

CROW BUTTE RESOURCES, INC.

86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169



(308) 665-2215
(308) 665-2341 – FAX

January 25, 2007

Mr. Keith I. McConnell, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
Mail Stop T7E18
Washington D.C. 20555-0001

Re: Annual Report of Changes, Tests, or Experiments
License No. SUA-1534
Docket No. 40-8943

Dear Mr. McConnell:

Crow Butte Resources, Inc. (CBR) is providing this annual report summarizing the changes, tests or experiments made under License Condition 9.4 of SUA-1534 during calendar year 2006. This report is made in accordance with the reporting requirements contained in License Condition 9.4 (E).

CBR's source material license was renewed on March 4, 1998. The renewed license contained Performance Based License Conditions (PBLC). In a PBLC, CBR is allowed to make changes or conduct tests and experiments under certain conditions. These changes, test and experiments must be reviewed and approved by the CBR Safety and Environmental Review Panel (SERP). During 2006, the CBR SERP approved six changes.

The following materials are attached to provide the required summary information and documentation required by License Condition 9.4 (E).

- SERP Evaluation Index, which summarizes each SERP Action and tracks any modifications to an approved action affected by subsequent SERP actions.
- A copy of the text of each approved SERP Evaluation. These evaluations describe the change or test approved and the safety and environmental evaluation performed by the SERP. Supporting documentation is maintained on site for NRC review.

CROW BUTTE RESOURCES, INC.



Mr. Keith McConnell
January 25, 2007
Page Two

- Highlighted versions of page changes made to the License Renewal Application (LRA) because of the SERP actions or NRC license amendment in 2006. These highlighted page changes use a strikethrough to denote deleted text and an underline to indicate new text.
- Page replacement versions of page changes for insertion in the updated NRC copy of the LRA. These pages have a revision date in the footer.

If you have any questions or require further information, please do not hesitate to contact me at (308) 665-2215.

Sincerely,
CROW BUTTE RESOURCES, INC.



Larry Teahon
Manager of Environmental, Health and Safety

Enclosures: As Stated

cc: Mr. Stephen J. Cohen, PG
Hydrogeologist
US Nuclear Regulatory Commission
Office of Federal and State Materials and
Environmental Management Programs
Mail Stop T7E18
Washington, DC 20555-0001



2006 SERP Evaluation Index



Safety and Environmental Review Panel

2006 SERP Index

SERP Evaluation Number	Date	Action Taken	Modifications to Previous SERP Actions
SERP 06-01	4 Jan 06	Wellhouse 45 Review and Approval	None
SERP 06-02	3 Mar 06	Wellhouse 36 Approval to Place Additional Wells in Operation	None
SERP 06-03	7 Aug 06	Revision to Organizational Chart	None
SERP 06-04	18 Aug 06	Wellhouse 46 Review and Approval	None
SERP 06-05	30 Oct 06	Wellhouse 46A Review and Approval	None
SERP 06-06	1 Dec 06	Wellhouse 47 Review and Approval	None



SERP 06-01 Evaluation



Crow Butte Resources, Inc.

Safety and Environmental Review Panel

Evaluation Report – SERP 06-01

Wellhouse 45 Approval to Operate

January 4, 2006

The Crow Butte Resources, Inc. (CBR) Safety and Environmental Review Panel (SERP) met to review and approve operation of Wellhouse 45 in Mine Unit 9 at the Crow Butte Uranium Project.

The SERP appointed for this evaluation consisted of the following members:

<u>Name</u>	<u>Title</u>	<u>Area of Expertise</u>
Jim Stokey	Mine Manager	Management
Mike Griffin	Manager of Health, Safety, and Environmental Affairs	Permitting/ Environmental
Rhonda Grantham	Radiation Safety Officer	Radiation Safety
Lee Moeller	Maintenance Superintendent	Construction
John Cash	Operations Superintendent	Operations
Wade Beins	Project Geologist	Well Construction

Dr. Stokey is the SERP Chairman. Mr. Griffin was appointed SERP Secretary for this evaluation.

Purpose of SERP Evaluation

The purpose of this evaluation by the CBR SERP was to review and approve Wellhouse 45 for operation.



License Condition 9.4 allows CBR to make changes in the facility or procedures or conduct tests or experiments that are not presented in the approved application if such changes do not:

- i. Result in any appreciable increase in the frequency of occurrence of an accident previously evaluated in the license application (as updated);
- ii. Result in any appreciable increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the license application (as updated);
- iii. Result in any appreciable increase in the consequences of an accident previously evaluated in the license application (as updated);
- iv. Result in any appreciable increase in the consequences of a malfunction of an SSC previously evaluated in the license application (as updated);
- v. Create a possibility for an accident of a different type that any previously evaluated in the license application (as updated);
- vi. Create a possibility for a malfunction of an SSC with a different result than previously evaluated in the license application (as updated);
- vii. Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the final safety evaluation report (FSER) or the environmental assessment (EA) or the technical evaluation reports (TERs) or other analysis and evaluations for license amendments.
- viii. For the purposes of SERP evaluations, SSC means any SSC which has been referenced in a staff SER, TER, EA, or environmental impact statement (EIS) and supplements and amendments.

The SERP evaluation was conducted in accordance with the instructions contained in the Environmental, Health, and Safety Management System (EHSMS) Volume II, *Management Procedures*, EHS-6, *Managing Change*. The SERP reviewed the Wellhouse startup checklists and supporting documentation and evaluated this information as compared with the requirements of the licensing basis, including the following documents:

- Title 10, Code of Federal Regulations;
- Source Materials License SUA-1534, Amendment No. 19 dated June 8, 2005;
- *Application for Renewal of USNRC Radioactive Source Materials License SUA-1534*, Crow Butte Resources, Inc. December 1995;
- *Environmental Assessment for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- *Safety Evaluation Report for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- Technical Evaluation Reports issued in support of amendments to SUA-1534.



Title 10 Code of Federal Regulations

The proposed change will have no impact on CBR's ability to meet all applicable NRC regulations.

Source Materials License SUA-1534 Requirements

Amendment 19 to SUA-1534 dated June 8, 2005 was reviewed for specific requirements related to approval and operation of a wellhouse.

Mine Unit 9 was previously approved by the CBR SERP (see SERP 03-05 dated October 22, 2003). Therefore, no review of monitor well location, installation or baseline sampling and Upper Control Limit determination is required for approval of Wellhouse 45.

License Condition 10.2: This License Condition requires that CBR construct all wells in accordance with the methods contained in the Section 3.1.2 of the approved License Renewal Application (LRA). License Condition 10.2 also requires that CBR perform mechanical integrity tests (MIT) for all injection and production wells.

The well construction methods in use for Wellhouse 45 are the same as those described in the LRA and contained in EHSMS Volume III, *Operations Manual*, Procedure P-25, *Well Installation*. MITs were performed in accordance with EHSMS Volume III, *Operations Manual*, Procedure P-23, *Mechanical Integrity Test (MIT)*. All MIT data sheets were contained in the Notice of Intent to Operate Wellhouse 45 (or in the original Mine Unit 9 Notice of Intent) that was submitted to the NDEQ. These MIT data sheets were provided by the Project Geologist and reviewed by the SERP. The records indicate that the MITs performed in Wellhouse 45 met the requirements.

License Condition 9.3: This License Condition requires that CBR conduct operations in accordance with the representations contained in the LRA. Section 3.1.3 of the LRA discusses construction materials, instrumentation, and monitoring requirements. Section 3.3 also discusses instrumentation, including wellhouse injection and production instrumentation and wet building alarms for wellhouses. Section 7.2.3 of the LRA requires that leak tests be performed on all wellfield piping before placing the system into production operations.

The SERP reviewed the Wellhouse Start-up Checklist for Wellhouse 45. This checklist was developed by the Wellfield Construction staff to document completion of all required actions before initiating operations in a wellhouse. Some of these actions are required by regulatory and licensing requirements, while some were developed over the course of mining experience at Crow Butte. Construction activities are governed by



EHSMS Volume III, *Operations Manual*, Procedure P-15, *Installation of Wellfield Pipelines*. The Maintenance Superintendent reviewed these items and stated that all had been completed and the appropriate controls were in place.

A copy of the Wellhouse Start-Up Checklist is attached to this SERP Evaluation. Supporting documentation in the form of pressure tests and ground continuity checks are also attached.

Environmental Assessment

The SERP reviewed the contents of the Environmental Assessment (EA) prepared by NRC in February 1998 to determine whether the proposed change could cause substantive safety or environmental impacts.

Well construction and testing as described in the EA has been completed for the wells associated with Wellhouse 45.

Section 3.3.1 discusses leak testing of wellfield piping. The SERP reviewed the completion of pressure testing for piping systems associated with Wellhouse 45 and found that they meet the intent of the EA.

Financial Surety

The proposed change is covered in the NRC-approved financial surety maintained by CBR and approved by Amendment 18 to SUA-1534 in the amount of \$16,033,706. NDEQ and NRC recently verbally approved the 2006 surety estimate and CBR is in the process of increasing the bond amount. However, Wellhouse 45 was one of five wellhouses included in Mine Unit 9 in the 2005 surety and is therefore covered under the current bond amount.

Safety Evaluation Report

The Safety Evaluation Report (SER) principally provides the basis for worker safety at Crow Butte and does not specifically address the issues related to approval of Wellhouse 45.

Technical Evaluation Reports

The SERP reviewed the Technical Evaluation Reports (TERs) prepared by NRC staff to support amendments made to SUA-1534 since renewal in 1998. None of the TERs prepared since license renewal directly address issues related to approval of a new Wellhouse for operation.



Degradation of Essential Safety or Environmental Commitment

SUA-1534 allows CBR to make changes as long as they do not degrade the essential safety or environmental commitments made in the application. The SERP determined that safety commitments made in the LRA and discussed in the EA have been met and that startup of Wellhouse 45 in Mine Unit 9 will not degrade the safety and environmental commitments.

Based upon this evaluation of the licensing basis, the CBR SERP hereby approves startup and operation of Wellhouse 45 in Mine Unit 9.

Approved this 4th day of January, 2006.

Jim Stokey, Mine Manager
SERP Chairman

Mike Griffin, Manager of Health, Safety, and Environmental Affairs
SERP Secretary

Rhonda Grantham, Radiation Safety Officer

Lee Moeller, Maintenance Superintendent

John Cash, Operations Superintendent

Wade Beins, Project Geologist

FILE



Dave Heineman
Governor

STATE OF NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Michael J. Linder

Director

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1200 'N' Street

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DEC 09 2005

Mr. Stephen Collings, President
Crow Butte Resources, Inc.
141 Union Blvd., Ste. 330
Lakewood, Colorado 80228

Dear Mr. Collings:

On October 24, 2005, the Nebraska Department of Environmental Quality received a submittal of information from Crow Butte Resources, Inc. The submittal serves as Notice of Intent to Operate and contains Well Completion Reports and Casing Integrity Test Reports for recently installed wells (Wellhouse 45) in the construction of Mine Unit 9.

The Department has reviewed the information submitted and determined that it is adequate and complete. Upper Control Limits and Restoration Values established for Mine Unit 9 have already been submitted and approved. Approval of the additional portion of Mine Unit 9 will not alter those values. The Department hereby approves the Notice of Intent to Operate for the additional portion of Mine Unit 9.

If you have any questions or comments concerning this letter or the review of the Notice of Intent to Operate, please contact David Miesbach of my staff at (402) 471-4982. Thank you.

Sincerely,

Michael J. Linder
Director

ML/dlm

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Well House Start-Up Checklist

Well House # 45

Item	Description	Person	Comments	Date Completed	Initial
1	Permit To Operate	Brost / Stokey	Stokey	12/29	JS
2	Complete Pressure Testing (Trunkline and House)	McDowell / Stokey		11-15	JS
3	Pipelines checked for leaks	McDowell / Stokey		11-15	JS
4	Pipelines buried	McDowell / Stokey		11-15	JS
5	Pressure gauge on injection manifold	R. Roberts / Stokey		11-15	JS
6	Injection lines equipped with totalizing flow meters	R. Roberts / Stokey		12-22	JD
7	Injection and Production total flows can be measured	B. Pile/H. Douthit / Stokey		12/22	BT
8	Unused trunkline locked out by two separate means	McDowell / Stokey		11-15	JS
9	Isolation valves are closed and chained	McDowell / Stokey		11-15	JS
10	Map of 2" lines	McDowell/Beins / Stokey		12-22	JS
11	Well-field Layout map in house	McDowell/Beins / Stokey		12-22	JS
12	Check berms	Griffin / Stokey		1/4/06	RLG
13	Pressure check oxygen lines	McDowell / Stokey		11-15-05	JS
14	Continuity check on producers	B. Tiensvold / Stokey		11/4/05	BT
15	Ground fault check	REA/B. Tiensvold / Stokey		11/11/05	BT
16	Communications wire check	B. Tiensvold / Stokey		12/22/05	BT
17	Heater size check	B. Tiensvold / Stokey		11/11/05	BT
18	Processor installed well house	B. Pile/H. Douthit / Stokey		11/11/05	BT
19	UPS installed and operational	B. Pile/H. Douthit / Stokey		11/11/05	BT
20	Wet house alarm installed	B. Tiensvold / Stokey		11/11/05	BT
21	Wet house alarm checked	P. Dunn/J. Douthit / Stokey		12/27/05	PD
22	Oxygen solenoid checked	P. Dunn/J. Douthit / Stokey		12/29/05	BT
23	Check fuses in control panel	B. Tiensvold / Stokey		11/11/05	BT
24	Program MMI	B. Pile / Stokey		12/22/05	BT
25	Program PLC	B. Pile / Stokey		12/22/05	BT
26	Switch on for alarming	P. Dunn/J. Douthit / Stokey		12-22-05	JD
27	Set Scalar Card 'K' Factors	P. Dunn/J. Douthit / Stokey		1-3-06	JD
28	Fire extinguisher w/placard	McDowell / Stokey	N/A	11-15-05	JS
29	Off tags and lockouts	B. Tiensvold/Dunn/Douthit / Stokey	REMOVED LOCKOUTS	11/10/05	BT JD
30	Contaminated and uncontaminated cans	P. Dunn/J. Douthit / Stokey		11-2-05	JD
31	Complete 2" lateral inspection	McDowell / Stokey		12-22-05	JS
32	Visually inspect entire system to plant	McDowell / Stokey		12-22	JS
33	Labels on Monitor Wells	McDowell / Stokey		12-22	JS
34	O ₂ Presen Check			12-27	R.R.
35	Backfill House			12-22	R.R.
36	Pit Lid			12-27	R.R.
37					

Crow Butte Resources
Pump Continuity
Wellhouse 45

Date: 11/7/05

Technician: Bob Tiensvold

Non-Service Lines Locked-Out: Yes No

Item #	Well #	Initial	Meter Reading	Comments
1	P 3006	BT	1.4 Ohms	OK
2	P 3798	BT	1.2 Ohms	OK
3	P 3818	BT	1.3 Ohms	OK
4	P 3819	BT	1.6 Ohms	OK
5	P 3822	BT	1.1 Ohms	OK
6	P 3824	BT	1.2 Ohms	OK
7	P 3826	BT	1.1 Ohms	OK
8	P 2845	BT	.8 Ohms	OK
9	P 3846	BT	.8 Ohms	OK
10	P 3847	BT	.8 Ohms	OK
11	P 3849	BT	1.2 Ohms	OK
12	P 3855	BT	1.5 Ohms	OK
13	P 3861	BT	.9 Ohms	OK
14	P 3862	BT	1.1 Ohms	OK
15	P 3866	BT	1.1 Ohms	OK
16	P 3867	BT	1.3 Ohms	OK
17	P 3868	BT	1.6 Ohms	OK
18	P 3952	BT	1.3 Ohms	OK
19	P 3956	BT	1.1 Ohms	OK

[illegible]

Final Inspection of Piping Wellhead to Plant

Review of Pressure Test Data Complete:

Mine Manager:

W.F.C. Foreman:

Non-Service Lines Locked-Out:

[illegible]

I 3867A ~~OK~~ OK

Item #	Well #	Initialed by	Comments
1	I 3008	AM	OK
2	I 3017	AM	OK
3	I 3705	AM	OK
4	I 3706	AM	OK
5	I 3709	AM	OK
6	I 3791	AM	OK
7	I 3803	AM	OK
8	I 3804	AM	OK
9	I 3808	AM	OK
10	I 3809	AM	OK
11	I 3814	AM	OK
12	I 3815	AM	OK
13	I 3825	AM	OK
14	I 3827	AM	OK
15	I 3828	AM	OK
16	I 3826	AM	OK
17	I 3848	AM	OK
18	I 3852	AM	OK
19	I 3856	AM	OK

Item #	Well #	Initialed by	Comments
20	I 3857	AM	OK
21	I 3860	AM	OK
22	I 3863	AM	OK
23	I 3864	AM	OK
24	I 3871	AM	OK
25	I 3872	AM	OK
26	I 3873	AM	OK
27	I 3953	AM	OK
28	I 3954	AM	OK
29	I 3962	AM	OK
30	I 3963	AM	OK
31	I 3968	AM	OK
32	I 3969	AM	OK
33	I 3974	AM	OK
34	I 3975	AM	OK
35	I 3976	AM	OK
36	I 3977	AM	OK
37	I 3982	AM	OK
38	I 3984	AM	producer

[illegible]

CROW BUTTE RESOURCES, INC.

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P. O. Box 169

Crawford, Nebraska 69339-0169

(308) 665-2215

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GROUND RESISTANCE TEST RECORD

TEST SET USED: AEMC Model 3711 Ground Resistance Tester


GROUND TEST RESULTS: Wellhouse 45 OHMS: 16.8, 18.1, 19.9 = 6.06 OHMS

CONCLUSIONS:

THE TEST RESULTS ARE SATISFACTORY

TEST PERFORMED BY:

CROW BUTTE RESOURCES, INC.



Robert Tiensvold

Date: August 18, 2005



SERP 06-02 Evaluation

CROW BUTTE RESOURCES, INC.

SERP 06-01



Crow Butte Resources, Inc.

Safety and Environmental Review Panel

Evaluation Report – SERP 06-02

Wellhouse 36 Approval to Place Additional Wells in Operation

March 3, 2006

The Crow Butte Resources, Inc. (CBR) Safety and Environmental Review Panel (SERP) met to review and approve placing twenty-six new well in operation in Wellhouse 36 in Mine Unit 8 at the Crow Butte Uranium Project.

The SERP appointed for this evaluation consisted of the following members:

<u>Name</u>	<u>Title</u>	<u>Area of Expertise</u>
Jim Stokey	Mine Manager	Management
Rhonda Grantham	Radiation Safety Officer	Radiation Safety
Lee Moeller	Maintenance Superintendent	Construction
John Cash	Operations Superintendent	Operations
Mike Brost	Chief Geologist	Well Construction

Dr. Stokey is the SERP Chairman. Ms. Grantham was appointed SERP Secretary for this evaluation.

Purpose of SERP Evaluation

The purpose of this evaluation by the CBR SERP was to review and approve the addition of twenty-six (26) new wells to Wellhouse 36 for operation.

License Condition 9.4 allows CBR to make changes in the facility or procedures or conduct tests or experiments that are not presented in the approved application if such changes do not:

CROW BUTTE RESOURCES, INC.

SERP 06-01



- i. Result in any appreciable increase in the frequency of occurrence of an accident previously evaluated in the license application (as updated);
- ii. Result in any appreciable increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the license application (as updated);
- iii. Result in any appreciable increase in the consequences of an accident previously evaluated in the license application (as updated);
- iv. Result in any appreciable increase in the consequences of a malfunction of an SSC previously evaluated in the license application (as updated);
- v. Create a possibility for an accident of a different type that any previously evaluated in the license application (as updated);
- vi. Create a possibility for a malfunction of an SSC with a different result than previously evaluated in the license application (as updated);
- vii. Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the final safety evaluation report (FSER) or the environmental assessment (EA) or the technical evaluation reports (TERs) or other analysis and evaluations for license amendments.
- viii. For the purposes of SERP evaluations, SSC means any SSC which has been referenced in a staff SER, TER, EA, or environmental impact statement (EIS) and supplements and amendments.

The SERP evaluation was conducted in accordance with the instructions contained in the Environmental, Health, and Safety Management System (EHSMS) Volume II, *Management Procedures*, EHS-6, *Managing Change*. The SERP reviewed the Wellhouse startup checklists and supporting documentation and evaluated this information as compared with the requirements of the licensing basis, including the following documents:

- Title 10, Code of Federal Regulations;
- Source Materials License SUA-1534, Amendment No. 19 dated June 8, 2005;
- *Application for Renewal of USNRC Radioactive Source Materials License SUA-1534*, Crow Butte Resources, Inc. December 1995;
- *Environmental Assessment for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- *Safety Evaluation Report for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- Technical Evaluation Reports issued in support of amendments to SUA-1534.

Title 10 Code of Federal Regulations

The proposed change will have no impact on CBR's ability to meet all applicable NRC regulations.



Source Materials License SUA-1534 Requirements

Amendment 20 to SUA-1534 dated February 28, 2006 was reviewed for specific requirements related to approval and operation of a wellhouse.

Mine Unit 8 was previously approved by the CBR SERP (see SERP 02-05 dated July 10, 2002). Therefore, no review of monitor well location, installation or baseline sampling and Upper Control Limit determination is required for approval of the additional wells in Wellhouse 36. However, it was noted that the additional wells added to Wellhouse 36 were placed between the existing Wellhouse 36 wells and the Mine Unit 8 monitor well ring. This makes the spacing between the wells and the monitor well ring much less than 300 feet, which is the maximum allowable distance between the production zone and the monitor well ring. Lixiviate control was discussed in light of the decreased spacing.

License Condition 10.2: This License Condition requires that CBR construct all wells in accordance with the methods contained in the Section 3.1.2 of the approved License Renewal Application (LRA). License Condition 10.2 also requires that CBR perform mechanical integrity tests (MIT) for all injection and production wells.

The well construction methods in use for the new wells in Wellhouse 36 are the same as those described in the LRA and contained in EHSMS Volume III, *Operations Manual*, Procedure P-25, *Well Installation*. MITs were performed in accordance with EHSMS Volume III, *Operations Manual*, Procedure P-23, *Mechanical Integrity Test (MIT)*. All MIT data sheets were contained in the Notice of Intent to add wells to Wellhouse 36 that was submitted to the NDEQ. These MIT data sheets were provided by the Project Geologist and reviewed by the SERP. The records indicate that the MITs performed on the additional wells in Wellhouse 36 met the requirements.

License Condition 9.3: This License Condition requires that CBR conduct operations in accordance with the representations contained in the LRA. Section 3.1.3 of the LRA discusses construction materials, instrumentation, and monitoring requirements. Section 3.3 also discusses instrumentation, including wellhouse injection and production instrumentation and wet building alarms for wellhouses. Section 7.2.3 of the LRA requires that leak tests be performed on all wellfield piping before placing the system into production operations.

The SERP reviewed the Wellhouse Start-up Checklist for Wellhouse 36. This checklist was developed by the Wellfield Construction staff to document completion of all required actions before initiating operations in a wellhouse. Some of these actions are required by regulatory and licensing requirements, while some were developed over the course of mining experience at Crow Butte. Construction activities are governed by

CROW BUTTE RESOURCES, INC.



SERP 06-01

EHSMS Volume III, *Operations Manual*, Procedure P-15, *Installation of Wellfield Pipelines*. The Maintenance Superintendent reviewed these items and stated that all had been completed and the appropriate controls were in place.

A copy of the Wellhouse Start-Up Checklist, with applicable items checked, is attached to this SERP Evaluation. Supporting documentation in the form of pressure tests and ground continuity checks are also attached.

Environmental Assessment

The SERP reviewed the contents of the Environmental Assessment (EA) prepared by NRC in February 1998 to determine whether the proposed change could cause substantive safety or environmental impacts.

Well construction and testing as described in the EA has been completed for the wells associated with Wellhouse 36.

Section 3.3.1 discusses leak testing of wellfield piping. The SERP reviewed the completion of pressure testing for piping systems associated with Wellhouse 36 and found that they meet the intent of the EA.

Financial Surety

The proposed change is covered in the NRC-approved financial surety maintained by CBR and approved by Amendment 20 to SUA-1534 in the amount of \$19,799,289.

Safety Evaluation Report

The Safety Evaluation Report (SER) principally provides the basis for worker safety at Crow Butte and does not specifically address the issues related to approval of Wellhouse 36.

Technical Evaluation Reports

The SERP reviewed the Technical Evaluation Reports (TERs) prepared by NRC staff to support amendments made to SUA-1534 since renewal in 1998. None of the TERs prepared since license renewal directly address issues related to approval of addition to new wells for Wellhouse operation.

Degradation of Essential Safety or Environmental Commitment

CROW BUTTE RESOURCES, INC.

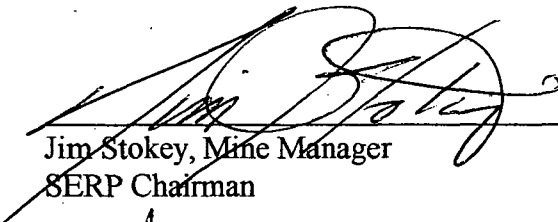


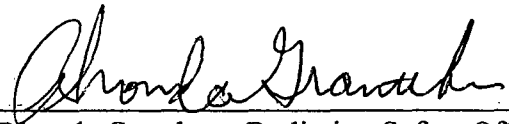
SERP 06-01

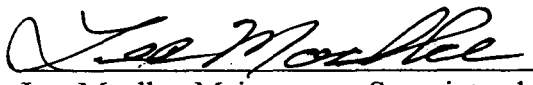
SUA-1534 allows CBR to make changes as long as they do not degrade the essential safety or environmental commitments made in the application. The SERP determined that safety commitments made in the LRA and discussed in the EA have been met and that startup of the new wells in Wellhouse 36 in Mine Unit 8 will not degrade the safety and environmental commitments.

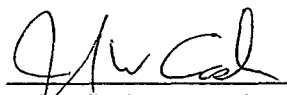
Based upon this evaluation of the licensing basis, the CBR SERP hereby approves startup and operation of the new wells in Wellhouse 36 in Mine Unit 8.

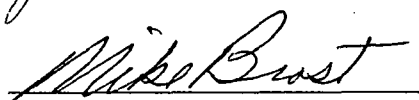
Approved this 3rd day of March, 2006.


Jim Stokey, Mine Manager
SERP Chairman


Rhonda Grantham, Radiation Safety Officer
SERP Secretary


Lee Moeller, Maintenance Superintendent


John Cash, Operations Superintendent


Mike Brost, Chief Geologist

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B 1 2006

STATE OF NEBRASKA

Dave Heineman
GovernorPOWER RESOURCES, INC.
LAKEWOOD, COLO.

DEPARTMENT OF ENVIRONMENTAL QUALITY

Michael J. Linder

Director

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JAN 30 2006

Mr. Stephen Collings, President
Crow Butte Resources, Inc.
141 Union Blvd., Ste. 330
Lakewood, Colorado 80228

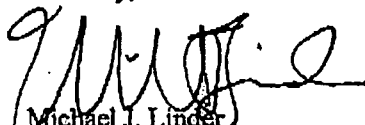
Dear Mr. Collings:

On December 29, 2005, the Nebraska Department of Environmental Quality received a submittal of information from Crow Butte Resources, Inc. The submittal serves as Notice of Intent to Operate and contains Well Completion Reports and Casing Integrity Test Reports for recently installed wells (Wellhouse 36) in the construction of Mine Unit 8.

The Department has reviewed the information submitted and determined that it is adequate and complete. Upper Control Limits and Restoration Values established for Mine Unit 8 have already been submitted and approved. Approval of the additional portion of Mine Unit 8 will not alter those values. The Department hereby approves the Notice of Intent to Operate for the additional portion of Mine Unit 8.

If you have any questions or comments concerning this letter or the review of the Notice of Intent to Operate, please contact Steve Fischbein of my staff at (402) 471-4290. Thank you.

Sincerely,


Michael J. Linder
Director

ML/saf

word/Files/steve/cbr/letter/intntmu8wh36.doc

Well House Start-Up Checklist

Well House # 36A

Item	Description	Person	Comments	Date Completed	Initial
1	Permit To Operate	Brost / Stokey		1-3-06	MB
2	Complete Pressure Testing (Trunkline and House)	McDowell / Stokey	N/A		
3	Pipelines checked for leaks	McDowell / Stokey		2-27-06	KN
4	Pipelines buried	McDowell / Stokey		3-2-06	KN
5	Pressure gauge on injection manifold	R. Roberts / Stokey	_____		
6	Injection lines equipped with totalizing flow meters	R. Roberts / Stokey	_____		
7	Injection and Production total flows can be measured	B. Pile/H. Douthit / Stokey	_____		
8	Unused trunkline locked out by two separate means	McDowell / Stokey		2-27-06	KN
9	Isolation valves are closed and chained	McDowell / Stokey		2-27-06	KN
10	Map of 2" lines	McDowell/Beins / Stokey		3-3-06	KN
11	Well-field Layout map in house	McDowell/Beins / Stokey		3-3-06	
12	Check berms	Griffin / Stokey	Redone 3-3-06	3/3/06	MB
13	Pressure check oxygen lines	McDowell / Stokey	_____		
14	Continuity check on producers	B. Tiensvold / Stokey		3/2	BT
15	Ground fault check	REA/B. Tiensvold / Stokey		2/27	BT
16	Communications wire check	B. Tiensvold / Stokey	_____		
17	Heater size check	B. Tiensvold / Stokey	_____		
18	Processor installed well house	B. Pile/H. Douthit / Stokey	_____		
19	UPS installed and operational	B. Pile/H. Douthit / Stokey	_____		
20	Wet house alarm installed	B. Tiensvold / Stokey	_____		
21	Wet house alarm checked	P. Dunn/J. Douthit / Stokey	_____		
22	Oxygen solenoid checked	P. Dunn/J. Douthit / Stokey	_____		
23	Check fuses in control panel	B. Tiensvold / Stokey		2/27	BT
24	Program MMI	B. Pile / Stokey	_____		
25	Program PLC	B. Pile / Stokey	_____		
26	Switch on for alarming	P. Dunn/J. Douthit / Stokey	_____		
27	Set Scalar Card 'K' Factors	P. Dunn/J. Douthit / Stokey	_____		
28	Fire extinguisher w/placard	McDowell / Stokey	_____		
29	Off tags and lockouts	B. Tiensvold/Dunn/Douthit / Stokey	_____		
30	Contaminated and uncontaminated cans	P. Dunn/J. Douthit / Stokey	_____		
31	Complete 2" lateral inspection	McDowell / Stokey		3-2-06	KN
32	Visually inspect entire system to plant	McDowell / Stokey	_____		
33	Labels on Monitor Wells	McDowell / Stokey	_____		
34					
35					
36					
37					

Crow Butte Resources

Pump Continuity

Wellhouse 36A

Date: 3/2/06

Technician: Bob Tiensvold

Non-Service Lines Locked-Out: Yes No

Item #	Well #	Initial	Meter Reading	Comments
1	P 2805	1.2 Ω	Ohms	
2	P 3058		Ohms	WIRE NOT PULLED
3	P 3069*	1.7 Ω	Ohms	
4	P 3096	1.9 Ω	Ohms	
5	P 3114		Ohms	WIRE NOT PULLED
6	P 4105	2.2 Ω	Ohms	
7	P 4190	2.7 Ω	Ohms	
8	P 4320	1.0 Ω	Ohms	
9	P 4325	2.8 Ω	Ohms	
10	P 4327	2.5 Ω	Ohms	
11	P 4329	2.0 Ω	Ohms	
12	P 4361	1.0 Ω	Ohms	
13	P 0		Ohms	
14	P 0		Ohms	
15	P 0		Ohms	
16	P 0		Ohms	
17	P 0		Ohms	
18	P 0		Ohms	
19	P 0		Ohms	

[illegible]

Review of Pressure Test Data Complete:_____

W.F.C. Foreman:

Non-Service Lines Locked-Out: _____

Item #	Well #	Initialed by	Comments
1	P 2805	AM	OK Plug #376
2	P 3058	AM	IM Complete
3	P 3069*	AM	Plug 317
4	P 3096	AM	Needs wired OK
5	P 3114	AM	IM Complete
6	P 4105	AM	Needs wired OK
7	P 4190	AM	Needs wired OK
8	P 4320	AM	OK
9	P 4325	AM	Plug 324
10	P 4327	AM	Plug 339
11	P 4329	AM	Plug 200
12	P 4361	AM	OK
13	P 0		
14	P 0		
15	P 0		
16	P 0		
17	P 0		
18	P 0		
19	P 0		

[illegible]

Item #	Well #	Initialed by	Comments
1	2803	AM	OK
2	2804	AM	OK
3	3074	AM	OK
4	3079	AM	imcomplete
5	3084	AM	OK Plug # 344
6	3095	AM	Plug # 369
7	3102	AM	imcomplete
8	3103	AM	imcomplete
9	3118	AM	OK
10	3123	AM	imcomplete
11	3125	AM	imcomplete
12	3134	AM	imcomplete
13	4104	AM	OK
14	4305	AM	OK
15	4306	AM	Plug 356
16	4307	AM	Plug 365
17	4321	AM	OK
18	4322	AM	OK
19	4326	AM	OK

Item #	Well #	Initialed by	Comments
20	4328	AM	Plug 372
21	4344	AM	OK
22	4363	AM	OK
23	0		
24	0		
25	0		
26	0		
27	0		
28	0		
29	0		
30	0		
31	0		
32	0		
33	0		
34	0		
35	0		
36	0		
37	0		
38	0		

Well House Pressure Check Verification

Pressure check for Well House 36 A

Date:

Injection:

On 2-14-06 the ~~injection lines~~ and 2" laterals were pressured to 100 psi. This was done using a centrifugal pump and potable water. The time interval was as follows:

Start: 100 psi at X AM / PM

Stop: 97 psi at X AM / PM

5 minutes

The ~~section of trunk line checked~~ was from valve station 36 A to the well field in

36 A

Production:

On 2-24-06 the ~~production trunk lines~~ and 2" laterals were pressured to 100 psi. This was done using a centrifugal pump and potable water. The pressure and time interval was as follows:

Start: 100 psi at X AM / PM

Stop: 96 psi at X AM / PM

5 minutes

The ~~section of trunk line~~ was from valve station 111/36 A to the well field in

36 A

Oxygen:

On N/A the oxygen line was pressured to _____ psi. The pressure and time interval was as follows:

Start: _____ psi at _____ AM / PM

Stop: _____ psi at _____ AM / PM

The section of trunk line checked was from valve station _____ to the well field in

Kurt McLaw
Well Field Construction Foreman



SERP 06-03 Evaluation

CROW BUTTE RESOURCES, INC.

SERP #06-03



CROW BUTTE RESOURCES, INC.

SAFETY AND ENVIRONMENTAL REVIEW PANEL

Evaluation Report – SERP 06-03

Proposed Revisions to the Approved License Renewal Application

August 7, 2006

The Crow Butte Resources, Inc. (CBR) Safety and Environmental Review Panel (SERP) met in accordance with USNRC Source Materials License SUA-1534 to review proposed changes to the License Renewal Application. This change is recommended to reflect a recent organizational change that indirectly affects the radiation safety department.

The SERP appointed for this evaluation consisted of the following members:

<u>Name</u>	<u>Title</u>	<u>Area of Expertise</u>
Jim Stokey	Mine Manager	Management
Larry Teahon	Manager of Health, Safety and Environmental Affairs	Regulatory Affairs
Rhonda Grantham	Radiation Safety Officer	Radiation Safety
John Cash	Operations Superintendent	Operations

Dr. Stokey is the SERP Chairman. Mr. Teahon was appointed SERP Secretary for this evaluation.

PURPOSE OF SERP EVALUATION

The purpose of the SERP evaluation was to review a change made to the Corporate organizational structure. Specifically, to remove the position of Senior Vice President of Operations and combine those duties with the President.



An organizational change has been made that indirectly affects the reporting responsibilities of the radiation safety staff. The reporting for the Mine Manager has been changed as shown in the revised Figure 5.1-1 from the approved application. The Mine Manager now reports directly to the President. Since the RSO reports to the Manager of Health, Safety, and Environmental Affairs who in turn reports to the Mine Manager, a change in the reporting for the Mine Manager will indirectly affect the radiation safety staff reporting.

AUTHORITY OF SERP

License Condition 9.4 allows CBR to make changes in the facility or procedures or conduct tests or experiments that are not presented in the approved application if such changes do not:

- i. Result in any appreciable increase in the frequency of occurrence of an accident previously evaluated in the license application (as updated);
- ii. Result in any appreciable increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the license application (as updated);
- iii. Result in any appreciable increase in the consequences of an accident previously evaluated in the license application (as updated);
- iv. Result in any appreciable increase in the consequences of a malfunction of an SSC previously evaluated in the license application (as updated);
- v. Create a possibility for an accident of a different type that any previously evaluated in the license application (as updated);
- vi. Create a possibility for a malfunction of an SSC with a different result than previously evaluated in the license application (as updated);
- vii. Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the final safety evaluation report (FSER) or the environmental assessment (EA) or the technical evaluation reports (TERs) or other analysis and evaluations for license amendments.
- viii. For the purposes of SERP evaluations, SSC means any SSC which has been referenced in a staff SER, TER, EA, or environmental impact statement (EIS) and supplements and amendments.

SERP EVALUATION

The SERP evaluation was conducted in accordance with EHSMS Volume II, *Management Procedures Manual*; Chapter 6, *Managing Change*. The SERP reviewed the proposed change and evaluated this information as compared with the requirements of the licensing basis, including the following documents:

CROW BUTTE RESOURCES, INC.



SERP #06-03

- Title 10, Code of Federal Regulations;
- Source Materials License SUA-1534, Amendment No. 16 dated October 20, 2003;
- *Application for Renewal of USNRC Radioactive Source Materials License SUA-1534*, Crow Butte Resources, Inc. December 1995;
- *Environmental Assessment for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- *Safety Evaluation Report for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- Technical Evaluation Reports issued in support of amendments to SUA-1534.

Title 10 Code of Federal Regulations

The proposed changes to the LRA will have no impact on CBR's ability to meet all applicable NRC regulations.

Source Materials License SUA-1534 Requirements

The SERP reviewed the requirements contained in Source Materials License SUA-1534, Amendment 20, dated January 4, 2006. The proposed changes will have no impact on CBR's ability to meet NRC License Conditions.

Environmental Assessment

The SERP reviewed the contents of the Environmental Assessment (EA) prepared by NRC in February 1998 to determine whether the proposed change caused substantive safety or environmental impacts. The proposed changes to the LRA do not conflict with the EA.

Financial Surety

The proposed changes to the LRA will have no effect on the level of financial surety maintained by CBR.

Safety Evaluation Report

The Safety Evaluation Report (SER) prepared by NRC in 1998 principally provides the basis for worker safety at Crow Butte. The proposed change applies to the following sections of the SER:

Section 3.1, Organization, discusses the relationships of the organizational components responsible for operations, radiation safety, and environmental protection at the Crow Butte site. The proposed change does not alter the organizational position of the RSO, in

CROW BUTTE RESOURCES, INC.

SERP #06-03



accordance with organizational changes previously approved by the CBR SERP. Therefore, there is no change to the intent of Section 3.1 of the SER.

Based on this review, the proposed changes to the LRA will have no impact on CBR's ability to continue to meet the commitments cited in the SER.

Technical Evaluation Reports

The SERP reviewed the Technical Evaluation Reports (TERs) prepared by NRC staff to support amendments made to SUA-1534 since renewal in 1998. None of the TERs prepared since license renewal directly address the issues related to the proposed revisions to the LRA.

Degradation of Essential Safety or Environmental Commitment

SUA-1534 allows CBR to make changes as long as they do not degrade the essential safety or environmental commitments made in the application. The SERP determined that safety commitments made in the LRA and discussed in the EA and the SER are not affected by the proposed changes to the LRA and will not degrade the safety and environmental commitments.

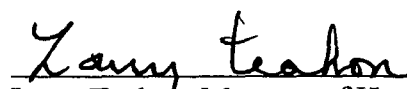
Conclusion

It was the conclusion of the SERP that the proposed change is allowed by License SUA-1534 and should be approved. The revised pages of the license application required in accordance with License Condition 9.4 were reviewed and approved and are attached to this evaluation.

Approved this 7th day of August 2006:



Jim Stokey, Mine Manager
SERP Chairman



Larry Teahon, Manager of Health, Safety, and Environmental Affairs
SERP Secretary

CROW BUTTE RESOURCES, INC.



SERP #06-03

A handwritten signature in cursive script, appearing to read "Rhonda Grantham".

Rhonda Grantham, Radiation Safety Officer

A handwritten signature in cursive script, appearing to read "John Cash".

John Cash, Operations Superintendent

CROW BUTTE RESOURCES, INC.



SERP #06-03

**Proposed License Renewal Application
Page Changes**

(Edited Version)

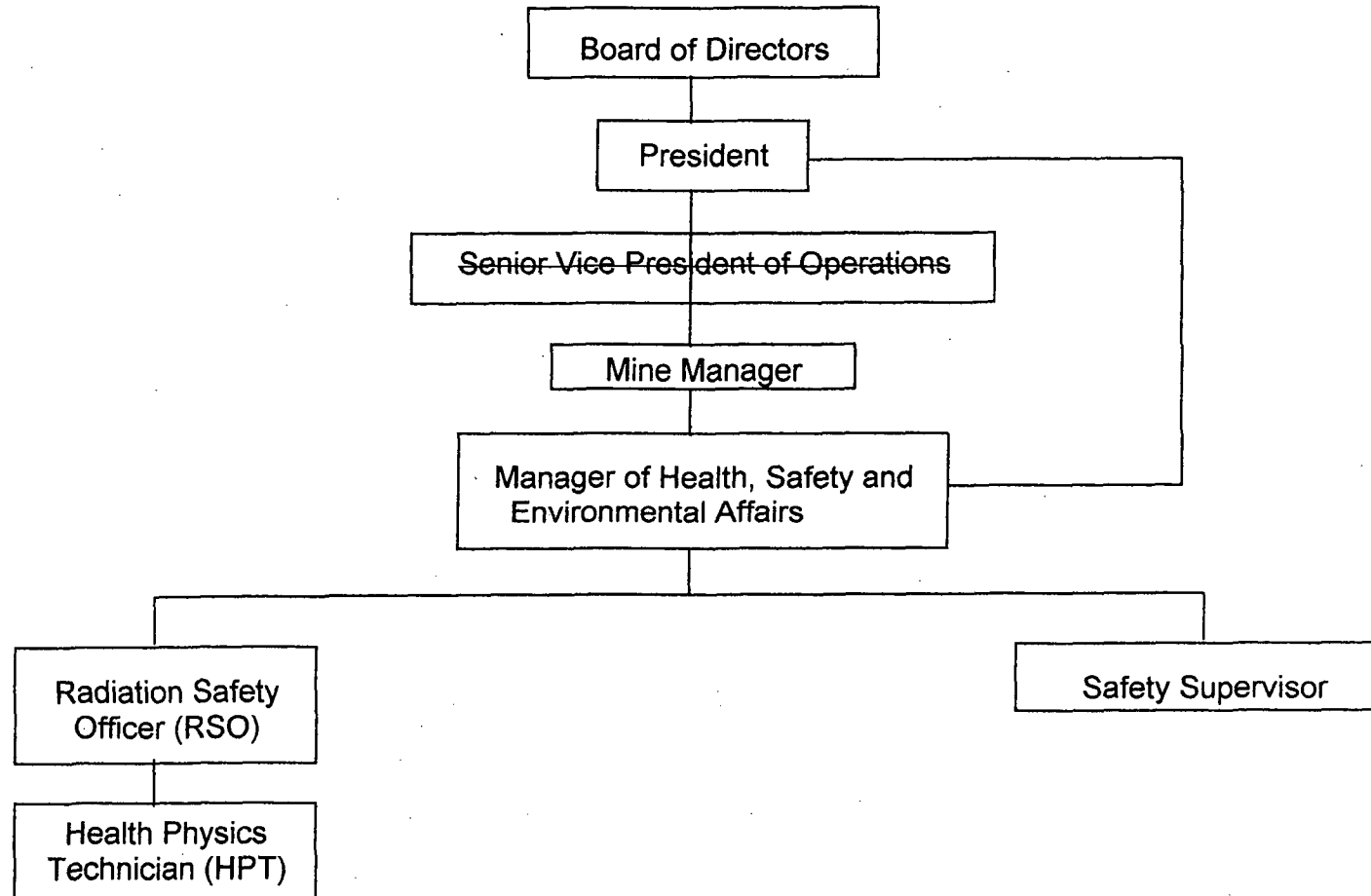
5.1.2. PRESIDENT

The President is responsible for interpreting and acting upon the Board of Directors policy and procedural decisions. ~~The President directly supervises the Senior Vice President of Operations. The President is empowered by the Board of Directors to have the responsibility and authority for the radiation safety and environmental compliance programs. The President is responsible for ensuring that the operations staff is complying with all applicable regulations and permit/license conditions through direct supervision of the Senior Vice President of Operations.~~

~~5.1.3. SENIOR VICE PRESIDENT - OPERATIONS~~

~~The overall responsibility for the radiation, environmental, and safety activities of at the Crow Butte Facility rests with the Senior Vice President of Operations. The Senior Vice President of Operations reports to tThe President and is directly responsible for ensuring that CBR personnel comply with industrial safety, radiation safety, and environmental protection programs as established in the EMS Program. The Senior Vice President of Operations is also responsible for company compliance with all regulatory license conditions/stipulations, regulations and reporting requirements. The Senior Vice President of Operations has the responsibility and authority to terminate immediately any activity that is determined to be a threat to employees or public health, the environment, or potentially a violation of state or federal regulations. The Senior Vice President of Operations is also responsible for license development and license modifications.~~

Figure 5.1-1: Crow Butte Resources Organizational Chart



5.1.4.5.1.3. MINE MANAGER

The Mine Manager is responsible for all uranium production activity at the project site. The Mine Manager is also responsible for implementing any industrial and radiation safety and environmental protection programs associated with operations. The Mine Manager is authorized to immediately implement any action to correct or prevent hazards. The Mine Manager has the responsibility and the authority to suspend, postpone or modify, immediately if necessary, any activity that is determined to be a threat to employees, public health, the environment, or potentially a violation of state or federal regulations. The Mine Manager cannot unilaterally override a decision for suspension, postponement or modification if that decision is made by the Senior Vice President of Operations and/or the Manager of Health, Safety and Environmental Affairs. The Mine Manager reports directly to the Senior Vice President of Operations.

5.1.5.5.1.4. MANAGER OF HEALTH, SAFETY, AND ENVIRONMENTAL AFFAIRS

The Manager of Health, Safety, and Environmental Affairs is responsible for all radiation protection, health and safety, and environmental programs as stated in the EMS Program and for ensuring that CBR complies with all applicable regulatory requirements. The Manager of Health, Safety, and Environmental Affairs reports directly to the Mine Manager and supervises the RSO to ensure that the radiation safety and environmental monitoring and protection programs are conducted in a manner consistent with regulatory requirements. This position assists in the development and review of radiological and environmental sampling and analysis procedures and is responsible for routine auditing of the programs. The Manager of Health, Safety, and Environmental Affairs has no production-related responsibilities. The Manager of Health, Safety, and Environmental Affairs also has the responsibility to advise the Senior Vice President of Operations on matters involving radiation safety and to implement changes and/or corrective actions involving radiation safety authorized by the Senior Vice President of Operations.

5.1.6.5.1.5. RADIATION SAFETY OFFICER

The RSO is responsible for the development, administration, and enforcement of all radiation safety programs. The RSO is authorized to conduct inspections and to immediately order any change necessary to preclude or eliminate radiation safety hazards and/or maintain regulatory compliance. The RSO is responsible for the implementation of all on-site environmental programs,

including emergency procedures. The RSO inspects facilities to verify compliance with all applicable requirements in the areas of radiological health and safety. The RSO works closely with all supervisory personnel to insure that established programs are maintained. The RSO is also responsible for the collection and interpretation of employee exposure related monitoring, including data from radiological safety. The RSO makes recommendations to improve any and all radiological safety related controls. The RSO has no production-related responsibilities. The RSO will report to the Manager of Health, Safety, and Environmental Affairs

5.1.7.5.1.6. HEALTH PHYSICS TECHNICIAN

The Health Physics Technician (HPT) assists the RSO with the implementation of the radiological and industrial safety programs. The HPT is responsible for the orderly collection and interpretation of all monitoring data, to include data from radiological safety and environmental programs. The HPT reports directly to the RSO.

5.1.8.5.1.7. SAFETY SUPERVISOR

The Safety Supervisor is responsible for the non-radiation related health and safety programs. The Safety Supervisor is authorized to conduct inspections and to immediately order any change necessary to preclude or eliminate safety hazards and/or maintain regulatory compliance. Responsibilities include the development and implementation of health and safety programs in compliance with Mine Safety and Health Administration (MSHA) regulations. Responsibilities of the Safety Supervisor include development of industrial safety and health programs and procedures, coordination with the RSO where industrial and radiological safety concerns are interrelated, safety and health training of new and existing employees, and the maintenance of appropriate records to document compliance with regulations. The Safety Supervisor may also be a qualified HPT and may function in that capacity when needed. The Safety Supervisor reports directly to the Manager of Health, Safety and Environmental Affairs.

5.2. ALARA POLICY

The purpose of the ALARA (As Low As Reasonably Achievable) Policy is to keep exposures to all radioactive materials and other hazardous material as low as possible and to as few personnel as possible, taking into account the state of technology and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic

CROW BUTTE RESOURCES, INC.



SERP #06-03

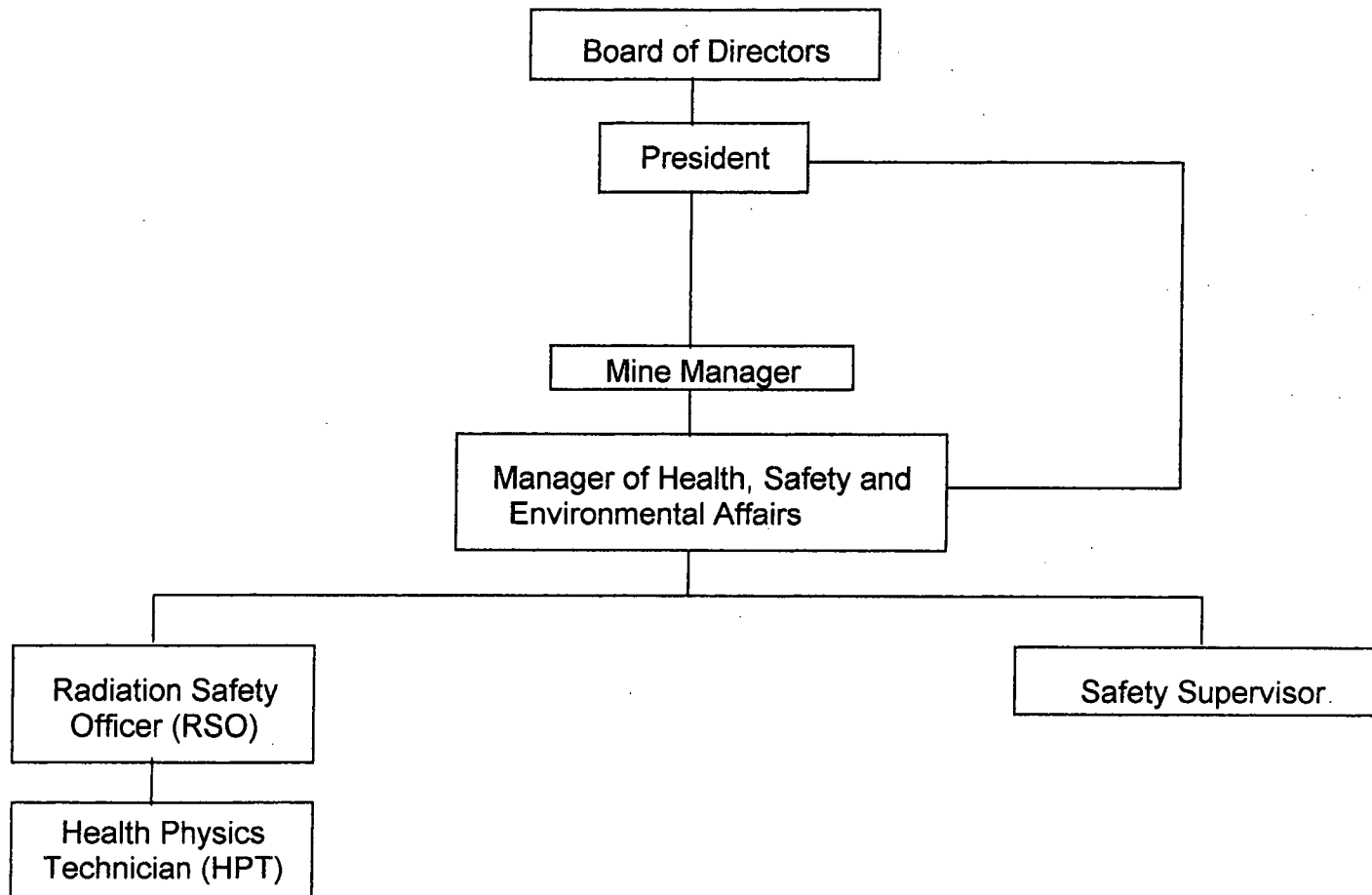
**Proposed License Renewal Application
Page Changes**

(Replacement Pages Version)

5.1.2. PRESIDENT

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The purpose of the ALARA (As Low As Reasonably Achievable) Policy is to keep exposures to all radioactive materials and other hazardous material as low as possible and to as few personnel as possible, taking into account the state of technology and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic



SERP 06-04 Evaluation



Crow Butte Resources, Inc.

Safety and Environmental Review Panel

Evaluation Report – SERP 06-04

Wellhouse 46 Approval to Operate

August 18, 2006

The Crow Butte Resources, Inc. (CBR) Safety and Environmental Review Panel (SERP) met to review and approve operation of Wellhouse 46 in Mine Unit 8 at the Crow Butte Uranium Project.

The SERP appointed for this evaluation consisted of the following members:

<u>Name</u>	<u>Title</u>	<u>Area of Expertise</u>
Steve Collings	President	Management
Jim Stokey	Mine Manager	Operations
Larry Teahon	Manager of Health, Safety, and Environmental Affairs	Environmental
Rhonda Grantham	Radiation Safety Officer	Radiation Safety
Lee Moeller	Maintenance Superintendent	Construction
Wade Beins	Project Geologist	Well Construction

Dr. Stokey is the SERP Chairman. Mr. Teahon was appointed SERP Secretary for this evaluation.

Purpose of SERP Evaluation

The purpose of this evaluation by the CBR SERP was to review and approve Wellhouse 46 for operation.



License Condition 9.4 allows CBR to make changes in the facility or procedures or conduct tests or experiments that are not presented in the approved application if such changes do not:

- i. Result in any appreciable increase in the frequency of occurrence of an accident previously evaluated in the license application (as updated);
- ii. Result in any appreciable increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the license application (as updated);
- iii. Result in any appreciable increase in the consequences of an accident previously evaluated in the license application (as updated);
- iv. Result in any appreciable increase in the consequences of a malfunction of an SSC previously evaluated in the license application (as updated);
- v. Create a possibility for an accident of a different type that any previously evaluated in the license application (as updated);
- vi. Create a possibility for a malfunction of an SSC with a different result than previously evaluated in the license application (as updated);
- vii. Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the final safety evaluation report (FSER) or the environmental assessment (EA) or the technical evaluation reports (TERs) or other analysis and evaluations for license amendments.
- viii. For the purposes of SERP evaluations, SSC means any SSC which has been referenced in a staff SER, TER, EA, or environmental impact statement (EIS) and supplements and amendments.

The SERP evaluation was conducted in accordance with the instructions contained in the Environmental, Health, and Safety Management System (EHSMS) Volume II, *Management Procedures*, EHS-6, *Managing Change*. The SERP reviewed the Wellhouse startup checklists and supporting documentation and evaluated this information as compared with the requirements of the licensing basis, including the following documents:

- Title 10, Code of Federal Regulations;
- Source Materials License SUA-1534, Amendment No. 20 dated January 4, 2006;
- *Application for Renewal of USNRC Radioactive Source Materials License SUA-1534*, Crow Butte Resources, Inc. December 1995;
- *Environmental Assessment for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- *Safety Evaluation Report for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- Technical Evaluation Reports issued in support of amendments to SUA-1534.



Title 10 Code of Federal Regulations

The proposed change will have no impact on CBR's ability to meet all applicable NRC regulations.

Source Materials License SUA-1534 Requirements

Amendment 20 to SUA-1534 dated January 4, 2006 was reviewed for specific requirements related to approval and operation of a wellhouse.

Mine Unit 8 was previously approved by the CBR SERP (see SERP 02-05 dated July 10, 2002). Therefore, no review of monitor well location, installation or baseline sampling and Upper Control Limit determination is required for approval of Wellhouse 46.

License Condition 10.2: This License Condition requires that CBR construct all wells in accordance with the methods contained in the Section 3.1.2 of the approved License Renewal Application (LRA). License Condition 10.2 also requires that CBR perform mechanical integrity tests (MIT) for all injection and production wells.

The well construction methods in use for Wellhouse 46 are the same as those described in the LRA and contained in EHSMS Volume III, *Operations Manual*, Procedure P-25, *Well Installation*. MITs were performed in accordance with EHSMS Volume III, *Operations Manual*, Procedure P-23, *Mechanical Integrity Test (MIT)*. All MIT data sheets were contained in the Notice of Intent to Operate Wellhouse 46 (or in the original Mine Unit 8 Notice of Intent) that was submitted to the NDEQ. These MIT data sheets were provided by the Project Geologist and reviewed by the SERP. The records indicate that the MITs performed in Wellhouse 46 met the requirements.

License Condition 9.3: This License Condition requires that CBR conduct operations in accordance with the representations contained in the LRA. Section 3.1.3 of the LRA discusses construction materials, instrumentation, and monitoring requirements. Section 3.3 also discusses instrumentation, including wellhouse injection and production instrumentation and wet building alarms for wellhouses. Section 7.2.3 of the LRA requires that leak tests be performed on all wellfield piping before placing the system into production operations.

The SERP reviewed the Wellhouse Start-up Checklist for Wellhouse 46. This checklist was developed by the Wellfield Construction staff to document completion of all required actions before initiating operations in a wellhouse. Some of these actions are required by regulatory and licensing requirements, while some were developed over the course of mining experience at Crow Butte. Construction activities are governed by EHSMS Volume III, *Operations Manual*, Procedure P-15, *Installation of Wellfield*

CROW BUTTE RESOURCES, INC.

SERP 06-04



Pipelines. The Maintenance Superintendent reviewed these items and stated that all had been completed and the appropriate controls were in place.

A copy of the Wellhouse Start-Up Checklist is attached to this SERP Evaluation. Supporting documentation in the form of pressure tests and ground continuity checks are also attached.

Environmental Assessment

The SERP reviewed the contents of the Environmental Assessment (EA) prepared by NRC in February 1998 to determine whether the proposed change could cause substantive safety or environmental impacts.

Well construction and testing as described in the EA has been completed for the wells associated with Wellhouse 46.

Section 3.3.1 discusses leak testing of wellfield piping. The SERP reviewed the completion of pressure testing for piping systems associated with Wellhouse 46 and found that they meet the intent of the EA.

Financial Surety

The proposed change is covered in the NRC-approved financial surety maintained by CBR and approved by Amendment 20 to SUA-1534 in the amount of \$19,799,289.

Safety Evaluation Report

The Safety Evaluation Report (SER) principally provides the basis for worker safety at Crow Butte and does not specifically address the issues related to approval of Wellhouse 46.

Technical Evaluation Reports

The SERP reviewed the Technical Evaluation Reports (TERs) prepared by NRC staff to support amendments made to SUA-1534 since renewal in 1998. None of the TERs prepared since license renewal directly address issues related to approval of a new Wellhouse for operation.

Degradation of Essential Safety or Environmental Commitment

SUA-1534 allows CBR to make changes as long as they do not degrade the essential safety or environmental commitments made in the application. The SERP determined

CROW BUTTE RESOURCES, INC.



SERP 06-04

that safety commitments made in the LRA and discussed in the EA have been met and that startup of Wellhouse 46 in Mine Unit 8 will not degrade the safety and environmental commitments.

Based upon this evaluation of the licensing basis, the CBR SERP hereby approves startup and operation of Wellhouse 46 in Mine Unit 8.

Approved this 18th day of August, 2006.

Steve Collings, President

Jim Stokey, Mine Manager
SERP Chairman

Larry Teahon, Manager of Health, Safety, and Environmental Affairs
SERP Secretary

Rhonda Grantham, Radiation Safety Officer

Lee Moeller, Maintenance Superintendent

Wade Beins, Project Geologist

STATE OF NEBRASKA



Mike Johanns
Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

Michael J. Linder

Director

Suite 400, The Atrium

1200 'N' Street

P.O. Box 98922

Lincoln, Nebraska 68509-8922

Phone (402) 471-2186

FAX (402) 471-2909

MAR 22 2005

Mr. Stephen Collings, President
Crow Butte Resources, Inc.
141 Union Blvd., Ste. 330
Lakewood, Colorado 80228

Dear Mr. Collings:

On February 22, 2005, the Nebraska Department of Environmental Quality received a submittal of information from Crow Butte Resources, Inc. The submittal serves as Notice of Intent to Operate and contains Well Completion Reports and Casing Integrity Test Reports for recently installed wells (Wellhouse 46) in the construction of Mine Unit 8.

The Department has reviewed the information submitted and determined that it is adequate and complete. Upper Control Limits and Restoration Values established for Mine Unit 8 have already been submitted and approved. Approval of the additional portion of Mine Unit 8 will not alter those values. The Department hereby approves the Notice of Intent to Operate for the additional portion of Mine Unit 8.

If you have any questions or comments concerning this letter or the review of the Notice of Intent to Operate, please contact David Miesbach of my staff at (402) 471-4982. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Linder", written over a horizontal line.

Michael J. Linder
Director

ML/dlm

word/files/dave/cbr/lctter/notinttwh.doc

Well House Start-Up Checklist

Well House # 46

Item	Description	Person	Comments	Date Completed	Initial
1	Permit To Operate	Brost / Pile / Stokey		3-22-06	WB
2	Complete Pressure Testing (Trunkline and House)	McDowell / Pile / Stokey		6-21-06	JK
3	Pipelines checked for leaks	McDowell / Pile / Stokey		6-21-06	JK
4	Pipelines buried	McDowell / Pile / Stokey		7-11-06	JK
5	Pressure gauge on injection manifold	R. Roberts / Pile / Stokey		6-29-06	JK
6	Injection lines equipped with totalizing flow meters	<i>SR</i> R. Roberts / Pile / Stokey		8-2-06	JD.
7	Injection and Production total flows can be measured	H. Douthit / Pile / Stokey		6-8	HD
8	Unused trunkline locked out by two separate means	McDowell / Pile / Stokey		6-21-	JK
9	Isolation valves are closed and chained	McDowell / Pile / Stokey		6-21-06	JK
10	Map of 2" lines in house	McDowell/Beins / Pile / Stokey		7-13-06	JK
11	Well-field Layout map in house	McDowell/Beins / Pile / Stokey		6-29-06	JK
12	Check berms	<i>Lacey T.</i> Griffin / Pile / Stokey		8-2-06	JK
13	Pressure check oxygen lines	McDowell / Pile / Stokey		7-7-06	JK
14	Continuity check on producers	B. Tiensvold / Pile / Stokey		5/23	BT
15	Ground fault check	REA/B. Tiensvold / Pile / Stokey		5/23	BT
16	Communications wire check	B. Tiensvold / Pile / Stokey		6/7	BT
17	ater size check	B. Tiensvold / Pile / Stokey		5/23	BT
18	Processor installed well house	Pile / Stokey		6/6	BT
19	UPS installed and operational	B. Pile/B. Tiensvold / Pile / Stokey		6/6	BT
20	Wet house alarm installed	B. Tiensvold / Pile / Stokey		5/23	BT
21	Wet house alarm checked	P. Dunn/J. Douthit / Pile / Stokey		8-11-	JD.
22	Oxygen solenoid checked	P. Dunn/J. Douthit / Pile / Stokey		7-24	JD
23	Check fuses in control panel	B. Tiensvold / Pile / Stokey		5/23	BT
24	Program MMI	Pile / Stokey		6/6	TH
25	Program PLC	Pile / Stokey		6/6	TH
26	Switch on for alarming	P. Dunn/J. Douthit / Pile / Stokey		7-19	JD
27	Set Scalar Card 'K' Factors	P. Dunn/J. Douthit / Pile / Stokey		7-19	JD
28	Fire extinguisher w/placard	McDowell / Pile / Stokey	N/A	6-29-06	JK
29	Off tags and lockouts	B. Tiensvold/Dunn/J. Douthit / Pile / Stokey		5/23	BT
30	Contaminated and uncontaminated cans	P. Dunn/J. Douthit / Pile / Stokey		7-24	JD
31	Complete 2" lateral inspection	McDowell / Pile / Stokey		6-29-06	JK
32	Visually inspect entire system to plant	McDowell / Pile / Stokey		6-21-06	JK
33	Labels on Monitor Wells	McDowell / Pile / Stokey		6-21-06	JK
34	Valve Station Covers and Stairs Built	R. Roberts / Pile / Stokey		8-4-06	JK
35					
36					
37					

Well House Pressure Check Verification

Pressure check for Well House 46

Date: 5-17-06

Injection:

On 5-10 the injection lines and 2" laterals were pressured to _____ psi. This was done using a centrifugal pump and potable water. The time interval was as follows:

Start: 125 psi at _____ AM/PM
Stop: 123 psi at _____ AM/PM 30 minutes

The section of trunk line checked was from valve station 13-10 to the well field in

WH 46

Production:

On 5-11 the production trunk lines and 2" laterals were pressured to 125 psi. This was done using a centrifugal pump and potable water. The pressure and time interval was as follows:

Start: 125 psi at _____ AM/PM
Stop: 123 psi at _____ AM/PM Minutes

The section of trunk line was from valve station 13-10 to the well field in

WH 46

Oxygen:

On 7-7-06 the oxygen line was pressured to 120 psi. The pressure and time interval was as follows:

Start: 0 psi at 9:00 AM/PM
Stop: 120 psi at 10:00 AM/PM

WH#40 to WH#46 to 46A

The section of trunk line checked was from valve station _____ to the well field in

Kevin J. Lowell
Well Field Construction Foreman

CROW BUTTE RESOURCES, INC.

86 Crow Butte Road

P. O. Box 169

Crawford, Nebraska 69339-0169

(308) 665-2215

(308) 665-2341 - FAX

GROUND RESISTANCE TEST RECORD

TEST SET USED: AEMC Model 3711 Ground Resistance Tester

GROUND TEST RESULTS: Wellhouse 46 OHMS: 18.4, 49.4, 40.0 = 10.04 OHMS

CONCLUSIONS:

THE TEST RESULTS ARE SATISFACTORY

TEST PERFORMED BY:

$$\left(\frac{1}{18.4} + \frac{1}{49.4} + \frac{1}{40} \right) = \frac{1}{R_{TOTAL}}$$
$$R_T = 10.04$$

CROW BUTTE RESOURCES, INC.



Robert Tiensvold

Date: August 18, 2006

Wellhouse 46

Date: 5/23/06

Technician: Bob Tiensvold

Non-Service Lines Locked-Out: ☒ Yes ☐ No

		Meter		
Item #	Well #	Initial	Reading	Comments
1	P P2678	BT	.6 Ohms	
2	P P2910	BT	1.8 Ohms	
3	P P2916	BT	1.9 Ohms	
4	P P3923	BT	1.6 Ohms	
5	P P2924	BT	1.5 Ohms	
6	P P2972	BT	1.2 Ohms	
7	P P2984	BT	1.9 Ohms	
8	P P3644	BT	1.4 Ohms	
9	P P3646	BT	1.3 Ohms	
10	P P3648	BT	1.4 Ohms	
11	P P3651	BT	1.6 Ohms	
12	P P3652	BT	.7 Ohms	
13	P P3653	BT	.9 Ohms	
14	P P3664	BT	.8 Ohms	
15	P P3676	BT	1.2 Ohms	
16	P P3678	BT	1.4 Ohms	
17	P P3689	BT	.6 Ohms	
18	P P3690	BT	1.3 Ohms	
19	P P3734	BT	1.0 Ohms	

[illegible]

Final Inspection of Piping Wellhead to Plant

Review of Pressure Test Data Complete:

Date:

Mine Manager:

W.F.C. Foreman:

Non-Service Lines Locked-Out:

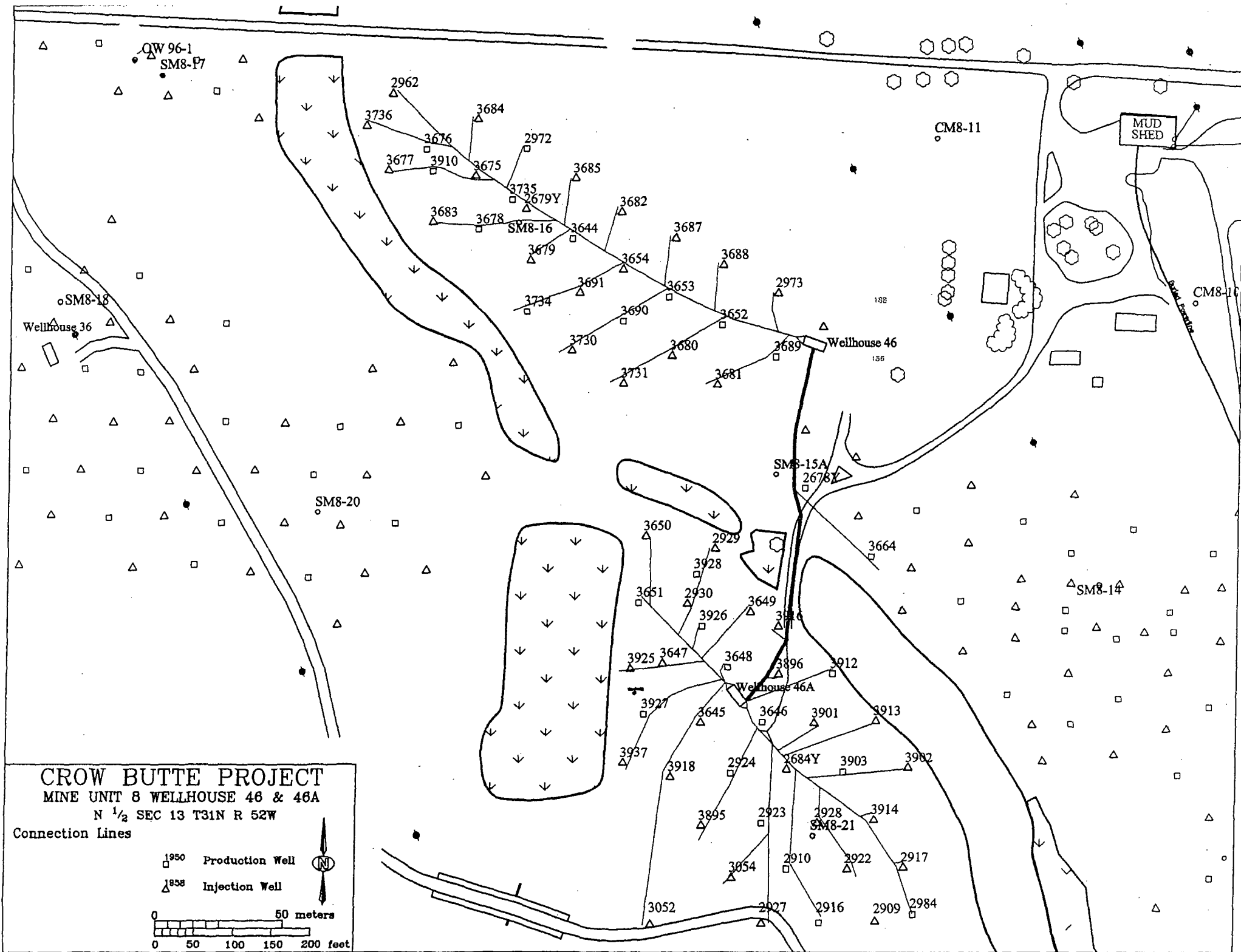
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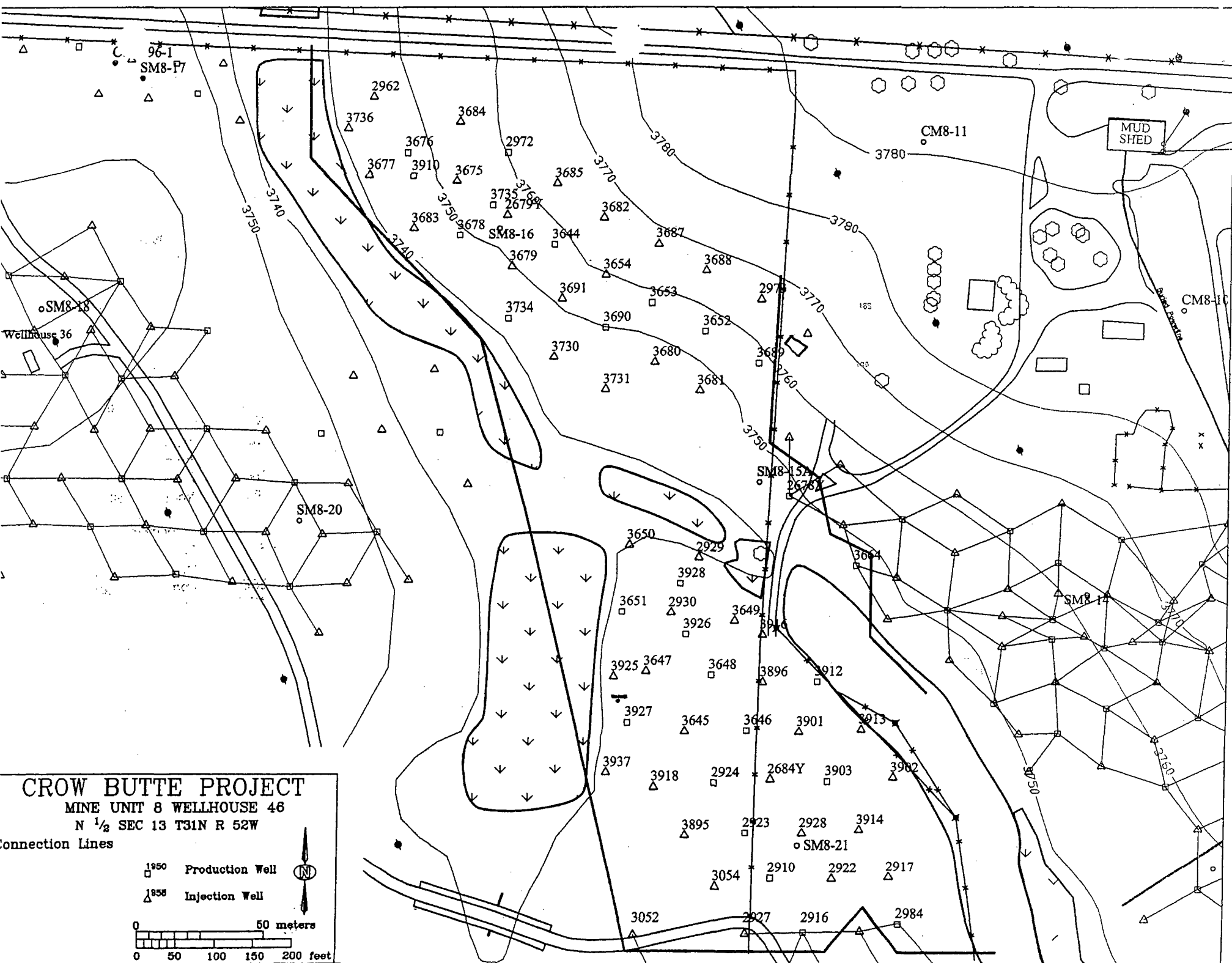
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Item #	Well #	Initialed by	Comments
1	I 13052	KA	OK
2	I 13054	KA	OK
3	I 13645	KA	OK
4	I 13647	KA	OK
5	I 13649	KA	OK
6	I 13650	KA	OK
7	I 13654	KA	OK
8	I 13675	KA	Needs Plug 309
9	I 13677	KA	Need Plug 359
10	I 13679	KA	OK
11	I 13680	KA	OK
12	I 13681	KA	OK
13	I 13682	KA	OK
14	I 13683	KA	Needs Plug 201
15	I 13684	KA	Need Plug Victrola OK
16	I 13685	KA	OK
17	I 13687	KA	OK
18	I 13688	KA	OK
19	I 13691	KA	OK

Item #	Well #	Initialed by	Comments
20	I 13730	KA	OK
21	I 12679	KA	OK
22	I 12684	KA	OK
23	I 12917	KA	#344
24	I 12922	KA	206
25	I 12927	KA	Needs Plug 367
26	I 12928	KA	OK
27	I 12929	KA	OK
28	I 12930	KA	OK
29	I 12962	KA	OK
30	I 12973	KA	Need Plug 332
31	I 13731	KA	OK
32	I 13736	KA	Need Plug Victrola OK
33	I 13895	KA	OK
34	I 13896	KA	OK
35	I 13901	KA	Plug 321
36	I 13902	KA	Plug 371
37	I 13913	KA	365 Plug
38	I 13914	KA	Plug 2070

[illegible]





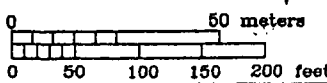
CROW BUTTE PROJECT

MINE UNIT 8 WELLHOUSE 46

N 1/2 SEC 13 T31N R 52W

Connection Lines

- 1950 Production Well
- △ 1850 Injection Well





SERP 06-05 Evaluation

CROW BUTTE RESOURCES, INC.

SERP 06-05



Crow Butte Resources, Inc.

Safety and Environmental Review Panel

Evaluation Report – SERP 06-05

Wellhouse 46A Approval to Operate

October 30, 2006

The Crow Butte Resources, Inc. (CBR) Safety and Environmental Review Panel (SERP) met to review and approve operation of Wellhouse 46A in Mine Unit 8 at the Crow Butte Uranium Project.

The SERP appointed for this evaluation consisted of the following members:

<u>Name</u>	<u>Title</u>	<u>Area of Expertise</u>
Jim Stokey	Mine Manager	Management
Larry Teahon	Manager of Environmental, Health and Safety	Environmental
John Cash	Operations Superintendent	Operations
Rhonda Grantham	Radiation Safety Officer	Radiation Safety
Bob Teinsvold	Maintenance Superintendent	Construction
Mike Brost	Geologist	Well Construction

Dr. Stokey is the SERP Chairman. Mr. Teahon was appointed SERP Secretary for this evaluation.

Purpose of SERP Evaluation

The purpose of this evaluation by the CBR SERP was to review and approve Wellhouse 46A for operation.

License Condition 9.4 allows CBR to make changes in the facility or procedures or conduct tests or experiments that are not presented in the approved application if such changes do not:



- i. Result in any appreciable increase in the frequency of occurrence of an accident previously evaluated in the license application (as updated);
- ii. Result in any appreciable increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the license application (as updated);
- iii. Result in any appreciable increase in the consequences of an accident previously evaluated in the license application (as updated);
- iv. Result in any appreciable increase in the consequences of a malfunction of an SSC previously evaluated in the license application (as updated);
- v. Create a possibility for an accident of a different type than any previously evaluated in the license application (as updated);
- vi. Create a possibility for a malfunction of an SSC with a different result than previously evaluated in the license application (as updated);
- vii. Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the final safety evaluation report (FSER) or the environmental assessment (EA) or the technical evaluation reports (TERs) or other analysis and evaluations for license amendments.
- viii. For the purposes of SERP evaluations, SSC means any SSC which has been referenced in a staff SER, TER, EA, or environmental impact statement (EIS) and supplements and amendments.

The SERP evaluation was conducted in accordance with the instructions contained in the Environmental, Health, and Safety Management System (EHSMS) Volume II, *Management Procedures*, EHS-6, *Managing Change*. The SERP reviewed the Wellhouse startup checklists and supporting documentation and evaluated this information as compared with the requirements of the licensing basis, including the following documents:

- Title 10, Code of Federal Regulations;
- Source Materials License SUA-1534, Amendment No. 20 dated January 4, 2006;
- *Application for Renewal of USNRC Radioactive Source Materials License SUA-1534*, Crow Butte Resources, Inc. December 1995;
- *Environmental Assessment for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- *Safety Evaluation Report for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- Technical Evaluation Reports issued in support of amendments to SUA-1534.

Title 10 Code of Federal Regulations



The proposed change will have no impact on CBR's ability to meet all applicable NRC regulations.

Source Materials License SUA-1534 Requirements

Amendment 20 to SUA-1534 dated January 4, 2006 was reviewed for specific requirements related to approval and operation of a wellhouse.

Mine Unit 8 was previously approved by the CBR SERP (see SERP 02-05 dated July 10, 2002). Therefore, no review of monitor well location, installation or baseline sampling and Upper Control Limit determination is required for approval of Wellhouse 46A.

License Condition 10.2: This License Condition requires that CBR construct all wells in accordance with the methods contained in the Section 3.1.2 of the approved License Renewal Application (LRA). License Condition 10.2 also requires that CBR perform mechanical integrity tests (MIT) for all injection and production wells.

The well construction methods in use for Wellhouse 46 and 46A are the same as those described in the LRA and contained in EHSMS Volume III, *Operations Manual*, Procedure P-25, *Well Installation*. MITs were performed in accordance with EHSMS Volume III, *Operations Manual*, Procedure P-23, *Mechanical Integrity Test (MIT)*. All MIT data sheets were contained in the Notice of Intent to Operate Wellhouse 46A (or in the original Mine Unit 8 Notice of Intent) that was submitted to the NDEQ. These MIT data sheets were provided by the Project Geologist and reviewed by the SERP. The records indicate that the MITs performed in Wellhouse 46A met the requirements.

License Condition 9.3: This License Condition requires that CBR conduct operations in accordance with the representations contained in the LRA. Section 3.1.3 of the LRA discusses construction materials, instrumentation, and monitoring requirements. Section 3.3 also discusses instrumentation, including wellhouse injection and production instrumentation and wet building alarms for wellhouses. Section 7.2.3 of the LRA requires that leak tests be performed on all wellfield piping before placing the system into production operations.

The SERP reviewed the Wellhouse Start-up Checklist for Wellhouse 46A. This checklist was developed by the Wellfield Construction staff to document completion of all required actions before initiating operations in a wellhouse. Some of these actions are required by regulatory and licensing requirements, while some were developed over the course of mining experience at Crow Butte. Construction activities are governed by EHSMS Volume III, *Operations Manual*, Procedure P-15, *Installation of Wellfield Pipelines*. The Maintenance Superintendent reviewed these items and stated that all had been completed and the appropriate controls were in place.

CROW BUTTE RESOURCES, INC.



SERP 06-05

A copy of the Wellhouse Start-Up Checklist is attached to this SERP Evaluation. Supporting documentation in the form of pressure tests and ground continuity checks are also attached.

Environmental Assessment

The SERP reviewed the contents of the Environmental Assessment (EA) prepared by NRC in February 1998 to determine whether the proposed change could cause substantive safety or environmental impacts.

Well construction and testing as described in the EA has been completed for the wells associated with Wellhouse 46A.

Section 3.3.1 discusses leak testing of wellfield piping. The SERP reviewed the completion of pressure testing for piping systems associated with Wellhouse 46A and found that they meet the intent of the EA.

Financial Surety

The proposed change is covered in the NRC-approved financial surety maintained by CBR and approved by Amendment 20 to SUA-1534 in the amount of \$19,799,289.

Safety Evaluation Report

The Safety Evaluation Report (SER) principally provides the basis for worker safety at Crow Butte and does not specifically address the issues related to approval of Wellhouse 46A.

Technical Evaluation Reports

The SERP reviewed the Technical Evaluation Reports (TERs) prepared by NRC staff to support amendments made to SUA-1534 since renewal in 1998. None of the TERs prepared since license renewal directly address issues related to approval of a new Wellhouse for operation.

Degradation of Essential Safety or Environmental Commitment

SUA-1534 allows CBR to make changes as long as they do not degrade the essential safety or environmental commitments made in the application. The SERP determined that safety commitments made in the LRA and discussed in the EA have been met and

CROW BUTTE RESOURCES, INC.

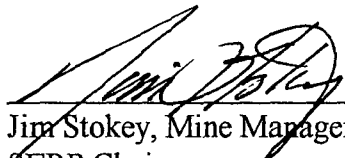


SERP 06-05

that startup of Wellhouse 46A in Mine Unit 8 will not degrade the safety and environmental commitments.

Based upon this evaluation of the licensing basis, the CBR SERP hereby approves startup and operation of Wellhouse 46A in Mine Unit 8.


Approved this 30th day of October, 2006.




Jim Stokey, Mine Manager
SERP Chairman



John Cash, Operations Superintendent




Larry Teahon, Manager of Environmental, Health and Safety
SERP Secretary



Rhonda Grantham, Radiation Safety Officer



Bob Tiensvold, Maintenance Superintendent



Mike Brost, Geologist

STATE OF NEBRASKA



Mike Johanns
Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

Michael J. Linder

Director

Suite 400, The Atrium

1200 'N' Street

P.O. Box 98922

Lincoln, Nebraska 68509-8922

Phone (402) 471-2186

FAX (402) 471-2909

MAR 22 2005

Mr. Stephen Collings, President
Crow Butte Resources, Inc.
141 Union Blvd., Ste. 330
Lakewood, Colorado 80228

Dear Mr. Collings:

On February 22, 2005, the Nebraska Department of Environmental Quality received a submittal of information from Crow Butte Resources, Inc. The submittal serves as Notice of Intent to Operate and contains Well Completion Reports and Casing Integrity Test Reports for recently installed wells (Wellhouse 46) in the construction of Mine Unit 8.

The Department has reviewed the information submitted and determined that it is adequate and complete. Upper Control Limits and Restoration Values established for Mine Unit 8 have already been submitted and approved. Approval of the additional portion of Mine Unit 8 will not alter those values. The Department hereby approves the Notice of Intent to Operate for the additional portion of Mine Unit 8.

If you have any questions or comments concerning this letter or the review of the Notice of Intent to Operate, please contact David Miesbach of my staff at (402) 471-4982. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Linder".

Michael J. Linder
Director

ML/dlm

word/files/dave/cbr/letter/notintivh.doc

Well House Start-Up Checklist

Well House # 46

Item	Description	Person	Comments	Date Completed	Initial
1	Permit To Operate	Brost / Pile / Stokey		3-22-06	WB
2	Complete Pressure Testing (Trunkline and House)	McDowell / Pile / Stokey		6-21-06	JK
3	Pipelines checked for leaks	McDowell / Pile / Stokey		6-21-06	JK
4	Pipelines buried	McDowell / Pile / Stokey		7-11-06	JK
5	Pressure gauge on injection manifold	R. Roberts / Pile / Stokey		6-29-06	JK
6	Injection lines equipped with totalizing flow meters	<i>Ind</i> R. Roberts / Pile / Stokey		8-2-06	JD
7	Injection and Production total flows can be measured	H. Douthit / Pile / Stokey		6-8	HD
8	Unused trunkline locked out by two separate means	McDowell / Pile / Stokey		6-21-	JK
9	Isolation valves are closed and chained	McDowell / Pile / Stokey		6-21-06	JK
10	Map of 2" lines in house	McDowell/Beins / Pile / Stokey		7-13-06	JK
11	Well-field Layout map in house	McDowell/Beins / Pile / Stokey		6-29-06	JK
12	Check berms	<i>Lacey T.</i> Griffin / Pile / Stokey		8-7-06	JK
13	Pressure check oxygen lines	McDowell / Pile / Stokey		7-7-06	RR
14	Continuity check on producers	B. Tiensvold / Pile / Stokey		5/23	BT
15	Ground fault check	REA/B. Tiensvold / Pile / Stokey		5/23	BT
16	Communications wire check	B. Tiensvold / Pile / Stokey		6/7	BT
17	Heater size check	B. Tiensvold / Pile / Stokey		5/23	BT
18	Processor installed well house	Pile / Stokey		6/6	BT
19	UPS installed and operational	B. Pile/B. Tiensvold / Pile / Stokey		6/6	BT
20	Wet house alarm installed	B. Tiensvold / Pile / Stokey		5/23	BT
21	Wet house alarm checked	P. Dunn/J. Douthit / Pile / Stokey		8-11-	JD
22	Oxygen solenoid checked	P. Dunn/J. Douthit / Pile / Stokey		7-24	JD
23	Check fuses in control panel	B. Tiensvold / Pile / Stokey		5/23	BT
24	Program MMI	Pile / Stokey		6/6	TH
25	Program PLC	Pile / Stokey		6/6	TH
26	Switch on for alarming	P. Dunn/J. Douthit / Pile / Stokey		7-19	JD
27	Set Scalar Card 'K' Factors	P. Dunn/J. Douthit / Pile / Stokey		7-19	JD
28	Fire extinguisher w/placard	McDowell / Pile / Stokey	N/A	6-29-06	JK
29	Off tags and lockouts	B. Tiensvold/Dunn/J. Douthit / Pile / Stokey		5/23	BT
30	Contaminated and uncontaminated cans	P. Dunn/J. Douthit / Pile / Stokey		7-24	JD
31	Complete 2" lateral inspection	McDowell / Pile / Stokey		6-29-06	JK
32	Visually inspect entire system to plant	McDowell / Pile / Stokey		6-21-06	JK
33	Labels on Monitor Wells	McDowell / Pile / Stokey		6-21-06	JK
34	Valve Station Covers and Stairs Built	R. Roberts / Pile / Stokey		8-4-06	RR
35					
36					
37					

Well House Start-Up Checklist

Well House # 46 A

Completed as per photos W/H #46: ✓

Item	Description	Person	Comments	Date Completed	Initial
1	Permit To Operate	Brost / Pile / Stokey	✓		
2	Complete Pressure Testing (Trunkline and House)	McDowell / Pile / Stokey	✓		
3	Pipelines checked for leaks	McDowell / Pile / Stokey	✓		
4	Pipelines buried	McDowell / Pile / Stokey	✓		
5	Pressure gauge on injection manifold	R. Roberts / Pile / Stokey	✓		
6	Injection lines equipped with totalizing flow meters	R. Roberts / Pile / Stokey	✓		
7	Injection and Production total flows can be measured	H. Douthit / Pile / Stokey	✓		
8	Unused trunkline locked out by two separate means	McDowell / Pile / Stokey	✓		
9	Isolation valves are closed and chained	McDowell / Pile / Stokey	✓		
10	Map of 2" lines in house	McDowell/Beins / Pile / Stokey	✓		
11	Well-field Layout map in house	McDowell/Beins / Pile / Stokey	✓		
12	Check berms	Griffin / Pile / Stokey	✓		
13	Pressure check oxygen lines	McDowell / Pile / Stokey	✓		
14	Continuity check on producers	B. Tiensvold / Pile / Stokey	✓		
15	Ground fault check	REA/B. Tiensvold / Pile / Stokey	✓		
16	Communications wire check	B. Tiensvold / Pile / Stokey		8/8	BT
17	Heater size check	B. Tiensvold / Pile / Stokey	✓		
18	Processor installed well house	Pile / Stokey		8/8	BT
19	UPS installed and operational	B. Pile/B. Tiensvold / Pile / Stokey		8/8	BT
20	Wet house alarm installed	B. Tiensvold / Pile / Stokey	WET CREEK/CROSSING ALARM - 10/24	8/8-10/24	BT
21	Wet house alarm checked	P. Dunn/J. Douthit / Pile / Stokey	WET CROSSING CHECKED 10/24	10/24	BT
22	Oxygen solenoid checked	P. Dunn/J. Douthit / Pile / Stokey	✓		
23	Check fuses in control panel	B. Tiensvold / Pile / Stokey	8/7	8/7	BT
24	Program MMI	Pile / Stokey	8/8	8/8	BT/TH
25	Program PLC	Pile / Stokey	8/8	8/8	BT/TH
26	Switch on for alarming	P. Dunn/J. Douthit / Pile / Stokey	8/7	8/7	BT
27	Set Scalar Card 'K' Factors	P. Dunn/J. Douthit / Pile / Stokey	✓		
28	Fire extinguisher w/placard	McDowell / Pile / Stokey	✓		
29	Off tags and lockouts	B. Tiensvold/Dunn/J. Douthit / Pile / Stokey	✓		
30	Contaminated and uncontaminated cans	P. Dunn/J. Douthit / Pile / Stokey	✓		
31	Complete 2" lateral inspection	McDowell / Pile / Stokey	✓		
32	Visually inspect entire system to plant	McDowell / Pile / Stokey	✓		
33	Labels on Monitor Wells	McDowell / Pile / Stokey	✓		
34	Valve Station Covers and Stairs Built	R. Roberts / Pile / Stokey	✓		
35					
36					
37					

CROW BUTTE RESOURCES, INC.

86 Crow Butte Road

P. O. Box 169

Crawford, Nebraska 69339-0169

(308) 665-2215

(308) 665-2341 - FAX

GROUND RESISTANCE TEST RECORD

TEST SET USED: AEMC Model 3711 Ground Resistance Tester

GROUND TEST RESULTS: Wellhouse 46 OHMS: 18.4, 49.4, 40.0 = 10.04 OHMS


CONCLUSIONS:

THE TEST RESULTS ARE SATISFACTORY

TEST PERFORMED BY:

$$\left(\frac{1}{18.4} + \frac{1}{49.4} + \frac{1}{40} \right) = \frac{1}{R_{TOTAL}}$$
$$R_T = 10.04$$

CROW BUTTE RESOURCES, INC.



Robert Tiensvold

Date: August 18, 2006

Well House Pressure Check Verification

Pressure check for Well House 46

Date: 5-17-06

Injection:

On 5-10 the injection lines and 2" laterals were pressured to _____ psi. This was done using a centrifugal pump and potable water. The time interval was as follows:

Start: 125 psi at AM/PM 30 minutes
Stop: 123 psi at AM/PM

The section of trunk line checked was from valve station 13-10 to the well field in

WH 46

Production:

On 5-11 the production trunk lines and 2" laterals were pressured to 125 psi. This was done using a centrifugal pump and potable water. The pressure and time interval was as follows:

Start: 125 psi at AM/PM Minutes
Stop: 123 psi at AM/PM

The section of trunk line was from valve station 13-10 to the well field in

WH 46

Oxygen:

On 7-7-06 the oxygen line was pressured to 120 psi. The pressure and time interval was as follows:

Start: 0 psi at 9:00 AM/PM
Stop: 120 psi at 10:00 AM/PM

WH #40 to WH #46 to 46A

The section of trunk line checked was from valve station _____ to the well field in

Kent M. Lowell
Well Field Construction Foreman

Wellhouse 46

Date: 5/23/06

Technician: Bob Tiensvold

Non-Service Lines Locked-Out: ☒ Yes ☐ No

Item #	Well #	Initial	Meter Reading	Comments
1	P P2678	BT	.6 Ohms	
2	P P2910	BT	1.8 Ohms	
3	P P2916	BT	1.9 Ohms	
4	P P3923	BT	1.6 Ohms	
5	P P2924	BT	1.5 Ohms	
6	P P2972	BT	1.2 Ohms	
7	P P2984	BT	1.9 Ohms	
8	P P3644	BT	1.4 Ohms	
9	P P3646	BT	1.3 Ohms	
10	P P3648	BT	1.4 Ohms	
11	P P3651	BT	1.6 Ohms	
12	P P3652	BT	.7 Ohms	
13	P P3653	BT	.9 Ohms	
14	P P3664	BT	.8 Ohms	
15	P P3676	BT	1.2 Ohms	
16	P P3678	BT	1.4 Ohms	
17	P P3689	BT	.6 Ohms	
18	P P3690	BT	1.3 Ohms	
19	P P3734	BT	1.0 Ohms	

[illegible]

Review of Pressure Test Data Complete: _____

W.F.C. Foreman:

Non-Service Lines Locked-Out:

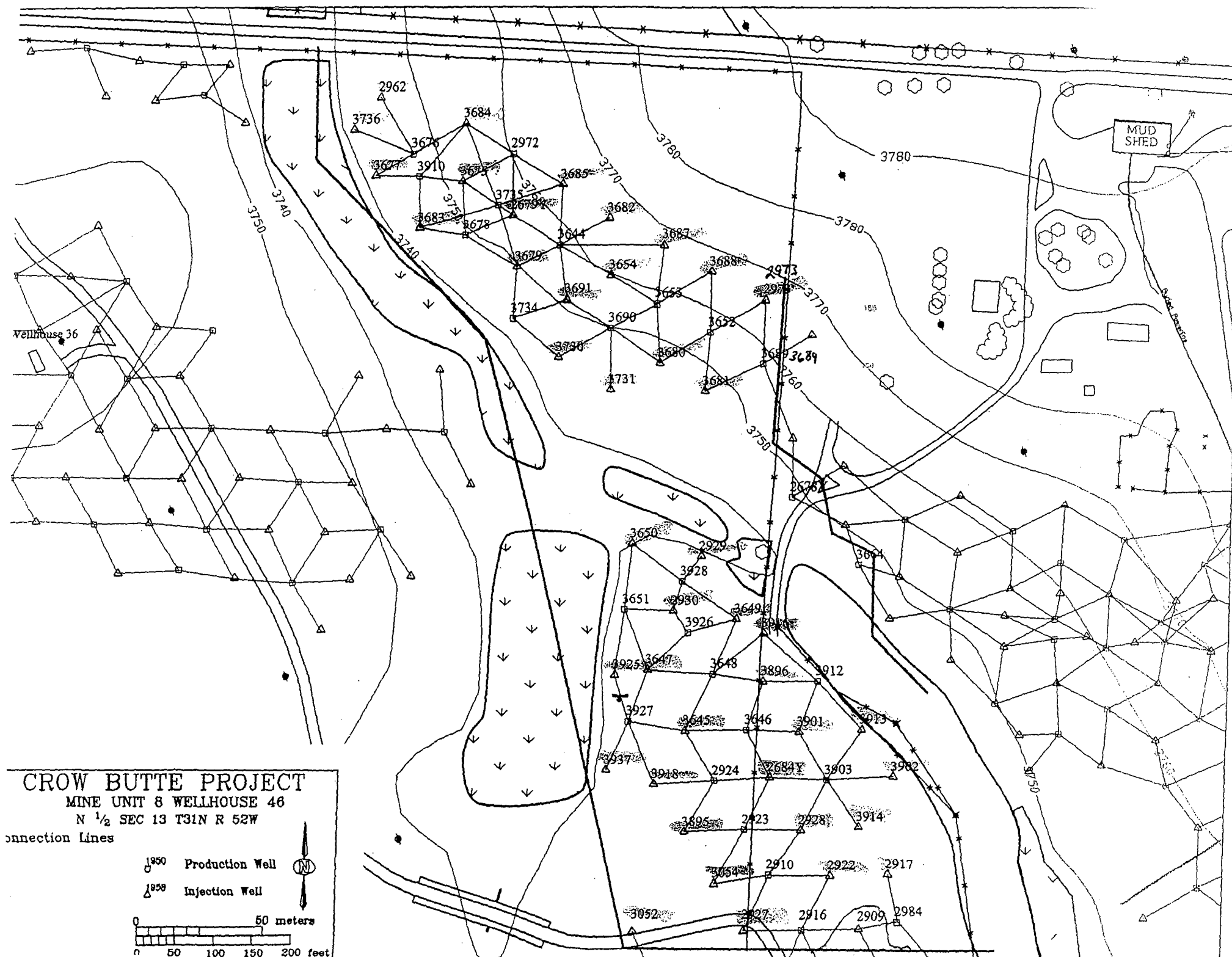
73735 ~~2~~ 01C

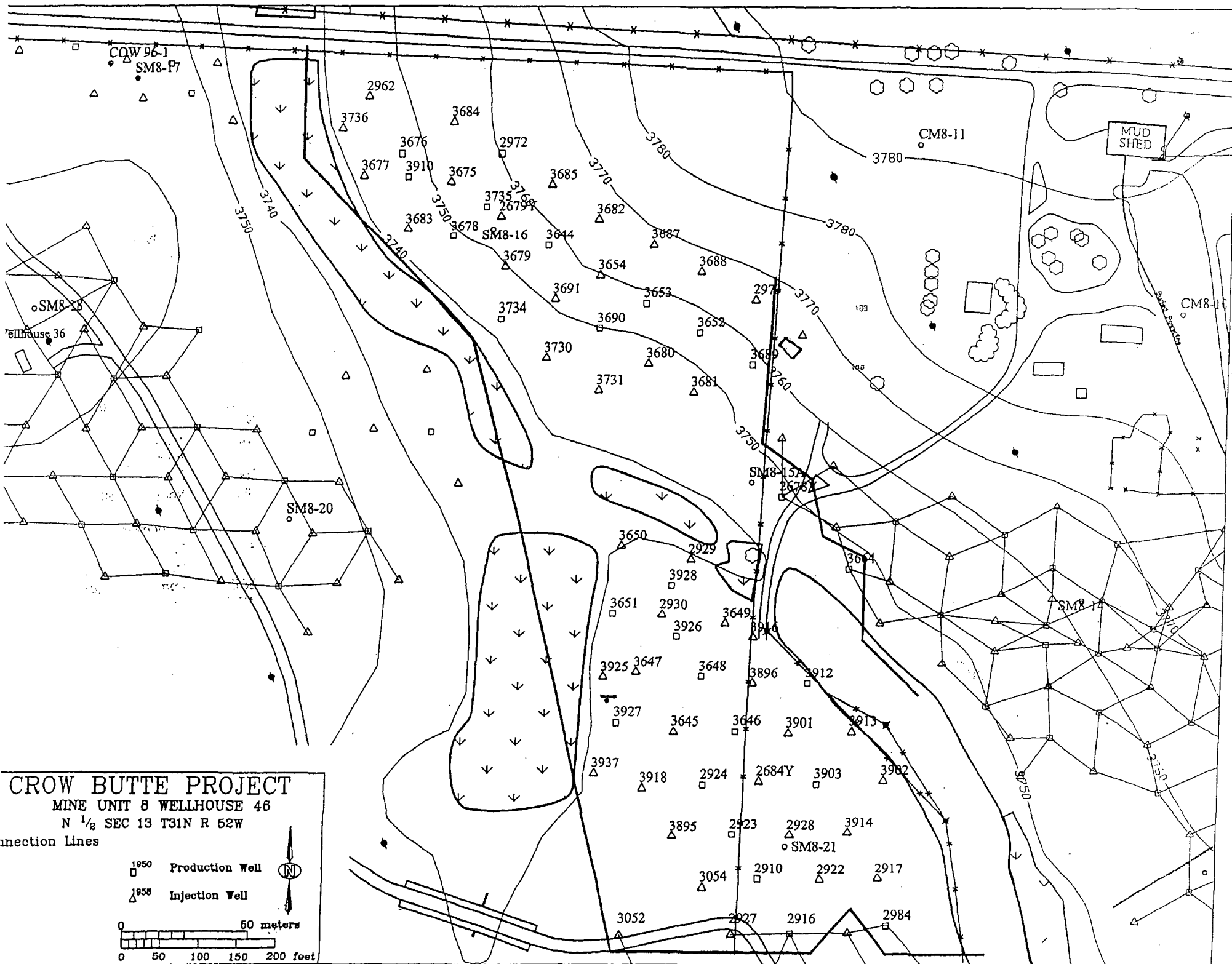
[illegible]

Item #	Well #	Initialed by	Comments
1	I 13052	K	OK
2	I 13054	M	OK
3	I 13645	K	OK
4	I 13647	K	OK
5	I 13649	K	OK
6	I 13650	K	OK
7	I 13654	K	OK
8	I 13675	K	Needs Plug 309
9	I 13677	K	Need Plug 359
10	I 13679	K	OK
11	I 13680	K	OK
12	I 13681	K	OK
13	I 13682	K	OK
14	I 13683	K	Needs Plug 201
15	I 13684	K	Need Plug videlic OK
16	I 13685	K	OK
17	I 13687	K	OK
18	I 13688	K	OK
19	I 13691	K	OK

Item #	Well #	Initialed by	Comments
20	I 13730	K	OK
21	I 12679	K	OK
22	I 12684	K	OK
23	I 12917	K	# 344
24	I 12922	K	206
25	I 12927	K	Needs Plug 367
26	I 12928	K	OK
27	I 12929	K	OK
28	I 12930	K	OK
29	I 12962	K	OK
30	I 12973	K	Need Plug 332
31	I 13731	K	OK
32	I 13736	K	Need Plug videlic OK
33	I 13895	K	OK
34	I 13896	K	OK
35	I 13901	K	Plug 321
36	I 13902	K	Plug 371
37	I 13913	K	365 Plug
38	I 13914	K	Plug 2070

[illegible]





CROW BUTTE PROJECT
MINE UNIT 8 WELLHOUSE 46
N 1/2 SEC 13 T31N R 52W

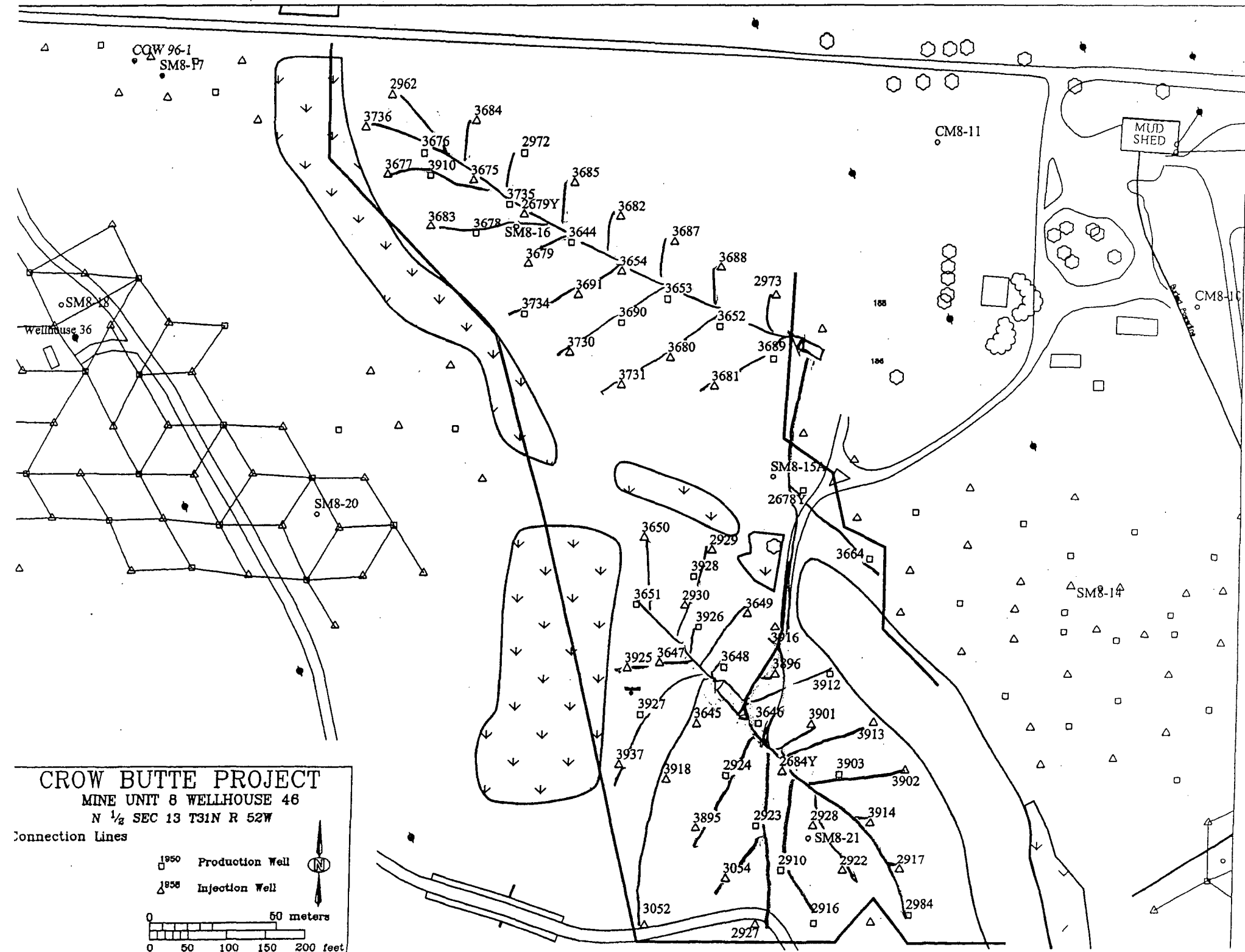
Injection Lines

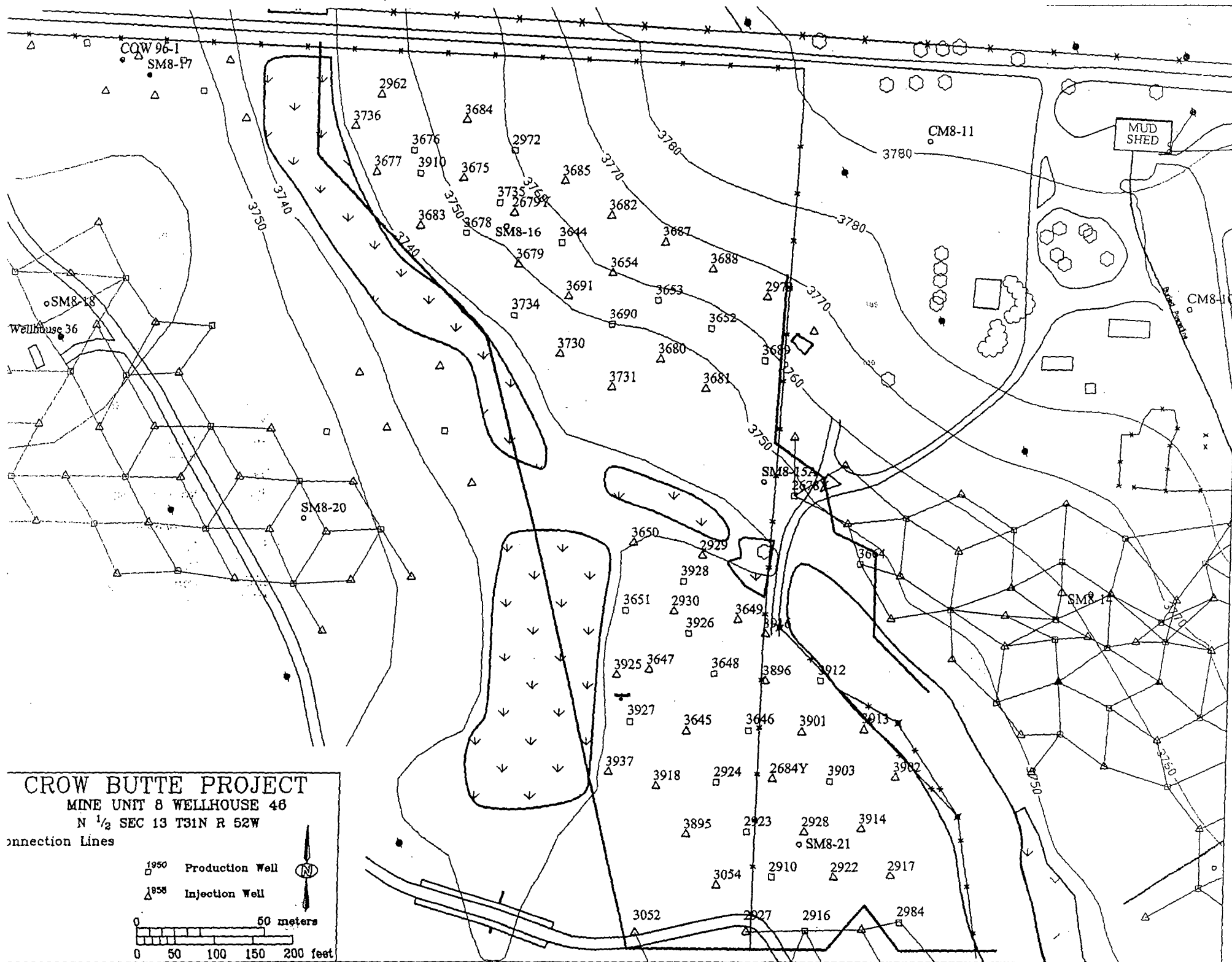
1950 Production Well
1955 Injection Well

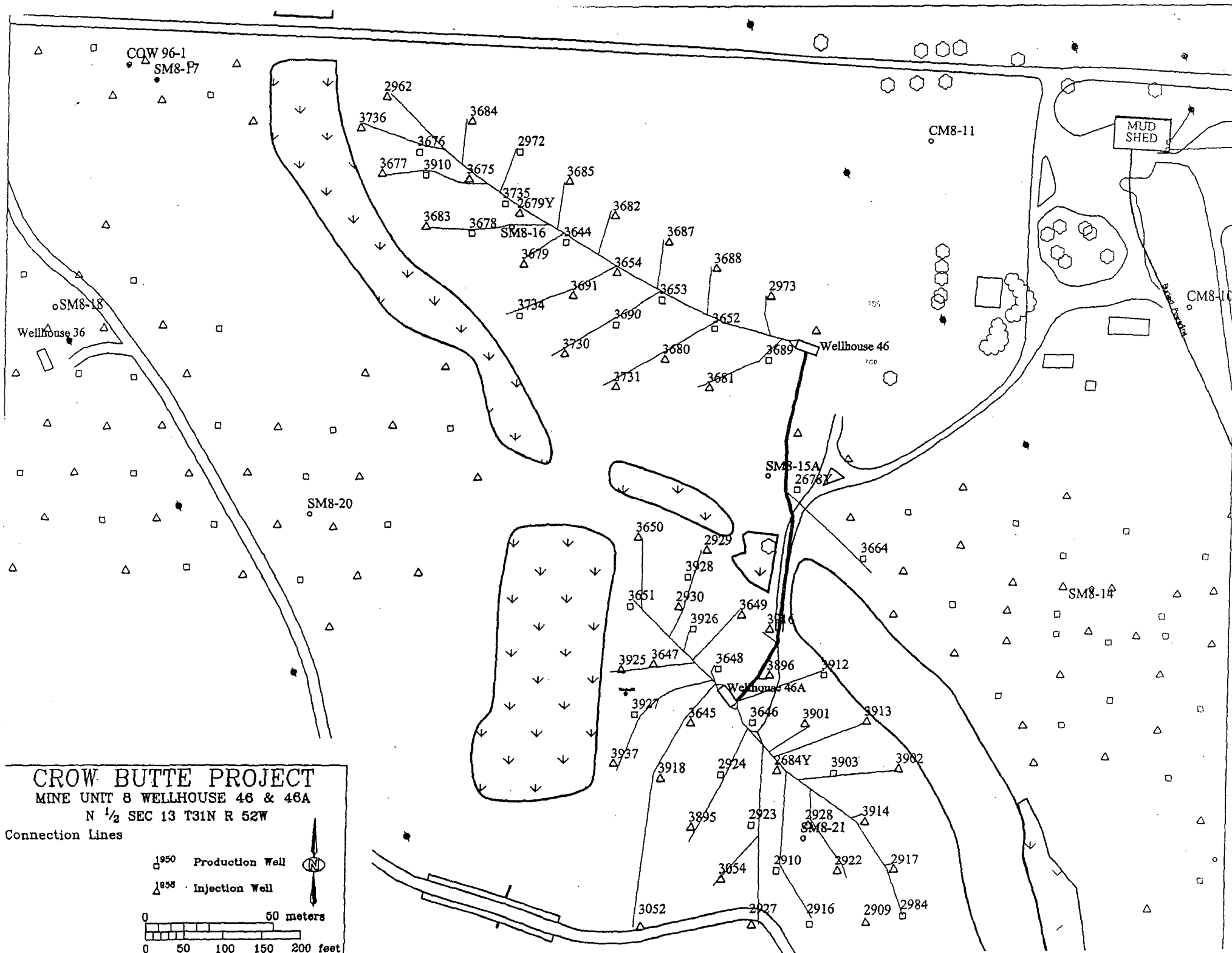
0 50 100 150 200 feet

0 50 meters

N









SERP 06-06 Evaluation



Crow Butte Resources, Inc.

Safety and Environmental Review Panel

Evaluation Report – SERP 06-06

Wellhouse 47 Approval to Operate

December 1, 2006

The Crow Butte Resources, Inc. (CBR) Safety and Environmental Review Panel (SERP) met to review and approve operation of Wellhouse 47 in Mine Unit 9 at the Crow Butte Uranium Project.

The SERP appointed for this evaluation consisted of the following members:

<u>Name</u>	<u>Title</u>	<u>Area of Expertise</u>
Jim Stokey	Mine Manager	Management
Larry Teahon	Manager of Environmental, Health and Safety	Environmental
John Cash	Operations Superintendent	Operations
Rhonda Grantham	Radiation Safety Officer	Radiation Safety
Bob Teinsvold	Maintenance Superintendent	Construction
Wade Beins	Senior Geologist	Well Construction

Dr. Stokey is the SERP Chairman. Mr. Teahon was appointed SERP Secretary for this evaluation.

Purpose of SERP Evaluation

The purpose of this evaluation by the CBR SERP was to review and approve Wellhouse 47 for operation.

License Condition 9.4 allows CBR to make changes in the facility or procedures or conduct tests or experiments that are not presented in the approved application if such changes do not:



- i. Result in any appreciable increase in the frequency of occurrence of an accident previously evaluated in the license application (as updated);
- ii. Result in any appreciable increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the license application (as updated);
- iii. Result in any appreciable increase in the consequences of an accident previously evaluated in the license application (as updated);
- iv. Result in any appreciable increase in the consequences of a malfunction of an SSC previously evaluated in the license application (as updated);
- v. Create a possibility for an accident of a different type that any previously evaluated in the license application (as updated);
- vi. Create a possibility for a malfunction of an SSC with a different result than previously evaluated in the license application (as updated);
- vii. Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the final safety evaluation report (FSER) or the environmental assessment (EA) or the technical evaluation reports (TERs) or other analysis and evaluations for license amendments.
- viii. For the purposes of SERP evaluations, SSC means any SSC which has been referenced in a staff SER, TER, EA, or environmental impact statement (EIS) and supplements and amendments.

The SERP evaluation was conducted in accordance with the instructions contained in the Environmental, Health, and Safety Management System (EHSMS) Volume II, *Management Procedures*, EHS-6, *Managing Change*. The SERP reviewed the Wellhouse startup checklists and supporting documentation and evaluated this information as compared with the requirements of the licensing basis, including the following documents:

- Title 10, Code of Federal Regulations;
- Source Materials License SUA-1534, Amendment No. 20 dated January 4, 2006;
- *Application for Renewal of USNRC Radioactive Source Materials License SUA-1534*, Crow Butte Resources, Inc. December 1995;
- *Environmental Assessment for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- *Safety Evaluation Report for Renewal of Source Materials License No. SUA-1534*, USNRC February 1998;
- Technical Evaluation Reports issued in support of amendments to SUA-1534.

Title 10 Code of Federal Regulations



The proposed change will have no impact on CBR's ability to meet all applicable NRC regulations.

Source Materials License SUA-1534 Requirements

Amendment 20 to SUA-1534 dated January 4, 2006 was reviewed for specific requirements related to approval and operation of a wellhouse.

Mine Unit 9 was previously approved by the CBR SERP (see SERP 03-05 dated October 23, 2003). Therefore, no review of monitor well location, installation or baseline sampling and Upper Control Limit determination is required for approval of Wellhouse 47.

License Condition 10.2: This License Condition requires that CBR construct all wells in accordance with the methods contained in the Section 3.1.2 of the approved License Renewal Application (LRA). License Condition 10.2 also requires that CBR perform mechanical integrity tests (MIT) for all injection and production wells.

The well construction methods in use for Wellhouse 47 are the same as those described in the LRA and contained in EHSMS Volume III, *Operations Manual*, Procedure P-25, *Well Installation*. MITs were performed in accordance with EHSMS Volume III, *Operations Manual*, Procedure P-23, *Mechanical Integrity Test (MIT)*. All MIT data sheets were contained in the Notice of Intent to Operate Wellhouse 47 (or in the original Mine Unit 9 Notice of Intent) that was submitted to the NDEQ. These MIT data sheets were provided by the Senior Geologist and reviewed by the SERP. The records indicate that the MITs performed in Wellhouse 47 met the requirements.

License Condition 9.3: This License Condition requires that CBR conduct operations in accordance with the representations contained in the LRA. Section 3.1.3 of the LRA discusses construction materials, instrumentation, and monitoring requirements. Section 3.3 also discusses instrumentation, including wellhouse injection and production instrumentation and wet building alarms for wellhouses. Section 7.2.3 of the LRA requires that leak tests be performed on all wellfield piping before placing the system into production operations.

The SERP reviewed the Wellhouse Start-up Checklist for Wellhouse 47. This checklist was developed by the Wellfield Construction staff to document completion of all required actions before initiating operations in a wellhouse. Some of these actions are required by regulatory and licensing requirements, while some were developed over the course of mining experience at Crow Butte. Construction activities are governed by EHSMS Volume III, *Operations Manual*, Procedure P-15, *Installation of Wellfield*



Pipelines. The Maintenance Superintendent reviewed these items and stated that all had been completed and the appropriate controls were in place.

A copy of the Wellhouse Start-Up Checklist is attached to this SERP Evaluation. Supporting documentation in the form of pressure tests and ground continuity checks are also attached.

Environmental Assessment

The SERP reviewed the contents of the Environmental Assessment (EA) prepared by NRC in February 1998 to determine whether the proposed change could cause substantive safety or environmental impacts.

Well construction and testing as described in the EA has been completed for the wells associated with Wellhouse 47.

Section 3.3.1 discusses leak testing of wellfield piping. The SERP reviewed the completion of pressure testing for piping systems associated with Wellhouse 47 and found that they meet the intent of the EA.

Financial Surety

The proposed change is covered in the NRC-approved financial surety maintained by CBR and approved by Amendment 20 to SUA-1534 in the amount of \$19,799,289.

Safety Evaluation Report

The Safety Evaluation Report (SER) principally provides the basis for worker safety at Crow Butte and does not specifically address the issues related to approval of Wellhouse 47.

Technical Evaluation Reports

The SERP reviewed the Technical Evaluation Reports (TERs) prepared by NRC staff to support amendments made to SUA-1534 since renewal in 1998. None of the TERs prepared since license renewal directly address issues related to approval of a new Wellhouse for operation.

Degradation of Essential Safety or Environmental Commitment

SUA-1534 allows CBR to make changes as long as they do not degrade the essential safety or environmental commitments made in the application. The SERP determined

CROW BUTTE RESOURCES, INC.

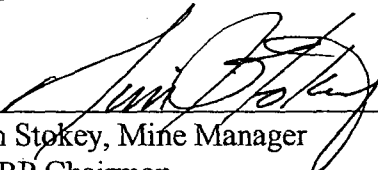


SERP 06-06

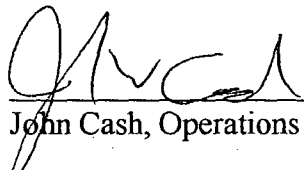
that safety commitments made in the LRA and discussed in the EA have been met and that startup of Wellhouse 47 in Mine Unit 9 will not degrade the safety and environmental commitments.

Based upon this evaluation of the licensing basis, the CBR SERP hereby approves startup and operation of Wellhouse 47 in Mine Unit 9.

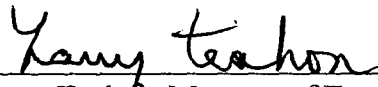
Approved this 1st day of December, 2006.



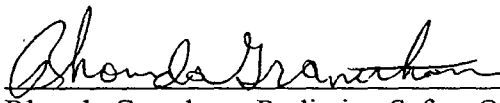
Jim Stokey, Mine Manager
SERP Chairman



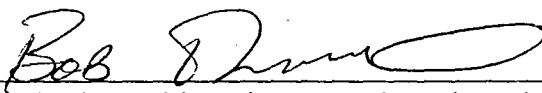
John Cash, Operations Superintendent




Larry Teahon, Manager of Environmental, Health and Safety
SERP Secretary



Rhonda Grantham, Radiation Safety Officer



Bob Tiensvold, Maintenance Superintendent



Wade Beins, Senior Geologist

Well House Start-Up Checklist

Well House # 47

Item	Description	Person	Comments	Date Completed	Initial
1	Permit To Operate	Brost / Pile / Stokey		9/11/06	WJB
2	Complete Pressure Testing (Trunkline and House)	McDowell / Pile / Stokey		9.5.06	KS
3	Pipelines checked for leaks	McDowell / Pile / Stokey		9.5.06	KS
4	Pipelines buried	McDowell / Pile / Stokey		10-26-06	KS
5	Pressure gauge on injection manifold	R. Roberts / Pile / Stokey		11/30	BT
6	Injection lines equipped with totalizing flow meters	R. Roberts / Pile / Stokey		11/29	BT
7	Injection and Production total flows can be measured	H. Douthit / Pile / Stokey		11/29	BT
8	Unused trunkline locked out by two separate means	McDowell / Pile / Stokey		9.5.06	KS
9	Isolation valves are closed and chained	McDowell / Pile / Stokey		9.5.06	KS
10	Map of 2" lines in house	McDowell/Beins / Pile / Stokey		11-29-06	WJB
11	Well-field Layout map in house	McDowell/Beins / Pile / Stokey		10-26-06	KS
12	Check berms	Griffin / Pile / Stokey		12/1/06	KS
13	Pressure check oxygen lines	McDowell / Pile / Stokey		11/30/06	KS
14	Continuity check on producers	B. Tiensvold / Pile / Stokey		9/19/06	BT
15	Ground fault check	REA/B. Tiensvold / Pile / Stokey		11/30	BT
16	Communications wire check	B. Tiensvold / Pile / Stokey		11/29	BT
17	Heater size check	B. Tiensvold / Pile / Stokey		11/29	BT
18	Processor installed well house	Pile / Stokey		11/28	BT
19	UPS installed and operational	B. Pile/B. Tiensvold / Pile / Stokey		11/28	BT
20	Wet house alarm installed	B. Tiensvold / Pile / Stokey		11/29	BT
21	Wet house alarm checked	P. Dunn/J. Douthit / Pile / Stokey		11/30	BT
22	Oxygen solenoid checked	P. Dunn/J. Douthit / Pile / Stokey		11/30	BT
23	Check fuses in control panel	B. Tiensvold / Pile / Stokey		11/29	BT
24	Program MMI	Pile / Stokey		11/28	BT
25	Program PLC	Pile / Stokey		11/28	BT
26	Switch on for alarming	P. Dunn/J. Douthit / Pile / Stokey		11-27	JD.
27	Set Scalar Card 'K' Factors	P. Dunn/J. Douthit / Pile / Stokey		11-27	JD.
28	Fire extinguisher w/placard	McDowell / Pile / Stokey	N/A	9.5.06	KS
29	Off tags and lockouts	B. Tiensvold/Dunn/J. Douthit / Pile / Stokey		12-1	JD
30	Contaminated and uncontaminated cans	P. Dunn/J. Douthit / Pile / Stokey		12-1	JD.
31	Complete 2" lateral inspection	McDowell / Pile / Stokey		10-26-06	KS
32	Visually inspect entire system to plant	McDowell / Pile / Stokey		10-26-06	KS
33	Labels on Monitor Wells	McDowell / Pile / Stokey		9.5.06	KS
34	Valve Station Covers and Stairs Built	R. Roberts / Pile / Stokey		11-30	SR
35					
36					
37					

Item #	Well #	Initialed by	Comments
1	I 13009	K7	OK
2	I 13985	K7	OK
3	I 13986	K7	OK
4	I 13993	K7	OK
5	I 13994	K7	OK
6	I 13995	K7	OK
7	I 13997	K7	OK
8	I 14055	K7	OK FLOOD'S NEW GUARD
9	I 14056	K7	OK
10	I 14057	K7	OK
11	I 14058	K7	OK
12	I 14059	K7	OK
13	I 14064	K7	OK
14	I 14067	K7	OK
15	I 14072	K7	OK
16	I 14074	K7	OK
17	I 14075	K7	OK
18	I 14080	K7	OK
19	I 14081	K7	OK

Item #	Well #	Initialed by	Comments
20	I 14082	K7	OK
21	I 14083	K7	OK
22	I 14084	K7	OK
23	I 14085	K7	OK
24	I 14086	K7	OK
25	I 14088	K7	OK
26	I 14089	K7	OK
27	I 14090	K7	OK
28	I 14091	K7	OK
29	I 14092	K7	OK
30	I 14093	K7	OK
31	I 14200	K7	OK
32	I 14214	K7	OK
33	I 14222	K7	OK
34	I 14223	K7	OK
35	I 14224	K7	OK
36	I 14226	K7	OK
37	I 14227	K7	OK
38	I 14237	K7	OK

[illegible]

Crow Butte Resources
Pump Continuity
Wellhouse 47

Date:

9/19/06

Technician: Bob Tiensvold

Non-Service Lines Locked-Out:	Yes	No
--------------------------------------	------------	-----------

Item # Well #		Initial	Meter Reading	Comments
1	P P3869	BT	1.9 Ohms	
2	P P3874	BT	2.2 Ohms	
3	P P3979	BT	2.6 Ohms	
4	P P3996	BT	1.7 Ohms	
5	P P4054	BT	2.0 Ohms	
6	P P4063	BT	1.4 Ohms	
7	P P4065	BT	1.9 Ohms	
8	P P4066	BT	1.4 Ohms	
9	P P4068	BT	1.1 Ohms	
10	P P4069	BT	1.2 Ohms	
11	P P4073	BT	2.4 Ohms	
12	P P4078	BT	1.7 Ohms	
13	P P4079	BT	1.7 Ohms	
14	P P4087	BT	1.0 Ohms	
15	P P4207	BT	1.1 Ohms	
16	P P4208	BT	1.2 Ohms	
17	P P4209	BT	2.2 Ohms	
18	P P4210	BT	3.5 Ohms	
19	P P4211	BT	1.6 Ohms	

[illegible]

CROW BUTTE RESOURCES, INC.

86 Crow Butte Road

P. O. Box 169

Crawford, Nebraska 69339-0169

(308) 665-2215

(308) 665-2341 - FAX

GROUND RESISTANCE TEST RECORD

TEST SET USED: AEMC Model 3711 Ground Resistance Tester

GROUND TEST RESULTS: Wellhouse 47 OHMS: .7, 107, 20.6 = .67 OHMS

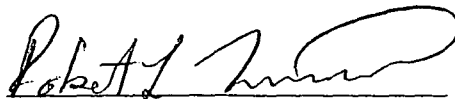
CONCLUSIONS:

$$R_T = 1 / \left(\frac{1}{.7} + \frac{1}{107} + \frac{1}{20.6} \right)$$

THE TEST RESULTS ARE SATISFACTORY

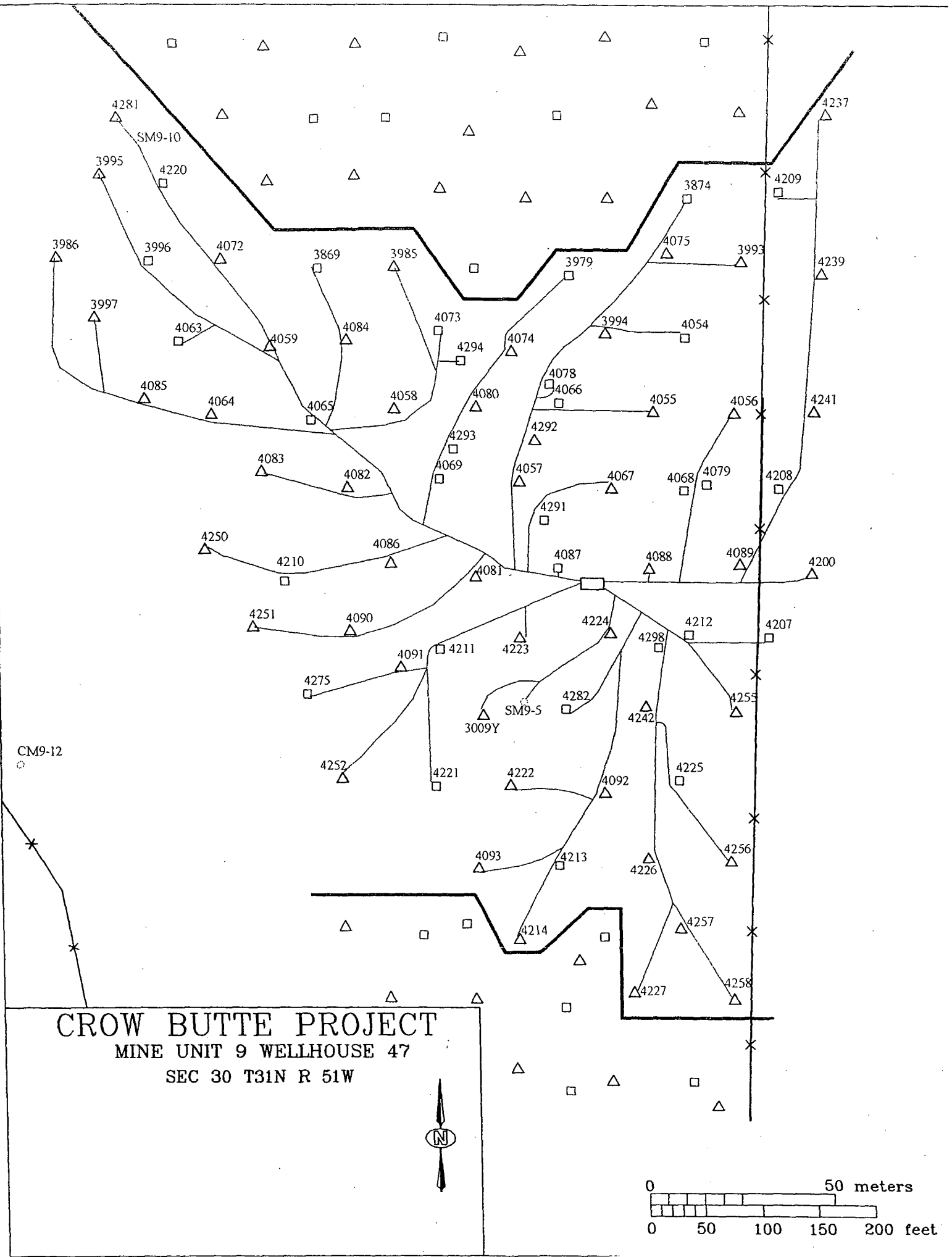
TEST PERFORMED BY:

CROW BUTTE RESOURCES, INC.



Robert Tiensvold

Date: December 1, 2006



Well House Pressure Check Verification

Pressure check for Well House 47

Date: 9-5-06

Injection:

On 8-25-06 the injection lines and 2" laterals were pressured to 100 psi. This was done using a centrifugal pump and potable water. The time interval was as follows:

Start: 100 psi at AM / PM 30 minutes
Stop: 97 psi at AM / PM

The section of trunk line checked was from valve station 30-7 to the well field in

WH 47

Production:

On 8-28-06 the production trunk lines and 2" laterals were pressured to 100 psi. This was done using a centrifugal pump and potable water. The pressure and time interval was as follows:

Start: 100 psi at AM / PM 30 minutes
Stop: 98 psi at AM / PM

The section of trunk line was from valve station 30-7 to the well field in

WH 47

Oxygen:

On 10-15-06 the oxygen line was pressured to 125 psi. The pressure and time interval was as follows:

Start: 125 psi at 9:00 AM / PM
Stop: 125 psi at 11:00 AM / PM

From WH # 45 to WH # 47 Rk

The section of trunk line checked was from valve station _____ to the well field in

[Signature]
Well Field Construction Foreman

*For Larry Tindall
Jim Staley*

Dave Heineman
Governor

STATE OF NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Michael J. Linder

Director

Suite 400, The Atrium

1200 N' Street

P.O. Box 98922

Lincoln, Nebraska 68509-8922

Phone (402) 471-2186

FAX (402) 471-2909

website: www.deq.state.ne.us

RECEIVED
AUG 11 2006
POWER RESOURCES, INC.
LAKEWOOD, COLO.

Mr. Stephen Collings, President
Crow Butte Resources, Inc.
141 Union Blvd., Ste. 330
Lakewood, Colorado 80228

Dear Mr. Collings:

On July 17, 2006, the Nebraska Department of Environmental Quality received a submittal of information from Crow Butte Resources, Inc. The submittal serves as Notice of Intent to Operate and contains Well Completion Reports and Casing Integrity Test Reports for injection and production wells installed in association with Wellhouse 47 within Mine Unit 9.

The Department has reviewed the information submitted, as well as information submitted in an addendum dated July 24, 2006, and letter of authorized signatories dated July 26, 2006. We have determined that the information submitted is adequate and complete. Upper Control Limits and Restoration Values established for Mine Unit 9 have already been submitted and approved. Approval of the additional portion of Mine Unit 9 will not alter those values. The Department hereby approves the Notice of Intent to Operate for the additional portion of Mine Unit 9.

If you have any questions or comments concerning this letter or the review of the Notice of Intent to Operate, please contact Steve Fischbein of my staff at (402) 471-4290. Thank you.

Sincerely,

Michael J. Linder

Director

ML/saf

word/files/steve/cbr/letter/NOI approval letter MU9 WH47.doc



License Renewal Application

Affected Pages (highlighted version)

2006 SERP Actions

5. OPERATIONS

Crow Butte Resources, Inc. (CBR) operates a commercial scale in-situ leach uranium mine (the Crow Butte Uranium Project) near Crawford, Nebraska. CBR maintains a headquarters in Denver, Colorado where site-licensing actions originate. All CBR operations, including the Crow Butte Uranium Project operations, are conducted in conformance with applicable laws, regulations, and requirements of the various regulatory agencies. The responsibilities described below have been designed to both ensure compliance and further implement CBRs policy for providing a safe working environment with cost effective incorporation of the philosophy of maintaining radiation exposures as low as is reasonably achievable (ALARA).

5.1. CORPORATE ORGANIZATION/ADMINISTRATIVE PROCEDURES

CBR will maintain a performance-based approach to the management of the environment and employee health and safety, including radiation safety. The Environmental Management System (EMS) Program encompasses licensing, compliance, environmental monitoring, industrial hygiene, and health physics programs under one umbrella, and it includes involvement for all employees from the individual worker to senior management. This EMS program will allow CBR to operate efficiently and maintain an effective environment, health and safety program.

Figure 5.1-1 is a partial organization chart for CBR with respect to the operation of the Crow Butte Uranium Project and associated operations and represents the management levels that play a key part in the EMS Program. The personnel identified are responsible for the development, review, approval, implementation, and adherence to operating procedures, radiation safety programs, environmental and groundwater monitoring programs as well as routine and non-routine maintenance activities. These individuals may also serve a functional part of the Safety and Environmental Review Panel (SERP) described under Section 5.3.3.

Specific responsibilities of the organization are provided below.

5.1.1. BOARD OF DIRECTORS

The Board of Directors has the ultimate responsibility and authority for radiation safety and environmental compliance for CBR. The Board of Directors sets corporate policy and provides procedural guidance in these areas. The Board of Directors provides operational direction to the President of CBR.

5.1.2. PRESIDENT

The President is responsible for interpreting and acting upon the Board of Directors policy and procedural decisions. ~~The President directly supervises the Senior Vice President of Operations.~~ The President is empowered by the Board of Directors to have the responsibility and authority for the radiation safety and environmental compliance programs. ~~The President is responsible for ensuring that the operations staff is complying with all applicable regulations and permit/license conditions through direct supervision of the Senior Vice President of Operations.~~

5.1.3. SENIOR VICE PRESIDENT - OPERATIONS

~~The overall responsibility for the radiation, environmental, and safety activities of the Crow Butte Facility rests with the Senior Vice President of Operations. The Senior Vice President of Operations reports to the President and is~~ directly responsible for ensuring that CBR personnel comply with industrial safety, radiation safety, and environmental protection programs as established in the EMS Program. The ~~Senior Vice President of Operations~~ is also responsible for company compliance with all regulatory license conditions/stipulations, regulations and reporting requirements. The ~~Senior Vice President of Operations~~ has the responsibility and authority to terminate immediately any activity that is determined to be a threat to employees or public health, the environment, or potentially a violation of state or federal regulations. The ~~Senior Vice President of Operations~~ is also responsible for license development and license modifications.

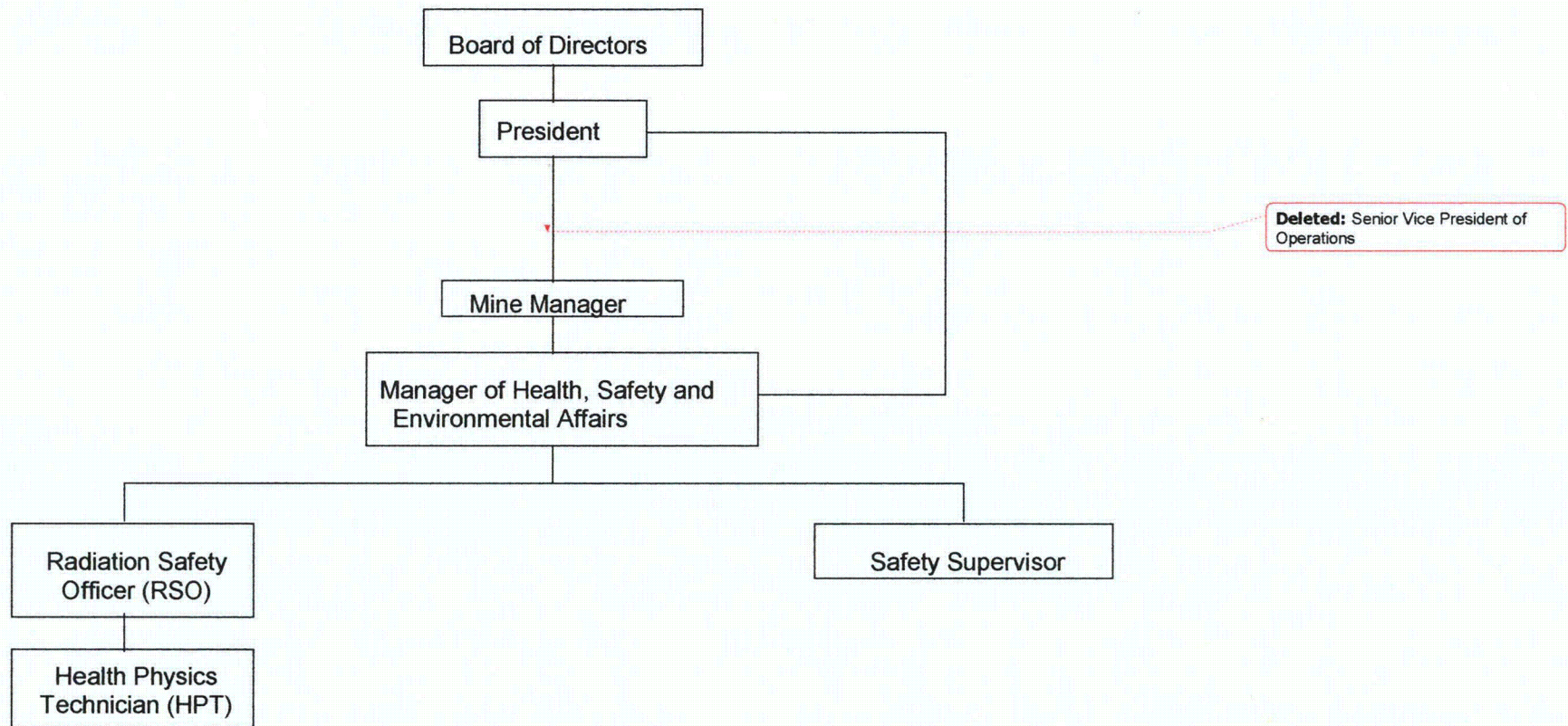
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Figure 5.1-1: Crow Butte Resources Organizational Chart



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5.1.3. MINE MANAGER

The Mine Manager is responsible for all uranium production activity at the project site. The Mine Manager is also responsible for implementing any industrial and radiation safety and environmental protection programs associated with operations. The Mine Manager is authorized to immediately implement any action to correct or prevent hazards. The Mine Manager has the responsibility and the authority to suspend, postpone or modify, immediately if necessary, any activity that is determined to be a threat to employees, public health, the environment, or potentially a violation of state or federal regulations. The Mine Manager cannot unilaterally override a decision for suspension, postponement or modification if that decision is made by the Senior Vice President of Operations and/or the Manager of Health, Safety and Environmental Affairs. The Mine Manager reports directly to the Senior Vice President of Operations.

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5.1.4. MANAGER OF HEALTH, SAFETY, AND ENVIRONMENTAL AFFAIRS

The Manager of Health, Safety, and Environmental Affairs is responsible for all radiation protection, health and safety, and environmental programs as stated in the EMS Program and for ensuring that CBR complies with all applicable regulatory requirements. The Manager of Health, Safety, and Environmental Affairs reports directly to the Mine Manager and supervises the RSO to ensure that the radiation safety and environmental monitoring and protection programs are conducted in a manner consistent with regulatory requirements. This position assists in the development and review of radiological and environmental sampling and analysis procedures and is responsible for routine auditing of the programs. The Manager of Health, Safety, and Environmental Affairs has no production-related responsibilities. The Manager of Health, Safety, and Environmental Affairs also has the responsibility to advise the Senior Vice President of Operations on matters involving radiation safety and to implement changes and/or corrective actions involving radiation safety authorized by the Senior Vice President of Operations.

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5.1.5. RADIATION SAFETY OFFICER

The RSO is responsible for the development, administration, and enforcement of all radiation safety programs. The RSO is authorized to conduct inspections and to immediately order any change necessary to preclude or eliminate radiation safety hazards and/or maintain regulatory compliance. The RSO is responsible for the implementation of all on-site environmental programs,

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including emergency procedures. The RSO inspects facilities to verify compliance with all applicable requirements in the areas of radiological health and safety. The RSO works closely with all supervisory personnel to insure that established programs are maintained. The RSO is also responsible for the collection and interpretation of employee exposure related monitoring, including data from radiological safety. The RSO makes recommendations to improve any and all radiological safety related controls. The RSO has no production-related responsibilities. The RSO will report to the Manager of Health, Safety, and Environmental Affairs

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5.1.6. HEALTH PHYSICS TECHNICIAN

The Health Physics Technician (HPT) assists the RSO with the implementation of the radiological and industrial safety programs. The HPT is responsible for the orderly collection and interpretation of all monitoring data, to include data from radiological safety and environmental programs. The HPT reports directly to the RSO.

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5.1.7. SAFETY SUPERVISOR

The Safety Supervisor is responsible for the non-radiation related health and safety programs. The Safety Supervisor is authorized to conduct inspections and to immediately order any change necessary to preclude or eliminate safety hazards and/or maintain regulatory compliance. Responsibilities include the development and implementation of health and safety programs in compliance with Mine Safety and Health Administration (MSHA) regulations. Responsibilities of the Safety Supervisor include development of industrial safety and health programs and procedures, coordination with the RSO where industrial and radiological safety concerns are interrelated, safety and health training of new and existing employees, and the maintenance of appropriate records to document compliance with regulations. The Safety Supervisor may also be a qualified HPT and may function in that capacity when needed. The Safety Supervisor reports directly to the Manager of Health, Safety and Environmental Affairs.

5.2. ALARA POLICY

The purpose of the ALARA (As Low As Reasonably Achievable) Policy is to keep exposures to all radioactive materials and other hazardous material as low as possible and to as few personnel as possible, taking into account the state of technology and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic

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License Renewal Application

Affected Pages (replacement pages)

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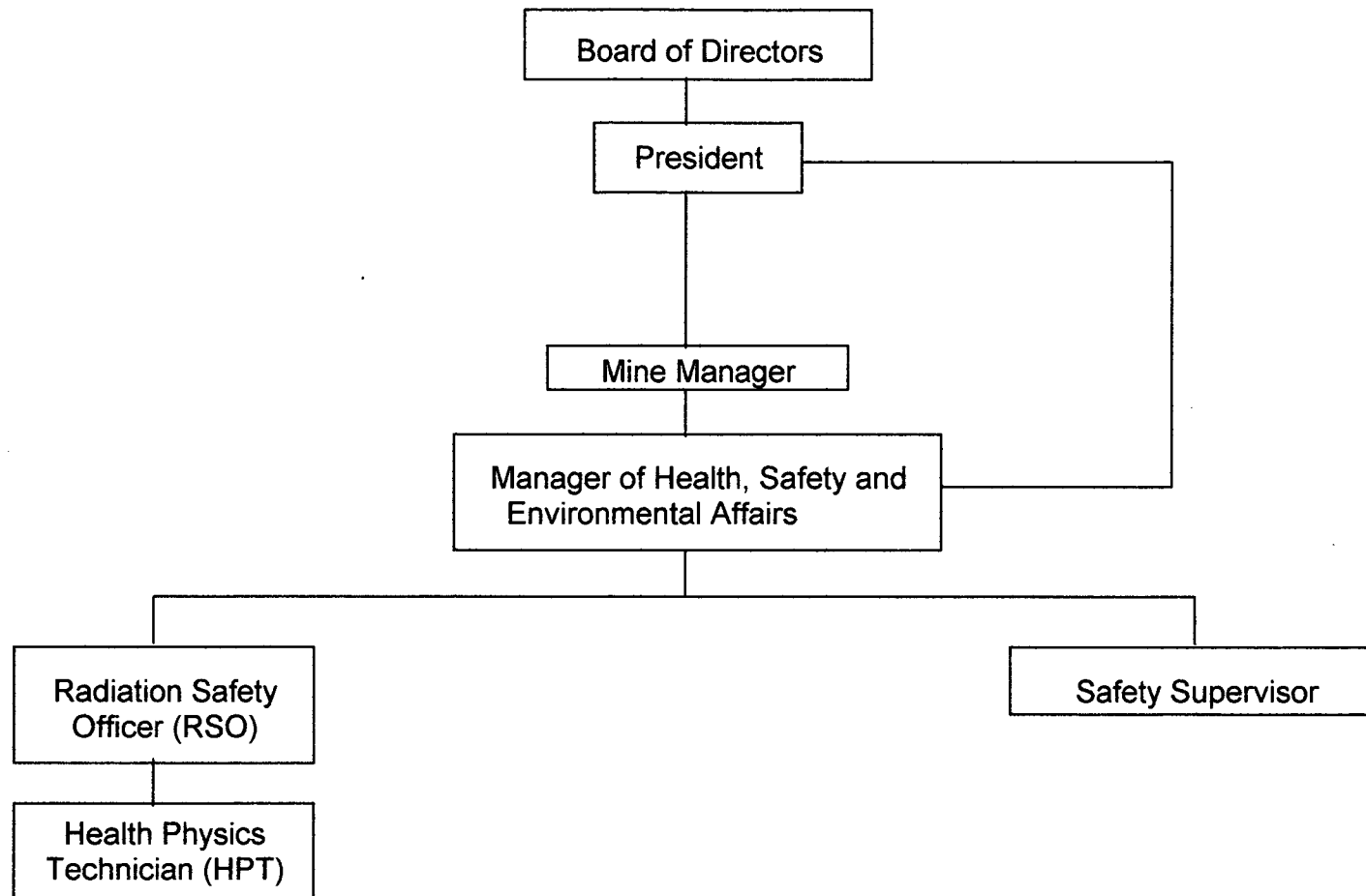
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