

# THE ENSIGN-BICKFORD COMPANY

## SPANISH FORK, UTAH

September 2010

Property Update #3

### Snapshot Summary

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This fact sheet provides information about environmental activities at The Ensign-Bickford Company (EBCo), located in Spanish Fork, Utah. Manufacturing ceased in 2006, after which most site buildings were removed. Over the past two decades, several environmental investigations were performed. These led to (1) ongoing corrective measures to address ground water quality conditions in the regional aquifer and (2) on-site soil clean-up activities, which have been completed, documented and recently approved by the State of Utah. Periodic on and off-site groundwater monitoring is also in place. All studies, remediation and reports were conducted under the purview of the State of Utah Department of Environmental Quality (DEQ). EBCo desires to return the property to productive use through a mixed use development.

### Site Background

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The Ensign-Bickford Company (EBCo) owns nearly 500 acres currently located within Spanish Fork City near the mouth of the Spanish Fork Canyon, approximately four miles from the town center of Spanish Fork City and three miles from the town center of Mapleton City. While the site has a lengthy manufacturing legacy that began in 1941, EBCo did not purchase the facility until 1986. From that time until 2006, EBCo manufactured commercial blasting products and other specialty cast explosives products at the site for use in mining, oil and gas exploration, and construction. Other blasting products, such as dynamite, were manufactured there by prior site owners.

### Environmental Activities and DEQ Approvals

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Since acquiring the site, EBCo has investigated and cleaned up soil and groundwater impacts, both on and in the vicinity of the site, resulting from historical manufacturing operations. The Utah Department of Environmental Quality (DEQ) oversees these investigation and cleanup activities.

#### *Soil Cleanup Activities*

EBCo conducted extensive investigations of the site, identifying 44 areas, called solid waste management units (SWMUs), where impact from historical activities occurred. To investigate and remediate these areas, EBCo collected and analyzed more than 5,000 surface and subsurface soil samples. Based on the results of these sampling efforts, EBCo thermally treated approximately 92,000 tons of soil to destroy contaminants and removed approximately 121,000 tons of soil from the site and shipped it to secure disposal facilities. In addition, approximately 72,000 tons of soil has been consolidated into an on-site placement unit comprising about 3 acres in order to reduce the areas on the site subject to future use limitations. As a result of these clean-up activities, the entire site is suitable for industrial/commercial development or some form of residential development, although a small portion of the site is subject to certain restrictions affecting the type of residential development permissible (e.g., residential development in otherwise commercially developed land is allowed). Most of the site achieved an unrestricted status, meaning “no further action” was required. Final clean-up has been completed and documented in the Corrective Measures Implementation Report (CMI) (approved by the DEQ in April 2010).

Approximately 93% of site acreage is environmentally suitable for either unrestricted residential or commercial development. The remaining 7% (roughly 30 acres) is environmentally suitable for limited residential or industrial/commercial development only with the implementation of appropriate site management control actions and recording of environmental covenants. A Site Management Plan (SMP) (approved by the DEQ in August 2010), describes EBCo's future land use restrictions and environmental obligations for areas not meeting unrestricted or "no further action" status. The SMP process included an opportunity for the public to comment on those obligations through open house sessions and a public hearing. The DEQ approval allows the follow-up activities described in the SMP to be implemented and the covenants to be recorded on the land records. The completed risk assessments, (presented in the CMI) ensure that the site meets conservative risk levels mandated by the DEQ.

### ***Groundwater Monitoring, Recovery and Reuse***

Prior production practices (in particular discharge practices that ceased about 18 years ago) also resulted in impacts to groundwater in the local area. EBCo has implemented a groundwater monitoring program that includes 30 on-site monitoring wells, 32 off-site monitoring wells, 2 facility production wells and 5 recovery wells. Since 1995, EBCo has collected and analyzed thousands of ground water samples from these locations. All data are reported to the DEQ and can be found at DEQ's offices in Salt Lake City and in document repositories in Spanish Fork City and Mapleton City.

In approximately 1998, EBCo began pumping groundwater from recovery wells in the local area and treating the water in treatment systems using granular activated carbon (GAC) to filter and remove the low levels of site-related constituents. Today, EBCo maintains a DEQ-approved system from which groundwater is recovered from four off-site wells and one on-site well and treated in one of three GAC water treatment systems for subsequent beneficial use in municipal pressurized irrigation systems. DEQ's Division of Water Quality oversees this groundwater recovery program, as well as an off-site groundwater quality monitoring program. With groundwater monitoring results trending in a positive direction, EBCo anticipates that these systems will be in place about 13 more years. EBCo has posted financial assurance with the DEQ, which is updated annually, to ensure that funds will be available to take care of system expenses through completion of groundwater remediation. In 2007, the DEQ and EBCo entered into a Consent Order that memorialized each of these requirements.

### **Future Site Use**

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Following completion of the on-site environmental activities in the approved SMP, the Company desires to return the property to productive mixed use development consisting of residential and commercial uses. Through planning and development activities, we have learned that there are many advantages to being located in the City of Mapleton, both for the Company and City, and have initiated efforts toward a City boundary line adjustment.

### **Questions That May Be On Your Mind About Future Site Development**

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With the work to transform the property from its former industrial manufacturing use to a future mixed use development completed, the Company recognizes that you may have certain environmental questions. The questions and answers presented below attempt to respond to those questions.

#### **1. With such a long plant history, how do you know all the right areas have been identified?**

In a process that began about 20 years ago, the entire property has been thoroughly studied and mapped to ensure a complete understanding of the site, its geology, environmental issues and

successful remediation. As part of the process to investigate and clean-up the site, we interviewed numerous current and former employees of the plant about location of manufacturing activities, discharge locations, and waste and materials management practices. All of the prior owners cooperated in identifying records and employees to assist in reconstructing this operating history. As a result, the site's production history is well understood. Additionally, the site has been subjected to the thorough sampling scrutiny discussed above, with DEQ oversight and approval, to fully understand the scope of environmental issues and the best path to conducting and completing remediation.

**2. How do you know the soil contamination has been removed?**

Since issues were first investigated in the early 1990's, we've worked closely with the DEQ Division of Solid and Hazardous Waste to identify all areas of suspected impact and to satisfy DEQ's rigorous cleanup requirements. As part of that comprehensive process, we've taken more than 5000 soil samples and over 650 groundwater samples from on-site wells, excavated and treated or disposed of thousands of tons of soil, taken confirmation samples to demonstrate the effectiveness of the cleanup and performed extensive risk assessments. Comprehensive documents related to this process are available for public review at Mapleton City, Spanish Fork City, and DEQ. We're confident that this process has resulted in an effective cleanup of the property.

**3. Are the existing conditions consistent with potential future site development?**

After comprehensive sampling and extensive clean-up done in close coordination with DEQ, the remediation is complete. EBCo submitted the CMI Report to DEQ presenting the final condition of the property, and that report has been approved. Together with a Site Management Plan, which was also recently approved by the DEQ following public comment, these reports document that the historic impact has been sufficiently addressed for planned future land use and development. EBCo has also conducted sampling outside the DEQ focus areas of the site to confirm these findings.

**4. What if during development of the property someone finds something and EBCo is not present to clean it up?**

Part of EBCo's heritage is a strong sense of corporate responsibility. The company has been around since 1836. Even after the property is developed, the company will retain responsibility for the prior environmental issues. It should also be noted that seven different entities have managed this site since 1941 and EBCo worked with them to ensure clean up issues have been addressed.

But what if, for some reason, The Ensign-Bickford Company dissolves?

Again, that is an extremely unlikely scenario. But if it were the case, DEQ would likely evaluate the conditions, determine what, if anything, was required, determine who would be responsible for addressing those conditions and pursue the responsible party or parties. Additionally, DEQ has required that EBCo maintain a letter of credit to ensure that funds are available to satisfy ongoing ground water recovery, treatment and monitoring obligations.

**5. What happens if someone who buys a house out there becomes ill and thinks it relates to the site?**

The rigorous and very conservative cleanup standards that DEQ has required at the plant site were established using health and risk assessment techniques to ensure that the conditions meet the required risk levels for human health. EBCo is confident the current conditions of the property are safe for the approved future use. Furthermore, while it is true that there were prior lawsuits involving allegations of this type, the best scientific data shows that EBCo activities did not cause illness to anyone. Again, this data underlying the human health risk assessments is and will be available to the public in Mapleton City, Spanish Fork City, and DEQ offices.

**6. At a public meeting last year, I heard mention of a cancer study done by the Department of Health. Are the results accurate?**

The incidence of cancer has been extensively studied by the State and is not unusually high in Mapleton. In 2004, the Utah Department of Health published the results of its investigation of cancer incidence rates in Mapleton between 1978 and 2001. The study could not establish a causal association with cancers in Mapleton. Toxicologists, scientists and public health officials could find no link between the prior plant operations or the contaminated groundwater with the specific types of cancers alleged in the past lawsuits.

**7. Why wasn't the entire property cleaned to unrestricted residential standards?**

Cleanup standards are determined by the intended use of the property, which is influenced by a number of factors, such as geology, wind, elevation and other site-related features. All of the property is suitable for some type of residential development, with certain areas, totaling roughly 30 acres, subject to restrictions affecting the type of residential development that is permissible. EBCo elected to clean-up much of the property to the more conservative unrestricted residential standards. Appropriate land use limitations are being imposed on the appropriate areas so that the final conditions will not pose a threat to human health or ground water for the allowable uses.

**8. For the on-site placement unit, didn't you really just move contamination from one spot on-site to another?**

The vast majority of impacts found on the site were either thermally destroyed or removed from the site. Any constituents remaining are at very low levels already satisfying the industrial/commercial cleanup criteria. Soil consolidation was done to shrink the size of areas subject to future residential use restrictions.

**9. Did the cleanup plan just create a waste landfill on the site?**

No waste products remain on the property. Any areas with soils containing very low levels of constituents were consolidated will continue to satisfy the restricted residential, industrial/commercial and open space risk criteria, consistent with the intended future use of that portion of the site. As mentioned above, this consolidation area is approximately 3 acres of the estimated 500.

**10. What is happening with EBCo's groundwater recovery activities?**

EBCo installed a recovery well near the property border to capture any impacted ground water to prevent it from migrating off-site and return it to beneficial use. In addition, EBCo operates several other ground water recovery wells to capture and treat any impacted ground water north of the site. These wells have been operating for approximately 10 years and constituent levels in ground water have generally been stable or declining, demonstrating the effectiveness of the ground water recovery system. Under the DEQ-approved Corrective Action Plan (CAP), the State of Utah must approve any reduction in recovery efforts or treatment, as well as final completion.

**11. What is the status of environmental reports to be submitted to DEQ in order to finalize the cleanup?**

The two main documents are the Corrective Measures Implementation Report (CMI) and the Site Management Plan (SMP). The CMI details all of the cleanup activities that have occurred, and contains confirmatory sampling data and results of the site risk assessment in support of project completion. EBCo's CMI was approved by the DEQ on April 21, 2010. The SMP lays out EBCo's future land use restrictions and environmental obligations for areas not having unrestricted or "no further action" status. The SMP process also included a public participation component with DEQ. EBCo's SMP was approved by the DEQ on August 17, 2010.

**12. What liabilities does Mapleton City face by annexing property known to be formerly contaminated?**

While the City's attorney can best respond to the issue, it is our understanding that the City is not liable, nor will it be liable, for this historical contamination because it did not create it.

**13. What guarantees does the City have that EBCo will fulfill its responsibilities if in the future issues emerge?**

EBCo has approved a certification to the City. Also, DEQ has required that EBCo maintain a letter of credit to ensure that funds are available to satisfy ongoing ground water recovery, treatment and monitoring obligations.

**14. Given the manufacturing history of this site, would it be better just to leave it vacant?**

The intent of the cleanup program was to return the property to productive use in a manner that is safe to human health or the environment for approved purposes. The investigations and remediation have been undertaken with the strict oversight and approval of the DEQ. This approach is consistent with other redeveloped areas in Utah that have residual contamination, such as Daybreak.

**15. How do we know we can trust the sampling results that EBCo and the DEQ are relying on to conclude that the site is clean?**

Samples are obtained by an environmental consulting firm and are tested by an independent environmental testing laboratory. The state has the ability to obtain its own samples to verify results obtained by EBCo.

**16. Will I have a say in how the property gets developed?**

If the property becomes part of Mapleton City, you will have a say in future development activities. If the property stays in Spanish Fork City, you will have an opportunity to hear about environmental activities.

**17. How will people who might be interested in the land in the future be notified of property restrictions?**

The recently approved SMP includes land use restrictions, notices and instructions. Once the SMP activities have been completed, those notices and instructions will be recorded with the public land records for Utah County. New property owners will be required to abide by the environmental covenants.

**18. Now that EBCo has its environmental approvals, how does the State keep tabs on the site?**

The DEQ requires periodic reporting and inspections of the controlled areas at the site, and will itself provide oversight in the form of periodic inspections. In addition, development activities such as utility construction occurring in areas having site management controls will require submittal of engineering design information for DEQ approval.

**19. What is Harmony Ridge?**

It is the concept for the rejuvenated site. - Located along the Wasatch Front at the foot of the Sierra Bonita Mountains, Harmony Ridge has been planned as a premier 481-acre master planned mixed-use community. Harmony Ridge will be developed with sustainability in mind, will provide a variety of residential housing and will bring unique neighborhood shops and businesses to the city, all while preserving a large portion of the community as natural, open space.

**For more information, please contact:**

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View toward the Wasatch Mountains from the site