


























EXPLANATION

<u>LITHOLOGY</u>	<u>SEDIMENTARY STRUCTURES/ DEPOSITIONAL TEXTURES</u>	<u>GRAIN TYPES</u>
 LIMESTONE	 BEDDING	 SKELETAL
 CALCAREOUS  DOLOMITE	 LAMINAE	 PELIDS
 DOLOMITIC  SANDSTONE	 CROSS BEDDING	 OIDS
 SILTSTONE	 NODULAR BEDDING	 INTRACLAST
 SHALE	 BURROW	
 CHERT	 HARDENED NODULES	
 PYRITE	 FENESTRAL FABRIC	
 GLAUCONITE	 BRECCIA	
 PHYLLOID ALGA	 STROMATOLITES	
 CALCITE-FILLED VUGS		




POROSITY

- MO = Moldic
- BP = Interparticle
- BC = Intercrystalline
- WP = Intraparticle
- VUG = Vug

(TEXTURES)

- GS = Grainstone
- PS = Packstone
- WS = Wackestone
- MS = Mudstone
- XLN = Crystalline

CONTACTS

-  GRADATIONAL
-  SHARP
-  INDETERMINATE

JAB

PAN AM M-1 BLACK

HASKELL CO. KANSAS 18-30S-33W

	SKELETAL		LIMESTONE
	OOHITE		SANDSTONE (SILTSTONE)
	PELOIDS		CHELT
	GLAUKONITE		GLAUKONITE

DEPTH (IN FEET)	LITH.	COLOR	SAMPLES	SEDIMENTARY STRUCTURES/ DEPOSITIONAL TEXTURES <small>GS, PS, WS, MS</small>	STYLOLITES	POROSITY		FRACTURES	GRAIN TYPES	DEPO. LOS.	
						AMOUNT	TYPE			PERITIDAL	SUBTIDAL
5500	[Limestone]			[Horizontal bedding]				V	[Oolite]		
?	[Limestone]			[Horizontal bedding]				V	[Oolite]		
?	[Limestone]			[Horizontal bedding]					[Oolite]		
10	[Limestone]			[Horizontal bedding]					[Oolite]		
?	[Limestone]			[Horizontal bedding]					[Oolite]		
20	[Limestone]			[Horizontal bedding]				V	[Oolite]		
?	[Limestone]			[Horizontal bedding]					[Oolite]		
30	[Limestone]			[Horizontal bedding]				V	[Oolite]		
40	[Limestone]			[Horizontal bedding]				V	[Oolite]		
5550	[Limestone]			[Horizontal bedding]				V	[Oolite]		

NOTE: LOCATIONS OF CONTACTS ARE APPROXIMATE BECAUSE CORE HAS BEEN SLICED UP AND DISORGANIZED.

JAB

AMOCO PRODUCTION COMPANY
Tulsa, Oklahoma
February 11, 1983

83042ART0110

TO: K. C. Sawyer, Denver

SUBJECT: Processing of Conodont Samples - Deep Hugoton Project

The following wells associated with the deep Hugoton project have been processed for conodonts. This memorandum serves as a summary of my work on this project to date. Appropriate information contained herein may be extracted at your discretion and sent to the Kansas Geological Survey in fulfillment of our agreement with them to provide conodont identifications.

Plate 1.

2. Locality 12433 - Pan American No. 7-A Black, Sec.18, T30S, R33W, Haskell Co., Kansas

<u>Footage</u>	<u>Sample No.</u>	<u>Taxon No.</u>	<u>Conodont</u>	<u>Count</u>	
5501	1	2828	<u>Cavusgnathus unicornis</u>	1	<i>chester</i>
		2827	<u>Cavusgnathus altus</u>	2	
		4489	<u>Magnilaterella sp.</u>	2	
5517	2	0501	Barren of conodonts <i>see Jan?</i>	5	
5547	3	2816	Indet. conodonts	5	<i>chester</i>
5505-06	4	2829	<u>Cavusgnathus "offset"</u>	1	
		23003	<u>Cavusgnathus charactus</u>	2	
		2828	<u>Cavusgnathus unicornis</u>	4	
		2741	<u>Spathognathodus cristulus</u>	1	
5517-18	5	0501	Barren of conodonts		
5544-45.0		2618	Indet. conodonts	2	<i>see Jan?</i>
5545-46 0		2618	Indet. conodonts	9	

3. Locality 12434 - Superior No. 68A4, H. L. Tucker, Sec. 4, T29S, R42W, Stanton Co., Kansas.

Footage	Sample No.	Taxon No.	Conodont	Count
6253 <i>violet</i>	1	3072	<u>Drepanodus</u> sp.	4
		2865	<u>Panderodus</u> sp.	2
		24178	<u>Plectodina</u> <u>furcata</u>	2
6323 <i>violet</i>	2	2961	<u>Belodina</u> sp.	2
		2865	<u>Panderodus</u> sp.	3
6421 <i>arbutus</i>	3	2932	Indet. sample core	1

4. Locality 12435 - Anadarko No. 1, Low G, Sec. 6, T33S, R40W, Morton Co., Kansas.

Footage	Sample No.	Taxon No.	Conodont	Count
5061.3-62	1	0501	Barren of conodonts	
5409	2	20512	<u>Neoprioniodus</u> n.sp.	1
5473.6	2	0501	Barren of conodonts	

macro? *We don't have core in our files. DZ*

5. Locality 12436 - Anadarko No. 1-B Jones, Sec. 9, T33S, R41W, Morton Co., Kansas.

One sample processed at 5066.1 feet in this well was found to be barren of conodonts.

6. Locality 12437 - Anadarko No. 2-C Low, Sec. 17, T33S, R40W, Morton Co., Kansas.

Footage	Sample No.	Taxon No.	Conodont	Count
5719 <i>St. Louis?</i>	1	2828	<u>Cavusgnathus</u> <u>unicornis</u>	1
	2	23003	<u>Cavusgnathus</u> <u>charactus</u>	1

Occurrence of this fauna is shown on page

7. Locality 12441 - Shallow Water No. 4 Maune, Sec. 31, T21S, R33W, Finney Co., Kansas.



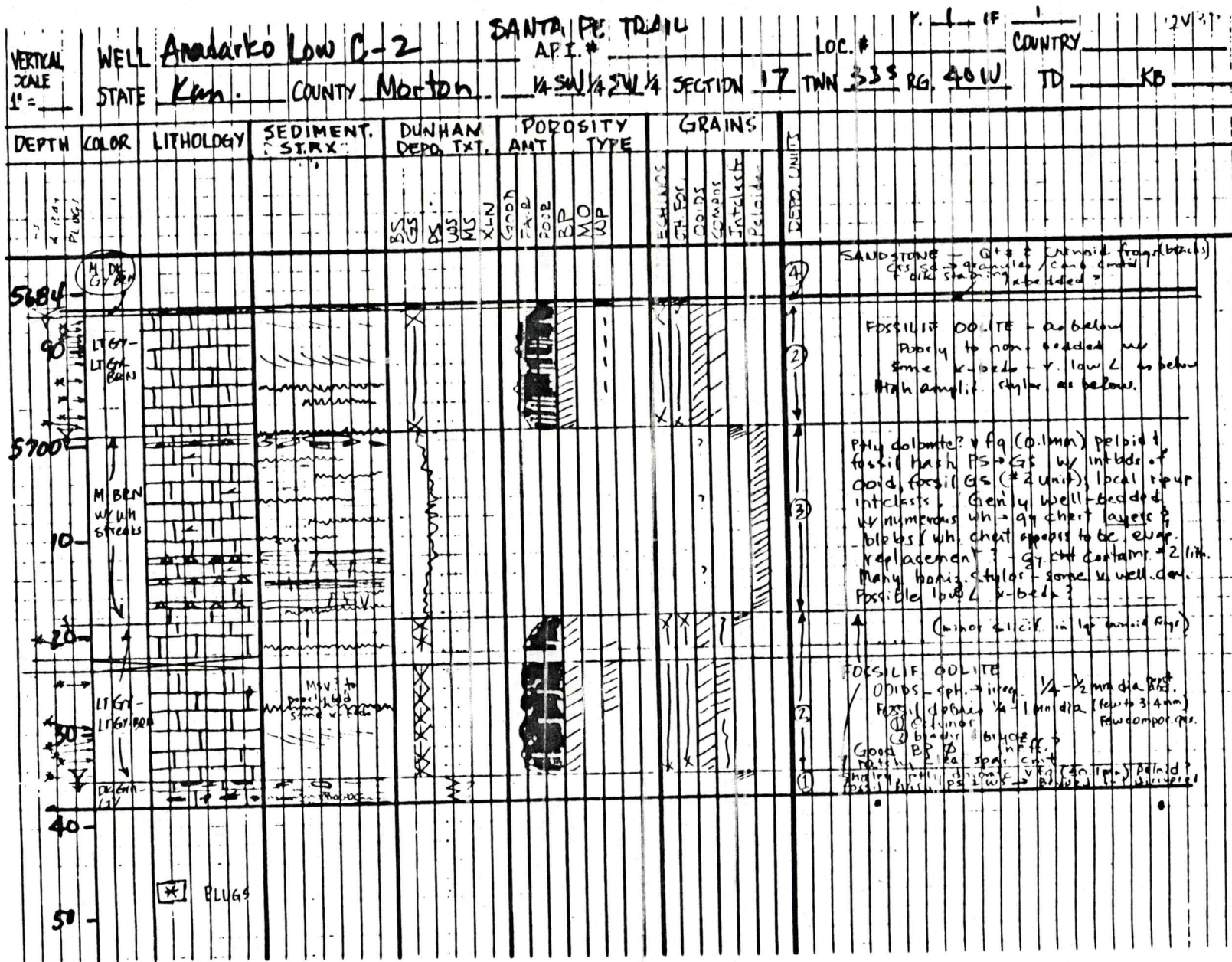


FIGURE 3: LOCALITY 12437

Shallow H₂O + Maune

4

Footage	Sample No.	Taxon No.	Conodont	Count
4633-34	MHW * 1	3078	<u>Adetognathus lautus</u>	1
4671-72	chest * 2	0501	Barren of conodonts	
4689	chest * 3	0501	Barren of conodonts	
4699-4700	chest * 4	2618	Indet. conodont	1
4709-10		2618	Indet. conodont	1
4720-21	chest * 6	2618	Indet. conodonts	2
4637-38	MHW * 7	2868	<u>Apatognathus sp.</u>	1
		4510	<u>Ligonodina levis</u>	2
4764-65	8	2618	Indet. conodont	1

* age determined by J2 from core

6. Locality 12442 - M. L. Brown No. 9 Maune, Sec 31, T21S, R33W, Finney Co., Kansas

Footage	Sample No.	Taxon No.	Conodont	Count
4639-40	6	23360	<u>Taphrognathus-</u> <u>Cavusgnathus transition</u>	1
		2727	<u>Spathognathodus scitulus</u>	1
4644-45	7	2618	Indet. conodonts	10
4650	1	2618	Indet. conodonts	7
4658	2	2828	<u>Cavusgnathus unicornis</u>	1
		2827	<u>Cavusgnathus altus</u>	1
4661	10	0501	Barren of conodonts	
4705	13	0501	Barren of conodonts	
4719-20	14	0501	Barren of conodonts	
4725	3	2827	<u>Cavusgnathus altus</u>	1
		2828	<u>Cavusgnathus unicornis</u>	2
		2846	<u>Ozarkodina laeviposticus</u>	1
4727-28	15	2868	<u>Apatognathus sp.</u>	1
4743-44	16	2618	Indet. conodonts	2
4748.5	4	2826	<u>Cavusgnathus sp.</u>	1
		2868	<u>Apatognathus sp.</u>	2
		2727	<u>Spathognathodus scitulus</u>	1
		2741	<u>Spathognathodus scitulus</u>	1
		4489	<u>Magnilaterella sp.</u>	2
4753-54	17	4489	<u>Magnilaterella sp.</u>	2
		2618	Indet. conodonts	3
4753.5-55	5	2618	Indet. conodonts	4

M.L. BROWN #9 NAUOE
 FINNEY CO., KANSAS 31-215-EEW

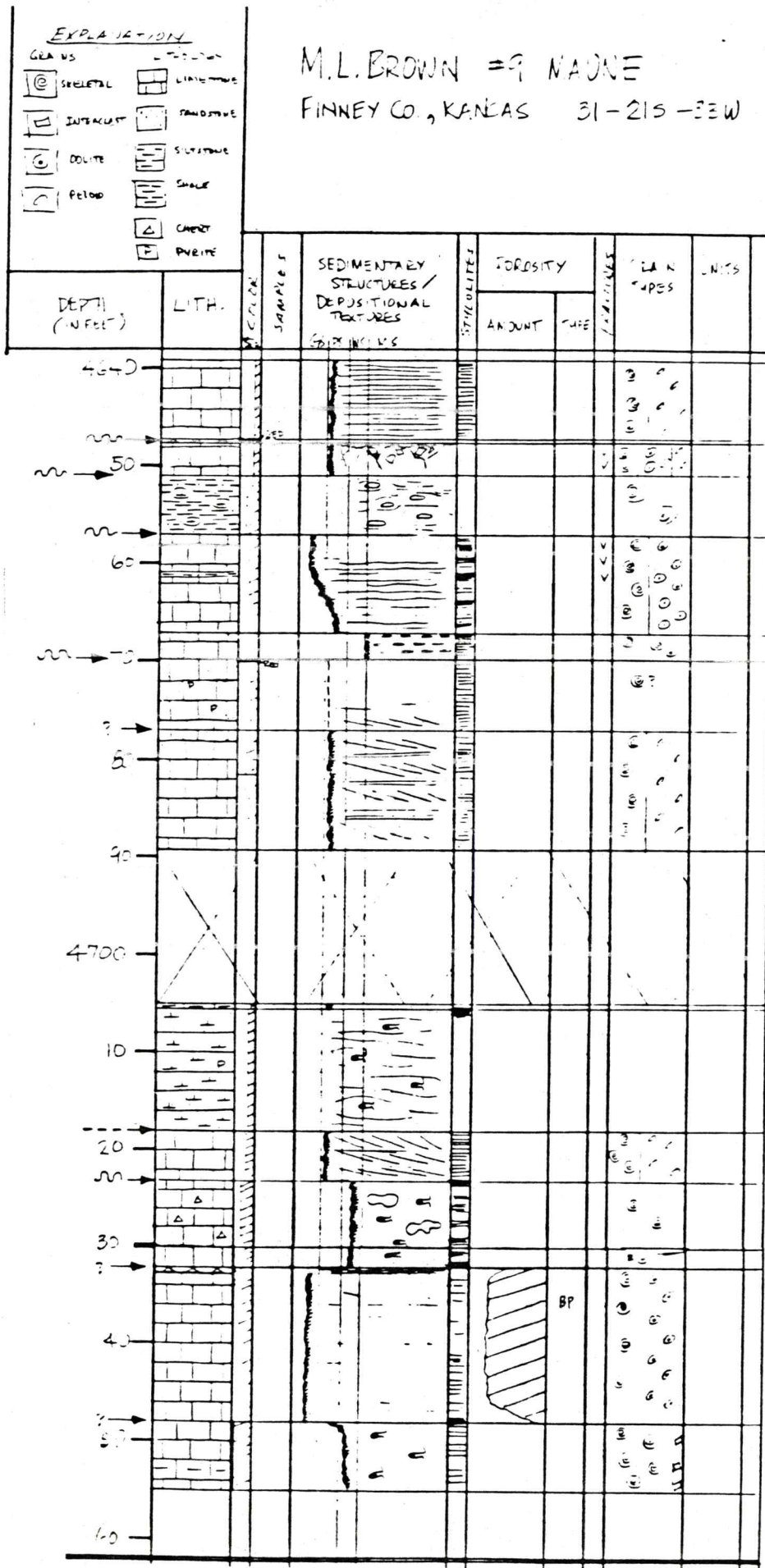


FIGURE 4. Location 12442

A summary diagram illustrating correlations of these conodont faunas with the Mississippian and Early Pennsylvanian of the Las Animas Arch area are shown in Figure 5. That diagram is discussed in detail in a forthcoming Research Department report by myself and Mark Frye. Also, a copy of a report by me on Paleozoic conodont collections at the Kansas Geological Survey is also attached in the appendix.



H. Richard Lane

HRL:sdg
Attachment

cc: Jack Babcock
W. S. Davis
O. R. Hille
E. R. Michaelis
Allen Ormiston
J. W. Parks
R. W. Sherwood
C. F. Upshaw