



**ROCA HONDA RESOURCES, LLC**

**FIELD QUALITY ASSURANCE PLAN  
REVISION 0**

**APRIL 2009**

Submitted to the State of New Mexico Mining and Minerals Division  
Energy, Minerals and Natural Resources Department

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## Acronyms and Abbreviations

FQAP	Field Quality Assurance Plan
NM MMD	New Mexico Mining and Minerals Division
QA/QC	Quality Assurance/Quality Control
QMS	Quality Management System
SAP	Sampling and Analysis Plan
SOP	Standard Operating Procedure
Strathmore	Strathmore Resources (U.S.) Ltd.

## 1.0 Quality Plan Objectives and Scope

It is the goal of Strathmore Resources U.S. Ltd. (Strathmore) to provide products and services that meet or exceed the standards established by our customers, the industry, and government regulations. Strathmore maintains a Corporate Quality Management System (QMS), which defines and specifies the activities required to implement Strathmore's Corporate policies and ensure compliance with applicable standards and guidelines. The execution of the elements outlined in the QMS is mandatory for all Strathmore employees and subcontractors. Strathmore employees shall perform in accordance with all procedures and instructions as defined and specified in the QMS. Personnel who disregard or violate quality assurance procedures or instructions shall be subject to disciplinary action.

This Field Quality Assurance Plan (FQAP) is a tier-down document from the corporate QMS. The FQAP is specific for sampling and analysis at the Roca Honda Resources uranium mine proposed permit area. The objective of the FQAP is to produce a framework for a results oriented approach to the sampling task. It contains Strathmore management guidance that will direct the achievement and verification of quality in carrying out sampling and analysis activities in a manner that will be protective of public and worker health and safety and the environment. Sampling and analysis activities will be conducted in accordance with the Sampling and Analysis Plan (SAP) for the Roca Honda mine.

This FQAP is submitted with the SAP to the New Mexico Mining and Minerals Division (NM MMD) in accordance with New Mexico Administrative Code 19.10.6.602D.(12). NM MMD's comments will be incorporated into a revised FQAP upon receipt. The FQAP will continue to be revised during the project if events require adjustments to procedures. These enhancements will be submitted to NM MMD for review. The FQAP will be in effect for a maximum of one year.

The scope of the Roca Honda FQAP applies to each of the nine sampling media discussed in the SAP. A graded-approach is used in that not every criterion in the FQAP applies to each media, and not every Standard Operating Procedure (SOP) applies to each media. Some data collection will be conducted using methods less formal than a SOP. The quality-related activities for the SAP are:

- Collection and analysis of data to complete the information required to establish the baseline conditions for the permit area;
- Collection and analysis of data for input into the mining operation and design of the surface facilities and the reclamation of the facilities and;
- Quality-related work activities include:
  1. Installation and monitoring of a meteorological station;
  2. Radon and air particulate sampling;
  3. Aerial photography;
  4. Vegetation mapping, productivity measurements, and species inventory;
  5. Wildlife composition, density, and habitat mapping;
  6. Soil depths and characteristics for on-site and potential borrow areas;
  7. Geologic mapping;

8. Surface water quality, sediment samples, channel topography, stream gaging, and water quality of springs;
9. Aquifer tests, ground water samples, and installation of a new well nest; and
10. Radiological survey and sampling.

## 2.0 Quality Plan Criteria and Implementation

### 2.1 Criterion 1—Management/Program

- (1) *Establish an organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing the work.*
- (2) *Establish management processes, including planning, scheduling, and providing resources for the work.*

Strathmore has established an organizational structure specific to this project. A Strathmore Task Manager (hereinafter, Task Manager) reporting directly to the Strathmore Roca Honda Project Manager, will lead the project. Reporting to the Task Manager are discipline Field Sampling Leaders who provide the necessary leadership for the SAP media . Figure 1 shows the project organization. The Strathmore Task Manager is responsible for the implementation of this FQAP.

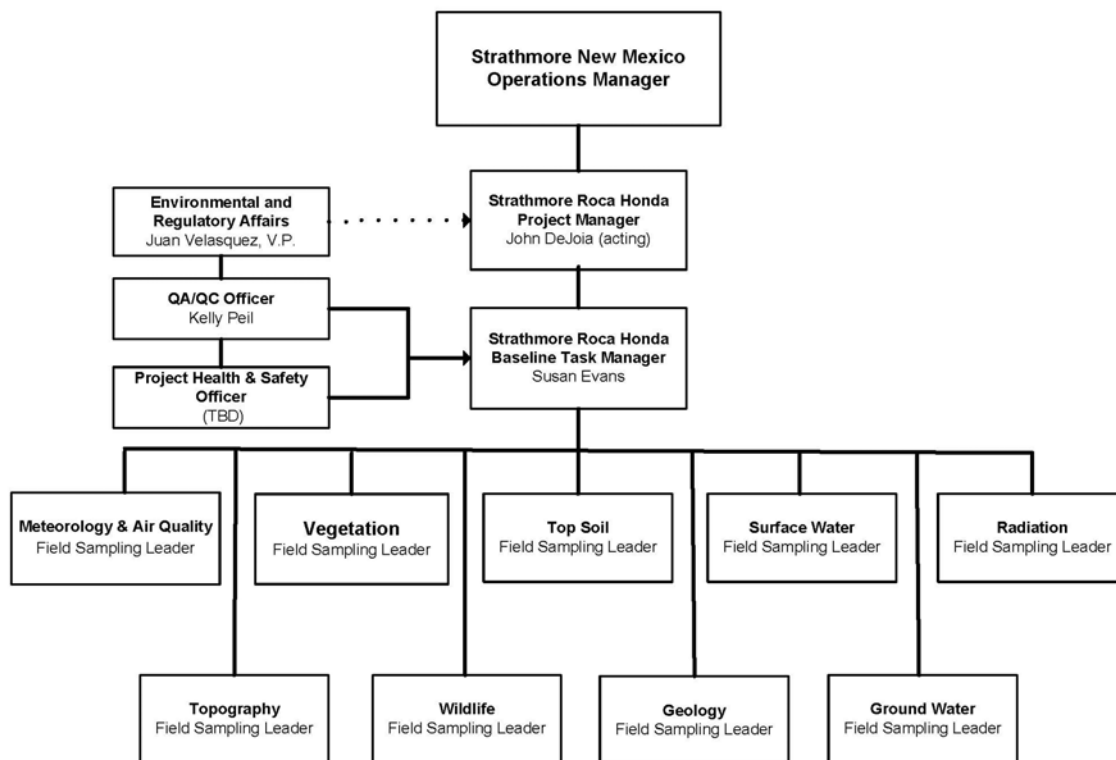


Figure 2-1. Strathmore Roca Honda Project Organizational Chart

Site work activities will be conducted under the supervision of various Field Sampling Leaders, some of which will be subcontractors to Strathmore. The Task Manager has the support of the Strathmore organization, including the Health and Safety Officer, the Quality Assurance/Quality Control (QA/QC) Officer, and the Contracts Manager. Technical and regulatory support, as needed, is available to the Task Manager through a number of matrixed experts. This structure provides separation of the project's health, safety and quality oversight functions from the supervision of site work activities. This separation assures that quality and safety considerations remain independent of production pressure so that fulfillment of the FQAP requirements will result. Senior management retains the ultimate responsibility and accountability for quality and safety; however, every individual on the project is responsible for achieving quality in their activities and for performing work safely.

External laboratories, contractors, subcontractors, suppliers, or consultants performing work or contributing to activities for this project will abide by the provisions of this FQAP, or demonstrate to Strathmore, that they implement a quality program that meets the requirements set forth in this FQAP. Each subcontractor is responsible for providing qualified personnel and necessary equipment or instruments in order to complete the task with the required quality within the agreed budget and in a timely manner. The subcontractor budget, schedule, and resources will be reviewed and approved by the Task Manager.

A kick-off meeting will be held before each SAP activity. At this meeting, the Task Manager will detail the project objectives and goals, detail assignments, identify the internal lines of communication, identify potential site visitors, ensure personnel are trained or have training scheduled, stress the importance of safety and quality and the penalties for lack of attention to the procedures and direction, explain logbook recording rules, and request objective feedback during the project activities. Members of the management team will visit the site periodically to assess performance and adherence to the standards and procedures.

The Strathmore QMS procedures remain effective for this FQAP. A list of the SOPs for the field work is attached as Appendix A. Subcontractors will also have procedures or methods to accomplish their specific tasks such as wildlife surveys and radiological surveys. These procedures are subject to review and approval by Strathmore's QA/QC Officer and Task Manager. The relevant on-site personnel will be trained to these procedures and methods.

## **2.2 Criterion 2—Management/Personnel Training and Qualification**

*(1) Train and qualify personnel to be capable of performing their assigned work.*

*(2) Provide continuing training to personnel to maintain their job proficiency.*

Strathmore personnel will be assigned tasks for the SAP in accordance with their qualifications and expertise. The Task Manager will make the assignments and ensure any additional training that may be necessary has been completed before the work starts. The subcontractors will ensure the Task Manager that tasks are performed with qualified, competent personnel. Junior staff can be utilized if they are under the supervision of qualified leaders. The Task Manager may ask the subcontractors for verification of competency and training. Strathmore and subcontractors will be trained in the field procedures, methods, and protocols before they begin work.

Strathmore project personnel will receive training on the FQAP with an emphasis on responsibility for adhering to work activity technical standards and procedures and the

importance of identifying and reporting actual or potential quality problems to project supervision. All training will be documented and held for records management to include a record of any daily meetings. Subcontractors will also train their staff in company quality guidelines and procedures.

The training and qualification of any replacement personnel will be completed as described above prior to assigning those persons to work. Should the on-going assessments and management oversight of project activities reveal quality problems related to training, additional identified training will be provided or reallocation of resources could occur.

### **2.3 Criterion 3—Management/Quality Improvement**

- (1) Establish and implement processes to detect and prevent quality problems.*
- (2) Identify, control, and correct items, services, and processes that do not meet established requirements.*
- (3) Identify the causes of problems and work to prevent recurrence as part of correcting the problem.*
- (4) Review item characteristics, process implementation, and other quality-related information to identify items, services, and processes needing improvement.*

Strathmore's QMS uses feedback to improve items, services, and the processes that produce them. Feedback may arise from workers, customers, suppliers, and subcontractors. This FQAP encourages project personnel to identify quality improvement opportunities as well as conditions not meeting established standards. When a quality problem is identified, the condition will be documented by the worker and Field Sampling Leader. The Field Sampling Leader and Task Manager will determine the significance of the problem. For example, a non-conforming condition noted in on-going sample packaging will be communicated to personnel so the condition can be immediately corrected. On the other hand, suggestions for process improvements will be considered part of the on-going management assessment of project activities.

All project personnel will be granted stop work authority based on their judgment of the seriousness of the quality issue. The Field Sampling Leader will confirm the stop work when it is requested and will immediately notify the Task Manager. The Field Sampling Leader, Task Manager, and QA/QC Officer will assess the problem and determine the cause. This group will develop the corrective action(s) and have it implemented as soon as possible. Subsequent restart of work will be based on the corrective actions and an assessment of its effectiveness by the management team. The team will verify the implementation and watch for improvements and/or recurrences. The total process will be documented to record the effectiveness of the actions. If an accumulation of issues suggests a negative performance trend, the Task Manager or the QA/QC Officer will investigate the cause of the problem and recommend escalated corrective actions.

Quality problems that stop work will be handled immediately with a corrective action implementation goal of the next day. The three management team members mentioned above should be able to resolve the majority of issues, however, higher management will be immediately involved if required. Each deficiency will be recorded and tracked by the Task Manager. All on-site personnel will be informed of the changes if they were not directly involved



in the corrective action. The Task Manager and QA/QC Officer will prepare a lessons learned report at the conclusions of the project.

## **2.4 Criterion 4—Management/Documents and Records**

- (1) Prepare, review, approve, issue, use, and revise documents to prescribe processes, specify requirements, or establish design.*
- (2) Specify, prepare, review, approve, and maintain records.*

Strathmore will prepare, review and approve documents generated to direct and to report the SAP activities. The subcontractors responsible for a portion of the SAP will be asked to draft documents for review. Strathmore will ensure that project-specific deliverables meet customer expectations. The documents generated will contain sufficient description of the project activities such that they clearly and concisely respond to requirements.

Other documents that may be produced by Strathmore and the subcontractors include: work plans, meeting minutes, training verification, billing and contract, and site-specific information from various sources. These documents will be retained in the Strathmore Document Control area until completion of the project.

Records identification, retention, protection, traceability, and retrievability will be performed by the Task Manager in accordance with the Strathmore QMS. Records will include; logbooks, characterization sample sites, lab results, chain-of-custody forms, test methods and quality control sample records, instrument calibration information, inspection and assessment reports on supplier activities, billing receipts, copies of manifests, and customer feedback. These records will be collected in a timely fashion, and submitted to the Document Control for proper distribution and storage per the QMS. Strathmore will be responsible for assuring that records of subcontractor quality-related work activities are generated and incorporated as part of the project files. A log of active reports and procedures and their current revisions will be maintained so that personnel will be sure that they are using the latest version of a document.

On-site personnel will be trained on completion of logbooks, forms and other project notes in accordance with Strathmore instructions or equivalent for the subcontractors. Copies of subcontractor logbooks may be requested by the Task Manager.

## **2.5 Criterion 5—Performance/Work Processes**

- (1) Perform work consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means.*
- (2) Identify and control items to ensure their proper use.*
- (3) Maintain items to prevent their damage, loss, or deterioration.*
- (4) Calibrate and maintain equipment used for process monitoring or data collection.*

The work processes are described in the SAP document, which is a collection of nine separate field sampling or data collection activities. The data to be collected and the plan to collect it is outlined in each section of the SAP. Strathmore personnel and its subcontractors will collect the data with the assistance of some task specific suppliers, such as a well driller. Strathmore field

procedures and those from the sub-contractors specific to the task, such as the radiological survey, will be used. Strathmore Managers will control the conditions under which the work is to be performed to protect the workers, public and environment. Workers will be trained against the standards and procedures and responsible for understanding how the process works. Applicable work process documents shall be readily accessible to the workers in the workplace.

The Managers and Field Sampling Leaders will also closely monitor the sample collection, preservation, shipment, and chain of custody procedures to ensure that the analytical laboratories receive samples that meet preservation requirements. The samples will be shipped via the most expedient means available. The list of analytes are included in the SAP and will be given to the laboratories and only appropriately certified laboratories will be sub-contracted.

Each sampling activity will use different equipment and instruments for testing and measurement. The on-site personnel will be instructed to identify and control items to prevent the use of incorrect or defective equipment and to protect items from damage, loss or deterioration. Specific monitoring and data collection equipment and instruments will require proper maintenance and calibration. Logbook entries will be made to confirm which items required maintenance and which items are calibrated.

## **2.6 Criterion 6—Performance/Design**

- (1) Design items and processes using sound engineering/scientific principles and appropriate standards.*
- (2) Incorporate applicable requirements and design bases in design work and design changes.*
- (3) Identify and control design interfaces.*
- (4) Verify or validate the adequacy of design products using individuals or groups other than those who performed the work.*
- (5) Verify or validate work before approval and implementation of the design.*

The SAP was prepared by discipline experts for each media to be sampled. The team met to review the SAP and plan for the relationships between the activities. The results were a coordinated field effort and potential sharing of data. Each of the field activities will be based on sound engineering judgment, scientific principles and applicable standards and procedures.

The data from the SAP will complete the baseline information for the proposed permit area. Additionally, the data will be used in the design of the mine underground facilities, the surface operation facilities to include the water treatment plant and discharge, and to verify historical information concerning the groundwater and uranium ore characteristics. The data will also be used to help implement the site reclamation after mining is complete.

## **2.7 Criterion 7—Performance/Procurement**

- (1) Procure items and services that meet established requirements and perform as supplied.*
- (2) Evaluate and select prospective suppliers on the basis of specified criteria.*

*(3) Establish and implement processes to ensure that approved suppliers continue to provide acceptable items and services.*

Strathmore will utilize subcontractors for portions of the SAP project who have assisted with the preparation of the SAP and related documents. These subcontractors have demonstrated their ability to perform with qualified personnel and produce quality results. Strathmore or the subcontractors will also obtain suppliers for services to include: analytical laboratory services, aerial photography and mapping, ground surveying, well drilling, and electrical connections. The procurement documents for these supplier services will impose appropriate safety and quality requirements and Strathmore site personnel will ensure that the suppliers meet the requirements contained in the procurement documents. Implementation of the quality elements for these suppliers will be verified in routine oversight and inspection activities. For example, Strathmore will ensure that the analytical laboratories are certified by the Environmental Protection Agency. Strathmore will obtain and review a copy of the analytical laboratory's certification.

## **2.8 Criterion 8—Performance/Inspection and Acceptance Testing**

*(1) Inspect and test specified item, services and processes using established acceptance and performance criteria.*

*(2) Calibrate and maintain equipment used for inspections and tests.*

Each SAP activity will have a responsible Field Sampling Leader who will perform inspections to verify that physical and functional aspects of items, services, and processes meet requirements and are appropriate for use and acceptance. Site activities include the proper materials for water and soil sampling and preservation, the installation and protection of the air sampler, the identification and protection of the drill pad area, the equipment leaks and spill protection around the drill pad, and the site restoration. The Task Manager will talk with the Field Sampling Leaders to ensure they inspect their equipment and instruments for proper performance, and their field activities for good housekeeping and restoration. This also pertains to the radiological instrument calibration and daily performance checks for the radiological survey of the proposed permit area. Results of these activities will be documented and retained as project records. The records will address purpose of inspection/test, name of inspector, date, description of methods, safety measures, and results and actions taken.

Strathmore has subcontracted for analytical services with certified laboratories. The certification process requires regular audits by the certifying agency. The audits also review the data validation and data management procedures instituted by the laboratory. Strathmore will request copies of the audit dates and findings.

## **2.9 Criterion 9—Assessment/Management Assessment**

*(1) Ensure that managers assess their management processes and identify and correct problems that hinder the organization from achieving its objectives.*

Strathmore demands that its Managers maintain a relationship with regulators and other stakeholders to ensure satisfaction. The Management Assessment ensures that the manager is completely informed of the project's status and performance. The Task Manager and corporate management will be involved, as necessary, in this assessment.

Strathmore managers will begin its assessment with formal, documented readiness reviews that address each SAP activity and the personnel and resources required to implement the SAP, the schedules, coordination with subcontractors and suppliers, documentation, and identify areas to be covered before mobilization. The results of the readiness review will be discussed with the Strathmore Vice President for New Mexico Operations as an additional peer review and the meetings will be documented.

During the implementation of fieldwork, project management (i.e., the Field Sampling Leader, Task Manager, and the QA/QC Officer) will conduct management assessments to directly observe field activities. They will include worker and customer interviews, performance reviews, and review the immediate plans for the remaining activities. The assessments will be documented and used as input to the improvement process.

## **2.10 Criterion 10—Assessment/Independent Assessment**

- (1) Plan and conduct independent assessments to measure item and service quality, to measure the adequacy of work performance, and to promote improvement.*
- (2) Establish sufficient authority, and freedom from line management, for the group performing independent assessments.*
- (3) Ensure persons who perform independent assessments are technically qualified and knowledgeable in the areas to be assessed.*

Strathmore will use a technically qualified and project knowledgeable person not directly involved with the project to perform an independent assessment of the SAP project. The individual's qualifications will be substantiated by a resume that will be maintained on file. The assessor will monitor operations, review documentation, and conduct worker and customer interviews. The assessor's responsibilities will be:

- Evaluate work performance and process effectiveness;
- Evaluate compliance to the management system requirements;
- Identify abnormal performance and potential problems;
- Identify opportunities for improvements;
- Document and report findings; and
- Verify satisfactory resolution of any reported problems.

Concerns noted by the assessor will be communicated verbally to the Task Manager so that timely corrective actions can proceed. A final report of the assessment findings will be prepared and submitted to the Roca Honda Project Manager for issuance without editing. Strathmore management will use the findings to improve quality.

Should additional quality issues be identified during the completion of fieldwork, the QA/QC Officer has the authority to recommend additional assessments.

### **3.0 Subcontractor and Supplier Adherence to This FQAP**

Strathmore's team members or subcontractors for the SAP procurement have signed agreements with Strathmore the prime. These subcontract agreements state that all relevant contractual documents between Strathmore flow down to the subcontractors. The agreement also states that the team members working with Strathmore on the SAP will adhere to the task planning documents to include the Health and Safety Plan and FQAP. Strathmore will have a Field Sampling Leader on the site at all times with the responsibility to enforce the safety and quality requirements for all on-site workers.

The following typical subcontractors/suppliers will be on site at various times:

- Flora and fauna surveyors
- Drillers
- Radiological surveyors
- Field surveyors
- Water, air, and soil samplers.

## **APPENDIX A**

### **List of Strathmore Field Standard Operating Procedures**

## Strathmore Field Standard Operating Procedures

<b>SOP Number</b>	<b>Revision / Date</b>	<b>Title</b>
001	Rev 0 / April 2008	Core Handling
002	Rev 0 / April 2008	Fluid Sample Collection and Processing
003	Rev 0 / April 2008	Small Equipment Decontamination
004	Rev 0 / April 2008	Lithologic Logging of Cuttings and Core
005	Rev 0 / April 2008	Well Development
006	Rev 0 / April 2008	Sample Handling, Packaging, Shipping, and Chain of Custody