

County WABASH

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Sec

Other Survey

Quarry or Pit Core Dim Other

Name .. Limestone Reef Outcrops

Former Names

.....

Operator

Former Operators

COAL AND INDUSTRIAL MINERALS SECTION
 INDIANA GEOLOGICAL SURVEY
 DEPARTMENT OF NATURAL RESOURCES
 611 NORTH WALNUT GROVE
 BLOOMINGTON, INDIANA 47401

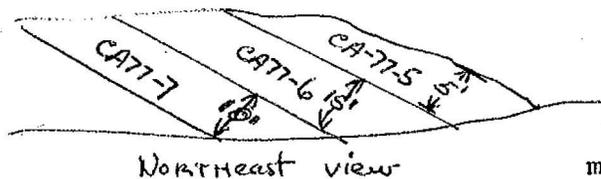
MEMORANDUM REPORTS BY:

	Name	Date
1	Curtis H. Ault	April 6, 1977
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REMARKS

Described outcrops of limestone reefs

Matlock Reef, outcrop on northeast bank of Treaty Creek, adjacent to Matlock Cemetery, two miles southeast of city of Wabash, Wabash County, Indiana. Steeply dipping beds (S 53° W, 41° SE) sampled as shown below by Curtis H. Ault, March 10, 1977. Outcrop located in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 27 N., R. 6 E.



Thickness
measured at
right angles to
bedding

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef flank)</u>			
1	Limestone, skeletal, light gray, medium- to coarse-grained fossil fragments, calcite fillings; stromatoporoidal (?) banding; crinoids. Steeply dipping.	5.0'	CA77-5
2	Limestone and calcareous dolomite, skeletal, gray to yellow gray, fine grained matrix containing fossil casts of shells and other fossil fragments. Steeply dipping.	15.0'	CA77-6
3	Dolomite, calcareous to dolomitic limestone, gray to yellow, fine grained sucrosic texture in much of unit, vague fossil fragments, calcite fillings. Steeply dipping.	10.0'	CA77-7

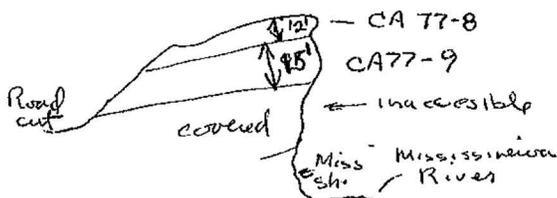
INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 MATLOCK REEF
 SE NE NE SEC. 24, T. 27 N., R. 6 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH													
CA77-5	5.0	93.1	2.62	2.86	.65	.27	.037		42.3	41.9			.003
CA77-6	15.0	57.1	35.9	4.15	1.21	.87	.072		43.9				.006
CA77-7	10.0	74.2	21.1	2.95	.65	.69	.036		43.6				.008

Matlock Reef^ outcrop on northeast bank of Treaty Creek^ adjacent to Matlock Cemetery^
two miles southeast of city of Wabash^ Wabash County^ Indiana.
Steeply dipping beds (S 53° W^ 41° SE) sampled as shown below
by Curtis H. Ault^ March 10^ 1977.
Outcrop located in SE¼NE¼NE¼ sec. 24^ T. 27 N.^ R. 6 E.

Unit	Description	Thick-ness	Sample
	Silurian		
	Huntington Lithofacies (reef flank)		
1	Limestone^ skeletal^ light gray^ medium- to coarse-grained fossil fragments^ calcite fillings; stromatoporoidal (?) banding; crinoids. Steeply dipping.	5.0	CA77-0005
2	Limestone and calcareous dolomite^ skeletal^ gray to yellow gray^ fine grained matrix containing fossil casts of shells and other fossil fragments. Steeply dipping.	15.0	CA77-0006
3	Dolomite^ calcareous to dolomitic limestone^ gray to yellow^ fine grained sucrosic texture in much of unit^ vague fossil fragments^ calcite fillings. Steeply dipping.	10.0	CA77-0007

1.2 miles southeast of Lagro on S bank of Wabash River, Hanging Rock Reef outcrop on north side of saddle in reef containing county road. Reef is in NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 28 N., R. 7 E, Wabash County, Indiana. South dipping beds measured at right angles to bedding and sampled as shown below. Sampled and described March 10, 1977 by Curtis H. Ault.



<u>Unit</u>	<u>Description</u>	<u>Thickness</u> (Measured at right angles to bedding)	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef flank)</u>			
1	Limestone, skeletal, tan and tan to pink, fine- to medium-grained fossil fragments, brachiopods and other shells. Steeply dipping.	12.0'	CA77-8
2	Limestone, skeletal in part, micritic matrix in part with birdseye structure with fossil fragments, white calcite veinlets, fossil replacement, and vug fillings. Steeply dipping.	15.0'	CA77-9

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 HANGING ROCK REEF
 NW SW SE SEC. 35, T. 28 N., R. 7 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH													
CA77-8	12.0	87.9	3.37	6.45	1.11	.47	.037		40.4			.003	
CA77-9	15.0	84.8	3.79	8.67	1.40	.52	.056		39.3			.032	

1.2 miles southeast of Lagro on S bank of Wabash River^ Hanging Rock Reef outcrop
on north side of saddle in reef containing county road.

Reef is in NW $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35^ T. 28 N.^ R. 7 E^ Wabash County^ Indiana.
South dipping beds measured at right angles to bedding and sampled as shown below.
Sampled and described March 10^ 1977 by Curtis H. Ault.

Unit	Description	Thick-ness	Sample
	Silurian		
	Huntington Lithofacies (reef flank)		
	(Measured at right angles to bedding)		
1	Limestone^ skeletal^ tan and tan to pink^ fine- to medium-grained fossil fragments^ brachiopods and other shells. Steeply dipping.	12.0	CA77-0008
2	Limestone^ skeletal in part^ micritic matrix in part with birdseye structure with fossil fragments^ white calcite veinlets^ fossil replacement^ and vug fillings. Steeply dipping.	15.0	

Reef outcrop in NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 27 N., R. 7 E., in front of barn 100' south of Division Road, 1800' east of 500 East Road; about two miles southeast of Lagro, Wabash County, Indiana. Several small outcrops in barnyard included in one sample.

<u>Unit</u>	<u>Description</u>	<u>Sample No.</u>
1	Limestone, skeletal, light gray, micritic matrix to coarsely crystalline with pisolites with flattened sides in veins; some fine grained matrix with fossil fragments abundant in zones. Although very little rock exposed, steeply dipping bedding was evident.	CA77-26

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 DIVISION ROAD REEF OUTCROP
 NW NE NW SEC. 1, T. 27 N., R. 7 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH CA77-26		89.7	6.01	3.21	.41	.25	.031		42.6	42.4		.004	

Reef outcrop in NW¼NE¼NW¼ sec. 1 T. 27 N. R. 7 E. in front of barn 100' south of Division Road 1800' east of 500 East Road; about two miles southeast of Lagro Wabash County Indiana.

Several small outcrops in barnyard included in one sample.

Unit	Description	Sample
1	Limestone skeletal light gray micritic matrix to coarsely crystalline with pisolites with flattened sides in veins; some fine grained matrix with fossil fragments abundant in zones. Although very little rock exposed steeply dipping bedding was evident.	CA77-0026

Reef outcrop in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 27 N., R. 7 E., 1000' east of America Road and 900' southwest of Salamonie River; about 1 $\frac{1}{4}$ mile southeast of Lagro, Wabash County, Indiana. Southeast third of outcrops along stream bed sampled at right angles to dipping bedding by Curtis H. Ault, May 24th, 1977.

<u>Unit</u>	<u>Description</u>	<u>Thick- ness</u>	<u>Sample No.</u>
	SILURIAN		
	<u>Huntington Lithofacies (reef)</u>		
1	Limestone, dolomitic to calcareous dolomite, skeletal, light gray, very-fine-grained matrix with coarser fossil fragments, crinoids, shell fragments; crystalline calcite in more calcareous zones; calcite vein filling.	20.0'*	CA77-25

*Measured at right angles to bedding along continuous stream bed outcrops

Note; Northern half of outcrop along stream is bisected reef of dolomitic and calcareous dolomite; the reef becomes as described above only in southern part of exposed reef.

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 AMERICA ROAD REEF OUTCROP
 SE SW NW SEC. 2, T. 27 N., R. 7 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH CA77-25	20.0	80.3	15.5	2.82	.53	.36	.036		43.4	42.4			.003

Reef outcrop in SE¼SW¼NW¼ sec. 2 T. 27 N. R. 7 E. 1000' east of America Road and 900' southwest of Salamonie River;
 about 1¼ mile southeast of Lagro Wabash County Indiana.
 Southeast third of outcrops along stream bed sampled at right angles to dipping bedding
 by Curtis H. Ault May 24th 1977.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef)		
1	Limestone^ dolomitic to calcareous dolomite^ skeletal^ light gray^ very-fine-grained matrix with coarser fossil fragments^ crinoids^ shell fragments; crystalline calcite in more calcareous zones; calcite vein filling. Measured at right angles to bedding along continuous stream bed outcrops	20.0	CA77-0025
	Note: Northern half of outcrop along stream is bisected reef of dolomitic and calcareous dolomite; the reef becomes as described above only in southern part of exposed reef.		

Reef outcrop in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 28 N., R. 8 E., 1000' south of Wabash River, 1200' east of extension of 600 East Road, about 2-3/4 miles east-southeast of Lagro, Wabash County, Indiana. Vertical section described and sampled by Curtis H. Ault, April 6, 1977, on easternmost of three small outcrops on top of klint.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef)</u>			
1	Limestone, skeletal, gray and gray-pink, medium- to coarse-grained, nodular and fossil fragments, crinoids, spicules (?). Vague east dip on beds.	5.0'	CA77-24

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 REEF OUTCROP 1000 FEET SOUTH OF WABASH RIVER
 NE NW SW SEC. 31, T. 28 N., R. 8 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC C02	CHEM C02	LOI	S	P205
WABASH CA77-24	5.0	92.1	1.36	4.76	.86	.30	.041		41.2	40.8		.007	

Reef outcrop in NE¹/₄NW¹/₄SW¹/₄ sec. 31[^] T. 28 N.[^] R. 8 E.[^] 1000' south of
Wabash River[^] 1200' east of extension of 600 East Road[^] about
2³/₄ miles east-southeast of Lagro[^] Wabash County[^] Indiana.
Vertical section described and sampled by Curtis H. Ault[^] April 6[^] 1977[^]
on easternmost of three small outcrops on top of klint.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef)		
1	Limestone [^] skeletal [^] gray and gray-pink [^] medium- to coarse-grained [^] nodular and fossil fragments [^] crinoids [^] spicules (?). Vague east dip on beds.	5.0	CA77-0024

Outcrops on reef in CS $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T. 28 N., R. 7 E., 500' south of Wabash River, 3200' east of 500 East Road, about 2 miles east-southeast of Lagro, Wabash County, Indiana. Vertical sections described and sampled by Curtis H. Ault, March 11, 1977.

<u>Unit</u>	<u>Descriptions</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef flank)</u>			
Outcrop near top of klint on southeast side			
1	Limestone, skeletal, gray and tan, fine grained matrix, fossil fragments, abundant crinoids and shell fragments.	7.0'	CA77-19
Outcrop in stream bed on east side of klint			
2	Limestone, skeletal, gray to slightly gray-green, fine grained matrix with abundant fossil fragments. May contain some silt and clay. Strike and dip of beds: N 35° E, 9° SE.	4.0'	CA77-18
NOTE: Outcrop in stream bed apparently interfingers with Mississinewa shale lithologies - small falls in stream with undercut resistant limestone above at lip of falls.			

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 REEF OUTCROPS SOUTH OF WABASH RIVER
 CS NW SE SEC. 26, T. 28 N., R. 7 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH													
CA77-18	4.0	77.0	9.00	10.2	2.06	.67	.086		38.6	38.4			.018
CA77-19	7.0	94.3	1.15	3.27	.53	.25	.036		42.1	41.1			.007

Outcrops on reef in CS¹/₂NW¹/₄SE¹/₄ sec. 36[^] T. 28 N.[^] R. 7 E.[^]
 500' south of Wabash River[^] 3200' east of 500 East Road[^]
 about 2 miles east-southeast of Lagro[^] Wabash County[^] Indiana.
 Vertical sections described and sampled by Curtis H. Ault[^] March 11[^] 1977.

Unit	Description	Thick-ness	Sample
	Silurian		
	Huntington Lithofacies (reef flank)		
	Outcrop near top of klint on southeast side		
1	Limestone [^] skeletal [^] gray and tan [^] fine grained matrix [^] fossil fragments [^] abundant crinoids and shell fragments.	7.0	CA77-0019
	Outcrop in stream bed on east side of klint		
2	Limestone [^] skeletal [^] gray to slightly gray-green [^] fine grained matrix with abundant fossil fragments. May contain some silt and clay. Strike and dip of beds: N 35° E [^] 9° SE.	4.0	CA77-0018
	NOTE: Outcrop in stream bed apparently interfingers with Mississinewa shale lithologies - small falls in stream with undercut resistant limestone above at lip of falls.		

Reef Outcrop in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 28 N., R. 7 E., 600' north of Schmalzreid Road, 600' west of 600 East Road, about 2 miles east of Lagro, Wabash County, Indiana. Vertical Section described and sampled by Curtis H. Ault, March 21, 1977, near top southeast side of small klint.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
	SILURIAN		
	<u>Huntington Lithofacies (reef flank)</u>		
1	Limestone, skeletal, gray-green micritic matrix, white fossil outlines, large white stromatoporoid outlines; calcite fillings; coral(?), crinoids. Strike and dip of beds, N 80° W, 36° NE.	4.0	CA77-21

NOTE: whole klint appears to be part of the north flank of eroded reef.

INDIANA GEOLOGICAL SURVEY
SPECTROCHEMICAL ANALYSES
(IN PERCENT)

REEF OUTCROP 600 FEET NORTH OF SCHMALZREID RD
SE NE NE SEC. 36, T. 28 N., R. 7 E.
WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC C02	CHEM C02	LOI	S	P205
WABASH CA77-21	4.0	91.9	2.74	3.58	.84	.42	.035		41.8	41.2		.004	

Reef Outcrop in SE¹/₄NE¹/₄ NE¹/₄ sec. 36[^] T. 28 N.[^] R. 7 E.[^]
 600' north of Schmalzreid Road[^] 600' west of 600 East Road[^] about 2 miles east of Lagro[^] Wabash County[^] Indiana.
 Vertical section described and sampled by Curtis H. Ault[^] March 21[^] 1977[^] near top southeast side of small klint.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef flank)		
1	Limestone [^] skeletal [^] gray-green micritic matrix [^] white fossil outlines [^] large white stromatoporoid outlines; calcite fillings; coral(?) [^] crinoids. Strike and dip of beds [^] N 80° W [^] 36° NE.	4.0	CA77-0021
	NOTE: whole klint appears to be part of the north flank of eroded reef.		

Reef outcrop in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 28 N., R. 8 E., 1400' north of Wabash River, 1100' east of 600 East Road, about 2 3/4 miles east of the center of Lagro, Wabash County, Indiana. Vertical section described and sampled by Curtis H. Ault, March 21, 1977, on outcrop on east side of klint.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef)</u>			
1.	Limestone, skeletal, gray-green matrix with medium to coarse-grained white fossil fragments; large white stromatoporoid outlines; calcite fillings, coral(?), crinoids. Strike and dip of beds: N 80° W, 37° NE.	6.0	CA77-22

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 REEF OUTCROP NORTH OF WABASH RIVER
 NE NW NW SEC. 31, T. 28 N., R. 8 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TIO2	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH CA77-22	6.0	87.4	6.06	5.05	.60	.40	.037		41.6	40.4			.014

Reef outcrop in the NE¼ NW¼ NW¼ sec. 31 T. 28 N. R. 8 E. 1400' north of Wabash River 1400' east of 600 East Road about 2¼ miles east of the center of Lagro Wabash County Indiana.

Vertical section described and sampled by Curtis H. Ault March 21 1977 on outcrop on east side of klint.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef)		
1	Limestone skeletal gray-green matrix with medium to coarse-grained white fossil fragments; large white stromatoporoid outlines; calcite fillings coral(?) crinoids. Strike and dip of beds: N 80° W 37° NE.	6.0	CA77-0022

Reef outcrop in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 28 N., R. 8 E., on west bank of small stream 1000' south of Wabash River, 2400' east of extension of 600 East Road, about 3 miles east-southeast of Lagro, Wabash County, Indiana. Vertical section described and sampled by Curtis H. Ault, April 6, 1977, on east side of klint by stream.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef)</u>			
1	Limestone, gray, fine grained, blocky fracture fossiliferous in zones. Dip appears to be to the northwest, but is poorly defined.	28.5	CA77-23

INDIANA GEOLOGICAL SURVEY
SPECTROCHEMICAL ANALYSES
(IN PERCENT)

REEF OUTCROP ON WEST BANK OF STREAM SOUTH OF WABASH RIVER
NE NE SW SEC. 31, T. 28 N., R. 8 E.
WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH CA77-23	28.5	81.9	7.21	9.30	.63	.48	.029		39.8	39.6		.008	

Reef outcrop in NE¼NE¼SW¼ sec. 31 T. 28 N. R. 8 E. on west bank of small stream 1000' south of Wabash River
 2400' east of extension of 600 East Road about 3 miles east-southeast of Lagro Wabash County Indiana.
 Vertical section described and sampled by Curtis H. Ault April 6 1977 on east side of klint by stream.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef)		
1	Limestone gray fine grained blocky fracture fossiliferous in zones. Dip appears to be to the northwest but is poorly defined.	28.5	CA77-0023

Reef outcrop in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 28 N., R. 8 E., 400' north of Schmalzried Road, 2500' east of 600 East Road, about 3 miles east of Lagro, Wabash County, Indiana. Outcrop on top of klint described and sampled by Curtis H. Ault, March 11, 1977.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef)</u>			
1	Limestone, tan to rust-tan, fine- to medium-grained fossil fragments, coarse grained white calcite vug filling and fossil replacement; abundant crinoids, bryozoan, possible coral, stromatoporoids. Vague north-dipping flank rock.	3.0'	CA77-20

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 REEF OUTCROP 400 FEET NORTH OF SCHMALZREID RD
 SW NW NE SEC. 31, T. 28 N., R. 8 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC C02	CHEM C02	LOI	S	P205
WABASH CA77-20	3.0	86.7	7.53	4.05	.76	.42	.043		42.1	41.8			.002

Reef outcrop in SW¹/₄NW¹/₄NE¹/₄ sec. 31[^] T. 28 N.[^] R. 8 E.[^] 400' north of Schmalzried Road[^]
 2500' east of 600 East Road[^] about 3 miles east of Lagro[^] Wabash County[^] Indiana.
 Outcrop on top of klint described and sampled by Curtis H. Ault[^] March 11[^] 1977.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef)		
1	Limestone [^] tan to rust-tan [^] fine- to medium-grained fossil fragments [^] coarse grained white calcite vug filling and fossil replacement; abundant crinoids [^] bryozoan [^] possible coral [^] stromatoporoids. Vague north-dipping flank rock.	3.0	CA77-0020

Reef outcrop in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36 (Lagro Res.), T. 28 N., R. 7 E; 1800' north of Schmalzreid Road, 3500' west of 600 East Road; approximately 2 miles east of Lagro, Wabash County, Indiana. Vertical section described and sampled by Curtis H. Ault, March 10, 1977, on east side of klint.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
	SILURIAN		
	<u>Huntington Lithofacies (reef flank)</u>		
1	Limestone, skeletal, gray, white and some rust colors, fine grained matrix with abundant fossil fragments - shells, crinoids; white calcite fillings; some minor amount of birdseye limestone. Beds dip to northeast.	10.0'	CA77-15

INDIANA GEOLOGICAL SURVEY
SPECTROCHEMICAL ANALYSES
(IN PERCENT)

REEF OUTCROP NEAR SCHMALZREID RD AND EAST RD
SW NE W SEC. 36, T. 28 N., R. 7 E.
WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC C02	CHEM C02	LOI	S	P205
WABASH CA77-15	10.0	90.1	1.55	5.53	1.44	.49	.067		40.5	39.7		.006	

Reef outcrop in SW¹/₄NE¹/₄NW¹/₄ sec. 36 (Lagro Res.)[^] T. 28 N.[^] R. 7 E; 1800' north of Schmalzreid Road[^] 3500' west of 600 East Road; approximately 2 miles east of Lagro[^] Wabash County[^] Indiana.
 Vertical section described and sampled by Curtis H. Ault[^] March 10[^] 1977[^] on east side of klint.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef flank)		
1	Limestone [^] skeletal [^] gray [^] white and some rust colors [^] fine grained matrix with abundant fossil fragments - shells [^] crinoids; white calcite fillings; some minor amount of birdseye limestone. Beds dip to northeast.	10.0	CA77-0015

Possible two small reef outcrops between two large klintar in NW¼ sec. 36, T. 28 N., R. 7 E., 1½ miles east of Lagro, Wabash County, Indiana. Outcrops are approximately 700' north of Schmalzried Road and 4300' west of 600 East Road. Vertical sections sampled and described by Curtis H. Ault March 10, 1977.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef flank?)</u>			
Outcrop 200' northwest of below.			
1	Limestone, skeletal, gray, fine grained matrix, abundant crinoids, thin bedded, slight dip approx. southeast.	4.0	CA77-13
Outcrop 200' southeast of above.			
1	Limestone, skeletal, tan, fine grained with skeletal fragments and white calcite vug fillings; stromatoporoid; approximately 10° dip south.	6.0	CA77-14

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 REEF OUTCROPS EAST OF LAGRO
 NW SEC. 36, T. 28 N., R. 7 E
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC C02	CHEM C02	LOI	S	P205
WABASH													
CA77-13	4.0	87.3	6.35	4.38	.91	.48	.055		41.7	40.4		.013	
CA77-14	6.0	81.5	8.31	6.93	1.55	.84	.058		40.2	39.5		.006	

Possible two small reef outcrops between two large klintar in NW¼ sec. 36 T. 28 N. R. 7 E.
 1½ miles east of Lagro Wabash County Indiana. Outcrops are approximately 700' north of Schmalzried Road and 4300'
 west of 600 East Road.

Vertical sections sampled and described by Curtis H. Ault March 10 1977.

Unit	Description	Thick-ness	Sample
	Silurian		
	Huntington Lithofacies (reef flank?)		
	Outcrop 200' northwest of below.		
1	Limestone skeletal gray fine grained matrix abundant crinoids thin bedded slight dip approx. southeast.	4.0	CA77-0013
	Outcrop 200' southeast of above.		
1	Limestone skeletal tan fine grained with skeletal fragments and white calcite vug fillings; stromatoporoid; approximately 10 dip south.	6.0	CA77-0014

Reef outcrop on north side U.S. 24 roadcut, 100' west of junction with 600 East Road 2¼ miles East of Lagro, Wabash County, Indiana; reef located in CE¼ SE¼ sec. 25, T. 28 N., R. 7 E. Vertical outcrop section measured and described by Curtis H. Ault March 10, 1977.

<u>Unit</u>	<u>Description</u>	<u>Thickness</u>	<u>Sample No.</u>
SILURIAN			
<u>Huntington Lithofacies (reef flank)</u>			
1	Limestone, may be dolomitic in part, skeletal, gray to gray-pink, some tan and tan-yellow, fine grained matrix with fine- to coarse-grained fossil fragments - crinoids, stromotactis(?), bryozoan, brachiopods, horn corals. Beds strike and dip N 35° W, 20° NE.	4.5'	CA77-10

INDIANA GEOLOGICAL SURVEY
 SPECTROCHEMICAL ANALYSES
 (IN PERCENT)
 REEF ON NORTH SIDE OF U.S. 24 ROADCUT
 CE SE SEC. 25, T. 28 N., R. 7 E.
 WABASH COUNTY

RU/SAMPLE NO	THICK	CAC03	MGC03	SI02	AL203	FE203	TI02	MNO	CALC CO2	CHEM CO2	LOI	S	P205
WABASH CA77-10	4.5	85.1	10.2	3.26	.65	.31	.043		42.7				.006

Reef outcrop on north side U.S. 24 roadcut ^ 100' west of junction with 600 East Road
 2¼ miles East of Lagro ^ Wabash County ^ Indiana;
 reef located in CE¼ SE¼ sec. ^25 ^ T. 28 N. ^ R. 7 E.
 Vertical outcrop section measured and described by Curtis II. Ault March 10 ^ 1977.

Unit	Description	Thick- ness	Sample
	Silurian		
	Huntington Lithofacies (reef flank)		
1	Limestone ^ may be dolomitic in part ^ skeletal ^ gray to gray-pink ^ some tan and tan-yellow ^ fine grained matrix with fine- to coarse-grained fossil fragments - crinoids ^ stromotactis(?) ^ bryozoan ^ brachiopods ^ horn corals. Beds strike and dip N 35° W ^ 20° NE.	4.5	CA77-0010