ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

RECORD CODE: L P C S M 0 1 (1–7) TRANS CODE: A (8)

REPORT DUE DATE 10/15/88 (36 M D Y 41) FEDERAL ID NUMBER _____

SITE INVENTORY NUMBER 0 3 1 6 0 0 0 0 3 3 (9–18) MONITOR POINT NUMBER G 1 3 S (19–22) (see Instructions)

REGION N CO. COOK DATE COLLECTED 08/18/88 (23 M D Y 28)

CHICAGO / PAXTON #2 IEPA LAB (x or Blank) (see Instructions) 29

LOCATION / RESPONSIBLE PARTY

FOR IEPA USE ONLY COMPLAINT NO. _____

DATE RECEIVED 10/15/88 (42 M D Y 47)

SAMPLING PURPOSE CODE (see Instructions) 48

TIME CARD PROGRAM CODE 49 — — 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54 TIME COLLECTED (24 HR CLOCK) 09.1 (55 H)

UNABLE TO COLLECT SAMPLE (see Instructions) 59

MONITOR POINT SAMPLED BY (see Instructions) B 60 OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X) 61 ORGANICS (X)

SAMPLE APPEARANCE 63 GREENISH BLACK CLOUD VERY STRONG ODOR 102

COLLECTOR COMMENTS 103 _____ 142

SPECIAL INSTRUCTIONS TO LAB _____

Andy House (COLLECTED BY) a 34 (143 INITIALS 145) GULF COAST LABS (DIVISION OR COMPANY) Andy House (TRANSPORTED BY) GULF COAST LABS (DIVISION OR COMPANY)

LAB USE ONLY

LAB SAMPLE NO. 138224 LAB NAME _____ LAB ID NO. 0 2 0 1 (146–149)

DATE RECEIVED 8-18-88 AND ADDRESS GULF COAST LABS, INC. 2417 BOND ST. UNIVERSITY PARK, IL. 60466

TIME RECEIVED 14:30

SAMPLE TEMP OKAY Y (Y/N) SAMPLE PROPERLY PRESERVED Y (Y/N) DATE COMPLETED 9-5-88 FORWARD 9-5-88

LAB COMMENTS 150 _____ 199

Richard Wright

SUPERVISOR SIGNATURE

US EPA RECORDS CENTER REGION 5
527658

RECORD CODE L P C S M 0 2 (1–7) TRANS CODE A (8)

	FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER			< OR >	VALUE	REPORT LEVEL
X	DEPTH TO WATER (ft. below LS)	72019 (30–34)				762 (38–47)	2 (48)
X	ELEVATION OF GW SURFACE (ft. ref MSL)	71993				58598	2
X	TOTAL WELL DEPTH (ft. below LS)	72008				1075	2
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	00431					
	REDOX POTENTIAL (millivolt) - Field	00090					
X	pH (units) - Field	00400				744	2
X	SPEC CONDUCTANCE (umhos) - Field	00094				11100	3
X	TEMP OF WATER SAMPLE (°F) - Field	00011				720	1

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1-2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000 for each day the failure continues, a fine up to $1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center

RECORD CODE L P C S M 0 2 (1–7) TRANS CODE A (8)

SITE INVENTORY NUMBER 0 3 1 6 0 0 0 0 3 3 (9–18)

MONITOR POINT NUMBER G 1 3 (19)

REGION N CO. COOK

DATE COLLECTED 08/18/88 (23 M D)

CHICAGO / PAXTON #2

LOCATION / RESPONSIBLE PARTY

IEPA LAB (x or Blank) (29)

LAB MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER			< OR >	VALUE	REPORTING LEVEL
T ALK CACO3 MG/L LAB	00410				2200	2
NH3+ NH4- N, DISS MG/L	00608				360	1
T ORG C AS C, MG/L	00680				340	2
CHLORIDE, MG/L	00941				2300	2
SULFATE SO4-, DISS MG/L	00946				22	1
BORON B, DISS UG/L	01020				5950	2
IRON FE, DISS UG/L	01046				578	1
PHENOLS, TOTAL UG/L	32730				20.000	2
RESIDUE, DISS-180°C MG/L	70300				5200	2

C001757 UC120'78

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

LAKE IMMED. WEST OF TRENCH A
Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 6 0 0 0 2 (16)

MONITOR POINT NUMBER (17) S 5 0 1 (20) DATE COLLECTED (21) 1 0 2 0 7 8 (26)

COOK Co. - LPC REGION (27) N

CHICAGO (Location) / PAXTON (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) Board Order (X) (29)

Time Collected 11:45 a.m. Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) GRAB (41) 3

Sample Appearance: SALMON REDDISH COLOR; MOD TURBID; NUMEROUS CRUSTACEANS PRESENT

Collector comments: FROM WEST LAKE NEAR NORTH DITCH DISCHARGE. LAKE IS BLOOD RED.

R.A. KOCH — Collected by; DLPC — Div. or Company

R.A. KOCH — Transported by; DLPC — Div. or Company

LAB USE ONLY

Lab No. C001757

Date Rec'd 10/20/78

Rec'd by [illegible] Time 9:30 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 11-8-78

Date forwarded 11-9-78

Dougherty
Supervisor Signature

Name of Lab: Environmental Protection Agency, Division of Laboratory Services

Address of Lab: 2121 W Taylor Street, Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) RoE 2230 (36)

(37) BoRoN 4.5 (46)

(47) RECEIVED (56)

(57) NOV 13 1978 (66)

(67) I.E.P.A. – D.L.P.C. STATE OF ILLINOIS (76)

Private Lab (X)

IEPA Lab (X) (77) (78)

LPCSM030

		PARAMETERS+	PPM*
27	X	Alkalinity[1]	120.0
31	X	Ammonia as N	16.0 X
37	X	Arsenic As	0.000
44	X	Barium Ba	0.8
49	X	BOD -5	350.
53	X	Boron B	[illegible]
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	68. X
69	X	COD	580.
73	X	Chloride Cl	540.

LPCSM040

27	X	Chromium Cr (tot)	0.00
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.01
45	X	Cyanide CN	0.02 X
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	1.2
61	X	Hardness $CaCO_3$	820.
65	X	Iron Fe	1.8
70	X	Lead Pb	0.02

LPCSM050

27	X	Magnesium Mg	164. X
32	X	Manganese Mn	0.24
38		Mercury Hg	
46	X	Nickel Ni	0.1
51	X	Nitrate-nitrite N	0.0
56		Oil and Grease	
60	X	pH (Units)	8.4
63	X	Phenolics	0.100
70	X	Phosphorus P	1.9 X
76	X	Potassium K	117. X

LPCSM060

27	X	R.O.E. (180°C)	[illegible]
31	X	Selenium Se	0.00 X
38	X	Silver Ag	0.00
44	X	Sodium Na	400. X
49	X	SC (umhos/cm)	899
53	X	Sulfate SO_4	50. X
58	X	Zinc Zn	0.0
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

NOV 13 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

LAKE IMMED. WEST OF TRENCH A
Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0316 0002 (9)–(16)

MONITOR POINT NUMBER S501 (17)–(20) DATE COLLECTED 102078 (21)–(26)

COOK Co. - LPC REGION N (27)

CHICAGO (Location) / PAXTON (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 11:45 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) GRAB (41) 3

Sample Appearance: SALMON REDDISH COLOR; MOD TURBID; NUMEROUS CRUSTACEANS PRESENT

Collector comments: FROM WEST LAKE NEAR NORTH DITCH DISCHARGE. LAKE IS BLOOD RED.

R.A. KOCH — Collected by — DLPC — Div. or Company

R.A. KOCH — Transported by — DLPC — Div. or Company

LAB USE ONLY

Lab No. C001757

Date Rec'd 10/20/78

Rec'd by [illegible] Time 2:30 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 11-8-78

Date forwarded 11-9-78

J. Daugherty
Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) RØE 2230 (36)

(37) BØRØN 4.5 (46)

(47) (56)

(57) (66)

(67) (76)

RECEIVED
NOV 27 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

Private Lab (X)

IEPA Lab (X) (77)

LPCSM030

		PARAMETERS+	PPM*
27	X	Alkalinity[1]	120.0
31	X	Ammonia as N	16.0 X
37	X	Arsenic As	0.000
44	X	Barium Ba	0.2
49	X	BOD -5	350.
53	X	Boron B	[illegible]
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	68. X
69	X	COD	580.
73	X	Chloride Cl	540.

LPCSM040

27	X	Chromium Cr (tot)	0.00
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.01
45	X	Cyanide CN	0.02 X
52		Fecal Coli (#/100 ml)	. X
56	X	Fluoride F	1.2
61	X	Hardness $CaCO_3$	820.
65	X	Iron Fe	1.8
70	X	Lead Pb	0.02

LPCSM050

27	X	Magnesium Mg	164. X
32	X	Manganese Mn	0.24
38		Mercury Hg	.
46	X	Nickel Ni	0.1 X
51	X	Nitrate-nitrite N	0.0 X
56		Oil and Grease	. X
60	X	pH (Units)	8.4
63	X	Phenolics	0.100
70	X	Phosphorus P	1.9 X
76	X	Potassium K	117. X

LPCSM060

27	X	R.O.E. (180°C)	[illegible]
31	X	Selenium Se	0.00 X
38	X	Silver Ag	0.00
44	X	Sodium Na	400. X
49	X	SC (umhos/cm)	899
53	X	Sulfate SO_4	50. X
58	X	Zinc Zn	0.0
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

LPC-8 REV. 3/77

U1756 U6120'78

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

[AKA. E.P.C. RESERVOIR]
LEACHATE POND 1MM. EAST OF SITE
Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 6 0 0 0 2 (16)

MONITOR POINT NUMBER (17) L 2 0 1 (20) DATE COLLECTED (21) 1 0 1 8 7 8 (26)

COOK Co. - LPC REGION N (27)

CHICAGO / PAXTON
(Location) (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 3:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) (33) ft. Depth to water (from T.O.C.) (34) (36) ft.

Sample temp. 60° (37) F (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) GRAB (41) 3

Sample Appearance: SL. TURBID; YELL-GRAY COLOR; LEACHATE ODOR

Collector comments: FROM BLACK LAGOON ~150' SQUARE IAMED EAST OF PAXTON'S PARCEL III

R.A. KOCH — Collected by
DLPC — Div. or Company
R.A. KOCH — Transported by
DLPC — Div. or Company

LAB USE ONLY
Lab No. C001756
Date Rec'd 11/8/78
Rec'd by [illegible] Time 8:30 a.m. p.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 11-8-78
Date forwarded 11-9-78
[illegible] Supervisor Signature

Name Environmental Protection Agency
Address Division of Laboratory Services
of Lab 2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:
(27) RoE 3440 (36)
(37) RECEIVED (46)
(47) NOV 13 1978 (56)
(57) ILL. E.P.A. — D.L.P.C. STATE OF ILLINOIS (66)
(67) (76)
Private Lab (X)
IEPA Lab (X) X (77)

LPCSM030

		PARAMETERS+	PPM*
27		Alkalinity[1]	150.0
31	X	Ammonia as N	20.0 X
37	X	Arsenic As	0.009
44	X	Barium Ba	0.0
49		BOD -5	
53	X	Boron B	5.0
58	X	Cadmium Cd	0.0
64	X	Calcium Ca	48. X
69	X	COD	1075
73	X	Chloride Cl	1020

LPCSM040

27	X	Chromium Cr (tot.)	0.10
33	X	Chromium Cr^{+6}	Interference
39	X	Copper Cu	0.01
45	X	Cyanide CN	0.05 X
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	3.7
61	X	Hardness $CaCO_3$	900
65	X	Iron Fe	0.5
70	X	Lead Pb	0.02

LPCSM050

27	X	Magnesium Mg	192 X
32	X	Manganese Mn	0.22
36		Mercury Hg	
46	X	Nickel Ni	0.1 X
51	X	Nitrate-nitrite N	0.0
56	X	Oil and Grease	6.
60	X	pH (Units)	8.8
63	X	Phenolics	0.156
70	X	Phosphorus P	0.48
76	X	Potassium K	137 X

LPCSM060

27	X	R.O.E. (180°C)	[illegible]
31	X	Selenium Se	0.00 X
38	X	Silver Ag	0.00
44	X	Sodium Na	820 X
49	X	SC (umhos/cm)	4036
53	X	Sulfate SO_4	10 X
58	X	Zinc Zn	0.0
63			

+Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1]Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

2. ROUTINE MONITORING

REV. 3/77

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

RECEIVED

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow (at seep)	
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection system	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

[AKA. E.P.C. RESERVOIR]

Name (Private Well, Stream, Spring, Impounded Water only) LEACHATE POND 1MM. EAST OF SITE

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 6 0 0 0 2 (16)

MONITOR POINT NUMBER (17) L 2 0 1 (20) DATE COLLECTED (21) 1 0 1 8 7 8 (26)

COOK Co. - LPC REGION N (27)

CHICAGO (Location) / PAXTON (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 3:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) (33) ft. Depth to water (from T.O.C.) (34) (36) ft.

Sample temp. 60° (37) F (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) GRAB 3 (41)

Sample Appearance: SL. TURBID; YELL-GRAY COLOR; HVY. LEACHATE ODOR

Collector comments: FROM BLACK LAGOON ~150' SQUARE IMMED EAST OF PAXTON'S PARCEL III

R.A. KOCH — Collected by; DLPC — Div. or Company

R.A. KOCH — Transported by; DLPC — Div. or Company

LAB USE ONLY

Lab No. C001756

Date Rec'd 11/8/78

Rec'd by [illegible] Time 8:30 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 11-8-78

Date forwarded 11-9-78

[signature] Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) RECEIVED (36)

NOV 27 1978

(37) (46)

ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

IEPA Lab (X) X (77)

		PARAMETERS+	PPM*
		LPCSM030	
27		Alkalinity[1]	150.0
31	X	Ammonia as N	20.0 X
37	X	Arsenic As	0.009
44	X	Barium Ba	0.0
49		BOD -5	
53	X	Boron B 1.0	5.0
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	48 X
69	X	COD	1079
73	X	Chloride Cl 250	1020
		LPCSM040	
27	X	Chromium Cr (tot)	0.10
33	X	Chromium Cr^{+6}	Interference
39	X	Copper Cu	0.01
45	X	Cyanide CN	0.05 X
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F 1.4	3.7
61	X	Hardness $CaCO_3$	900
65	X	Iron Fe .3	0.5
70	X	Lead Pb	0.02
		LPCSM050	
27	X	Magnesium Mg	192 X
32	X	Manganese Mn .01	0.22
38		Mercury Hg	
46	X	Nickel Ni	0.1
51	X	Nitrate-nitrite N	0.0
56	X	Oil and Grease	6
60	X	pH (Units)	8.8
63	X	Phenolics	0.156
70	X	Phosphorus P	0.47
76	X	Potassium K	137 X
		LPCSM060	
27	X	R.O.E. (180°C)	[illegible]
31	X	Selenium Se	0.00 X
38	X	Silver Ag	0.00
44	X	Sodium Na	820 X
49	X	SC (umhos/cm)	4036
53	X	Sulfate SO_4	10 X
58	X	Zinc Zn	0.0
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

2. ROUTINE MONITORING

LPC-8 REV. 3/77

Summary of Organics Detected in Paxton II Monitoring Wells
August 21, 1985 Sampling

	G104	G124	G18S	G17S	G15D	G12D	G15S	G12S	G16S	
Etheylbenzioni								830		
1,2-Diethoxyethane	20					18			120	UG/L
Dimethoxymethane		400	500							
Tetrahydrofuran		620	8400	4600		22	9600		720	
1,3-Dioxolane		95	140						40	
Ethyl Ether		70								
4-Methyl-1,3,-Dioxolane		90								
Isopropyl ether		960								
Methylethoxy Propanol		250	7500	1000				380		
Naphthalene			6	7						
Benzene			90				40	150		
Toluene			13					4300		
2 Ethyl-4Methyl-1,3,-Dioxolone			420							
3-Methyl-2Butanone			630							
Oxepane			110							
Tetrahydro-2-methyl-2 furanol			450							
1,3,6 Trioxocane			380	120						
Isophorone							360			
Methylethoxymethoxy Propanol			750						580	
Phenol							1600			
Methylene Chloride							1900	2300		
1,2 Dichloroethylene							2500	1050		
Methyl Phenols							4800			
Aliphatic Alcohols							330	16000		
Aliphatic Acids							23000	270		
Methoxy Aliphatic Acid Esters								67000		
C-3 Substituted Benzenes								50		
C-4 Substituted Benzenes								30		
Xylene								270		
1,1, Dichloroethane								220		
Trichloroethylene								200		
Aliphatic Hydrocarbons	100	300	20	1000			59000	80	60	
Other Organic Compounds	60	380	2800	1900			32000	7900	1600	
Tetrachloroethylene								30		
Acetone			25				96000	16000	40	
Chloro Benzene								150		

IEPA-DLPC
MAY 1 6 1986
RECEIVED