

Conservation Services, Inc. 41800 E 88<sup>th</sup> Ave Bennett, CO 80102 303-644-4335 (Phone) 303-644-4378 (Fax)

December 23, 2013

Mr. Chris La Rue Adams County Department Of Planning and Development 4430 South Adams County Parkway 1st Floor Suite W2000A Brighton, CO 80601

Re:

Engineering Design and Operations Plan Summary And Proposed Energy Services Management Plan Renewal of Certificate of Designation Conservation Services, Inc. Disposal Facility Bennett, Colorado

Dear Mr. La Rue:

Conservation Services, Inc. (CSI), a wholly owned subsidiary of Waste Management of Colorado, Inc. is pleased to submit this summary of the Engineering Design and Operations Plans for the CSI disposal facility in support of the renewal of the facility's Certificate of Designation (CD). CSI appreciates the time and effort the County has expended assisting CSI in preparing this submittal and looks forward to a continuing relationship with the County.

The CSI facility is unique to the region and has been providing environmentally sound specialty disposal services to industry and business since its opening in 1989. CSI has a proven track record of environmental stewardship and has developed a successful partnership with Adams County, continually striving to improve its services for responsible waste management.

This document summarizes the approved design and operations at the CSI facility and proposes an additional operation to serve the energy producing industry. The proposed operation provides an environmentally sound option for management of wastes generated by the energy producing industry resulting from a substantial increase in industry activity, waste generation, and changes to regulations governing that industry.

Five copies of the submittal are enclosed for the County and certain referral agencies. Also included is a check in the amount of \$600.00 payable to the Tri-County Health Department for their review as a referral agency as you requested. CSI will deliver a copy of the submittal directly to the Colorado Department of Public Health and the Environment (CDPHE) on behalf of Adams County; however, Adams County will need to formally request a review from the CDPHE.

Please feel free to contact me if you have any questions.

Mr. Chris La Rue December 23, 2013 Page 2

BY TOM SCHWEITZER

Alan Scheere **CSI District Manager** 

CCs: Roger Doak, CDPHE Bruce Clabaugh, WMC Tom Schweitzer, WMC Mark McMullen, AEC

# CONSERVATION SERVICES, INC. ENGINEERING DESIGN AND OPERATIONS PLAN SUMMARY



# Prepared for:

Conservation Services, Inc. 41800 East 88<sup>th</sup> Avenue Bennett, Colorado 80102

# Prepared by:

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December 2013

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#### 1.0 INTRODUCTION

Conservation Services, Inc. has been providing Adams County and the surrounding industrial community an environmentally sound management method for non-hazardous solid and liquid waste disposal since 1984. CSI is the only exclusive industrial waste facility approved under the stringent Subtitle-D regulations in the State of Colorado.

CSI originally commenced solidification operations located at 777 W. 62<sup>nd</sup> Ave. in Adams County in 1984 and continued operations at this location until 1990. The current CSI operations located at 41800 E. 88<sup>th</sup> Ave. in Adams County commenced in 1989 pursuant to a Certificate of Designation (CD) approved by the Adams County Board of County Commissioners (ACBCC). Condition #6 of the corresponding Resolution states that the CD will expire on August 14, 2014. However, since the CD will expire before the facility life is expired, Adams County Zoning Regulations 4.570 in effect at the time the CD was issued and approved by the ACBCC, provided for an extension of the Certificate of Designation upon submission of a written request at least six (6) months prior to the termination date.

In 1996, the ACBSS approved a CD amendment approving certain components, which enhanced facility services and operations. Some of these components included:

- Redesign and upgrade of the disposal cells
- Construction and operation of a treatment facility to biologically remediate soils
- Allow disposal of municipal solid waste
- Update the Design and Operations Plan to conform with updated Federal, State and local regulations

CSI desires to continue providing Adams County and the surrounding areas with environmentally sound waste disposal options to the industrial community while providing economic benefits including revenue brought into Adams County and employment opportunities for local residents created by CSI.

Accordingly, this submittal formally requests the following:

- A renewal of a single Certificate of Designation in accordance with applicable Adams County zoning regulations to replace the two expiring Certificate of Designations;
- Construction and operation of a solids processing operations as discussed later in this document and in Appendix C;

- The facility proposes to employ flexibility in its operating hours and days of operation, which would be extended or modified as necessary to adequately provide waste management services to the surrounding area and align with the solids processing operating hours to serve the oil and gas production industry as described later in this document; and,
- Continue receiving naturally occurring radioactive materials (NORM) and technologically enhanced radioactive materials (TENORM) as previously approved by Colorado Department of Public Health and Environment (CDPHE) and Adams County on a case by case basis.

Colorado is one of many states with higher occurrences of NORM. Over the past decade, the need for a facility that can safely dispose of NORM and TENORM has increased. Conservation Services, Inc. (CSI) is an industrial waste facility that has previously provided disposal services for these types of industrial wastes. CSI has received the industrial wastes with NORM/TENORM based on case-by-case reviews conducted by CDPHE and Adams County for many years.

Nevertheless, case-by-case waste approvals became an administrative burden for the generator and the reviewing agencies. After continued applications for case-by-case reviews CDPHE had requested that CSI develop a waste acceptance protocol for waste with NORM/TENORM. In combination with the waste acceptance protocol CDPHE also requested CSI perform risk assessments for future industrial waste with NORM/TENORM and on all the industrial wastes with NORM/TENORM currently at the facility. To accomplish this task CSI retained Molen & Associates, LLC and Radiant Energy Management and American Environmental Consulting, LLC to assemble and evaluate information, perform risk assessments concerning radioactivity, and prepare the Risk Assessment Report and Updated Waste Identification Plan which were submitted to CDPHE and Adams County in December 2004 and updated May 2006 respectively. These reports were approved by CDPHE on August 6, 2006. Adams County approval is pending.

These reports were specifically designed to fulfill CDPHE's request and to provide CDPHE and Adams County with comprehensive and accurate technical data, site-specific risk assessments and a waste acceptance protocol that ensures safe and proper management of industrial waste with NORM/TENORM at CSI. The Waste Identification Plan for Conservation Services, Inc. (WIP), provided to CDPHE and Adams County outlines a waste acceptance protocol that eliminates the administrative burden of case-by-case reviews as requested by CDPHE. The WIP does not change CSI's long-standing practice of accepting industrial waste with NORM/TENORM. Rather, it merely formalizes and streamlines the administrative process by which CSI previously accepted this waste and responds to CDPHE's request to reduce the administrative burden on CDPHE and Adams County, and obviate case-by-case determinations for acceptance of industrial waste with NORM/TENORM at CSI.

The Risk Assessment Report and Waste Identification Plan demonstrate that CSI can comply with the dose standard of 25 mrem/yr derived from C.C.R. 1007-1 and 4.61.2 and is protective of public health and the environment. Accordingly, NORM/TENORM received at CSI is regulated

as industrial non-hazardous solid waste under Colorado Solid Waste Regulations and the Certificate of Designation issued by the local governing body.

The basis and support of this application is further discussed below.

# 1.1 Purpose

In accordance with Condition # 6 of the Resolution approving of the original 1989 Certificate of Designation (CD # 86-88-CD) allowing construction and operation of the Conservation Services, Inc. (CSI) disposal facility located in Adams County, the original CD for the facility expires on August 14, 2014. The CSI facility complies with applicable regulatory requirements and all operations currently conducted at the facility have been previously approved by the Colorado Department of Public Health and Environment (CDPHE) and Adams County. Per agreement with the Adams County Department of Planning and Development, the submittal of this summary document satisfies the condition for Adams County to consider renewal of CSI Facility's CD.

This document presents a summary of site characteristics, design, monitoring, operations, closure, and post-closure plans for the existing CSI disposal site located in Adams County, Colorado. This document summarizes the facility information included in two Design and Operations Plans (D&O Plans) that have received approval from the Colorado Department of Public Health and Environment (CDPHE) and Adams County and is submitted as a mechanism to support a renewal of the facility's CD.

This Summary provides a written overview of the design and operational methods used by CSI in meeting applicable County and State requirements including the Colorado Regulation Pertaining to Solid Waste Disposal Sites and Facilities 6 CCR 1007-2, Part 1 as amended, hereinafter referred to as the "Regulations" or "State Regulations", and applicable Adams County regulations, ordinances, and conditions of approval. It makes extensive reference to the two approved D&O Plans and facility plans and modifications that were approved subsequent to the D&O Plans.

This Summary proposes one modification to the operations conducted at the facility that has not previously been approved by Adams County:

1. Construction and 24-hour 7-day a week operation of a solids treatment and beneficial reuse facility to serve the energy producing industry. This operation is not a part of the current CSI disposal operations, but will be constructed at the CSI facility. More information on this operation is provided in later sections of this document.

The facility is also requesting to formalize two aspects of the operations that have been approved previously. First, CSI has been approved for flexibility in its typical operating hours in order to serve clients as needed and this document formalizes that capability. Second, and as discussed above, CSI was previously allowed to accept NORM/TENORM waste on a case-by-case basis from Adams County and this document streamlines and formalizes this approval as discussed above.

The disposal options offered by CSI are unique to the region and since its opening CSI has demonstrated continuing success in serving the growing specialty disposal needs of local and regional waste generators. CSI is constantly striving to enhance its operations and services to meet the changing needs of the waste generating industry in an environmentally responsible manner. The proposed solids treatment system will be used to treat wastes generated by the energy production industry. The process will provide an alternative to disposal and provide a treatment that allows reuse of the products separated from the waste material.

CSI is an asset to Adams County and has been an involved partner with the County and surrounding community. It provides employment opportunities and safe and secure disposal options for waste generated by successful businesses both within and outside of the County, and as an environmentally responsible company is proposing to further its environmental stewardship goals by offering waste treatment and beneficial reuse operations to the energy producing industry. CSI has been an involved community partner and a portion of the CSI revenues helps Adams County improve infrastructure within the County and implement environmental oversight and management programs to assist in protection of human health and the environment. CSI's business practices and operations compliment the goals and practices of the Adams County Sustainability Management Plan of reducing waste through recycling and beneficial reuse, protecting health and the environment, and water conservation.

The renewal of the CD for the facility is warranted based on CSIs safe and responsible operating record, history of environmental compliance, and the demonstrated benefits to Adams County, its residents, and businesses.

With the exception of the proposed treatment and beneficial reuse operations, all of the site information included in this summary has previously been approved by both the CDPHE and Adams County through approval of the two previous D&O Plans or subsequent approvals obtained outside of the D&O Plan approval process.

# 1.2 Regulatory Background

CSI was issued a Certificate of Designation (CD), # 86-88-CD dated December 20, 1989 from the Adams County Board of County Commissioners in a Resolution dated August 14, 1989. The supporting document for the CD was entitled Conservation Services Incorporated, Design and Operations Plan, Volumes 1 and 2 (Industrial Compliance, October 4, 1991), referred to herein as the 1991 D&O Plan, and was a revision of the original D&O Plan to incorporate conditions and stipulations of the CD and additional items resulting from observations and regulatory issues after the first year of operations. Subsequent to the issuance of the CD, site civil improvements and cell construction commenced and the site opened for receipt of waste on December 22, 1989. Through this CD, the facility was permitted to accept non-hazardous liquid and solid waste including friable and non-friable asbestos and various other types of non-hazardous industrial wastes.

In August 1995, the Adams County Board of County Commissioners approved an amendment to the CD to expand the site acreage from approximately 238 acres to approximately 383 acres. Other components under this amendment included the construction and operation of sludge and soils treatment facility to bioremediate soils, sludge and other materials amenable to this type of prepared bed bio-treatment (PBBT) and a revision to the current acceptable waste streams to allow the disposal of municipal solid waste (MSW) and construction and demolition waste in Cell #25 that has not yet been constructed. The supporting document for this CD amendment is entitled *Conservation Services Incorporated, Bennett, Colorado, Facility Expansion Revised Design and Operations Plans (Industrial Compliance/Terranext, February 5, 1996)* and notated "per Adams County Commissioners Resolution of August 23, 1995 Certificate of Designation #86-88-CD[A]", referred to herein as the 1996 D&O Plan.

CSI merged with USA Waste Services in 1997. Subsequently in 1998, Waste Management, Inc. merged with USA Waste Services. Each merger was achieved through a stock acquisition and did not result in a change of ownership. CSI continues to own and operate the facility as a wholly owned subsidiary of Waste Management of Colorado, Inc.

#### 1.3 Site Description

CSI owns approximately 383 acres in Section 25, Township 2 South, Range 64 West, which are covered under a CD for management of solid waste. The site is located at Schumaker Road and East 88<sup>th</sup> Avenue (Irondale Road) in unincorporated Adams County, approximately 7 miles north of the town of Bennett, Colorado and 9 miles north-northeast of Watkins, Colorado. The Site Location Map (Figure 1) illustrates the location of this facility within the State of Colorado and the vicinity relative to the Denver metropolitan area. The property is owned by Conservation Services, Inc. and has the following address:

#### Physical and Mailing Address:

41800 E. 88<sup>th</sup> Ave. Bennett, CO 80102 (303) 644-4335 phone (303) 644-4306 fax

A Title Commitment, legal description of the property and easements, Rights-of Way, and encumbrances is provided in Appendix A.

CSI is currently authorized to accept liquid, non-putrescible solid wastes, and solid non-hazardous waste. No regulated hazardous wastes, regulated radioactive wastes, or regulated polychlorinated biphenyls (PCBs) are accepted for disposal by the facility. Any vehicle observed hauling wastes unacceptable by regulation to the facility will not be allowed to dispose of such wastes at the site and will be informed to dispose of them at an appropriately permitted facility. The occurrence will be documented, placed into the operating record and appropriate agencies notified, as necessary.

The facility has implemented an approved hazardous waste exclusion program and is further described in the 1996 revised Design and Operations Plan, supplemented by other documents such as the *Revised Handling and Disposal Plan for Pharmaceuticals* (October 2011, revised December 2011). The purpose of the program is to provide a plan to identify and screen wastes, which may be regulated hazardous waste, regulated radioactive wastes or regulated PCB wastes.

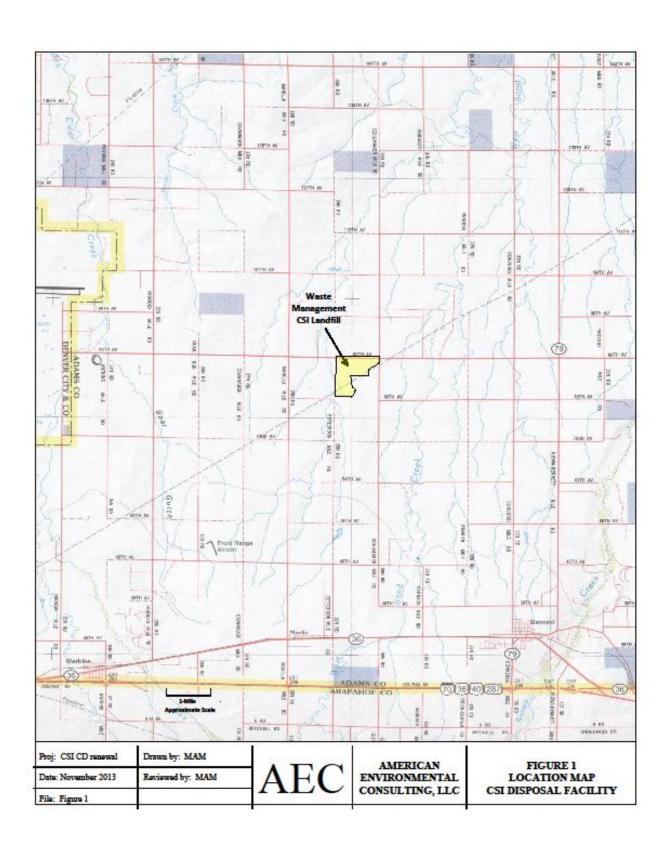
Currently permitted processes include solidification of liquid wastes, burial of solidified liquids and solid wastes in lined disposal cells, management of wastewater sludges and other qualified wastes in engineered biotreatment beds, and evaporative treatment of leachate generated on-site and for use as an evaporative impoundment for commercial disposal of liquids. To date CSI has not constructed the evaporative impoundment.

With this CD renewal, CSI is proposing the construction and operation of a treatment, and off-site shipment facility located on the CSI site for the beneficial reuse of liquid wastes generated by the energy production industry, particularly oil and gas producers.

Approximately 167 acres of the 383 acres owned by CSI has been designed to accept waste in discrete and separate disposal cells, including an approximate 10.16 acre cell designated for municipal solid waste and an approximate 5.05-acre asbestos cell. Non-hazardous, non-putrescible solid wastes are disposed of in composite-lined disposal cells referred to as Industrial Solid Waste (ISW) cells. Approximately 32.5 acres currently contain waste in disposal Cells #1, #2, #3, #19/20, a portion of the currently active Cell 18/21/22/23, and a portion of the asbestos cell. Cells #1, #2, and #3 are filled with waste to approximately the pre-existing ground surface, and covered with an approved low permeability compacted clay cap. Prepared Bed Bio-Treatment (PBBT) operations are conducted on top of Cells #1 and #2, and a liquid waste storage/PBBT leachate tank farm is present on top of Cell #3. Cell #19/20 has been filled with waste to the permitted elevations and has been closed and revegetated with an approved Alternative Final Cover (AFC) system that uses water balance principals to limit infiltration of precipitation into the waste mass. As of this date, waste filling is continuing in Cell 18/21/22/23 and approximately 10.6 acres of the 19+- acre cell contains waste.

The site is bounded on the north by a fence line along 88<sup>th</sup> Avenue, Schumaker Road on the east property boundary with a fence on the east side of the active operations area, and open farm land to the west and south.

The CSI service area generally consists of the greater Denver Metropolitan area including Adams, Arapahoe, Denver, Douglas, Elbert and portions of Jefferson County, although historically wastes generated from other regions have also been accepted. Major transportation routes to the site include I-70, E. 88<sup>th</sup> Avenue (Irondale Road), 120<sup>th</sup> Avenue, Imboden Road, I-76, Bromley Lane, and Highway 79 (Figure 1).



#### 1.4 Subtitle D Location Restrictions

An evaluation of the ability of the CSI facility to meet each of the nine siting criteria described in Section 3.1 "Location Restrictions and Site Standards" of the State Regulations was included in Section 3.0 of the 1996 D&O Plan and is maintained in the site operating record. The evaluation demonstrated that the facility complies with all of the siting criteria and there are no known conditions that have changed since that time. The 1996 demonstration is summarized below.

# 1.4.1 Airports

The site boundary is outside the zone of influence of the Denver International Airport. The site is located within 5 miles of the ultimate design of the Front Range Airport, but outside of the airport influence zone. The Front Range Airport and the Federal Aviation Administration (FAA) were notified in writing during development of the 1996 expansion. The Director of the Front Range Airport (FRA) visited the site during the 1996 expansion proposal, at which time the plans presented in 1996 D&O Plan were discussed. The FRA did not voice any concerns regarding these plans. The revised CSI facility is not located within 5,000 feet of any airports servicing piston type aircraft or within 10,000 feet of any airport servicing turbojet aircraft.

#### 1.4.2 Wetlands

No changes to the previously approved areas for disposal are proposed herein. There are no wetlands within the areas designated for disposal or operational activities. Prior to using the borrow areas to the southwest of the disposal and operations area, wetland potential will be investigated and appropriate approvals obtained as necessary as it has been designated as riparian habitat.

#### 1.4.3 Faults

The site boundary is not located within 200 feet of any fault experiencing displacement in Holocene time. The nearest reported fault is the Rocky Mountain Arsenal Fault located approximately 15 miles to the west.

# 1.4.4 Seismic Impact Zones

The United State Geologic Survey (USGS) Open-file Report 82-1033 was reviewed to determine if the site is in a seismic impact zone as defined in the current Regulations. The report indicates that the maximum horizontal acceleration expected at the site, with a 90 percent probability of not being exceeded in 250 years, is approximately 0.07g. Therefore, the site is not located in the defined seismic impact zone.

#### 1.4.5 Unstable Areas

Based on site reconnaissance and document reviews, there is no evidence of unstable areas, geologic hazards or unstable human-made features on the site. All current and future slopes constructed at the site will be at grades that are inherently stable.

# 1.4.6 Topography

Site topography is more fully discussed in Section 3.2 of the 1996 D&O Plan. The predevelopment area covered under the CD varies in elevation from approximately 5298 to 5548 feet above mean sea level. The site is relatively flat with gentle rolling hills in the surrounding area. A landscaping berm on the northern boundary of the facility provides visual screening as well as some protection from northerly winds.

# 1.4.7 Floodplains

A 100-year, 24-hour flood plain and a narrower Floodway along the channel within the Flood Plain on the unnamed tributary to Lost Sand Creek bordering the site on the west was estimated by Wright Water Engineers (Denver, Colorado) in a study completed in December 1999. Filling within the flood plain is allowed given certain modifications as stipulated in the Floodplain Use Permit (September 7, 2000) to prevent floodwaters from contacting waste. Following modifications made during cell construction, no filling will take place in the floodplain. The approved 1996 D&O reflects the approved cell designs and shows the disposal cells in relationship to the defined Floodway.

# 1.4.8 Design Standards

The site design and its conformance to Section 3.2 of the Regulations are discussed in detail within Section 6.0 of the 1996 D&O Plan and summarized in Section 6.0 of this summary.

#### 1.4.9 Surface Water/Groundwater

No waste will be placed below or into surface or ground water. The facility disposal areas are specifically designed to remain outside the limits of any surface water and above ground water. Additional precautions to minimize surface runoff from precipitation events will be taken and include berms and ditches as necessary.

#### 1.5 Permitted Wells Within Two Miles of Site

Table 4-3 of the 1996 D&O Plan includes a list of the registered groundwater wells within a two-mile radius of the CSI facility obtained from the records available with the Colorado Division of Water Resources, State Engineer's office.

# 1.6 Adjacent Land Ownership

The land ownership within a one-mile radius of the CSI facility was updated for this summary. A map showing the property locations, keyed to the property owner name and contact information obtained from Adams County is included in Appendix B.

#### 2.0 SITE CHARACTERISTICS

# 2.1 Site Topography

The existing topography of the site as of February 2, 2013 is presented on the attached Site Development Map. The pre-development site topography can be referenced in the 1991 D&O Plan. The site is located in a gently sloping agricultural area that drains away from a mild north-south striking topographical high in the southern portion of the operations area.

The undisturbed portions of the property slope generally less than 1 percent in the area that is to be used for filling. In the northeastern section of the facility, the topography becomes flat with slopes less than 0.5 percent. The general overland flow direction is west to east, east of the topographical drainage divide, and east to west, west of the divide. Overland flow in the facility operations area flows north to a permitted storm water detention pond.

The original topography has been modified according to the approved plans and grades of the permitted CSI facility. The proposed final grades of the CSI facility generally maintain the predevelopment drainage patterns and are presented in the 1996 D&O Plan.

# 2.2 Surface Water Drainage

The regional and local surface water flow patterns in the vicinity of the CSI facility have not been altered since the 1996 D&O Plan with the exception of continued disposal cell development. The nearest perennial bodies of surface water do not appear to have changed since 1996 appear to be small reservoirs approximately 4 miles south and 6 miles east of the CSI site. Neither reservoir is downstream of the site. The nearest downstream perennial body of water is the South Platte River, located approximately 40 miles north of the site.

On-site overland flow is to ephemeral channels that are part of two larger ephemeral drainage courses or tributaries to Lost Sand Creek. Lost Sand Creek, an ephemeral stream course located approximately 1.5 miles east of the site, flows in a general northerly direction to the South Platte River or, possibly, Empire Reservoir.

Two relatively large watersheds reach a confluence point near the southwest corner of the site property limits. The resultant (western) main drainage course traverses the southwestern portion of the CSI site (the potential borrow area) and exits the CSI site boundary south (upstream) of the disposal area limits, flows north, then intersects with a small drainage course emerging from the eastern third of the site. The drainage course proceeds north under East 88th Avenue via a concrete underpass toward Lost Sand Creek. A lesser watershed and (eastern) main drainage course proceeds north and then diagonally northeast through the southern portion of the site. Section 6.4 contains descriptions of current and interim site drainage conditions and control measures.

No significant channelization or vegetation exists in the disposal or operations areas that would suggest any substantial volumes of water flowing through the site. The majority of the property, with the exception of low lying areas in the floodway to the west of the site, is currently farmed and water moves in the form of shallow sheet flow.

# 2.3 Climatology

The climatology information presented in the 1991 D&O Plan was obtained from records compiled by the National Oceanic and Atmospheric Administration (NOAA) and is typical of the Denver Metropolitan region, which is most representative of the CSI facility. The climate information provided in the 1991 D&O Plan was obtained from records for a 30-year period and presumably has not changed substantially since 1991. The climate is characterized by relative humidity, light to moderate winds, mild temperatures, and light precipitation. The prevailing winds at the site are from the south with maximum winds generally from the west or northwest.

For this summary document, the climatology information was updated for the period 1995 through 2012 using information obtained from the Western Regional Climate Center at the Denver International Airport. For this time period, the average annual total precipitation is 13.98 inches that includes the moisture from an average annual snowfall of 43.7 inches. The month with the highest average precipitation over this time period is July with 2.38 inches of moisture and the lowest average precipitation is January with 0.30 inches. The average annual maximum temperature was 64.7 F° and the average annual minimum temperature was 36.8 F°. The month with the highest average temperature for this period was July at 90.0 F° and the month with the lowest average temperature was December at 17.8 F°.

#### 3.0 GEOLOGY

The regional and site geology and hydrogeology of the CSI facility are described in detail in previous hydrogeologic site characterization reports. The most pertinent geologic and hydrogeologic investigations conducted at the site are detailed in the following reports.

- 1) Conservation Services Incorporated Design and Operations Plan, October 4, 1991.
- 2) Conservation Services Incorporated, Bennett Colorado, Facility Expansion, Revised Design and Operations Plan, February 5, 1996.
- 3) Groundwater Data Review and the Exceedances at Well MW-101, Alternative Source Demonstration Report (6 CCR 1007-2, B4(c)(3) and 40 CFR 258.54) USA Waste CSI Bennett Facility, June 19, 1998.
- 4) Monitoring And Reporting Program, CSI Bennett Landfill (BE&K/Terranext, November 8, 1999) and the most recent updated Monitoring And Reporting Plan, Conservation Services, Inc. (CSI) Landfill (AquAeTer, September 2009).

For detailed information on the geology and hydrogeology of the CSI site the aforementioned reports should be consulted. The information provided in those reports is summarized herein.

# 3.1 Regional Geology

CSI is located within the Lost Creek groundwater basin, which is part of the larger Denver structural basin which extends from Colorado into eastern Wyoming, western Nebraska, and Kansas. The Denver Basin trends north-south, is asymmetrical and has a gently dipping east flank. The basin was formed during the late Cretaceous and early Tertiary time. During its formation, the basin was the site of fluvial deposition of sediments eroded from the mountains to the west. The sedimentary rock sequence which underlies the site is more than 10,700 feet thick.

The regional dip of the sedimentary units beneath the site is west towards the structural axis of the Denver Basin (35 miles west), at approximately 1 degree. The formation of primary interest to the CSI facility is the Tertiary-Cretaceous Denver Formation. The thickness of the Denver Formation across the Denver Basin ranges from 200 to 1,000 feet. The Denver Formation forms the near-surface bedrock beneath the area. The lithology of this formation is variable, consisting of continental-type deposits characterized by interbedded shale, claystone, siltstone, and sandstone.

#### 3.2 Site Geology

The Denver Formation was the only bedrock unit encountered during the site-specific drilling program for the original site characterization to depths of 100 feet below ground surface. The lithology encountered at the site consisted primarily of claystone with discontinuous lenses of moderately cemented to unconsolidated silt and sand and moderately to poorly cemented sandstone, typical of the Denver Formation described regionally.

Claystone is the dominant bedrock material at the site. The claystone bedrock was encountered in the majority of the soil borings. The depth to the claystone bedrock ranged from 1 to 43 feet. The claystone varied from light brown (weathered to slightly weathered zone) at the bedrock surface to olive, green-gray to gray (unweathered zone) with depth. The claystone was generally dry to slightly moist with medium to high plasticity. Iron oxide staining was observed in all of the soil borings. Gypsiferous infilling was also observed in fractures in the claystone bedrock. The claystone contains discontinuous interbedded lenses of sand, sandstone, siltstone, shale, and lignite.

Lenses of silt and sand are intercalated within the predominant claystone in the central portion of the site. These lenses generally contained light to yellow brown to light gray silty, fine sand. The lenses range in thickness from less than a few inches to approximately 15 feet. The thickest silt and sand intervals occurred in the central portion of the site. In many cases, the silt and sand lenses within the claystone unit were saturated. These silt and sand layers are laterally and vertically discontinuous and difficult to correlate across the site. In general, the first groundwater encountered beneath the site is present in these units.

Thin lenticular bodies of slight-to-moderately-cemented silty, fine-grained sandstone occur in the uncemented to poorly cemented sands of the Denver Formation in the eastern portion of the site. The sandstone ranges in thickness from approximately 6-inches to 13 feet, and generally contains some silt. The color ranges from light to dark brown. All moderately cemented sandstone lenses encountered were unsaturated.

The unconsolidated materials encountered above the bedrock during the drilling program can be classified into three categories: silty-sandy clay; silty sand; and gravel. The finer grain silts, sand, and clay are generally eolian in origin. Each of these materials is discussed below.

A light to dark brown silty, very-fine sandy clay was encountered in the majority of the soil borings completed at the site. This deposit varies in thickness from 2 to 40 feet. The thickest deposits generally occur throughout the central and northwestern portion of the site. This material was classified by visual field inspection according to United Soil Classification System (USCS) as CL/ML/SC. The field moisture contents ranged from dry to medium moist and the consistency ranged from medium stiff to very stiff.

A light-yellow-brown to light-gray silty, very-fine sand with varying amounts of clay was encountered in soil borings completed in the eastern portion of the site. This deposit is discontinuous and occurs immediately above, below, or interbedded within the silty-sandy clay. The silty sand deposits vary in thickness between 1 and 19 feet. The thickest deposits generally occur in the eastern portion of the site and in the drainage along the western boundary. This material was classified in the field as SC/SM. The field moisture content ranged from dry to wet with a consistency ranging from medium dense to dense.

Lenticular gravel deposits ranging in thickness of up to 1-foot were identified along the western portion of the site. The gravels were encountered at depths ranging from 8 to 17-feet. These deposits are believed to be associated with a poorly developed north-south trending ephemeral

stream channel. This ephemeral stream channel is generally comprised of reworked surficial materials. These gravels are generally interbedded with, or immediately overlying, a silty-sandy clay material. The gravel material was classified in the field as SM/GP. Groundwater is present in these unconsolidated and discontinuous gravels.

#### 4.0 HYDROGEOLOGY

The regional and site hydrogeology of the CSI property is described in detail in the documents listed in the first portion of Section 3.0. Those documents should be consulted for more detail of the regional and site hydrogeology. A summary of the regional and site hydrogeology are presented in this section.

# 4.1 Regional Hydrogeology

The site is located in the southern portion of the Lost Creek Groundwater Basin, which includes approximately 420 square miles in eastern Weld County, central Adams County, and northern Arapahoe County. The important water-bearing geologic members in the Lost Creek Groundwater Basin include the Lost Creek Alluvium and sands of the Laramie-Fox Hills Aquifer. Three major ground-water aquifer units are present beneath the CSI landfill site; the Laramie-Fox Hills, the Arapahoe, and the Denver aquifers. The water-bearing zones in the Arapahoe and Denver Formations are erratic and limited in lateral and vertical extent and are not considered significant water supply sources within the Lost Creek Groundwater Basin; however, the Denver Aquifer is discussed here as it is the uppermost regional aquifer in the vicinity of the site (Robson and Romero, 1981).

The water bearing strata are described as irregular lenses of interbedded sandstone and siltstone that are hydraulically separated by thick sequences of claystone. Robson and Romero (1981) show the potentiometric surface elevation to be approximately 5250 feet, with groundwater flow to the north. Wells in the Denver Aquifer generally yield very low water volumes that range from 0.05 to 1.0 gallons per minute per foot of drawdown.

The Denver Aquifer provides water of acceptable chemical quality, although it is not as good as water derived from the deeper Arapahoe or Laramie-Fox Hills aquifers. The water is classified as either sodium sulfate-or sodium bicarbonate type.

# 4.2 Site Hydrogeology

Groundwater occurrence beneath the CSI site can be most appropriately discussed in terms of zones. For descriptive purposes of this document, groundwater is present in four different zones beneath the CSI Bennett Landfill. Each of these zones is briefly described below.

**Zone 1:** Zone 1 groundwater occurs in unconfined and confined conditions in laterally discontinuous silt and sand lenses within the claystone bedrock of the Denver Formation. This is the uppermost ground water encountered beneath the majority of the permitted fill area at the site ranging from 24 to 69-feet deep.

**Zone 2:** Zone 2 groundwater occurs in unconfined conditions in poorly-cemented to unconsolidated sandstones of the Denver Formation. This groundwater zone represents the uppermost groundwater beneath the eastern portion of the site ranging from 55 to 60-feet deep.

**Zone 3:** Zone 3 groundwater occurs in unconsolidated alluvium (Lost Creek Alluvium) along the western portion of the site. The shallow alluvial aquifer appears to be limited to the western boundary of the site and the eastern limit of alluvial ground water approximates the western border of the disposal area footprint.

**Zone 4:** Groundwater in this zone occurs in isolated, unconsolidated surface eolian deposits overlying the claystone bedrock of the Denver formation. This zone represents the highest water table elevations measured at the site and was only detected in areas outside of the limit of waste.

# 4.3 Hydrological Summary and Conceptual Model

The site is underlain by the Denver Formation. Bedrock beneath the site consists of: 1) Claystone with intercalated, discontinuous siltstone and fine-grained sandstone lenses and 2) Poorly-cemented to unconsolidated sandstone. Surficial deposits overlying the bedrock units consist of: 1) Sand and gravelly sand alluvium in the western portion of the site and, 2) Eolian deposits of silt, sand, and clay in the central and eastern portion of the site.

Groundwater is present to some degree in all of the surficial and bedrock units. Groundwater is present in the claystone bedrock in the intercalated, discontinuous siltstone and fine-grained sandstone lenses (Zone 1 Groundwater) and in the poorly cemented to unconsolidated sandstone (Zone 2 Groundwater). Groundwater is present in surficial materials in the alluvium to the west (Zone 3 Groundwater) and in isolated, perched zones in the eolian deposits (Zone 4 Groundwater).

The saturated zones are recharged primarily by direct infiltration of precipitation and, in the case of the alluvial groundwater zone (Zone 3), intermittent surface water flow. Groundwater does not discharge to surface water in the vicinity of the site; however, surface water discharges from the Denver Formation have been documented in regional studies.

The claystone bedrock surface creates a bedrock ridge through the central portion of the site. The flanks of this central bedrock high dip steeply to the east and west suggesting that Zone 1 groundwater could flow along the top of the bedrock surface into the saturated zones to the east (Zone 2) and west (Zone 3). Groundwater in the saturated alluvial materials (Zone 3) flows to the north; and groundwater in Zone 2 flows primarily eastward. Groundwater in Zone 1 has a northerly regional flow direction.

# 4.4 Groundwater Quality

# 4.4.1 Regional Groundwater Quality

The Denver Aquifer provides water of acceptable chemical quality, although it is not as good as water derived from the Arapahoe or Laramie-Fox Hills aquifers. The water is classified as either sodium sulfate or sodium bicarbonate type.

# 4.4.2 Local Groundwater Quality

Groundwater monitoring associated with the operation of CSI has been performed since 1989. Results of the monitoring show that groundwater quality has not been impacted by any operations associated with CSI. CSI groundwater level and groundwater quality information has been reported in the site's detection monitoring reports and submitted to the CDPHE and Adams County.

Background water quality has been established and documented in the site's detection monitoring reports, and statistical analyses of the groundwater have been conducted since 1994. No future impacts to the existing surface and groundwater quality are expected to occur from the site activities based on over 20 years of monitoring data during site operations and the engineering design features that are used.

# 5.0 FACILITY CONFIGURATION

# 5.1 Support Facilities and Site Access

The support facilities at CSI, which are located near the north central portion of the site, include the following: the landfill office, the maintenance shop and truck wash area, the equipment building, the solidification agent (typically kiln dust or coal fly ash) storage building with an attached maintenance shed, mixing basin area, and the above ground fuel tanks and vault. Other support facilities include the liquid waste/secondary PBBT liquid storage tank area located on covered Cell 3 and the PBBT primary leachate collection tanks located near Cells 1 and 2. The main access to the site is currently from East 88th Avenue (Irondale Road). CSI may move portions of the operations nearer to operating cell areas in the future. Permitting requirements for access off Schumaker Road will be determined as necessary.

One mixing basin (Basin A) is currently used for solidification of liquids arriving at the facility for disposal. The mixing basin is concrete lined with steel construction with a liquid collection system consisting of a sloped under-drain and collection sumps. Surrounding the basin is a concrete apron that is sloped toward the basin. The walls of the basin extend above grade and have weep holes immediately above the apron level to allow any spills on the apron to flow, or be washed into, the basin. A second mixing basin (Basin B) has been approved for construction but not yet built. Mixing basin B will be constructed as operationally necessary. The location of Mixing Basin B is shown in the 1991 D&O Plan and designed identical to Mixing Basin A. The actual location for Basin B may vary from the location shown in the D&O Plan.

An additional basin is planned to support the treatment and beneficial reuse operations to serve the energy production industry. This basin is planned to be adjacent to, and north of, Cell 19/20, which has had final cover installed and has been revegetated. The approximate location of the operation and basin is shown on the attached drawings. This basin will be used to receive and treat waste liquids generated from industrial energy production operations. The design of this basin will be similar to the approved mixing basins, but modified slightly from the approved mixing basin design to accommodate these operations. In conformance with the approved design, it will be constructed with a concrete floor and sidewalls and leak detection system with leak detection sumps. More information on this operation is included in Appendix C. A detailed design of the basin will be prepared and submitted to Adams County and the CDPHE prior to construction.

The solidification agent storage area is a three-sided, roofed building located approximately 100 feet west of the existing mixing basin. Currently, coal fly ash or cement kiln dust are used as solidification agents, but other agents may be used in the future. The building provides protection for the solidification agent from precipitation and wind. It is open at the front to allow access with heavy equipment.

The existing mixing basin apron is used as the primary drum storage area. The apron is designed to contain any releases or precipitation and to drain directly onto the mixing basin through the weep holes. Precipitation or released liquids which collect in the mixing basin will be solidified. In the event a drum (or drums) is spilled in an area outside of the mixing basin apron or other contained storage pad, procedures identified in the site's Spill Prevention Control and Countermeasure (SPCC) Plan and Storm Water Management Plan (SWMP) will be followed.

The tank farm located on the top of the Cell 3 cover is used primarily to temporarily store waste liquids and process water from the PBBT units. These metal tanks are equipped with glass inner liners and rest on feet above ground allowing them to be visually inspected for leaks. Visual inspection of this tank farm is included in CSI's daily maintenance and inspection checklist.

# 5.2 Disposal Area Layout

The layout of both existing disposal cells and future disposal cells of the facility is shown on the Site Development Map and represents no changes from the disposal area layout approved in the 1996 D&O Plan. Consistent with the Regulations and current procedures, record drawings will be completed upon completion of each phase of construction to show actual site development.

Within the permitted boundary 12 individual and distinct disposal cells have been designed, including 10 cells for ISW, one cell for asbestos, and one cell (Cell 25) preliminarily designated for MSW. Each cell is separated from the adjacent cells by at least 20 feet to provide space for the final cover system of each individual cell, access roads, and surface water control. Each cell is designed with its own liner and leachate collection system, with the exception of the asbestos disposal cell that does not require a leachate collection since asbestos is not a potential groundwater contaminant. Detailed designs for the excavation and final cover for each individual disposal cell were prepared and have received approval from the CDPHE and Adams County. The original cell design drawings were prepared using a local site coordinate system and were not digitized in a manner that could easily be converted to a modern format for construction and as-built verification. Since that time the facility has updated the topography and cell designs to a uniform state plane coordinate system in a modern digital format. These changes are reflected in the attached drawings entitled Permitted Base Grades (showing the excavation plan for the disposal cells) and Permitted Final Grades (showing the final topography following closure of the disposal cells). The attached drawings are consistent with the approved design except that the cell boundaries for Cell 13-17 and Cell 10-12 were reduced slightly where they are adjacent to the Colorado Interstate Gas Pipeline Easement to accommodate a lateral expansion to that easement as noted on the drawings. The surface water control system design for the facility was included in the 1996 D&O Plan and was designed in compliance with the Regulations.

# 5.3 Anticipated Service Life

At a typical MSW landfill, the service life and volumes of waste can be estimated with relative accuracy, but because of the sporadic nature of waste volumes CSI receives, a site life is difficult

to estimate. Capacity determinations, however, are available and can be used to periodically estimate the rate of filling at the site.

The estimated waste capacity available for each of the three types of waste cells at the site was estimated in the 1996 D&O Plan as follows:

ISW cells
MSW cell (assuming a 4:1 waste to soil ratio)
Asbestos cell (assuming a 1:1 waste/soil ratio)

8,148,890 cubic yards
1,305,080 cubic yards
147,050 cubic yards

ISW Cells 1, 2, 3, and 19/20 have been filled to capacity and Cells 18/21/22/23 and the asbestos cell have been partially filled as of the date of this summary. CSI conducts regular topographic mapping of the facility in order to track waste volumes, capacity consumed, and remaining capacity. The most recent site survey was conducted on February 2, 2013, and following this survey CSI estimates a total remaining capacity as of that date of 8,838,000 cubic yards. Based on the remaining capacity and projected future waste volumes CSI estimates there is approximately 76 years of remaining site life.

#### 5.4 Soil Balance

The 1996 D&O includes an estimate of the soil volumes available and needed for full development of the facility remaining after Cell 19/20. Approximately 3,485,000 cubic yards of soil are available from all cell excavations subsequent to development of Cell 19/20, including an estimated 1,100,000 cubic yards of suitable clay liner material. The facility has sufficient soil derived from cell excavations for full development of the facility. In 1996 it was estimated that approximately 3,149,000 cubic yards of soil would be required for construction of clay liner and clay barrier layer in the final cover, topsoil, vegetative layers in the final cover, daily and intermediate cover, berms and other unspecified uses. The 1996 approved final cover system was a total of four feet thick, two feet of which was a compacted clay barrier layer. CSI received approval for a two-foot thick (26 inches on the slopes) Alternative Final Cover (AFC) based on water balance principals that allowed a reduction in the volume of final cover soils of 474,320 cubic yards, reducing the total soil requirements to approximately 2,674,680 cubic yards. Additional potentially available soils that are unaccounted for in the above analysis include any remediated soils from the PBBT operation.

#### 5.5 Waste Characteristics

CSI currently accepts non-hazardous, non-putrescible solid wastes in liquid and solid form. No regulated hazardous wastes, regulated radioactive wastes, or wastes containing regulated concentrations of polychlorinated biphenyls (PCB) are accepted by the facility. CSI has implemented a hazardous waste exclusion program that is incorporated into its waste identification plan described in the 1996 D&O Plan. Subsequent to approval of the existing approved plan, CSI developed a Handling and Disposal Plan for Pharmaceuticals that received approval from the CDPHE (December 19, 2011) and Adams County through approval by the TCHD (December 19, 2011).

CSI also conducts asbestos disposal operations for the management of friable and non-friable asbestos-contaminated wastes in a monofill currently located in the north central portion of the facility. The asbestos disposal operation meets the current requirements of Section 5 "Asbestos Waste Management" of the Regulations.

For any volume of wastes accepted from CERCLA, SARA, RCRA Subtitle D cleanup sites, and for volumes of other waste streams anticipated to exceed 10,000 cubic yards from one site to be disposed of in 60 days or less, the appropriate regulatory agencies shall be notified of the type of waste, screening, handling and acceptance procedures being utilized, the anticipated date the project might proceed and end, and the anticipated haul routes.

#### 6.0 ENGINEERING DESIGN

The 1991 and 1996 D&O Plans provide detailed engineering design and documentation demonstrating compliance with all applicable rules and regulations promulgated by the State of Colorado, and Federal and local governments. The basic design and environmental protective features at the CSI facility have not been changed since approval of the 1996 D&O Plan and continue to comply with applicable Regulations and regulatory requirements. The following sections summarize the major design components of the approved facility configuration for the ISW and MSW cells including:

#### 6.1 Buffer Area

The landfill footprint was designed with a minimum setback distance of 100 feet from the north property boundary, 40 feet along the east property boundary, and 60 feet along the south property boundary. Incorporated in this buffer area are landscaping zones, permanent perimeter drainage structures for the control of stormwater run-on and runoff, perimeter access roads and environmental monitoring systems for groundwater and surface water. In addition, the buffer area includes a 70-foot wide Colorado Interstate Gas Company easement, which extends along the southern portion of the property. The solids management operation is located so as not to encroach on the existing buffer areas.

# 6.2 Disposal Area Layout and Status

Detailed designs for all disposal cells including 10 separate and distinct cells for disposal of ISW, the MSW cell, and the asbestos cell have received approval and no changes to the design are proposed in this summary. The location of each disposal cell is shown on the attached drawings. The ISW cells provide approximately 115.7 acres of disposal, the MSW cell provides slightly over 19 acres, and the asbestos cell footprint is slightly over 5 acres.

Cells 1, 2, 3, and 19/20 have been filled to capacity and Cell 18/21/22/23 is currently active. PBBT operations are conducted on top of Cells 1 and 2, a tank farm for PBBT process water is located on top of Cell 3, and Cell 19/20 has been closed and revegetated. In addition to the ISW cells, CSI has additional cells designated for asbestos waste (currently active) and MSW (Cell 25) to be constructed in the future; however, this cell may be used for ISW.

The approved disposal area design incorporates a surface water drainage evaluation conducted in compliance with the Regulations to control surface water runon to and off the disposal cells. Temporary controls structures are used as necessary within and around active disposal cells.

# 6.3 Engineered Containment Systems

Environmental containment and leachate removal systems have been engineered, approved and constructed for the ISW, asbestos, and MSW cells. These containment and removal systems are summarized below.

# 6.3.1 Base and Sideslope Liner System

The ISW and MSW cells have been designed with a composite liner system consisting of a two-foot minimum thickness low-permeability soil liner overlain by a 60-mil High Density Polyethylene (HDPE) membrane for the landfill base and sideslopes. The soil liner thickness in the sump areas is increased to three feet. The soil liner portion of the liner system is constructed from on-site cohesive soils, moisture-conditioned and compacted to a two-foot thickness with a maximum design hydraulic conductivity (permeability) of 1 x 10<sup>-7</sup> cm/sec.

Because asbestos is not considered a groundwater contaminant, only the base of the asbestos cell is lined. The liner system consists of a minimum two-foot thick clay compacted to a maximum permeability of  $1x10^{-7}$  cm/sec. It is placed, compacted, and tested in the same manner as the clay liner in the ISW cells.

# 6.3.2 Leachate Collection and Removal System

The leachate collection and removal system (LCRS) for the ISW and MSW disposal cells (no leachate collection system is required for the asbestos cell) has been designed to convey leachate from the most distant point of the leachate collection system to the leachate removal point (sump) in less than twelve (12) months. Components of the collection and removal system consist of a continuous 6-inch thick drainage layer over the floor area (or equivalent alternative material with minimum permeability of 1 x 10<sup>-1</sup> cm/sec) and a leachate collection and removal sump in each cell. The 1996 D&O Plan includes provisions for a leachate collection piping system in the base of the cell leading to the sump. This piping system was constructed in Cells 1, 2, 3, and 19/20, but was eliminated with approval from the CDPHE and Adams County prior to construction of Phase 3 in Cell 18/21/22/23.

An inclined leachate riser pipe is designed in each sump and extends from the base of the sump to above the ground surface to provide access for removal of leachate collected in the sump.

#### 6.3.3 Daily/Intermediate Cover Material

Soil cover or alternative daily cover (ADC) will be placed on ISW materials that may be combustible but difficult to ignite such as railroad ties at a minimum of one time per week. Daily cover will be applied to more easily combustible ISW materials such as used oil filters. The weekly cover requirement only applies to the industrial waste cells; it does not apply to the MSW disposal operations. A minimum of six inches of cover or alternative daily cover (ADC) will be applied daily to any exposed MSW. Uncontained asbestos materials will be covered immediately upon disposal with a minimum of nine-inches of soil or 18-inches of non-asbestos materials. Containerized asbestos materials will be covered within 24-hours of disposal, or 72-hours if contained in structurally rigid containers. Cover materials include soil, fabric, and other equivalent ADC materials with approval from the CDPHE and Adams County.

# 6.3.4 Final Cover System

The CSI facility has received approval to use an Alternative Final Cover (AFC) based on water balance principals. This AFC was approved subsequent to the 1996 D&O Plan. The final cover system approved in the 1996 D&O Plan was a four-foot thick soil system consisting of the following elements, from top down:

- A six (6)-inch vegetative growth layer of topsoil.
- A 12-inch miscellaneous soil layer as a rooting zone and protection for the underlying infiltration barrier layer.
- A minimum 24-inch thick infiltration barrier layer constructed from cohesive soils, moisture-conditioned and compacted to achieve a maximum permeability of 1 x 10<sup>-7</sup> cm/sec.

In 2007, CSI received approval for an AFC as an option to the above final cover system based on a demonstration entitled *Updated Alternative Final Cover Demonstration* (AEC, April 25, 2007). The AFC components, from the top down consist of:

- A six (6)-inch vegetative growth layer of topsoil.
- An 18-inch moisture storage layer (20 inches on the slopes)

The final cover system over Cell 19/20 was the first final cover constructed at the site using the approved AFC.

# 6.3.5 Construction Quality Assurance

A Construction Quality Assurance (CQA) program has been implemented for construction of the composite liner, leachate control systems, and cover systems within CSI and is presented in the approved CSI Construction Quality Assurance and Specifications Plan (CQASP). The CQA program provides procedures for material selection and evaluation prior to construction; monitoring and testing during construction; and documentation/certification that construction is completed in conformance with the requirements of the D&O Plan.

# 6.4 Surface Water Management System

The 1996 D&O Plan contains detailed design for both temporary and permanent surface water control systems that are implemented as they become necessary. Surface water control structures are designed and constructed to manage surface water within the boundaries of the active cells, and outside of the active cells to route surface water around the active and closed disposal cells. CSI is also permitted to discharge stormwater from the site under the Colorado Discharge Permit System (CDPS Permit #COR900405) and has constructed a controlled surface water discharge pond on the north boundary of the site that uses various control methods including but not limited to vegetation, rip rap, straw bales and waddles and controlled discharge.

# 6.5 Evaporation Pond Configuration

CSI is permitted to construct and operate a modular Class I liquid evaporation pond for the purpose of evaporative treatment and storage of site-generated leachate and qualified liquid wastes. The pond has not been built as of the date of this summary. If built, the pond will incorporate a double liner and leak detection system located on top of Cell 3 as discussed in the 1996 D&O Plan. The 1996 D&O Plan contains additional information and requirements for construction and operation of the pond.

# 6.6 Mixing Basins

CSI has an existing mixing basin for solidification of liquid wastes, which was constructed upon opening of the facility and has been referred to in various documents as Mixing Basin A. Mixing Basin A was constructed in general accordance with the approved design discussed in the 1991 D&O Plan. It is constructed of concrete overlain with steel, with a divider wall along the short axis of the basin separating it into two separate basins for operational purposes. The mixing basin incorporates a monitoring/collection system beneath the basin consisting of an HDPE membrane overlain by sand and gravel drainage media. The monitoring/collection system is also split along the short axis to two separate monitoring points located on the north and south ends of the mixing basin. Each end has a vertical monitoring pipe which is accessible to liquid collection instruments and pumps. The basin is surrounded by a concrete apron which is sloped toward the basin. The basin walls extend above the ground surface where weep holes are drilled to allow any liquids spilled on the apron to flow back into the basin. A second mixing basin was designed and approved through approval of the 1991 D&O Plan but has not yet been constructed. The second mixing basin will be constructed similar to the first existing basin.

A third basin will be used to support the proposed treatment and beneficial re-use of liquid wastes generated by the energy production industry. The approximate location of this operation is shown on the attached Site Development Map, and a detailed design will be submitted to the CDPHE and Adams County for review prior to construction. Additional information on the design of this mixing basin and the liquid waste treatment operations is included with the Energy Services Management Plan for this operation and is included in this summary in Appendix C.

#### 7.0 OPERATIONAL INFORMATION

#### 7.1 Operating Hours

The nature of many of the waste streams CSI accepts dictates that CSI provide flexibility in its days and hours of operation as discussed below.

As a service to industrial, residential and commercial customers, CSI may provide flexible operating hours. Under the current permit, the hours of operation are 7:00 am to 5:30 p.m. Monday through Friday and, under certain circumstances, the facility may remain open on weekends or for extended hours during the week in response to incoming loads or emergency situations. Although these operating hours are generally sufficient to accommodate current incoming waste volumes, the potential exists for expanding oil and gas activity within the region, and resulting increasing demand for waste management services, to exceed the facility's ability to meet the demands under the current operating schedule. Accordingly, the facility proposes to employ flexibility in its operating hours and days of operation, which would be extended or modified as necessary to adequately provide waste management services to the surrounding area. The operating hours and days of operation may need to be aligned with those described below in order to service the needs of the oil and gas industry. As the operating schedule changes, the facility would notify the county before implementing such changes and continue to post the operating schedule at the entrance to the site. This information will also be available by calling the site at (303) 644-4335.

The proposed liquid waste treatment and beneficial re-use operations are anticipated to mainly service the needs of the oil and gas production industry. The recent increase in oil and gas exploration and production and revisions to the regulations requiring more active management of wastes generated through these activities has resulted in a substantial increase in liquid wastes and a need to conserve precious water resources. Oil and gas exploration and production is a 24-hour, seven days per week operation, resulting in the need for around the clock waste management and water sources. This operation is currently not a part of the disposal operations at the CSI facility and will be available to service these needs 24-hours per day, seven days per week if approved.

# 7.2 Facility Management & Personnel

The management assigned to the facility is responsible for the overall operation of the landfill. The positions and titles of personnel currently responsible for operating the landfill and having the authority to take corrective action in the event of noncompliance are included in Appendix D.

# 7.3 Facility Equipment

Current primary equipment for the facility, which may vary, is also included in Appendix D.

# 7.4 Site Security

The current facility operations and active disposal areas are currently enclosed in an eight foot chain link fence with a locked gate. The fence will be expanded in the future as necessary to encompass all future operation and active disposal areas. The gate is locked at all times when the facility is not in operation. The entire site perimeter, however, may not be fenced in order to allow the unused portions of the site to be farmed until needed for operations. CSI may also remove the fences from the closed portions of the site if they are no longer necessary.

#### 7.5 Control of Nuisance Conditions

The nuisance conditions of concern at MSW landfills with putrescible wastes have not been encountered with the ISW waste streams managed at the CSI facility. Bird, insect, windblown debris and rodent problems have not been in evidence at the operations or disposal areas. Potential nuisance conditions which may be associated with ISW wastes and for the biotreatment facility are primarily dust and odor. Descriptions of these and other nuisance control measures for the MSW and asbestos cells are described in detail in the 1996 D&O Plan and summarized below.

#### 7.5.1 Control of Wind Blown Litter

# MSW Cell

To minimize the nuisance associated with windblown litter CSI will follow the procedures and requirements listed in the 1996 D&O Plan, including the following:

- Daily application of at least six-inches of soil or an approved alternative daily cover (ADC);
- Maintaining a maximum working face size of 150-feet by 14-feet high;
- Surrounding the MSW cell by an eight foot high chain link fence and using strategically placed portable litter screens and temporary fencing around the active disposal area;
- Patrolling the access route from the office area daily for litter;
- Disposal operations will be halted when sustained winds of 40 mph or greater, or gusts of 55 mph or greater, are expected to persist for one hour or longer are monitored by the on-site weather monitoring system;
- Temporary laborers will be utilized on an "as needed" basis to collect windblown litter which escapes the active disposal area; and,

• Vehicles entering the facility with unsecured loads will be charged twice the normal gate rate.

#### ISW Cell

No litter problems have been evident in the ISW cells, because of the nature of the waste. Waste streams of this type are not susceptible to wind migration.

#### Asbestos Cell

Asbestos waste will not be accepted unless packaging meets 40 CFR 61 requirements and applicable portions of Section 5 of the State Regulations. Asbestos materials containerized in something other than structurally rigid containers will be covered with a minimum of nine-inches of soil or 18-inches of non-asbestos materials within 24-hours of disposal and within 72-hours if in a structurally rigid container. Non-containerized asbestos containing materials will be covered upon placement. Asbestos unloading will be allowed only when sustained wind speeds do not exceed 20 mph and wind gusts do not exceed 30 mph.

#### 7.5.2 Dust Control

CSI has a Construction Permit issued by the CDPHE Air Pollution Control Division (APCD) that established dust control requirements and emissions limitations and the facility will continue to operate under the requirements of this permit. Much of the access roads in the heavy traffic areas are asphalt paved or paved with recycled asphalt and CSI has a water truck used as needed to minimize dust generation on roads and other disturbed areas and may use other dust suppressants as well. Leachate or select liquid wastes may be used to control dust within the confines of the waste disposal areas. In accordance with the Regulations, soil stockpiles left undisturbed for more than a six month period will be revegetated if natural vegetation does not occur. CSI also re-vegetates large disturbed areas that are no longer being used.

Solidification agents are contained in a three sided storage building to protect it from precipitation and prevailing winds. Agents may be delivered to the site and dumped directly into the mixing basin. Water is used as necessary to control blowing dust. Fugitive particulate emissions are controlled in accordance with the emission control plan approved by the Air Pollution Control Division.

#### 7.5.3 Vectors (Birds, Insects, and Rodents) and Odors

Due to the nature of the ISW, asbestos, and PBBT wastes, vectors have not been a problem because there is no food source as is found in MSW facilities. Vectors will be controlled in the MSW cell by expeditious compaction and application of daily soil or ADC to minimize food and harborage for vectors. Regardless of whether an approved ADC is used, the facility will apply a minimum of six inches of soil cover to any MSW disposal cells on a weekly basis to prevent fly infestation.

Nuisance odors have not been a frequent problem at the CSI facility. Prior to acceptance of any wastes at the facility, a profile including detailed information about the waste is reviewed. If the

profile indicates the waste may contain a strong odor the waste is rejected. Liquids that may be odorous and can be managed effectively through solidification are immediately placed in the mixing basin for solidification, which generally reduces or eliminates the odor. If a particular waste exhibits a persistent odor following placement in the disposal cell it is covered with soil or additional non-odorous waste. Odors associated with MSW can usually be controlled by the application of daily cover, which may be applied more frequently if needed for odor control.

#### 7.5.4 Noise Control

A noise monitoring and hearing conservation program has been implemented at CSI to protect the hearing of the employees and to ensure the facility is maintaining compliance with local noise ordinances. Noise surveys of operating equipment have been performed which determines if hearing protection should be worn by the equipment operator. The maximum permissible noise level will not exceed the industrial limit as measured according to Section 25-12-102 of the Colorado Revised Statutes.

#### 7.5.5 Fire Protection and Control

CSI maintains a Fire Prevention and Emergency Response Plan to address details and provide guidance for facility fires and emergencies.

CSI is located within the Bennett Fire District. The Bennett Fire District is familiar with the operations and types of waste accepted at CSI, and have been provided keys to access the facility in case of an emergency when no CSI employees are on site. Each piece of heavy equipment at the site is equipped with a fire extinguisher and additional fire extinguishers are placed at strategic locations across the site.

In order to reduce the chance of fire at the facility, cover will be placed on combustible ISW materials that are difficult to ignite, such as railroad ties, at a minimum of one time each week on Fridays. Daily cover will be added to combustible ISW materials that are easily ignited, such as oil filters. With the use of daily and weekly cover at the facility, the potential for fire will be minimized. The weekly cover requirement only applies to the industrial waste cells; it does not apply to the MSW cells. A minimum of six inches of soil cover or ADC will be applied daily to any exposed MSW. Cover materials include soil, remediated PBBT product, solidified material from the mixing basins, and other equivalent materials.

# 7.6 Record Keeping

A facility operating record has been developed for CSI and is maintained on-site in the gatehouse/office. The operating record includes records of the following:

- The approved Design and Operations Plans and other applicable Operational plans;
- Notifications, demonstrations, certifications, and plans required by the Regulations;
- Waiver documentation from the Regulations;

- Inspection records and agency approvals/correspondence;
- Incoming waste volumes and manifest log books;
- Environmental monitoring results;
- Construction as-built details;
- Personal Injury records
- Spills at the facility in excess of 50 gallons
- Variations from approved operations procedures;
- Safety Programs and Relevant Training procedures and records;
- Cost estimates or financial assurance documentation as required under Section 1.8 of the Regulations.

## 7.7 Leachate Management

Leachate at the site may be produced in the ISW, MSW, and PBBT management units and may be managed in a number of different ways discussed in the 1996 D&O Plan.

### 7.8 Waste Placement

### 7.8.1 ISW Waste Placement

Each remaining ISW cell described in this plan revision will be filled in the same manner as that of the existing cells and described in the 1996 D&O Plan. ISW may be direct-hauled to the appropriate ISW disposal cell and off-loaded directly into the cell. Liquid ISW intended for disposal is off-loaded directly into the mixing basin where it is solidified with solidification agent, removed from the basin and hauled to the active ISW cell.

### 7.8.2 MSW Waste Placement

As described in the 1996 D&O Plan, filling of the MSW cell will typically progress with refuse being placed in loose, 2-foot layers and compacted to form refuse lifts generally ranging from 10 to 15 feet in thickness. The landfill operator will decide whether to unload refuse at the top or bottom of the working face and either push up or down to the working face. The direction will change according to the conditions encountered at the site. Care will be taken to preclude damage to the LCRS when placing the first lift of MSW, and a minimum of two feet of protective soils or select waste will be placed on the sideslope synthetic liner prior to refuse placement. The protective soils may include the use of remediated soils from the PBBT operations.

### 7.8.3 PBBT Waste Placement

The Design and Operation of the Prepared Bed Bio-treatment (PBBT) Facilities at CSI are described in the document entitled, "Operation and Maintenance Manual for CSI Bio-Sludge Unit," prepared by Remediation Technologies, Inc. (RETEC) of Fort Collins, Colorado, dated

October 1994. Sampling and monitoring of the PBBT units are conducted on a regular basis. Additional detailed information is included in the 1996 D&O Plan.

## 7.9 Evaporation Pond Operations

The purpose of the evaporation pond is to store and evaporate liquid wastes collected from the site's leachate collection systems or other qualified liquids arriving at the facility for disposal. Sections 6.3 and 7.1.3 of the 1996 D&O Plan describes the evaporation pond design, operating standards, monitoring and record keeping, and closure and will be operated in compliance with Section 9 of the Regulations. As of the date of this summary, the evaporation pond has not been constructed.

## 8.0 ENVIRONMENTAL MONITORING PROGRAMS

The environmental monitoring programs for groundwater, surface water, landfill gas, and leachate have been developed to conform with all applicable rules and regulations promulgated by the State of Colorado, and Federal and local governments, including the Regulations Pertaining to Solid Waste Disposal Sites and Facilities" (6 CCR 1007-2, Part 1). A summary of the currently approved environmental monitoring program is provided below.

## 8.1 Groundwater Monitoring

The groundwater monitoring program, including a certification by a qualified scientist is presented in the approved *Monitoring and Reporting Plan* for CSI, prepared by BE&K/Terranext of Lakewood, Colorado, dated November 8, 1999 and the most recently approved revision, *Monitoring and Reporting Plan, Conservation Services, Inc. (CSI) Landfill* prepared by AquAeTer and dated September 2009. The September 2009 revision to the groundwater monitoring plan was prepared and submitted for the stated purpose to keep the site monitoring program consistent with standard industry practice, while maintaining compliance with the Regulations. As is typical, the Monitoring and Reporting Plan may be revised in the future based on any changed conditions or regulations, when appropriate, but will not be implemented until approval from the CDPHE and Adams County has been received.

The groundwater detection monitoring network consists of nine wells, four of which are currently monitored, two existing wells in which monitoring has been temporarily suspended until development of Cell 25, and three future wells in which monitoring will commence following future site development.

Monitoring is conducted on a semi-annual schedule for specific constituents listed in the September 2009 plan, with different constituents for monitoring the MSW cell (once constructed and operational) than for the ISW disposal cells. Following sampling and analysis, the groundwater data is statistically evaluated in accordance with the 2009 plan and the Regulations.

A statistical monitoring report is prepared following each sampling event and submitted to the CDPHE and Adams County. If any issues arise, CSI follows the procedures and protocol included in the Monitoring and Reporting Plan in compliance with the Regulations.

## 8.2 Landfill Gas Monitoring and Control

Since CSI is currently not accepting putrescible waste (MSW) and is not considered a major source of air emissions under Title V of the Clean Air Act, CSI is not required to obtain a Title V Operating Permit. Upon construction of the MSW disposal cell, and prior to commencing MSW disposal activities, CSI will evaluate the applicability of the Title V Air Quality requirements. CSI will also evaluate the applicability of any additional air permit requirements for the solids management operation.

Section 2.3.2 of the Regulations addresses explosive gas migration and control, pertaining mainly to putrescible wastes with potential to generate methane. Cell 25 is preliminarily designated for disposal of MSW, but disposal of MSW is not anticipated to occur until well into the future, if ever. The design and locations for five methane monitoring probes have been designated in the 1996 D&O Plan based on MSW disposal in Cell 25. If CSI ever constructs a designated MSW disposal cell, explosive gas monitoring will be implemented in accordance with the Regulations.

## 8.3 Surface Water Monitoring

The CDPHE Water Quality Control Division has issued CSI a recently revised surface water discharge permit under Colorado Discharge Permit System (CDPS permit number COR900405). These permits allow CSI to discharge from the facility. Surface water monitoring associated with surface water discharge (when it occurs), regular inspections, and reporting, are conducted in accordance with the requirements of the permit. The permit and corresponding monitoring and inspection results are placed into the sites Operating Record and submitted to the EPA and the CDPHE Water Quality Control Division in accordance with permit conditions.

### 8.4 Leachate Monitoring

Leachate at the CSI facility may originate from within the disposal cells. Each disposal cell includes a leachate collection and removal system that is monitored on a regular basis and analyzed two times per year. Leachate removed from a disposal cell may be handled in a number of ways that are discussed in the 1996 D&O Plan. Following installation of final cover over in any disposal cell, CSI may abandon the leachate removal system in that cell if no leachate is detected during a 10-year monitoring period following final cover installation.

## 9.0 CLOSURE AND POST-CLOSURE

## 9.1 Closure Notification and Certification Requirements

Notification and certification requirements for the closure of CSI will be conducted in compliance with the Regulations and will include the following:

- 60 days prior to closure of the facility, submit written notification to the Colorado Department
  of Public Health and the Environment (CDPHE) and Adams County that the landfill will be
  closing.
- 60 days prior to closure of the facility, notify the general public of the landfill closure by posting clearly visible signs at the site entrance.
- Enact precautions to prevent further use of the site for unauthorized disposal.
- Water pollution will not occur at or beyond the POC after closure.
- Nuisance conditions will not occur at or beyond the site boundary after closure.
- Initiate routine closure activities within 30 days of reaching final design grades, unless an extension beyond 30 days is granted by the CDPHE.
- Complete closure within 180 days after closure initiation, or if necessary, obtain an extension from the CDPHE.
- Following closure, submit a report certified by a Colorado registered professional engineer to the CDPHE documenting that closure has been completed in accordance with the closure plan. Place a copy of the report in the facility operating record.
- Following closure, record a notation on the deed or other title instrument stating that the land
  was used as a landfill and that land use is restricted. Notify the CDPHE and Adams County
  Planning that the notation has been recorded and place a copy of the notation in the operating
  record.

### 9.2 Routine Site Closure

Construction of the final cover system over any individual disposal cell will be conducted concurrent with the progression of landfilling operations in the subsequent cell. Due to the small area of individual disposal cell designs and the nature of the ISW disposal operations, final cover is generally not installed until the entire cell has been filled to design grades. Installation of final cover is subject to Construction Quality Assurance in accordance with the CQASP and the Regulations.

In accordance with the Regulations, final closure activities in any cell will begin within 30 days of reaching the final design grades in that cell unless an extended time period has been approved by the CDPHE. Once started, final cover installation must be completed within 180 days unless approval for an extension is granted by the CDPHE.

### 9.3 Closure Plan Elements

The 1996 D&O Plan describes the methods and procedures for closing the CSI landfill and facility areas consistent with the requirements of Section 3.5 of the Regulations. The plan describes the following:

- Structure removal;
- Final grading and storm water drainage plans;
- The final cover design (the AFC is described in the aforementioned Demonstration Report);
- The final cover material sources;
- Construction methods and quality assurance;
- Revegetation plans;
- The maximum extent of landfill area requiring closure during the facility's operating life;
- The closure and notification schedule;
- A closure cost estimate completed at that time

### 9.4 Financial Assurance

Regulations require all solid waste disposal facilities to establish costs to conduct closure and postclosure care and maintenance activities and fund these activities through a specifically designated funding mechanism. CSI conducts updates to the financial assurance cost estimates and funds these estimates in accordance with the Regulations.

## **APPENDIX A**

Title Commitment, Legal Property Description, Rights-of-Way, and Encumbrances

### COMMITMENT FOR TITLE INSURANCE

RY

### Chicago Title Insurance Company

Chicago Title Insurance Company, a Missouri corporation ("Company"), for a valuable consideration, commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the Proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest in the land described or referred to in Schedule A, upon payment of the premiums and charges and compliance with the Requirements; all subject to the provisions of Schedule A and B and to the Conditions of this Commitment.

This Commitment shall be effective only when the identity of the Proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A by the Company.

All liability and obligation under this Commitment shall cease and terminate 6 months after the Effective Date or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue the policy or policies is not the fault of the Company.

The Company will provide a sample of the policy form upon request.

IN WITNESS WHEREOF, Chicago Title Insurance Company has caused its corporate name and seal to be affixed by its duly authorized officers on the date shown in Schedule A.

Issued by:

CHICAGO TITLE INSURANCE COMPANY 1875 LAWRENCE STREET, SUITE 1300 DENVER, CO 80202 (303)291-9999 FAX (303)295-9695

Chicago Title Insurance Company

Told C. J.

Countersigned:

Authorized Signature

FORM 72-83-06 (3/07)

ALTA Commitment - 2006

### CONDITIONS

- 1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.
- 2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the Company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 of these Conditions.
- 3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.
- 4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.
- 5. The policy to be issued contains an arbitration clause. All arbitrable matters when the Amounts of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at <a href="http://www.alta.org/">http://www.alta.org/</a>.

## COMMITMENT FOR TITLE INSURANCE SCHEDULE A

Commitment Number:

- 1. Effective date: January 5, 2011 at 7:30 AM
- 2. Policy or Policies to be issued:

Policy Amount

Premium

(A) Owner's Policy

( ALTA Owner's Policy (6-17-06) )

Proposed Insured:

(B) Loan Policy

( ALTA Loan Policy (6-17-06) )

Proposed Insured:

Work Charge-Informational Commitment

\$ 550.00

TOTAL:

\$ 550.00

- 3. The estate or interest in the land described or referred to In this Commitment is: fee simple
- 4. Title to the fee simple estate or interest in the land is at the Effective Date vested in: Conservation Services, Inc., a Colorado corporation
- 5. The land referred to in this Commitment is described as follows: SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

issued at: DENVER, COLORADO

CHICAGO TITLE OF COLORADO, INC.

ALTA Commitment - 2006 (Schedule A)

### SCHEDULE B - SECTION I REQUIREMENTS

Commitment Number:

- Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.
- B. Proper instrument(s) creating the estate or interest to be insured must be executed and duly filed for record in the office of the clerk and recorder of the county in which said property is located.

Note: This report shall not be construed as a Title Guaranty, nor a Title Insurance Policy. The liability of the Company shall not exceed the charge paid by the applicant for this report, nor shall the Company be held liable to any party other than the applicant for this report.

**END OF SCHEDULE B - SECTION I** 

Issued at: DENVER, COLORADO CHICAGO TITLE OF COLORADO, INC.

ALTA Commitment - 2006 (Schedule B-1)

# SCHEDULE B - SECTION II EXCEPTIONS

Commitment Number:

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

### **PART ONE**

- Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
- 2. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
- Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that
  would be disclosed by an accurate and complete land survey of the Land and not shown by the Public
  Records.
- Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.
- Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the Public Records or attaching to the subsequent effective date hereof but prior to the date the proposed Insured acquires of record for value the estate or interest or mortgage thereon covered by this Commitment.
- (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the Public Record.
- 7. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
- Exceptions and Reservations contained in Deed from the Union Pacific Land Company, said deed being recorded October 22, 1910, in Book 25 at Page 253 as conveyed to Champlin Petroleum Company by instrument recorded July 5, 1972 in Book 1805 at Page 332 and as assigned to Union Pacific Land Resources corporation, by instrument recorded March 30, 1992 in Book 3883 at Page 649.
- Exceptions and Reservations contained in Deed from the Union Pacific Land Company, said deed being recorded April 14, 1971 in Book 1684 at Page 281. Release and Quitclaim Deed in connection with said Deed recorded November 23, 1998 in Book 5547 at Page 272.
- Oil and gas lease between Champlin Petroleum Company, a Delaware corporation and Arnoco Production Company, a Delaware corporation recorded July 14, 1972 in Book 1807 at Page 160 and any and all assignments thereof, or interests therein.
  - Note: Affidavit of Lease Extension in connection with said Lease recorded January 30, 1976 in Book 2043 at Page 69.
- Terms, provisions, conditions and assement imposed upon the subject property by virtue of inclusion within the Lost Creek Ground Water Management District as evidenced by instrument recorded March 7, 1974 in Book 1916 at Page 912.

Issued at: DENVER, COLORADO

CHICAGO TITLE OF COLORADO, INC.

ALTA Commitment - 2006 (Schedule B-2)

### **SCHEDULE B - SECTION II EXCEPTIONS** (Continued)

Commitment Number:

- 12. Nondevelopment Oil and Gas Lease between Burlington Northern Inc., a Delaware corporation and The Anschutz Corporation, recorded May 25, 1976 in Book 2065 at Page 556.
- 13. Terms, conditions, provisions and obligations contained in Surface Owner's Agreement, recorded January 26, 1984 in Book 2833 at Page 775.
- An easement for pipelines and incidental purposes as granted to Colorado Interstate Gas Company, a Delaware corporation by an instrument recorded December 27, 1986 in Book 1337 at Page 320 upon the terms and conditions therein set forth.

Note: Agreement and Partial Release in connection with said right of way agreement recorded January 14, 1994 in Book 4239 at Page 595.

- An easement for utilities and incidental purposes as granted to Colorado Interstate Gas Company by an instrument recorded July 31, 1991 in Book 3801 at Page 884 upon the terms and conditions therein set
- Request for Notification of Surface Development recorded May 20, 2002 at Reception No. C0971548.
- Terms, conditions, provisions, agreements and obligations contained in the Notice as set forth below: 17.

Recording Date: January 8, 2007 Recording No.: 200700003078

Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document: 18.

Granted to: Colorado Interstate Gas Company, a Delaware corporation

Purpose: maintenance of pipelines Recording Date: August 3, 2007 Recording No: 200700074628

Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Colorado Interstate Gas Company

Purpose: access repair and maintenance for pipelines Recording Date: August 28, 2007 Recording No: 2007000082401

**END OF SCHEDULE B - SECTION II** 

Issued at: DENVER, COLORADO

CHICAGO TITLE OF GOLORADO, INC.

ALTA Commitment - 2006 (Schedule B-2)

Title No .:

# LEGAL DESCRIPTION EXHIBIT "A"

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF ADAMS, STATE OF COLORADO, AND IS DESCRIBED AS FOLLOWS:

### Parcel 1:

NW 1/4 and W 1/2 of the NE 1/4 of section 25, Township 2 South, Range 64 West, County of Adams, State of Colorado

### Parcel 2:

That part of the Southwest one-quarter of Section 25, Township 2 South, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, described as:

Beginning at the Southwest corner of the Southwest one-quarter of said Section 25;

thence S 88°29'52" E along the South line of the Southwest one-quarter of section 25, a distance of 2004.64 feet:

thence N 10°50'39' E, a distance of 1023.42 feet;

thence N 54°08'55" W, a distance of 593.30 feet;

thence N 09°37'19" W, a distance of 1327.80 feet to a point on the North line of the Southwest one-quarter of said Section 25:

thence N 88°28'45" W along said North line a distance of 1479.54 feet to the West one-quarter corner of said Section 25:

thence S 00°19'00" W along the West line of the Southwest one-quarter of said Section 25, a distance of 2648.52 feet to the Point of Beginning,

Basis for bearing, The North line of said Section 25 is assumed to bear N 88°31'01".

County of Adams, State of Colorado

### Parcel 3:

That part of the East one-half of the Northeast one-quarter of section 25, Township 2 South, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, described as:

Beginning at the Northwest corner of the East one-half of the Northeast one-quarter of said Section 25; thence S00°20'15" W along the West line of the East one-half of the Northeast one-quarter of said Section 25, a distance of 30.01 feet to the True Point of Beginning;

thence continuing S 00°20'15" W, a distance of 1593.01 feet;

thence N 56°17'47" E, a distance of 1563.01 feet to a point 30.00 feet West of the East line of the Northeast one-quarter of the Northeast one-quarter of said Section 25, said point being a point on the West right-of-way line of Schumaker Road;

thence N 00°20'05" E along said West right-of-way line, a distance of 692.15 feet to a point 30.00 feet South of the North line of the East one-half of the Northeast one-quarter of said Section 25, said point being a point on the South right-of-way line of East 88th Avenue (Irondale Road), thence N 88°31'01" W, along said South

Issued at: DENVER, COLORADO CHICAGO TITLE OF COLORADO, INC.

ALTA Commitment - 2006

Title No .:

# LEGAL DESCRIPTION (Continued)

right-of-way line, a distance of 1295.40 feet to the True Point of Beginning.

Basis of bearing; the North line of said Section 25 is assumed to bear N 88°31'01" W.

County of Adams, State of Colorado

Issued at: DENVER, COLORADO

CHICAGO TITLE OF COLORADO, INC.

ALTA Commitment - 2006

### CHICAGO TITLE INSURANCE COMPANY DISCLOSURE STATEMENT

- Pursuant to Section 38-25-125 of Colorado Revised Statutes and Colorado Division of Insurance Regulation 3-5-1 (Section 6), if the parties to the subject transaction request us to provide escrow-settlement and disbursement services to facilitate the closing of the transaction, then all funds submitted for disbursement must be available for immediate withdrawal.
- Colorado Division of Insurance Regulation 3-5-1, Paragraph C of Article VII, requires that "every title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed". Provided that CHICAGO TITLE INSURANCE COMPANY conducts the closing of the insured transaction and is responsible for recording the legal documents from the transaction, exception No. 5 in Schedule B-2 will not appear in the Owner's Title Policy and Lender's Title Policy when issued.
- If the sales price of the subject property exceeds \$100,000.00 the seller shall be required to comply with the Disclosure of Withholding Provisions of C.R.S. 39-22-604.5 (Nonresident Withholding).
- Section 39-14-102 of Colorado Revised Statutes requires that a Real Property Transfer Declaration accompany any conveyance document presented for recordation in the State of Colorado. Said Declaration shall be completed and signed by either the grantor or grantee.
- Recording statutes contained in Section 30-10-406(3)(a) of the Colorado Revised Statutes require that all documents received for recording or filing in the clerk and recorder's office shall contain a top margin of at least one inch and a left, right, and bottom margin of at least one-half of an inch. The clerk and recorder may refuse to record or file an document that does not conform to requirements of this paragraph.
- Section 38-25-109 (2) of the Colorado Revised Statutes, 1973, requires that a notation of the purchasers legal address, (not necessarily the same as the property address) be included on the face of the deed to be recorded.
- Regulations of County Clerk and Recorder's offices require that all documents submitted for recording must contain a return address on the front page of every document being recorded.
- Pursuant to Section 10-11-122 of the Colorado Revised Statutes, 1987 the Company is required to disclose the following information:
  - The subject property may be located in a special taxing district.
  - A Certificate of Taxes Due listing each taxing jurisdiction shall be obtained from the County Treasurer
    or the County Treasurer's authorized agent.
  - Information regarding special districts and the boundaries of such districts may be obtained from the Board of County Commissioners, the County Clerk and Recorder or the County Assessor.
- Pursuant to Section 10-11-123 of the Colorado Revised Statutes, when it is determined that a mineral estate has been severed from the surface estate, the Company is required to disclose the following information: that there is recorded evidence that a mineral estate has been severed, leased, or otherwise conveyed from the surface estate and that there is a substantial likelihood that a third party holds some or all interest in oil, gas, other minerals, or geothermal energy in the property; and that such mineral estate may include the right to enter and use the property without the surface owner's permission.
- Note: Notwithstanding anything to the contrary in this Commitment, if the policy to be issued is other than an ALTA Owner's Policy (6/17/06), the policy may not contain an arbitration clause, or the terms of the arbitration clause may be different from those set forth in this Commitment. If the policy does contain an arbitration clause, and the Amount of Insurance is less than the amount, if any, set forth in the arbitration clause, all artbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.

as Green Valley Investments, a Colorado general partnership.  My commission expires  WITNESS my hand and official seal.	THE OPERATOR AND ADDRESS OF THE OPERATOR ADDRESS OF THE OPERATOR AND ADDRESS OF THE OPERATOR A	
ADMES CO Crean Valley Investments, a Colorado general partnership of the "Commay of Adams Sinte of Colocudo, grantor, and Conservation Services, Inc.  Colorado  Color	THES DEED, Made this 19th day of May .	
with the presence of the laws of the Sate of Colorado grunter: whose legal address is  WITHERSENTH, That the prosoce, for used in consideration of the sum of Three Million Five Hundred Thousand DOLLARS, the receipt and sufficiency of which is heavy acknowledged, bus general, begained, and and conveyed, and by these presents deep grant, lawgin, self.  The creept and sufficiency of which is heavy acknowledged, bus general, begained, and and conveyed, and by these presents deep grant, lawgin and being in the County of Adagus and State of Colorado, described as follows:  See Exhibit A attached hereto.  Plantament Final  WAY 2 9 1997  3 5 D. D.D.  also known by street and sember as:  TOCIFIEER with all and singular the hemidiatement and appartenances through the best department of the granter, delay in the control of the granter, delay in the protections, registed and searched, white reportments, granter grante	limited liability company, formerly known as Green Valley Investments, a Colorado general partnership of the *Company of Adams	ROBERT SACK 16.00 DOC FEE: 350 BK: 5016 PG: 0384-0386 5/28/97 12:40:18
WITNESSETH, That the grantor, for sand in consideration of the sum of Three Million Five Hundred Thousand DOLLARS, the receipt and sufficiency of which is heavely acknowledged, bus geneted, busgained, sold and conveyed, and by these present does grant, tempts, self, covery and confirm, such the grantor, for successors and engine foreers, sill of the real property, suggester with insprovements, if my, dissue, lying and being in the  County of Adapta  See Exhibit A attached hereto.  Figure 1 and		nter whose legal address is
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by Sandra Spano, as Manager of Green Valley Investments, LLC, formerly known as Green Valley Investments, a Colorado general partnership.  My commission expires  WITNESS my hand and official seal.	) 33.	
by Sandra Spano, as Manager of Green Valley Investments, LLC, formerly known as Green Valley Investments, a Colorado general partnership.  My commission expires  WITNESS my hand and official seal.	The foregoing instrument was acknowledged before me this 19th day of	May . 1997 .
My commission expires  WITNESS my hand and official seal.	by Sandra Spano, as Manager of Green Valley Investment	s, LLC, formerly known
Miles Photo:		T parruersurp.
Miles Photo:	WITNESS my hand and official seal.	_
#If in Counter inter "City and "	wle.	· X
*If in Deaver, insert "City and."		Hotary Public
** formerly known as Green Valley Investments, a Colorado general	*If in Denner insert "City and "	
parinership	** formerly known as Green Valley Investments,	a Colorado general

### Exhibit A

### LEGAL DESCRIPTION

Parcel 1: .

NW 1/4 and W 1/2 of the ME I/4 of Section 25, Township 2 South, Range 64 West, except for one some for School in NW corner, County of Adams, State of Colorado.

Parcel 2:

That part of the Southwest one-quarter of Section 25, Township 2 south, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, Described as:

...

Beginning at the Southwest corner of the Southwest one-quarter of said Section 25; thence \$ 88.\*29.\*52.\* Z along the South line of the Southwest one-quarter of Section 25, a distance of 2004.64 feet; thence N 10.\*50.\*39.\* Z, a distance of 1023.42 feet; thence N 54.08.\*55.\* W, a distance of 593.30 feet; thence N 09.\*37.\*19.\* W, a distance of 1327.80 feet to a point on the Morth line of the Southwest one-quarter of said Section 25; thence N 88.\*28.\*45.\* N along said Morth line a distance of 1479.54 feet to the West one-quarter corner of said Section 25; thence S 00.\*19.\*00.\* W along the West line of the Southwest one-quarter of said Section 25, a distance of 2648.52 feet to the Point of Beginning.

Basis for bearing, The Morth line of said Section 25 is assumed to bear M  $88\,^{\circ}31\,^{\circ}01\,^{\circ}$  N.

Parcel 3

That part of the East one-half of the Mortheast one-quarter of Section 25, Township 2 South, Range 64 West of the Sixth Principal Meridian, County of Adams, State of Colorado, described as:

Beginning at the Morthwest corner of the East one-half of the Mortheast one-quarter of said Section 25; themce 8 00°20°15° N along the West line of the East one-half of the Mortheast one-quarter of said Section 25, a distance of 30.01 feet to the True Point of Beginning; thence continuing 8 80°20′15° N, a distance of 1593.01 feet; thence N 56°17′47° E, a distance of 1563.01 feet to a point 30.00 feet West of the East line of the Mortheast one-quarter of the Mortheast one-quarter of said Section 25, said point being a point on the West right-of-way line of Schwacker Road; thence N 00°20′05° E along said Mest right-of-way line, a distance of 692.15 feet to a point 30.00 feet South of the Morth line of the East one-half of the Mortheast one-quarter of said Section 25, said point being a point on the South right-of-way line of East 88th Avenue (Irondale Road); thence N 88°31′01° N, along said South right-of-way line, a distance of 1295.40 feet to the True Point of Beginning.

wieg<u>i</u> tragalia

Basis for bearing; the Horth line of said Section 25 is assumed to bear N 88\*31'01" W.

### Exhibit B

- Taxes for the year 1997, and subsequent years; special assessments or charges not certified to the County Treasurer.
- 2. Exceptions and Reservations contained in Deed from the Union Pacific Land Company said deed being recorded October 22, 1910, in Book 25 at Page 253 as conveyed to Champlin Petroleum Company by instrument recorded July 05, 1972, in Book 1805 at Page 332 and as assigned to Union Pacific Land Resources Corporation, by instrument recorded March 30, 1992, in Book 3883 at Page 649.
- An easement for pipelines and incidental purposes as granted to Colorado Interstate Gas Company, a Delaware Corporation by an instrument recorded December 27, 1986, in Book 1337 at Page 320 upon the terms and conditions therein set forth.
  - Note: Agreement and Partial Release in connection with said right of way agreement recorded January 14, 1994, in Book 4239 at Page 595.
- 4. Oil and gas lease between Champlin Petroleum Company, a Delaware Corporation and Amoco Production Company, a Delaware Corporation recorded July 14, 1972, in Book 1807 at Page 160, and any and all assignments thereof, or interests therein.
  - Note: Affidavit of Lease Extension in connection with eadd Lease recorded January 30, 1976, in Book 2043 at Page 69.
  - Note: Assignment to ORM International, Ltd., in connection with said Lease recorded January 05, 1984, in Book 2826 at Page 515.
  - Note: Assignment to Rocky Mountain Production Co., in connection with said Lease recorded Hovember 15, 1984, in Book 2937 at Page 70.
- Terms, provisions, conditions, and assessment imposed upon the subject property by virtue of inclusion within the Lost Creek Ground Water Management District, as evidenced by instrument recorded March 07, 1974, in Book 1916, at Page 912.
- Nondevelopment Oil and Gas Lease between Burlington Northern Inc., a Delaware Corporation and The Anschutz Corporation, recorded May 25, 1976, in Book 2065 at Page 556.
- Terms, conditions, provisions and obligations contained in Surface Owner's Agreement, recorded January 26, 1984; in Book 2813, at Page 775.
- 8. An easement for utilities and incidental purposes as granted to Colorado Interstate Gas Company by an instrument recorded July 31, 1991, in Book 3801 at Page 884 upon the terms and conditions therein set forth.

ccorded at	eder
QUITCLAIM DEED	1
THIS DEED, Made this 31st day of December ,1997 , between Nors Ellen Wagner and the Estate of James Werten Wagner	AGAMS CO
of the "County of Acteurs and State of Colorado, grantor(r), and	11.00 BOC FRE: 0.0 BE: 5200 PG: 0451-0452 1/05/98 10:57:57
Conservation Services, Inc., a Colorado Corporation	C0651333
whose legal address is 2090 E. 104th Ave., #300  Thorriton, CD 80233 of the County of ADams and State of Co	horado, grantec(s),
WITNESSETH, That the grantor(s), for and in consideration of the sum of TEN A	ND ND/100
these presents do es remise, release, sell and QUITCLAIM unto the grantec(s),	need, sold and QUITCLAIMED, and by the ir heirs, successors and assigns, a and to the real property, together with
Legal Description "Exhibit A" attach	ed
,	
also known by street and number as: Vacent: 1 and	
TO HAYE AND TO HOLD the same, together with all and singular the appartenances anywise thereunto appertaining, and all the estate, right, litle, interest and claim whatsoever, to the only proper use, benefit and behoof of the grantec(s) their sand assigns for	of the grantos(s), either in law or equity, brever,
IN WITNESS WHEREOF, The grantor(g) has a executed this deed on the date set for	i
Executivity of the Estable of Nore Ellen Wag	DEPART.
STATE OF COLORADO,	
County of Acientes  The foregoing instrument was acknowledged before me this 31 day of large	TPon sedma
by Nora Ellen Wagner and Nora Ellen Wagner as Exact James Warren Wagner	strix of the Estate of
My commission expires 3-08-2000 , X9 . Witness my land and o	fficial seal.
HOTARY B	Slaming Hours Holes
" PUBLY Sty and".	

No. 933, Hey 6-92. QUITCLAIM DEED

ibudiaed Publishing 1743 Warre St., Danier, CD 80207 -- (303) 297-7900 -- 4-93

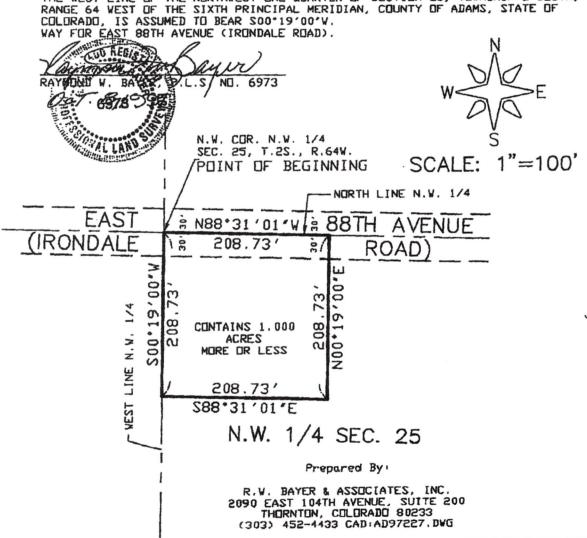
**DCTOBER 8, 1997** 

### LEGAL DESCRIPTION:

THAT PART OF THE NORTHWEST ONE-QUARTER OF SECTION 25, TOWNSHIP 2 SOUTH, RANGE 64 VEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF THE NORTHWEST ONE-QUARTER OF SAID SECTION 25; THENCE S00'19'00'V ALONG THE VEST LINE OF SAID NORTHWEST ONE-QUARTER A DISTANCE OF 208.73 FEET, THENCE S88'31'01'E PARALLEL WITH THE NORTH LINE OF SAID MORTHVEST DNE-QUARTER A DISTANCE OF 208.73 FEET; THENCE NOO'19'00'E A DISTANCE OF 208.73 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHWEST DNE-QUARTER; THENCE N88'31'01'V ALONG SAID NORTH LINE A DISTANCE OF 208.73 FEET TO THE POINT OF BEGINNING. CONTAINS 1.000 ACRES MORE OR LESS, SUBJECT TO RIGHT-OF-WAY FOR EAST 88TH AVENUE (IRONDALE ROAD).

### BASIS FOR BEARINGS:

THE WEST LINE OF THE NORTHWEST ONE-QUARTER OF SECTION 25, TOWNSHIP 2 SOUTH, RANGE 64 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLURADO, IS ASSUMED TO BEAR SOO'19'00'V.



`

El Pako Natural Gas ,ith: Land Department P.O. Box 1087 Colorado Springs, CO 80944

### COLORADO INTERSTATE GAS COMPANY EASEMENT

006572

STATE OF Colorado )	L	High Plains (251A) I J # 32,35 & 36
COUNTY OF Adams ) ss.	cc	116024

#### KNOW ALL MEN BY THESE PRESENTS:

THAT the undersigned (hereinafter called OWNER, whether one or more), for and in consideration of the sum of \_\_\_TFN\_AND\_NO/100\_\_\_\_\_\_ Dollars (\$\_10.00\_) in hand paid, the receipt of which is hereby acknowledged, does hereby grant, sell and convey unto COLORADO INTERSTATE GAS COMPANY a Delaware Corporation, its successors and assigns (hereinafter called "COMPANY"), an easement for maintenance and operating purposes of COMPANY'S existing and future pipelines across the lands of OWNER, situate in the County of Adams, State of Colorado, more particularly described as follows:

A portion of Section 25, Township 2 North, Range 64 West

more particularly shown on attached Plat marked Exhibit "A", and by this reference made part bereof. Said easement granted being 20 feet in width throughout, extending on, over and across the above described land.

OWNER, his successors, heirs or assigns, reserves all oil, gas and minerals on and under said lands and the right to farm, graze and otherwise fully use and enjoy said lands, provided, however, that Company shall have the right bereafter to out and keep clear all trees, brush and other obstructions that may injure, endanger or interfere with the maintenance and use of said pipe lines, or fittings, tie-overs, cathodic protection equipment and appliances appurtenant thereto. Company shall have all privileges necessary or convenient for the full use of the rights herein granted, together with ingress and egress along said pipelines and over and across said lands. OWNER, his successors and assigns, shall not without Company's written consent disturb the surface of the EASEMENT.

Company and OWNER shall observe and follow the requirements of all applicable statutes, ordinances, regulations, licenses, permits, agreements, or covenants, including without limitation, any requirement to call the "One-Call" system prior to the construction or excavation along said Right of Way.

Company shall have all privileges necessary or convenient for the full use of the rights granted herein, including without limitation the right to take any action necessary for compliance with federal, state or local laws, rules and regulations.

Company, by acceptance hereof, agrees to pay for damages to crops, pasture, fences and livestock which may arise from maintaining, and operation, of Company's pipelines.

All fences that must be cut in order to accomplish any of the purposes herein above granted to Company shall be "H" braced on each side of the area covered by this grant and the wire secured so that when the fence is cut, within the remainder of the fence shall not go slack or be slackened and after said installation or repair, said fence shall be replaced in as good as condition as said fences were before cutting. Company will install gates along said right of way at landowners request and at reasonable and mutually agreed upon locations.

Company shall take all necessary measures to maintain proper drainage to prevent erosion of the surface of such easement premises, and further at the completion thereof to re-seed all disturbed areas with seed mixture as recommended by the Natural Resource Conservation Service.

Company and OWNER shall not be responsible for injury to persons or damage to property from any cause outside their control, including without limitation, negligence or intentional acts of the other or third party persons.

TO HAVE AND TO HOLD said easement unto said Company, its successors and assigns, so long thereafter as pipe lines are maintained thereon; and the undersigned hereby bind themselves, their heirs, executors, administrators, successors and assigns, to warrant and forever defend all and singular said easement unto said Company, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same, or any part thereof.

32

RECEPTION#: 2007000014628, 08/03/2007 at 01:05:02 PM, 2 OF 3, DOG TYPE:EAS TD Pages: 0 Karen Long, Adams County, CO

It is agreed that this easement as written is assignable in whole or in part and that above covers all agreements between the parties and that no other representations have been made modifying, adding to or changing the terms of the

Executed this 25th day of JUNE, 2007

Conservation Services Incorporated

Tom Buchholz, Landfill Director for Conservation Services Incorporation

State of \_\_Colorado\_\_\_) ss County of \_\_Weld\_\_\_)

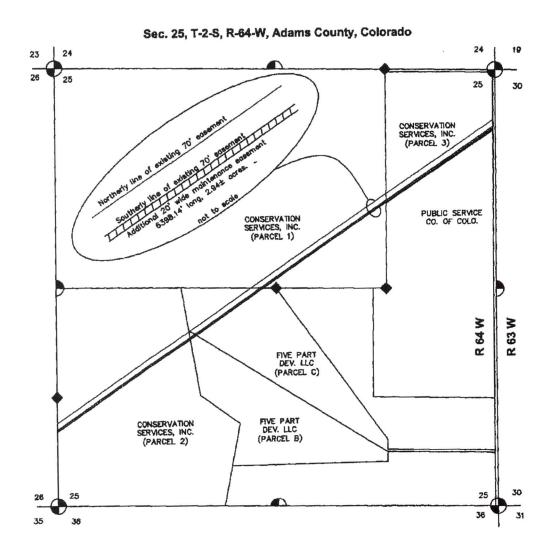
Given under my hand and seal of office the day and year last above written.

SAMJONO NOTARY PUBLIC O

Notary Public

5500 S. GUELL St., SU 200 Brashwood Vilage, Co Polli Address

## EXHIBIT "A"



### After Recording - Please Return To:

Ei Paso Natural Gas
• Attn: Land Department
P.O. Box 1087
Colorado Springs, CO 80944

### COLORADO INTERSTATE GAS COMPANY ACCESS EASEMENT

006641

 STATE OF
 Colorado
 )
 LL High Plains (251A) LL# 33 & 34

 COUNTY OF
 Adams
 CO 116024

KNOW ALL MEN BY THESE PRESENTS:

THAT the undersigned (hereinafter called OWNER, whether one or more), for and in consideration of the sum of Ten Thousand Five Hundred Ninety-Nine and 60/100 Dollars (\$10,599.60) in hand paid, the receipt of which is hereby acknowledged, does hereby grant, sell and convey unto COLORADO INTERSTATE GAS COMPANY, a Delaware Corporation, its successors and assigns (hereinafter called "COMPANY"), an easement for access, repair and maintenance purposes (the "Access Easement,") of COMPANY's existing and future pipelines located in the 70' Pipeline Easement, as defined below. The Access Easement is situate in the County of Adams, State of Colorado, more particularly described as follows:

Portions of Section 25, Township 2 North, Range 64 West

as more particularly shown on attached Plat marked Exhibit "A," and by this reference made part hereof. Said Access Easement granted being 20 feet in width throughout, extending on, over and across the above described land and located immediately adjacent to the 70' Pipeline Easement as shown on Exhibit "A." The 70' Pipeline Easement is more particularly described in the Right-of-Way Agreement dated December 14, 1966, between the COMPANY and OWNER's predecessor recorded in the real property records of Adams County, Colorado, at Book 1337, Page 320, Reception #801241, as modified by the Agreement and Release dated December 29, 1993, between the COMPANY and OWNER's predecessor and recorded in the real property records of Adams County, Colorado, at Book 4239, Page 595, Reception #01211716 (collectively, the "70' Pipeline Easement").

OWNER, its successors, heirs or assigns, reserves all oil, gas and minerals on and under said lands and the right to farm, graze and otherwise fully use and enjoy said lands, provided, however, that COMPANY shall have the right hereafter to cut and keep clear all trees, brish and other obstructions that may injure, endanger or interfere with the maintenance and use of said Access Easement. COMPANY shall have all privileges necessary or convenient for the full use of the rights herein granted, together with ingress and egress along said Access Easement. OWNER, his successors and assigns, shall not without Company's written consent construct any improvements on the surface of the Access Easement.

COMPANY and OWNER shall observe and follow the requirements of all applicable statutes, ordinances, regulations, licenses, permits, agreements, or covenants, including without limitation, any requirement to call the "One-Call" system prior to the construction or excavation along said Access Easement.

COMPANY shall have all privileges necessary for the full use of the rights granted herein, including without limitation the right to take any reasonable action necessary for compliance with federal, state or local laws, rules and regulations.

COMPANY, by acceptance hereof, agrees to pay for damages to crops, pasture, fences and livestock which may arise from use, maintaining, and operation, of the Access Easement. COMPANY agrees to indemnify, defend and hold harmless OWNER from all claims, losses, liabilities and demands arising out of or in connection with COMPANY's use, maintenance or repair of the Access Easement or the 70' Pipeline Easement or the facilities located therein.

All fences that must be cut in order to accomplish any of the purposes herein above granted to COMPANY shall be "H" braced on each side of the area covered by this grant and the wire secured so that when the fence is cut, within the remainder of the fence shall not go slack or be slackened and after said installation or repair, said fence shall be replaced in as good as condition as said fences were before cutting. COMPANY will, at COMPANY'S expense, install gates along said Access Easement at OWNER's request and at reasonable and mutually agreed upon locations.

COMPANY shall take all necessary measures to maintain proper drainage to prevent erosion of the surface of such easement premises, and further at the completion thereof to re-seed all disturbed areas with seed mixture as recommended by the Natural Resource Conservation Service.

COMPANY and OWNER shall not be responsible for injury to persons or damage to property from any cause outside their control, including without limitation, negligence or intentional acts of the other or third party persons.

TO HAVE AND TO HOLD said Access Easement unto said COMPANY, its successors and assigns, so long thereafter as pipe lines are maintained on the 70' Pipeline Easement; and the undersigned hereby bind themselves, their heirs, executors, administrators, successors and assigns, to warrant and forever defend all and singular said Access Easement unto said COMPANY, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same, or any part thereof by, through or under OWNER, subject to all documents and instruments of record in

3 2

RECEPTION#: 2007000082401, 08/28/2007 at 11:58:32 AM, 2 OF 3, DOC Type:EAS TD Pages: 0 Karen Long, Adams County, CO

the real property records of Adams County, Colorado, as of the date hereof.

It is agreed that this Access Easement as written covers all agreements between the parties and that no other representations have been made modifying, adding to or changing the terms of the same.

Executed this 15 day of Angust, 2007

FIVE PART DEVELOPMENT LLC

By: General Munager-

State of <u>Colorado</u>) ss.

County of <u>Adams</u>)

Before me, the undersigned, a Notary Public, in and for said County and State, on this day of August 2007 personally appeared 2007 personally appeared for Five Part Development LLC, and that he'she executed the within and foregoing instrument and acknowledged to me that he'she executed the same as his/her free and voluntary act and deed and as the free and voluntary act and deed of Five Part Development LLC, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

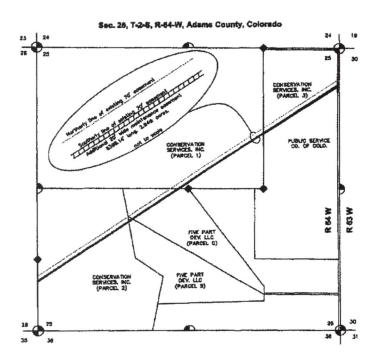
Notary Public

3801 E. 5 LTH Au, Commune City, 60 80022 Address

> ALEK M. ORLOFF Notary Public State of Colorado

My commission expires April 3, 2010.

## EXHIBIT 'A'



01211713

## AGREEMENT AND PARTIAL RELEASE

800x 4239 PG 595

THIS AGREEMENT, made and entered into by and between COLORADO INTERSTATE GAS COMPANY, a Delaware corporation, hereinafter referred to as CIG, and FIVE PART DEVELOPMENT COMPANY, a Colorado general partnership, hereinafter referred to as Five Part:

### WITNESSETH:

WHEREAS, CIG is the present owner of a natural gas pipeline right of way agreement executed on December 14, 1966 by Philip Wagner, Jr. and Sophie Jane Wagner in favor of CIG, which right of way agreement is recorded in Book 1337 at Page 320 of the records of Adams County, Colorado, granting a right of way across all of Section 25, Township 2 South, Range 64 West, Adams County, Colorado; and

WHEREAS, upon request made by representatives of Five Part, CIG now desires to define and limit said right of way across said Section 25, Township 2 South, Range 64 West, Adams County, Colorado.

## NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT in consideration of the premises and of the covenants and agreements of Five Part hereinafter set forth, CIG does hereby limit and define its right of way across Section 25, Township 2 South, Range 64 West, to the following tract of land, to-wit:

A tract of land, seventy (70) feet in width across a portion of Section Twenty-five (25), Township Two (2) South, Range Sixty-four (64) West, Adams County, Colorado, more particularly described as follows:

Beginning at a point on the West line of Section 25-2S-64W. Adams County, Colorado, which point bears North 00°19'60" East 972.17 feet with and along said West line from the Southwest corner of Section 25; Thence, with and along the centerline of said right of way and easement, 70 feet in width, North 56°12'58" East 6400.91 feet to the point of exit on the East line of said Section 25, which point bears South 00°20'05" West 628.28 feet with and along said East line from the Northeast corner of said Section 25-2S-64W.

### BASIS OF BEARINGS:

THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 25-2S-64W, ADAMS COUNTY, COLORADO, BEARS NORTH 00°19'00" EAST FROM THE THE SOUTHWEST CORNER OF SAID SECTION 25 (A 1" CAPPED PIPE) TO THE WEST QUARTER-CORNER OF SAID SECTION 25 (A 3½" ALUMINUM CAPPED PIPE STAMPED "BAYER L.S. 6973).

CIG hereby releases and conveys to the underlying fee owner(s) all interest of CIG in said Section 25 acquired by virtue of the above described Right of Way Agreement outside of the above described tract of land.

In consideration whereof, Five Part, for itself, its successors and assigns, hereby agrees:

- Not to build, construct or create, nor to permit others to build, construct
  or create any buildings or structures of any kind on the above described right of way, 70 feet
  in width.
- 2. Not to build, construct, operate or maintain any improved street, road, roadway, alley or thoroughfare over and along the course of said right of way, 70 feet in width.
- 3. Prior to construction, excavation or installation on, over, across or under said right of way, 70 feet in width, the construction, excavation, installation, operation, maintenance and use of which are not inconsistent with the rights and privileges previously granted to and herein retained by CIG, Five Part shall give notice in writing to CIG of its intention to construct, excavate or install. Further, Five Part agrees not to commence the construction, excavation or installation of any such facilities unless a representative of CIG is present at the site to inspect such construction, excavation or installation and, further, Five Part agrees that all such construction, excavation and installation shall according to proper and workmanlike practices in the industry and with due regard for the rights of CIG and its property.

This agreement shall extend to and binding upon the successors and assigns of the parties hereto.

COLORADO INTERSTATE GAS COMPANY

Saskta St. Wassistant Secretary

FIVE PART DEVELOPMENT COMPANY

## CORPORATE ACKNOWLEDGMENT

STATE OF Colorodo  COUNTY OF El Pleso  SS.
Before me, a Notary Public in and for said County and State, on this 28 day of December, 1993, personally appeared to me known to be the identical person who subscribed the name of the maker thereof to the
foregoing instrument as its <u>Vice <u>Grander</u>, and acknowledged to me that he executed the same as <u>His</u> free and voluntary act and deed and as the free and voluntary act and deed of such corporation for the uses and purposes therein set forth.</u>
IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year last above written.
Notary Public
979 Bayfild Way
Colorado Spring, Colorado 85906
My Commission expires:
7/27/96

## CORPORATE ACKNOWLEDGMENT

STATE OF Colorado	
COUNTY OF PENTAL SS.	
and State, on this 17 day of Pellin 1943, 1943, 1943, to me known to be the identical person who subscribed the foregoing instrument as its General Alberta, and act the same as 16 free and voluntary act and dee and deed of such corporation for the uses and purposes the	e name of the maker thereof to the knowledged to me that he executed d and as the free and voluntary act
IN WITNES	S WHEREOF, I have hereunto set en.
Notary Pul	a sali
1275	17th Street, 28th Floxe
Address	r (D 80202
My Commission expires:	
8/26/95	

#1014524 BR 3801 FG 884 - 885 07/31/91 08 00 FUBERT SACK ADAMS CTY CO REC 10.00 DOC 00.00

Karery

Meter Station on Ft. Morgan - Watkins Loop - 38 for Eastern Colorado Utilities S. O. 89961

EASEMENT

enne ente

STATE OF COLORADO )

KNOW ALL MEN BY THESE PRESENTS:

THAT the undersigned, hereinafter called Grantor, whether one or more, in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration in hand paid by COLORADO INTERSTATE GAS COMPANY, a Delaware corporation, hereinafter called CIG, the receipt of which is hereby acknowledged, does grant, sell and convey unto CIG, its successors and assigns, the right, privilege and authority to construct, operate, maintain, repair, replace, renew, and remove natural gas meter and regulator facilities, pipelines, odorization facilities, cathodic protection and all other necessary and related facilities for use in connection with CIG's natural gas pipelines on the following described property situated in the County of Adams, State of Colorado:

A tract of land, 20 feet by 20 feet, in the East Half Northeast Quarter (E.2NE 4) of Section Twenty-five (25), Township Two (2) South, Range Sixty-four (64) West, Adams County, Colorado, more particularly described as follows:

Beginning at a point in the E 2NE 4 of Section 25-2S-64W, Adams Jounty, Colorado, which point bears South 01°59'04" West 625.05 feet from the northeast corner of said E-2NE 4 of Section 25; thence, travarsing South 89°14' West 10 feet to a point; thence, South 00°46' East 20 feet to a point; thence, North 89°14' East 20 feet to a point; thence, North 89°14' East 20 feet to a point; thence, North 80°46' West 20 feet to the point of beginning, said tract of land containing .009 acres, more

Grantor further grants unto CIG the exclusive use of the surface of the above described property with the right to fence the same for the purposes stated above, together with the right of ingress to and egress from said property along existing roads. All structures placed upon said premises by CIG shall, regardless of the character thereof, remain the personal property of CIG, and shall be removed therefrom at the expiration of this grant.

It is agreed that this Easement shall be assignable, in whole or in part; and it is also agreed that the Easement herein granted to CIS is a perpetual easement, but that the same will revert to Grantor upon abandonment by CIG.

SSS SS Warren Wagner

SSS Nora Elten Wagner

Nora Elten Wagner

Nora Elten Wagner

Nora Elten Wagner

STATE OF	3801 it 88
) s:	3.
COUNTY OF	
BEFORE ME, THE UNDERSIGNED, said County and State on this 19, personally appeared	A Notary Public, within and for day of
to me personally known to be the i	dont (a) march 1 - 1 is tile() .
executed the within and foregoing me that executed the voluntary act and deed for th forth.	instrument and acknowledged to
IN WITNESS WHEREOF, I have he seal the day and year last above w	ritten.
	· · ·
	Notary Public
	Address
My Commission expires:	
Mr Consoliulus Surbus	
July 80, 1963	
STATE OF	
COUNTY OF	Notary Public, within and for
said County and State on this	day of
and to me personally known to be the id	lentical person Who
to me personally known to be the id executed the within and foregoing me that executed the	instrument and acknowledged to same as free and
me that executed the voluntary act and deed for the forth.	uses and purposes therein set
IN WITNESS WHEREOF, I have her seal the day and year last above wr	eunto set my hand and official
	Notary Public
	Address
My Commission expites:	

## APPENDIX B

Land Ownership within One-Mile of CSI

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46 38					33		55		03	6	66		68	69	70				
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							3			12	2	87	0	00					
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Thompson.							1	0		1	.9	9	95						

**NEARBY PROPERTY OWNERSHIP: ONE-MILE RADIUS OF CSI SITE** 

ND OWNERSHIP, ONE MILE RADIUS OF CSI SITE	APPRESS	CYTEX (CTL A TIX) (ZYD
OWNER NAME CONSERVATION SERVICES INC	ADDRESS 41800 E 88TH AVE	CITY/STATE/ZIP
PUBLIC SERVICE COMPANY	PO BOX 1979	DENVER CO 802011979
PHILLIPS EDWARD MICHAEL	7995 SCHUMAKER RD	BENNETT CO 80102
GERBRACHT R P AND	7955 SCHUMAKER ROAD	BENNETT CO 80102
NANSEL DANNY AND	7925 N SCHUMAKER ROAD	BENNETT CO 80102
GRAVES ANTOINETTE K TRUSTEE OF THE	7905 SCHUMAKER RD	BENNETT CO 80102
SAYLER RICKS STEVEN	7545 SCHUMAKER ROAD	BENNETT CO 80102
SAYLER PEARL L UND 1/2 INT AND	3685 SOUTH KITTREDGE NO. A	AURORA CO 80013
GILLESPIE WILLIAM M	7347 SCHUMAKER RD	BENNETT CO 801029604
WOLTMAN TERRY L TRUSTEE UNDER THE	509 AIRPORT BLVD STE C	AURORA CO 800119315
SAXTON CHARLES N	PO BOX 294	BENNETT CO 801020294
BLANCHARD MICHAEL	7991 SCHUMAKER RD	BENNETT CO 801029656
JOHNSON KURT E AND	7971 SCHUMAKER RD	BENNETT CO 80102
SWEED JAMES ROBERT AND	P O BOX 358	WATKINS CO 801370358
WOODS KENNETH R	7733 SCHUMAKER RD	BENNETT CO 801029644
SAYLER CONNIE	PO BOX 188	WATKINS CO 801370188
SAYLER CONNIE SAYLER TIMOTHY MICHAEL AND	7451 SCHUMAKER ROAD	BENNETT CO 80102
PRIEST BRADLEY A AND	7337 SCHUMAKER RD	BENNETT CO 801029604
CHEN KENT	7158 WEST ROXBURY AVE	LITTLETON CO 80128
WARNER RONALD D AND	50700 E 38TH AVE	BENNETT CO 801028913
SMIALEK LYLE BYRON AND	41994 COUNTY ROAD 4 APT WELD	ROGGEN CO 806528408
SMIALEK LYLE BYRON AND BERGMAN JANICE M	19211 E 160TH AVE	BRIGHTON CO 806018521
ALLISON ROBERT D 1/2/ GRANSTROM BEVERLY	2520 W JOHN STREET	GRAND ISLAND NE 68
JORDAN MICHAEL	11055 W BELLEVIEW AVE	LITTLETON CO 801271605
BROWN STANLEY J SR AND	40240 E 88TH AVE	BENNETT CO 801029611
MADERA ELIODORO C AND	40160 E 88TH AVE	BENNETT CO 80102
MC CRAY MICHAEL B AND	40080 E 88TH AVENUE	BENNETT CO 801029606
NUNEZ TALAVERA JORGE	5508 DEARBORN ST	DENVER CO 802393816
SIMMERING MICHAEL GLEN	8700 N MANILLA ROAD	BENNETT CO 80102
BLOOD DARIN T AND	8600 N MANILA RD	BENNETT CO 801029502
PRUETT CAROL A AND	8500 MANILLA ROAD	BENNETT CO 80102
EARLEY MICHAEL D AND	PO BOX 28	WATKINS CO 801370028
MEDRANO ARSENIO AND JASO JOANNE	40031 E 88TH AVE	BENNETT CO 80102
MAESTAS STEVE AND	40041 E 88TH AVE	BENNETT CO 80102
KOTZIAN ROBERT	40051 E 88TH AVENUE	BENNETT CO 80102
BARNETT GREGORY H AND	40061 E 88TH AVE	BENNETT CO 80102
ROBLE TERRY AND	40071 E 88TH PLACE	BENNETT CO 80102
PARFREY SHAWN A	40081 E 88TH AVE	BENNETT CO 801029606
HERMOSILLO JOSE OCTAVIO AND	40091 E 88TH AVE	BENNETT CO 801029606
JONES BARBARA A	39655 E 88TH AVE	BENNETT CO 801029641
DELFIN SERGIO	39401 E 88TH AVE	BENNETT CO 80102
DWYER JOHN F	9010 MANILLA ROAD	BENNETT CO 80102
EURO LAND INVESTMENTS LLC	PO BOX 17447	DENVER CO 802170447
ANDREWS LUCAS C	9280 N MANILLA RD	BENNETT CO 801029585
PFLUGER DANA R	9455 W 54TH PLACE	ARVADA CO 80002
SAVAGE STEPHEN AND	9460 MANILLA ROAD	BENNETT CO 80102
RHATIGAN SHAWN D AND	9550 MANILLA RD	BENNETT CO 80102
PILAND VIRGIL	6311 SCHUMAKER RD	BENNETT CO 801029150
HOAGSTROM ROBERT R AND	41697 E 88TH AVE	BENNETT CO 80102
BROWN LESLIE ANN	41901 E 88TH AVENUE	BENNETT CO 80102
KNIGHT DARIN J AND	41575 E 88TH AVE	BENNETT CO 80102
RIGGS KEITH A AND	41455 E 88TH AVE	BENNETT CO 80102
JOHNSTON SANFORD L AND	41321 E 88TH AVE	BENNETT CO 801029674
KUYON RUTH M AND	9551 SCHUMAKER RD	BENNETT CO 80102
PUEPPKE ALAN L AND	9451 SCHUMAKER RD	BENNETT CO 80102
WHISLER JENNIE AND	9351 SCHUMAKER ROAD	BENNETT CO 80102
GARZA SALLY	1791 ARGONNE STREET	AURORA CO 800115208
GARZA LUIS SR REVOCABLE TRUST	1791 ARGONNE ST	AURORA CO 800115208
ZIMMERMAN JULIE A	9051 SCHUMAKER RD	BENNETT CO 801029618
LUNA RITO	4280 W 66TH AVE	ARVADA CO 800036418
BROWN MICHAEL LEE AND	8900 N SCHUMAKER	BENNETT CO 80102
BOEHME HOWARD P AND	9100 SCHUMAKER RD	BENNETT CO 801029618
BLESSINGER MATTHEW D AND	9200 SCHUMAKER RD	BENNETT CO 801029619
CRAM HEATHER L AND	9300 SCHUMAKER MILE ROAD	BENNETT CO 80102
BARTSCH JOACHIM UND 1% INT AND	42500 E 96TH AVE	BENNETT CO 801029637
LUNA SIGIFREDO R AND	42900 E 96TH AVE	BENNETT CO 80102
LUNA SIGIFREDO R AND TALAVERA EVARISTO	PO BOX 387	DUPONT CO 80024
SAUCEDO NICANOR CASILLAS AND	4779 PEARL ST	DENVER CO 802162732

TAB	LE 1		
LAN	D OWNERSHIP, ONE MILE RADIUS OF CSI SITE		
	OWNER NAME	ADDRESS	CITY/STATE/ZIP
69	SKAGGS RONALD D AND	44004 E 96TH AVE	BENNETT CO 80102
70	HUDSON THOMAS D AND	44060 E 96TH AVE	BENNETT CO 80102
71	BANUELOS MIGUEL	16142 E 18TH PL	AURORA CO 80011
72	BEAM DOUGLAS E AND	PO BOX 249	BENNETT CO 80102
73	GRAHAM ROYCE A	13185 E 13TH AVE	AURORA CO 80011
74	HINCKLEY GARY C LIVING TRUST THE	43601 E 88TH AVE	BENNETT CO 801029629
75	SHERMAN CLIFFORD AND	43801 E 88TH AVE	BENNETT CO 80102
76	ANDERSEN MICHELLE D	44001 E 88TH AVE	BENNETT CO 801029643
77	ACEVEDO NOE AND	5481 XANADU STREET	DENVER CO 80239
78	SOLIS PEDRO	8660 SCHUMAKER RD	BENNETT CO 801029658
79	MADERA ARTURO AND	4642 CARSON STREET	DENVER CO 80239
80	FRESON BRUCE M	8440 SCHUMAKER ROAD	BENNETT CO 80102
81	TRUPP REAL ESTATE II LLLP	45820 E 56TH AVE	BENNETT CO 801029107
82	VANAUKEN JOHN AARON	43400 E 88TH AVE	BENNETT CO 80102
83	ROBLEDO MATTHEW A AND	43600 E 88TH AVE	BENNETT CO 80102
84	BELL CAROLYN AND	43800 E 88TH AVENUE	BENNETT CO 80102
85	MARTIN SCOTT A AND	44000 E 88TH AVENUE	BENNETT CO 80102
86	KRUSE JIM	72 CASCADE	ALAMOSA CO 81101
87	SIMENTAL SHEREE C AND	7800 SCHUMAKER RD	BENNETT CO 801029644
88	EASTLAND CAMERON J AND	42900 E 80TH AVENUE	BENNETT CO 80102
89	ODELL TABOT L AND	7900 SCHUMAKER RD	BENNETT CO 80102
90	Five Part Development Co.	7475 E. 84th Avenue	Commerce City, CO 800225040
91	WOOD ALLEN L	7600 SCHUMAKER RD	BENNETT CO 801029632
92	SCHULTZ ROBERT J AND	7502 SCHUMAKER RD	BENNETT CO 80102
93	HERNANDEZ MARISOL AND	7450 SCHUMAKER RD	BENNETT CO 801029604
94	BULINSKI CINDY	PO BOX 232	BENNETT CO 80102
95	CLARK NATHANIEL DAVID/DIANA M AND	7260 SCHUMAKER RD	BENNETT CO 80102
96	KRUSE MIKE AND JIM PARTNERSHIP	72 CASCADE AVE	ALAMOSA CO 811012626
97	KRUSE MIKE AND JIM PARTNERSHIP	72 CASCADE AVE	ALAMOSA CO 811012626
98	KRUSE MIKE AND JIM PARTNERSHIP	72 CASCADE AVE	ALAMOSA CO 811012626
99	KRUSE MIKE AND JIM PARTNERSHIP	72 CASCADE AVE	ALAMOSA CO 811012626
100	BARLOW SHANE	7580 SCHUMAKER ROAD	BENNETT CO 80102
	MILLER JASON A AND LINDA S	7590 SCHUMAKER ROAD	BENNETT CO 80102
	COSTNER BRENDA L AND PETER J	12511 LEYTON COURT	TOMBALL TX 77377
103	ELDER JOSEPH E AND	7204 SCHUMAKER ROAD	BENNETT CO 80102

## APPENDIX C

**Energy Services Management Plan** 

## APPENDIX C

**Energy Services Management Plan** 



### **ENERGY SERVICES MANAGEMENT PLAN**

### **FOR**

# CONSERVATION SERVICES, INC. ADAMS COUNTY, COLORADO

Prepared By:

Waste Management of Colorado, Inc. 5500 South Quebec St. Suite 250 Greenwood Village, Colorado 80111

October 2013

#### **ERRATA - FOR INTERIM UPDATES**

# CONSERVATION SERVICES, INC. ENERGY SERVICES MANAGEMENT PLAN

**DATE** 

DESCRIPTION OF CHANGE

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#### CONSERVATION SERVICES, INC.

#### ENERGY SERVICES MANAGEMENT PLAN

#### 1.0 INTRODUCTION

#### 1.1 Purpose

Conservation Services Inc. (CSI) is committed to protecting public health and the environment while meeting industry and community needs for integrated and comprehensive disposal and recycling services. Since 1989, CSI has provided the industrial community a wide variety of waste disposal and recycling options. This Energy Services Management Plan (Plan), which supplements the approved Revised Design and Operations Plan, dated February 5, 1996 exemplifies and expands our commitment to provide the energy producing industry, specifically the oil and gas sector an integrated and comprehensive waste management program. This Plan enhances our services, by providing an efficient environmentally friendly recycling/beneficial use option to the oil and gas community. CSI intends to add solids processing equipment that treats energy production wastes by separating the wastes into three phases including water, oil and solids. This process reduces the volume of solids that would need to be landfilled and recovers oils and water, which can then be recycled and/or beneficially used.

Additionally, this Plan outlines an integrated approach, which aligns with the Adams County Sustainability Management Plan prepared by UHG Consulting and the 2013 Adams County Sustainability Plan Internal Operations which states "... the county continually identifies and adopts sustainable practices, initiatives, and policies that save tax dollars and support prosperous businesses; protect the health of employees and citizens; and assure clean land, air and water." This Plan provides a similar concept to the oil and gas community.

The primary purpose of this Plan is to establish special protocols that protect employees, public health and the environment when managing wastes from the energy service industry. This Plan provides special procedures for screening, receipt of wastes, surveys, handling/placement, training, and record keeping. This Plan was prepared to meet the requirements of the Colorado "Regulations Pertaining to Solid Waste Disposal Sites and Facilities, (6 CCR 1007-2)."

CSI continues to implement business practices that provide services for integrated and comprehensive waste management options for our customers. CSI believes that there is a need to provide an integrated approach, which includes recycling and beneficial use to the energy services industry. This Plan provides an integrated approach that is protective of public health and the environment, beneficially uses natural resources and is good for the local economy.

#### 2.0 INDUSTRIAL ACTIVITIES

#### 2.1 <u>Facility Location</u>

CSI is an existing industrial waste management facility located in Adams County, Colorado. The facility was originally approved and permitted by the Adams County Board of County Commissioners in 1989. The CSI facility includes approximately 383 acres and is located at Schumacker Road and East 88<sup>th</sup> Avenue in a remote area of the high plains of eastern Adams County (See Appendix A). The topography is relatively flat with small valleys and hills. No streams, rivers or bodies of water are near the site with the exception of dry lakes and streams that only flow during significant precipitation events. The facility is located on non-irrigated farmland near Bennett, Colorado. Previous owners were dry land wheat farmers. Tenant farmers continue to produce wheat on the surrounding buffer property through a lease agreement with CSI. The disposal facility meets location restriction criteria as specified in the Colorado Solid Waste Regulations (Section 3.1) including:

- Wetlands
- Faults
- Seismic areas
- Unstable areas
- Topography
- Flood Plain
- Airports

Structures in place at CSI consist of a gatehouse/office building, a vehicle and equipment maintenance shop, a flyash/cement kiln dust storage bunker, a liquid waste solidification basin, equipment storage barn and aboveground storage tanks (ASTs) holding fuel and other liquids such as leachate and stormwater.

#### 2.2 Facility Description

#### 2.2.1 The CSI Industrial Operations Area

The industrial operations area is located in the north central portion of the site and includes the following buildings and features.

- A gatehouse/office building.
- A two-story shop and maintenance building.
- A truck wash facility located on a concrete apron/driveway south of the shop.
- A three-sided flyash/cement kiln dust storage bunker. The northern part of the storage bunker is completely enclosed and used to store equipment.
- A below grade basin constructed of steel and reinforced concrete, surrounded by a concrete apron.
- A stormwater detention area and outlet structures.
- Three fuel ASTs used for fueling vehicles and equipment.

#### 2.2.2 The Energy Services Operations Area

The proposed general location and layout of the energy service processing area is shown in Appendix B. The location of the solids processing area is separate from the CSI industrial operation area. This provides enhanced traffic control and flow.

The general layout for the operations area will include a truck unloading area/unloading basin, material processing equipment, holding tanks and facilities for loading and managing the processed liquids and solids. Similar to the current mixing basin, the unloading basin will include an underlying leak detection system. Secondary containment for the holding tanks will also be incorporated in the pad design.

The location of the processing area will be surrounded by a closed disposal cell to the south; a screening berm and equipment storage pole barn to the north; dust storage bunker on the east and current disposal cell including screening berms to the west. These features/structures help minimize any potential impacts from processing operations. Furthermore, CSI will be utilizing electric and natural gas powered equipment to minimize noise impacts. A noise study conducted in 2013 on similar equipment at a Waste Management facility in Texas measured noise levels ranging from approximately 47 dB to 59 dB at distances of 250 to 300 feet from the equipment. Given that 60 dB generally equates to normal conversation and the nearest adjoining property, the 88<sup>th</sup> Avenue right-of-way, is approximately 300 feet from the proposed solids processing area, we do not believe there will be noise issues associated with the processing equipment. A chart illustrating the noise study results is included in Appendix C. Additionally, because of existing berms, structures and closed disposal cell that are located between the proposed processing area and adjoining properties, we do not anticipate excessive lighting will be a concern.

Common features of the facility will be utilized by the existing and proposed operations. These include but are not limited to the stormwater detention area and outlet structures and the three fuel ASTs used for fueling vehicles and equipment.

#### 2.3 Industrial/Energy Service Activity

#### 2.3.1 Current Industrial Activity

CSI operates a non-hazardous industrial waste solidification and disposal facility. CSI was issued a Certificate of Designation (CD) from the Adams County Board of County Commissioners (ACBCC) in August 1989. Following issuance of the CD, site civil improvements and cell construction commenced and the site opened for the receipt of waste on December 22, 1989. The facility is permitted to accept commercial and industrial solid and liquid non-hazardous wastes including exploration and production wastes, and friable/non-friable asbestos waste. Liquid wastes are solidified in the mixing basin then buried in the disposal cell. Appropriate liquid and solid wastes may be applied to the facility's prepared bio-bed treatment (PBBT) units. Most solid wastes accepted at CSI are managed through direct burial. Friable asbestos wastes are managed

exclusively in the facility's asbestos monofill. Certain exploration and production wastes will be managed through the proposed solids processing facility, which is further described in Section 2.3.2 of this Plan. CSI is approved to accept municipal solid waste, although the site has no plans to take this waste stream at this time. No regulated hazardous waste, regulated radioactive wastes, or regulated polychlorinated biphenyls (PCBs) are accepted by the facility. CSI has implemented a waste control program, which includes waste characterization; screening, tracking, testing and retention of records to ensure regulated wastes are not accepted at the site.

#### 2.3.2 Energy Services Activity

CSI proposes to expand its services to the energy producing community by adding equipment to allow for processing of wastes from the oil and gas energy sector. The additional equipment is proprietary, utilizing state of the art processing equipment and technology, which separates the waste materials through centrifugal forces into three phases of water, oil and solids. The processing unit utilizes centrifugal forces allowing CSI to reduce disposal volumes and conserve airspace while creating marketable water for re-use and oil as a saleable commodity. The processing equipment produces water that can be beneficially re-used by the energy producing industry and conserves clean water that would otherwise be used for energy production.

#### 2.4 Energy Service Waste Handling

#### 2.4.1 Waste Acceptance Procedures

All waste streams accepted at CSI are non-hazardous solid and liquid industrial wastes, including energy production wastes and non-regulated PCB containing wastes. Industrial solid wastes accepted at CSI are managed through direct burial, or may be applied to the facility's PBBT units as appropriate.

Liquid industrial wastes are solidified prior to land disposal or, if appropriate, applied on the PBBT units. CSI also accepts asbestos waste for disposal, with friable asbestos managed exclusively in the facility's asbestos monofill.

This Plan provides for waste acceptance procedures for the processing of energy production wastes, which will be managed through the treatment system. The primary sources of these wastes are the energy production industry including the oil and gas sector.

#### 2.4.2 Pre-Acceptance Screening

Although it is the Generator's responsibility to accurately characterize its waste, as part of CSI's waste identification program, CSI reviews each waste stream for which solidification, disposal, bio-treatment, or beneficial re-use has been requested to ensure the material is appropriate for management at CSI. The pre-acceptance screening process begins when CSI receives a completed Generator's Waste Profile Sheet from the Generator or its Authorized Representative. A sample profile is included in Appendix D. The completed profile provides information about the waste including the waste name and the process generating the waste and specifies the

method of management. The Generator must also provide specific information regarding the chemical and physical waste properties and regulatory status of the waste material and must answer specific questions to ensure all necessary information has been provided. As part of this process, the Generator may also provide laboratory analysis and/or other information about the waste to assist in the accurate characterization of the waste material proposed for management. CSI will evaluate waste profiled paperwork and related laboratory analysis to ensure CSI is not accepting hazardous wastes. Analytical data provided with the waste profile to aid in accurate characterization must meet EPA protocols. Sampling and analysis should be conducted by the generator following EPA publication SW-846 titled "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" or equivalent approved test methods appropriate for the wastes analyzed. CSI's technical staff will review the analysis and supporting information and a determination of acceptability will be made. Once the waste is determined acceptable, the generator will be notified and informed of limitations and conditions of acceptance.

#### 2.4.3 Screening at the Site

All wastes delivered to the facility are accompanied with a non-hazardous waste manifest. Upon arrival at CSI, the manifest forms are reviewed for accuracy and completeness to ensure the waste being received matches the waste previously approved by CSI on the Waste Profile. Any discrepancies will be noted on the manifest. If the manifest does not have correct information and signatures, the waste will not be accepted into the facility. Additionally, radioactivity screening is conducted using a fixed detector on every load that passes the gate. A copy of a typical waste manifest is included in Appendix E.

#### 3.0 Contingency Plan: Load Rejection Procedures

If prohibited wastes are identified at the facility during the on-site screening process described in Section 2.4.3, the waste load will be rejected and the Generator notified. Documentation of the rejection will be noted in the operating record. In the event that prohibited waste materials are identified after a load has been accepted, but before it has been managed at the site, the waste will be secured away from the active portion of the facility until removed by the Generator or their Authorized Representative. An incident report will be completed and all required notifications made pursuant to regulatory, permit, and operational guidelines. All documentation will be maintained with the associated profile and in the site Operating Record.

#### 4.0 Energy Services Operational Requirements

The proposed operations are anticipated to mainly service the needs of the oil and gas production industry. The recent increase in oil and gas exploration and production and revisions to the regulations requiring more active management of wastes generated through these activities has resulted in a substantial increase in liquid wastes and a need to conserve precious water resources. Oil and gas exploration and production is a 24-hour, seven days per week operation, resulting in the need for around the clock waste management and water sources. This operation will be available to service these needs 24-hours per day, seven days per week if approved.

The CSI energy services operation will utilize existing mobile equipment currently used for industrial operations. All such equipment is available onsite. Although industrial service operations personnel will be available for assistance, energy service personnel will be specifically trained in the proper screening, handling and proper operation of the treatment system.

The CSI energy services operation will typically receive wastes in vacuum trucks. After completing the site screening process the trucks will proceed to the designated processing area following directional informational signage. The drivers are advised to obey all site safety and traffic requirements. Upon arriving at the treatment area, the driver will safely position the truck and offload into the designated concrete basin. All drivers will be required to wear appropriate personal protection equipment at all times while outside of the truck. Once off-loaded the trucks may be washed into the basin to remove any remaining material.

Once the waste is received in the basin, the waste is transferred from the basin via a submersible pump over a shaker unit to remove large debris. The underflow of the shaker unit will then drop into a horizontal mix tank then transferred to a centrifuge feed tank at the appropriate time. From the centrifuge feed tank the waste will be processed through a centrifuge. Process polymers will be injected inline before the feed enters the centrifuge to facilitate water, solids, and oil separation. The separated solids will be conveyed from the centrifuge into a designated area until the waste can be removed and managed in the secure landfill disposal cell. The recovered water and oil will be pumped from the centrifuge system to another treatment unit, such as a dissolved air floatation unit, for further processing. The float layer resulting from this process will be skimmed and pumped to a holding tank. The resulting water will be pumped to a holding tank to wait transportation to an alternative management facility.

The skimmed material will be further processed and treated to separate the remaining solids, water, and oil. The recovered oil will be pumped to a holding tank and marketed.

#### 5.0 TRAINING

All employees responsible for managing energy service wastes will receive training in applicable regulations (Federal, State, and local), company requirements, safety and health protocol and standard operating and emergency procedures.

All personnel training will be documented in site personnel files.

#### 6.0 PLAN REVIEW AND RECORDKEEPING

The Energy Service Plan will be reviewed routinely and amended as necessary. If major changes are made, the Plan will be submitted to CDPHE and Adams County for review and approval. Minor modifications to the Plan will be filed with the CDPHE and Adams County. An Errata Page, located at the front of this Plan, will be used for tracking minor changes.

#### 7.0 BEST MANAGEMENT PRACTICES

#### 7.1 Plan Administration

The Facility Manager and Facility Engineer are responsible for various aspects of the implementation and administration of the Plan. The responsibilities of each position are listed below.

#### 7.1.1 Facility Manager

The Facility Manager is the signatory authority for all reports associated with this Plan submitted to CDPHE and Adams County. Facility Manager is also responsible for implementation, administration and compliance with the Plan and is responsible for the following aspects of the Plan:

- Coordinates all aspects of the Plan;
- Provides employee training;
- Acts as primary contact for correspondence and any other reporting that may be required under this Plan;
- Ensures good housekeeping practices are implemented;
- Maintains all records and reports associated with the Plan;
- Ensure compliance with Plan conditions.

#### 7.1.2 Facility Engineer

The Facility Engineer is responsible for the following aspects of the Plan:

- Coordinates and/or assists in implementation of the Plan;
- Assists in identifying and implementing good housekeeping practices;
- Assist in the completion and submittal of required reports;
- Assist with compliance with Plan conditions;
- Prepares and updates the Used Oil Management Plan as necessary.

#### 7.2 Good Housekeeping Practices

Good housekeeping practices are implemented at CSI to ensure safe handling, minimize spills during processing, transportation and storage. Equipment, machinery, containers and tanks will be routinely inspected and maintained in good working condition. Care will be taken when collecting, offloading and transferring wastes. Facility personnel are trained in waste handling, drum/container safety, spill response procedures including response and clean up procedures for leaks and spills and all other aspects of waste handling.

Additionally, CSI implemented numerous existing plans, which are designed to ensure the facility is operated safely and in a manner, that protects public health and the environment. Some of the plans are listed below:

- Environmental Design and Operations Plan
- Health and Safety Plans
- Groundwater Monitoring Plan
- Air Pollution Control Plan
- Stormwater Management Plan

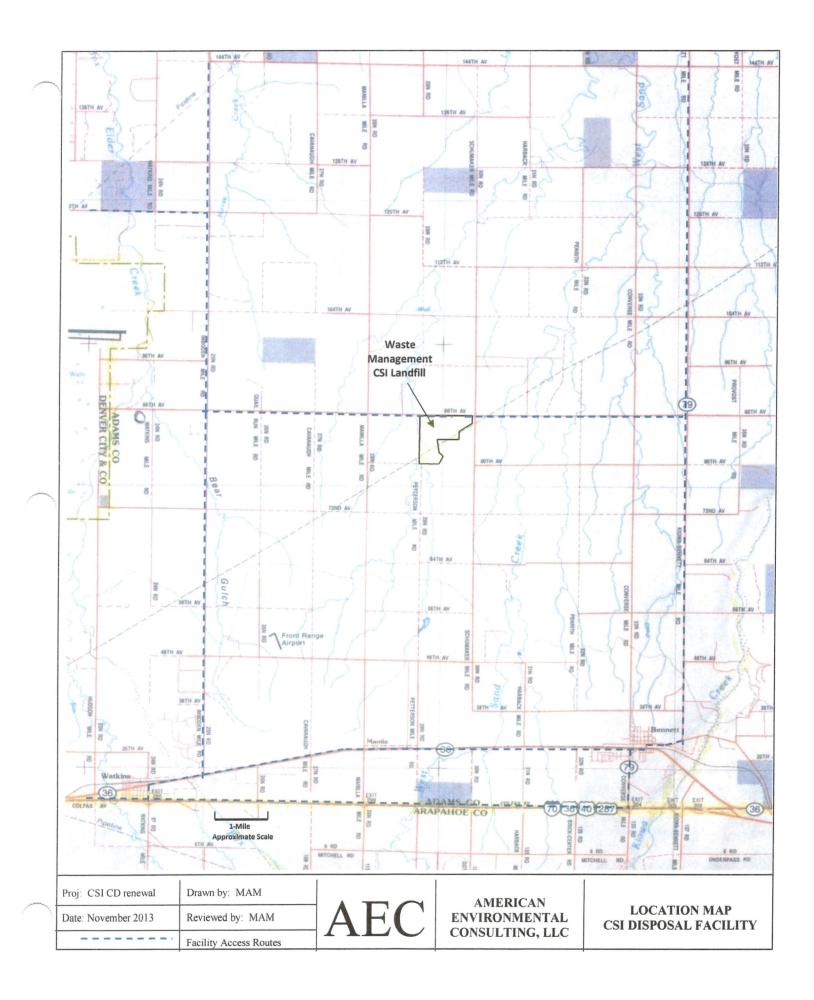
#### 8.0 COMPREHENSIVE INSPECTIONS

A routine site inspection of the treatment area will be conducted to ensure structures; controls and equipment are adequately maintained. The Facility Manager and/or designee will perform the inspections.

#### 9.0 RECORDKEEPING REQUIREMENTS

All communications, documentation, analytical data, and other related information will be maintained at least three years. The information will be maintained at CSI as part of the site Operating Record.

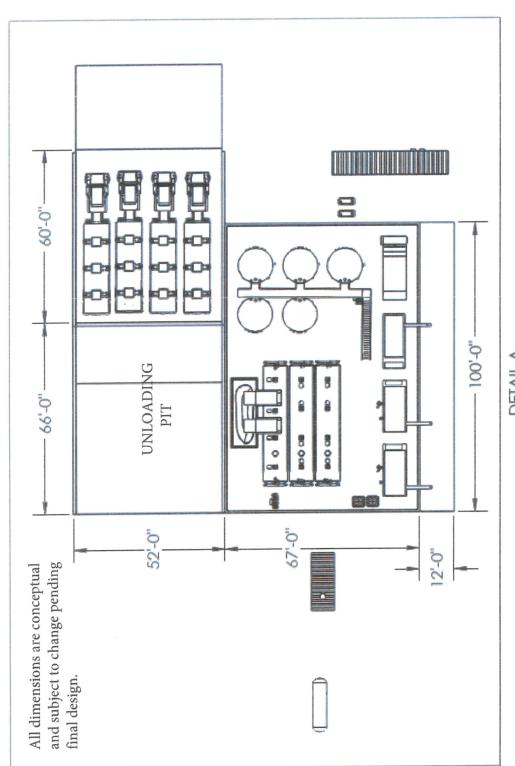
# APPENDIX A SITE LOCATION MAP



## **APPENDIX B**

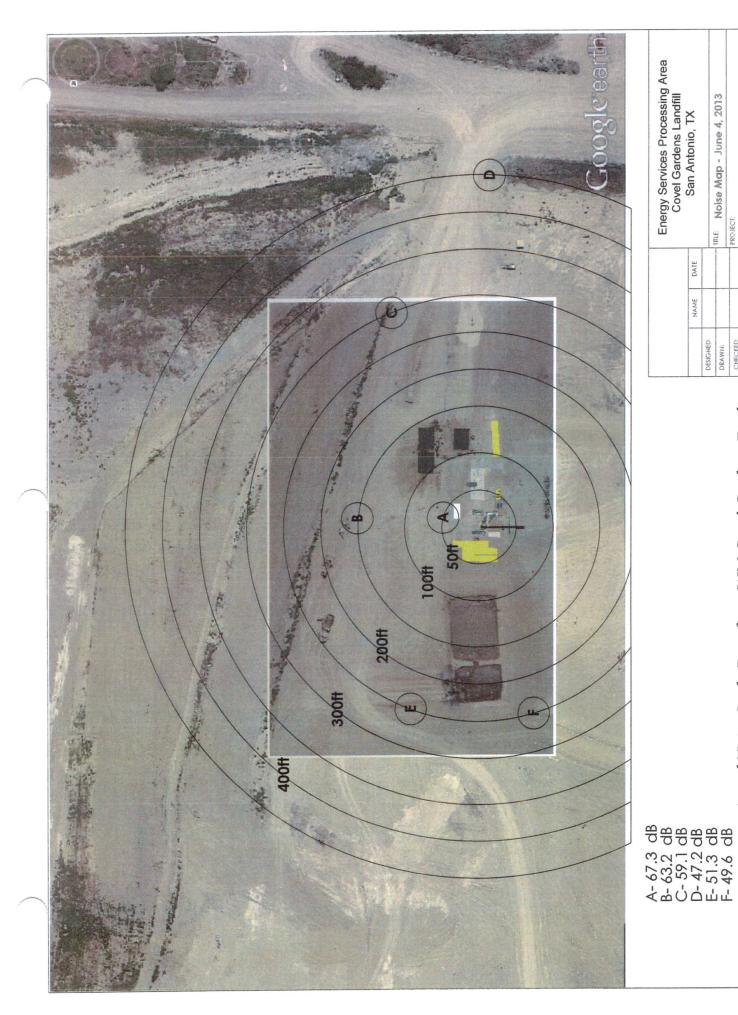
# ENERGY SERVICES PROCESSING AREA LOCATION AND LAYOUT





DETAIL A SCALE 1:400

# APPENDIX C NOISE STUDY INFORMATION



Actual Noise Study Data from WM Covel Gardens Facility

PARI. #: LAYOUT DWG. #: DSDWG.

DO NOT SCALE DRAWING

# APPENDIX D GENERATOR WASTE PROFILE





1. Billing Name: 2. Site Address: (City, State, ZIP) 3. County: 4. Contact Name: 5. Email: 6. Phone: 7. Fax: 8. Generator EPA ID: 9. State ID: 9. State ID: 1. Common Name:  Describe Process Generating Material:  2. Material Composition and Contaminants: 1. EPA Hazardous Waste? 2. State Hazardous Waste? 2. State Hazardous Constituents? 3. State Waste Codes: 1. CERCLA or State-mandated clean-up? 3. State Waste Codes: 3. State Waste Codes: 4. Color: 5. Physical State at 70°F: 5. Solid □ Liquid □ Other: 6. Free Liquid Range Percentage: 7. WM Asolid) 8. Strong Odor: □ Yes □ No Describe: 9. NA (Solid) 8. Strong Odor: □ Yes □ No Describe: 9. Silling Name: 9. City, State, ZIP) 9. Contains Absetsor? 9. Cole: 9. Silling Address: (City, State, ZIP) 9. Contact Name: 9. Comact Name: 9. Common Name: 9. Contains Port Name: 9. Contains Underlying Hazardous Constituents? 9. Contains Denzene and subject to 40 CFR 63 GGGGG? 9. Yes □ NAME OF State-regulated radioactive or NORM waster? 9. Contains PCBs? → If Yes, answer a, b and c. 9. Regulated and/or Untreated Nester? 9. Regulated and/or Untreated Nester? 9. Regulated and/or Untreated Nester? 9. Contains Asbestos?
2. Material Composition and Contaminants:
5. Contains benzene and subject to Benzene NESHAP?
7. pH:
E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION  1. Analytical attached  Please identify applicable samples and/or lab reports:    Tons   Yards   Drums   Gallons   Other:
G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)  By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 – Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., change in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.  If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.  Name (Print): Date:  Title:
Title:

THINK GREEN:

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

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# EZ Profile™ Addendum

PROBLE INCOMENTATION	
Only complete this Addendum if prompted by responses on EZ or to provide additional information. Sections and question nu	
EZ Profile™,	
C. MATERIAL INFORMATION	
Describe Process Generating Material (Continued from page 1):	If more space is needed, please attach additional page
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*	
	and the state of t
Material Composition and Contaminants (Continued from page 1):	If more space is needed, please attach additional page:
5.	
6. 7.	
8.	
9.	
10.	
	≥100%
D. REGULATORY INFORMATION	
Only questions with a "Yes" response in Section D on the EZ Profile™ for	rm (page 1) need to be answered here.
1. EPA Hazardous Waste	
Please list all USEPA listed and characteristic waste code numbers:	
Little Control of the	E)2
<ul> <li>b. Is the material subject to the Alternative Debris standards (40 CFR 268.49)</li> <li>c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)?</li> </ul>	
d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083 and	
→ If Yes, please select one of the following:	203.1007):
☐ Waste has been determined to be LDR exempt [265.1083(c)(4) an	id 265.1084(c)(4)) based on the fact that it meets all applicable
organic treatment standards (including UHCs for D-coded character	
☐ Waste does not qualify for a LDR exemption, but the average VOC a	
was based on analytical testing (upload copy of analysis) or generat	or knowledge.
2. State Hazardous Waste → Please list all state waste codes:	
3. For material that is Treated, Delisted, or Excluded → Please indicate the cate	
	1.4 → Specify Exclusion:
☐ Treated Hazardous Waste Debris ☐ Treated Characteristic Hazardous 4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents	Waste → If checked, complete question 4.
4. Underlying Hazardous Constituents 7 Flease list all Orderlying Hazardous C	Oriștitueiris.
× 2	
<ol> <li>Benzene NESHAP → Please include percent water/moisture in chemical com</li> </ol>	position
a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnal	
b. What is your facility's current total annual benzene quantity in Megagrams	
Flow weighted average benzene concentration isppmw.	
c. Is this waste soil from remediation at a closed facility?	☐ Yes ☐ No
Benzene concentration in remediation waste is ppmw.	
d. Has material been treated to remove 99% of the benzene or to achieve <1	
e. Is material exempt from controls in accordance with 40 CFR 61.342?	☐ Yes ☐ No
→ If yes, specify exemption:	
f. Based on your knowledge of your waste and the BWON regulations, do you	believe that this waste stream is subject to
treatment and control requirements at an off-site TSDF?	☐ Yes ☐ No

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QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

7. CERCLA or State-Mandated clean up -> Please submit the Record of Decision or other documentation to assist others in the evaluation for

6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination?

8. NRC or state regulated radioactive or NORM Waste → Please identify isotopes and pCi/g: \_

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☐ Yes ☐ No



# Additional Profile Information

	Profile Number: _	
C. MATERIAL INFORMATION		
Material Composition and Contaminants (Continued from page 2):	If more space is needed, please attach	additional page
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D. REGULATORY INFORMATION  1. EPA Hazardous Waste  a. Please list all USEPA listed and characteristic waste code numbers (Continued from	page 2):	na decada a chara e a cha (decimala a chara e conserva
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THINK GREEN:

# APPENDIX E NON HAZARDOUS WASTE MANIFEST

	NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	e (Allen all leas ann an Allen ann ann an Allen ann ann an Allen an Ann an Ann an Ann an Ann an Ann an Ann an	2. Page 1 of	3. Emergency Response ( 800) 424-9		4. Waste T	racking Nur	nber O	044	110
	5. Generator's Name and Maili	ng Address	And the second s	L	Generator's Site Address		n mailing add	iress)			
	Generator's Phone:										
	6. Transporter 1 Company Nam	10		The second sector and the		ŀ	U.S. EPA ID	Number			
	7. Transporter 2 Company Nam	18	adaga di sementi dilipari ilikan ini metalikan dan isa apalikan isa dilibarah	annere de servición de descrito proponencia.	ing distribution of the state of the first state of the s	1	U.S. EPA ID	Number	<del></del>		i i i i i i i i i i i i i i i i i i i
	8. Designated Facility Name and Conserva 41800 Ea	d Site Address Ition Services, Inc ist 88th Avenue 20 80102	/ (COP) A /		TT TT 1855 CO. TT Sich er Walten etwangs versionals		U.S. EPA ID	Number	and the second second	<del></del>	
	Facility's Phone;		(303) 644	1-4335			-				
	9. Waste Shipping Name	e and Description			10. Contain	Type	11. Total Quantity	12, Unit Wt./Vol.			-
GENERATOR	1.		9						NONE		
GEN	2.										
	3.		-				namente i protesso in estable e		Andrew Common State of State o		
	4.	andre service and an extension of the service and the service	Commission of the second secon						***************************************		
ma I	13. Special Handling Instruction	ons and Additional Information		hmatta ette ana hallika disialaran ngalagi yil							
	Customer Ac	4 #- CI	ustomer Name:	1971. dr. dr				and the second second	<del></del>	-	
		address & phone									
	14. GENERATOR'S/OFFEROR marked and labeled/placarded,	'S CERTIFICATION: I hereby d and are in all respects in proper	eclare that the contents of this cor condition for transport according	nsignment are to applicable in	fully and accurately describ ternational and government	bed above by the	e proper ship	ping name, a	and are class	fied, packs	aged,
Y	Generator's/Offeror's Printed/T	yped Name		Signa	ature		*,		Mo	ith Day	/ Year
INT'L	15. International Shipments Transporter Signature (for expo	Import to U.S.		Export from U	.S. Port of entr						
EH	16. Transporter Acknowledgem	the state of the s									
TRANSPORTER	Transporter 1 Printed/Typed Na			Signa	ature				Moi	nth Day	Year
TRAN	Transporter 2 Printed/Typed Na	me		Signa	iture				Moi	th Day	Year
A	17. Discrepancy					-		***************************************			
	17a, Discrepancy Indication Sp	Quantity	Туре		Residue  Manifest Reference Nu	ımber:	Partial Reje	ction	[	Full Re	jection
CILITY	17b. Alternate Facility (or Gene	rator)		11 1111			u.s. epa id 1	Number	*	apprijektion de ver	
D F	Facility's Phone:	III. (6) Ossessian			1		<del>-</del>	-	Mor	th Day	Voor
GNATED FACILITY	17c. Signature of Alternate Faci	HILY (OF CHINETALOF)		1	and the second second second second second second		and the same of th	and the state of t	Mor	th Day	Year
- Land	Landfill	moraunhan	Monofill		Location:				*		
	18. Designated Facility Owner of	or Operator: Certification of rece	ipt of materials covered by the m	anifest except a	is noted in Item 17a			<del></del>	- we respectively and a	<del>Vippi Vipos -</del>	
	Printed/Typed Name			Signa	and all the best livery, may be the property of the last livery distribution of the last livery of the last				Mor	th Day	Year

### APPENDIX D

Typical Site Staffing And Equipment

# **Typical CSI Site Staffing**

Title	Number of Employees	Contact Phone Number
District Manager	1	303-644-4335
Environmental Engineer	1	303-914-1445
Gatehouse Attendant	1	303-644-4335
Equipment Operators/Mechanics	2	303-644-4335
Total	5	

Note: Actual staffing may change due to need and market conditions

## **Typical CSI Site Equipment**

Equipment	Primary Use		
Haul trucks	Manage solidified waste and other hauling uses		
Water Truck	Dust Control, Liner Construction, and Leachate Disposal		
Motor Grader	Motor Grader Road Maintenance and Snow Removal		
Dozer	Excavation and Refuse Disposal		
Backhoe	Excavation/Solidification		
Fork Lift Maintenance Activities and Material Handling			
Front End Loaders Asbestos/Material Handling			
Light Plants Night Operations			
Miscellaneous Trucks,	PBBT and Site Maintenance, Employee Use and		
Tractors, and	Equipment, Waste Hauling Transportation, Construction,		
Implements	slements Soils Processing		

Note: Equipment needs and availability may vary

#### **DRAWINGS**

#### SITE DEVELOPMENT MAP PERMITTED BASE GRADES PERMITTED FINAL GRADES

