# TAS-Corp Proprietary & Trade Secret

**Security Vulnerability Assessment (SVA) App**

**Requirements Description Document**

Final Draft for Order

7/05/2013

**General Description**

Security Vulnerability Assessments (SVAs) are physical security assessments that are conducted by security professionals and or site owner/operators in an effort to gather information regarding a facility’s current layout, security measures, security gaps, criticality and general observations. Currently, SVAs are conducted in two phases. In the first phase, the assessor sits down with site management and goes through a series of questions (see spreadsheet) which detail all aspects of a site’s operations. Once the assessor finishes their interview with site management, the second phase of the assessment begins – touring the facility. As the assessor tours the facility, they continue to note security observations and supplement these with photographs of the facility. Once an assessment is completed, a report is later drafted based on the findings during the site visit.

The purpose of the SVA App is to assist security professionals to collect the required information, send the information to a database, and generate a draft report in multiple formats.

The SVA App will interface with the Apache Protective Security Database (APSD). This is the same database that receives information from the Preventive Maintenance Security Assessment (PMSA) App. Requirements related to and a description of the APSD are included in this document.

The SVA App may be used by assessors before, during and after a trip to the facility.

We envision to following two use cases for SVA App:

1. The Assessor has **advance notice** about the assessment and starts the process prior to travelling to the facility. **Internet connection is available,** so database interface at the start of the process can confirm that the correct facility name has been entered in order to maintain database integrity. Parts of the facility description can be completed before arrival at the facility.
2. The Assessor has limited or **no advance notice** about the assessment, is at the facility and **internet connection is not available**. For this case, the SVA is started but will not be completed until internet connection is available.

(Note: An earlier version of these requirements discussed pre-loading information from a database. We do not desire that sort of functionality in the SVA App)

It is important that the assessor is able to input information into the SVA App before, during, and after the trip to the facility. This means that the app must allow users to create a new facility entry, and give them the option to save their entry and load it at any time. In order for this to be possible, the app must give users a way to view a list of all assessments that they have already started/finished, with the additional option of loading a selected facility so that they can continue working on or make edits to an assessment that is completed or in progress.

**Development Process Requirements**

1. TAS-Corp will respond on a tight deadline. (Cory Wilson is the project manager which means all builds will go to him directly and he will provide feedback within 24 hours of obtaining the latest build.)
2. SDI should provide incremental delivery of functional capability for testing & feedback. (Two updates per week)
3. Two version numbers are needed for the app. First version number will be used for marketing of the app itself and the second version number will be for internal use between TAS-Corp and SDI. TAS-Corp will control the marketing version number while SDI will be responsible for updating the internal version number every time a build gets released.
4. The SVA app will need to be run on an “iPad” in the landscape format. We would also like to see this app be able to run on the iPad mini, however if it proves to be a complication, abandon the iPad mini and stick with development of the app on the standard iPad.
5. TAS-Corp requests a proposal to accomplish the functionality described within the requirements below. That proposal should include:
6. A firm fixed price
7. A delivery schedule
8. A description of the deliverables and app functionality at each delivery point, if multiple deliveries are anticipated.
9. A proposed methodology for code-signing during the development and delivery process.
10. At the completion of the task, the SDI will provide (at a minimum)
    1. The XCode project files to build SVA. The source code must include all files and information necessary to build the app and freedom to use without restriction.
    2. The code, libraries, methods, and graphics used must be permitted for applications that are distributed through the Apple App Store.
    3. Instructions on the method used to the build the app within a single XCode project.
11. TAS-Corp will provide the full and complete required graphics and resolutions. All

graphics and any coding from TAS-Corp is Confidential Information.

1. Utilize storyboards for development and segues.
2. Include required icons, and launch images.
3. The iOS deployment target is no later than Version 5.1.
4. The source of the app will be maintained within a single XCode project, to facilitate code re-use in the future. Note: It is possible that another TAS-Corp customer may want a custom version of this app in the future. By maintaining the source in a single project, the production of a second version, from largely common source, a simpler matter. Improvements in subsequent versions are easily incorporated in the custom and generic versions at lower cost.

**Database Requirements**

Background: The SVA App will store information to the Apache Protective Security Database (APSD). This is the same production database that is used by PMSA. When the SVA App goes into production, the PMSA and SVA-App will utilize the same database. During development, a separate database will be set up for testing and validation. It will include some realistic data, and PMSA data obtained at a specific time.

The APSD is currently being moved from version 1 to version 2. Version 1 is in production status for the PMSA app. Version 2 is being developed to support several projects, including the SVA app. As Version 2 undergoes further development and testing, some changes will be required. Those changes will be documented and provided to SDI. APSD is developed, updated, and maintained using phpAdmin and MySQL Workbench. The documentation produced includes the Enhanced Entity-Relationship (EER) diagram previously provided, and a spreadsheet that documents the meaning of relevant table fields.

Requirement DB-1: Authentication

The SVA-App must authenticate the SVA-App user prior to accessing the database, other than authentication checking. The authentication process will compare user provided information, including a password, with information stored in the “user” table in the database. The email address and the hashed password must be the same. [TAS-Corp will provide the hashing algorithm under separate cover.]

Requirement DB-2: Web Services – Database Access

Background: The PMSA-Canada App also stores information in the APSD. The interface is through a rather simple file (index2.php), which provides a service to retrieve and store data in the database through the use of MYSQL commands that are passed to APSD, and JSON responses (as required by the Apple system). Imbedded within the index2 services is the provision for the use of three different databases, production, test, and demonstration. This three level database is preserved in APSD, to permit production, test, and demonstration use of the App.

Requirement: The SVA-App will utilize the “index2.php” interface, which will also be provided on the test databases.

Requirement DB-3: Web Services – File Upload/Download

Background: The APSD stores files in a structure that is separate from the web server. In the APSD, uploaded files (images, or documents) are not stored within the database itself. The APSD stores the file name, and the original file name of the uploaded file.

Requirement: If the SVA App stores or downloads files referenced by the APSD, the additional web services that are required for that functionality will be developed by SDI. If this is necessary in the project, TAS-Corp will provide the necessary accesses and file structure information to SDI.

Requirement DB-4: Security Checklist and Security Standards

Background: The APSD includes several different versions of the Global Security Standards, and the Checklist of questions; contained in the “security\_standard” and “question” tables”. While the overall program utilizes all of these standards, the SVA-App only needs to utilize the current versions of the standards and questions. In the future, if the standards or checklists are modified, the SVA app would need to be moved to the new version for validation and testing. That should be a simple update, but a validation process would be required.

Requirement: The SVA-App will only utilize Version 11 of the global security standards, and Version 16 of the checklist. But the App should be coded so that a change of either (or both) versions is simple.

Requirement DB-5: No changes to PMSA Data

Requirement: The SVA-App should not change any data in the “pmsac” table.

**Detailed Description**

Please see table below containing screenshots/notes.

|  |  |  |
| --- | --- | --- |
| **NAME** | **IMAGE** | **DESCRIPTION** |
| Welcome Screen |  | * User must click here to begin building the “Build Site Map”. |
| Settings Page |  | This screen will allow the user to input their email and password along with the assessor information. |
| Facility Information | Two screens/maps are represented below. One screen shows a map with Internet Connectivity and the other screen is for no Internet Connectivity. Having Internet Connectivity, will allow the user to check and make sure that he or she has the correct facility name and the name that is in the database. So if a previous assessment has been done, you will be able to see the facility name and location of any facility near-by. There will be no need to see anything else other than the facility name and location.   * The assessment will usually start somewhere with internet connectivity is accessible and the ability to begin describing the facility and get answers questioned and have the ability to go back and document conditions at the facility while questions are being answered or after questions are being answered. * The whole point of this is to confirm correct facility name. That we have identified the correct facility. The function that we are trying to capture is that this name and this coordinates and coordinates like this and any other facility in the database that encompasses these coordinates has the same name. | * A screen will be needed immediately after the welcome screen so that the user can start the assessment process by entering the facility name along with an address or GPS coordinates. This process would include searching the database for nearby facilities that have been assessed previously. * Enter in facility name, address, DLS (Canada). This must be entered first. * You’re going to get back a map that identifies the facility that the user is assessing and any facility within ten nautical miles of that facility. * The date entered will be the date whenever the assessment has been completed. |
| Build Site Map |  | * ***From File*:** Allows user to select an image of the map that was previously taken, from their ‘Gallery’.   *(User should only have the ability to select the photo and not take it.)*   * ***Google Earth*:** The app will open up Google Earth and allow the user to edit on the home screen. * ***Use Location*:** The app will open up Google Maps and allow the user to edit on the home screen. * The assessor must be able to enter information into all fields even when cell, Wi-Fi or GPS coverage is not available.   (If Wi-Fi is not available, and the Build Site Map screen has not been pre-loaded, and a site image is not available in “Gallery”, then a Generic Site Map option will be used to allow recording of information.) |
| Facility Name Screen with Internet Connectivity | **TBD** | * With internet connectivity, enter facility name and address /DLS (Canada) the app will return the google earth map indicating (with icons) all facilities in the database within ten nautical miles of the facility that is being assessed. * The purpose of this screen is to promote database integrity. |
| Facility Name Screen with no Internet Connectivity | **TBD** | * If no internet connectivity: User will provide best name for the facility that he or she has. Fill in all facility information. Fill it all out because user will be asked to fill it out at the end because assessment will not be uploaded or submitted till user has internet connectivity. User can fill in information as a pre-visit, or he or she can catch up at the end once the field visit has taken place in order to complete the assessment. * Where we don’t have internet connectivity, user will enter facility name gps coordinates if we have it and manually input street address. However the database integrity step will need to be done before the app is submitted so the user will need internet connectivity. |
| Home Screen |  | * This screen allows the user to edit the map. By pressing down on the map with a finger, a popover appears and allows the user to insert the name of that target, location, what’s there *(Facility Component, Critical NODE, Security Checkpoint, or Other. Each one has a specific logo that will be attached to it once selected, letting the user know what’s there.)*  and a description. Also has the ability to take photos and store them with the selected target.  *(User should have the option of using current location or inputting the location manually.)*   ­­ |
| General Information |  | **General Information:** Once the user has finished editing the map, he or she will then be able to start filling out the Site Information. First tab under Site Information is “General Information”.   * The user will be able to input the general info *(Latitude, Longitude, Street Address, City, and Site Point of Contact).* Once completed, select “Save” to move on to the next tab. * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. * Users can re-visit “Site Information” anytime they want to change or edit the information. Once info has been changed, and the [Save] button has been pushed again, the older information then gets replaced with the latest input. |
| Purpose of Site  Or Facility |  | * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. * Next tab under General Information is Purpose of Site or Facility. This is where the user has a chance to describe the purpose of the site he or she is at. |
| Criticality Assessment |  | *(The list which is displayed here will be static.)*   * *Criticality Assessment:* Criticality is determined based on how vital an individual site is to operations as a whole. * There are four categories *(Injury, Environment, Property Damage, and Repair/Recovery).* Inside each category, the user will find five options to choose from indicating the worst case scenario. (SEE BELOW) |
| Injury |  | *(The list which is displayed here will be static.)*   * SAVE: Once the user has selected his or her option, they must hit save to continue on to the other category. * Select one of these options to be submitted into the criticality assessment.   **Key:** 1= Extremely Critical, 2= Highly Critical, 3= Critical, 4= Non Critical, 5= Non Critical |
| Environment |  | *(The list which is displayed here will be static.)*   * SAVE: Once the user has selected his or her option, they must hit save to continue on to the other category. * Select one of these options to be submitted into the criticality assessment.   **Key:** 1= Extremely Critical, 2= Highly Critical, 3= Critical, 4= Non Critical, 5= Non Critical |
| Property Damage |  | *(The list which is displayed here will be static.)*   * SAVE: Once the user has selected his or her option, they must hit save to continue on to the other category. * Select one of these options to be submitted into the criticality assessment.   **Key:** 1= Extremely Critical, 2= Highly Critical, 3= Critical, 4= Non Critical, 5= Non Critical |
| Repair/Recovery |  | *(The list which is displayed here will be static.)*   * SAVE: Once the user has selected his or her option, they must hit save to continue on to the other category. * Select one of these options to be submitted into the criticality assessment.   **Key:** 1= Extremely Critical, 2= Highly Critical, 3= Critical, 4= Non Critical, 5= Non Critical |
| Criticality Results |  | Criticality will be displayed based on the “highest” option selected (see key). For example: If injury, Property Damage, and Environment all receive #5, and Repair/Recovery receives a #1 the result will be “Extremely Critical.  This will change based off what the user has selected for the four categories.   * At this point, the user has finished the criticality assessment and has an option to either [edit] or [submit] the results. By submitting the results they will be automatically entered in the summary report. * [Edit]: The user can edit his or her selections simply by pushing down on either one of the four answers. |
| Additional Location  Information |  | * This screen allows the user space to describe any Additional Location Information. * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. |
| General Description  Of the Site or Facility  Perimeter |  | * This screen allows the user space to describe a General Description of the Site or Facility Perimeter. * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. |
| Open Source  Threat Information |  | * This screen allows the user space to describe any Open Source Threat Information. * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. |
| Utility or Major  Service Provider(s) |  | *(This is a text field however it is not mandatory for the user to fill this out in order to proceed on with the assessment.)*   * This screen will prompt the user to click and enter, “Electric Power, Petroleum Fuels, and Natural Gas”. Once the user has inputted data, click “Save” to move on to the next tab. * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. |
| Infrastructure Dependencies and Interdependencies |  | * This is where the user has a chance to describe the Infrastructure Dependencies and Interdependencies. * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. |
| References |  | * This is where the user has a chance to enter in the References. * SAVE: Once completed, user must hit save in order for his description to be placed automatically in the summary report. |
| Standards  Checklist  *(See actual Checklist: Excel Spreadsheet )* |  | *(The category list which is displayed to the left is static.)*  This screen allows the user to pick a category they would like to start with. Inside each category, the user will find a list of standards.  [Complete]: Means the user has completed all the standards within that category.  [In Progress]: Means the user has not completed all the standards within that category.  [N/A]: Means the user has decided that the standard is Not Applicable. |
| Security Standards  Max number of standard is 13 (letter m) in any standard.  *(See actual Checklist: Excel Spreadsheet)* |  | *(The standards list and the question list under the standard are static.)*  Within each Standard, you will find categories. They will be listed in an ‘alphabetical’ format. The user will be prompted to go through each standard and answer the question associated with that standard. Sometimes a standard can have up to 5-6 questions.  [Complete]: Means the user has completed all the questions within that standard.  [In Progress]: Means the user has not completed all the questions within that standard.  [N/A]: Means the user has decided that the standard is Not Applicable. |
| Security Standard Questions (YES / No Screen)  Max number of questions is 19 in any category.  *(See actual Checklist: Excel Spreadsheet)* | ***As mentioned in the opening statement above (background), some questions will require different responses. Examples are as follows:***   1. Are vendor-supplied passwords changed immediately after installation? [Yes] [No] 2. Specify the size of security personnel in terms of total number on duty during working hours, non-working hours, weekends, and holidays. [Number] 3. Describe the equipment available to security personnel such as uniforms; vehicles (specify number); weapons (describe); communication devices (describe); or other (describe). [Comment Required] 4. Rate the level of security door locks provides as low, moderate, or high: [Multiple Choice]  * Low: none, lock not used, or other (specify). [Yes] [No] * Moderate: door unlocked, attended by personnel when unlocked, ID actuated lock, padlock, keyed cylinder lock, combination lock, mechanically coded lock, or other (specify). [Yes] [No] * High: electronically coded lock, two-person rule lock system, lock inaccessible from the door exterior, or other (specify). [Yes] [No]   ***Since there are four different possible responses, this will require different screens. The screen on the top of this page is for [Yes] [No] responses. The other three screens will be submitted with the excel spreadsheet early next week.***  ***Description Box:*** There will always be a description box for every response. The only time the user is actually required to input text in the description box, is when the questions requires a written description. | Each Category has a set of questions that go with it. Those questions will appear on the left side of this screen. The user will click on each question (left side of screen) and once that happens, the full question will pop up on the right side of the screen where the user will have to answer either [YES] or [NO]. The user will also be prompted to write out a description and past issues if they choose to do so and have the ability to take pictures. Once pictures are taken they will appear as thumbnails on the screen. Once everything has been filled out, user will hit [Submit] and continue on to the next question. *(Here the user can not only take photos, but choose any photo from their gallery as well.)*  [N/A]: Means the user has decided that the question is Not Applicable.  [SUBMIT]: Once selected, the answers will be automatically generated into the report and allows the user to move on to the next question.  [COMPLETE]- Once the user has answered all questions on the left side of the iPad pertaining to that Category, they will hit “COMPLETE” and be taken back to the category screen.  (If the question has already been submitted, the user still has the option to go back and edit their answers. To apply their answers to the report, they will have to hit [Submit] again.)  ***Past Issues:*** Allows the user to input any past issues that deal with that question. This box will always be available for the user to input text.  ***Photos:*** Allows the user to take photos. When dealing with a question about fences for example, the user can take a picture and that picture will be associated with that question in the report. |
| Security Standard Questions (Comment Required Screen) |  | Ex: Describe the equipment available to security personnel such as uniforms; vehicles (specify number); weapons (describe); communication devices (describe); or other (describe). [Comment Required] |
| Security Standard Questions (Number Screen) |  | Ex: Specify the size of security personnel in terms of total number on duty during working hours, non-working hours, weekends, and holidays. [Number] |
| Security Standard Questions (Multiple Choice) |  | Ex: Rate the level of security door locks provides as low, moderate, or high: [Multiple Choice]   * Low: none, lock not used, or other (specify). [Yes] [No] * Moderate: door unlocked, attended by personnel when unlocked, ID actuated lock, padlock, keyed cylinder lock, combination lock, mechanically coded lock, or other (specify). [Yes] [No] * High: electronically coded lock, two-person rule lock system, lock inaccessible from the door exterior, or other (specify). [Yes] [No] |
| Summary Report | * Summary Table format with all questions and answers listed and sorted by section. * Detailed: Word template that is formatted like current SVA Reports (See pg. 63): Executive Summary, General Info, Observations, etc… | Summary: Will essentially be a report that is generated based off of the input into the app. There will have to be a basic template that gets created so that all of the answers are generated in a report format.  Detailed: Report gets divided up into sections to resemble how it would look on paper. Ex: General Information is section 1, Purpose of Site or Facility is section 2, & so on.  Partial: User will have the ability to go back and select which section they would like to submit.  Export to File: Have the ability to export the report as a file (word doc. or pdf, etc.).  *(Activate this section only after all required information is entered by the user.)* |
| Settings  Page |  | This screen will allow the user to select his or her option of transmittal. Either by email or by using the database.  If email is chosen, user will have to input an email address.  If database is chosen, user will have to select the database. |
| Map View |  | This screen will allow users the ability to re-visit the map as it is full screen. The user will have the ability to edit or make changes to the map if they choose to do so. |





EXAMPLE

This document was prepared by Trinity Applied Strategies Corporation for Apache Corporation. It shall not be – in whole or part – copied or duplicated and shall not be submitted to outside parties for examination without the parties’ written consent.

Table of Contents

[I. Executive Summary 63](#_Toc360460299)

[II. Apache Canada South Region Operations 64](#_Toc360460300)

[[Facility Name] 64](#_Toc360460301)

[1. Facility Description 64](#_Toc360460302)

[2. Criticality 64](#_Toc360460303)

[3. Security Observations 64](#_Toc360460304)

[4. Short-term Recommendations 65](#_Toc360460305)

[III. Criticality Table 65](#_Toc360460306)

[IV. Recommendations Summary 66](#_Toc360460307)

[V. Conclusion 66](#_Toc360460308)

[VI. References 67](#_Toc360460309)

**List of Figures**

Figure A-1: 63

Figure A-2: 64

Figure A-3: 64

Figure A-4: 64

Figure A-5: 64

Figure A-6: 64

Figure A-7: 64

# Executive Summary

Apache Corporate Security conducted a Site Vulnerability Assessment (SVA) at the [Facility Name] near Whitecourt, Alberta in the Apache Canada South Region on May 14, 2013, with the cooperation of site staff. Trinity Applied Strategies Corporation (TAS-Corp) personnel joined Apache Corporate Security as the team conducting the assessments. The following report provides an overview of key observations and recommendations based on the SVA.

This report provides a description of the facility that was visited, including facility operations, layout, and purpose of the site within the Apache Canada South Region system. Criticality of the site was also examined and is discussed in detail. Criticality is determined based on importance of the site to Apache Canada operations as a whole. During the SVA, team members made numerous security observations; these observations are listed in this report through descriptions of security measures and procedures, and illustrated using photos taken during the assessments. These observations are essential to determining a site’s vulnerability to multiple threats and hazards as well as which measures are recommended to be taken to mitigate the determined threats.

Recommendations are given for the site based on security observations made while conducting the assessment. The intent of these recommendations is to provide short-term and long-term site-specific security options for consideration to include facility hardening and procedural changes. Also included in the report is a summary table listing all site recommendations.

This report serves as a baseline analysis and may be used by Apache Corporate Security as part of an audit process to ensure implementation of recommendations.



Figure A-1:

Image Source: Google Earth

# Apache Canada South Region Operations

[Enter Description of South Region Operations]

|  |  |
| --- | --- |
| **Location:** | **DLS:** |
| LAT, LON |  |

## [Facility Name]

### Facility Description

[Enter Facility Description]

Figure A-2:

Image Source: Apache Canada SVA Team

### Criticality

[Describe Criticality]

### Security Observations

[Insert Security Observations]

Figure A-3:

Image Source: Apache Canada SVA Team

Figure A-4:

Image Source: Apache Canada SVA Team

Figure A-5:

Image Source: Apache Canada SVA Team

Figure A-6:

Image Source: Apache Canada SVA Team

Figure A-7:

Image Source: Apache Canada SVA Team

### Short-term Recommendations

* [List Short Term Recommendations]

# Criticality Table

|  |  |
| --- | --- |
| **Criticality Table** | |
| **Criticality Level** | **Criteria** |
| 5 – Extremely Critical | 1. Potential for multiple fatalities or injuries to personnel on-site or off-site 2. Major environmental impact (toxic release, major spill contaminating beaches or public waterway) 3. Property damage in excess of $10M 4. Any outage makes the business unit unprofitable |
| 4 – Highly Critical | 1. Potential for any fatalities or injuries to personnel on-site or off-site 2. Any environmental impact leading to fines/sanctions or increased regulation 3. Property damage in excess of $5M 4. Repair/recovery time makes the business unit unprofitable |
| 3 – Critical | 1. No potential for fatalities off-site, some injuries; potential for multiple serious injuries on-site, possible fatalities 2. Environmental damage restricted to on-site, remediation required/containment plans are not adequate 3. Property damage in excess of $1M 4. Repair/recovery time reduces profitability significantly |
| 2 – Non-Critical | 1. Localized (incident site) injuries on-site; no off-site injuries 2. Localized environmental impact with some remediation required/containment plans are adequate 3. Property damage less than $1M 4. Repair/recovery time has minimal effect on profitability |
| 1 – Non-Critical | 1. Minor injuries on-site; no off-site impact 2. No environmental impact 3. Property damage less than $100K 4. Repair/recovery time has no effect on profitability |

\*Bolded criteria apply to this facility.

# Recommendations Summary

| **Site Recommendations Summary: Sorted by Criticality** | |
| --- | --- |
| **Criticality** | **Recommendation** |
| 1 |  |
| 2 |  |
| 3 |  |

# Conclusion

A Site Vulnerability Assessment was conducted on the [Facility Name] on May 14, 2013. The assessment team consisted of Apache Corporate Security and Trinity Applied Strategies Corporation. These recommendations may be transmitted to site managers for implementation. The main threat to the [Facility Name] is theft by employees, contractors, or intruders. The site personnel as well as the security personnel have created a close working relationship with local security working groups as well as with local and state first responders who are aware of the potential problems and site operations. The Apache employees on-site regularly report any irregularities or conditions that seem out of the ordinary to the Senior Operations Foreman and Corporate Security. A prioritized list of recommendations has been summarized for Apache Corporate Security review.

This SVA is part of Apache Canada’s execution of the Security Management Program and consistent with the Canadian regulatory standard, Z246.1-13 Section 4 Security Management Program (SMP).

# References

**Apache Corporation:**

Apache Global Security Standards

[Apache](http://www.apachecorp.com/Operations/US/Operating_results.aspx) Canada Security Management Program

Canadian Oil and Gas Security Standard

Brownfield Emergency Response Plan

**Energy Resources Conservation Board (ERCB)**

ST50A Gas Processing Plants (3, 9, 42)

<http://www.ercb.ca/sts/ST50A.pdf>

**Images**

Google Earth

Apache Canada SVA Team