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January 22, 1982

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ASSESSMENT RESTORATION ACTIVITIES

SUNDANCE PROJECT

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Mail Section

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INTRODUCTION

On September 19, 1979, ND Resources, Inc. shut down Nuclear Dynamics, as operator for Nubeth Joint Venture, has requested permission from the Wyoming Department of Environmental Quality, Land Quality Division to plug and seal all wells in the Pnase I field of their In Situ Solution Mining Test Site at the Sundance Project in Crook County, Wyoming.

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At the request of Mr. Al Stoick of ND Resources, Inc. (formerly Nuclear Dynamics), Mr. Doyl Fritz of Western Water Consultants, Inc., Sheridan, Wyoming has examined the restoration water quality at the test site to provide an independent opinion as to whether the restoration activities have met the requirements of the Wyoming Environmental Quality Act and accompanying rules and regulations. This report presents the findings of Western Water Consultants, Inc. The report has been reviewed by a second independent contractor, Margery A. Hulburt, Consulting Hydrogeologist of Cheyenne, Wyoming. Ms. Hulburt's comments have been incorporated into the text of this report.

BACKGROUND

On September 19, 1979, ND Resources, Inc. shut down restoration operations on Test Site No. 1 at their Sundance Project in situ solution mining test site.

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on these four wells at the request of LQD since these are the four "pattern wells" for which baseline had been established.

On April 23, 1980 check sampling of the water quality in pattern wells commenced.

On September 26, 1980, ND Resources, Inc. submitted to the Wyoming Department of Environmental Quality (DEQ) Land Quality Division (LQD) a report entitled "1980 Activity and Restoration Report" describing the results of restoration monitoring at the site. Accompanying this submittal to LQD was a request for permission to plug and seal off all the wells in the Phase I well field and then reclaim the well sites.

On March 31, 1981 LQD responded to that request by stating that certain parameters remained above the "pre-mining use category" in certain wells. Permission to plug and seal off the Phase I wells was not given by LQD.

Since that time additional sampling has been done by ND Resources. Several wells have been included in this sampling program, with emphasis placed on wells 19X (adjacent to the recovery well), injection well 20X (also called I-2), and buffer wells 3X (B-1) and 4X (B-3). Emphasis was placed on these four wells at the request of LQD since these are the four "pattern wells" for which baseline had been established.

This report presents the results of this additional sampling and compares the results with established restoration criteria.

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standards (pH, TDS, Cd, Pb, SO4, NH3-N, Ra226, and gross alpha), five Class II standards (pH, Cd, SO4, Ra226, and gross alpha), and four Class III standards (pH, Cd, Ra226, and gross alpha).

RESTORATION CRITERIA

Restoration criteria for wells in the "B" aquifer (ore-zone sand) were established during licensing as the highest average concentration for any given parameter at any well in the baseline study plus 10 percent of that average (averages were based on five samples). Exceptions were pH, which was established as the highest average pH at any well plus 0.2 standard pH units, and uranium, which was established as the highest average concentration of uranium at any well plus 0.1 milligram per liter (mg/l).

The restoration criteria established for wells in the B aquifer are presented in Table 1. Table 1 also shows, for purposes of comparison, Wyoming's water quality standards for Class I (domestic), Class II (irrigation) and Class III (livestock) ground waters. It is important to note that assuming all restoration criteria were met the water would still not meet established standards as a Class I, II, or III water. The restoration criteria exceed eight Class I standards (pH, TDS, Cd, Pb, SO4, NH3-N, Ra226, and gross alpha), five Class II standards (pH, Cd, SO4, Ra226, and gross alpha), and four Class III standards (pH, Cd, Ra226, and gross alpha).

The ground water in the B zone aquifer would probably be classed as a Class IV (A) ground water according to Water Quality Division Rules and Regulations, Chapter VIII. Class

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Gross α (pCi/l)	230.0	15.0	[illegible]	---
Gross β (pCi/l)	267.0	---	---	---

Table 1. Established Restoration Criteria for B Aquifer in Comparison to Wyoming Ground Water Standards

(All units in mg/l unless otherwise noted.)

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Parameter	Restoration Value	Class I Standard	Class II Standard	Class III Standard
pH (s.u.)	9.32	6.5 - 9.0	4.5 - 9.0	6.5 - 8.5
Cond. (μmhos/cm)	2898.0	---	---	---
Na	733.0	---	---	---
TDS	1940.0	500.0	2000.0	5000.0
As	0.015	0.05	0.1	0.2
Se	0.008	0.01	0.02	0.05
NO_3/NO_2-N	0.088	---	---	100.0
Ba	0.01	1.0	---	---
B	0.638	0.75	0.75	5.0
Cd	0.061	0.01	0.01	0.05
Cr	0.026	0.05	0.1	0.05
Cu	0.01	1.0	0.2	0.5
Fe	0.146	0.3	5.0	---
Pb	0.053	0.05	5.0	0.1
Mn	0.017	0.05	0.2	---
Hg	0.00005	0.002	---	0.00005
Ni	0.024	---	0.2	---
Zn	0.024	5.0	2.0	25.0
Mo	0.005	---	---	---
Ca	8.91	---	---	---
Mg	3.41	---	---	---
Cl	14.3	250.0	100.0	2000.0
K	8.69	---	---	---
SO_4	891.0	250.0	200.0	3000.0
CO_2	33.0	---	---	---
HCO_3	660.0	---	---	---
NH_3-N	1.089	0.5	---	---
V	0.01	---	0.1	0.1
Ag	0.005	0.05	---	---
U	0.219	5.0	5.0	5.0
Ra226 (pCi/l)	93.5	5.0	5.0	5.0
Gross α (pCi/l)	230.0	15.0	15.0	15.0
Gross β (pCi/l)	267.0	---	---	---

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columns in Table 2 through 5 present comparisons of the post-restoration assay values to the established restoration criteria (item 2 above) and to Wyoming Class II criteria (item 3 above). Class II criteria were used for comparison since that is the highest use to which the water could conceivably be put, even though the natural water does not meet all Class II criteria. TDS alone would prohibit use of water from the B aquifer for domestic uses. IV(A) criteria simply require that a water have a TDS concentration not in excess of 10,000 mg/l, and a IV(A) classification also requires that no material be discharged into the water if it will render the water unsuitable for its intended use. LE #19

RESTORATION ASSAYS

Tables 2 through 5 present restoration assay summaries for wells 3X, 4X, 19X and 20X, the four Pattern I wells for which extensive baseline and restoration data are available. The tables present for purposes of comparison (1) the individual well baseline values, (2) restoration criteria established for this project during the processing of License to Explore No. 19, (3) Class II water quality criteria, and (4) the post-restoration assay values as determined by CDM Laboratories of Wheat Ridge, Colorado and by Chemical and Geological Laboratories of Casper, Wyoming. The last two columns in Table 2 through 5 present comparisons of the post-restoration assay values to the established restoration criteria (item 2 above) and to Wyoming Class II criteria (item 3 above). Class II criteria were used for comparison since that is the highest use to which the water could conceivably be put, even though the natural water does not meet all Class II criteria. TDS alone would prohibit use of water from the B aquifer for domestic uses.

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Table 2 . RESTORATION SUMMARY WELL NO. 3A (B-1)

(All values in mg/l unless otherwise noted.)

Parameter	Mean Baseline	Restoration Criteria	Class II Criteria	Assay Values and Dates						Meets Restoration Criteria?	Meets Class II Criteria?
				CSM Lab					C & G Lab		
				3-11-81	3-31-81	5-12-81	7-22-81	10-14-81	10-14-81		
pH (s.u.)	8.73	9.32	4.5 - 9.0	8.2	8.1	8.1	8.2	8.3		YES	YES
Cond. (µmho/cm)	2511	2899	---		2510	2565		2600		YES	
Na	637	733	---	550	570	573		580	568	YES	
TDS	1624	1940	2000.0	1850	1620	1620		1500		YES	YES
As	0.011	0.015	0.1	0.013	-0.005	0.005	-0.005	-0.005	-0.01	YES	YES
Se	0.003	0.003	0.02	-0.005	-0.005	-0.005	-0.005	-0.005	-0.01	YES	YES
NO_3/NO_2-N	0.06	0.089	---		0.36	0.05	-0.05	0.42		NO	---
Ba	-0.01	0.01	---		-0.2	-0.2	-0.01	-0.2		YES	---
B	0.55	0.638	0.75		0.6	0.5		0.5		YES	YES
Cd	0.0053	0.006	0.01		-0.01	-0.01		-0.005		YES	YES
Cr	-0.01	0.026	0.1		-0.02	-0.02		0.011		YES	YES
Cu	-0.01	0.01	0.2		-0.05	-0.05		-0.005		YES	YES
Fe	0.079	0.145	5.0	4.4	0.15	-0.05		0.14	0.03	YES	YES
Pb	0.033	0.053	5.0		-0.005	-0.005		-0.005		YES	YES
Mn	0.012	0.017	0.2		-0.05	-0.05		0.014		YES	YES
Hg	0.0006	0.001	---		-0.0001	-0.0001		0.0002		?	---
Ni	0.021	0.024	0.2		-0.05	-0.05		0.02		YES	YES
Zn	0.013	0.024	2.0		0.01	-0.05		0.008	0.01	YES	YES
Mo	-0.005	0.005	---	0.021	0.008	0.010	0.006	0.017	-0.1	NO	---
Ca	7.7	8.91	---		4.4	5.9		5.4		YES	---
Mg	2.8	3.41	---		2.9	2.5		2.6		YES	---
Cl	13	14.3	100.0		16	11		13	67 ?	YES	YES
K	4.3	8.69	---		3.5	4.3		3.3		YES	---
SO_4	727	891	200.0		736	752		725	640	YES	NO
CO_3	15	33	---	0	0	0	0	0		YES	---
HCO_3	576	660	---	557	551	594	537	505		YES	---
NH_3-N	0.73	1.089	---		-0.2	0.2		-0.2		YES	---
V	-0.005	0.01	0.1	0.03	0.006	0.008	-0.005	0.077	-0.05	NO	YES
Ag	-0.005	0.005	---		-0.02	-0.02		-0.005		YES	---
U	0.071	0.219	5.0	0.12	0.18	0.64	0.51	0.24	0.25	NO	YES
Ra226	77	93.5	5 pCi/l		22	9.5	---	22	16	YES	NO
Gross α(pCi/l)	209	230	15 pCi/l		180	400	310	130		YES	NO
Gross β(pCi/l)	218	267	---		56	220	190	68		YES	---

*Blank space indicates no assay for given date. *--- indicates no Wyoming Standard. * - indicates less than value shown.

Table 3 . RESTORATION SUMMARY WELL NO. 4x (B-3)

(All values in mg/l unless otherwise noted.)

Parameter	Mean Baseline	Restoration Criteria	Class II Criteria	Assay Values and Dates						Meets Restoration Criteria?	Meets Class II Criteria?
				CDH Lab					C & G Lab		
				3-10-81	3-31-81	5-12-81	7-23-81	10-14-81	10-14-81		
pH (s.u.)	8.92	9.32	4.5 - 9.0	8.9	8.1	8.2	8.4	8.3		YES	YES
Cond. (µmho/cm)	2496	2898	---		2510	2430		2700		YES	
Na	631	733	---	550	580	569		570	577	YES	
TDS	1660	1930	2000.0	1630	1650	1640		1510		YES	YES
As	0.012	0.015	0.1	-0.005	0.005	-0.005	-0.005	-0.005	-0.01	YES	YES
Se	0.003	0.003	0.02	-0.005	0.003	-0.005	-0.005	-0.005	-0.01	YES	YES
NO_3/NO_2-N	0.05	0.086	---		0.50	0.34	0.07	-0.05		YES	---
Ba	-0.01	0.01	---		-0.2	-0.2		-0.2		(?)	---
B	0.55	0.638	0.75		0.6	0.4		0.6		YES	YES
Cd	0.0055	0.006	0.01		-0.01	-0.01		-0.005		YES	YES
Cr	-0.01	0.026	0.1		-0.02	-0.02		0.016		YES	YES
Cu	-0.01	0.01	0.2		-0.05	-0.05		-0.005		YES	YES
Fe	0.073	0.146	5.0	0.05	0.18	-0.05		0.13	0.03	YES	YES
Pb	0.043	0.053	5.0		-0.005	-0.005		-0.005		YES	YES
Mn	0.010	0.017	0.2		-0.05	-0.05		0.028		(NO)	YES
Hg	-0.0001	0.0002	---		-0.0001	-0.0001		-0.0001		(?)	---
Ni	0.022	0.024	0.2		-0.05	-0.05		0.02		YES	YES
Zn	0.008	0.024	2.0		0.02	-0.05	0.01	0.011	0.01	YES	YES
Mo	-0.005	0.005	---	0.014	0.007	0.006	0.008	0.010	-0.1	(NO)	---
Ca	8.1	8.91	---		4.7	6.2		5.5		YES	---
Mg	2.7	3.41	---		2.9	2.4		2.6		YES	---
Cl	10	14.3	100.0		13	11		12	(21)	YES	YES
K	7.1	8.69	---		3.6	4.5		3.9		YES	YES
SO_4	753	891	200.0		739	750		715	715	YES	NO
CO_3	27	33	---	51	0	0	12	0		YES	---
HCO_3	570	660	---	638	568	619	542	588		YES	---
NH_3-N	0.85	1.039	---		-0.2	0.3		0.4		YES	---
V	-0.005	0.01	0.1	-0.005	-0.005	0.014	-0.005	0.094	-0.05	(NO)	YES
Ag	-0.005	0.005	---		-0.02	-0.02		-0.005		YES	---
U	0.089	0.219	5.0	0.21	0.12	0.16	0.16	0.22	0.250	(NO)	YES
Ra226	16	93.5	5 pCi/l		16	14	---	26	11	YES	NO
Gross α(pCi/l)	145	230	15 pCi/l		118	160	130	180		YES	NO
Gross β(pCi/l)	95	267	---		67	35	60	49		YES	---

*Blank space indicates no assay for given date. *--- indicates no Wyoming Standard. * - indicates less than value shown.

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Table 4 . RESTORATION SUMPPY WELL NO. 29X (1-2)

(All values in mg/l unless otherwise noted.)

Parameter	Mean Baseline	Restoration Criteria	Class II Criteria	Assay Values and Dates — CDM Lab 3-12-81	4-1-81	5-12-81	7-22-81	10-14-81	C & G Lab 10-14-81	Meets Restoration Criteria?	Meets Class II Criteria?
pH (s.u.)	8.77	9.12	5.5 - 9.0	8.5	8.4	8.1	8.7	8.5		YES	YES
Cond. (umho/cm)	2036	2593	---		2570	2430		2700		YES	---
Na	516	733	---	530	580	559		560	580	YES	YES
TDS	1284	1910	2000.0	1680	1680	1670		1520		YES	YES
As	0.038	0.015	0.1	0.018	0.016	-0.005	0.010	0.005	-0.01	YES	YES
Se	0.004	0.009	0.02	-0.005	0.010	-0.005	-0.005	-0.005	-0.01	YES	YES
NO_3/NO_2-N	0.06	0.583	---		-0.05	0.52	0.24	-0.05		YES	---
Ba	-0.01	0.01	---		-0.2	-0.2		-0.2		?	---
B	0.58	0.638	0.75		0.7	0.4		0.6		YES	YES
Cd	0.005	0.006	0.01		-0.01	-0.01		-0.005		YES	YES
Cr	-0.01	0.026	0.1		-0.02	-0.02		0.012		YES	YES
Cu	-0.01	0.01	0.2		-0.05	-0.05		-0.005		YES	YES
Fe	0.109	0.146	5.0	0.44	0.12	-0.05		0.07	0.03	YES	YES
Pb	0.035	0.053	5.0		-0.005	-0.005		-0.005		YES	YES
Mn	0.011	0.017	0.2		-0.05	-0.05		0.015		YES	YES
Hg	-0.0000	0.0001	---		-0.0001	-0.0001		-0.0001		?	---
Ni	0.012	0.024	0.2		-0.05	-0.05		-0.02		YES	YES
Zn	0.009	0.024	2.0		0.03	-0.05	-0.01	0.005	0.01	YES	YES
Mo	-0.005	0.035	---	0.016	0.032	0.005	-0.005	0.010	-0.1	? NO	---
Ca	4.9	8.91	---		3.4	6.3		3.9		YES	---
Mg	2.7	3.41	---		2.2	2.5		2.2		YES	---
Cl	6	14.3	100.0		12	12		11	16	YES	YES
K	4.7	8.69	---		4.4	4.4		3.7		YES	---
SO_4	401	891	200.0		652	755		722	725	YES	NO
CO_3	30	33	---	17	4	0	62	11		YES	---
HCO_3	707	660	---	650	580	591	444	520		YES	---
NH_3-N	0.37	1.089	---		0.6	-0.2		0.6		YES	---
V	-0.005	0.01	0.1	0.029	0.032	0.005	-0.005	0.101	-0.05	NO	YES
Ag	-0.005	0.005	---		-0.02	-0.02		-0.005		YES	---
U	0.032	0.219	5.0	0.094	0.081	0.088	0.065	0.068	0.055	YES	YES
Ra226	1.5	93.5	5 pCi/l		17	21	---	20	8.6	YES	NO
Gross a(pCi/l)	4	230	15 pCi/l		160	88	35	85		YES	NO
Gross B(pCi/l)	5	267	---		39	28	6	36		YES	---

*Blank space indicates no assay for given date. *--- indicates no Wyoming Standard. * - indicates less than value shown.

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Table 5 . RESTORATION SUMMARY WELL NO. 19X

(All values in mg/l unless otherwise noted.)

Parameter	Mean Baseline	Restoration Criteria	Class II Criteria	Assay Values and Dates — CPM Lab 3-12-81	CPM Lab 4-1-81	CPM Lab 5-12-81	CPM Lab 7-22-81	CPM Lab 10-14-81	C & G Lab 10-14-81	Meets Restoration Criteria?	Meets Class II Criteria?	Mean Baseline
pH (s.u.)	8.51	9.32	4.5 - 9.0	8.6	8.5	8.1	8.2	8.3		YES	YES	8.51
Cond. (umho/cm)	2513	2899	---		2540	2460		2600		YES	---	2511
Na	619	733	---	620	630	586		605	569	YES	---	619
TDS	1672	1940	2000.0	1750	1630	1630		1510		YES	YES	1672
As	0.011	0.015	0.1	0.084	0.064	0.003	0.011	-0.005	-0.01	YES	YES	0.011
Se	0.002	0.008	0.02	0.009	0.005	-0.005	-0.005	-0.005	-0.01	YES	YES	0.002
NO_3/NO_2-N	0.05	0.068	---		-0.05	0.52	0.26	0.54		NO	---	0.05
Ba	-0.01	0.01	---		-0.2	-0.2		-0.2		?	---	-0.01
B	0.45	0.639	0.75		0.6	0.5		0.7		NO	YES	0.45
Cd	0.0053	0.006	0.01		-0.01	-0.01		-0.005		YES	YES	0.0053
Cr	-0.01	0.026	0.1		-0.02	-0.02		0.01		YES	YES	-0.01
Cu	-0.01	0.01	0.2		-0.05	-0.05		-0.005		YES	YES	-0.01
Fe	0.108	0.146	5.0	0.33	0.18	-0.05		0.17	0.03	YES ?	YES	0.108
Pb	0.032	0.053	5.0		-0.005	-0.005		-0.005		YES	YES	0.032
Mn	0.013	0.017	0.2		-0.05	-0.05		0.026		NO	YES	0.013
Hg	-0.0001	0.0001	---		-0.0001	-0.0001		-0.0001		?	---	-0.0001
Ni	0.018	0.024	0.2		-0.05	-0.05		0.02		YES	YES	0.018
Zn	0.008	0.023	2.0		0.09	0.06	0.01	0.019	0.03	YES	YES	0.008
Mo	-0.005	0.005	---	0.072	0.025	0.01	0.027	0.011	-0.1	NO	---	0.014
Ca	6.9	8.91	---		2.8	6.6		5.5		YES	---	6.9
Mg	2.9	3.41	---		2.3	2.5		2.8		YES	---	-0.005
Cl	12	14.3	100.0		13	12 *		13	16	YES	YES	12
K	3.8	8.69	---		3.6	4.2		3.1		YES	---	3.8
SO_4	761	891	200.0		652	764		722	700	YES	---	761
CO_3	10	33	---	19	13	0	0	0		YES	---	10
HCO_3	581	660	---	726	676	595	531	520		YES	---	581
NH_3-N	0.59	1.039	---		0.5	0.4		0.2		YES	---	0.59
V	-0.005	0.01	0.1	0.560	0.450	0.049	0.057	0.073	-0.05	NO	YES	-0.005
Ag	-0.005	0.005	---		-0.02	-0.02		-0.005		YES	---	-0.005
U	0.119	0.219	5.0	8.0	1.1	1.4	0.84	0.48	0.485	NO	YES	0.119
Ra226	85	93.5	5 pCi/l		37	30	---	31	20	YES	NO	85
Gross a(pCi/l)	123	230	15 pCi/l		850	830	360	300		NO	NO	123
Gross a(pCi/l)	243	267	---		770	500	270	91		YES	---	243

*Blank space indicates no assay for given date. *--- indicates no Wyoming Standard. * - indicates less than value shown.

From Table 2 it may be seen that well 3X (or B-1) is fully restored to established criteria for all parameters with the exceptions of nitrate/nitrite nitrogen, molybdenum, vanadium and uranium. However, the restored water meets all Wyoming Class II standards which were met by the natural water.

From Table 3 is may be seen that well 4X (or B-3) is fully restored to established restoration criteria with the exceptions of manganese, molybdenum, vanadium and uranium. Again, the restored water meets all Wyoming Class II criteria which were met by the natural water.

Wells 3X and 4X were used as buffer wells, meaning that they received only formation water and not solution mining chemicals. Thus, it is probable that the restoration values which are exceeded are the result of analytical errors or natural water quality fluctuations.

From Table 4 it may be seen that well 20X (or injection well I-2) has been fully restored to established restoration criteria with the single exception of vanadium. Again, the restored water meets all Class II criteria, including vanadium, with the exceptions of sulfate, radium 226 and gross alpha, which were above Class II criteria in the natural water.

Table 5 shows that well 19X (within the production zone) has been fully restored to established restoration criteria with the exceptions of nitrate/nitrite nitrogen, boron, manganese, molybdenum, vanadium, uranium and gross alpha.

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practical limits, met established restoration criteria. Further, it is clearly demonstrated that the restored water does in fact exhibit a quality of use equal to and consistent with uses for which the water was suitable prior to commencement of the operation. However, it meets all Class II criteria (and even Class I criteria, see Table 1) which were met by the natural water. with Class II water quality criteria. The restoration values meet all Class II criteria which were met by the natural

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CONCLUSIONS

Pattern wells exhibit minor variations from established restoration criteria. However, the restoration meets criteria which would be established under modern regulations. The 1981 LQD rules and regulations (Chapter XXI, Section 3.d) require that "... through the employment of the best practicable technology (WS 35-11-103(f) (i)..." the "... condition and quality of all affected ground water will be returned to background or better, or if not possible, then ... to a quality of use, equal to and consistent with uses for which the water was suitable prior to commencement of the operation..."

Data presented in this report demonstrate that the restoration procedures employed by ND Resources have, within practical limits, met established restoration criteria. Further, it is clearly demonstrated that the restored water does in fact exhibit a quality of use equal to and consistent with uses for which the water was suitable prior to commencement of the operation. This was demonstrated by comparing assays of water from the restored well pattern with Class II water quality criteria. The restoration values meet all Class II criteria which were met by the natural

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sampling. Therefore, the conclusion that the water is restored is confirmed.

Water quality trends during the stabilization period may be determined by examining the various restoration assays presented in Tables 2 through 5. These trends indicate that the restoration assays demonstrate stability over the long term.

The natural water does not meet quality standards for domestic, irrigation or livestock waters, and comparison of restoration values with Class II criteria were done merely for illustrative purposes.

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Another method of evaluating restoration success, rather than comparing the restored water to an entire use category, is to compare restored water quality with parameter-by-parameter use categories. That is, the restoration is considered a success if each individual parameter in the restoration assay is within the baseline use category for that particular parameter. Thus, if arsenic meets Class I standards in the baseline sample, it would have to meet Class I standards in the restoration assay even though the water itselt is not a Class I water. This method of examining restoration success can be readily applied using data presented in this report by comparing information contained in Tables 1 through 5. Each individual parameter in the final restoration assays meets the same use category suitability that is met by that parameter in the baseline sample. Therefore, the conclusion that the water is restored is confirmed.

Water quality trends during the stabilization period may be determined by examining the various restoration assays presented in Tables 2 through 5. These trends indicate that the restoration assays demonstrate stability over the long term.

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PERMIT NO. [redacted]

Therefore, it is concluded that restoration has been achieved and has evidenced stability over a substantial period of time. This restoration meets the requirements of the Wyoming Environmental Quality Act and the 1981 LQD Rules and Regulations.

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It is therefore our opinion that ND Resources, Inc. is justified in requesting permission from DEQ/LQD to plug and seal off all Phase I wells.

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PERMIT NO.