurface, to design and implement remedial actions, and monitor groundwater at the Site. The analyses of Olympus-collected groundwater samples from monitoring wells at the Site, detected Chemicals of Interest for gasoline (CoI, IDAPA 58.01.24.800.01) at concentrations greater than Residential Use Screening Levels (RUSLs, IDAPA 58.01.24.800.02).

This Status Report documents project activity conducted during 2014. Appendix A includes the field procedures used for data collection in this report.

### 1.2 SUMMARY OF PREVIOUS WORK

Since its involvement with the project in 2000, Olympus has conducted site assessment activities; performed environmental monitoring; designed, pilot tested, and implemented remedial actions; and prepared a risk assessment for the Site. We prepared and submitted the following remedial action and risk evaluation documents to the IDEQ:

- *Corrective Action Plan, Soda Springs Chevron, Soda Springs, Idaho, August 23, 2000; and*
- *Risk Based Corrective Action Report, Soda Springs Chevron, Soda Springs, Idaho, July 22, 2003.*

Olympus has also submitted project status reports to the IDEQ. The reports document off-Site groundwater assessments, groundwater monitoring, remedial progress, remedial action plan modifications, and waste disposal activities. Appendix B includes a list of the Olympus-submitted status reports.

## 2.0 GROUNDWATER MONITORING

### 2.1 GROUNDWATER ELEVATION GAUGING

Historically, Olympus has gauged groundwater elevations in ten on-Site or upgradient monitoring wells (MW-1, MW-6, MW-9, MW-11, MW-13, MW-14, MW-15, MW-17, MW-18, MW-19) and seven off-Site, downgradient, monitoring wells (MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, MW-26). Figure 2 shows the well locations.

As reported in *Status Report, 2013, Moyle Petroleum Company, Former Common Cents, Soda Springs, Idaho* (Olympus March 18, 2014), the Soda Springs School District inadvertently destroyed MW-23 during snow plowing activities and is no longer gauged. Olympus made a request to the IDEQ to remove monitoring wells MW-1, MW-9, MW-11, MW-17, MW-18, MW-24, and MW-25 from the groundwater elevation gauging list; the IDEQ approved. (Personal Communication, December 5, 2014)

Olympus monitors for the presence of light non-aqueous phase liquid (LNAPL) during groundwater elevation gauging events. If LNAPL is detected, we measure and record the LNAPL thicknesses with a product interface probe. When appropriate, Olympus corrects groundwater elevations for LNAPL thicknesses.

Table 1 presents a summary of the groundwater elevation gauging and LNAPL thickness measurements for the Site since 2011 (current monitoring list). The status reports referenced in Appendix B contain tables that present data prior to 2011.

#### 2.1.1 Fourth Quarter 2014 Groundwater Elevations

On December 9, Olympus gauged groundwater elevations in groundwater monitoring wells MW-6, MW-13, MW-14, MW-15, MW-19, MW-20, MW-21, MW-22, and MW-26.

Following is a tabular summary of the groundwater gauging event.

Well Identification	Date	Depth to Groundwater	Groundwater Elevation	Change from Sep-13
<b>On-Site Monitoring Wells</b>				
MW-6	9-Dec-14	11.10	5,775.15	1.55
MW-13	9-Dec-14	11.15	5,774.36	1.39
MW-14	9-Dec-14	9.16	5,774.16	1.23
MW-15	9-Dec-14	11.10	5,774.29	1.42
MW-19	19-Dec-14	12.15	5,774.09	1.51
Averages =		10.93	5,774.41	1.42
<b>Horizontal Gradient</b>		<b>Flow Direction</b>		
MW-6 - MW-19 =	0.0048	feet/feet	Southeast	

Well Identification	Date	Depth to Groundwater	Groundwater Elevation	Change from Sep-13
<b>Off-Site Monitoring Wells</b>				
MW-20	9-Dec-14	7.62	5,774.13	1.20
MW-21	9-Dec-14	14.96	5,774.03	1.44
MW-22	9-Dec-14	11.75	5,773.95	1.43
MW-26	9-Dec-14	16.57	5,774.27	1.52
Averages =		12.73	5,774.10	1.40
<b>Horizontal Gradient</b>		<b>Flow Direction</b>		
MW-26 - MW-22 =	0.0008	feet/feet	Southwest	

Figure 3 shows a groundwater elevation contour map generated using the December gauging data.

Olympus did not detect LNAPL in any of the wells gauged during the December groundwater elevation gauging event.

## 2.2 GROUNDWATER SAMPLING

Olympus has monitored the concentrations of Col in groundwater through a network of on- and off-Site monitoring wells. The wells monitored include: on-Site or upgradient wells MW-1, MW-6, MW-9, MW-11, MW-13, MW-14, MW-15, MW-17, and MW-19; and off-Site wells MW-20, MW-21, MW-22, MW-23 (now destroyed, Section 2.0), MW-24, MW-25, and MW-26. Olympus requested that the IDEQ approve a reduction in the monitoring wells sampled to include: MW-6, MW-14, MW-19, and MW-22; the IDEQ approved the request (Personal Communication, December 5, 2014).

Olympus uses a peristaltic pump outfitted with disposable polyethylene and silicon tubing to purge and sample the monitoring wells using low flow techniques.

Olympus appropriately packages and arranges for the shipment of the groundwater samples, using chain of custody procedures, by overnight air courier to ESC Labs Sciences (ESC) in Mount Juliet, Tennessee. ESC is a National Environmental Laboratory Accreditation Conference (NELAC)-accredited laboratory. The laboratory analyzes the groundwater samples for the Col using guidance documented in SW-846 Methods 8260B. The groundwater Col include: benzene, toluene, ethylbenzene, xylenes (BTEX); methyl tert-butyl ether (MTBE); and naphthalene (IDAPA 58.01.24.800.01).

In addition to collecting the groundwater samples, Olympus prepares a duplicate sample and equipment blank (EB), and the laboratory supplies a trip blank (TB) for Quality Assurance/Quality Control (QA/QC) purposes.

Olympus validates the groundwater monitoring events' sampling and analytical data to ensure that the data are valid for their intended use

Table 2 presents a summary of the groundwater sample analyses since 2011. The status reports referenced in Appendix B contain tables that present data prior to 2011.

### 2.2.1 Fourth Quarter 2014 Groundwater Sampling

On December 5, Olympus collected groundwater samples from monitoring wells MW-6, MW-14, MW-19, and MW-22. Our data validation found the data to be acceptable for its intended use. The analyses reported the following results.

Sample Identification	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
MW-6	9-Dec-14	250	190	700	3,200	ND<50	160
MW-14	9-Dec-14	24	ND<0.33	22	ND<1.1	ND<0.37	2.0
MW-19	9-Dec-14	140	41	1,400	2,200	ND<18	460
MW-22	9-Dec-14	12	ND<0.78	37	1.7	1.8	5.9
Duplicate	9-Dec-14	12	ND<0.78	33	1.4	1.7	5.3
EB	9-Dec-14	ND<0.33	ND<0.78	ND<0.38	ND<1.1	ND<0.37	ND<1.0
TB	9-Dec-14	ND<0.33	ND<0.78	ND<0.38	ND<1.1	ND<0.37	ND<1.0
Notes: Units = µg/l							
ND = not detected at laboratory reporting limits							

Appendix C includes the laboratory analytical report, the sample Chain of Custody Record, Groundwater Sampling Information Forms, and Olympus' data validation.

### 3.0 FUTURE PROJECT ACTIVITY

#### 3.1 MONITORING WELL ABANDONMENT

Monitoring wells inspections conducted by Olympus on December 9, 2014 identified on-Site wells in disrepair. These wells include:

- MW-6 - the well's riser is broken at a depth of approximately three feet below the ground surface;
- MW-14 - the well's surface housing is broken; and
- MW-15 - the well's surface housing is broken.

The current groundwater monitoring program does not include on-Site wells MW-1, MW-9, MW-17, and MW-18. Olympus believes that MW-6, MW-14, and MW-15 are no longer necessary to monitor Col concentrations in groundwater at the Site; groundwater sampling from MW-13 and MW-19 will monitor effectively Col concentrations in groundwater in the middle of the Site and at the Site property boundary, respectively.

Additionally, an MPC contractor installed wells MW-1 through MW-19 over 15 years ago; construction and traffic activity have resulted in most of the subject wells having compromised well integrity. Generally, we believe that the subject on-Site wells lack sufficient well integrity to remain part of the Site's groundwater monitoring program.

The most recent analyses (September 2013, Table 2) of groundwater samples collected from off-Site wells MW-20, MW-24, MW-25, and MW-26 did not detect Col at concentrations greater than the RUSLs.

Olympus believes that groundwater elevations (for contouring groundwater elevations and calculating flow direction and gradient) can be effectively monitored on-Site using data from MW-9, MW-13, and MW-19; and off-Site using data from MW-20, MW-21, and MW-22. On-Site monitoring wells MW-13 and MW-19, and off-Site well MW-22 can provide data to better evaluate Col concentrations in groundwater.

Based on the above information, Olympus, on behalf of MPC, requests permission to abandon on-Site monitoring wells MW-1, MW-6, MW-11, MW-14, MW-15, MW-17, and MW-18; and off-Site wells MW-24, MW-25, and MW-26.

#### 3.2 GROUNDWATER MONITORING

Olympus will perform the Site's annual groundwater monitoring in the fourth quarter of 2015.

##### 3.2.1 Groundwater Elevation Gauging

IDEQ approval pending, Olympus will gauge groundwater elevations in monitoring wells MW-9, MW-13, MW-19, MW-20, MW-21, and MW-22.

### 3.2.2 Groundwater Sampling

IDEQ approval pending, Olympus will sample groundwater monitoring wells MW-13, MW-19, and MW-22. ESC or a similarly credentialed NELAC laboratory will analyze the samples for the Col using guidance documented in SW-846 Method 8260B or an equivalent method.

### 3.3 REPORTING

Olympus will prepare and submit (to the IDEQ) the 2015 status report in the first quarter of 2016.

#### 4.0 LIMITATIONS

Olympus performed the services documented in this report in a manner consistent with generally accepted principles and practices for the nature of the work completed in the same or similar localities, at the time the work was performed. No other warranty, express or implied, is made.

Opinions contained in this report apply to conditions existing when the services were performed. All conclusions and recommendations are based on readily available and reasonably ascertainable information on site conditions at the time of the work and for the laws in effect at that time. We are not responsible for any changes in environmental standards, practices, or regulations subsequent to performance of services. This report is not meant to represent a legal opinion. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

This report was prepared by:

**OLYMPUS TECHNICAL SERVICES, INC.**



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Michael Backe, P.G.  
Principal Hydrogeologist

16-Oct-15  
Date

## 5.0 REFERENCES

Idaho Department of Administration, 2012. Standards and Procedures for Application of Risk Based Corrective Action at Petroleum Release Sites. IDAPA 58.01.24, Boise, Idaho.

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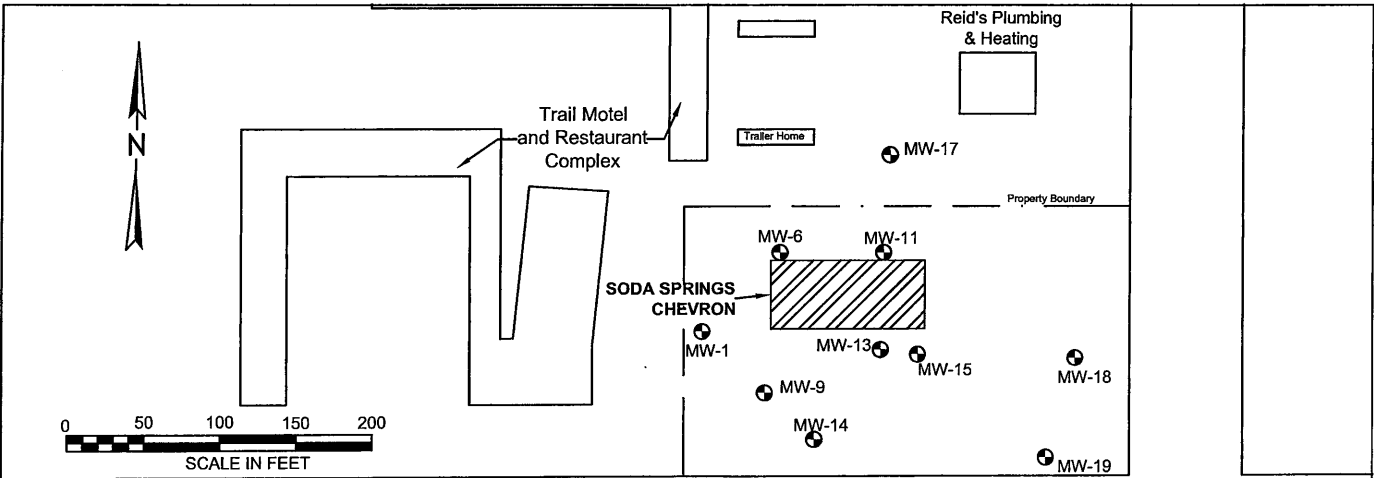
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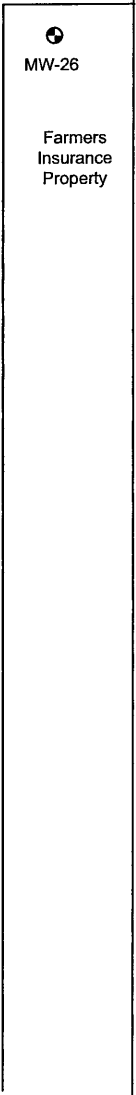
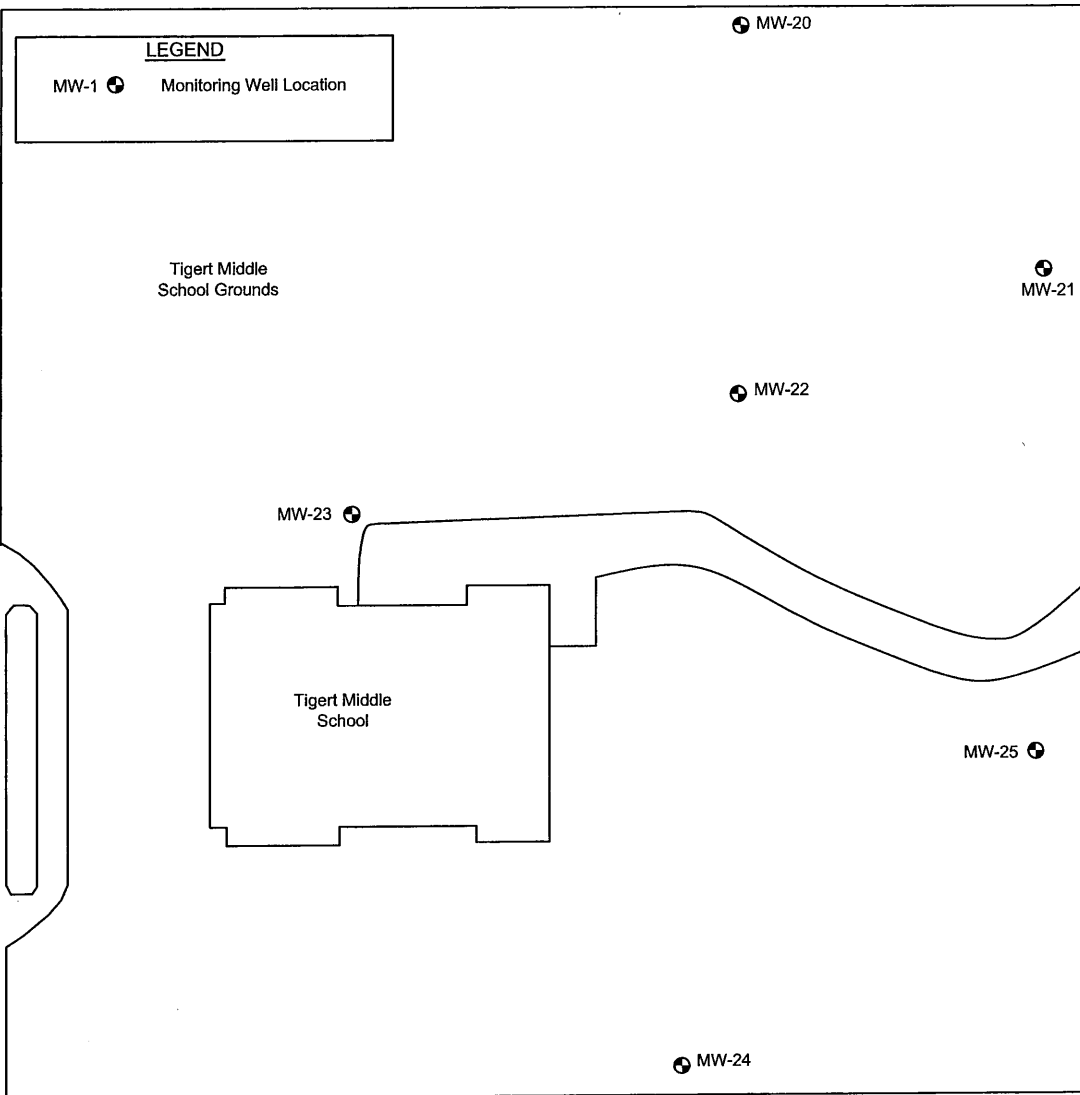
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United States Environmental Protection Agency, July 30, 1996; revised January 19, 2010. *Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*. EQASOP-GW001 (Revision Number 3), Quality Assurance Unit, Region 1, North Chelmsford, MA.





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3rd Street East

3rd Street South