Exploration

Pit/Bench/Pattern #: R91-723 0-5' → 125-130 BLAST HOLE

Submittal Date: 3/27/91 5:45p

Hot NaCN Shake and FIRE DETERMINATIONS

DATE: 4/1/91

NAME: KW

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.				25.	Standard ✓		.013
2.				26.	20-25	.004	.003
3.				27.	25-30	.002	.002
4.				28.	30-35	.003	.001
5.				29.	35-40	.002	.003
6.				30.	40-45	.010	.008
7.				31.	45-50	.011	.012
8.	Standard ✓			32.	50-55	.015	.014
9.				33.			
10.				34.			
11.				35.	55-60	.034	.032
12.				36.	60-65	.031	.028
13.				37.	65-70	.015	.014
14.				38.	70-75	.018	.016
15.				39.	✓7	25'@.030	.029
16.				40.	75-80	.050	.047
17.				41.	80-85	.009	.007
18.				42.	Standard ✓		.015
19.				43.	85-90	.005	.004
20.				44.	90-95	NIL	.001
21.	R91-723 0-5	5'@.025	.022	45.	95-100	.002	.003
22.	5-10	.004	.003	46.	100-105	.005	.003
23.	10-15	NIL	.001	47.	105-110	.005	.004
24.	15-20	.002	.001	48.		Std ✓	.015

Exploration

Pit-Bench-Pattern #

R91-723

0-5' → 125-130' cont

130-135' → 260-265

Submittal Date

3/27/91 5:45p Cont

*3/28/91 11: A

BLAST HOLE

Hot NaCN Shake

and

FIRE DETERMINATIONS

DATE: 4/1/91

NAME: KW

5

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.	R91-723 110-115'	.005	.004	25.	Standard ✓		.015
2.	115-120'	5'@ .031	.029	26.	R91-723 205-210'	.006	.004
3.	120-125'	.005	.003	27.	210-215'	.015	.016
4.	125-130'	.006	.004	28.	215-220'	.022	.017
5*	R91-723 130-135'	.009	.005	29.	220-225'	.024	.021
6.	(1) 135-140'	.012	.010	30.	225-230'	.031	.030
7.	(2) 135-140'		.008	31.	230-235'	.041	.035
8.	Standard ✓		.014	32.	235-240'	.079	.073
9.	140-145'	.016	.017	33.	[redacted]		
10.	145-150'	.005	.004	34.			
11.	150-155'	.010	.009	35.	240-245'	30'@ .033 .027	.022
12.	155-160'	.013	.010	36.	245-250'	.005	.003
13.	160-165'	.019	.016	37.	250-255'	.037	.034
14.	165-170'	.045	.041	38.	255-260'	.005	.006
15.	170-175'	.037	.033	39.	260-265'	.005	.003
16.	[redacted]			40.		Std ✓	.015
17.				41.			
18.	175-180'	.017	.014	42.	Standard ✓		
19.	✓ 7	35'@ .036	.033	43.			
20.	180-185'	.031	.025	44.			
21.	185-190'	.059	.051	45.			
22.	190-195'	.037	.033	46.			
23.	195-200'	.026	.021	47.			
24.	200-205'	.013	.014	48.			

Exploration

Pit/Bench/Pattern & R91-723 0-5' → 125-130' BLAST HOLE

Submittal Date 3/27/91 5:45p

Hot NaCN Shake and FIRE DETERMINATIONS

DATE: 4/1/91

NAME: KW

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.				25.	Standard ✓		.013
2.				26.	20-25		.003
3.				27.	25-30		.002
4.				28.	30-35		.001
5.				29.	35-40		.003
6.				30.	40-45		.008
7.				31.	45-50		.012
8.	Standard ✓			32.	50-55		.014
9.				33.			
10.				34.			
11.				35.	55-60		.032
12.				36.	60-65		.028
13.				37.	65-70		.014
14.				38.	70-75		.016
15.				39.	✓7		.029
16.				40.	75-80		.047
17.				41.	80-85		.007
18.				42.	Standard ✓		.015
19.				43.	85-90		.004
20.				44.	90-95		.001
21.	R91-723 0-5		.022	45.	95-100		.003
22.	5-10		.003	46.	100-105		.003
23.	10-15		.001	47.	105-110		.004
24.	15-20		.001	48.		Std ✓	.015

Exploration

Pit-Bench-Pattern #

R91-723

0-5' → 125-130' cont

130-135' → 260-265

Submittal Date

3/27/91 5:45p Cont

*3/28/91 11: A

BLAST HOLE

Hot NaCN Shake

and

FIRE DETERMINATIONS

DATE: 4/1/91

NAME: KW

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.	R91-723 110-115'		.004	25.	Standard ✓		.015
2.	115-120'		.029	26.	R91-723 205-210'		.004
3.	120-125'		.003	27.	210-215'		.016
4.	125-130'		.004	28.	215-220'		.017
5*	R91-723 130-135'		.005	29.	220-225'		.021
6.	(1) 135-140'		.010	30.	225-230'		.030
7.	(2) 135-140'		.008	31.	230-235'		.035
8.	Standard ✓		.014	32.	235-240'		.073
9.	140-145'		.017	33.			
10.	145-150'		.004	34.			
11.	150-155'		.009	35.	240-245'		.022
12.	155-160'		.010	36.	245-250'		.003
13.	160-165'		.016	37.	250-255'		.034
14.	165-170'		.041	38.	255-260'		.006
15.	170-175'		.033	39.	260-265'		.003
16.				40.		Std ✓	.015
17.				41.			
18.	175-180'		.014	42.	Standard ✓		
19.	✓ 7		.033	43.			
20.	180-185'		.025	44.			
21.	185-190'		.051	45.			
22.	190-195'		.033	46.			
23.	195-200'		.021	47.			
24.	200-205'		.014	48.			

Contractor: Douglas Exploration
Drill Type: I.V.I Buggy
Hole Size: 4½"
Collar Elev.: 5669.81

Coordinates: 4595.23 2669.08
Casing Depth:
Bearing: 530E Inclination: -60°
Final Depth: 265'

Project: "Bunny Ear" Expl.
State: SD
Date Started: 3-26-91 2:35 pm
Date Completed: 3-27-91 9:13 Am

Hole No.: R91-723 (B-10)
Sheet 1 of 2
Property: Gilt Edge
Hole Surveyed: NO

Distance (feet)	Alteration (Weak / Moderate / Strong)	Total Sulfides (vol %)	Rock Code	Ore Code	Distance Down Hole (feet)	Elevation / Time	Rock Type	Description (Mineralogy, Alteration, Textures, Grain Size, Fragment Size)	Mineralization (Distribution: Massive, Disseminated, Veinlets, Replacement; Type)	Assay Au	Assay Ag
			80	3	0-5	2:35pm	Tgfp	0-265' Quartz Trachyte Porphyry m.g., yellowish tan FeOx color.	0-265 Oxide (no visible sulfides)		
					20-25						
					45-50			(47'-62') Fract. zone, stronger reddish brown FeOx	(47') Begin st. FeOx, potassic alt. mod-/strong to Qtz		
					70-75			(70-80') Fract. zone; mod. reddish brw. FeOx	(70-80') Mod. clay in & coating chips		
					75-100						
					120-125	5:00pm 7:52Am					
					145-150			(142'-175) Fract. zone, weak-mod. FeOx.			
					170-175						

DRILL CUTTING LOG

Logged by: S. Pinghoffer

Contractor _____ Coordinates _____ Project _____ Hole No. R91-723

Drill Type _____ Casing Depth _____ State _____ Sheet 2 of 2

Hole Size _____ Bearing _____ Inclination _____ Date Started _____ Property _____

Collar Elev. _____ Final Depth _____ Date Completed _____ Hole Surveyed _____

DISTANCE (feet)	GRAPHIC LOGS: ALTERATION (1 Weak, 2 Moderate, 3 Strong)	TOTAL SULFIDES (vol %)	ROCK CODE	ORE CODE	DOWN HOLE LOCATION: DISTANCE DOWN HOLE (feet)	ELEVATION TIME	ROCK TYPE	GEOLOGIC NOTES: DESCRIPTION (MINERALOGY, ALTERATION, TEXTURES, GRAIN SIZE, FRAGMENT SIZE)	MINERALIZATION: DISTRIBUTION (Massive, Disseminated, Veinlet, Replacement)	TYPE	ASSAY: Au	Ag
			80	3	175-180		Tatp					
					195-200			(195-205) Fract. zone mod. FeOx @ 195'				
								(200-205) St. red FeOx.				
								(210-) Fract. zone. weak-mod. FeOx.				
					220-225							
					245-250							
								250-				
						10:50 AM		Hole TD @ 265'				
					270-275							
					295-300							
					320-325							
					345-350							

DRILL CUTTING LOG

Logged by:

R91-723

Time	Activity
2:35 pm	Begin drilling.
3:23 pm	35-40'
5:00 pm	125-130 End of day
7-91 7:00AM	On site, begin warm-up.
7:40AM	Tripping in.
7:52	Drilling 130-135'
8:38	170-175'
9:13	200-205

Exploration

Pit-Bench-Pattern # R91-724

0-5' → 115-120'
140-145' → 195-200'

Submittal Date 3/28/91 5:45p

BLAST HOLE

Hot NaCN Shake and FIRE DETERMINATIONS

DATE: 4/2/91

NAME: KW MM

		SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.	
.058 RR	1.	R91-724 0-5'	.056	.065	25.	Standard ✓		.014	
	2.	5-10'	.048	.044	26.	R91-724 105-110'	.192	.013	.141 RR
	3.	10-15'	.039	.037	27.	110-115'	.157	.034	.091 RR
.050 RR	4.	20-25'	.029	.059	28.	115-120'	.188	.057	
	5.	25-30'	.146	.169	29.	✓7		.030	
	6.	30-35'	.060	.057	30.	140-145'	.028	.018	
	7.	35-40'	.108	.082	31.	145-150'	.023	.006	
	8.	Standard ✓	~~[illegible]~~ 120' @ .074	.015	32.	150-155'	.017	.004	
	9.	40-45'	.034	.031	33.	[redacted]			
	10.	45-50'	.033	.041	34.				
	11.	50-55'	.032	.023	35.	155-160'	.134	.025	
.033 RR	12.	(1) 55-60'	.047	.014	36.	160-165'	.264	.170	
	13.	(2) 55-60'		.014	37.	165-170'	.073	.056	
.105 RR	14.	60-65'	.086	.019	38.	170-175'	.412	.266	
	15.	65-70'	.089	.073	39.	175-180'	.101	.081	
	16.	[redacted]			40.	180-185'	.651	.429	
	17.				41.	185-190'	.091	.054	
	18.	70-75'	.072	.056	42.	Standard ✓	60' @ .159	.014	
	19.	75-80'	.055	.027	43.	190-195'	.056	.037	
.109 RR	20.	80-85'	.065	.013	44.	195-200'	.059	.079	RR .078
.024 RR	21.	85-90'	.027	.004	45.	15'-20'	.028	.029	
	22.	90-95'	.070	.007	46.				
.040 RR	23.	95-100'	.040	.004	47.				
.138 RR	24.	100-105'	.076	.019	48.				

Contractor Douglas Exploration
Drill Type I.V.I Buggy
Hole Size 4½"
Collar Elev. 5419.53'

Coordinates 45548.44 N 26211.49 E
Casing Depth
Bearing due East Inclination -45°
Final Depth 200'

Project Dakota Maid Pit Devel.
State SD
Date Started 3-28-91 11:45 AM
Date Completed 3-28-91 4:30 pm

Hole No. R91-774 (D-4)
Sheet 1 of 1
Property Gilt Edge
Hole Surveyed NO

Distance (feet)	Graphic Logs: Alteration (1 Weak, 2 Moderate, 3 Strong)	Total Sulfides (vol %)	Rock Code	Ore Code	Down Hole Location: Distance Down Hole (feet)	Elevation / Time	Rock Type	Geologic Notes: Description (Mineralogy, Alteration, Textures, Grain Size, Fragment Size)	Mineralization: Distribution (Massive, Disseminated, Veinlet, Replacement) / Type	Assay Au	Assay Ag
			60	1	0-5	11:45 AM	Tdmtp	0-121 Dakota Maid Trachyte Porphyry. Coarse grained, grey & cream colored when unoxidized.	0-64' Sulfide, 3-5% f.g. & m.g. dissem. cubic pyrite.		
					20-25						
					45-50						
								(57') Narrow, ~3" oxidized fract. zone			
				2				(64'-85) Fract. zone, strong FeOx.	64'-76' Mix, mostly oxide, Trace visible sulfides, tr. sulfide chips prob. contamination?		
					70-75						
				1					76-120 Sulfide 2-3% pyrite w/ 15% oxidized frags to 85'		
					95-100						
			NR	NR	120-125		MW	121'-135' Mine Workings - no return	120-135 No data - mine workings.		
							NS	(135-140) No sample; hammer regaining circulation	135-155 Sulfide, 3-4% f.g. dissm. pyrite		
			60	1			Tdmtp	135-200 Dakota Maid Trachyte Porphyry			
					145-150						
				2					155-160 Mix, tr. pyrite		
				3				(160-165) sample dropped & rebagged off of pile.	160-185 Oxide, strong clay.		
					170-175			(170-185) Strong clay & FeOx zone			

DRILL CUTTING LOG

Logged by: S. Ringhoffer

Contractor _____ Coordinates _____ Project _____ Hole No. R91-724

Drill Type _____ Casing Depth _____ State _____ Sheet 2 of 2

Hole Size _____ Bearing _____ Inclination _____ Date Started _____ Property _____

Collar Elev. _____ Final Depth _____ Date Completed _____ Hole Surveyed _____

DISTANCE (feet)	GRAPHIC LOGS: ALTERATION (1 Weak, 2 Moderate, 3 Strong)	TOTAL SULFIDES (vol %)	ROCK CODE	ORE CODE	DOWN HOLE LOCATION: DISTANCE DOWN HOLE (feet)	ELEVATION	ROCK TYPE	GEOLOGIC NOTES: DESCRIPTION (MINERALOGY, ALTERATION, TEXTURES, GRAIN SIZE, FRAGMENT SIZE)	MINERALIZATION: DISTRIBUTION (Massive, Disseminated, Veinlet, Replacement)	TYPE	ASSAY: Au	Ag
			60	3	175-180		Tdmtp					
				1								
				2					185-190	Mix, 1-2% fg. disem. pyrite		
				1					190-195	Sulfide, 2-3% pyrite		
			↓	2	195-200	4:30pm	↓	Hole TD @ 200'	195-200	Mix, 1% pyrite		
					220-225							
					245-250							
					270-275							
					295-300							
					320-325							
					345-350							

DRILL CUTTING LOG

Logged by:

Time	Activity
11:30 AM	At site (~10 min wait for me)
11:47	Start drilling 0-5'
12:15 pm	15-20', Stop for Lunch
12:45	End Lunch, Start drill 20-25'.
2:35	Hit Mine workings
3:23	Low oil pressure on compresser. 160-165'.
3:26	Drillin' again.
3:50	Lost circulation - Bad "O" Ring driller thinks. I think its a serious structure.
4:00	Drilling.
4:30	Hole TD @ 200', Begin tripping.

Exploration

Pit-Bench-Pattern # R91-724 0-5' → 115-120' 140-145' → 195-200'

Submittal Date 3/28/91 5:45p

BLAST HOLE

Hot NaCN Shake and FIRE DETERMINATIONS

DATE: 4/2/91

NAME: KW MM

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.	R91-724 0-5'		.065	25.	Standard ✓		.014
2.	5-10'		.044	26.	R91-724 105-110'		.013
3.	10-15'		.037	27.	110-115'		.034
4.	15-20' 20-25'	55'@.058	0.029 .059	28.	115-120'	10'@.046	.057
5.	25-30'		.169	29.	✓7		.030
6.	30-35'		.057	30.	140-145'		.018
7.	35-40'		.082	31.	145-150'		.006
8.	Standard ✓		.015	32.	150-155'		.004
9.	40-45'		.031	33.			
10.	45-50'		.041	34.			
11.	50-55'		.023	35.	155-160'		.025
12.	55-60' (1)		.014	36.	160-165'		.170
13.	55-60' (2)		.014	37.	165-170'		.056
14.	60-65'		.019	38.	170-175'		.266
15.	65-70'		.073	39.	175-180'	45'@.133	.081
16.				40.	180-185'		.429
17.				41.	185-190'		.054
18.	70-75'	15'@.052	.056	42.	Standard ✓		.014
19.	75-80'		.027	43.	190-195'		.037
20.	80-85'		.013	44.	195-200'		.079
21.	85-90'		.004	45.	15'-20'		.029
22.	90-95'		.007	46.			
23.	95-100'		.004	47.			
24.	100-105'		.019	48.			

Exploration

Pit-Bench-Pattern # R91-725 0-5' → 65-70'

Submittal Date 3/29/91 1:30p

Fire

BLAST HOLE

Hot NaCN Shake and FIRE DETERMINATIONS

DATE: 4/2/91

NAME: MM

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.	R91-725 0-5'	.068	.045	25.	Standard ✓		
2.	5-10'	.042	.037	26.			
3.	10-15'	.039	.036	27.			
4.	15-20'	.036	.028	28.			
5.	20-25'	.042	.039	29.			
6.	25-30'	.024	.023	30.			
7.	30-35'	.016	.012	31.			
8.	Standard ✓		.014	32.			
9.	35-40'	.039	.026	33.			
10.	40-45'	.081	.061	34.			
11.	45-50'	.039	.020	35.			
12.	50-55'	.211	.095	36.			
13.	55-60'	.052	.008	37.	Poor sample, rubble, wood, wet		
14.	60-65'	.032	.010	38.	Ignore. SR		
15.	65-70'	.127	.015	39.			
16.				40.			
17.				41.			
18.				42.	Standard ✓		
19.				43.			
20.				44.			
21.				45.			
22.				46.			
23.				47.			
24.				48.			

55' c.057

Contractor: Douglas Exploration
Drill Type: I.V.I Buggy
Hole Size: 4 1/2
Collar Elev.: 5419.43'

Coordinates: 45708.42N 26254.13E
Casing Depth:
Bearing: 54°E Inclination: -45°
Final Depth: 85'

Project: Dakota Maid Pit Develop.
State:
Date Started: 3-28-91 5:00pm
Date Completed:

Hole No.: R91-725 (D-2)
Sheet 1 of 2
Property: Gilt Edge
Hole Surveyed: No

Distance (feet)	Alteration (1 Weak, 2 Moderate, 3 Strong)	Total Sulfides (vol %)	Rock Code	Ore Code	Distance Down Hole (feet)	Elevation / Time	Rock Type	Description (Mineralogy, Alteration, Textures, Grain Size, Fragment Size)	Mineralization: Distribution (Massive, Disseminated, Veinlet, Replacement) / Type	Assay: Au	Assay: Ag
			30	1	0-5	5:00 pm	Edh	0-25 Cambrian Deadwood Hornfels, fg, grey when not oxidized to orange-brown.	0-15 Sulfide, 2-3% fg. dissm pyrite, 5-10% oxidized frags. Some pyritic varts.		
				2		5:30 pm			15-25 Mix, 1-2% pyrite, ~50% oxidized frAgs.		
				2	20-25	7:30 AM					
			60	1			Tdmtp	25-53 Dakota Maid Trachyte Porphyry	25-53 Sulfide, 3-4% f.g. dissm. pyrite.		
									53-85 No data		
					45-50						
			NR				MW	(53-85) No return (wood?) Workings			
							MW				
							MW				
					70-75		MW				
							MW				
							MW	Hole TD @ 85' in rubble/Timbers - too risky to continue.			
					95-100						
					120-125						
					145-150						
					170-175						

DRILL CUTTING LOG

Logged by: S. Pinghoffer

Contractor _____ Coordinates _____ Project _____ Hole No. R91-725

Drill Type _____ Casing Depth _____ State _____ Sheet 2 of 2

Hole Size _____ Bearing _____ Inclination _____ Date Started _____ Property _____

Collar Elev. _____ Final Depth _____ Date Completed _____ Hole Surveyed _____

DISTANCE (feet)	GRAPHIC LOGS: ALTERATION (1 Weak, 2 Moderate, 3 Strong)	TOTAL SULFIDES % (vol %)	ROCK CODE	ORE CODE	DOWN HOLE LOCATION: DISTANCE DOWN HOLE (feet)	ELEVATION	GEOLOGIC NOTES: ROCK TYPE	DESCRIPTION: MINERALOGY, ALTERATION, TEXTURES, GRAIN SIZE, FRAGMENT SIZE	MINERALIZATION: DISTRIBUTION (Massive, Disseminated, Veinlets, Replacement)	TYPE	ASSAY: Au	Ag
					175-180							
					195-200							
					220-225							
					245-250							
					270-275							
					295-300							
					320-325							
					345-350							

DRILL CUTTING LOG

Logged by: _____

Time	Activity
3-28 5:00	Begin drilling 0-5'
5:30	Finish shift 15-20'
3-29 7:35AM	Start drilling, 20-25'
8:30	No return (: After hitting workings.)
9:05	Hole called, bad conditions @ 80-85'
	Hole TD @ 85.

Exploration

Pit-Bench-Pattern #

R91-725 0-5' → 65-70'

Submittal Date

3/29/91 1:30p

BLAST HOLE

Hot HoCN Shake and FIRE DETERMINATIONS

DATE: 4/2/91

NAME: KW MM

2

	SAMPLE	FIRE Au.	HoCN Au.		SAMPLE	FIRE Au.	HoCN Au.
1.	R91-725 0-5'		.045	25.	Standard ✓		
2.	5-10'		.037	26.			
3.	10-15'		.036	27.			
4.	15-20'		.028	28.			
5.	20-25'	55' @	.039	29.			
6.	25-30'	.039	.023	30.			
7.	30-35'		.012	31.			
8.	Standard ✓		.014	32.			
9.	35-40'		.026	33.			
10.	40-45'		.064	34.			
11.	45-50'		.020	35.			
12.	50-55'		.095	36.			
13.	55-60'		.008	37.			
14.	60-65'	Rubble,	.010	38.			
15.	65-70'	wood chips	.015	39.			
16.				40.			
17.				41.			
18.				42.	Standard ✓		
19.				43.			
20.				44.			
21.				45.			
22.				46.			
23.				47.			
24.				48.			

Contractor: Douglas Exploration
Drill Type: I.V.I Buggy
Hole Size: 4½"
Collar Elev.: 5419.93'

Coordinates: 45727.30N 26269.51E
Casing Depth:
Bearing: 540E Inclination: -45°
Final Depth: 150'

Project: Dakota Maid Pit Develop.
State: SD
Date Started: 3-29-91 9:25 AM
Date Completed: 3-29-91 1:05 pm

Hole No.: R91-726 (redrill of D-2)
Sheet 1 of 1
Property: Gilt Edge
Hole Surveyed: NO

DRILL CUTTING LOG

Logged by: S. Rinehart

Distance (feet)	Alteration (1 Weak, 2 Moderate, 3 Strong)	Total Sulfides (vol %)	Rock Code	Ore Code	Down Hole Location: Distance Down Hole (feet)	Elevation	Rock Type	Description: Mineralogy, Alteration, Textures, Grain Size, Fragment Size	Mineralization: Distribution (Massive, Disseminated, Veinlet, Replacement) / Type	Assay: Au	Assay: Ag
			70	1	0-5		TDXA	0-27 Breccia, mostly Edh & Tdmtp, possibly Thtp	0-20 Sulfide 3-4% f.g. dissm. pyrite		
				2	20-25				20-25 Mix, mostly oxide to pyrite		
			NR	3			MW MW	27'-42' Mine workings	25-27 Oxide		
									27-42 No data		
			60	1	45-50		Tdmtp	42-69 Dakota Maid Trachyte Porphyry c.g., mottled grey & cream color, tr. FBX on fracts.	42-69 Sulfide, 2-3% pyrite 69-120 No data		
			NR		70-75		MW	69'-92' Mine workings			
			90					92-100' Rubble - Backfill			
			90		95-100			Wet, muddy, woody sample (bedrock?)			
			NR					100'-120 Mine workings.			
							MW: Tdmtp	120' drilling rods but no return, lost @ cross-over. Return gained @ 123'.			
			60	1	120-125			120-150 Tdmtp	120-150 Sulfide 3-4% pyrite		
					145-150			Hole called @ 150'; dry drilling to difficult - cutting buildup in voids behind pipe.			
					170-175						

Time	Activity
9:25 AM	Drilling 0-5'
9:45	Hit Mine workings @ 27'
10:25	Regain good circulation.
10:33	Adding A foam to seal hole.
10:50	69', More Mine workings
11:33	Regained circulation, 90-95'
11:37	water, mud, wood, some rock. 95-100'
12:20	Gained return @ 123'
1:05	Hole called by me @ 1:05 pm. Would have to drill wet to con't - dry cuttings building up behind pipe causing high torque.

Pit-Bench-Pattern 0-5' → 145-150'

R91-726

Submittal Date

3/29/91 1:30p

BLAST HOLE

Hot NaCN Shale
and
FIRE DETERMINATIONS

DATE: 4/2/91

NAME: KW

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.				25.	Standard ✓		.016
2.				26.	~~35-40'~~		No Sample
3.				27.	40-45'	.052	.042
4.				28.	45-50'	.079	.063
5.				29.	50-55'	30'@.076 .198	.149
6.				30.	55-60'	.041	.032
7.				31.	✓7		.034
8.	Standard ✓			32.	60-65'	.032	.026
9.				33.	[redacted]		
10.				34.			
11.				35.	65-70'	.052	.043
12.				36.	~~70-75'~~		No Sample
13.				37.	~~75-80'~~		
14.				38.	~~80-85'~~		
15.				39.	~~85-90'~~		✓
16.	[redacted]			40.	90-95'	.041	.032
17.				41.	95-100'	.100	.071
18.	R91-726 0-5'	.025	.024	42.	Standard ✓		.014
19.	5-10'	.021	.017	43.	100-105'	.042	.037
20.	10-15'	30'@.027 .020	.017	44.	105-110'	.036	.029
21.	15-20'	.027	.018	45.	120-125'	.022	.018
22.	20-25'	.036	.027	46.	125-130'	30'@.024 .019	.015
23.	25-30'	.034	.028	47.	130-135'	.024	.019
24.	~~30-35'~~		No Sample	48.	135-140'	.036	.028
					140-145'	.017	.015
					145-150'	.023	.018

Rubble/backfill, poor sample, Ignore. KR

Exploration

~~Pit-Bench-Pattern~~ 0-5' → 145-150'

R91-726

Submittal Date

3/29/91 1:30p

BLAST HOLE

Hot NaCN Shake

and

FIRE DETERMINATIONS

DATE: 4/2/91

NAME: KW

3

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.				25.	Standard ✓		.016
2.				26.	~~35-40'~~		No Sample
3.				27.	40-45'		.042
4.				28.	45-50'		.063
5.				29.	50-55'		.149
6.				30.	55-60'	30' @ .059	.032
7.				31.	✓7		.034
8.	Standard ✓			32.	60-65'		.026
9.				33.			
10.				34.			
11.				35.	65-70'		.043
12.				36.	~~70-75'~~		No Sample
13.				37.	~~75-80'~~		
14.				38.	~~80-85'~~		
15.				39.	~~85-90'~~		
16.				40.	90-95'		.032
17.				41.	95-100'	20' @ .042	.071
18.	R91-726 0-5'	5' @ .024	.024	42.	Standard ✓		.014
19.	5-10'		.017	43.	100-105'		.037
20.	10-15'		.017	44.	105-110'		.029
21.	15-20'		.018	45.	120-125'		.018
22.	20-25'	10' @ .027	.027	46.	125-130'		.015
23.	25-30'		.028	47.	130-135'		.019
24.	~~30-35'~~		No Sample	48.	135-140'	5' @ .028	.028
					140-145'		.015
					145-150'		.018

Exploration

Pit-Bench-Pattern #

R91-727 0-5' → 135-140' BLAST HOLE

Submittal Date

3/29/91 4:30p

Hot HaCN Shake and FIRE DETERMINATIONS

DATE: 4/2/91

NAME: KW

	SAMPLE	FIRE Au.	HaCN Au.		SAMPLE	FIRE Au.	HaCN Au.
1.	R91-727 0-5'	.045	.036	25.	Standard ✓		.014
2.	✓7		.030	26.	R91 727 95-100'	.020	.017
3.	5-10'	.020	.016	27.	100-105'	.014	.009
4.	10-15'	.029	.023	28.	105-110'	.013	.009
5.	15-20' (1)	.036	.030	29.	110-115'	.026	.021
6.	15-20' (2)		.031	30.	115-120'	.032	.028
7.	20-25'	.053	.049	31.	120-125'	.044	.038
8.	Standard ✓	60'@.097	.016	32.	125-130'	40'@.025 .024	.019
9.	25-30'	.067	.054	33.			
10.	30-35'	.049	.041	34.			
11.	35-40'	.046	.044	35.	130-135'	.027	.022
12.	40-45'	.038	.026	36.	135-140'	.019	.017
13.	45-50'	.041	.037	37.			
14.	50-55'	.101	.088	38.			
15.	55-60'	.052	.047	39.			
16.				40.			
17.				41.			
18.	60-65'	.017	.015	42.	Standard ✓		
19.	65-70'	.015	.014	43.			
20.	70-75'	.004	.005	44.			
21.	75-80'	.016	.013	45.			
22.	80-85'	.015	.012	46.			
23.	85-90'	.014	.011	47.			
24.	90-95'	.012	.010	48.			

Exploration

Pit-Bench-Pattern: R91-727 0-5' → 135-140' BLAST HOLE

Submittal Date 3/29/91 4:30p

Hot HeCN Shake and FIRE DETERMINATIONS

DATE: 4/2/91

NAME: KW

	SAMPLE	FIRE Au.	HeCN Au.		SAMPLE	FIRE Au.	HeCN Au.
1.	R91-727 0-5'		.036	25.	Standard ✓		.014
2.	✓7		.030	26.	R91 727 95-100'		.017
3.	5-10'		.016	27.	100-105'		.009
4.	10-15'		.023	28.	105-110'		.009
5.	15-20' (1)		.030	29.	110-115'		.021
6.	15-20' (2)		.031	30.	115-120'		.028
7.	20-25'	60'@.041	.049	31.	120-125'	20'@.027	.038
8.	Standard ✓		.016	32.	125-130'		.019
9.	25-30'		.054	33.			
10.	30-35'		.041	34.			
11.	35-40'		.044	35.	130-135'		.022
12.	40-45'		.026	36.	135-140'		.017
13.	45-50'		.037	37.			
14.	50-55'		.088	38.			
15.	55-60'		.047	39.			
16.				40.			
17.				41.			
18.	60-65'		.015	42.	Standard ✓		
19.	65-70'		.014	43.			
20.	70-75'		.005	44.			
21.	75-80'		.013	45.			
22.	80-85'		.012	46.			
23.	85-90'		.011	47.			
24.	90-95'		.010	48.			

Contractor Douglas Exploration | Coordinates 45399.05N 26260.46E | Project Dakota Maid Pit Develop. | Hole No. R91-727 (D-8)

Drill Type I.V.I Buggy | Casing Depth | State | Sheet 1 of 1

Hole Size 4½" | Bearing — | Inclination -90° | Date Started 3-29-91 1:50pm | Property Gilt Edge

Collar Elev. 5419.83 | Final Depth 140' | Date Completed 3-29-91 4:17 pm | Hole Surveyed NO

GRAPHIC LOGS: DISTANCE (feet)	ALTERATION (Weak, Moderate, Strong)	TOTAL SULFIDES (vol %)	ROCK CODE	ORE CODE	DOWN HOLE LOCATION: DISTANCE DOWN HOLE (feet)	ELEVATION TIME	ROCK TYPE	GEOLOGIC NOTES: DESCRIPTION (MINERALOGY, ALTERATION, TEXTURES, GRAIN SIZE, FRAGMENT SIZE)	MINERALIZATION: DISTRIBUTION (Massive, Disseminated, Veinlet, Replacement) TYPE	ASSAY Au	ASSAY Ag
			60	3	0-5	1:50pm	Tdmtp	0-140' Dakota Maid Trachyte Porphyry, c.g. orange brown where oxidized, gray & mottled cream otherwise. VFeOx after pyrite & dissm.	0-20 Oxide (no visible sulfides)		
				2	20-25				20-55 Mix (20-35) ~1% f.g. dissm. pyrite (35-55) 1-2% f.g. dissm. & vnlt pyrite		
					45-50						
				1					55-140 Sulfide, ~1% oxide frags. (55-115) 3-4% f.g. & m.g. cubic pyrite.		
					70-75						
					95-100						
					120-125				(115-140) 4-5% f.g. dissm. pyrite.		
						4:17pm		Hole TD @ 140'			
					145-150						
					170-175						

DRILL CUTTING LOG

Logged by: S. [illegible]

Time	Activity
1:30	Setting up on D-8, Lunch break
1:50	Start drilling, 0-5'

Exploration

Pit-Bench-Pattern #

R91-728 0→5', 155-160'

Submittal Date

(28) 3-30-91 11:04 Am

(1)

BLAST HOLE

Hot NaCN Shake and FIRE DETERMINATIONS

DATE: 4-3

NAME: MM

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.				25.	Standard ✓		.014
2.				26.	60-65	.021	.023
3.				27.	65-70	.050	.043
4.				28.	70-75	.072	.069
5.				29.	80-85	.049	.040
6.				30.	85-90	.029	.024
7.				31.	90-95 ①	.016	.013
8.	Standard ✓			32.	90-95 ②	20' @	.012
9.				33.			
10.				34.			
11.	0-5'	.119	.097	35.	95-100	.024	.018
12.	5-10	.059	.052	36.	100-105		
13.	10-15	.034	.029	37.	105-110	NO samples	
14.	15-20	.031	.028	38.	110-115		
15.	20-25	.052	.043	39.	115-120	.013	.010
16.				40.	120-125	.008	.009
17.				41.	125-130	.010	.010
18.	25-30	15' @ .054 .068	.058	42.	Standard ✓		.014
19.	30-35	.095	.082	43.	130-135	.007	.008
20.	35-40	.082	.074	44.	135-140	.005	.003
21.	40-45	.043	.039	45.	140-145	.007	.005
22.	45-50	.044	.038	46.	145-150	.010	.008
23.	50-55	.021	.017	47.	150-155	.011	.009
24.	55-60	.023	.018	48.	155-160	5' @ .022	.018

NO 75-80

TWO 75-80

BREAK

Exploration

Pit-Bench-Pattern 1

R91-728 0→5'. 155-160'

Submittal Date

(28) 3-30-91 11:04 Am

BLAST HOLE

Hot NaCN Shake and FIRE DETERMINATIONS

(1)

DATE: 4-3

NAME: MM

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.				25.	Standard ✓		.014
2.				26.	60-65		.023
3.				27.	65-70		.043
4.				28.	70-75		.069
5.				29.	80-85		.040
6.				30.	85-90	10' @ .032	.024
7.				31.	90-95 (1)		.013
8.	Standard ✓			32.	90-95 (2)		.012
9.				33.			
10.				34.			
11.	0-5'		.097	35.	95-100		.018
12.	5-10		.052	36.	100-105		
13.	10-15		.029	37.	105-110	NO Samples	
14.	15-20		.028	38.	110-115		
15.	20-25	75' @ .047	.043	39.	115-120		.010
16.				40.	120-125		.009
17.				41.	125-130		.010
18.	25-30		.058	42.	Standard ✓		.014
19.	30-35		.082	43.	130-135		.008
20.	35-40		.074	44.	135-140		.003
21.	40-45		.039	45.	140-145		.005
22.	45-50		.038	46.	145-150		.008
23.	50-55		.017	47.	150-155		.009
24.	55-60		.018	48.	155-160		.018

NO 75-80

NO 75-80

Exploration

Pit-Bench-Pattern #

R91-728 0→5'. 155-160'

Submitted Date

(28) 3-30-91 11:04 Am

BLAST HOLE

Hot BoCN Shake and FIRE DETERMINATIONS

(1)

DATE: 4-3

NAME: MM

	SAMPLE	FIRE Au.	BoCN Au.		SAMPLE	FIRE Au.	BoCN Au.
1.				25.	Standard ✓		.014
2.				26.	60-65	.021	.023
3.				27.	65-70	.050	.043
4.				28.	70-75	.072	.069
5.				29.	80-85	.049	.040
6.				30.	85-90	.029	.024
7.				31.	90-95 (1)	.016	.013
8.	Standard ✓			32.	90-95 (2)		.012
9.				33.			
10.				34.			
11.	0-5'	.119	.097	35.	95-100	.024	.018
12.	5-10	.059	.052	36.	100-105		
13.	10-15	.034	.029	37.	105-110	NO Sample	
14.	15-20	.031	.028	38.	110-115		
15.	20-25	.052	.043	39.	115-120	.013	.010
16.				40.	120-125	.008	.009
17.				41.	125-130	.010	.010
18.	25-30	.068	.058	42.	Standard ✓		.014
19.	30-35	.095	.082	43.	130-135	.007	.008
20.	35-40	.082	.074	44.	135-140	.005	.003
21.	40-45	.043	.039	45.	140-145	.007	.005
22.	45-50	.044	.038	46.	145-150	.010	.008
23.	50-55	.021	.017	47.	150-155	.011	.009
24.	55-60	.023	.018	48.	155-160	.022	.018

NO 75-80

NO 75-80

Contractor Douglas Exploration
Drill Type I.V.I Buggy
Hole Size 4 1/2"
Collar Elev. 5419.53'

Coordinates 45451.21N 26247.06E
Casing Depth
Bearing due E. Inclination -60°
Final Depth 160'

Project Dakota Maid Pit Develop.
State SD
Date Started 3-29-91 4:45 pm
Date Completed 3-30-91 10:45 AM

Hole No. R91-728 (D-5)
Sheet 1 of 1
Property Gilt Edge
Hole Surveyed NO

DISTANCE (feet)	GRAPHIC LOGS: ALTERATION (1 Weak, 2 Moderate, 3 Strong)	TOTAL SULFIDES (vol %)	ROCK CODE	ORE CODE	DOWN HOLE LOCATION: DISTANCE DOWN HOLE (feet)	ELEVATION TIME	ROCK TYPE	GEOLOGIC NOTES: DESCRIPTION (MINERALOGY, ALTERATION, TEXTURES, GRAIN SIZE, FRAGMENT SIZE)	MINERALIZATION: DISTRIBUTION (Massive, Disseminated, Veinfill, Replacement) TYPE	ASSAY Au	ASSAY Ag
			60	3	0-5	4:45 pm	Tdmtp	0-73 Dakota Maid Trachyte Porphyry, sheared, mod. clay, st. reddish orange FeOx color	0-102 Oxide (no visible sulfides)		
					20-25						
						7:45 AM					
					45-50						
					70-75	8:20		(73-81') Workings, no return			
			NR				MW				
							Tdmtp	81'-102 Dakota Maid Trachyte Porphyry.			
					95-100						
			NR			9:20 AM	MW	(102'-115) Mine Workings	102-115 No data		
							MW	(12') Loose Rubble			
							MW				
			60	1			Tdmtp	115-160 Dakota Maid Trachyte Porphyry	115-160 Sulfide, 3-4% f.g. & mg. dissm. pyrite.		
					120-125						
					145-150						
						10:45 AM		Hole TD @ 160'			
					170-175						

DRILL CUTTING LOG

Logged by: S. Kinghoff

Time	Activity
3-29 4:34	At site, set up, change bit
4:45	Drilling 0-5'
5:10	End shift @ 25-30'
3-30 7:10	Warm-up
7:45	Drilling 30-35'
7:53	Plugged x-over
7:57	drilling 45-50'
8:20	possibley hit backfilled workings, very litte return, tr. wood in cuttings
10:45	Hole TD @ 160'

Exploration

Pit-Bench-Pattern #

R91-729 0-5', 125-130'

(29)

Submittal Date

4-1-91 5:30 p

BLAST HOLE

Bot NaCN Shake and FIRE DETERMINATIONS

(2)

DATE: 4-3

NAME: MM

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.	0-5	.043	.037	25.	Standard ✓		.014
2.	5-10	.019	.018	26.	100-105	.010	.011
3.	10-15	.016	.017	27.	105-110	NO	
4.	15-20	.037	.033	28.	110-115	Sample	
5.	20-25	.034	.029	29.	115-120	.021	.017
6.	25-30	.038	.032	30.	120-125	15'@.037 .029	.023
7.	30-35	.265	.231	31.	125-130 ①	.060	.054
8.	Standard ✓		.014	32.	125-130 ②		.051
9.	35-40	.037	.027	33.			
10.	40-45	.034	.027	34.			
11.	45-50	.033	.028	35.			
12.	50-55	.033	.024	36.			
13.	55-60	.029	.023	37.			
14.	60-65	.019	.014	38.			
15.	65-70	.044	.034	39.			
16.				40.			
17.				41.			
18.	✓7	00'@.043	.031	42.	Standard ✓		
19.	70-75	.034	.026	43.			
20.	75-80	.035	.029	44.			
21.	80-85	.025	.023	45.			
22.	85-90	.017	.012	46.			
23.	90-95	.018	.015	47.			
24.	95-100	.051	.043	48.			

Exploration

Pit-Bench-Pattern #

R91-729 0-5', 125-130'

(24) Submittal Date

4-1-91 5:30 p

(2)

BLAST HOLE

Hot NaCN Shake and FIRE DETERMINATIONS

DATE: 4-3

NAME: MM

	SAMPLE	FIRE Au.	NaCN Au.		SAMPLE	FIRE Au.	NaCN Au.
1.	0-5		.037	25.	Standard ✓		.014
2.	5-10		.018	26.	100-105		.011
3.	10-15		.017	27.	105-110	NO	
4.	15-20		.033	28.	110-115	Samples	
5.	20-25		.029	29.	115-120		.017
6.	25-30		.032	30.	120-125		.023
7.	30-35		.231	31.	① 125-130	10' @ ~~.033~~	.054
8.	Standard ✓		.014	32.	② 125-130	.037	.051
9.	35-40	100' @ .036	.027	33.			
10.	40-45		.027	34.			
11.	45-50		.028	35.			
12.	50-55		.024	36.			
13.	55-60		.023	37.			
14.	60-65		.014	38.			
15.	65-70		.034	39.			
16.				40.			
17.				41.			
18.	✓ 7		.031	42.	Standard ✓		
19.	70-75		.026	43.			
20.	75-80		.029	44.			
21.	80-85		.023	45.			
22.	85-90		.012	46.			
23.	90-95		.015	47.			
24.	95-100		.043	48.			

$\bar{x}$ = .052

Contractor Douglas Exploration
Drill Type I.V.I Buggy
Hole Size 4 1/2"
Collar Elev. 5419.83'

Coordinates 45399.05N 26260.46E
Casing Depth
Bearing due E. Inclination -60°
Final Depth 130'

Project Dakota Maid Pit Develop.
State SD
Date Started 3-30-91 11:50 am
Date Completed 3-30-91 2:13 pm

Hole No. R91-729 (D-11)
Sheet 1 of 1
Property Gilt Edge
Hole Surveyed NO

DISTANCE (feet)	GRAPHIC LOGS: ALTERATION (1 Weak, 2 Moderate, 3 Strong)	TOTAL SULFIDES (vol %)	ROCK CODE	ORE CODE	DOWN HOLE LOCATION: DISTANCE DOWN HOLE (feet)	ELEVATION	ROCK TYPE	GEOLOGIC NOTES: DESCRIPTION (MINERALOGY, ALTERATION, TEXTURES, GRAIN SIZE, FRAGMENT SIZE)	MINERALIZATION: DISTRIBUTION (Massive, Disseminated, Veinlet, Replacement) / TYPE	ASSAY Au	ASSAY Ag
			60	3	0-5		Tdmtp	0-105 Dakota Maid Trachyte Porphyry, e.g. mottled reddish brown & orange brown.	0-30 Oxide (no visible sulfides)		
					20-25			(0-) shear zone, st. FeOx, minor - mod. clay.			
				2				(33-40) porphyry is mottled dark gray & cream colored where not oxidized. light cream colored frags probably sanidine phenocrysts.	30-35 Mix, 1-2% f.g. dissm. pyrite. 20-30% oxidized frags		
				1							
				2							
				2	45-50				35-42 Sulfide, 2-3% f.g. dissm. pyrite. Tr.-1% oxidized frags		
				1							
									42-50 Mix, ~1% pyrite, >50% oxidized frags		
					70-75				50-130 Sulfide, (50-55) ~1-2% pyrite (55-130) ~4-6% pyrite, dissm. & vnlts.		
					95-100						
						1:45 pm		(104'-112') Mine workings (King Mine)			
			NR				MW	105-115 Mine workings			
			NR				MW				
			60			2:05 pm	Tdmtp	115-130 Tdmtp as above.			
					120-125						
						2:13 pm		Hole TD @ 130'			
					1 -15						
					170-175						

DRILL CUTTING LOG

Logged by: S. Ringhoffer

Time	Activity
11:10	Lunch
11:50	Set up @ drilling 0-5
1:45	Hit King Mine Workings
2:03	drilling 120'-125'
2:13	TD @ 130'