

3R – 315

2008 AGWMR

04 / 05 / 2009



Environmental Services
188 CR 4900
Bloomfield, NM 87413

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2009 APR 16 AM 10 18

April 14, 2009

Mr. Glen Von Gonten
Hydrologist
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: 2008 GROUND WATER SUMMARY REPORT

Dear Mr. Von Gonten:

Enclosed for your review is the Williams 2008 Ground Water Summary Report. The report presents monitoring data for eight sites having petroleum hydrocarbon impacted ground water resulting from past use of unlined surface impoundments. The sites included in the report are identified in separate folders in the electronic delivery of documents (CD enclosed).

Four of the eight sites have known or suspected upgradient contaminant sources which continue to influence conditions affecting the rate of natural attenuation. Upgradient contamination at the Florence 40 has been recognized by the OCD with a directive to the leaseholder / producer to address this condition. At the Jicarilla 147-6, a condensate liquid release in the fourth quarter of 2007 has resulted in measured spikes of contaminant concentrations. Upgradient contamination at the Pritchard 2 indicates other sources of contaminants likely exist which are unrelated to the retired unlined impoundment. And at the Florence 47X, the continuing accumulation of LNAPL in well MW-3, directly adjacent to former producer equipment and an unlined pit, suggest that earlier closure actions may not have addressed all contamination. Until such time as the other responsible parties address these matters, efforts by Williams are invariably extended.

Two sites (Florence 47X and Davis #1) have episodic accumulations of LNAPL in one monitoring well at each location. Since 2002, passive collection devices have been deployed in all wells containing measurable accumulations of LNAPL. Periodic emptying of the collection devices along with active bailing of LNAPL during the quarterly sampling events continues at the aforementioned sites and at times when observed at any other site.

One site previously monitored (Patterson A COM #1A) met closure criteria in 2008 and a closure request was submitted earlier this year. Two of the remaining sites continue to show BTEX contamination in only one well with measured contamination diminishing. These sites will likely satisfy closure conditions relatively soon. The other two sites show declining trends and conditions indicative of effective natural attenuation.

April 14, 2009
Mr. Glen Von Gonten
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As noted in the site summaries, laboratory reports have not been included in the annual report. Lab results reports are retained in project files until such time as a site closure report is developed, but are available anytime upon request.

Thank you for your time to review this submittal. If you have any questions regarding the content of the report, or about specific conditions at any site, you may call me at (801) 232-8985 or David Bays at (505) 634-4951.

Respectfully,

A handwritten signature in black ink, appearing to read "Mark B. Harvey", written in a cursive style.

Mark B. Harvey
Project Manager

Enclosure - CD

c: Bill Liess, BLM Farmington District Office
David Bays, Williams FCA Office

Site Summary Report

Site Name: Florance 40

Reporting Period: 2008

Location: Unit G, Sec 21, Twn 30N, Rng 8W
Canyon: Gobernador
Operator: Amoco

Vulnerable Class: original
OCD Ranking: 20
Lead Agency: NMOCD

Status Narrative

Responsibility for the remediation of the contaminant plume or plumes has been divided between Amoco Production Company and Williams. In a December 30, 1997 letter to Amoco, the NMOCD required Amoco to address soil and ground water contamination downgradient of Amoco's separator pit, which is located upgradient of the Williams source area. The letter assigned responsibility for ground water contamination downgradient of PNM's former dehydrator pit to PNM (now a Williams' responsibility). It remains unclear if BP (Amoco) conducts any work related to the remediation of ground water up gradient of the former PNM dehydrator pit.

Forty-five quarters of water quality data have been collected from the seven monitoring wells located at this site. LNAPL previously present in several wells was not observed in the wells monitored in 2007 and again in 2008. The majority of recovered LNAPL had been previously removed from well MW-1 located in the BP (Amoco) area of responsibility. Well MW-5 was not monitored during 2008 but MW-6 (source area) was monitored for the first time in several quarters. MW-6 previously had LNAPL which was not observed during the monitoring period. Overall BTEX levels in MW-6 are showing a decline. Sentinel well MW-7 showed no detectable BTEX during the monitoring period.

Potentiometric surface maps show ground water to flow generally to the east-southeast at an average hydraulic gradient of 0.05. Upgradient contamination likely delays effective monitored natural attenuation in the area for which Williams is responsible. Until such time as upgradient conditions are addressed, monitored natural attenuation and ultimate site closure will likely extend in time.

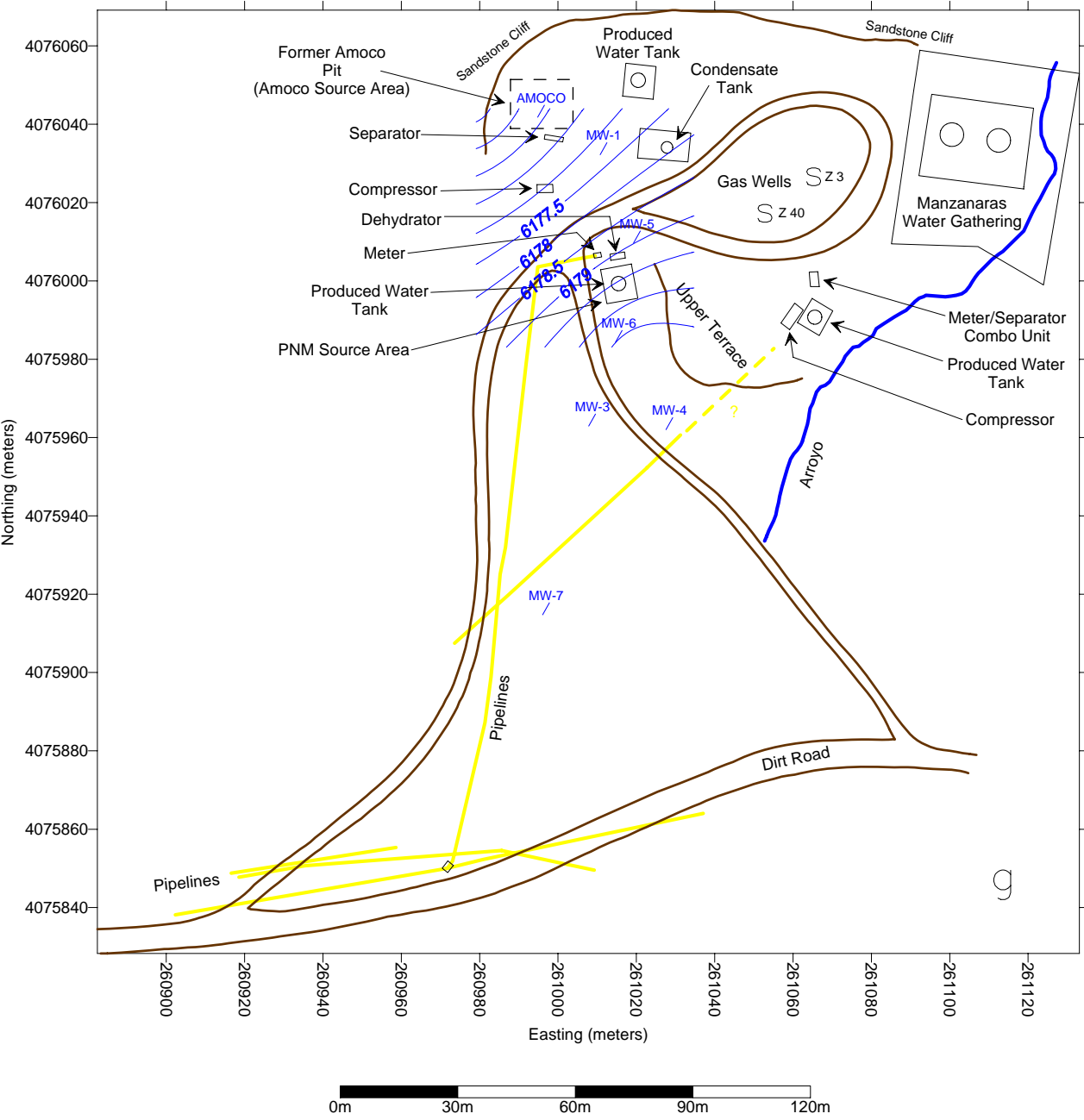


Figure 2
Potentiometric
Surface Map
Florance 40
(June 2008)

LEGEND	
MW-2 /	Monitoring Well
— 5585.20 —	Ground Water Elevation (ft. AMSL)

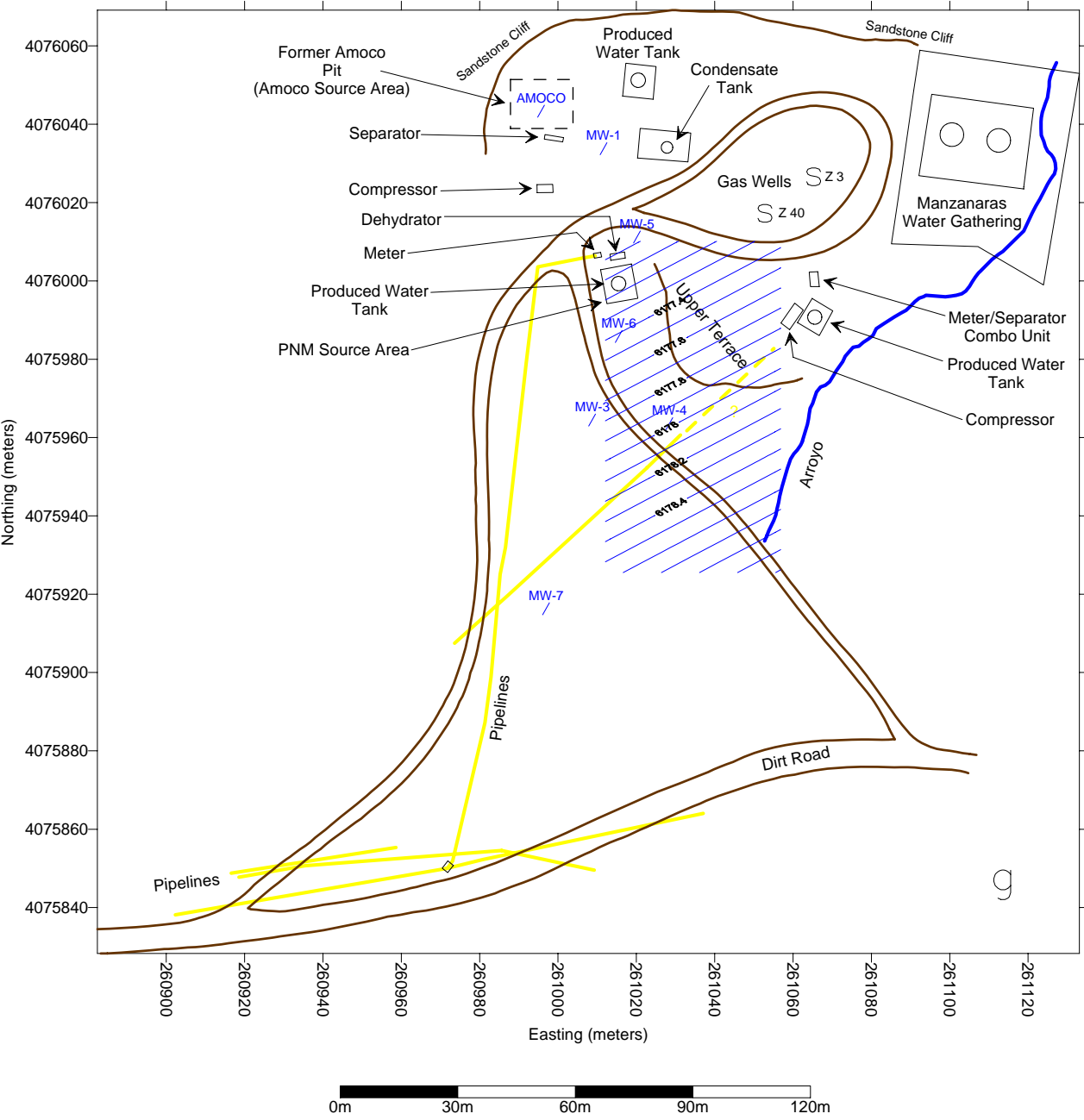
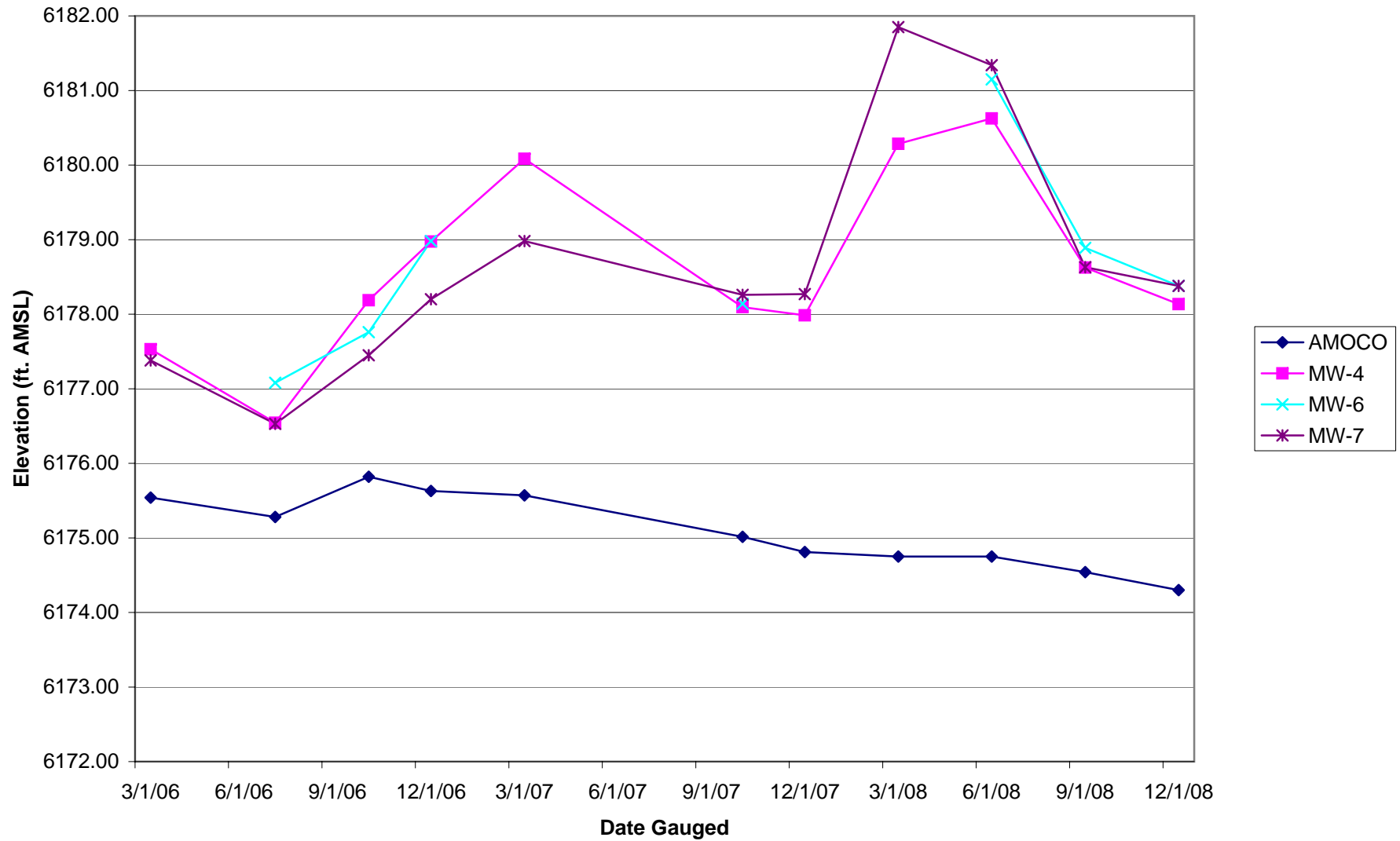


Figure 2
Potentiometric
Surface Map
Florance 40
(December 13, 2002)

LEGEND	
MW-2 /	Monitoring Well
— 5585.20 —	Ground Water Elevation (ft. AMSL)

Florance 40 2008 Hydrograph



Analytical Data Summary

Site Name:

Florance 40

Reporting Period:

1/1/2006 To 12/31/2008

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
AMOCO						
	3/2/2006	112402MAR06	119	ND	345	3100
	7/13/2006	130813JUL06	375	<20.0	1100	9010
	12/8/2006	114208DEC06	104	<20.0	621	6720
	3/20/2007	132420MAR07	90.1	<50.0	597	4710
	6/28/2007	135728JUN07	95	<50	700	7372
	10/8/2007	115708OCT07	103	<100	787	7190
	12/19/2007	143519DEC07	123	<50.0	1330	11200
	3/27/2008	180127MAR08	183	<25.0	3920	11000
	3/27/2008	180427MAR08	168	<25.0	1800	10200
	6/4/2008	145404JUN08	211	<25.0	1350	8170
	9/18/2008	115119SEP08	169	<50.0	2110	17500
	12/5/2008	161705DEC08	134	<100	1280	10900
MW-4						
	7/13/2006	134813JUL06	<20.0	<20.0	230	1640
	12/8/2006	110708DEC06	13.7	1800	319	2710
	3/20/2007	130420MAR07	<10.0	<10.0	273	2560
	6/28/2007	132228JUN07	<20	<20	270	2490
	10/8/2007	113508OCT07	2.5	<10.0	201	1600
	12/19/2007	150419DEC07	<20.0	<20.0	539	3830
	3/27/2008	185027MAR08	<10.0	<10.0	285	2390
	6/4/2008	151804JUN08	<10.0	<10.0	232	1830
	9/18/2008	122719SEP08	<5.0	16.1	218	1640
	12/5/2008	165005DEC08	<5.0	<5.0	55.6	410
MW-5						
	3/2/2006	114802MAR06	251	ND	870	1080
	12/8/2006	115708DEC06	155	<20.0	652	729
	3/20/2007	133020MAR07	53.9	<5.0	295	377
	6/28/2007	134228JUN07	110	18	690	1300
	10/8/2007	121008OCT07	112	20.3	768	1700
	12/19/2007	144819DEC07	100	<5.0	347	577
MW-6						
	3/27/2008	183427MAR08	3670	2150	1210	14300
	6/4/2008	154104JUN08	2380	1370	580	11900
	9/18/2008	121219SEP08	3600	278	1290	18100
	12/5/2008	163705DEC08	1580	85.3	828	10100

Site Name:

Florance 40

Reporting Period:

1/1/2006 To 12/31/2008

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-7	3/2/2006	110102MAR06	ND	ND	ND	ND
	12/8/2006	104508DEC06	<1.0	2.6	<1.0	<3.0
	3/20/2007	124420MAR07	<1.0	<1.0	<1.0	<3.0
	6/28/2007	130528JUN07	<1.0	<1.0	<1.0	<2.0
	10/8/2007	111608OCT07	<1.0	<1.0	<1.0	<3.0
	12/19/2007	142019DEC07	<1.0	<1.0	<1.0	<3.0
	3/27/2008	174427MAR08	<1.0	<1.0	<1.0	<3.0
	6/4/2008	144404JUN08	<1.0	<1.0	<1.0	<3.0
	9/18/2008	113319SEP08	<1.0	<1.0	<1.0	<3.0
	12/5/2008	160205DEC08	<1.0	<1.0	<1.0	<3.0